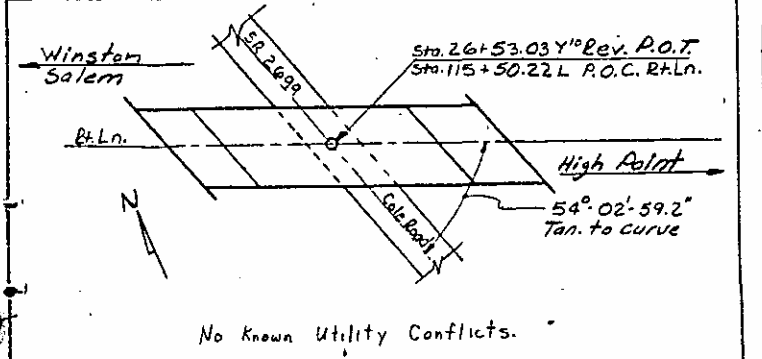


PLAN

Total Bill of Material

	Foundation Excavation	Class AA Concrete	Class A Concrete	Reinforcing Steel	Structural Steel	HP 12x53 Steel Piles	Linseed Oil Concrete Protection	Bridge Approach Slabs @ Station 115+50.22-6	4" Concrete Slope Protection	Concrete Barrier Rail	Expansion Joint Seal	Epoxy Resin Protective Coating for Concrete	Elastomeric Bearings	
	C.Y.	C.Y.	C.Y.	LB	APPROX. LB.	No.	LF	Gal.	L.S.	S.Y.	LF	LS.	SF	Lump Sum
Superstructure		241.1	20.9	4,877	164,400	11	462	19		400		130		
End Bent 1														
Bent 1	60		51.5	10,319		18	630					156		
Bent 2	80		52.0	10,383		18	558					156		
End Bent 2			20.8	4,727		11	517			360		129		
Curved End Blocks		2.9		584										
Total	140	244.0	145.2	83,530	164,400	58	2167	19	L.S.	760	353.30	LS	571	Lump Sum

B.M. No. 70 Nail in Power Pole No. 24, 35' Lt. Sta. 12+00 Y¹⁰ El. 824.28 N.C.S.H.C.



No Known Utility Conflicts.

DRAWN BY: E.A. Strickland DATE: 6-77
 CHECKED BY: J.K.C. DATE: 10-25-77

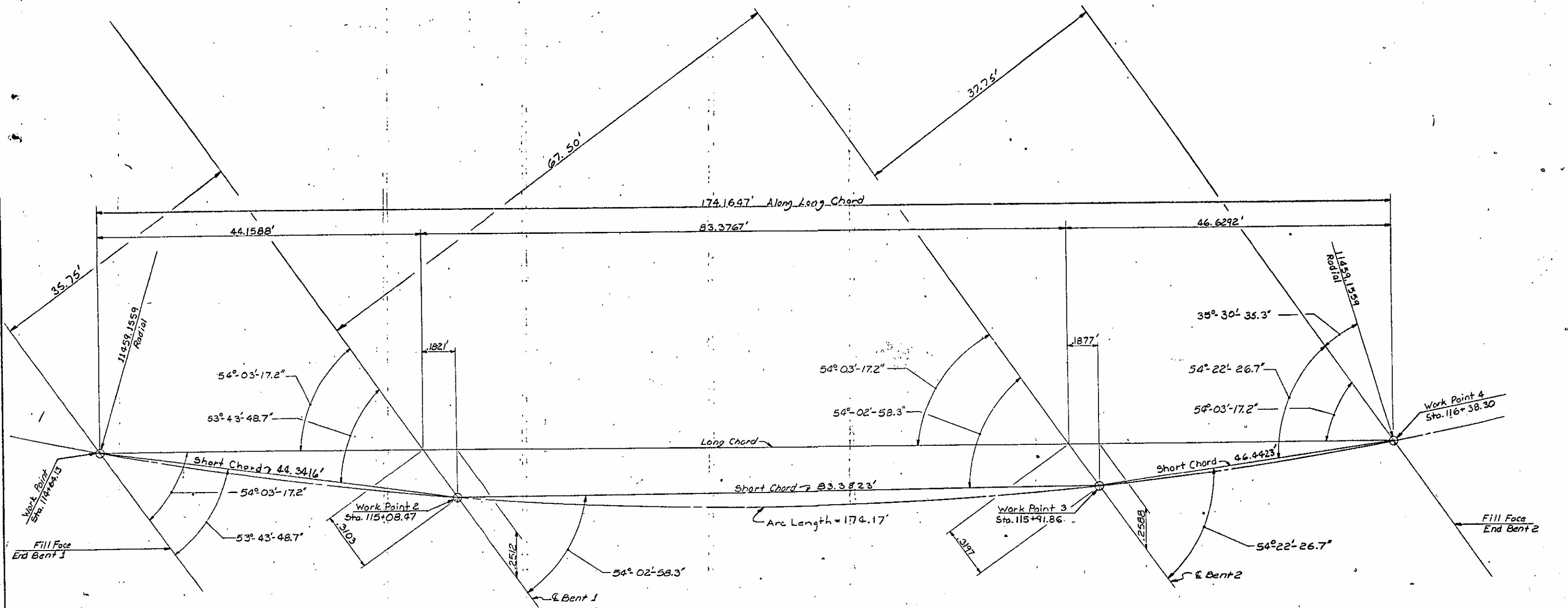
311-62-15
 PROJECT NO. B.1743606
 FORSYTH COUNTY
 STATION: 115+50.22-L-Rt. Ln.
 Sheet 1 of 2 26+53.03 Y¹⁰ Rev.

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

General drawing for bridge over SR 2699 known as Cole Rd. between SR 2712 and SR 2698
 JUNE 1977

REVISIONS			
NO.	BY	DATE	DESCRIPTION
1			
2			
3			
4			

SHEET NO. 5-33
 TOTAL SHEETS 149



NOTES:

- Assumed Live Load = HS 20-44 or Alternate Loading.
- For Other Design Data and General Notes, See Sheet 3-N.
- For Surface Preparation and Protection of Unpainted Structural Steel, See Special Provisions.
- For Stay-In-Place Metal Form, See Special Provisions.
- Piles For End Bents to Be Driven to A Minimum Bearing Capacity of 29 Tons Each.
- All Structural Steel Shall Be Unpainted ASTM-A588 With A Min. Yield Strength of 50,000 P.S.I., unless noted otherwise on this set of plans.
- For Portland Cement Concrete, See Special Provisions.
- For Protection of Substructure, See Special Provisions.
- For Texture of Bridge Deck, See Special Provisions.
- For Epoxy Resin Protective Coating for concrete, see Special Provisions
- The atmospheric corrosion resistance and coloring characteristics of ASTM-A588 steel are required for the high strength bolts, nuts, washers, and the weld filler metal for this structure.
- Work is not to be started on this structure until fill has been placed by the Roadway Contractor, unless otherwise permitted by the engineer

- Piles for Bents to be driven to a minimum bearing capacity of 36 tons each.
- Traffic is to be maintained on SR 2699 during construction. See Special Provisions.
- For Elastomeric Bearings, see Special Provisions.

PROJECT No. B.1743606

FORSYTH COUNTY

STATION: 115+50.22-L-BTL

Sheet 2 of 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
 LONG CHORD LAYOUT

REVISIONS						SHEET NO.	
NO.	BY	DATE	NO.	BY	DATE	S-34	
1			3			TOTAL SHEETS	
2			4			149	

DRAWN BY: E.A. Strickland DATE: 7-77
 CHECKED BY: G.C. [Signature] DATE: 12-16-77

BORING NO. EB1-1 BENT NO. 1 COLLAR ELEV. 792.4
 BORING LOC. (STA) 114+60 Rt. Ln. 18' Lt. TOTAL DEPTH 33.9

DEPTH	ELEV.	BLW. COUNT	NOTES & REMARKS	SOIL DESCRIPTION
0	792.4			GROUND SURFACE
2.4	789.2	3		1. YEL-TAN DRN F-C SDY PLAS. CLAY
3.5	788.2	4		2. TAN MICAS. SILTY V. SDY CLAY
4.3	787.2	5		3. MUCK & PEAT (Aesthio seepage drainage)
5.7	782.2	7		4. BRN-GRAY V. MICAS. F. SDY SILT SAPROLITE
6.1	782.2	7		5. WHT-GRAY MICAS. CLY SILTY F-M SAND
6.1	782.2	7		6. WHT-BRN-BLK MICAS F-M SDY SILT
7.2	779.2	8		7. AS ABOVE

TERMINATE BORING AT ELEV. 779.2 IN 100' APP. SAP. AUGER BORING

EB1-A: 1. TAN CLY SILTY F-M SD SOIL
 2. TAN-BRN F-M SDY CLAY
 3. TAN-BRN F-M SDY CLAY TO CLY
 4. MUCK AND ORG. CLAY
 5. BRN MICAS F SDY SILT SAPROLITE
 6. FIRM SAPROLITE HARDER

ADDER REFUSAL AT ELEV. 753.1

BORING NO. B1-1 BENT NO. 1 COLLAR ELEV. 795.5
 BORING LOC. (STA) 114+96 Rt. Ln. 18' Lt. TOTAL DEPTH 38.6

DEPTH	ELEV.	BLW. COUNT	NOTES & REMARKS	SOIL DESCRIPTION
0	795.5			GROUND SURFACE
3.7	792.0	3		1. RED-TAN F-M SDY SILTY CLAY
5.8	787.2	5		2. TAN-WHT SILTY CLY F-M SAND
4.3	782.2	4		3. GRAY-WHT ALTERNATING LAYERS OF CLY F-CSE SAND & CLY SILTY F-M BLK DRG. CLAY & CLY BRN SILTY F-CSE SD & GRVL.
8.2	777.2	8		4. GRAY-BRN F-M SDY MICAS. SILT SAPROLITE
2.5	772.2	2		5. GRAY-TAN-BLK F-SDY SILT SAPROLITE
5.1	767.2	5		6. GRAY-BLK SILTY F SD SAPROLITE
7.2	762.2	7		7. GRAY-TAN SLI. MICAS SILTY F-M SDY SAPROLITE

TERMINATE BORING AT ELEV. 762.2 IN 100' APP. SAP. AUGER BORING

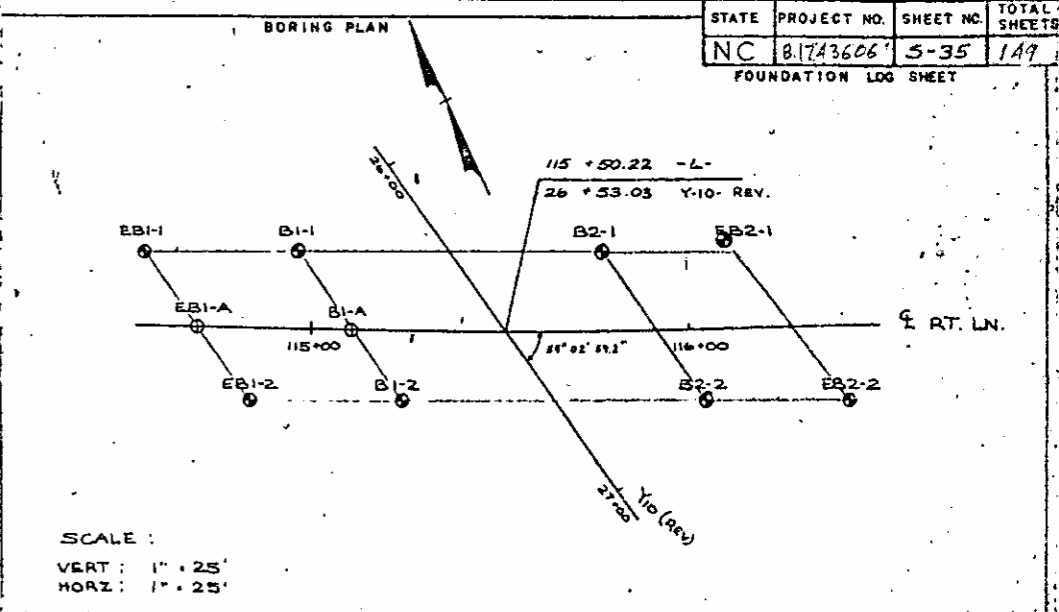
B1-A: 1. TAN-BRN SDY CLAY
 2. TAN-BRN SDY CLAY
 3. TAN-BRN SDY CLAY
 4. TAN-BRN SDY CLAY
 5. TAN-BRN SDY CLAY
 6. TAN-BRN SDY CLAY
 7. TAN-BRN SDY CLAY
 8. TAN-BRN SDY CLAY

ADDER REFUSAL AT ELEV. 753.1

BORING NO. B2-1 BENT NO. 2 COLLAR ELEV. 801.9
 BORING LOC. (STA) 115+79 Rt. Ln. 18' Lt. TOTAL DEPTH 38.9

DEPTH	ELEV.	BLW. COUNT	NOTES & REMARKS	SOIL DESCRIPTION
0	801.9			GROUND SURFACE
2.4	799.2	2		1. RED F-SDY SILTY CLAY
3.4	797.2	3		2. GRAY-TAN F-M SDY CLAY
3.5	789.2	3		3. GRAY F-CSE SDY CLAY
2.5	784.2	2		4. WHT-BLK-TAN F-M SDY SILT
11.8	777.2	11		5. WHT SILTY F-CSE SAND SILT SAPROLITE
23.4	772.2	23		6. SAME
20.2	769.2	20		7. WHT-GRAY F-CSE SAND SILT & SILTY
24.7	764.2	24		8. SAME

TERMINATE BORING AT ELEV. 764.2 IN 100' APP. SAP. AUGER BORING



CAMP	LOCATION	DEPTH	AASHTO	N	6	7	% SAND	SILT	CLAY	L.L.	PLI.	G _s	VOL	WET WT	DRY WT
1	EB1-1	3.2-4.7	A-2-6(1)	10			57	9	34	45	24				
2		8.2-9.7	A-2-6(2)	6			62	28	10	73	NP				
3		13.2-14.7	A-5(1)	5			71	13	6	35	NP				
4		18.2-19.7	A-2-4(1)	12			78	16	6	30	NP				
5		23.2-24.7	A-2-4(2)	34			75	19	6	24	NP				
6		28.2-29.7	A-2-4(3)	42			81	13	6	25	NP				
7		33.2-33.8	A-2-4(4)	100			46	14	40	47	25				
1	EB1-2	3.0-4.5	A-7-6(1)	13			59	10	36	55	30				
2		8.0-9.5	A-7-6(2)	12			24	20	56	61	37				
3		13.0-14.5	A-7-6(3)	7			77	14	4	32	NP				
4		18.0-19.5	A-2-4(4)	9			76	20	4	32	NP				
5		23.0-24.5	A-2-4(5)	11			75	21	4	26	NP				
6		28.0-29.5	A-2-4(6)	41			78	18	4	34	NP				
7		33.0-34.5	A-2-4(7)	33			47	15	38	49	27				
1	B1-1	3.5-5.0	A-7-6(1)	10			63	15	22	37	16				
2		8.5-9.8	A-7-6(2)	13			63	15	22	41	21				
3		13.5-14.8	A-7-6(3)	7			87	7	6	25	NP				
4		18.5-19.8	A-1-6(1)	18			78	14	8	37	NP				
5		23.5-24.8	A-2-4(8)	14			81	15	4	25	NP				
6		28.5-29.8	A-1-4(1)	44			83	13	4	20	NP				
7		33.5-34.8	A-2-4(9)	100			46	12	42	51	26				
1	B1-2	3.4-4.9	A-7-6(1)	16			57	15	28	41	18				
2		8.4-9.9	A-7-6(2)	16			83	5	12	27	6				
3		13.4-14.9	A-2-4(10)	9			38	18	44	45	25				

BORING NO. EB1-2 BENT NO. 1 COLLAR ELEV. 795.4
 BORING LOC. (STA) 114+86 Rt. Ln. 18' Rt. TOTAL DEPTH 37.0

DEPTH	ELEV.	BLW. COUNT	NOTES & REMARKS	SOIL DESCRIPTION
0	795.4			GROUND SURFACE
2.6	792.4	2		1. YEL-TAN V. F-CSE SDY PLAS. CLAY
4.7	787.4	4		2. AS ABOVE
1.3	782.4	1		3. TAN F-V. CSE SDY PLAS CLAY
3.3	777.4	3		4. TAN SILTY PLAS. TO SDY PLAS. CLAY
4.7	772.4	4		5. 15-18" BLK. ORG. PLAS. CLAY + MUCK
4.7	772.4	4		6. TAN-BRN-WHT F-CSE SDY MICAS. SILT SAPROLITE
10.7	767.4	10		7. GRAY-BRN V. MICAS. F. SDY SILT SAPROLITE
11.2	767.4	11		8. GRAY MICAS. F. SDY SILT SAPROLITE, SOME QTZ.
6.1	762.4	6		9. AS ABOVE
33.9	759.2	33		10. AS ABOVE

TERMINATE BORING AT ELEV. 759.2 IN 100' APP. SAP. AUGER BORING

BORING NO. B1-2 BENT NO. 1 COLLAR ELEV. 798.7
 BORING LOC. (STA) 115+22 Rt. Ln. 18' Rt. TOTAL DEPTH 39.2

DEPTH	ELEV.	BLW. COUNT	NOTES & REMARKS	SOIL DESCRIPTION
0	798.7			GROUND SURFACE
4.7	795.3	4		1. RED-TAN F-M SDY SILTY CLAY
3.7	790.3	3		2. WHT-GRAY CLY F-CSE SDY SILTY CLAY
3.6	785.3	3		3. TAN SILTY F-CSE SAND
3.6	780.3	3		4. WHT-GRAY SILTY CLAY
5.6	775.3	5		5. TAN F-CSE SDY SILTY CLAY
5.6	770.3	5		6. TAN F-M SDY CLY SILT SAPROLITE
12.7	765.3	12		7. TAN-BRN F-SDY CLY SILT SAPROLITE
13.2	760.3	13		8. TAN F-CSE SDY CLY SILT SAPROLITE
33.9	760.3	33		9. TAN-WHT F-CSE SDY SILT

TERMINATE BORING AT ELEV. 760.3 IN 100' APP. SAP. AUGER BORING

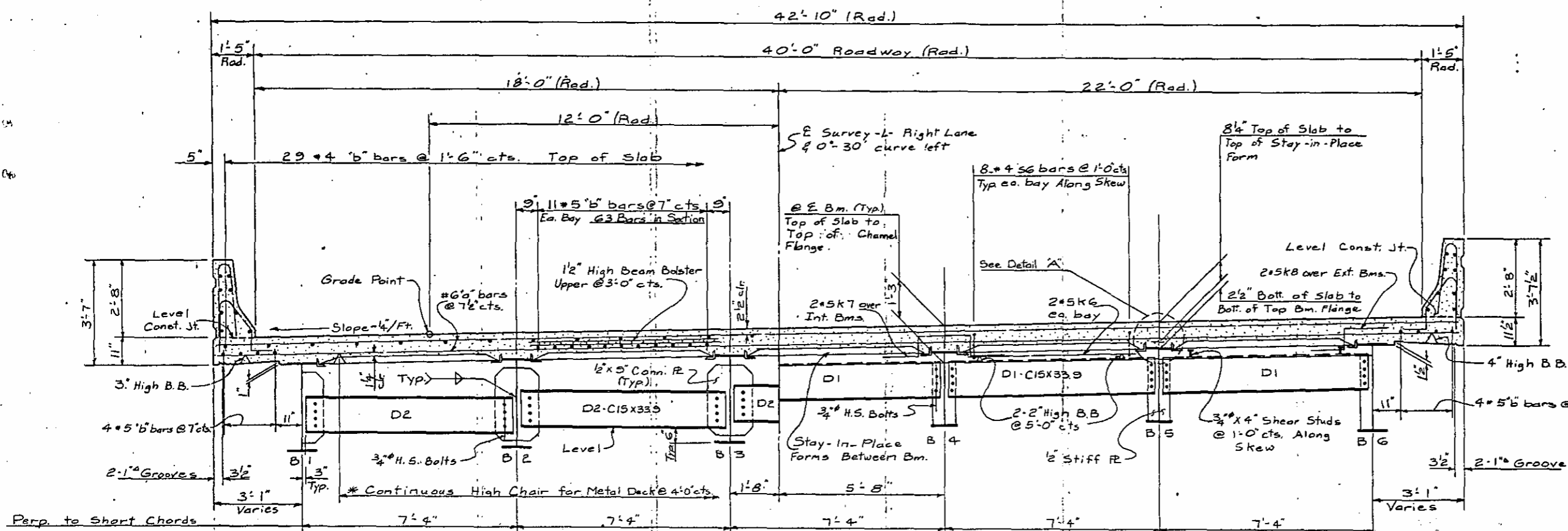
BORING NO. B2-2 BENT NO. 2 COLLAR ELEV. 803.5
 BORING LOC. (STA) 116+05 Rt. Ln. 18' Rt. TOTAL DEPTH 38.9

DEPTH	ELEV.	BLW. COUNT	NOTES & REMARKS	SOIL DESCRIPTION
0	803.5			GROUND SURFACE
2.3	800.1	2		1. RED-TAN F-CSE SDY SILTY CLAY
4.7	795.1	4		2. WHT-F-CSE SDY PLAS CLAY
2.2	790.1	2		3. TAN-BRN F-SDY SILT
10.1	785.1	10		4. WHT. F-CSE SDY SILT
10.1	780.1	10		5. WHT. F-CSE SDY SILT SAPROLITE
10.1	775.1	10		6. TAN-GRAY-WHT LAMINATED F-CSE SDY SILT SAPROLITE - SLI. MICAS.
2.6	770.1	2		7. BLK-BRN SILTY F-M SAND SAPROLITE
2.6	765.1	2		8. TAN-BRN SLI. MICAS. SILTY F. SAND SAPROLITE

TERMINATE BORING AT ELEV. 765.1 IN 100' APP. SAP. AUGER BORING

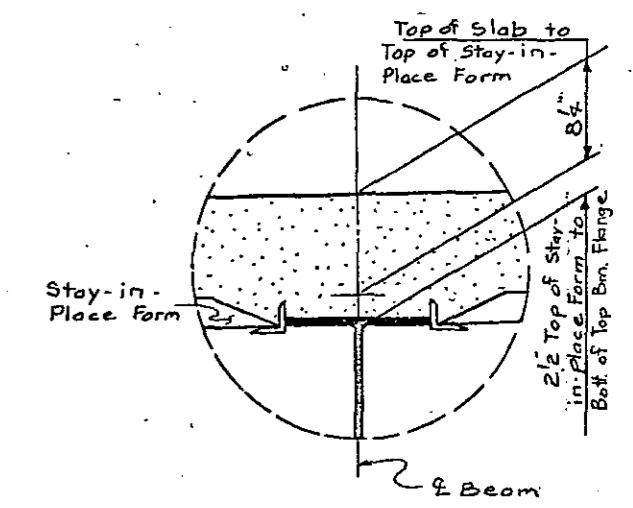
SOIL & ROCK LEGEND

SYMBOL CLASS	SOILS (INORGANIC)	SYMBOL CLASS	SOILS (INORGANIC)
A-1	Well-graded gravels and gravel-sand mixtures, clayey gravels and silty sand mixtures with fines.	A-6	SOILS (INORGANIC)
A-2	Poorly graded gravels and sand mixtures with fines.	A-7	SOILS (INORGANIC)
A-3	Poorly graded sands without fines.	A-7.5	SOILS (INORGANIC)
A-4	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-8	SOILS (INORGANIC)
A-5	Clayey sands and silty sand mixtures.	A-9	SOILS (INORGANIC)
A-6	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-10	SOILS (INORGANIC)
A-7	Clayey sands and silty sand mixtures.	A-11	SOILS (INORGANIC)
A-8	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-12	SOILS (INORGANIC)
A-9	Clayey sands and silty sand mixtures.	A-13	SOILS (INORGANIC)
A-10	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-14	SOILS (INORGANIC)
A-11	Clayey sands and silty sand mixtures.	A-15	SOILS (INORGANIC)
A-12	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-16	SOILS (INORGANIC)
A-13	Clayey sands and silty sand mixtures.	A-17	SOILS (INORGANIC)
A-14	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-18	SOILS (INORGANIC)
A-15	Clayey sands and silty sand mixtures.	A-19	SOILS (INORGANIC)
A-16	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-20	SOILS (INORGANIC)
A-17	Clayey sands and silty sand mixtures.	A-21	SOILS (INORGANIC)
A-18	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-22	SOILS (INORGANIC)
A-19	Clayey sands and silty sand mixtures.	A-23	SOILS (INORGANIC)
A-20	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-24	SOILS (INORGANIC)
A-21	Clayey sands and silty sand mixtures.	A-25	SOILS (INORGANIC)
A-22	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-26	SOILS (INORGANIC)
A-23	Clayey sands and silty sand mixtures.	A-27	SOILS (INORGANIC)
A-24	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-28	SOILS (INORGANIC)
A-25	Clayey sands and silty sand mixtures.	A-29	SOILS (INORGANIC)
A-26	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-30	SOILS (INORGANIC)
A-27	Clayey sands and silty sand mixtures.	A-31	SOILS (INORGANIC)
A-28	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-32	SOILS (INORGANIC)
A-29	Clayey sands and silty sand mixtures.	A-33	SOILS (INORGANIC)
A-30	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-34	SOILS (INORGANIC)
A-31	Clayey sands and silty sand mixtures.	A-35	SOILS (INORGANIC)
A-32	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-36	SOILS (INORGANIC)
A-33	Clayey sands and silty sand mixtures.	A-37	SOILS (INORGANIC)
A-34	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-38	SOILS (INORGANIC)
A-35	Clayey sands and silty sand mixtures.	A-39	SOILS (INORGANIC)
A-36	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-40	SOILS (INORGANIC)
A-37	Clayey sands and silty sand mixtures.	A-41	SOILS (INORGANIC)
A-38	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-42	SOILS (INORGANIC)
A-39	Clayey sands and silty sand mixtures.	A-43	SOILS (INORGANIC)
A-40	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-44	SOILS (INORGANIC)
A-41	Clayey sands and silty sand mixtures.	A-45	SOILS (INORGANIC)
A-42	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-46	SOILS (INORGANIC)
A-43	Clayey sands and silty sand mixtures.	A-47	SOILS (INORGANIC)
A-44	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-48	SOILS (INORGANIC)
A-45	Clayey sands and silty sand mixtures.	A-49	SOILS (INORGANIC)
A-46	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-50	SOILS (INORGANIC)
A-47	Clayey sands and silty sand mixtures.	A-51	SOILS (INORGANIC)
A-48	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-52	SOILS (INORGANIC)
A-49	Clayey sands and silty sand mixtures.	A-53	SOILS (INORGANIC)
A-50	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-54	SOILS (INORGANIC)
A-51	Clayey sands and silty sand mixtures.	A-55	SOILS (INORGANIC)
A-52	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-56	SOILS (INORGANIC)
A-53	Clayey sands and silty sand mixtures.	A-57	SOILS (INORGANIC)
A-54	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-58	SOILS (INORGANIC)
A-55	Clayey sands and silty sand mixtures.	A-59	SOILS (INORGANIC)
A-56	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-60	SOILS (INORGANIC)
A-57	Clayey sands and silty sand mixtures.	A-61	SOILS (INORGANIC)
A-58	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-62	SOILS (INORGANIC)
A-59	Clayey sands and silty sand mixtures.	A-63	SOILS (INORGANIC)
A-60	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-64	SOILS (INORGANIC)
A-61	Clayey sands and silty sand mixtures.	A-65	SOILS (INORGANIC)
A-62	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-66	SOILS (INORGANIC)
A-63	Clayey sands and silty sand mixtures.	A-67	SOILS (INORGANIC)
A-64	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-68	SOILS (INORGANIC)
A-65	Clayey sands and silty sand mixtures.	A-69	SOILS (INORGANIC)
A-66	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-70	SOILS (INORGANIC)
A-67	Clayey sands and silty sand mixtures.	A-71	SOILS (INORGANIC)
A-68	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-72	SOILS (INORGANIC)
A-69	Clayey sands and silty sand mixtures.	A-73	SOILS (INORGANIC)
A-70	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-74	SOILS (INORGANIC)
A-71	Clayey sands and silty sand mixtures.	A-75	SOILS (INORGANIC)
A-72	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-76	SOILS (INORGANIC)
A-73	Clayey sands and silty sand mixtures.	A-77	SOILS (INORGANIC)
A-74	Well-graded gravels, silty sand mixtures, clayey gravels and silty sand mixtures.	A-78	SOILS (INORGANIC)
A			



HALF TYPICAL SECTION
Showing Intermediate Diaphragms for Span B

HALF TYPICAL SECTION
Showing Diaphragms & Bents

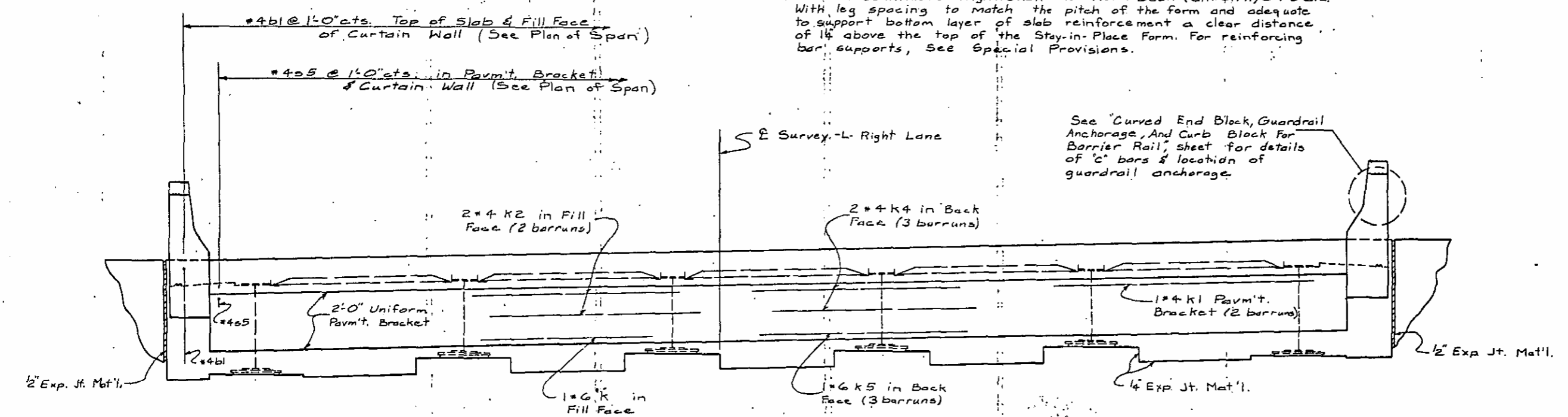


DETAIL A

NOTES
For bars indicated and no bar mark shown, see Plan of Spans.
Stay-in-place metal forms shall have closed tapered ends.

*Provide Continuous High Chair for Metal Deck (C.H.C.M.) @ 4'-0" cts. With leg spacing to match the pitch of the form and adequate to support bottom layer of slab reinforcement a clear distance of 1/4" above the top of the Stay-in-Place Form. For reinforcing bar supports, see Special Provisions.

See "Curved End Block, Guardrail Anchorage, and Curb Block for Barrier Rail" sheet for details of 'c' bars & location of guardrail anchorage.

