



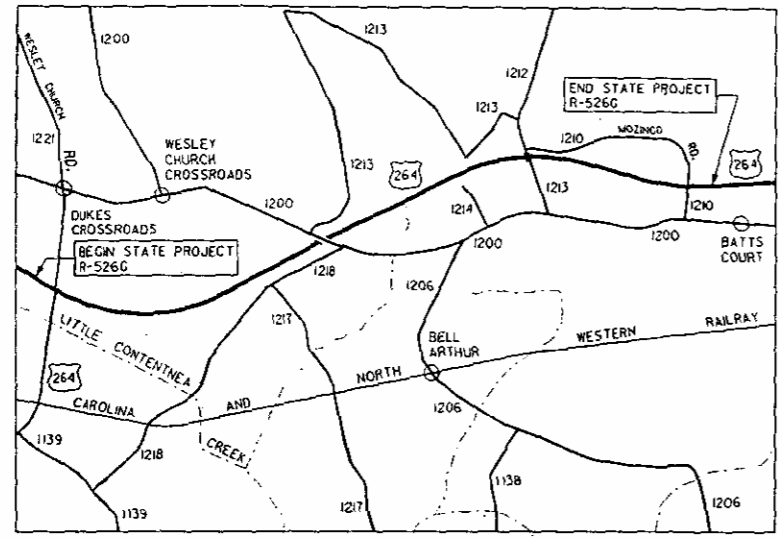
STATE	STATE PROJECT REFERENCE NO.	
N.C.	R-526G	
STATE PROJ. NO.	F.A. PROJ. NO.	
8.1187401	F-38-1 (33)	
8.1187407	NHF-38-1 (67)	

ALL DIMENSIONS IN THESE PLANS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED

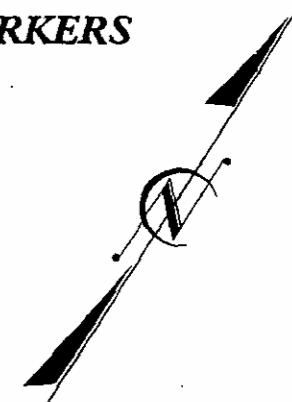
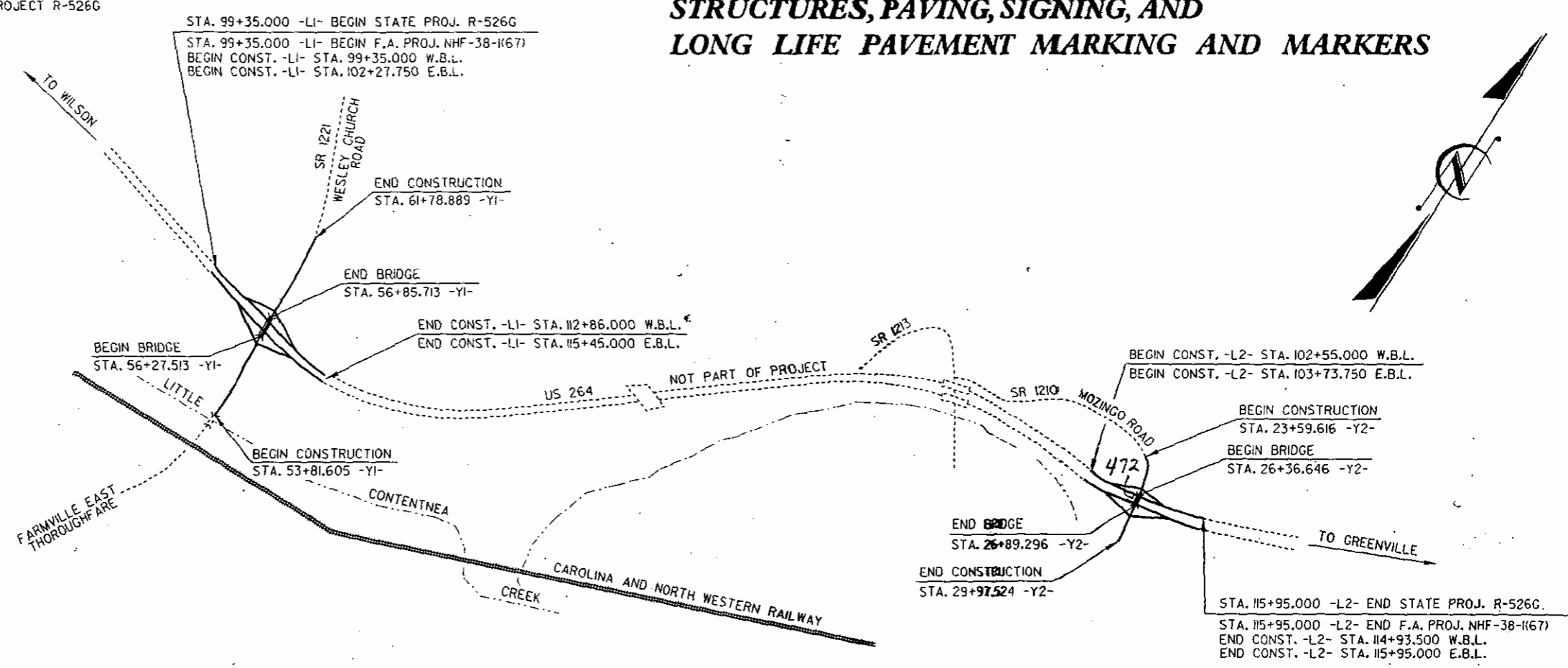
STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
PITT COUNTY