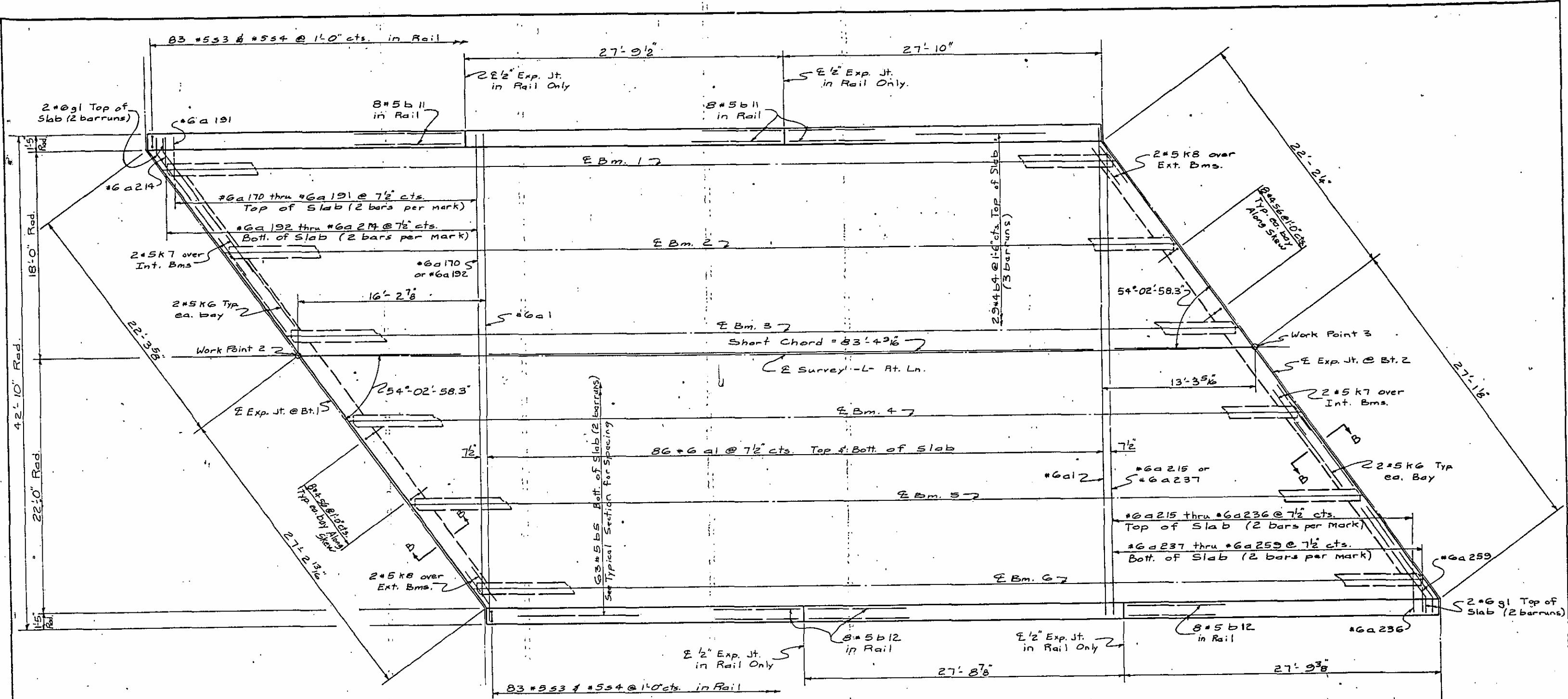


END ELEVATION

PROJECT No. 8.1743606
FORSYTH COUNTY
STATION: 115+5022-L R.L.

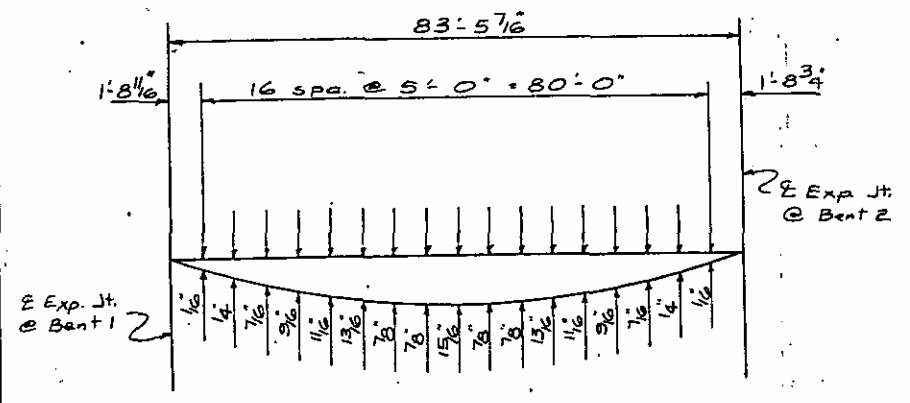
Sheet 1 of 2
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE
TYPICAL SECTION

REVISIONS						SHEET NO. 5-38
NO.	BY	DATE	NO.	BY	DATE	
1			2			TOTAL SHEETS 149
2			3			

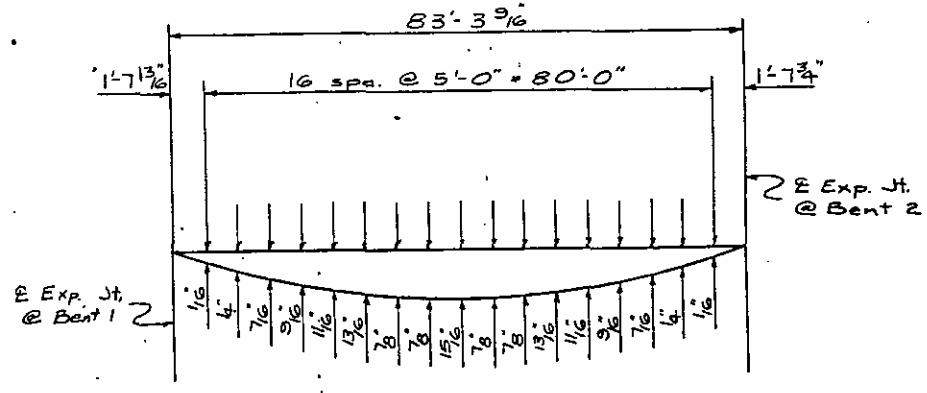


PLAN OF SPAN "B"

Splice Distance of #4 'b' bars 1'-0" Min.
 Splice Distance of #5 'b' bars 1'-2" Min.



ARC OFFSETS AT LEFT GUTTER

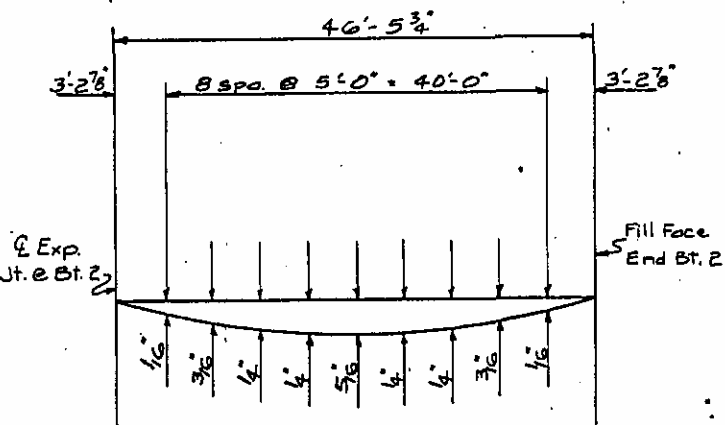
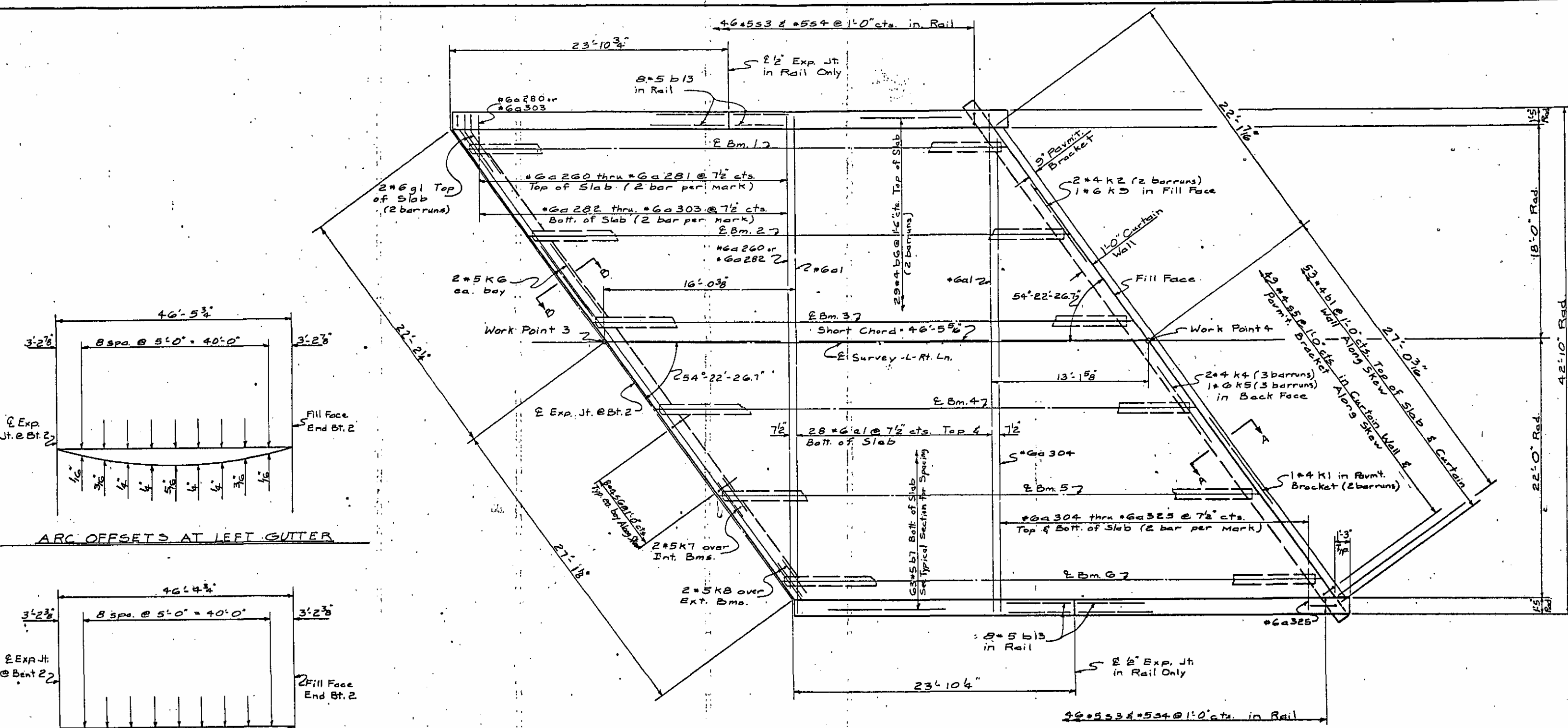


ARC OFFSETS AT RIGHT GUTTER

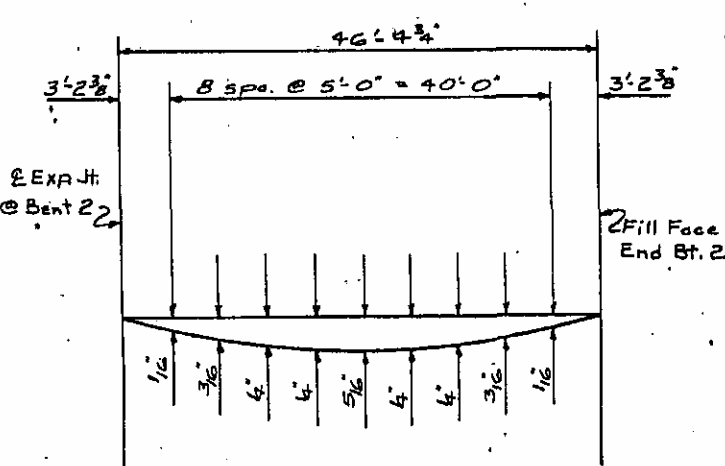
PROJECT No. 8.1743606
 FORSYTH COUNTY
 STATION: 115+50.22-L Rt. Ln.

STATE OF NORTH CAROLINA					
DEPARTMENT OF TRANSPORTATION					
RALEIGH					
SUPERSTRUCTURE					
PLAN OF SPAN "B"					
Aug. 1977					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		
SHEET NO. 5-41					TOTAL SHEETS 149

DRAWN BY J. E. Coops DATE 8-5-77
 CHECKED BY R. J. Moore DATE 9-27-77



ARC OFFSETS AT LEFT GUTTER



ARC OFFSETS AT RIGHT GUTTER

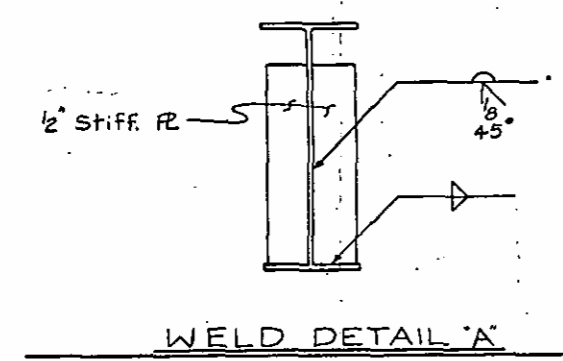
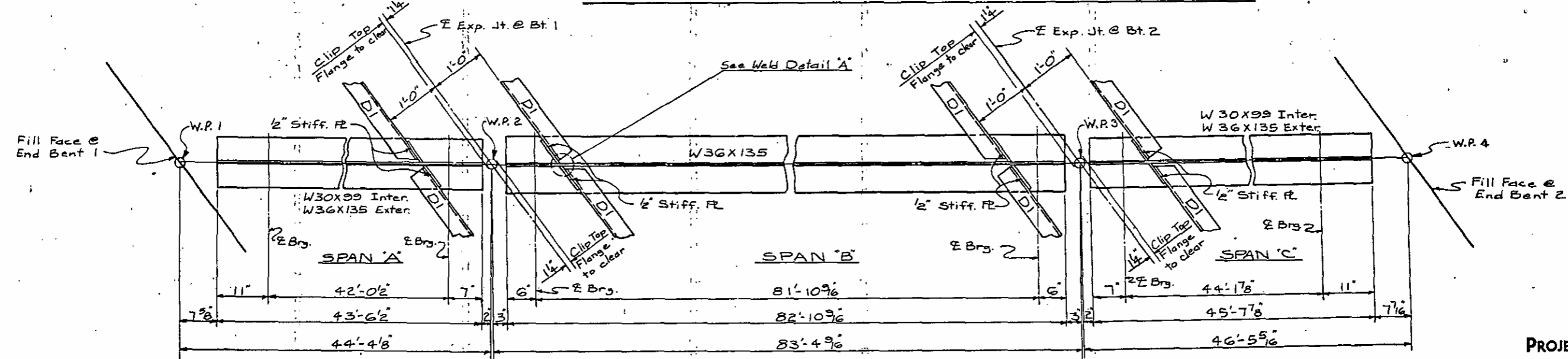
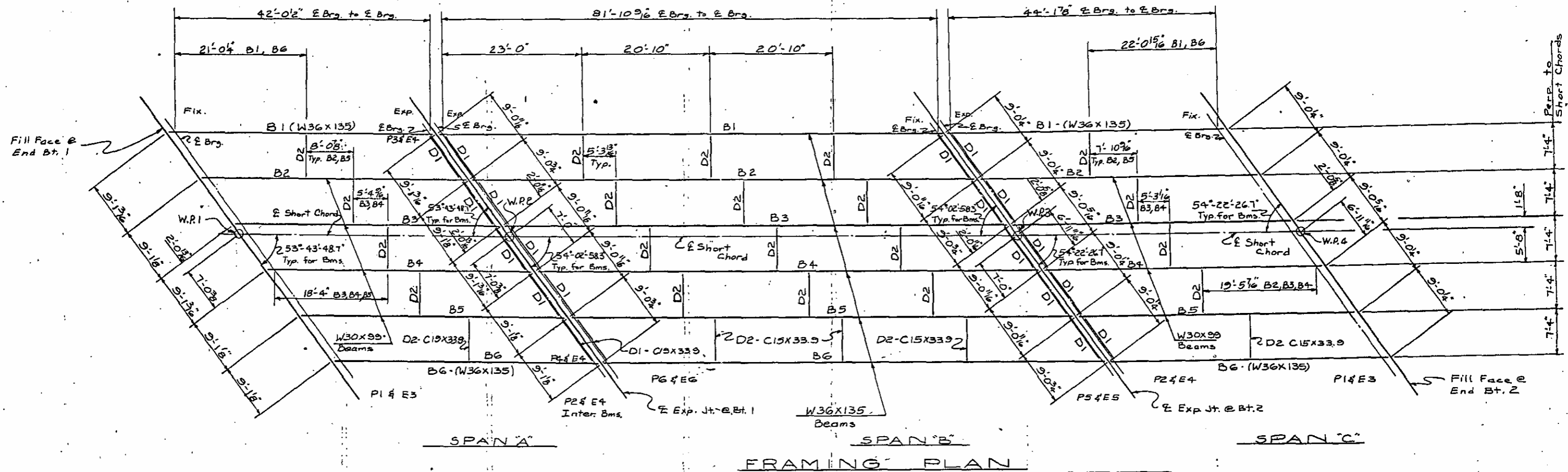
PLAN OF SPAN "C"

Splice Distance of #4 ^{#6} bars 1'-0" min.
 Splice Distance of #4 ^{#5} bars 1'-4" min.
 Splice Distance of #6 ^{#4} bars 1'-4" min.

PROJECT No. 8.1743606
 FORSYTH COUNTY
 STATION: 115 + 50.22-L-R.L.

STATE OF NORTH CAROLINA						1977	
DEPARTMENT OF TRANSPORTATION						SHEET NO.	
RALEIGH						5-42	
SUPERSTRUCTURE						TOTAL SHEETS	
PLAN OF SPAN "C"						149	
Aug. 1977							
REVISIONS							
NO.	BY	DATE	NO.	BY	DATE	SHEET NO.	
1			3			5-42	
2			4			TOTAL SHEETS	
						149	

DRAWN BY: J. E. Gapps DATE: 8-12-77
 CHECKED BY: R. L. Woods DATE: 9-22-77

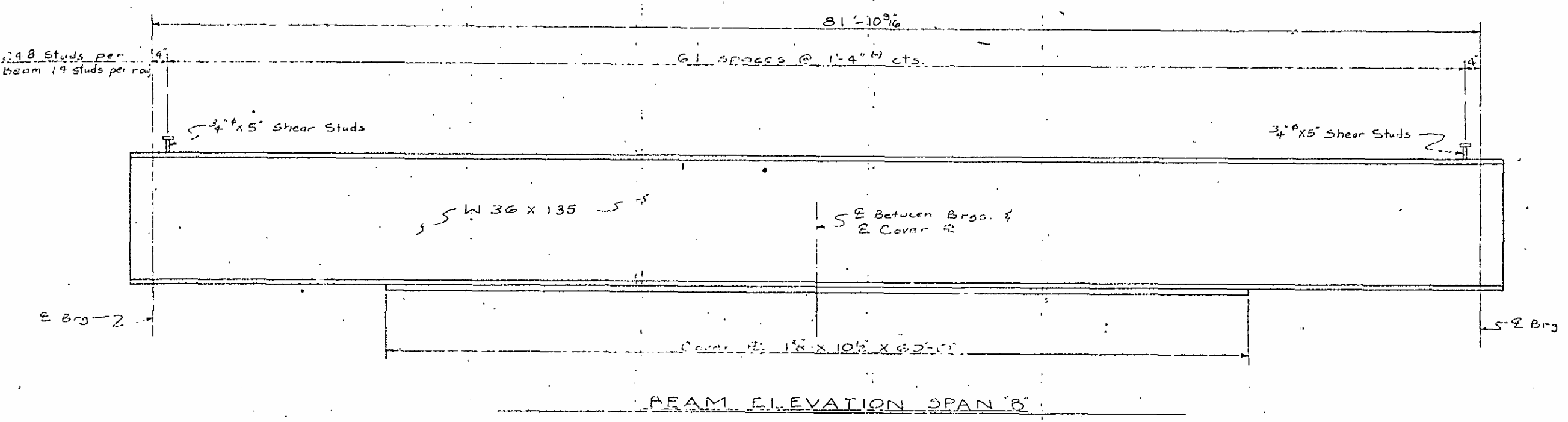
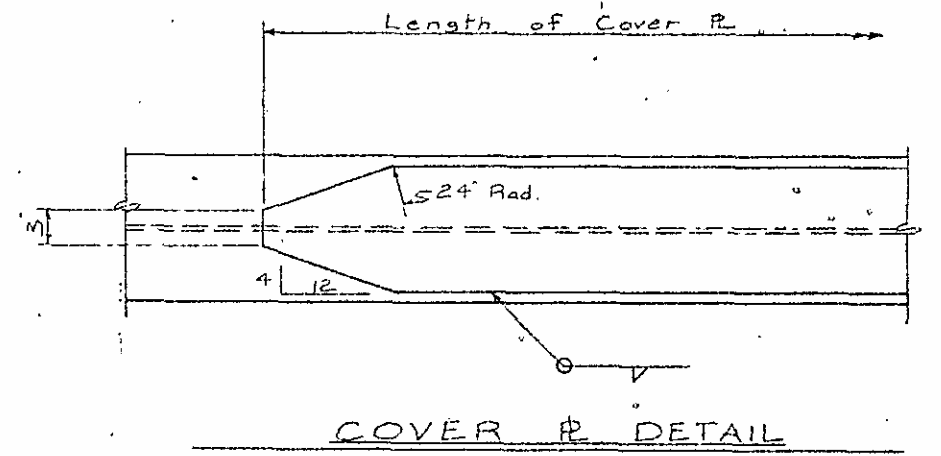
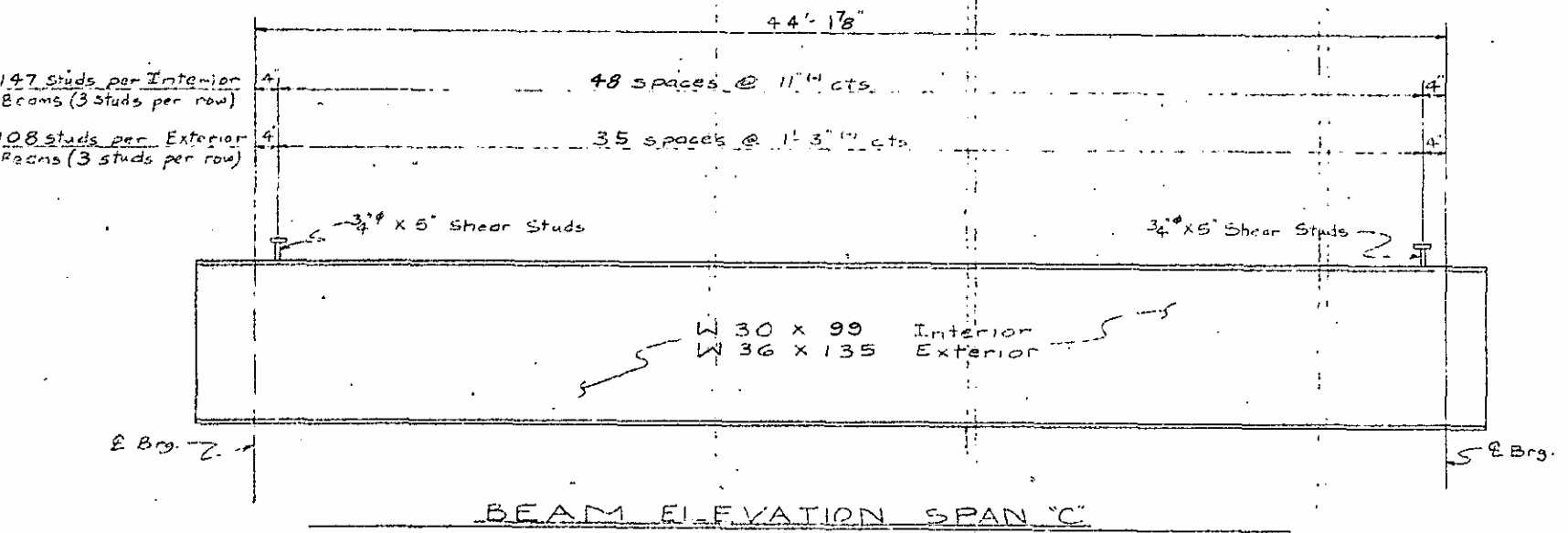
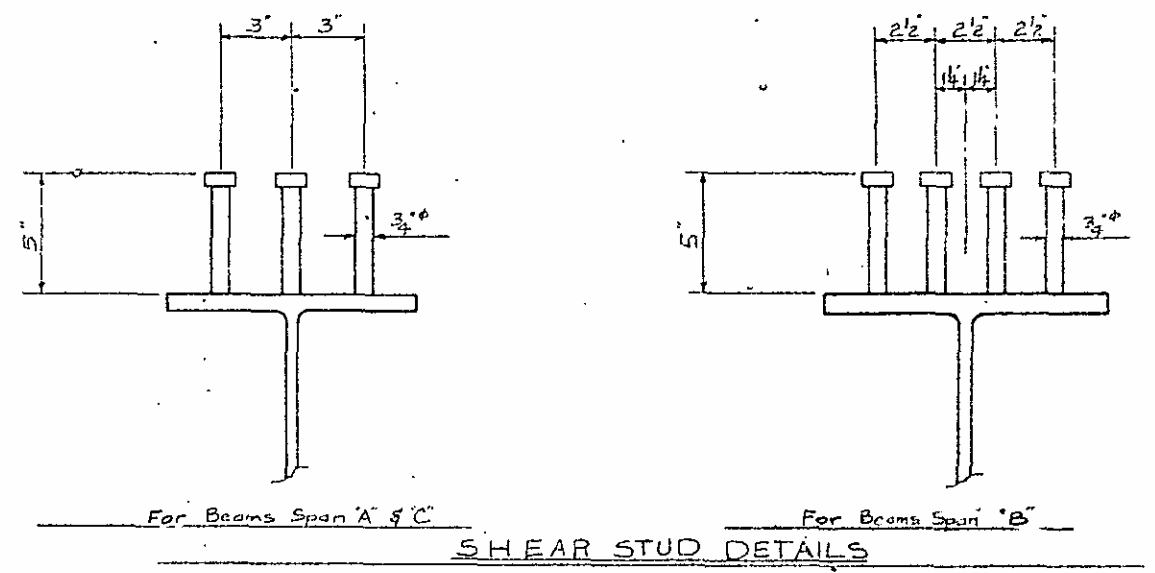
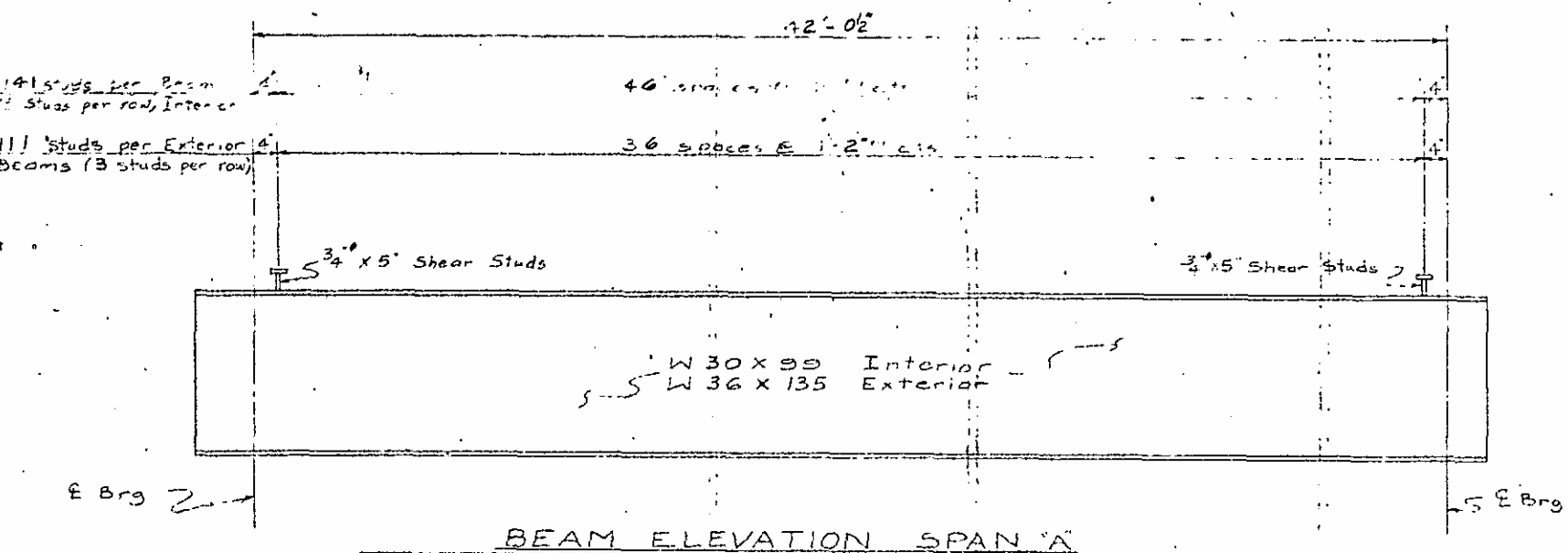


PROJECT NO. B.174-3606
 FORSYTH COUNTY
 STATION: 115+50.22-1: R/L

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
 STRUCTURAL STEEL

REVISIONS						SHEET NO. S-43
NO.	BY	DATE	NO.	BY	DATE	
1			2			TOTAL SHEETS 149
2			4			

DRAWN BY: J.E. COPPS DATE: 8-2-77
 CHECKED BY: R.J. MOORE DATE: 9-27-77



PROJECT No. 81743606

FORSYTH COUNTY

STATION: 115 + 50.22 - L. R. 115

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALZIGH
SUPERSTRUCTURE
STRUCTURAL STEEL

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

DESIGNED BY: JIMMY C. APPS DATE: 1-1-77
CHECKED BY: R. J. MOORE DATE: 9-27-77

NOTES

Specifications:

Design — A.A.S.H.T.O. (1973)
Welding — A.W.S. (Current)

All Structural Steel shall be Unpainted
ASTM A588 Grade with a Minimum Yield Strength of 50,000 psi.

The Atmospheric Corrosion Resistance And Coloring Characteristics of ASTM A588 Steel Are Required for the High Strength Bolts, Nuts, Washers, And The Weld Filler Metal For This Structure.

At Fixed Points of Support, Nuts For Anchor Bolts Are To be Tightened Finger Tight And Then Backed off One Half Turn. The Thread of The Nut And Bolt Shall Then Be Burred With A Sharp Pointed Tool.

Shipping Details for Beams Shall be Submitted For Approval, Indicating The Top Flange Location During Shipment, And in All Cases Showing the Web Vertical. The Method of Shipment, Position On The Vehicle, And Attachments to The Beams of Any Shipping Restraints Shall be Clearly Detailed.

Stiffeners Are Not Required On End Bt. End of Beams, Nor on Outside of Exterior Beams At Bents.

See Superstructure Typical Sections For Location of Holes in Beam Web For "k" Bars.

All Dimensions Shown Are Horizontal or Vertical Unless Otherwise Noted.

Charpy "V" Notch Test is Required for all Cover Plates And Beams See Special Provisions.

For Description of The Shear Studs, See Special Provisions.

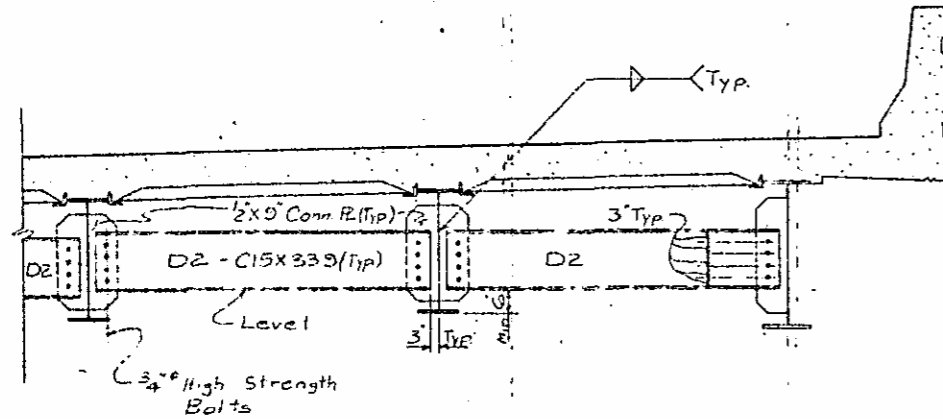
No Shop Camber Required For Exterior Beams Span "A" and "C", or Interior Beams on Span "A", Turn Natural Mill Camber Up.

PROJECT No. 8-174366
FORSYTH COUNTY
STATION: 115 + 50.22-1-R4Ln

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE
STRUCTURAL STEEL

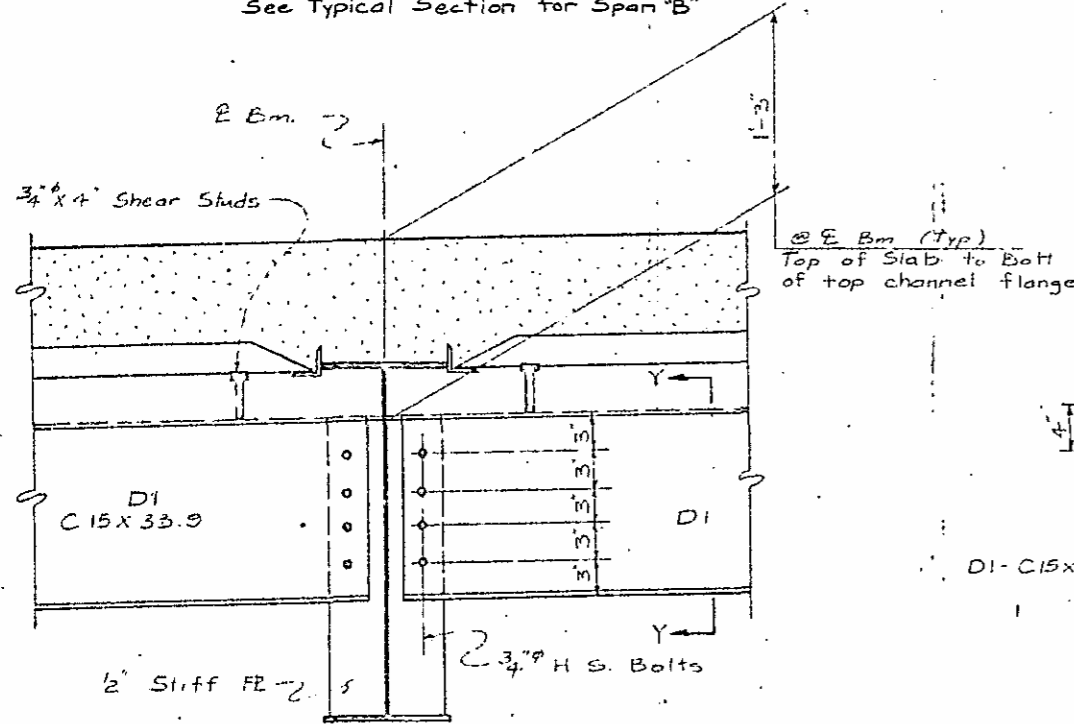
July 1977

REVISIONS						
NO.	BY	DATE	NO.	BY	DATE	REASON
1			1			5-45
2			2			149

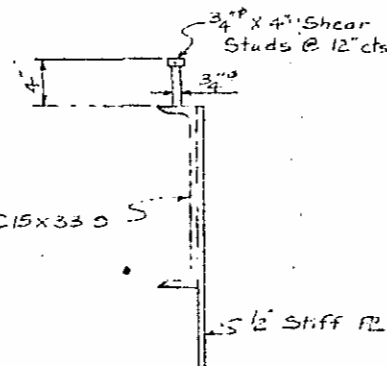


PART TYPICAL SECTION

Showing Intermediate Diaphragms for Span "A" & "C"
See Typical Section for Span "B"



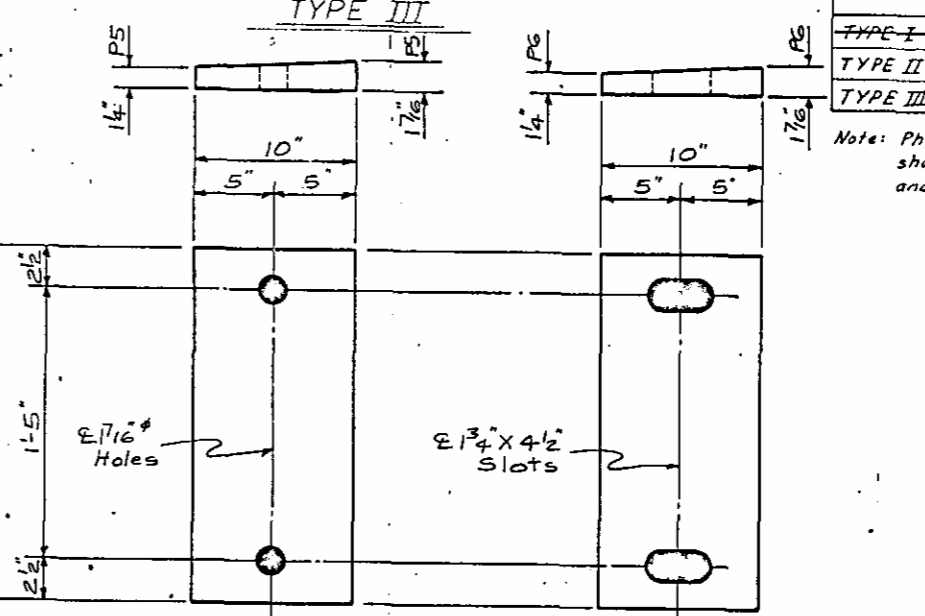
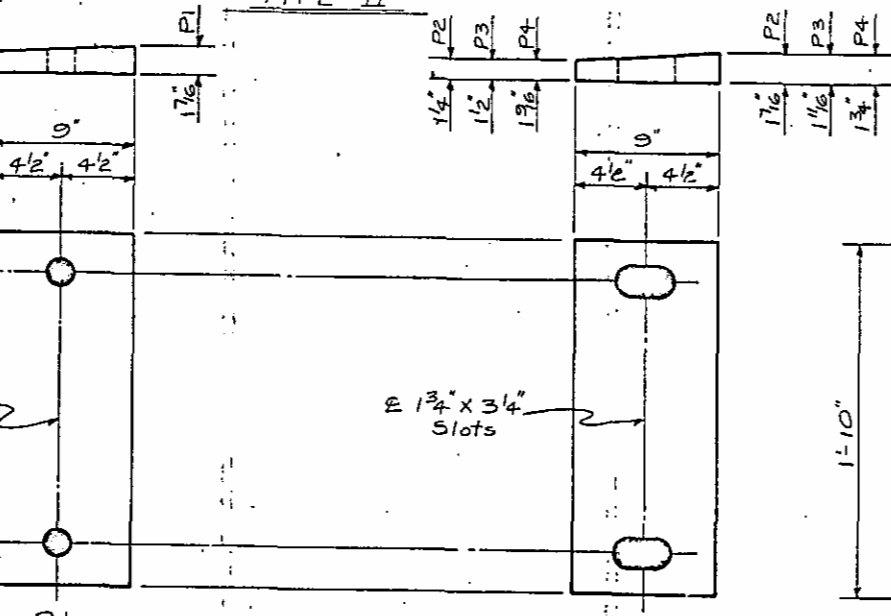
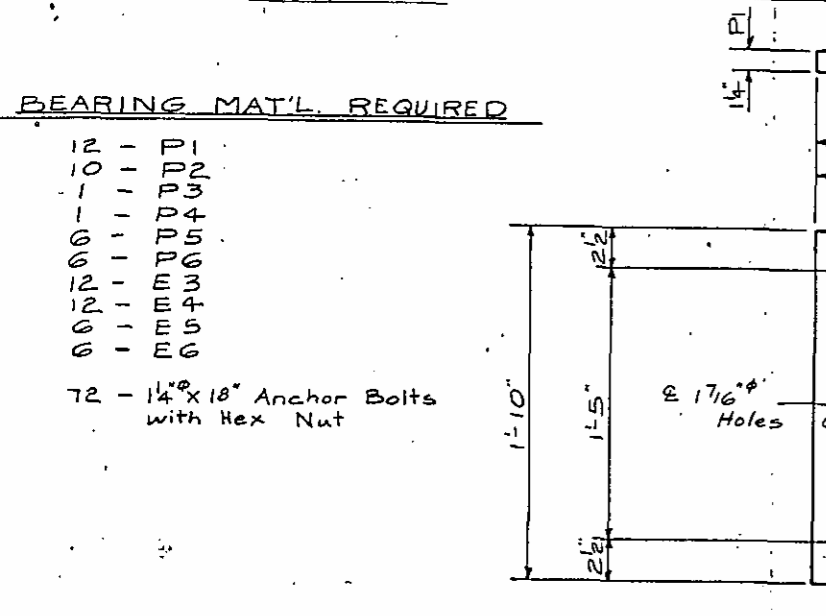
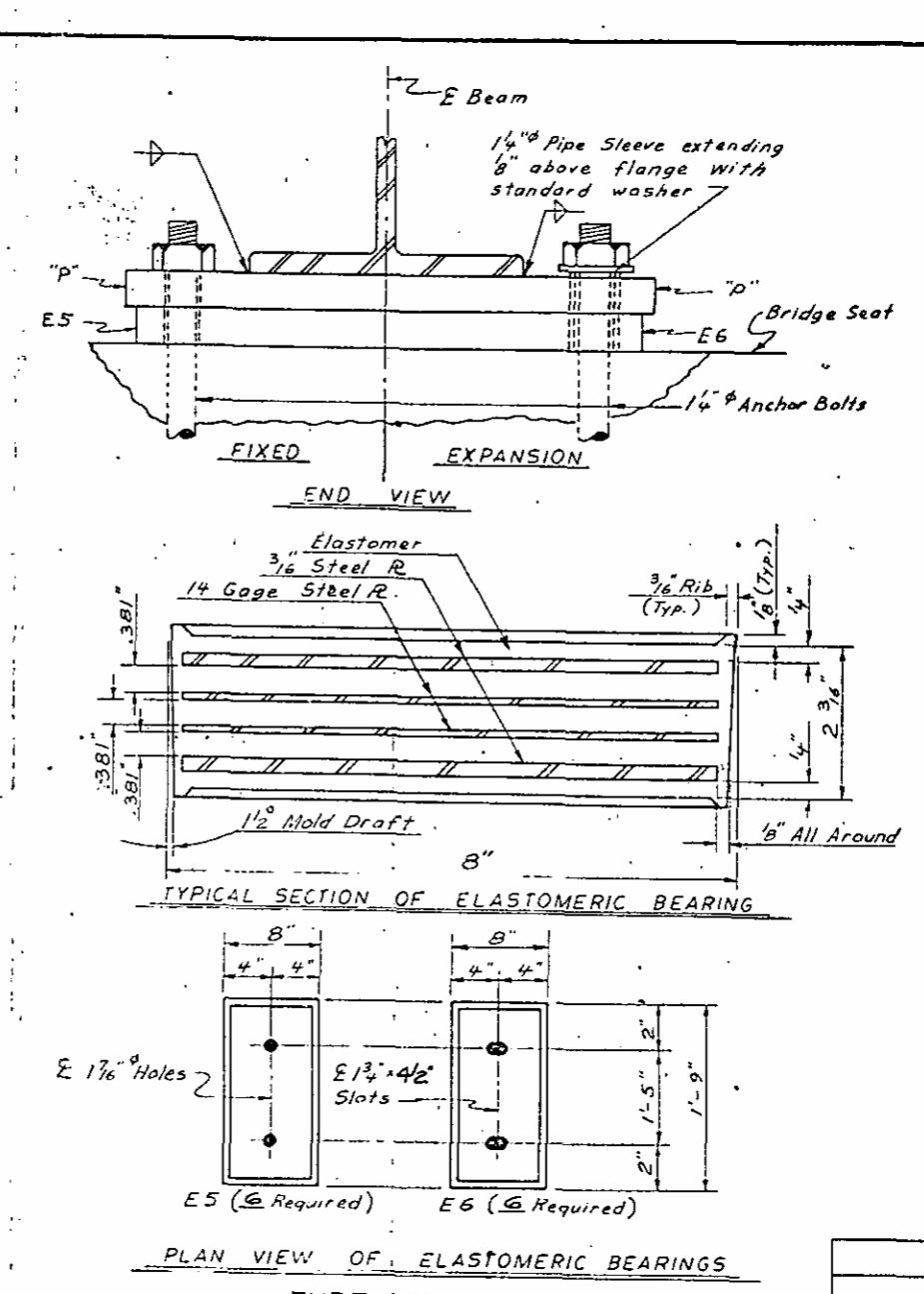
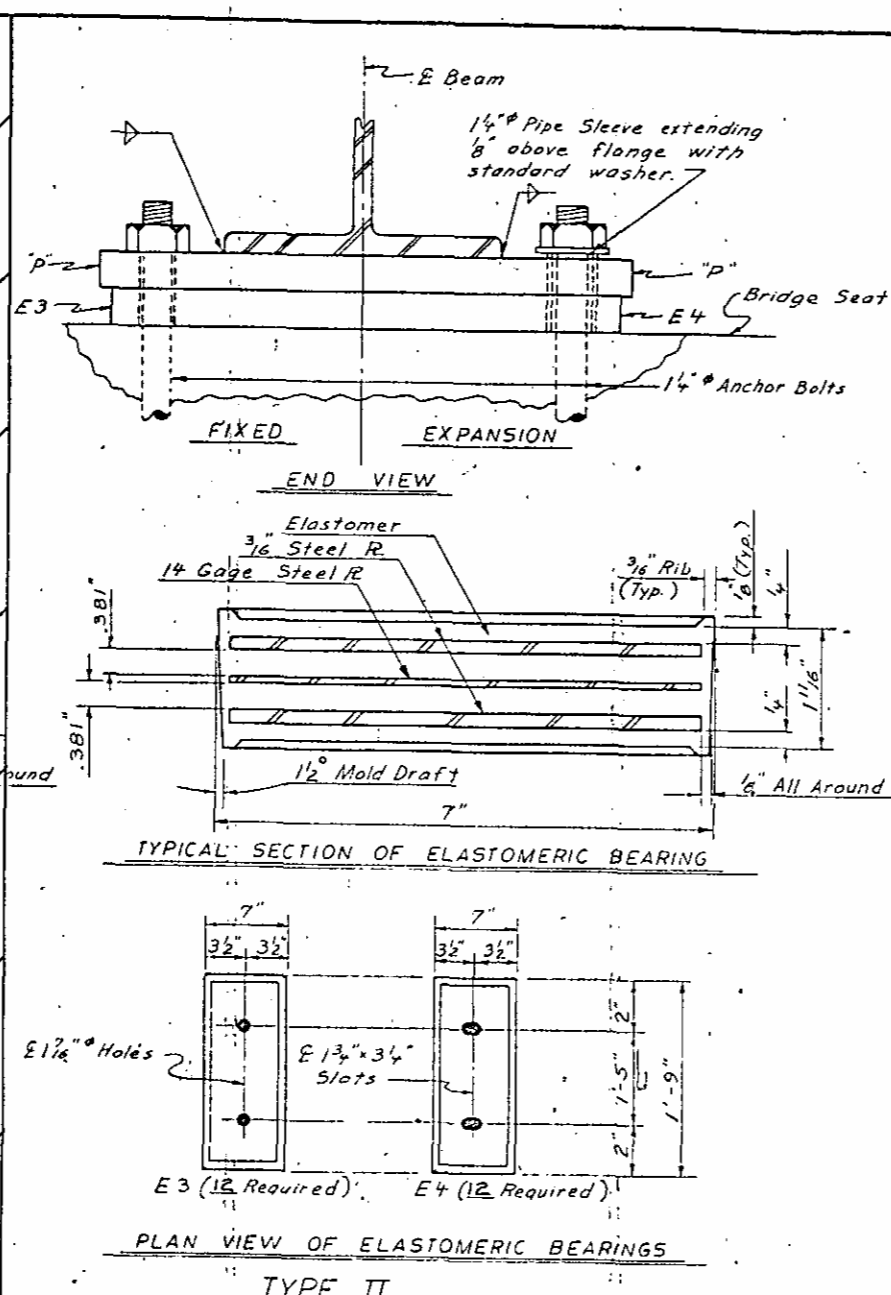
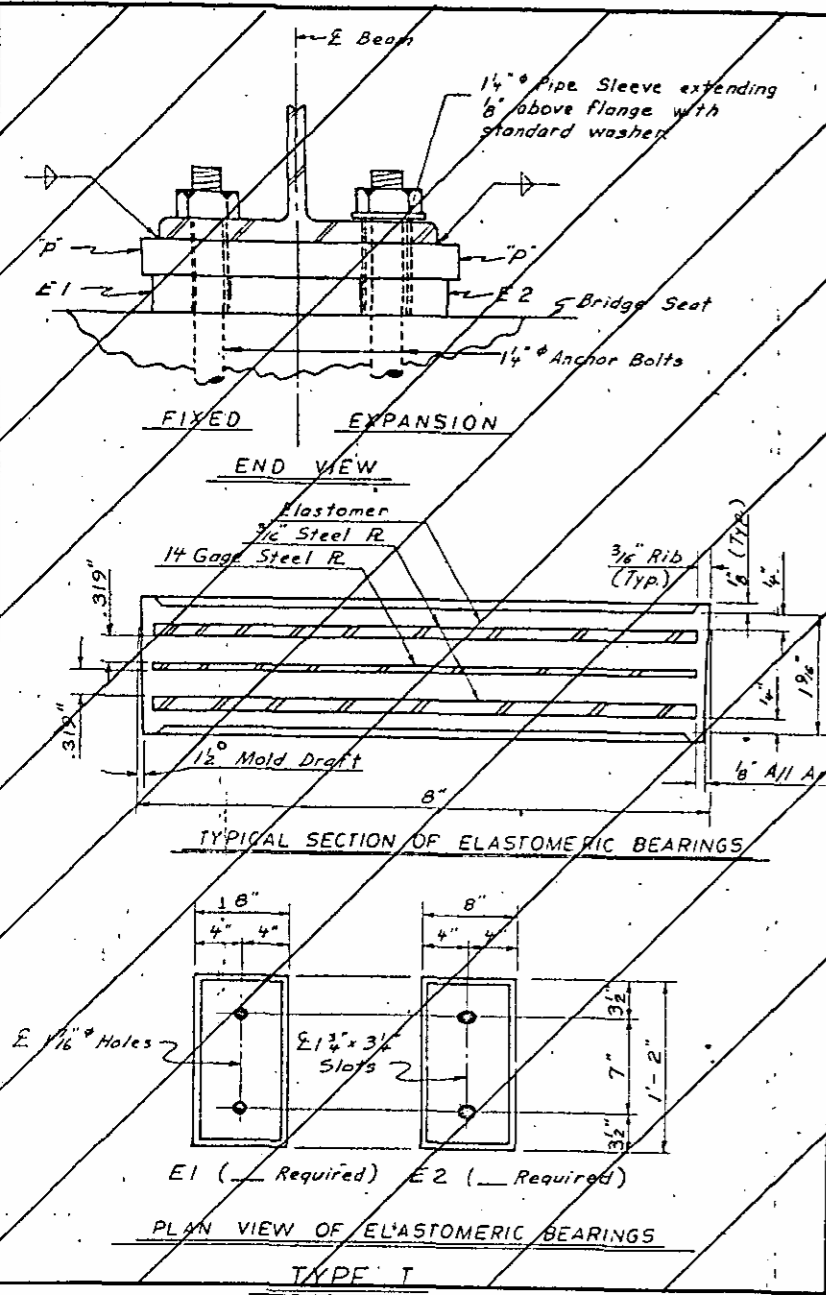
BENT DIAPHRAGM DETAIL



SECTION Y-Y

	SPAN "A"		SPAN "B"		SPAN "C"	
	Interior	Exterior	Interior	Exterior	Interior	Exterior
Deflection due to weight of steel	.006	.004	.054	.049	.007	.005
Deflection due to weight of slab	.046	.023	.234	.224	.056	.027
Deflection due to weight of Rail & F.W.S	.005	.003	.030	.031	.007	.004
Total Dead Load Deflection	.057	.030	.318	.304	.070	.036
Ordinate due to Superelevation	—	—	4.002	4.002	—	—
Required Beam Camber	—	—	3 13/16"	3 5/8"	1 3/16"	—

Values Are Given in Feet (Decimal Form) At Midpoint Between E Bearings Except "Required Beam Camber", which is Given in Inches (Fraction Form).



ASSEMBLED BY J.E. Capps DATE 9-8-77
 CHECKED BY R.J. Moore DATE 9-27-77
 DRAWN BY Joel A. Johnson DATE Jan 7, 1979
 CHECKED BY J.L. Smith DATE Jan 13, 1979

SPECIAL
 STANDARD

BEARING MAT'L. REQUIRED

12 - P1
 10 - P2
 1 - P3
 1 - P4
 6 - P5
 6 - P6
 12 - E3
 12 - E4
 6 - E5
 6 - E6
 72 - 1/4" x 18" Anchor Bolts with Hex Nut

SOLE PLATE DETAILS

* P2, P3, P4
 Exp. Ends, Span 'A' & 'C'

* P5
 Fix. End, Span 'B'

* P6
 Exp. End, Span 'B'

BEARING MAT'L. REQUIRED

6 - P5
 6 - P6
 12 - E3
 12 - E4
 6 - E5
 6 - E6
 72 - 1/4" x 18" Anchor Bolts with Hex Nut

SOLE PLATE DETAILS

* P2, P3, P4
 Exp. Ends, Span 'A' & 'C'

* P5
 Fix. End, Span 'B'

* P6
 Exp. End, Span 'B'

NOTES

Elastomer in all bearings shall have a Grade 50 durometer hardness. See Special Provisions.

Steel plates in laminated bearings shall conform to A.S.T.M. A36.

At all fixed points of support, nuts for anchor bolts are to be tightened finger tight and then backed off 1/2 turn. The thread of the nut and bolt shall then be burred with a sharp pointed tool.

The 1/4" pipe sleeve shall be cut from schedule 40 P.V.C. pipe. The P.V.C. pipe shall be light gray in color meeting the requirements of A.S.T.M. D1785. The payment for the pipe sleeves shall be included in the several pay items.

For painted structural steel, anchor bolts, nuts and washers shall be in accordance with the Standard Specifications.

For unpainted A.S.T.M. A-588 structural steel, anchor bolts shall be A-588 and nuts and washers shall be A.S.T.M. A-325 Type 3. Anchor bolts, nuts, washers and bearing plates shall not be galvanized.

Bearing Plates shall be of ASTM A-588 steel.

	LOAD RATINGS			
	Max. D.L. + L.L.	Max. D.L.	Min. D.L.	Max. Defl.
TYPE I	68.81 ^k	50.97 ^k	21.75 ^k	7.0%
TYPE II	82.16 ^k	68.47 ^k	28.75 ^k	7.0%
TYPE III	114.51 ^k	78.97 ^k	32.95 ^k	7.0%

Note: Physical properties of the Elastomeric Bearings shall be in accordance with the special provisions and shall meet the above tabulated requirements.

PROJECT NO. 8.17436CG
 FORSYTH COUNTY
 STATION: 115+5022-L-Rt.Ln.

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 STANDARD
 ELASTOMERIC BEARING DETAILS
 FOR
 ROLLED BEAMS

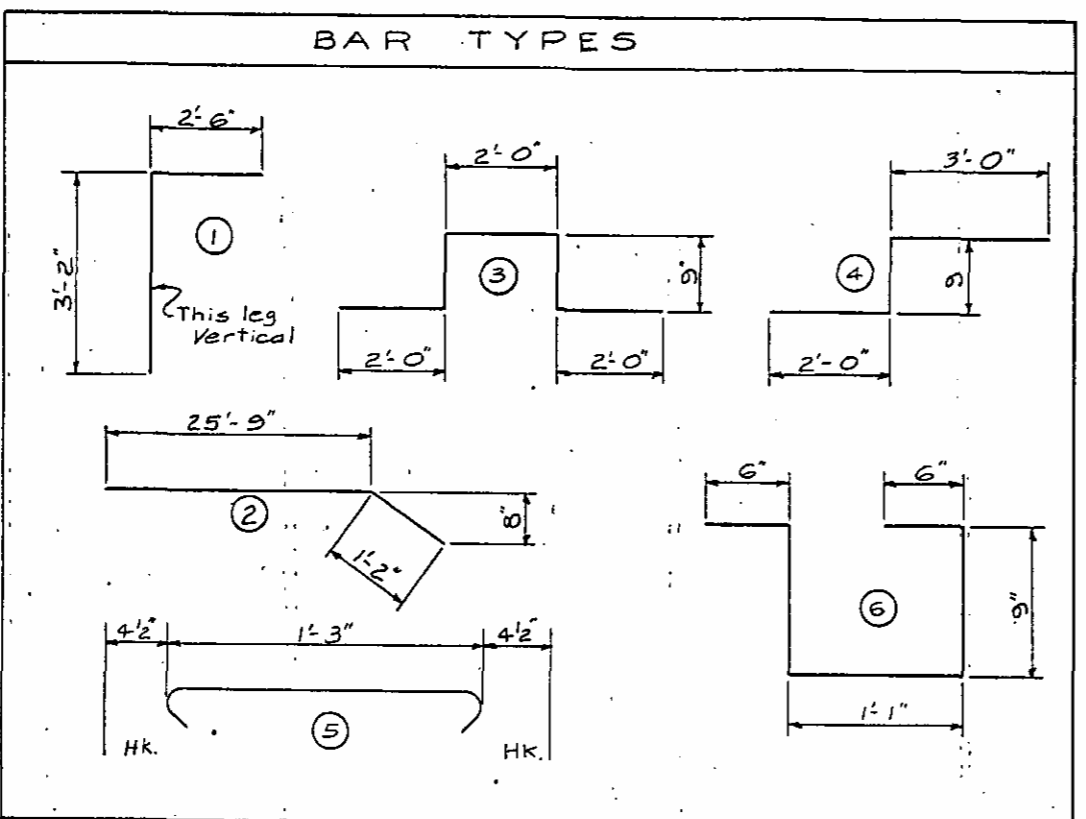
JANUARY		1977	
REVISIONS			
NO.	BY	DATE	NO.
1			2
2			4

SHEET NO. 5-46
 TOTAL SHEETS 149

REINFORCING STEEL BAR SCHEDULE

SPAN "A"						SPAN "A" (CONT.)						SPAN "B"						SPAN "B" (CONT.)						SPAN "C"						SPAN "C" (CONT.)											
BAR NO.	SIZE	TYPE	LENGTH	WEIGHT		BAR NO.	SIZE	TYPE	LENGTH	WEIGHT		BAR NO.	SIZE	TYPE	LENGTH	WEIGHT		BAR NO.	SIZE	TYPE	LENGTH	WEIGHT		BAR NO.	SIZE	TYPE	LENGTH	WEIGHT		BAR NO.	SIZE	TYPE	LENGTH	WEIGHT		BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	
a1	48	#6	str.	42'-6"	3064	g1	4	#6	2	26'-11"	162	a1	172	#6	str.	42'-6"	10,980	a244	2	#6	str.	28'-1"	84	a1	56	#6	str.	42'-6"	3575	K1	2	#4	str.	25'-4"	34						
a101	4	#6	str.	39'-6"	237	K1	2	#4	str.	25'-4"	34	a170	2	#6	str.	39'-7"	119	a245	2	#6	str.	26'-4"	79	a260	2	#6	str.	39'-7"	119	K2	4	#4	str.	27'-8"	74						
a102	4	#6	str.	37'-9"	227	K2	4	#4	str.	27'-8"	74	a171	2	#6	str.	37'-10"	114	a246	2	#6	str.	24'-8"	74	a261	2	#6	str.	37'-10"	114	K4	6	#4	str.	18'-11"	76						
a103	4	#6	str.	36'-1"	217	K3	1	#6	str.	53'-9"	81	a172	2	#6	str.	36'-2"	109	a247	2	#6	str.	22'-11"	69	a262	2	#6	str.	36'-1"	108	K5	3	#6	str.	18'-11"	85						
a104	4	#6	str.	34'-4"	206	K4	6	#4	str.	18'-11"	76	a173	2	#6	str.	34'-5"	103	a248	2	#6	str.	21'-2"	64	a263	2	#6	str.	34'-4"	103	K6	10	#5	str.	8'-7"	90						
a105	4	#6	str.	32'-8"	196	K5	3	#6	str.	18'-11"	85	a174	2	#6	str.	32'-9"	98	a249	2	#6	str.	19'-5"	58	a264	2	#6	str.	32'-7"	98	K7	8	#5	3	7'-6"	63						
a106	4	#6	str.	30'-11"	186	K6	10	#5	str.	8'-7"	90	a175	2	#6	str.	31'-0"	93	a250	2	#6	str.	17'-9"	53	a265	2	#6	str.	30'-10"	93	K8	4	#5	4	5'-9"	24						
a107	4	#6	str.	29'-3"	176	K7	8	#5	3	7'-6"	63	a176	2	#6	str.	29'-3"	88	a251	2	#6	str.	16'-0"	48	a266	2	#6	str.	29'-1"	87	K9	1	#6	str.	53'-1"	80						
a108	4	#6	str.	27'-7"	166	K8	4	#5	4	5'-9"	24	a177	2	#6	str.	27'-7"	83	a252	2	#6	str.	14'-3"	43	a267	2	#6	str.	27'-5"	82												
a109	4	#6	str.	25'-10"	155	S5	49	#4	5	2'-0"	65	a178	2	#6	str.	25'-10"	78	a253	2	#6	str.	12'-6"	38	a268	2	#6	str.	27'-5"	82	S5	49	#4	5	2'-0"	65						
a110	4	#6	str.	24'-2"	145	S6	40	#4	6	3'-7"	96	a179	2	#6	str.	24'-1"	72	a254	2	#6	str.	10'-10"	33	a269	2	#6	str.	25'-8"	77	S6	40	#4	6	3'-7"	96						
a111	4	#6	str.	22'-5"	135							a180	2	#6	str.	22'-5"	67	a255	2	#6	str.	9'-1"	27	a270	2	#6	str.	23'-11"	72												
a112	4	#6	str.	20'-9"	125							a181	2	#6	str.	20'-8"	62	a256	2	#6	str.	7'-4"	22	a271	2	#6	str.	22'-2"	67												
a113	4	#6	str.	19'-0"	114							a182	2	#6	str.	18'-11"	57	a257	2	#6	str.	5'-7"	17	a272	2	#6	str.	20'-5"	61												
a114	4	#6	str.	17'-4"	104							a183	2	#6	str.	17'-3"	52	a258	2	#6	str.	3'-11"	12	a273	2	#6	str.	16'-8"	56												
a115	4	#6	str.	15'-8"	94							a184	2	#6	str.	15'-6"	47	a259	2	#6	str.	2'-2"	7	a274	2	#6	str.	16'-11"	51												
a116	4	#6	str.	13'-11"	84							a185	2	#6	str.	13'-10"	42							a275	2	#6	str.	15'-2"	46												
a117	4	#6	str.	12'-3"	74							a186	2	#6	str.	12'-1"	36	b4	87	#4	str.	28'-0"	1627	a276	2	#6	str.	13'-5"	40												
a118	4	#6	str.	10'-6"	63							a187	2	#6	str.	10'-4"	31	b5	126	#5	str.	42'-2"	5541	a277	2	#6	str.	11'-8"	35												
a119	4	#6	str.	8'-10"	53							a188	2	#6	str.	8'-8"	26							a278	2	#6	str.	9'-11"	30												
a120	4	#6	str.	7'-2"	43							a189	2	#6	str.	6'-11"	21	g1	8	#6	2	26'-11"	323	a279	2	#6	str.	8'-3"	25												
a121	4	#6	str.	5'-5"	33							a190	2	#6	str.	5'-2"	16	K6	20	#5	str.	8'-7"	179	a280	2	#6	str.	6'-6"	20												
a122	4	#6	str.	3'-9"	23							a191	2	#6	str.	3'-6"	11	K7	16	#5	3	7'-6"	125	a281	2	#6	str.	4'-9"	14												
a123	4	#6	str.	2'-0"	12							a192	2	#6	str.	40'-2"	121	K8	8	#5	4	5'-9"	48	a282	2	#6	str.	3'-0"	9												
a124	2	#6	str.	39'-7"	119							a193	2	#6	str.	38'-6"	116							a283	2	#6	str.	40'-2"	121												
a125	2	#6	str.	37'-11"	114							a194	2	#6	str.	36'-9"	110	S6	80	#4	6	3'-7"	191	a284	2	#6	str.	38'-5"	115												
a126	2	#6	str.	36'-2"	109							a195	2	#6	str.	35'-0"	105							a285	2	#6	str.	36'-8"	110												
a127	2	#6	str.	34'-6"	104							a196	2	#6	str.	33'-4"	100							a286	2	#6	str.	34'-11"	105												
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a129	2	#6	str.	31'-1"	93							a198	2	#6	str.	29'-10"	90							a288	2	#6	str.	31'-6"	95												
a130	2	#6	str.	29'-5"	88							a199	2	#6	str.	29'-5"	88							a289	2	#6	str.	29'-9"	89												
a131	2	#6	str.	27'-8"	83							a200	2	#6	str.	28'-2"	85							a290	2	#6	str.	28'-0"	84												
a132	2	#6	str.	26'-0"	78							a201	2	#6	str.	26'-5"	79							a291	2	#6	str.	26'-3"	79												
a133	2	#6	str.	24'-3"	73							a202	2	#6	str.	24'-8"	74							a292	2	#6	str.	24'-6"	74												
a134	2	#6	str.	22'-7"	68							a203	2	#6	str.	23'-0"	69							a293	2	#6	str.	22'-9"	68												
a135	2	#6	str.	20'-10"	63							a204	2	#6	str.	21'-3"	64							a294	2	#6	str.	21'-0"	63												
a136	2	#6	str.	19'-2"	58							a205	2	#6	str.	19'-7"	59							a295	2	#6	str.	19'-3"	58												
a137	2	#6	str.	17'-5"	52							a206	2	#6	str.	17'-10"	54							a296	2	#6	str.	17'-6"	53												
a138	2	#6	str.	15'-9"	47							a207	2	#6	str.	16'-1"	48							a297	2	#6	str.	15'-9"	47												
a139	2	#6	str.	14'-0"	42							a208	2	#6	str.	14'-5"	43							a298	2	#6	str.	14'-0"	42												
a140	2	#6	str.	12'-4"	37							a209	2	#6	str.	12'-8"	38							a299	2	#6	str.	12'-4"	37												
a141	2	#6	str.	10'-7"	32							a210	2	#6	str.	10'-11"	33							a300	2	#6	str.	10'-7"	32												
a142	2	#6	str.	8'-11"	27							a211	2	#6	str.	9'-3"	28							a301	2	#6	str.	8'-10"	27												
a143	2	#6	str.	7'-2"	22							a212	2	#6	str.	7'-6"	23							a302	2	#6	str.	8'-10"	27												
a144	2	#6	str.	5'-6"	17							a213	2	#6	str.	7'-6"	23							a303	2	#6	str.	7'-1"	21												
a145	2	#6	str.	3'-9"	11							a214	2	#6	str.	5'-10"	18							a304	4	#6	str.	7'-1"	21												
a146	2	#6	str.	2'-1"	6							a215	2	#6	str.	4'-1"	12							a305	4	#6	str.	5'-4"	16												
a147	2	#6	str.	40'-2"	121							a216	2	#6	str.	2'-4"	7							a306	4	#6	str.	3'-7"	11												
a148	2	#6	str.	38'-6"	116							a217	2	#6	str.	39'-7"	119							a307	4	#6	str.	3'-7"	11												
a149	2	#6	str.	36'-9"	110							a218	2	#6	str.	37'-10"	114							a308	4	#6	str.	39'-5"	237												
a150	2	#6	str.	35'-1"	105							a219	2	#6	str.	36'-2"	109							a309	4	#6	str.	37'-8"	226												
a151	2	#6	str.	33'-5"	100							a220	2	#6	str.	34'-5"	103							a310	4	#6	str.	35'-11"	216												
a152	2	#6	str.	31'-8"	95							a221	2	#6	str.	32'-8"	98							a																	