**LOCATION: NEW INTERCHANGES ON US 264 AT:
 SR 1221 AND SR 1210**

**TYPE OF WORK: GRADING, DRAINAGE, CULVERTS,
 STRUCTURES, PAVING, SIGNING, AND
 LONG LIFE PAVEMENT MARKING AND MARKERS**



SKETCH MAP SHOWING VICINITY OF STATE PROJECT R-526G



**STRUCTURES
 CULVERTS**

33
 PROJECT: 8.1187407 R-526G



DESIGN DATA		
US 264	SR 1221 (-Y1-)	SR 1210 (-Y2-)
ADT 1997 = 9,000	ADT 1997 = 3,600	ADT 1997 = 2,000
ADT 2017 = 14,800	ADT 2017 = 6,400	ADT 2017 = 3,400
DHV = 12%	DHV = 12%	DHV = 10%
D = 60%	D = 60%	D = 60%
T = 13%	T = 8%	T = 3%
V = 110 km/h	V = 80 km/h	V = 80 km/h

PROJECT LENGTH	
LENGTH ROADWAY F.A. PROJECT NHF-38-1(67)	= 2.590 km
LENGTH STRUCTURES F.A. PROJECT NHF-38-1(67)	= 0.111 km
TOTAL LENGTH STATE PROJECT R-526G	= 2.701 km

Prepared in the Office of:

DIVISION OF HIGHWAYS

1995 STANDARD SPECIFICATIONS

LETTING DATE:
JULY 16, 1996

G.M. WHITE, P.E.
 PROJECT ENGINEER

R.A. RAYNOR, JR., P.E.
 PROJECT DESIGN ENGINEER

STRUCTURE DESIGN UNIT

John L. Smith, Jr.
 5-21-96

DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA

DR Mont
 STATE HIGHWAY ENGINEER - DISTRICT

26+30

26+40

26+50

26+60

26+70

26+80

26+90

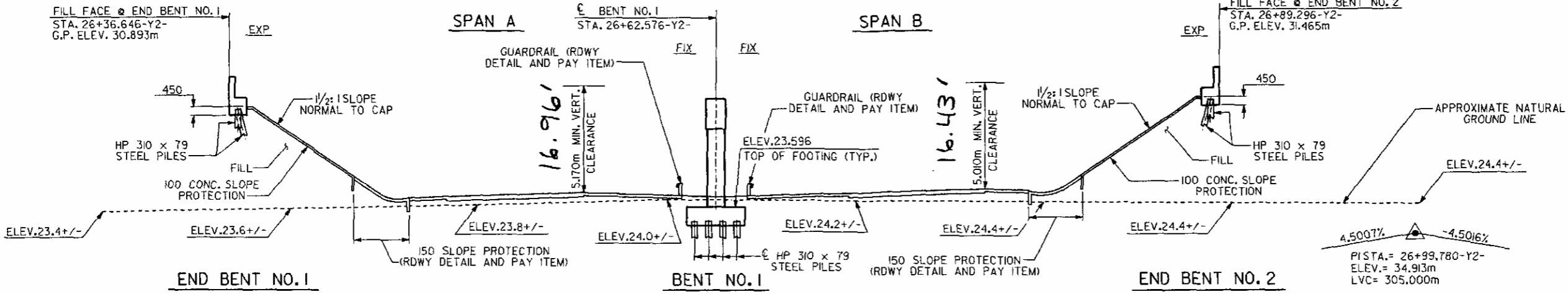
27+00

F.A. PROJECT NO.: NHF-38-1(67)

FILL FACE @ END BENT NO. 1
STA. 26+36.646-Y2-
G.P. ELEV. 30.893m

FILL FACE @ END BENT NO. 2
STA. 26+89.296-Y2-
G.P. ELEV. 31.465m

31
30
29
28
27
26
25
24
23
22
21
20



GRADE DATA

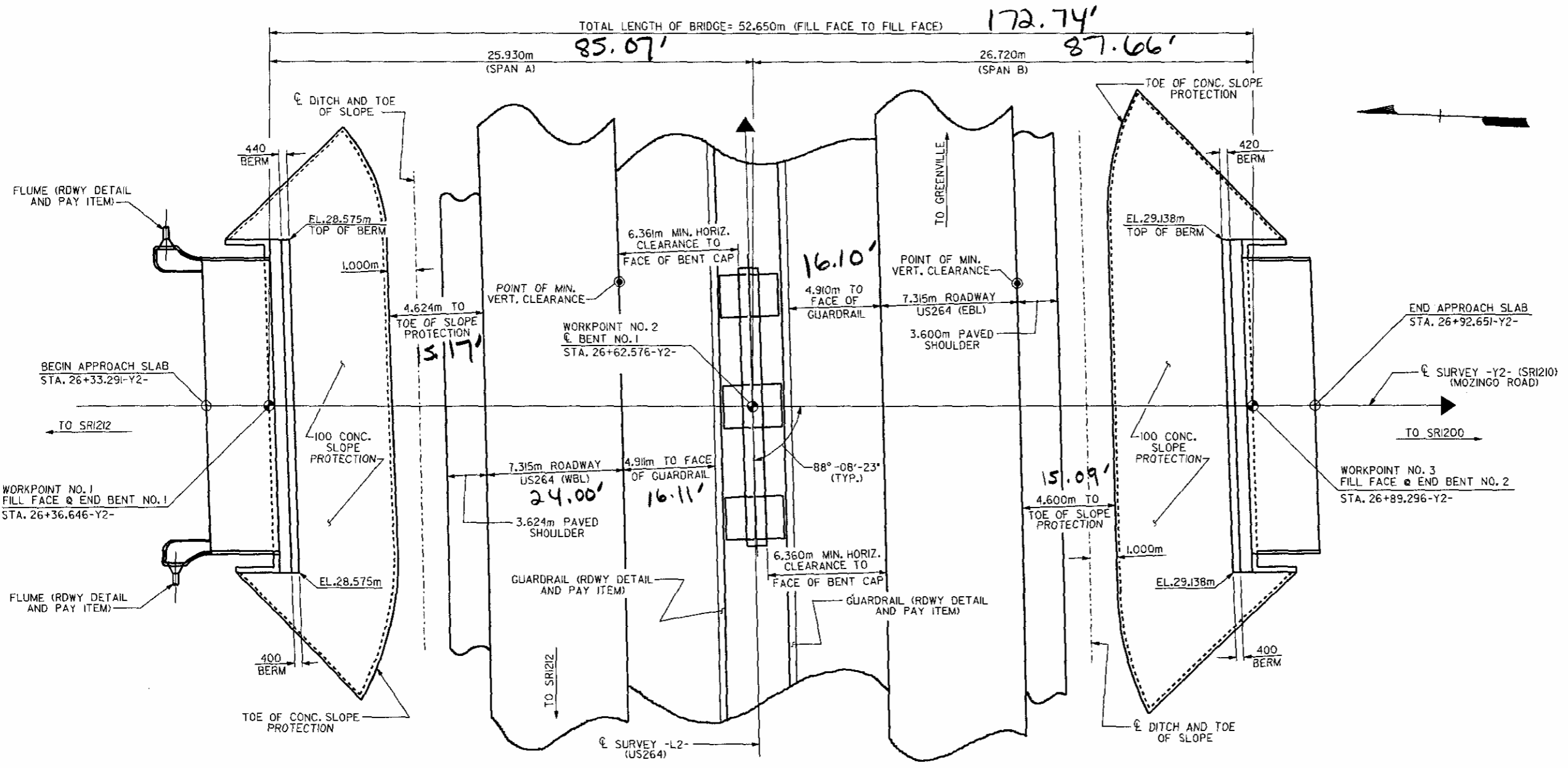
PI STA. = 107+41.381-L2-
 OS = 00°-44'-59"
 LS = 60.960m
 R = 2329.371m
 SE = .03