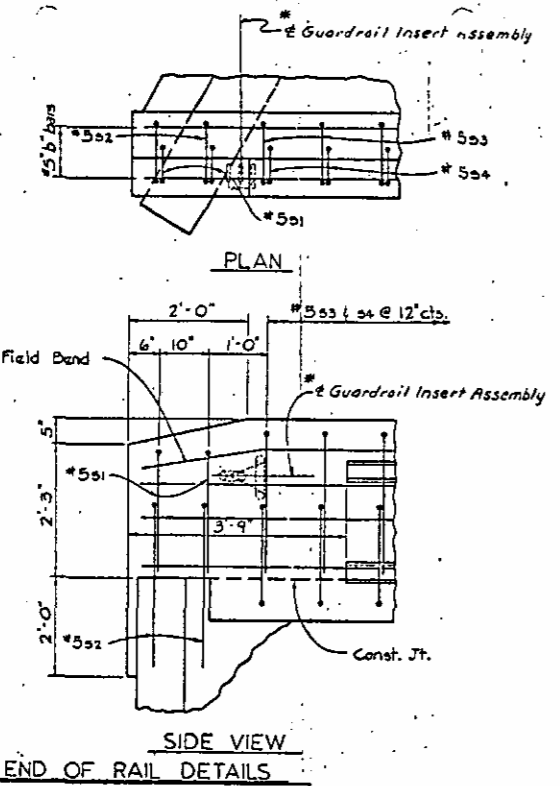
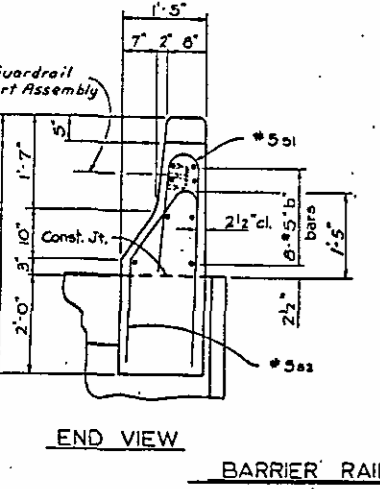
CONCRETE BARRIER RAIL QUANTITIES					
BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	
b10	32	#5	str.	22'-4"	745
b11	24	#5	str.	27'-5"	686
b12	24	#5	str.	27'-4"	684
b13	32	#5	str.	23'-5"	782
S1	8	#5	7	4'-6"	38
S2	8	#5	8	6'-10"	57
S3	346	#5	9	4'-10"	1744
S4	346	#5	7	5'-1"	1834
Reinforcing Steel Lbs.					6570
CLASS AA CONCRETE					
Span 'A'					8.2 C.Y.
Span 'B'					15.0 C.Y.
Span 'C'					8.6 C.Y.
Total					31.8 C.Y.
Total Lin. Ft					353.30



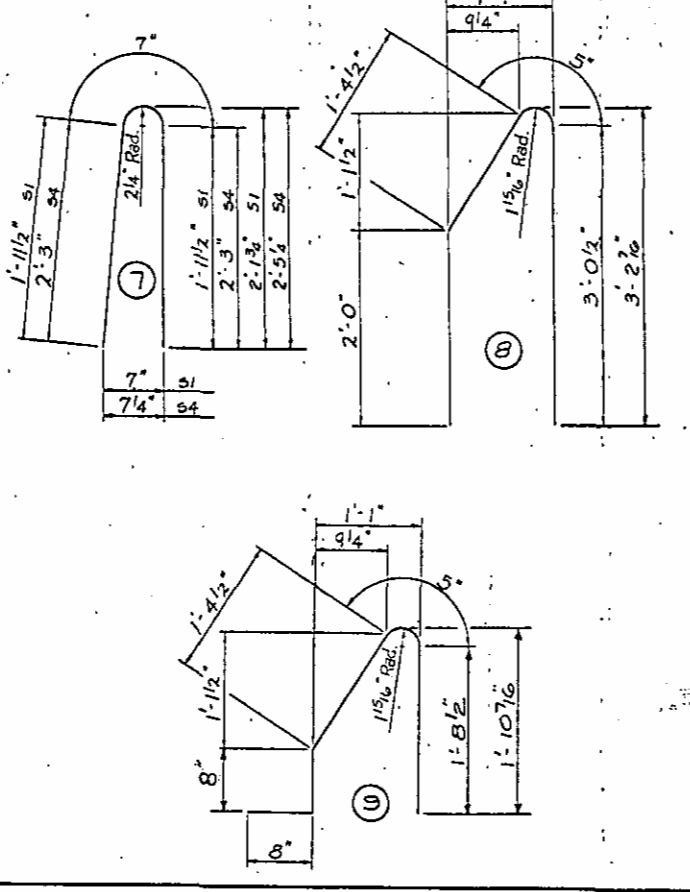
DIVISION OF CLASS AA CONCRETE			
SPAN 'A'	Cu. Yds.	65.5	
SPAN 'B'	Cu. Yds.	107.4	
SPAN 'C'	Cu. Yds.	68.2	
TOTAL	Cu. Yds.	241.1	

SUPERSTRUCTURE TOTAL QUANTITIES			
Class AA Concrete	241.1	C.Y.	
Reinforcing Steel	52,640	Lbs.	
Structural Steel	164,400	Approx. Lbs.	
Linseed Oil Concrete Protection	19	Gal.	
Expansion Joint Seal	Lump Sum		
Concrete Barrier Rail *	353.30	Lin. Ft.	

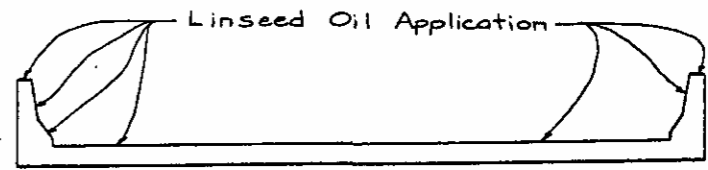
*See Standard Curved End Block and Guardrail Anchorage Sheet for location and details.



All bar dimensions are out to out;
All radii are to outside of bar.



*For Method of Payment for Concrete Barrier Rail, See Special Provisions.

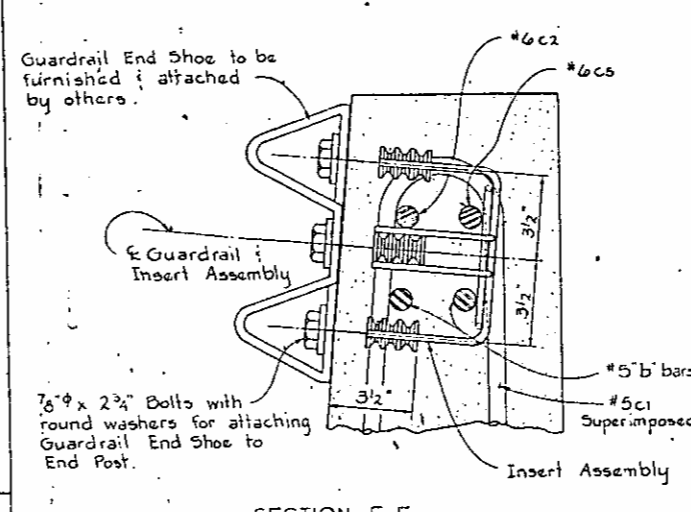
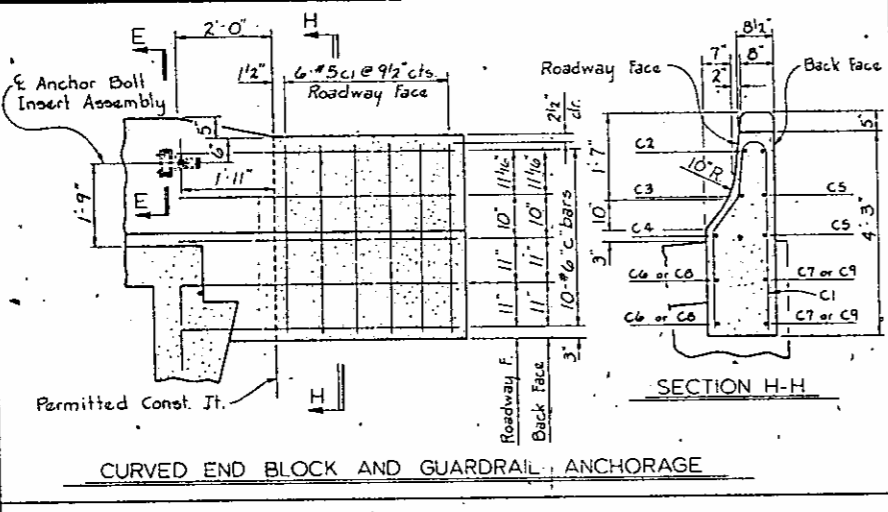
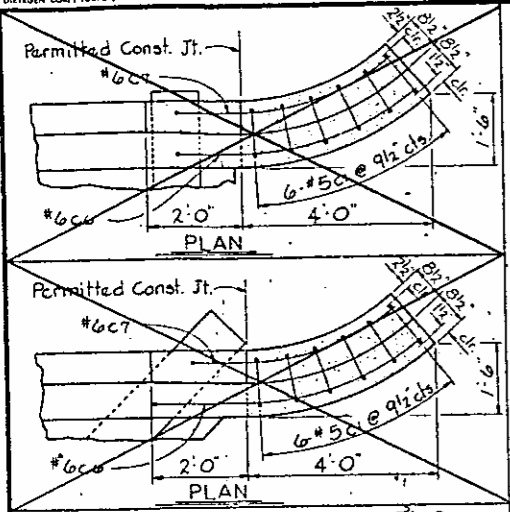


LINSEED OIL APPLICATION DETAIL

PROJECT No. 8.1743606
 FORSYTH COUNTY
 STATION: 115 + 50.22 - L. Rt. Ln.
 Sheet 2 of 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
BILL OF MATERIAL					
Sept. 1977					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		
					SHEET NO. 5-48
					TOTAL SHEETS 149

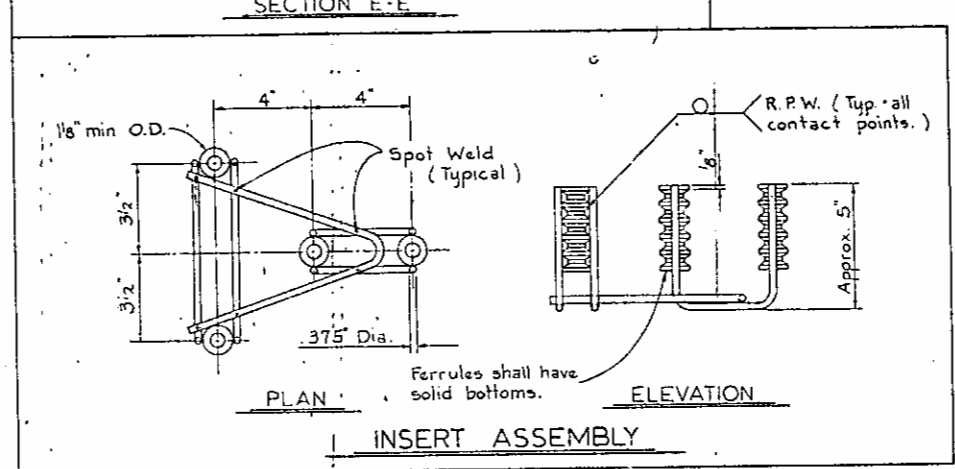
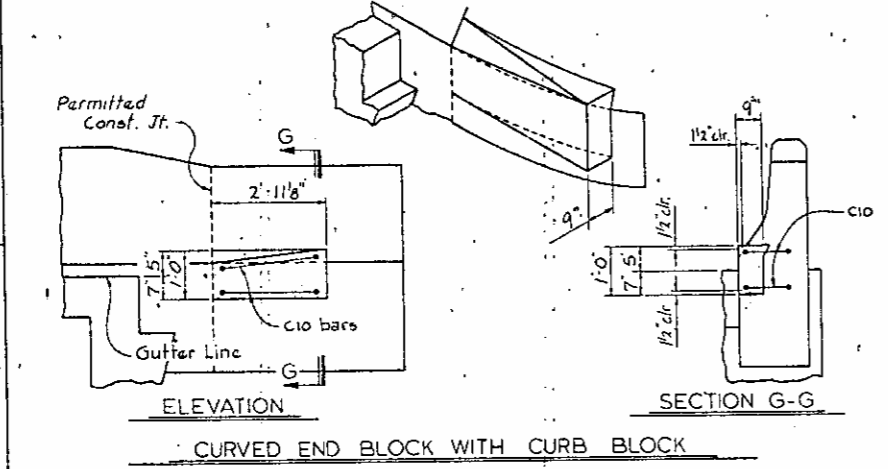
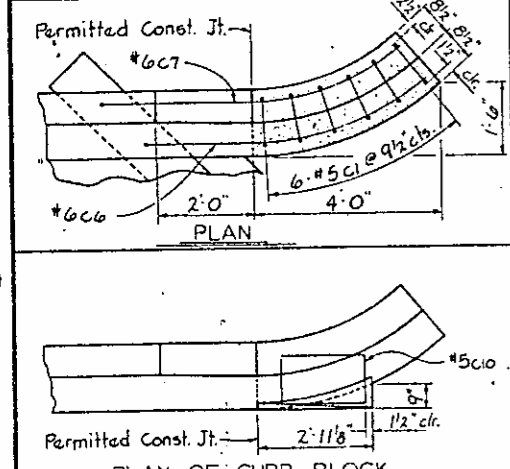
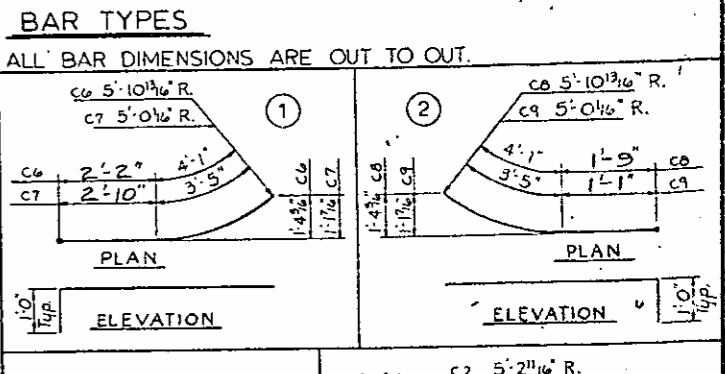
DRAWN BY: J. E. Coops DATE: 9-7-77
 CHECKED BY: R. J. Moore DATE: 9-27-77



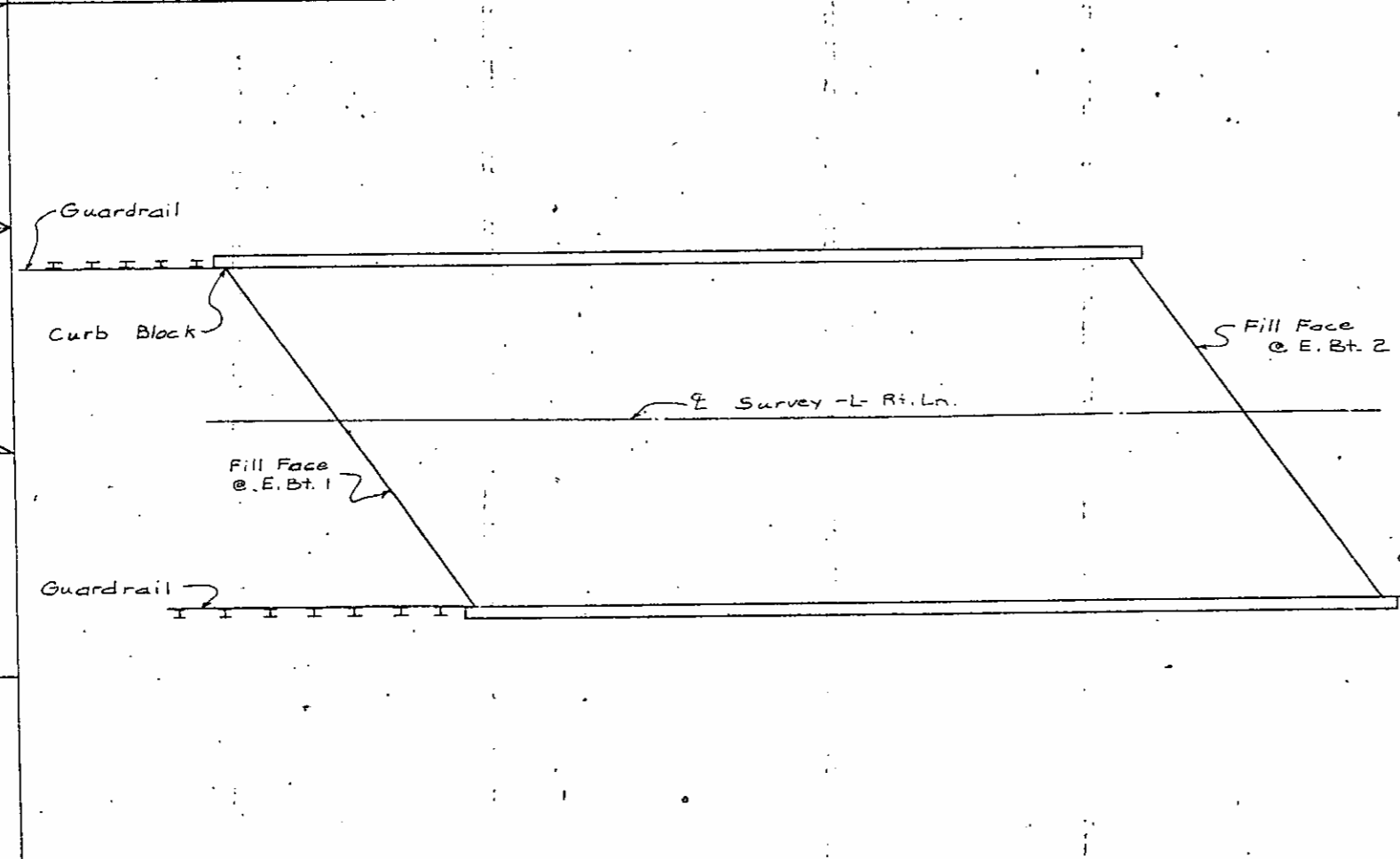
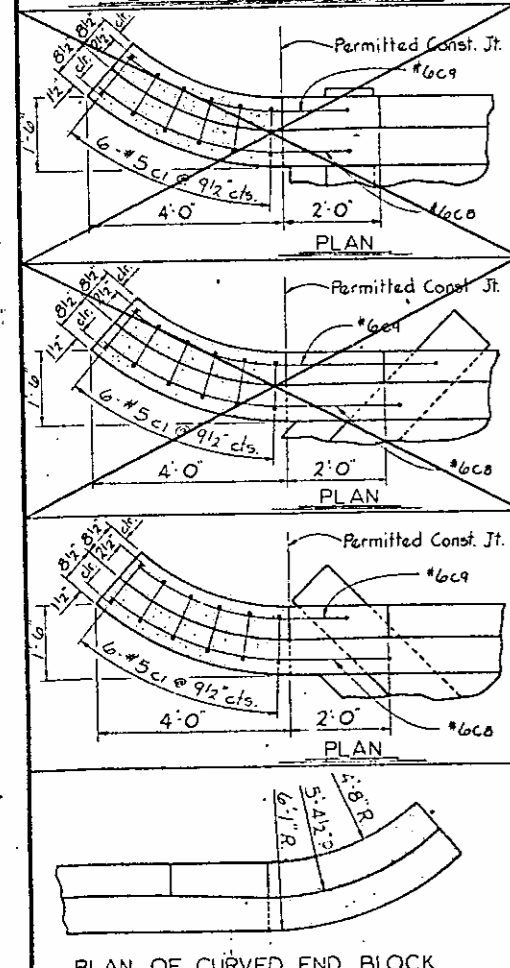
BILL OF MATERIAL FOR FOUR CURVED END BLOCKS

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
c1	24	#5	3	8'-2"	204
c2	4	#6	4	5'-7"	34
c3	4	#6	4	5'-9"	35
c4	4	#6	4	6'-1"	37
c5	12	#6	4	5'-5"	98
c6	4	#6	1	7'-3"	44
c7	4	#6	1	7'-3"	44
c8	4	#6	2	6'-10"	41
c9	4	#6	2	5'-6"	33

Reinforcing Steel Lbs. 570
Class A-A Concrete Cu.Yds. 2.9



- NOTES**
- THE 4 - BOLT INSERT ASSEMBLY UNIT SHALL CONSIST OF THE FOLLOWING COMPONENTS:
 - FERRULES SHALL BE MADE FROM STEEL MEETING THE REQUIREMENTS OF A.S.T.M. A108, GRADE 12L14.
 - 4 - 7/8"Ø x 2 3/4" BOLTS WITH WASHERS, BOLTS SHALL CONFORM TO THE REQUIREMENTS OF A.S.T.M. A307. BOLTS AND WASHERS SHALL BE GALVANIZED. (AT THE CONTRACTOR'S OPTION, STAINLESS STEEL BOLTS AND WASHERS MAY BE USED AS AN ALTERNATE FOR THE 7/8"Ø x 2 3/4" GALVANIZED BOLTS AND WASHERS. THEY SHALL CONFORM TO OR EXCEED THE MECHANICAL REQUIREMENTS OF A.S.T.M. A307. THE USE OF THIS ALTERNATE SHALL BE APPROVED BY THE ENGINEER.)
 - WIRE STRUTS SHOWN IN THE INSERT ASSEMBLY DETAIL ARE MINIMUM ALLOWABLE SIZE AND SHALL HAVE A MINIMUM TENSILE STRENGTH OF 100,000 P.S.I.
 - THE INSERT ASSEMBLY WITH BOLTS SHALL BE ASSEMBLED IN THE SHOP. BOLT THREADS MAY BE RECURT AS NECESSARY TO INSURE FIT.
 - THE COST OF THE 4-BOLT INSERT ASSEMBLY UNIT COMPLETE IN PLACE, SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR CLASS "AA" CONCRETE.
 - THE 4 - BOLT INSERT ASSEMBLY UNIT IS REQUIRED AT ALL POINTS WHERE APPROACH GUARDRAIL IS TO BE ATTACHED TO THE END POSTS. FOR POINTS OF ATTACHMENT, SEE PLANS.
 - CURVED END BLOCKS ARE REQUIRED AT ALL END POSTS.
 - THE COST OF THE EXCAVATION AND BACKFILL FOR THE CURVED END BLOCKS SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR CLASS "AA" CONCRETE.



BILL OF MATERIAL FOR CURB BLOCK

	Reinforcing Steel - Lbs.					
	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
1 Block	c10	2	#5	5	6'-10"	14
2 Blocks	c10	4	#5	5	6'-10"	29
3 Blocks	c10	6	#5	5	6'-10"	43
4 Blocks	c10	8	#5	5	6'-10"	57

TOTAL BILL OF MATERIAL

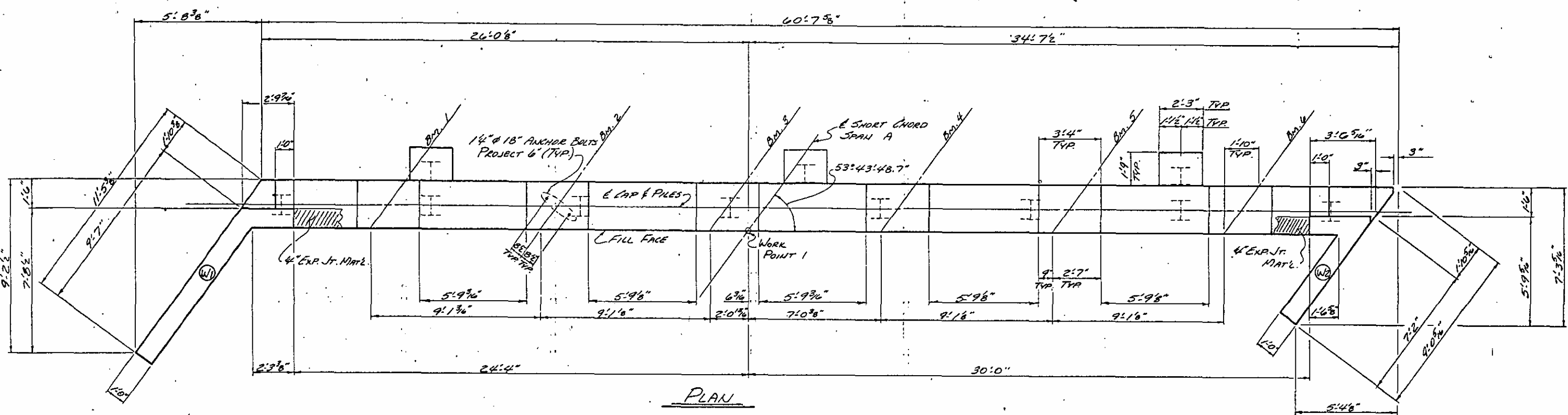
Reinforcing Steel - Lbs. - 584
Class "A A" Concrete - Cu. Yds. - 2.9

PROJECT No. 81743606
FORSYTH COUNTY
STATION: 115+50.22-L Rt. Ln.

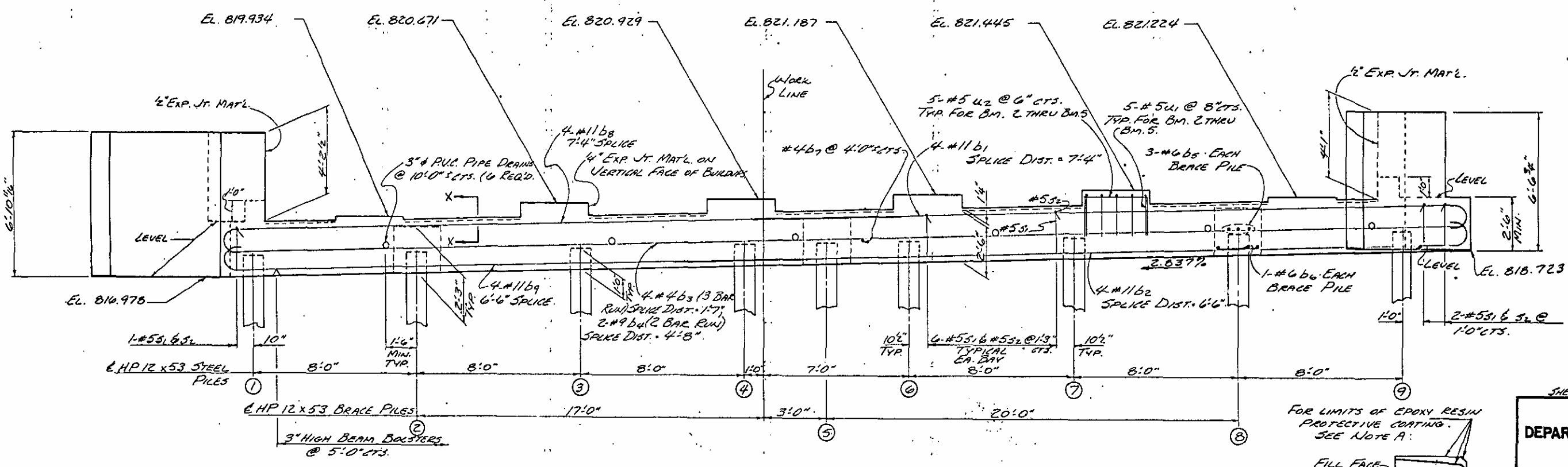
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD
CURVED END BLOCK, GUARDRAIL ANCHORAGE, AND CURB BLOCK
JUNE FOR BARRIER RAIL 1976

REVISIONS						SHEET NO. 5-49
NO.	BY	DATE	NO.	BY	DATE	
1			2			TOTAL SHEETS 149
2			4			



TOP OF PILE ELEVATION	
1	818.039
2	818.265
3	818.492
4	818.719
5	818.833
6	818.946
7	819.173
8	819.400
9	819.627



PROJECT No. 8.17A-3606
 FORSYTH COUNTY
 STATION: 115+50.22-L
 SHEET 1 OF 2 RT. LN.