HORIZ. CURVE DATA

SECTION ALONG E SURVEY -Y2-

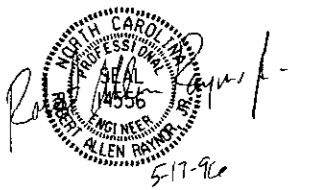
(END BENTS AND BENT NORMAL TO SKEW)

TOTAL LENGTH OF BRIDGE = 52.650m (FILL FACE TO FILL FACE)



PLAN

(INTERIOR BENT AND END BENTS ARE PARALLEL)
 (PILES NOT SHOWN FOR CLARITY)



PROJECT NO. R-526G
 PITT COUNTY
 STATION: 109+39.958-L2-

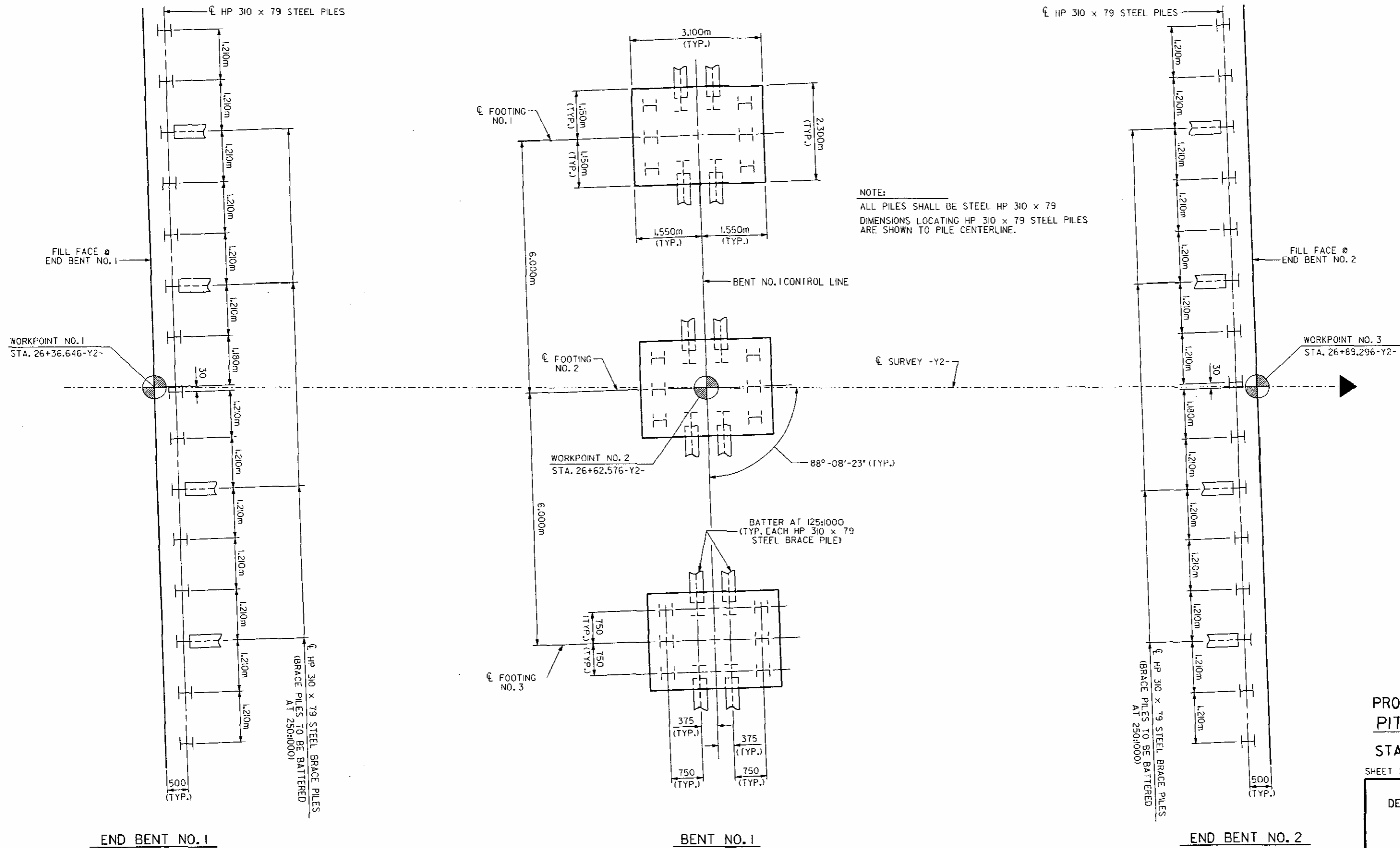
SHEET 1 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

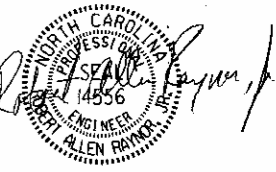
GENERAL DRAWING
 FOR BRIDGE ON SR1210
 (MOZINGO ROAD) OVER US264
 BETWEEN SR1212 AND SR1200

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S-28
1			3			TOTAL SHEETS 54
2			4			

DRAWN BY: Tony G. Stephenson DATE: 23-AUG-95
 CHECKED BY: Ed. Salvo DATE: 9-NOV-95



NOTE:
 ALL PILES SHALL BE STEEL HP 310 x 79
 DIMENSIONS LOCATING HP 310 x 79 STEEL PILES
 ARE SHOWN TO PILE CENTERLINE.