STATE OF NORTH CAROLINA		DEPARTMENT OF TRANSPORTATION		RALEIGH	
END BENT 1					
JULY 1977					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			2		
2			4		
SHEET NO. S-50					TOTAL SHEETS 149

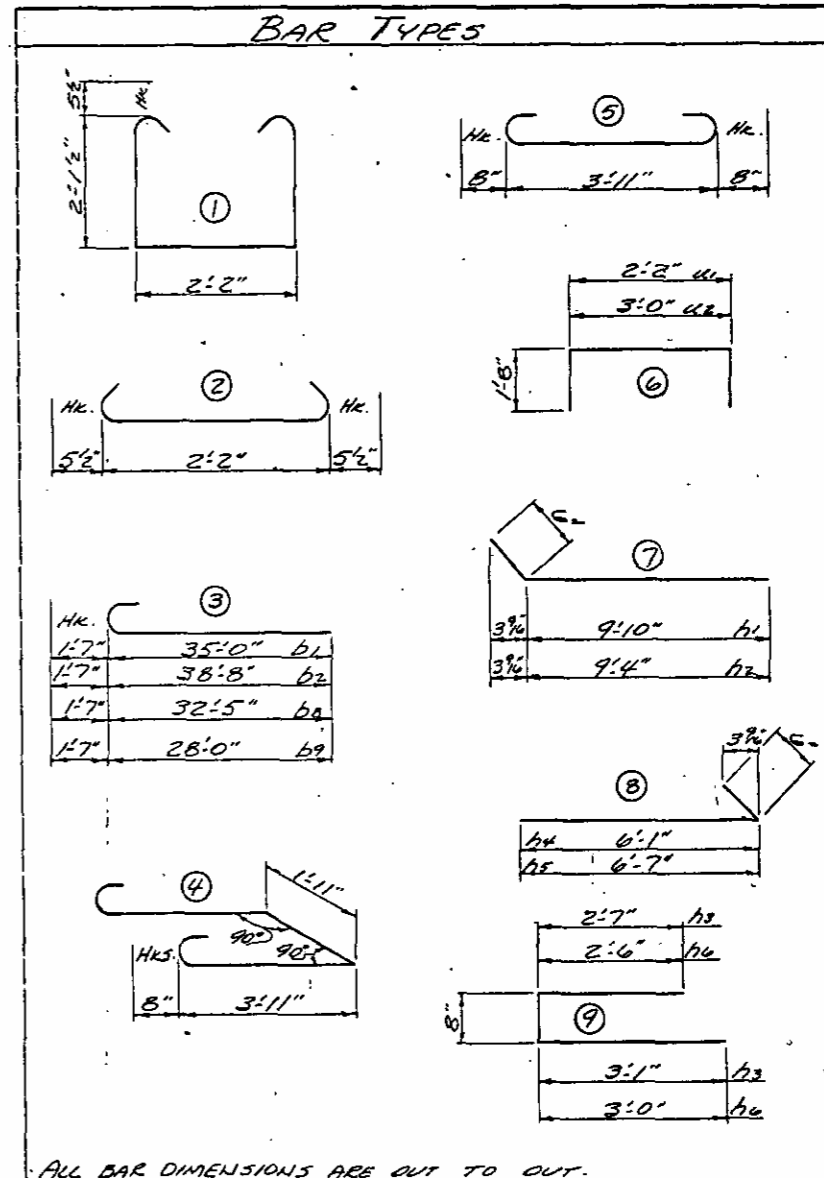
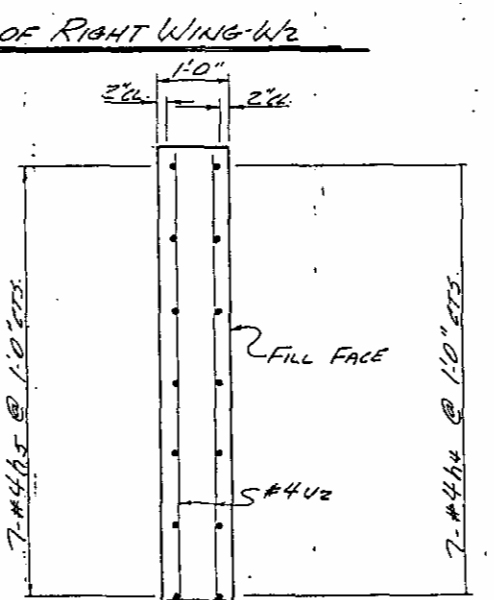
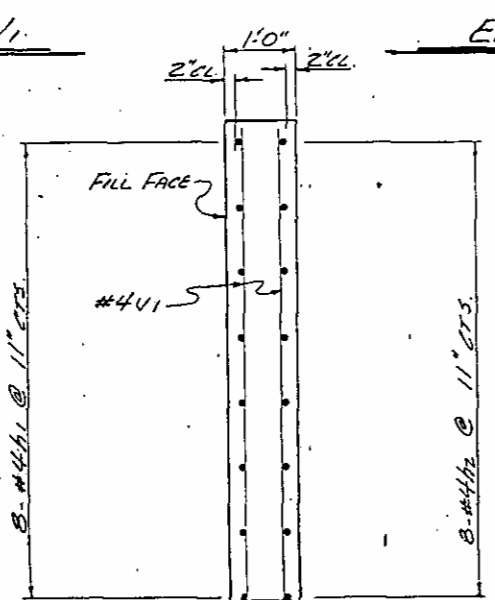
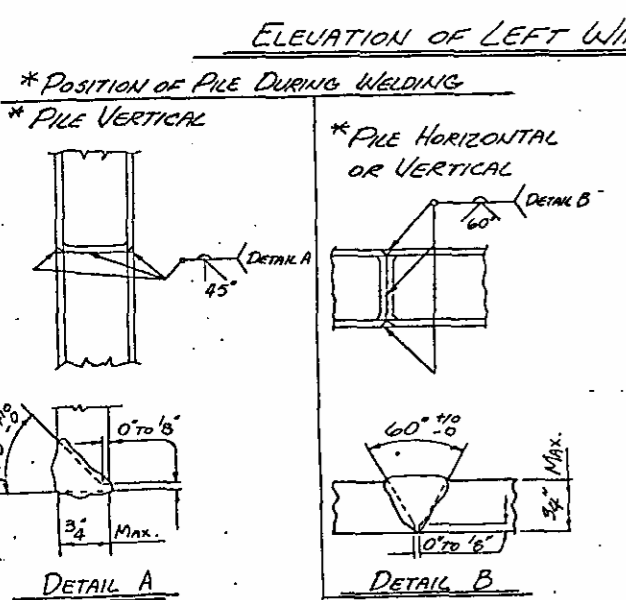
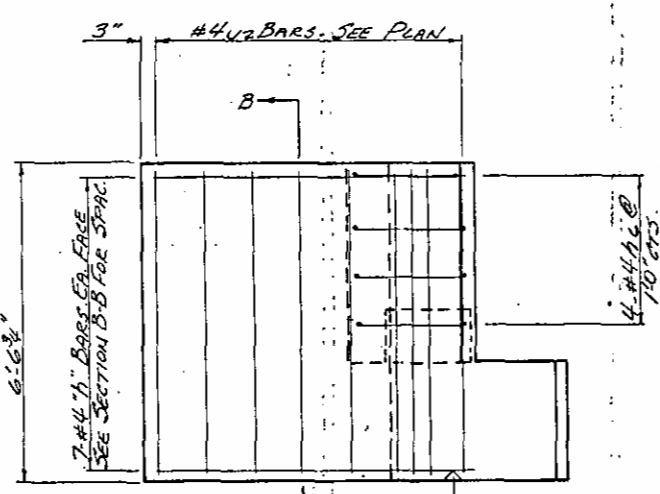
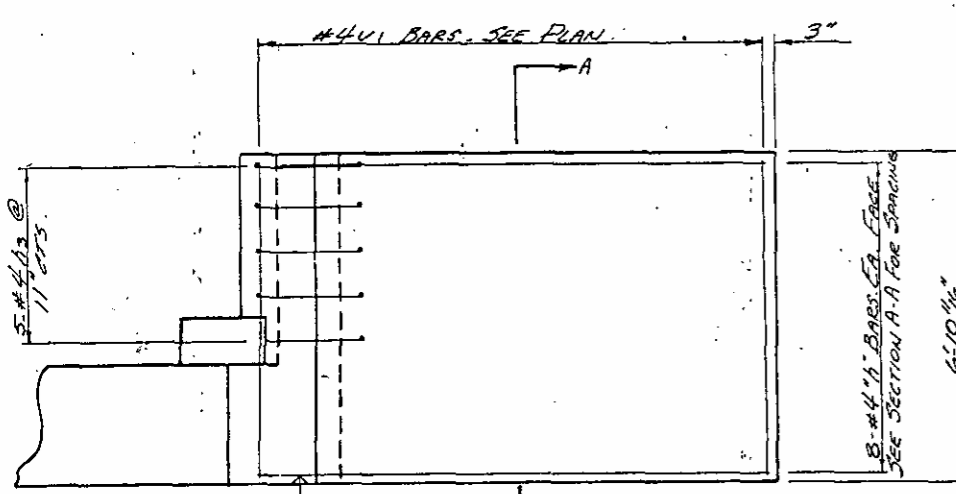
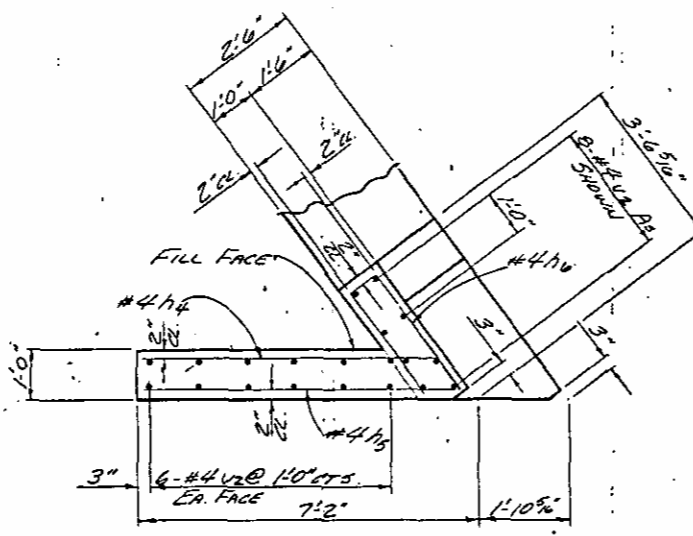
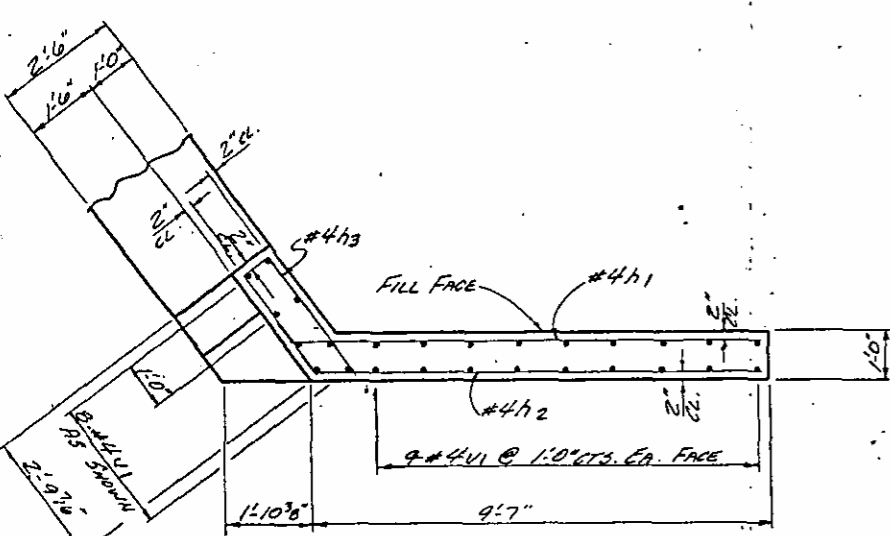
NOTE: THE TOP SURFACE AREAS OF THE END BENT 1 CAP SHALL BE CURED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS EXCEPT THE MEMBRANE CURING COMPOUND METHOD SHALL NOT BE USED.

FOR PIPE DRAIN DETAILS SEE E. 10 BENT 2, SHEET 2 OF 2.

FOR NOTES SEE END BENT 2, SHEET 1 OF 2. PILES FOR END BENT 1 TO BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 29 TONS EACH.

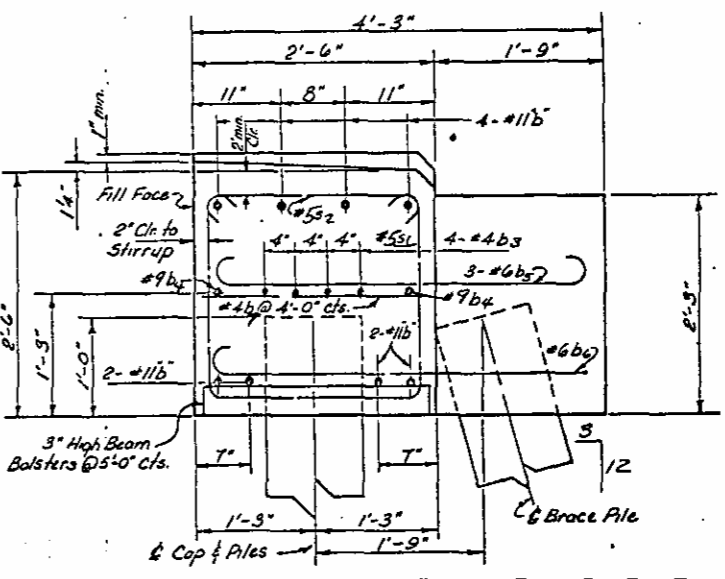
NOTE A: Coat all surface areas of the top of the cap including chamfers with epoxy resin protective coating. Do not coat area under elastomeric bearings.

DRAWN BY: A. L. BENSON DATE: JULY 1977
 CHECKED BY: R. J. MOORE DATE: 9-28-77



BILL OF MATERIAL					
FOR END BENT 1					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
b1	4	#11	3	36'-7"	777
b2	4	#11	3	40'-3"	855
b3	12	#4	STR	21'-1"	169
b4	4	#9	STR	32'-5"	441
b5	9	#6	5	5'-3"	71
b6	3	#6	4	11'-1"	50
b7	15	#4	STR	2'-2"	22
b8	4	#11	3	34'-0"	723
b9	4	#11	3	29'-7"	629
s1	45	#5	1	7'-4"	344
s2	45	#5	2	3'-1"	145
u1	20	#5	6	5'-6"	115
u2	20	#5	6	6'-4"	132
v1	26	#4	STR	6'-6"	113
v2	20	#4	STR	6'-2"	82
h1	8	#4	7	10'-4"	55
h2	8	#4	7	9'-10"	53
h3	5	#4	9	6'-4"	21
h4	7	#4	8	6'-7"	31
h5	7	#4	8	7'-1"	33
h6	4	#4	9	6'-2"	16

REINFORCING STEEL = 4877 LBS
 CLASS "A" CONCRETE = 20.9 C.Y.
 HP 12 x 53 STEEL PILES
 NO. 11 L.W.F. = 462
 EPOXY RESIN PROTECTIVE COATING FOR CONCRETE = 130 #/sq



PROJECT NO. 8.1743606
 FORSYTH COUNTY
 STATION: 115+50.22-L-8
 SHEET 2 OF 2 R.T.L.N.

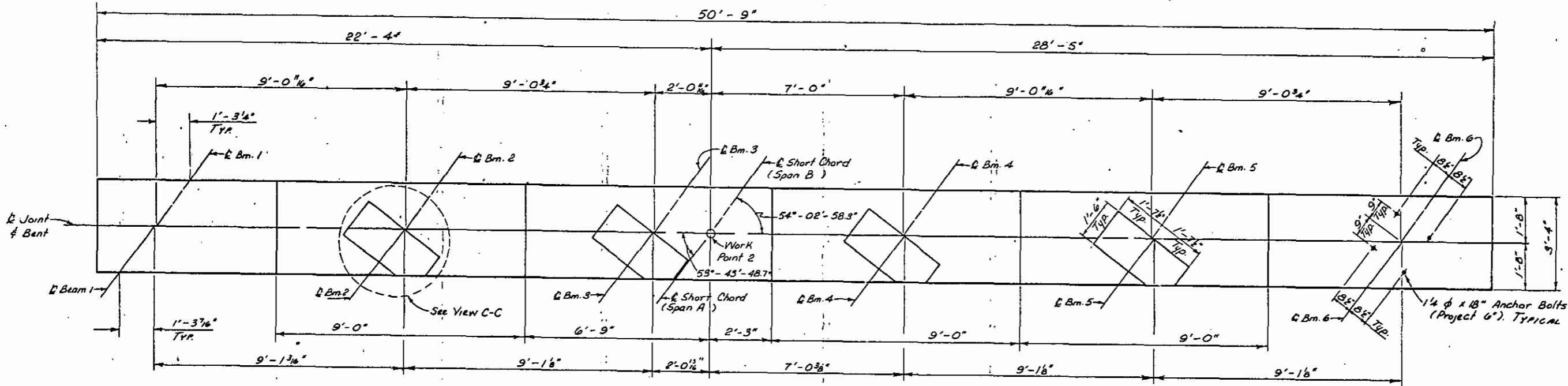
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

END BENT 1

JULY 1977

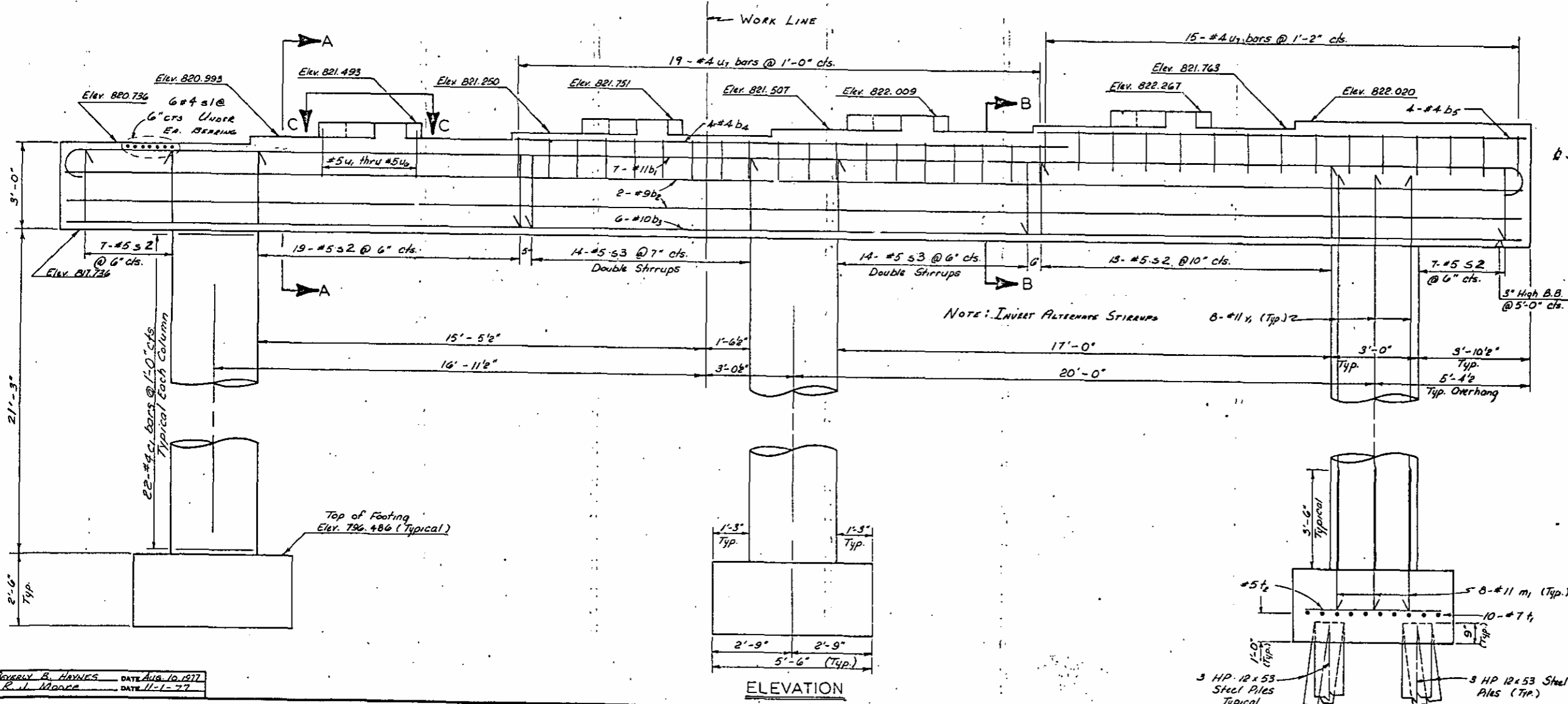
REVISIONS					SHEET NO. 5-51
NO.	BY	DATE	NO.	BY	
1			2		TOTAL SHEETS 149
2			4		

DRAWN BY G.L. BELOUS
 CHECKED BY R.J. MOORE
 DATE 7-26-77

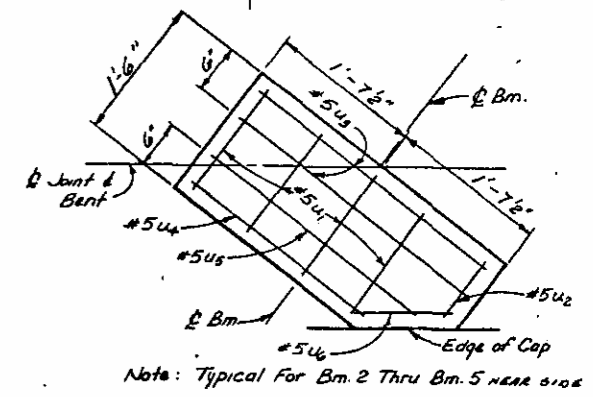


PLAN

NOTES
 Reinforcing steel in cap may be shifted as necessary to clear anchor bolts.
 Hooks on "v" bars may be turned as necessary for placing reinforcing steel.
 Piles to be driven to a minimum bearing capacity of 36 tons each. For pile splice detail see End Bent 1, sheet 2 of 2.
 Coat all surface areas of the top of the cap including chamfers with epoxy resin protective coating. See Special Provisions. Do not coat the area under elastomeric bearings. The top surface areas of the cap shall be cured in accordance with the Standard Specifications except the Membrane Curing Compound Method, which shall not be used.



ELEVATION

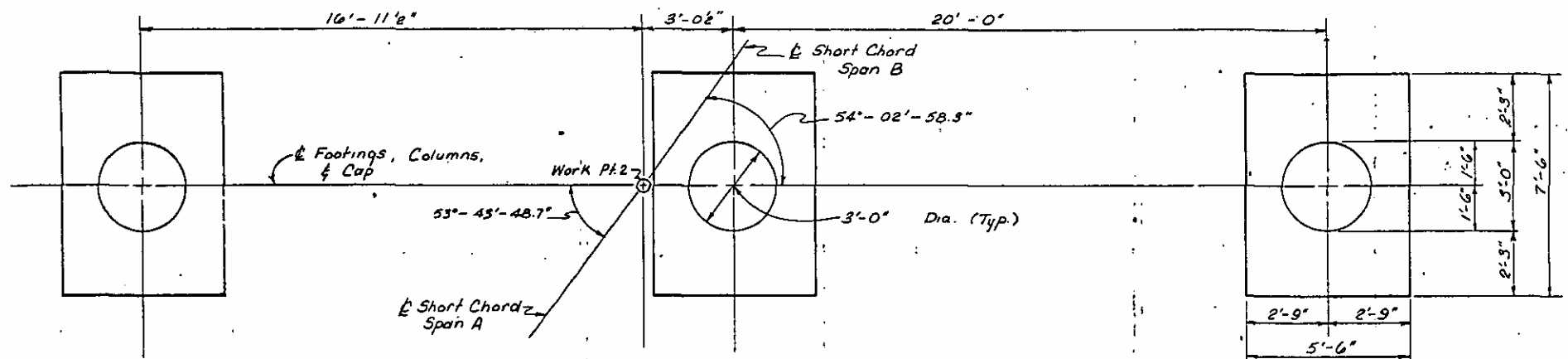


VIEW C-C

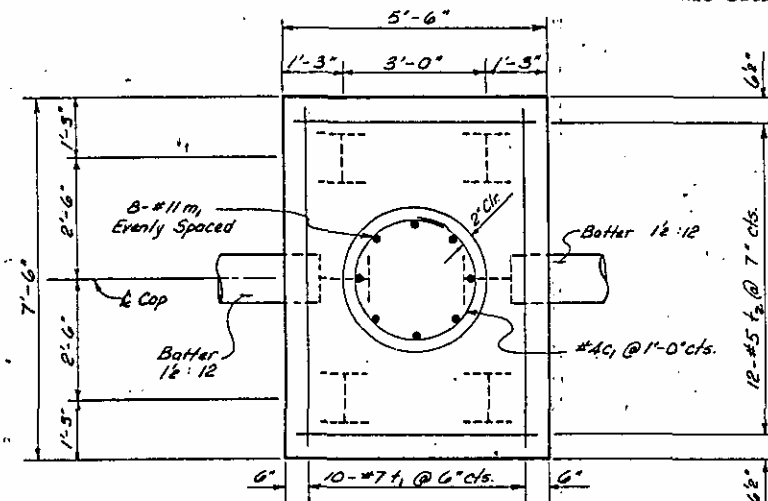
PROJECT No. 81743606
 FORSYTH COUNTY
 STATION: 115+50.22 -L-RTL
 Sheet 1 of 2

STATE OF NORTH CAROLINA					
DEPARTMENT OF TRANSPORTATION					
RALEIGH					
BENT NO. 1					
AUGUST, 1977					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			2		
2			4		
SHEET NO. 5-52					TOTAL SHEETS 149

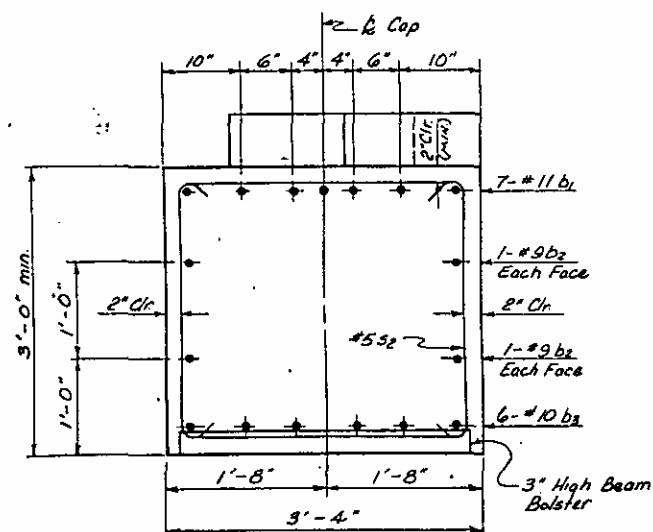
DRAWN BY ROBERT B. HAYNES DATE AUG. 10, 1977
 CHECKED BY R. L. MOORE DATE 11-1-77



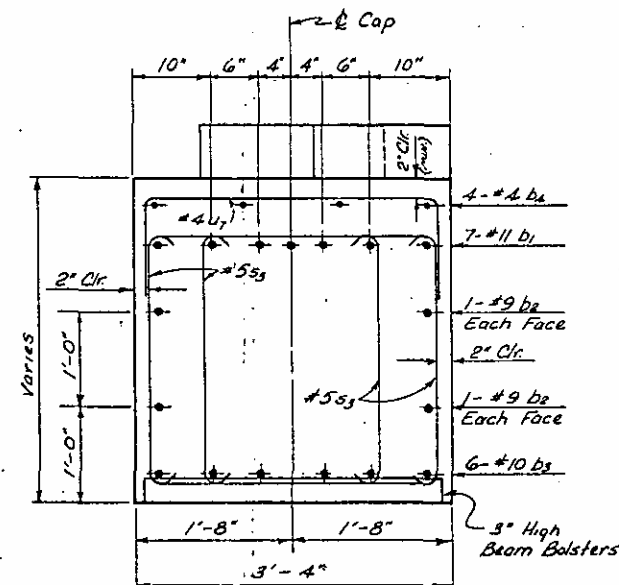
FOOTING LAYOUT
DETAILS SHOWN TYPICAL EACH FOOTING



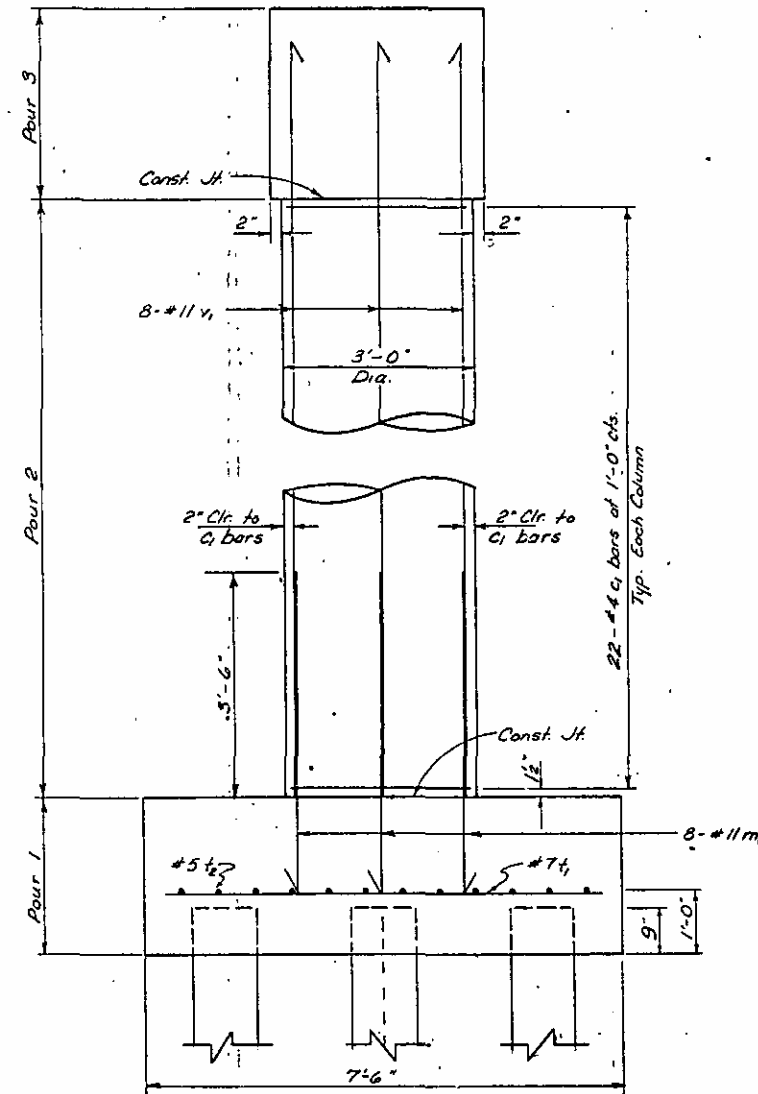
TYPICAL FILE FOOTING



SECTION A-A



SECTION B-B



END ELEVATION

BAR TYPES		BILL OF MATERIAL				
		BENT NO. 1				
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	
b ₁	7	#11	2	53'-5"	1987	
b ₂	4	#9	Str.	50'-3"	683	
b ₃	6	#10	Str.	50'-3"	1291	
b ₄	4	#4	Str.	19'-4"	52	
b ₅	4	#4	Str.	16'-10"	45	
s ₁	36	#4	3	3'-9"	90	
s ₂	46	#5	5	9'-2"	440	
s ₃	28	#5	5	8'-8"	253	
t ₁	30	#7	Str.	7'-0"	429	
t ₂	36	#5	Str.	5'-0"	188	
v ₁	24	#11	4	25'-4"	3230	
m ₁	24	#11	4	6'-7"	839	
c ₁	66	#4	1	9'-8"	426	
u ₁	16	#5	6	4'-4"	72	
u ₂	4	#5	6	3'-11"	16	
u ₃	8	#5	6	6'-11"	58	
u ₄	4	#5	6	6'-3"	26	
u ₅	4	#5	6	6'-9"	28	
u ₆	4	#5	6	4'-9"	20	
u ₇	34	#4	6	6'-2"	140	
Reinforcing Steel = 10,319 LBS.						
Epoxy Resin Protective Coating for Concrete = 156 sq ft.						
Class A Concrete:						
Footings: Pour 1 = 11.5 cu. yds.						
Columns: Pour 2 = 16.7 cu. yds.						
Cap: Pour 3 = 29.3 cu. yds.						
TOTAL = 57.5 cu. yds.						
HD 12x53 Steel Piles						
No. = 18 Lvs. Fr. = 630						
Foundation Excavation = 60 cu. yds.						

All bar dimensions are out to out.

PROJECT No. 8.1743606
 FORSYTH COUNTY
 STATION: 115+50.22 - L-RTL N

Sheet 2 of 2

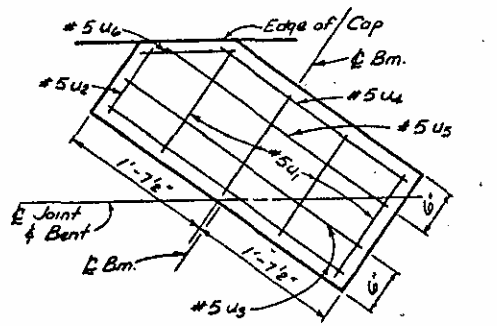
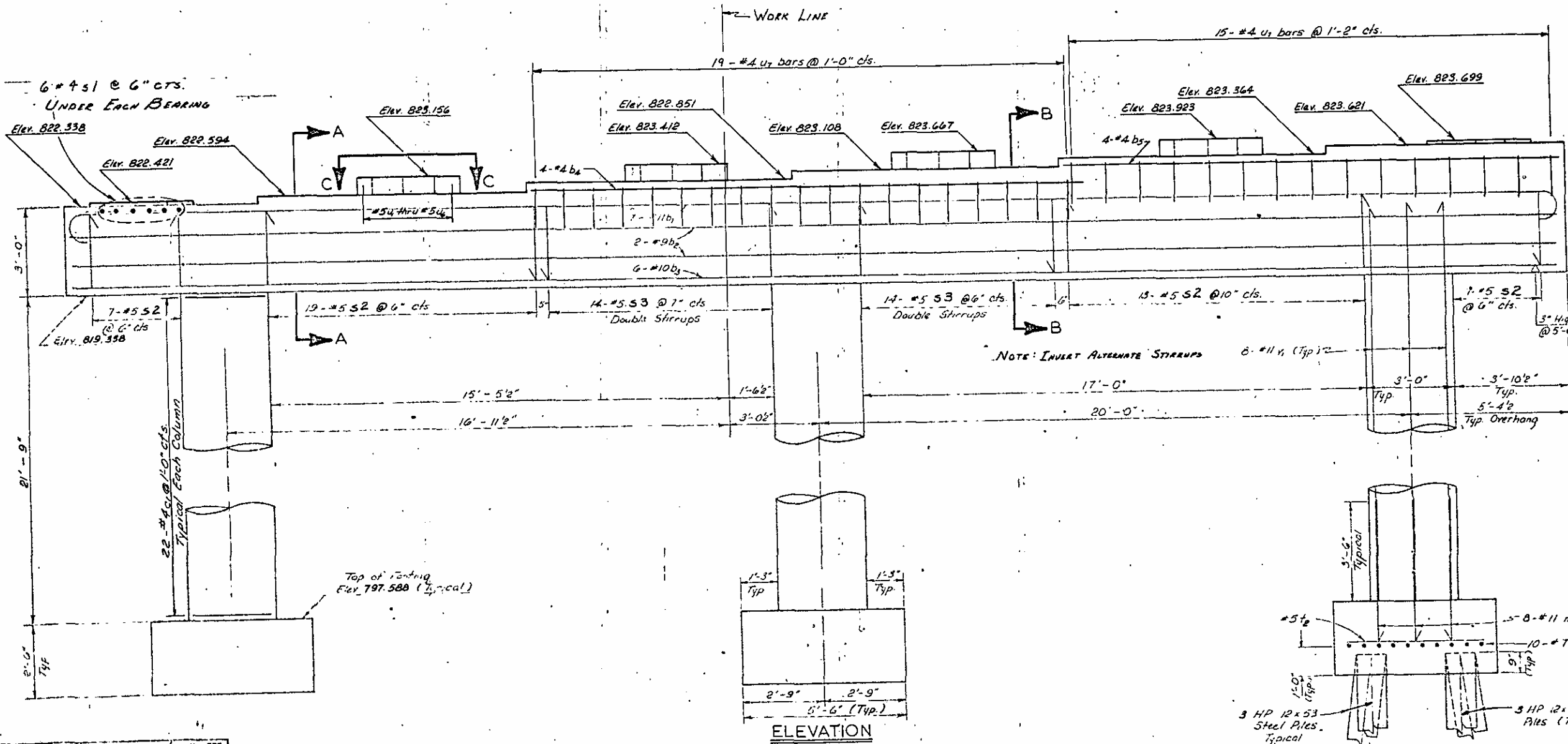
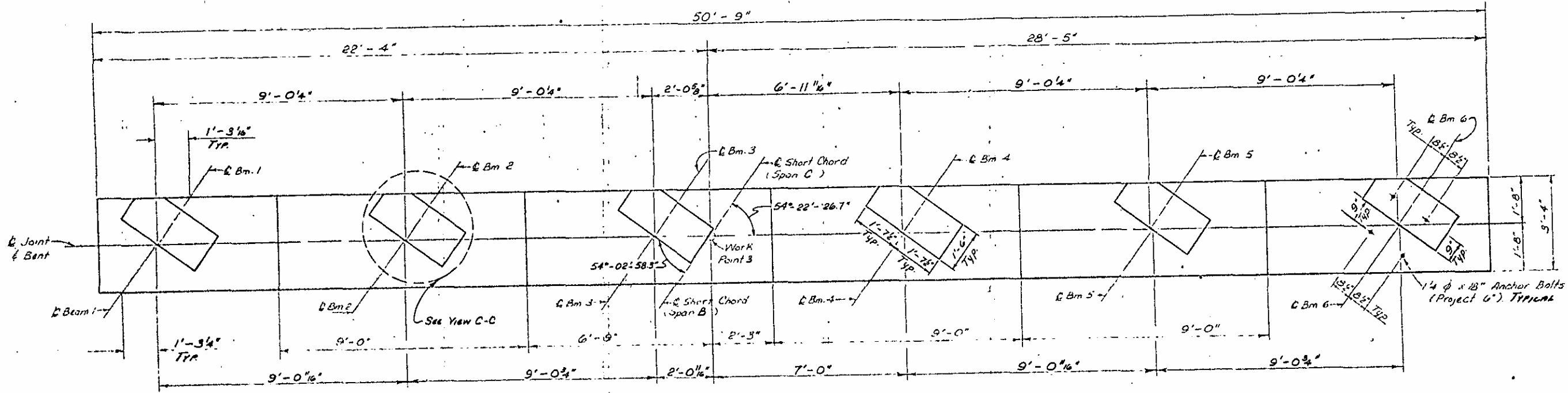
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 BENT NO. 1

AUGUST, 1977

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	5-53
1			3			TOTAL SHEETS
2			4			149

NOTES

For notes see notes for Bent 1, page 1 of 2.



PROJECT No. 81743606

FORSYTH COUNTY

STATION 115+50.22 -L-RT LN

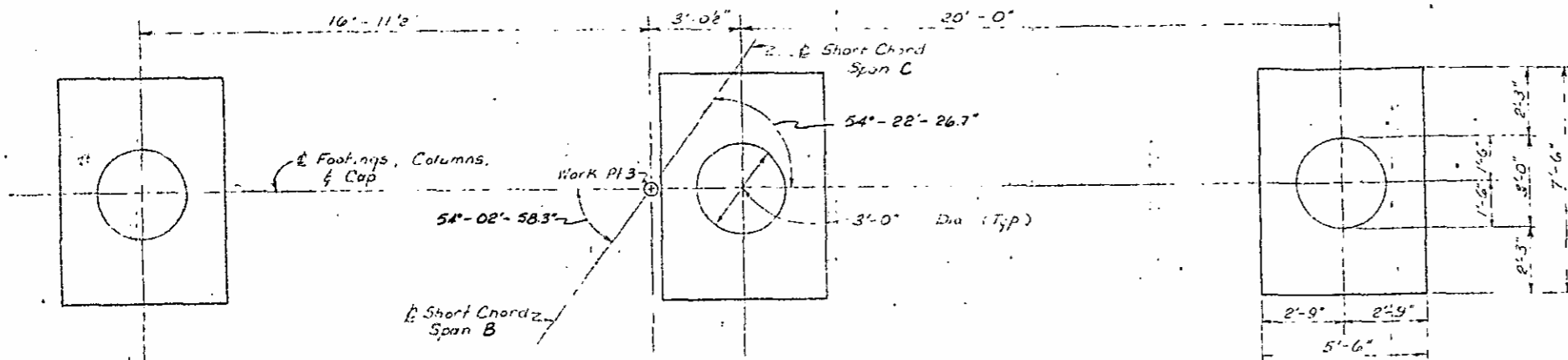
Sheet 1 of 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

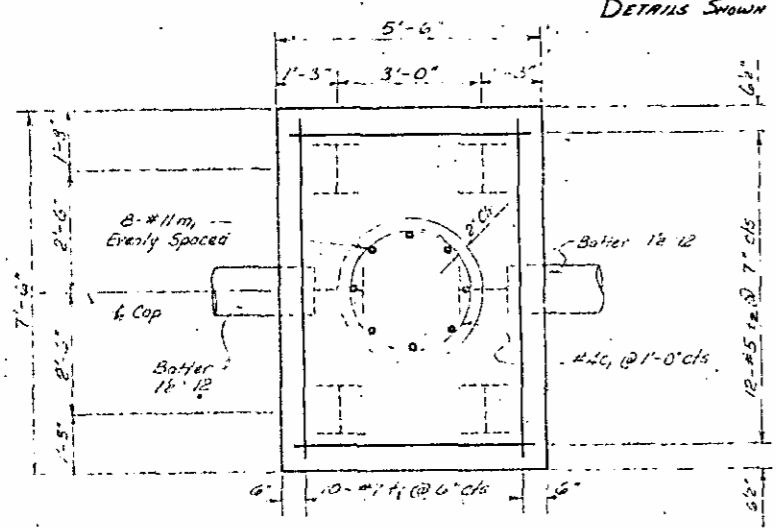
BENT NO. 2

AUGUST, 1977

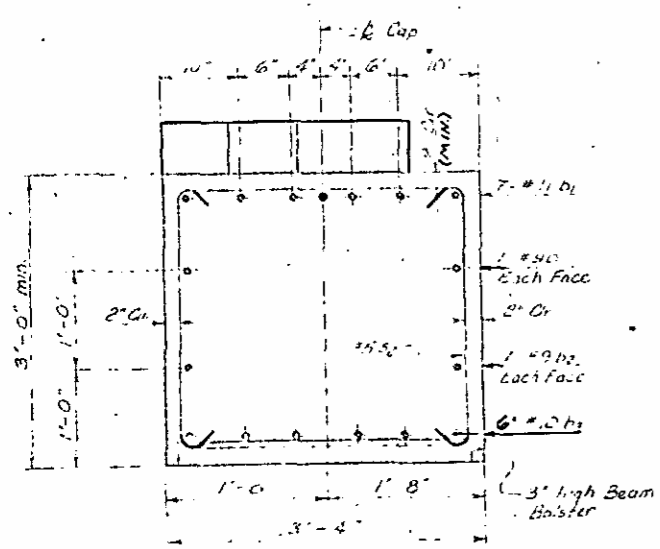
NO.	BY	DATE	NO.	BY	DATE
1			2		
3			4		



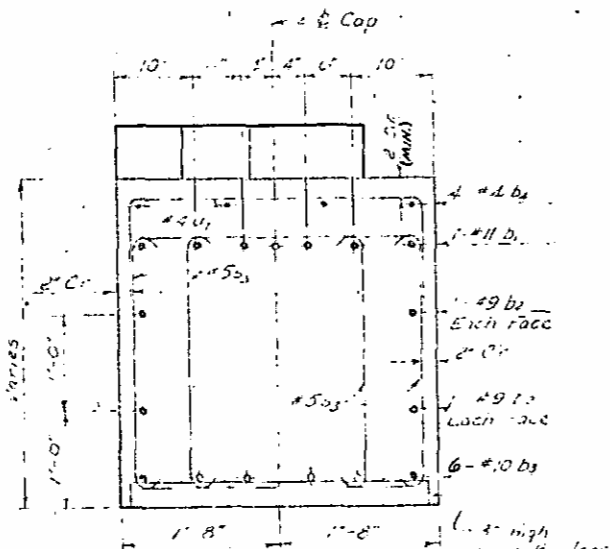
FOOTING LAYOUT
DETAILS SHOWN TYPICAL EACH FOOTING



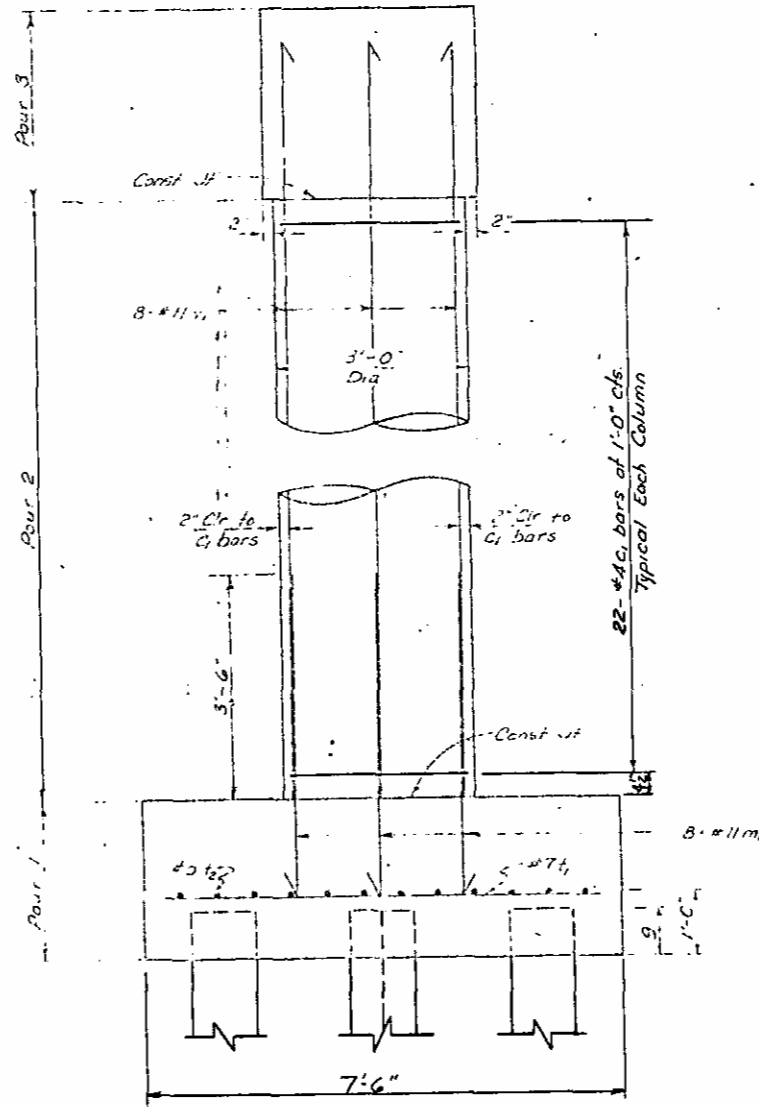
TYPICAL PILE FOOTING



SECTION A-A



SECTION B-B



END ELEVATION

BAR TYPES				BILL OF MATERIAL			
				BENT NO. 2			
BAR	NO	SIZE	TYPE	LENGTH	WTGHT		
b1	7	#11	B	53'-5"	1987		
b2	4	#9	Str.	50'-3"	683		
b3	6	#10	Str.	50'-3"	1297		
b4	4	#4	Str.	19'-4"	52		
b5	4	#4	Str.	16'-10"	45		
s1	36	#4	S	3'-9"	90		
s2	46	#5	S	7'-2"	490		
s3	28	#5	S	8'-8"	253		
t1	30	#7	Str.	7'-0"	429		
t2	36	#5	Str.	5'-0"	183		
y1	24	#11	A	25'-10"	3294		
m1	24	#11	A	6'-7"	835		
c1	66	#4	I	9'-8"	426		
u1	16	#5	G	4'-4"	72		
u2	4	#5	G	3'-11"	16		
u3	8	#5	G	6'-11"	58		
u4	4	#5	G	6'-3"	20		
u5	4	#5	G	6'-9"	28		
u6	4	#5	G	4'-9"	20		
u7	34	#4	G	6'-2"	140		

REINFORCING STEEL = 10,383 LBS.
Epoxy Resin Protective Coating for Concrete = 156 sq. Ft.

Class A Concrete
Footings: Pour 1 = 11.5 cu. yds.
Columns: Pour 2 = 17.1 cu. yds.
Cap: Pour 3 = 23.4 cu. yds.
TOTAL = 52.0 cu. yds.

HP 12 x 53 Steel Piles
No. = 18 Lin. Ft. = 558

Foundation Excavation = 80 cu. yds.

All bar dimensions are out to out

PROJECT NO. 81743606
FORSYTH COUNTY
STATION: 115+50.22 -L-RT.LN.
Sheet 2 of 2.

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

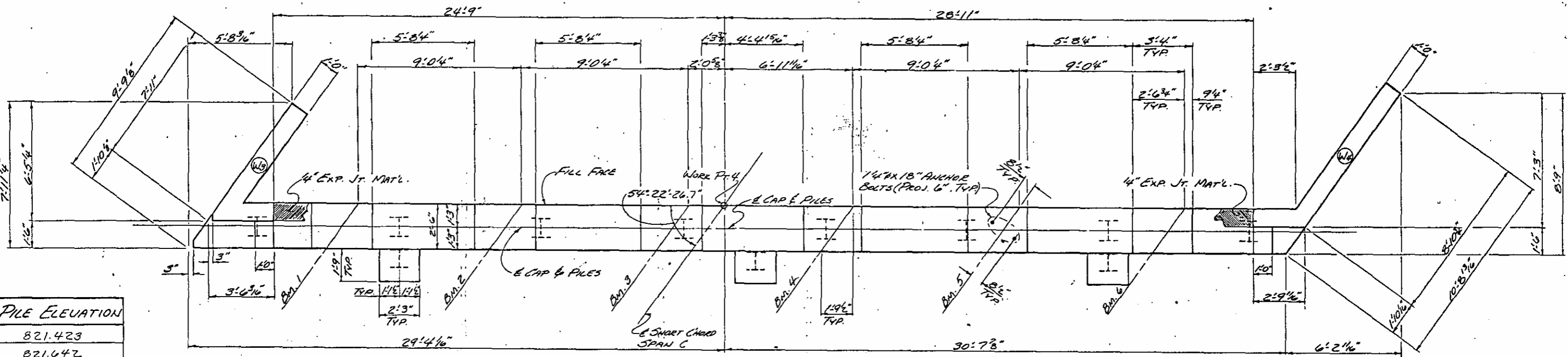
BENT NO. 2

AUGUST, 1977

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

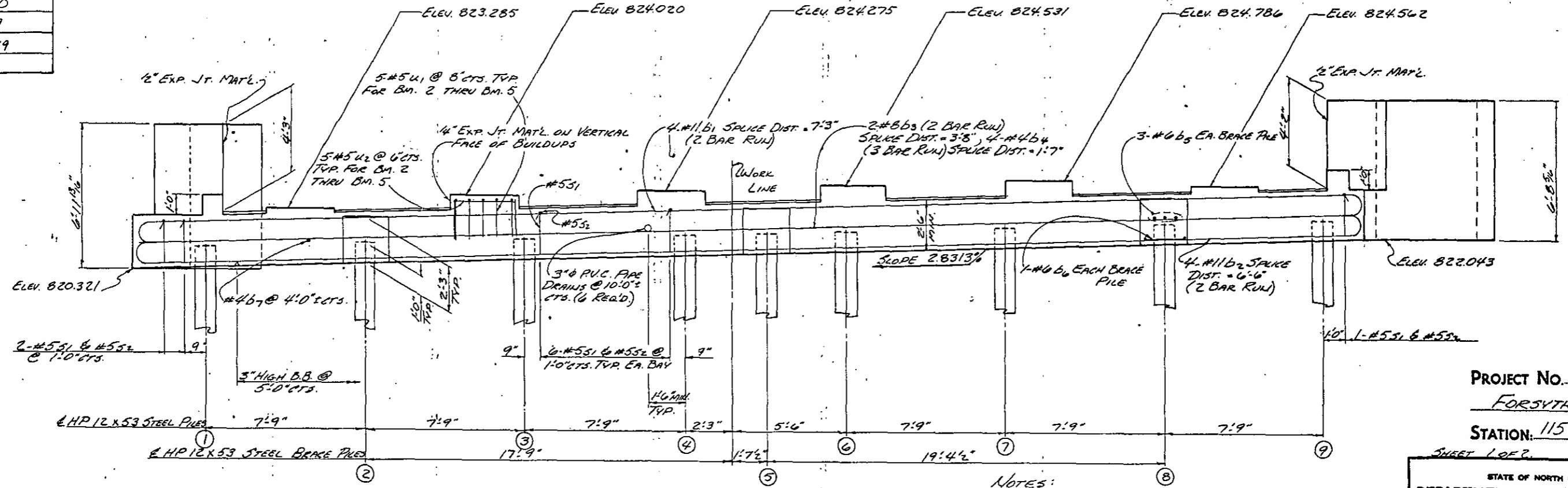
REVISED SHEET NO. 5-55
SCALE 1/4" = 1'-0"

10.5



PLAN

TOP OF PILE ELEVATION	
1	821.423
2	821.642
3	821.861
4	822.081
5	822.191
6	822.300
7	822.520
8	822.739
9	822.959



ELEVATION

PROJECT NO. 8. 1743606 #8
 FORSYTH COUNTY
 STATION: 115+50.22LR.LU
 SHEET 1 OF 2.

- NOTES:**
- THE TOP SURFACE AREAS OF THE END BENT LEAD SHALL BE CURED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS EXCEPT THE MEMBRANE CURING COMPOUND METHOD SHALL NOT BE USED.
 - PILES TO BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 29 TONS EACH.
 - PIPE DRAINS MAY BE SHIFTED TO CLEAR REINFORCING AND ANCHOR BOLTS.
 - CAP STEEL MAY BE SHIFTED TO CLEAR ANCHOR BOLTS.
 - FOR PILE SPLICE DETAIL, SEE SHEET 2 OF 2 OF END BENT 1.

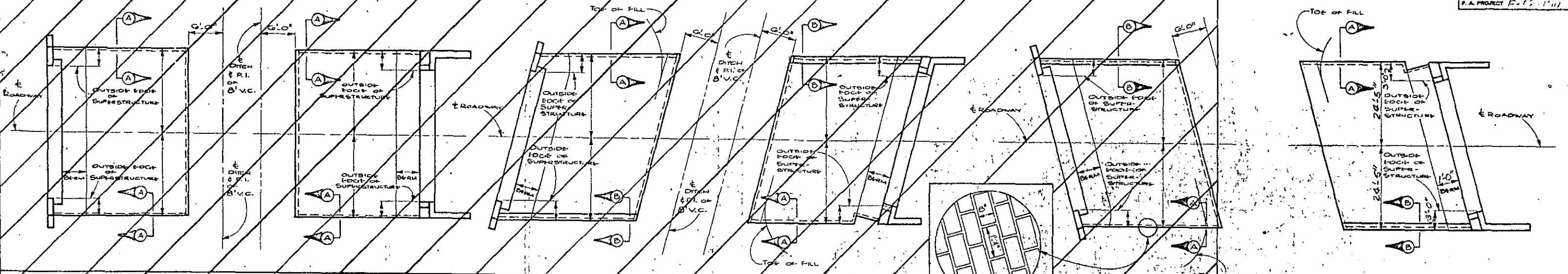
NOTE: FOR LIMITS OF EPOXY RESIN PROTECTIVE COATING SEE END BENT 1, SHEET 1 OF 2.

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

END BENT 2

REVISIONS						SHEET NO. 5-56
NO.	BY	DATE	NO.	BY	DATE	
1			2			TOTAL SHEETS 149
2			4			

1977
 AUGUST



PLAN

DETAIL A

NOTES

GENERAL NOTES

A 4" CONCRETE SLOPE PROTECTION PAVING SHALL BE PLACED UNDER THE ENDS OF THE BRIDGE. LIMITS OF THE PROTECTION SHALL BE AS SHOWN IN THE DETAILS. THE CONTRACTOR, AT HIS OPTION, MAY PLACE EITHER TYPE, ALTERNATE "A" OR "B", AS DESCRIBED BELOW. IMMEDIATELY BEFORE PLACING THE PAVING, THE SLOPE SHALL BE PROPERLY SHAPED AND FIRMLY COMPACTED SO THAT IT CONFORMS TO THE LINES AND GRADES SHOWN. THE FINISHED SURFACE SHALL BE REASONABLY SMOOTH AND UNIFORM AND SHALL NOT VARY MORE THAN 1/4" IN A DISTANCE OF 10 FEET. STRAIGHT EDGING WILL NOT BE REQUIRED UNLESS, IN THE OPINION OF THE ENGINEER, VISUAL INSPECTION INDICATES A NEED FOR IT. METHOD OF MEASUREMENT AND BASIS OF PAYMENT SHALL BE AS PRESCRIBED IN SECTION 870 OF THE STANDARD SPECIFICATIONS.

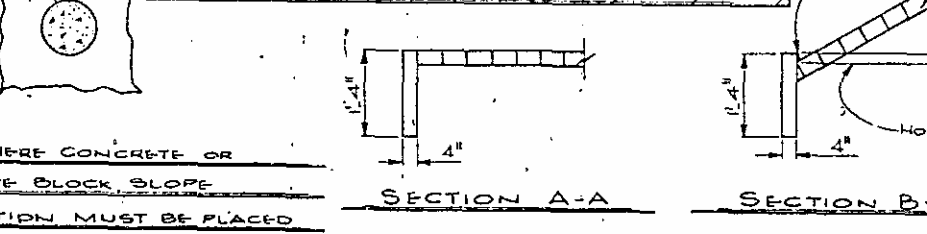
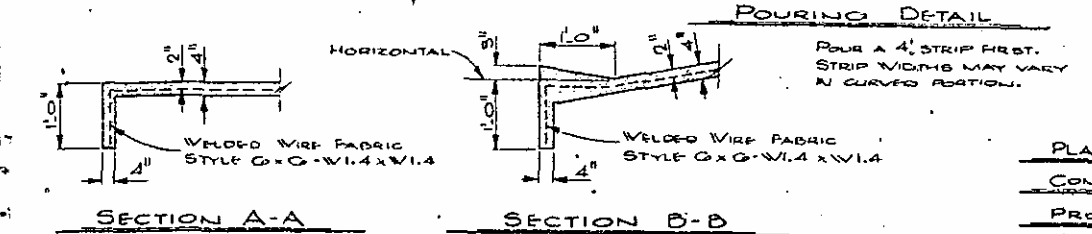
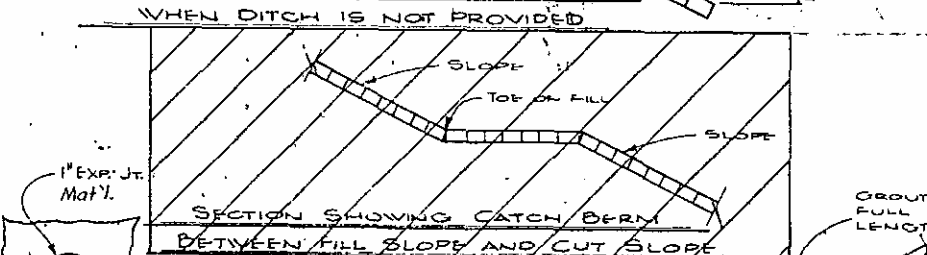
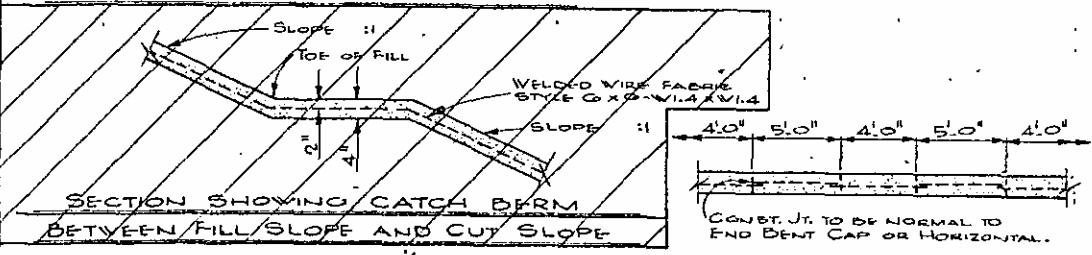
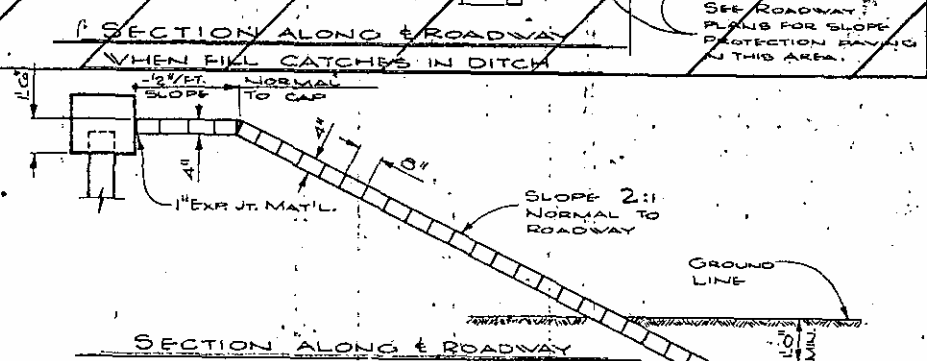
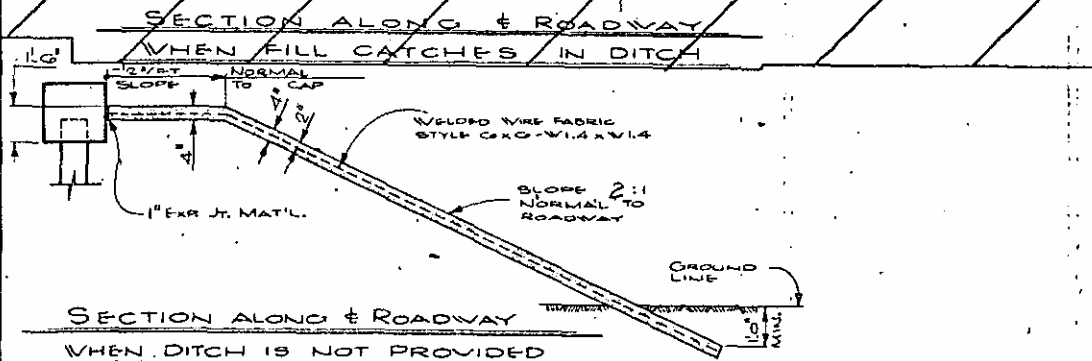
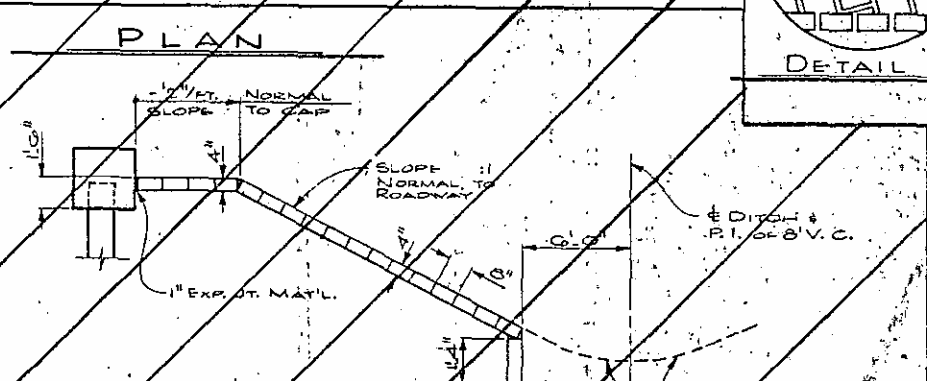
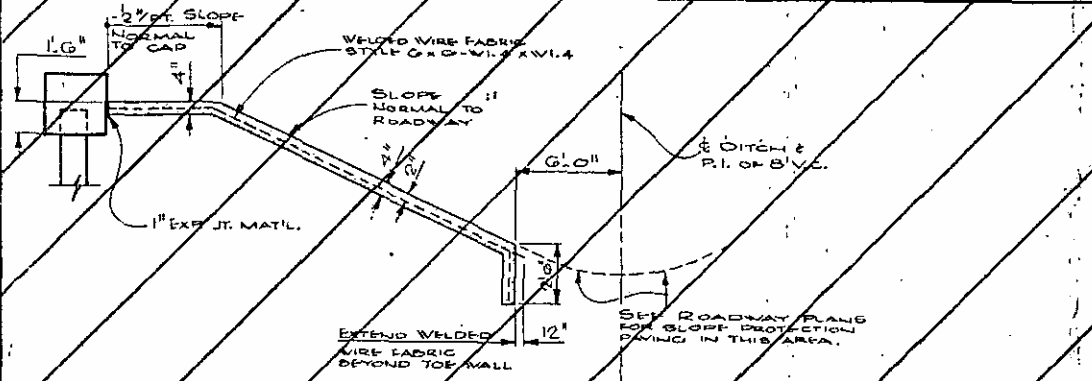
THE SAME TYPE OF SLOPE PROTECTION SHALL BE USED UNDER BOTH ENDS OF ANY ONE BRIDGE.