PROJECT NO. R-526G
 PITT COUNTY
 STATION: 109+39.958-L2-

SHEET 2 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE ON SR120
 (MOZINGO ROAD) OVER US264.
 BETWEEN SR1212 AND SR1200
 FOUNDATION LAYOUT

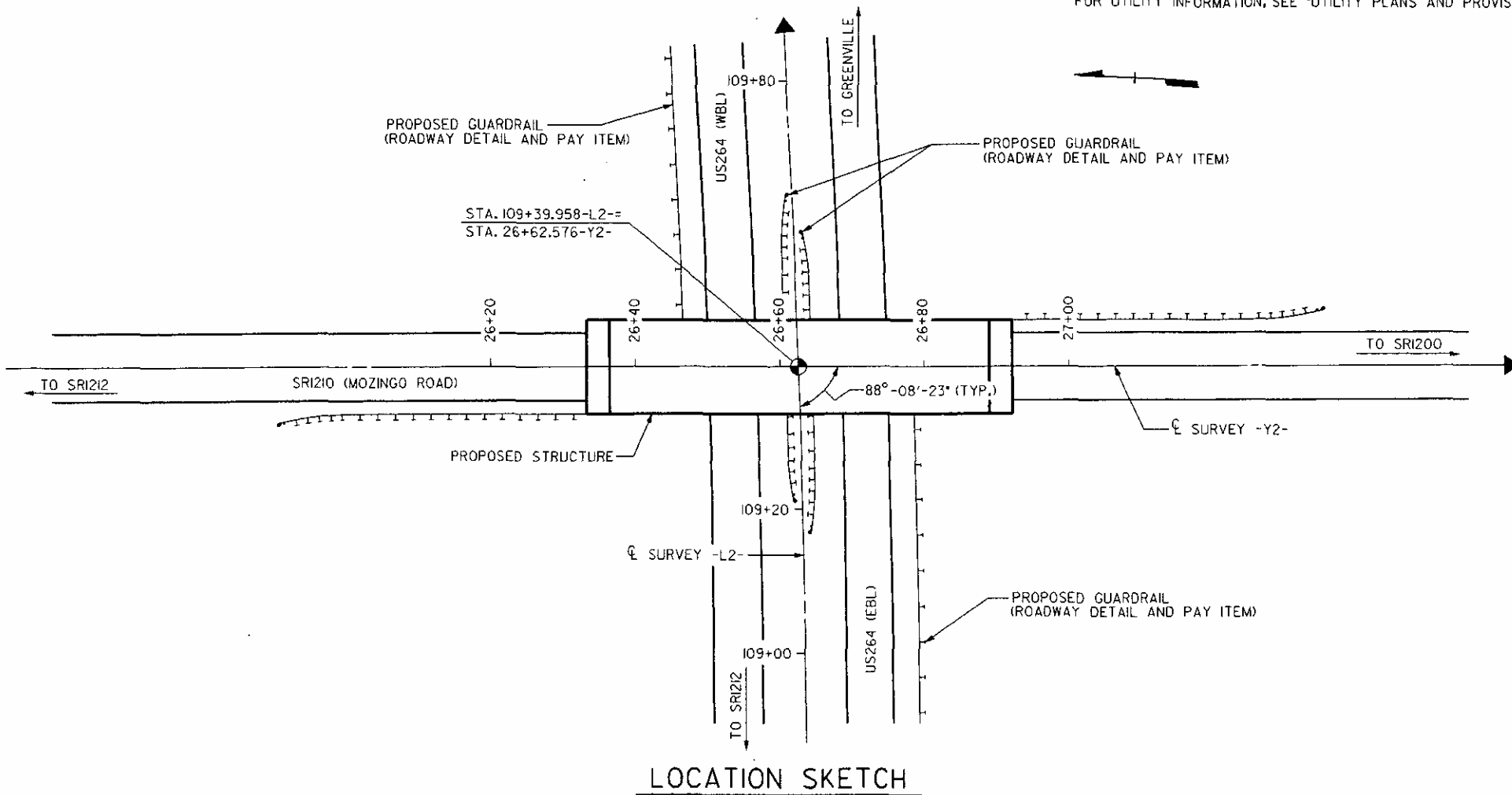
REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-29	
1			3			TOTAL SHEETS	
2			4			54	

DRAWN BY: Tony G. Stephenson DATE: 23-AUG-95
 CHECKED BY: E.J. Salvo DATE: 9-NOV-95

FOUNDATION LAYOUT

T.B.M. # 9: #5 REBAR 6.0m RT OF -Y2- STA.30+06+/- ELEV.23.717

NOTE:
FOR UTILITY INFORMATION, SEE "UTILITY PLANS AND PROVISIONS."