ALTERNATE "A"

ALTERNATE "A" SHALL CONSIST OF 4" POURED IN PLACE CONCRETE PAVING AS SHOWN IN DETAILS ON THIS SHEET. CONCRETE SHALL BE CLASS B. THE CONCRETE SURFACE SHALL BE FLOATED WITH A WOODEN FLOAT AND FINISHED. ALTERNATE "A" WELDED WIRE FABRIC REINFORCING TO BE STYLE G x G - W1.4 x W1.4 @ 6" O.C. ADJACENT RUNS OF WELDED WIRE FABRIC TO LAP AT LEAST 6". SLOPE PROTECTION TO BE POURED IN ALTERNATE "A" AND "B" STRIPS AS SHOWN IN POURING DETAIL. THE COST OF THE WELDED WIRE FABRIC TO BE INCLUDED IN THE CONTRACT UNIT PRICE DID PER SQUARE YARD FOR 4" CONCRETE SLOPE PROTECTION.

ALTERNATE "B"

ALTERNATE "B" SHALL CONSIST OF SOLID CONCRETE BLOCKS 4" x 8" x 16" LAID IN HORIZONTAL COURSES SUCH THAT THOSE IN SUCCESSIVE COURSES WILL BREAK JOINTS WITH UNITS IN THE PRECEDING ONE. BLOCKS ARE TO BE LAID WITH THEIR LONG AXIS PARALLEL TO THE END BENT CAP WITH CIRCLED JOINTS PREFERABLY 24" BUT NOT LESS THAN 12" NOR MORE THAN 14" WIDE BETWEEN SUCCESSIVE COURSES AND ENDS OF BLOCKS. JOINTS SHALL BE GROUDED BY POURING A MIXTURE OF ONE PART PORTLAND CEMENT TO THREE PARTS SAND MIXED WITH SUFFICIENT WATER TO ENABLE THE MIXTURE TO BE POURED THROUGH A SPOUT. THE CONCRETE BLOCKS SHALL BE CAST TO ACCURATE DIMENSIONS, SHALL HAVE UNIFORM SURFACE COLOR AND TEXTURE, AND SHALL BE MANUFACTURED OF MATERIALS TO PRODUCE A COMPRESSIVE STRENGTH OF NOT LESS THAN 3,000 P.S.I. AT AGE OF 28 DAYS. NO BROKEN BLOCKS SHALL BE USED EXCEPT IN CONSTRUCTING A STRAIGHT LINE ALONG EACH SIDE OF THE PAVING DOWN THE SLOPE. CARE SHALL BE TAKEN TO BREAK THE BLOCKS SO AS TO OBTAIN A UNIFORM WORKMANLIKE JOINT AND SURFACE.



SECTION A-A SECTION B-B

SECTION A-A SECTION B-B

DETAILS FOR ALTERNATE "A"

DETAILS FOR ALTERNATE "B"

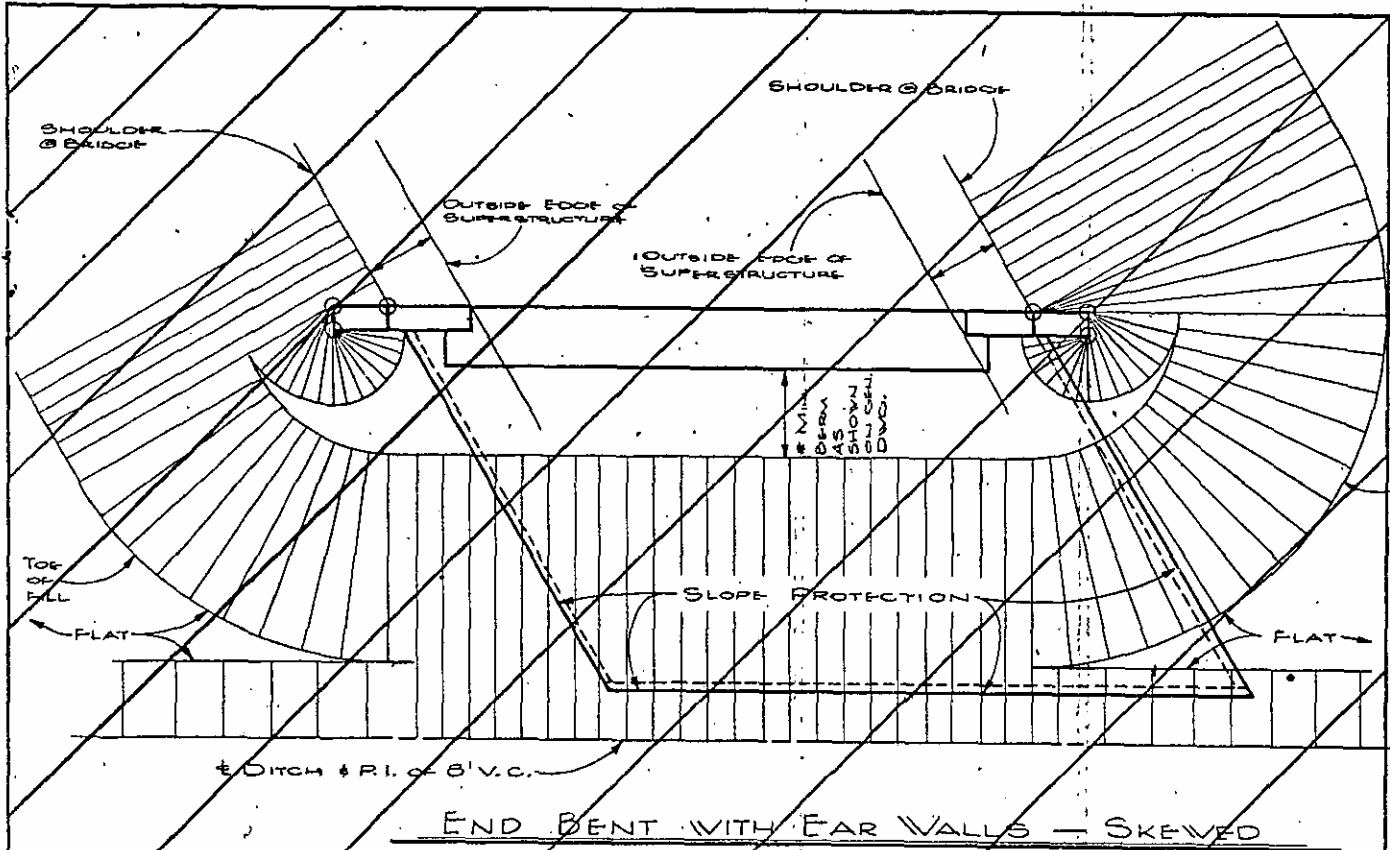
PROJECT No. 174366
 FORSYTH COUNTY
 STATION: 115+50.22 - L -
 Rt. Ln.

BRIDGE @	4" CONG. SLOPE PROTECTION OR 4" CONG. BLOCK SLOPE PROTECTION S.W.		WELDED WIRE FABRIC PROTECTION 60" WIDE APPROX. L.F.
	END BENT 1	END BENT 2	
115+50.22-L-	400	360	1522

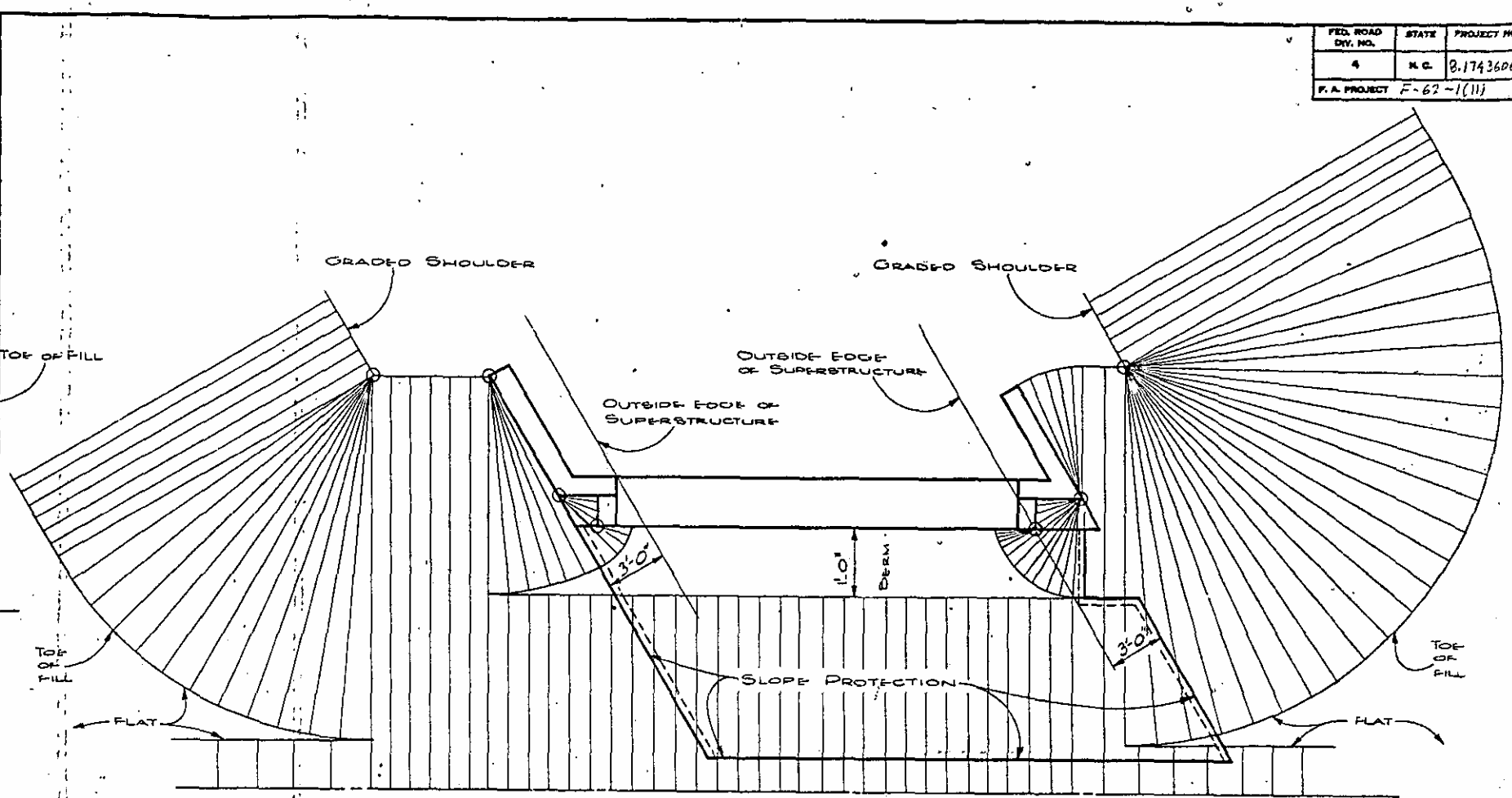
STATE OF NORTH CAROLINA			
DEPARTMENT OF TRANSPORTATION			
RALEIGH			
STANDARD SLOPE PROTECTION PAVING DETAILS			
AUGUST 1975			
REVISIONS			
NO.	BY	DATE	NO. BY DATE
1			3
2			4
SHEET NO. 5-50			TOTAL SHEETS 149

APPROVED BY E.A. Strickland DATE 9-16-77
 CHECKED BY R.L. Moore DATE 9-27-77
 DRAWN BY C.C. MITCHELL DATE AUG 1975
 CHECKED BY William J. Rogers DATE 6/28/1975

REVISION NO. 1: REVISED TO CHANGE BERM SLOPE FROM 3/4" FT. TO 1/2" FT. BY CCM 5-24-76 ✓ BY W.U.R.

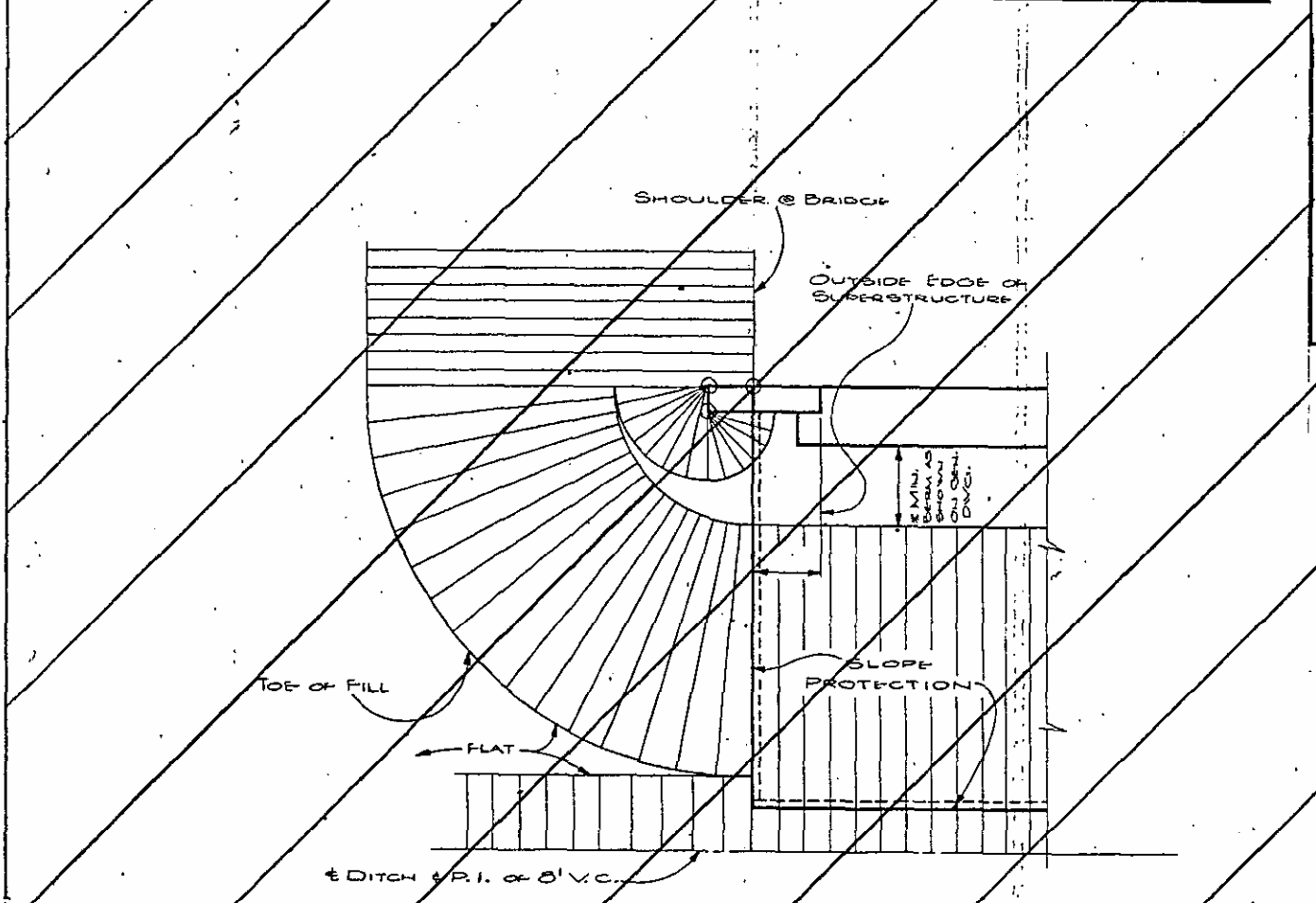


END BENT WITH EAR WALLS - SKEWED

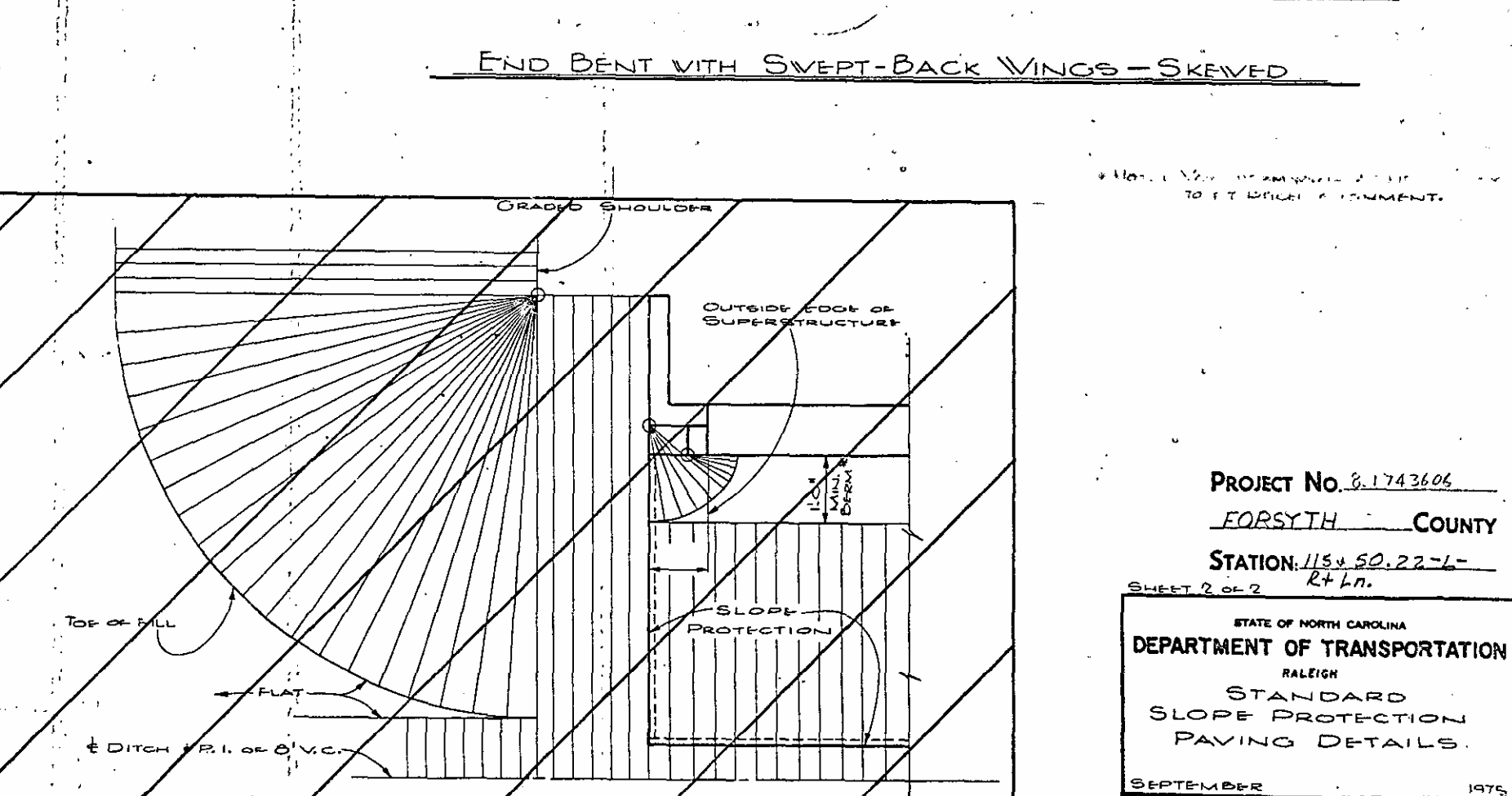


END BENT WITH SWEEP-BACK WINGS - SKEWED

*Note: See Standard Detail to fit bridge 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. 8,174,3606
 FORSYTH COUNTY
 STATION: 115+50.22-6-
 R+Lh.

SHEET 2 of 2

STATE OF NORTH CAROLINA						SHEET NO.
DEPARTMENT OF TRANSPORTATION						
RALEIGH						TOTAL SHEETS
STANDARD SLOPE PROTECTION PAVING DETAILS.						
SEPTEMBER 1975						
REVISIONS						
NO.	BY	DATE	NO.	BY	DATE	
1			2			
2			4			

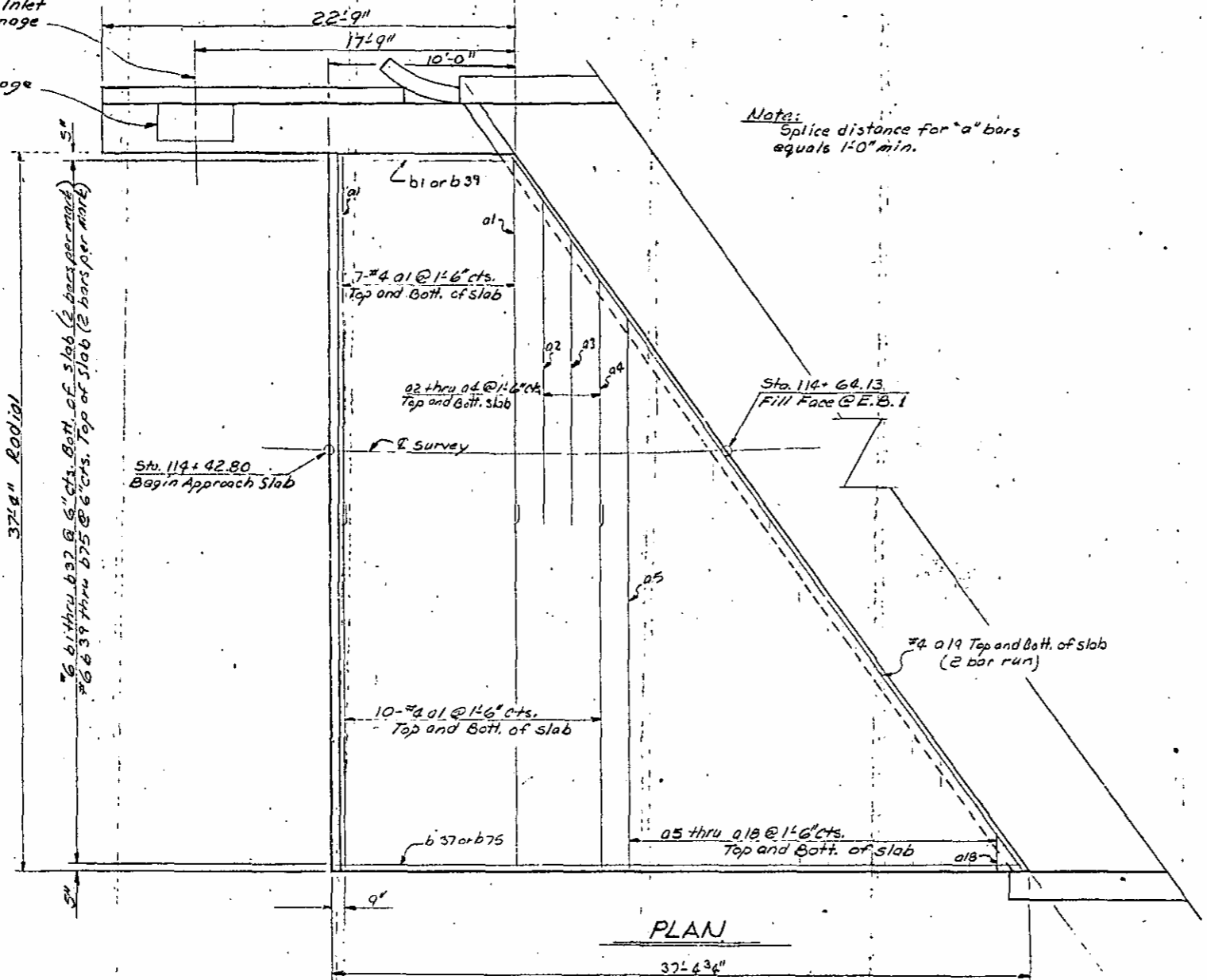
ASSEMBLED BY E.A. Strickland DATE 4-13-77
 CHECKED BY R.J. Moore DATE 9-27-77
 DRAWN BY C.C. MITCHELL DATE SEPT. 1975
 CHECKED BY William J. Rogers DATE 10/10/75

V OK

& Grates and Drop Inlet
See "Approach Drainage
Slab Details."

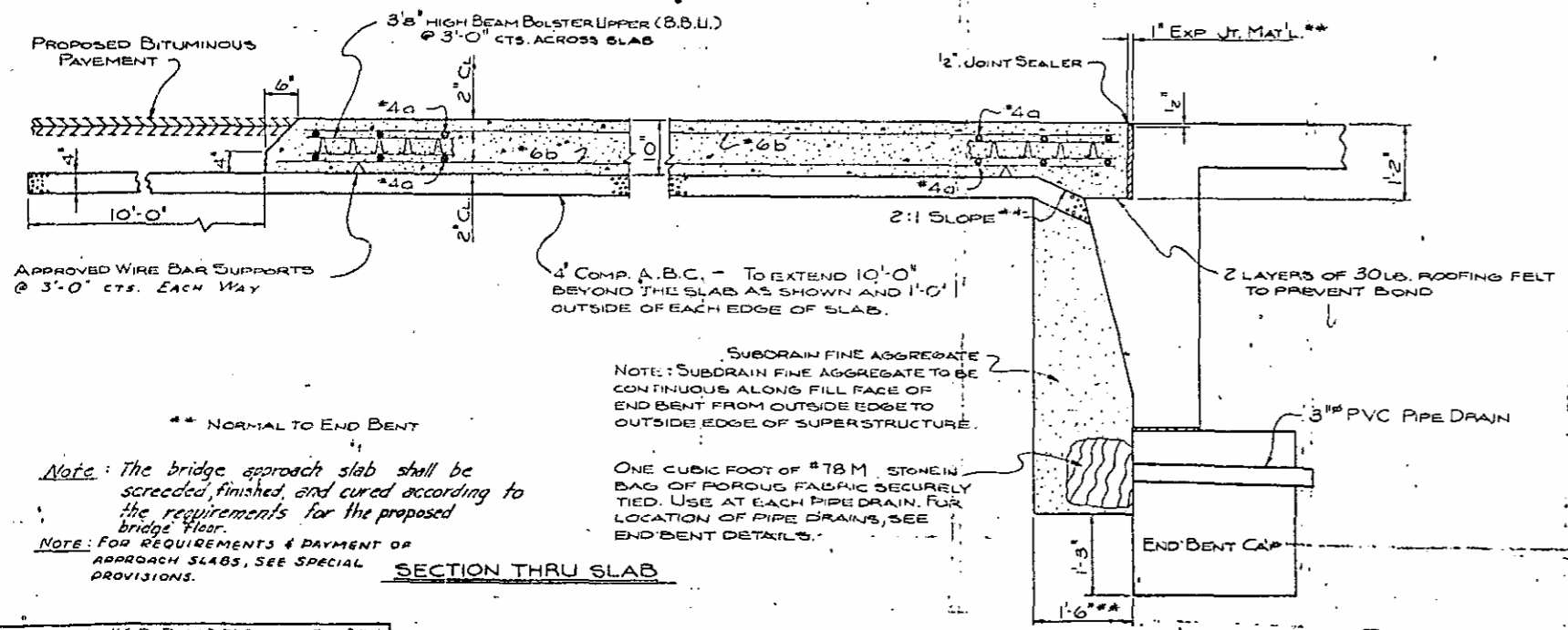
See "Approach Drainage
Slab Details."

Note:
Splice distance for "a" bars
equals 1'-0" min.



PLAN

BILL OF MATERIAL													
APPROACH SLAB @ END BENT 1													
BAR	NO	SIZE	TYPE	LENGTH	WEIGHT	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT		
a1	34	#4	Str.	19'-0"	432	b32	2	#6	Str.	32'-4"	98		
a2	2			17'-3"	23	b33	1			33'-3"	100		
a3	1			15'-3"	20	b34	1			34'-0"	102		
a4	1			13'-2"	18	b35	1			34'-9"	104		
a5	1			29'-2"	39	b36	1			35'-5"	106		
a6	1			27'-1"	36	b37	2			36'-3"	109		
a7				25'-1"	34								
a8				23'-0"	31	b39	2			43'-3"	28		
a9				20'-11"	28	b40	1			10'-0"	30		
a10				18'-11"	25	b41	1			10'-9"	32		
a11				16'-10"	22	b42	1			11'-6"	35		
a12				14'-10"	20	b43	1			12'-3"	37		
a13				12'-10"	17	b44	1			12'-11"	39		
a14				10'-9"	14	b45	1			13'-8"	41		
a15				8'-9"	12	b46	1			14'-5"	43		
a16				6'-8"	9	b47	1			15'-2"	46		
a17	1			4'-7"	6	b48	1			15'-11"	48		
a18	2			2'-7"	3	b49	1			1'-8"	50		
a19	4	#4	Str.	23'-6"	63	b50	1			17'-4"	52		
						b51				18'-1"	54		
b1	2	#6	Str.	9'-9"	29	b52	1			18'-10"	55		
b2	1			10'-6"	32	b53	1			19'-2"	59		
b3	1			11'-3"	34	b54	1			20'-0"	61		
b4	1			12'-0"	36	b55	1			21'-0"	65		
b5	1			12'-9"	38	b56	1			21'-4"	67		
b6	1			13'-5"	40	b57	1			22'-4"	71		
b7	1			14'-2"	43	b58	1			23'-3"	75		
b8	1			14'-11"	45	b59	1			23'-11"	77		
b9	1			15'-8"	47	b60	1			24'-3"	79		
b10	1			16'-5"	49	b61	1			25'-5"	81		
b11	1			17'-2"	52	b62	1			26'-2"	84		
b12	1			17'-10"	54	b63	1			26'-10"	87		
b13	1			18'-7"	56	b64	1			27'-4"	90		
b14	1			19'-4"	58	b65	1			28'-4"	93		
b15	1			20'-1"	60	b66	1			29'-1"	96		
b16	1			20'-10"	63	b67	1			29'-10"	99		
b17	1			21'-6"	65	b68	1			30'-7"	102		
b18	1			22'-3"	67	b69	1			31'-3"	105		
b19	1			23'-0"	69	b70	1			32'-0"	108		
b20	1			23'-9"	72	b71	1			32'-8"	111		
b21	1			24'-5"	73	b72	1			33'-6"	114		
b22	1			25'-2"	75	b73	1			34'-3"	117		
b23	1			25'-11"	78	b74	1			34'-11"	120		
b24	1			26'-8"	80	b75	2			35'-9"	127		
b25				27'-4"	82								
b26				28'-1"	84								
b27				28'-10"	87								
b28				29'-7"	89								
b29				30'-4"	91								
b30	1			31'-1"	93								
b31	2	#6	Str.	31'-9"	95								



SECTION THRU SLAB

Note: The bridge approach slab shall be screeded, finished, and cured according to the requirements for the proposed bridge floor.

Note: For requirements & payment of approach slabs, see special provisions.

NOTE: SUBDRAIN FINE AGGREGATE TO BE CONTINUOUS ALONG FILL FACE OF END BENT FROM OUTSIDE EDGE TO OUTSIDE EDGE OF SUPERSTRUCTURE.

ONE CUBIC FOOT OF #78 M STONE IN BAG OF POROUS FALPIC SECURELY TIED. USE AT EACH PIPE DRAIN. FOR LOCATION OF PIPE DRAINS, SEE END BENT DETAILS.

- REV. NO. 10 - TO CHANGE BELTED TO FINISHED AND ADD PROPOSED IN FINISH NOTE. BY: K.G.P. v BY: NMS 5-4-76
- REV. NO. 9 - TO REMOVE LOCATION FOR APPROACH SLAB AREA. BY: K.G.P. v BY: ERM 3-15-75
- REV. NO. 8 - TO CHANGE DESIGNATION OF AGGREGATE SIZE AND TO PROVIDE LOCATION FOR APPROACH SLAB AREA. BY: K.G.P. v BY: NMS 1-9-76
- REV. NO. 7 - TO CHANGE DESIGNATION OF AGGREGATE SIZE. BY: CCM 1/6 W.J.R. 5-7-75
- REV. NO. 6 - TO OMIT MAXIMUM FROM BAR SUPPORT SPACING. BY: K.G.P. v NMS 1-14-75
- REV. NO. 5 - TO CHANGE HOT-POURED RUBBER ASPHALT JOINT SEALER TO JOINT SEALER. BY: K.G.P. v DM 8-15-74
- REV. NO. 4 - TO CHANGE UPPER BEAM BOLSTER TO BEAM BOLSTER UPPER. BY: K.G.P. v NMS 11-20-73
- REV. NO. 3 - NOTE REFERRING TO REQUIREMENTS & PAYMENT OF APPROACH SLABS. BY: RCM v BY: D.W.R. 10/11/74
- REV. NO. 2 - TO CHANGE BAR SUPPORT DESIGNATION. BY: K.G.P. v D.M.W. 12-15-71
- REV. NO. 1 - To add finishing requirements. By K.G.P. v by D.M.W. 10-1-71

PROJECT NO. 8.1743606
 FORSYTH COUNTY
 STATION: 115+50.22-661

Sheet 1 of 4

STATE OF NORTH CAROLINA
STATE HIGHWAY COMMISSION
 RALEIGH

BRIDGE APPROACH SLAB
 FOR FLEXIBLE PAVEMENT

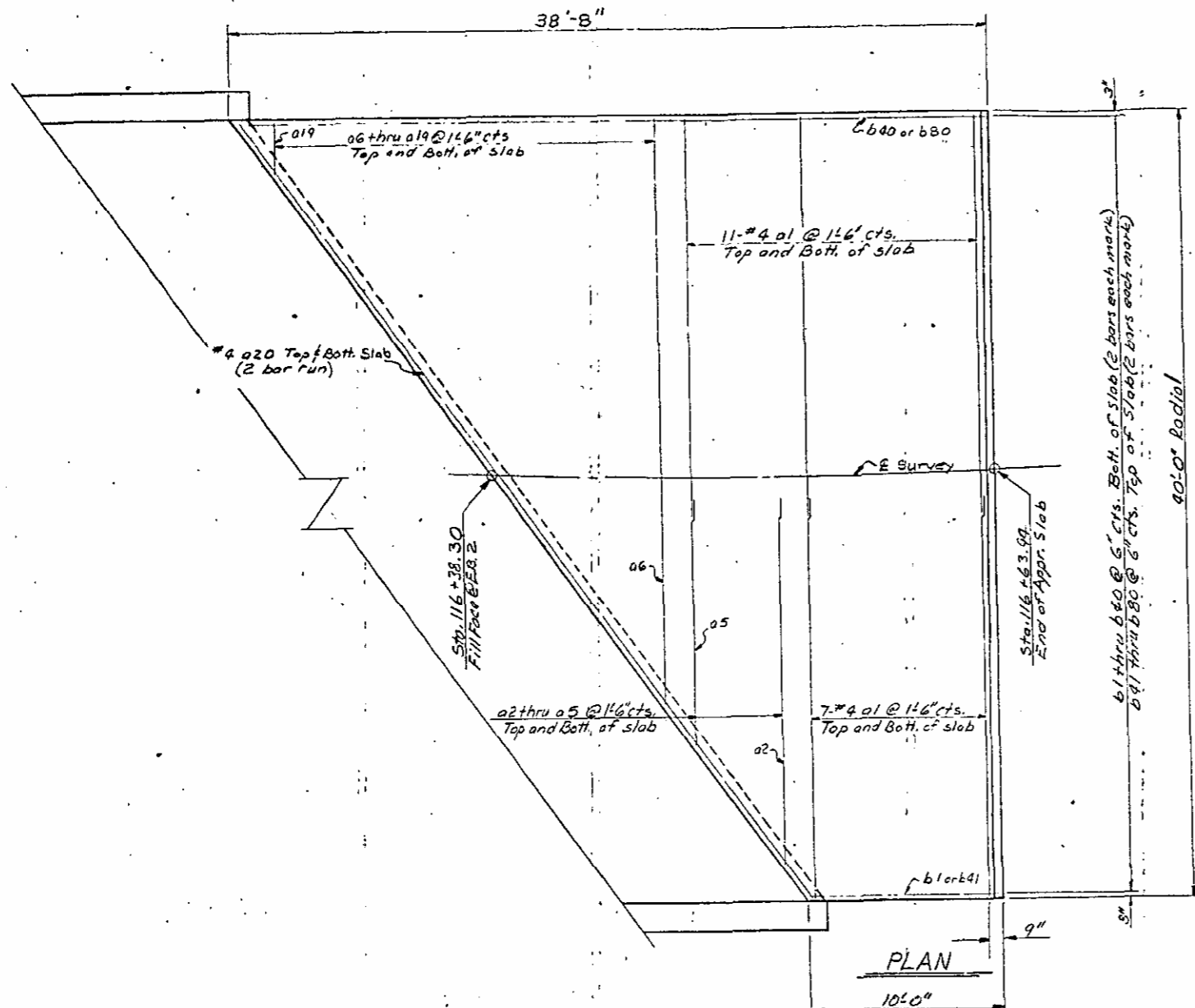
END BENT 1

September 1977

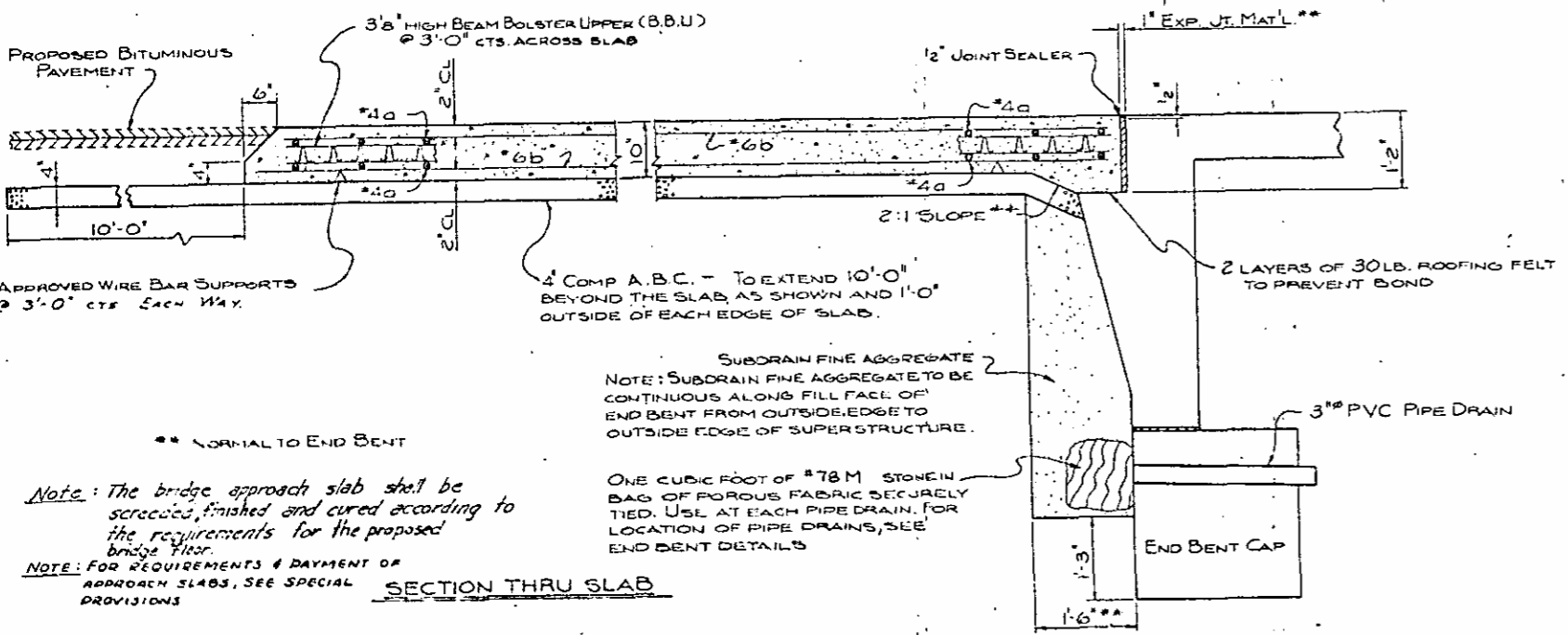
REVISIONS				
NO.	BY	DATE	NO.	BY
1			1	
2			2	

5-60
149

DATE DRAWN BY: K.G.P. DATE: 2-71 CHECKED BY: J.R.R.
 DRAWN BY: R.A. Strickland DATE: 9-1-77
 CHECKED BY: L.C. S. DATE: 10-26-77



Note
Splice distance for "d" bars
equals 1'-0" min.



Note: The bridge approach slab shall be screeded, finished and cured according to the requirements for the proposed bridge floor.

Note: For requirements & payment of approach slabs, see special provisions.

NOTE: SUBDRAIN FINE AGGREGATE TO BE CONTINUOUS ALONG FILL FACE OF END BENT FROM OUTSIDE EDGE TO OUTSIDE EDGE OF SUPERSTRUCTURE.

ONE CUBIC FOOT OF #78 M STONE IN BAG OF POROUS FABRIC SECURELY TIED. USE AT EACH PIPE DRAIN. FOR LOCATION OF PIPE DRAINS, SEE END BENT DETAILS.

BILL OF MATERIAL											
APPROACH SLAB @ END BENT 2											
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
a1	36	#4	Str.	20'-4"	489	b40	2	#6	Str.	37'-8"	113
a2	2			18'-6"	25	b41				9'-3"	23
a3				16'-6"	22	b42				10'-0"	30
a4				14'-4"	19	b43				10'-8"	32
a5				12'-3"	16	b44				11'-5"	34
a6				29'-5"	39	b45				12'-2"	37
a7				27'-3"	36	b46				12'-10"	39
a8				25'-3"	34	b47				13'-7"	41
a9				23'-2"	31	b48				14'-3"	43
a10				21'-1"	28	b49				15'-0"	45
a11				19'-1"	25	b50				15'-8"	47
a12				16'-11"	23	b51				16'-5"	49
a13				14'-10"	20	b52				17'-2"	52
a14				12'-9"	17	b53				17'-10"	54
a15				10'-8"	14	b54				18'-7"	56
a16				8'-6"	11	b55				19'-3"	58
a17				6'-5"	9	b56				20'-0"	60
a18				4'-4"	6	b57				20'-9"	62
a19	2			2'-3"	3	b58				21'-5"	64
a20	4	#4	Str.	24'-10"	66	b59				22'-2"	67
b1	2	#6	Str.	9'-9"	29	b60				22'-10"	69
b2				10'-6"	32	b61				23'-7"	71
b3				11'-2"	34	b62				24'-4"	73
b4				11'-11"	36	b63				25'-0"	75
b5				12'-8"	38	b64				25'-9"	77
b6				13'-4"	40	b65				26'-5"	79
b7				14'-1"	42	b66				27'-2"	82
b8				14'-9"	44	b67				27'-10"	84
b9				15'-6"	47	b68				28'-7"	86
b10				16'-2"	49	b69				29'-4"	88
b11				16'-11"	51	b70				30'-0"	90
b12				17'-8"	53	b71				30'-9"	92
b13				18'-4"	55	b72				31'-5"	94
b14				19'-1"	57	b73				32'-2"	97
b15				19'-9"	59	b74				32'-11"	99
b16				20'-6"	62	b75				33'-7"	101
b17				21'-3"	64	b76				34'-4"	103
b18				21'-11"	66	b77				35'-0"	105
b19				22'-8"	68	b78				35'-9"	107
b20				23'-4"	70	b79				36'-6"	110
b21				24'-1"	72	b80	2	#6	Str.	37'-2"	112
b22				24'-10"	75						
b23				25'-6"	77						
b24				26'-3"	79						
b25				26'-11"	81						
b26				27'-8"	83						
b27				28'-4"	85						
b28				29'-1"	87						
b29				29'-10"	90						
b30				30'-6"	92						
b31				31'-3"	94						
b32				31'-11"	96						
b33				32'-8"	98						
b34				33'-5"	100						
b35				34'-1"	102						
b36				34'-10"	105						
b37				35'-6"	107						
b38				36'-3"	109						
b39	2	#6	Str.	37'-0"	111						

Reinforcing Steel - lbs. = 6,577
Class "A-A" Conc. Cu. Yds. = 30

PROJECT No. 8.1743606-#8
FORSYTH COUNTY
STATION: 115+50.22-L-R:LN
Sheet 2 of 4

STATE OF NORTH CAROLINA			
STATE HIGHWAY COMMISSION			
RALEIGH			
BRIDGE APPROACH SLAB			
FOR FLEXIBLE PAVEMENT			
END BENT 2			
September 1977			
REVISIONS			
NO.	BY	DATE	NO.
1			2
2			3
TOTAL SHEETS			149

REV. No. 10 - To change BELT TO FINISHED AND ADD PROPOSED IN FINISH NOTE. BY K.G.P. / NMS 5-4-76
REV. No. 9 - To REMOVE LOCATION FOR APPROACH SLAB AREA. BY K.G.P. / BY: 3-15-76
REV. No. 8 - To CHANGE DESIGNATION OF AGGREGATE SIZE AND TO PROVIDE LOCATION FOR APPROACH SLAB AREA. BY: K.G.P. / BY NMS 1-9-76
REV. No. 7 - To CHANGE DESIGNATION OF AGGREGATE SIZE. BY CCM / BY W.J.R. 5-7-75
REV. No. 6 - To OMIT MAXIMUM FROM BAR SUPPORT SPACING. BY K.G.P. / NMS 1-14-75
REV. No. 5 - To CHANGE HOT-POURED RUBBER ASPHALT JOINT SEALER TO JOINT SEALER. BY K.G.P. / NMS 8-15-74
REV. No. 4 - To CHANGE UPPER BEAM BOLSTER TO BEAM BOLSTER UPPER. BY K.G.P. / NMS 11-20-73
REV. No. 3 - NOTE REFERRING TO REQUIREMENTS & PAYMENT OF APPROACH SLABS. BY RCM / BY O.W.R. 10/14/72
REV. No. 2 - To CHANGE BAR SUPPORT DESIGNATION. BY K.G.P. / D.H.W. 12-15-71
REV. No. 1 - To add lagging requirements. BY J.K.P. / BY D.H.W. 10-1-71

DATE DRAWN BY: K.G.P. DATE: 4-17-77
DRAWN BY: E.A. Strickland
CHECKED BY: M.C. [Signature] DATE: 10-26-77

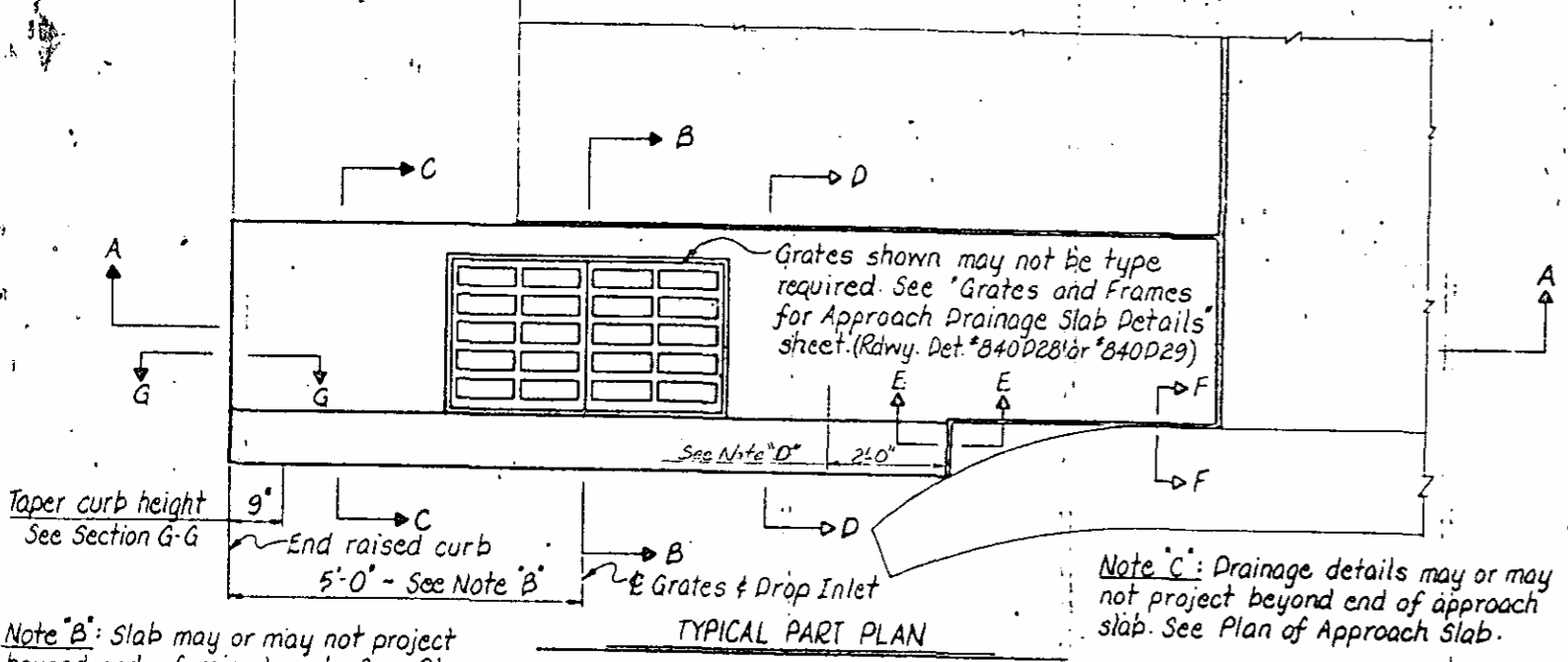
NOTES

For requirements and payment for Approach Drainage Slab Details, see Special Provisions for Bridge Approach Slabs.

1/2" Expansion joint material shall be used in Approach Drainage Slab to limit the length of pours to a maximum of 35 feet. The location of joints, where required, shall be approved by the Engineer. The expansion joint shall be sealed with joint sealer as shown in Section E-E.

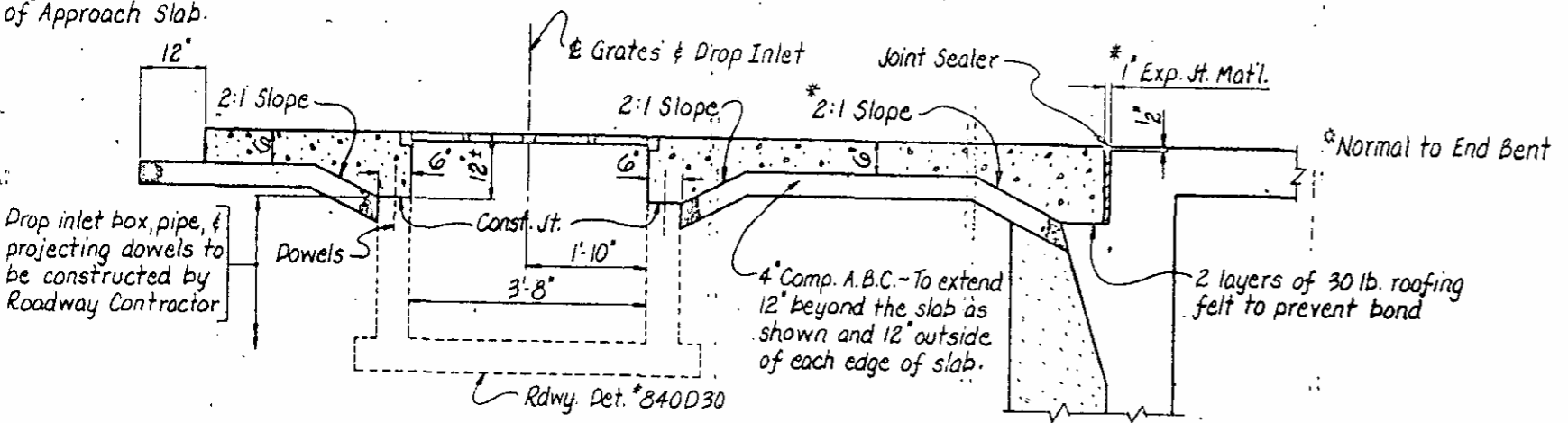
The Engineer will be responsible for establishing the elevations for the Approach Drainage Slab.

Note "D": Curb to be transitioned within this length from typical curb section shown to curb that coincides with the curb block on the curved end block.

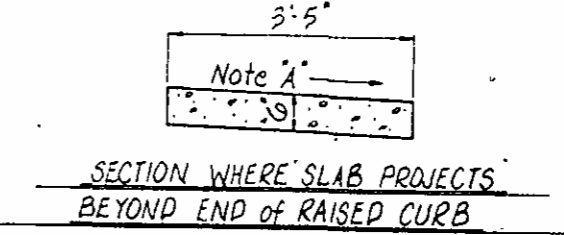
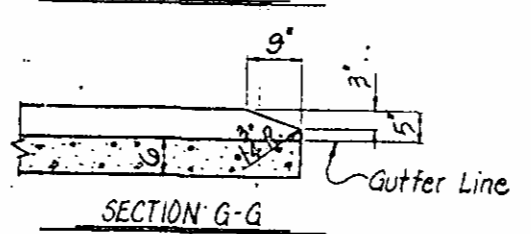
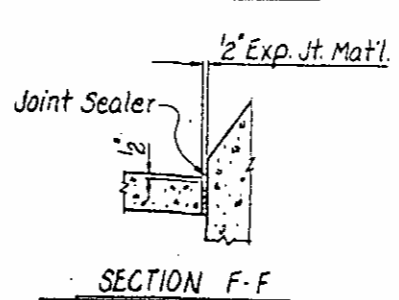
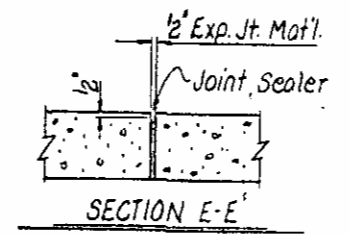
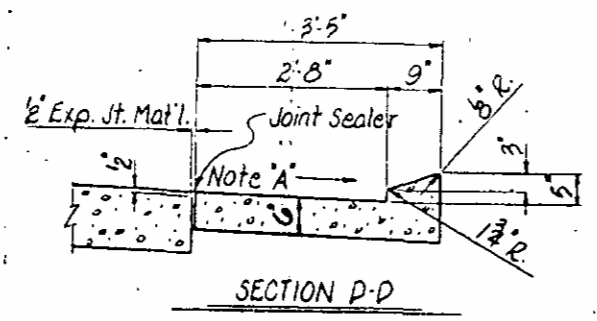
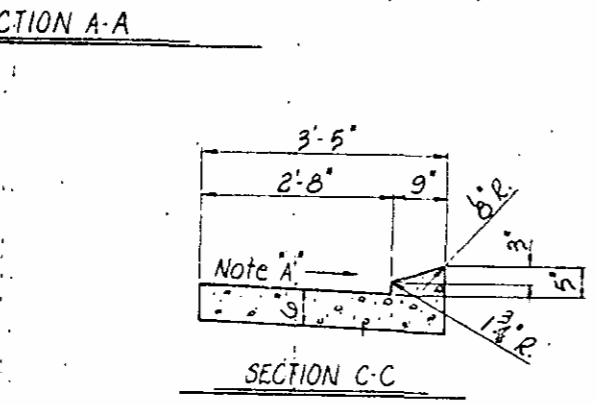
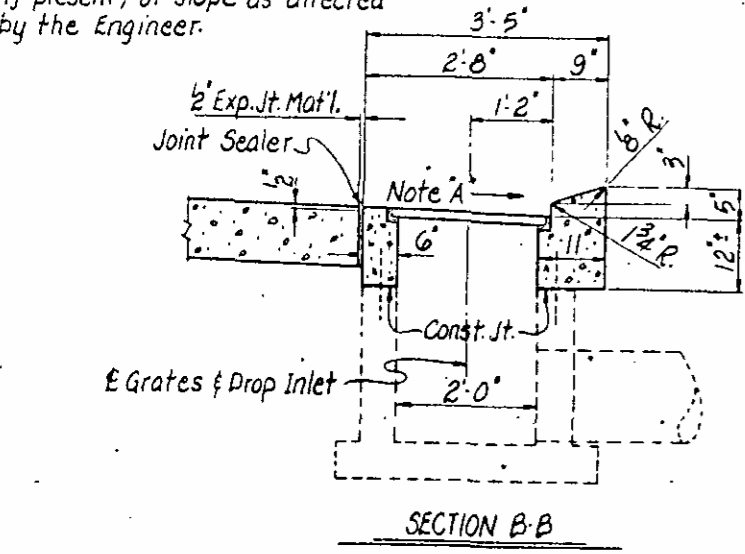


Note "B": Slab may or may not project beyond end of raised curb. See Plan of Approach Slab.

Note "C": Drainage details may or may not project beyond end of approach slab. See Plan of Approach Slab.



Note "A": Match slope of adjacent slab (if present) or slope as directed by the Engineer.



STANDARD DRAWN BY K. P. ... DATE Feb 57
 STANDARD CHECKED BY ... DATE 5/1/76
 DRAWN BY ... DATE 8-12-76
 CHECKED BY ... DATE 8-12-76

Rev. #1: Revised to change Rdwy Det. #840D27 to #840D30. by JKP 8-12-76 by ...

PROJECT No. 3.1743606 #8
 FORSYTH COUNTY
 STATION 115+50.22-1-R-4
 Sheet 3 of 4

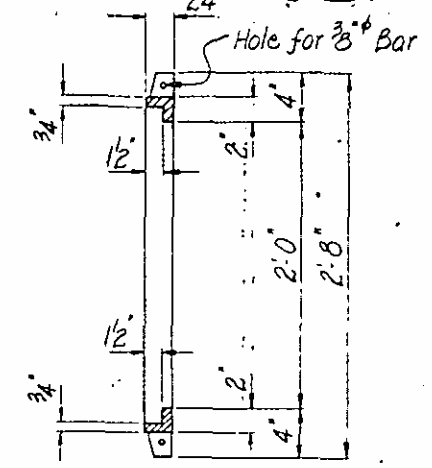
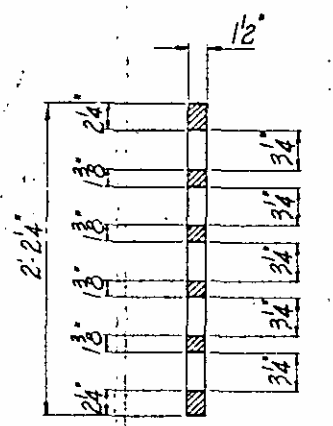
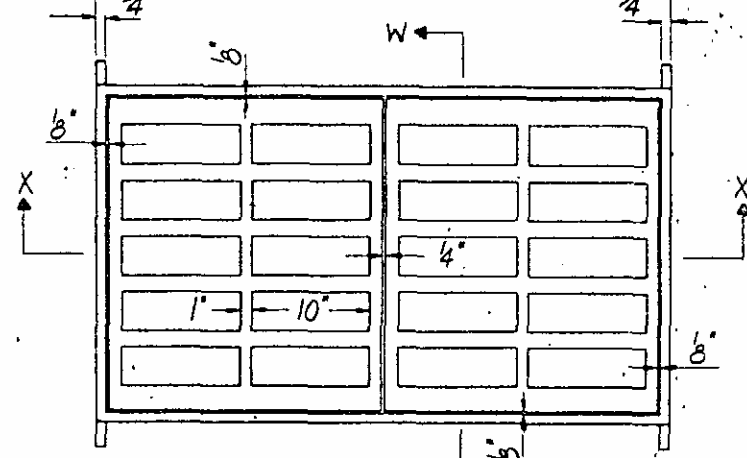
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

APPROACH DRAINAGE SLAB DETAILS

September 1977

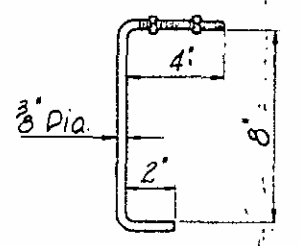
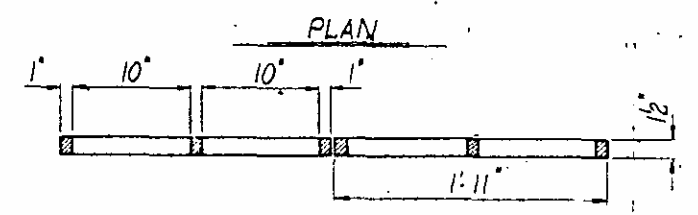
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NO.	BY	DATE	NO.	BY	DATE	5-62	
1	JKP	8-12-76	3			TOTAL COPIES	
2			4			149	

STD. NO. BAS3



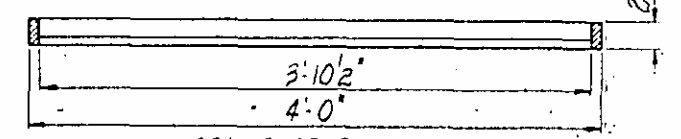
GRATE SECTION W-W

FRAME SECTION W-W



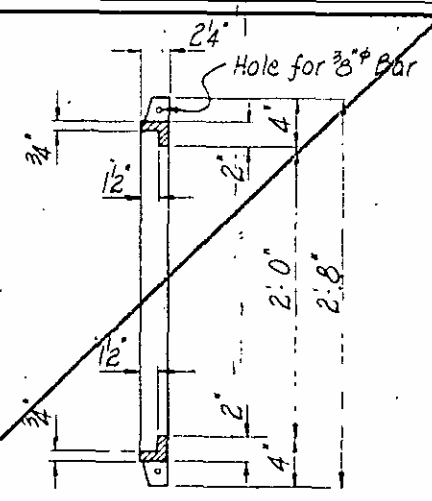
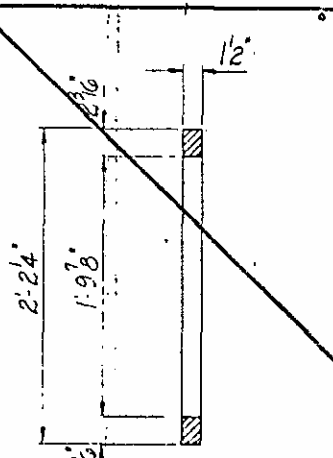
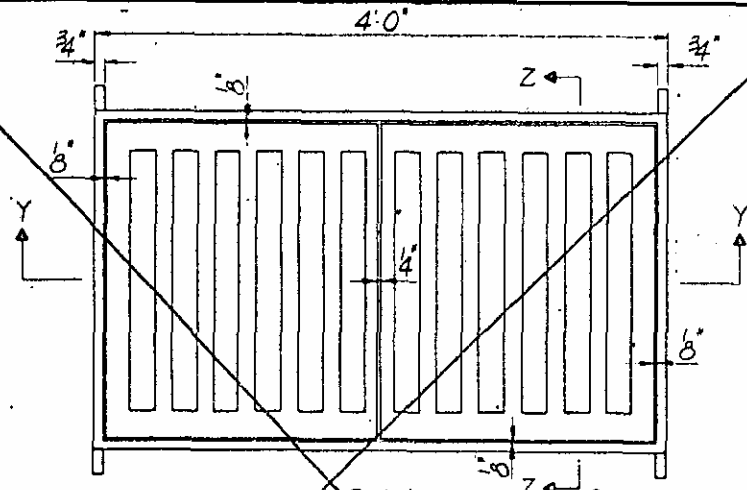
CONCRETE ANCHOR
3/8" Bent Bar

GRATE SECTION X-X



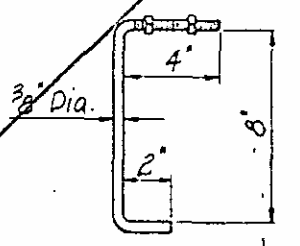
FRAME SECTION X-X

STANDARD FLAT GRATES AND FRAME (RDWY. DET. 840D28)



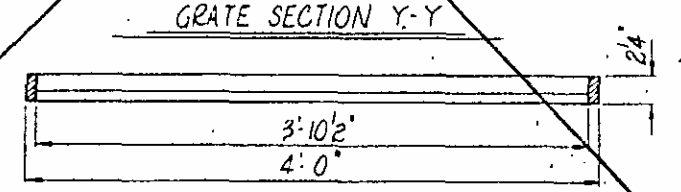
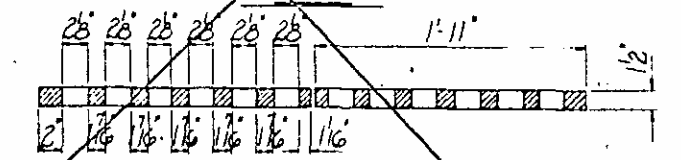
GRATE SECTION Z-Z

FRAME SECTION Z-Z



CONCRETE ANCHOR
3/8" Bent Bar

GRATE SECTION Y-Y



FRAME SECTION Y-Y

NARROW SLOT FLAT GRATES AND FRAME (RDWY. DET. 840D29)

DRAWN BY: G.K. Daniels 2-19-76 ✓ BY: K.G.P.
 CHECKED BY: R. Moore DATE 11-3-77

PROJECT NO. 8.1743606 #8
 FORSYTH COUNTY
 STATION: 115+50.22-1- RT. LN.
 SHEET OF

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 GRATES AND FRAMES FOR
 APPROACH DRAINAGE SLAB
 END BENT

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

TOTAL SHEETS 149