NOTES

- ASSUMED LIVE LOAD = MS 18 OR ALTERNATE LOADING.
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
- ALL ELEVATIONS ARE SHOWN IN METERS.
- THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE "STANDARD SPECIFICATIONS FOR THE SEISMIC DESIGN OF HIGHWAY BRIDGES", FOR SEISMIC PERFORMANCE CATEGORY A.
- FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET S-N.
- FOR REINFORCED CONCRETE DECK SLAB, SEE SPECIAL PROVISIONS.
- FOR CURING BRIDGE DECK SLABS, SEE THE SPECIAL PROVISION "REINFORCED CONCRETE DECK SLAB."
- FOR MAINTENANCE OF TRAFFIC, SEE TRAFFIC CONTROL PLANS.
- FOR FALSEWORK AND FORMS OVER OR ADJACENT TO TRAFFIC, SEE SPECIAL PROVISIONS.
- FOR MAINTENANCE AND PROTECTION OF TRAFFIC BENEATH PROPOSED STRUCTURE, SEE SPECIAL PROVISIONS.
- FOR FABRICATED METAL STAY-IN-PLACE FORMS, SEE SPECIAL PROVISIONS.
- PILES FOR END BENT NO. 1, INTERIOR BENT NO. 1 AND END BENT NO. 2 SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 400 KN EACH.
- THE CONTRACTOR SHALL ALLOW A TWO (2) MONTH WAITING PERIOD AFTER PLACING BRIDGE APPROACH FILL BEFORE BEGINNING CONSTRUCTION ON BOTH END BENTS.
- APPROACH SLAB WAITING PERIODS ARE WAIVED FOR BOTH END BENTS.
- THE CONTRACTOR SHALL PROVIDE INDEPENDENT ASSURANCE SAMPLES OF REINFORCING STEEL AS FOLLOWS: FOR PROJECTS REQUIRING UP TO 360,000 KILOGRAMS OF REINFORCING STEEL, ONE 760mm SAMPLE OF EACH SIZE BAR USED, AND FOR PROJECTS REQUIRING OVER 360,000 KILOGRAMS OF REINFORCING STEEL, TWO 760mm SAMPLES OF EACH SIZE BAR USED, THE BARS FROM WHICH THE SAMPLES ARE TAKEN MUST THEN BE SPLICED WITH REPLACEMENT BARS OF THE SIZE AND LENGTH OF THE SAMPLE, PLUS A MINIMUM LAP SPLICE OF THIRTY BAR DIAMETERS.
- FOUNDATION EXCAVATION TO BE MEASURED FROM THE GRADED ROADWAY SECTION.

TOTAL BILL OF MATERIAL

	FOUNDATION EXCAVATION	REINFORCED CONCRETE DECK SLAB	GROOVING BRIDGE FLOORS	CLASS A CONCRETE	BRIDGE APPROACH SLABS AT STA.109+39.958-L2-	REINFORCING STEEL	SPIRAL COLUMN REINFORCING STEEL	1372mm PRESTRESSED CONCRETE GIRDERS	HP 310 X 79 STEEL PILES	CONCRETE BARRIER RAIL	100mm SLOPE PROTECTION	ELASTOMERIC BEARINGS	EVAZOTE JOINT SEALS
	CU. METERS	SO. METERS	SO. METERS	CU. METERS	LUMP SUM	kg	kg	NO. METERS	NO. METERS	METERS	SO. METERS	LUMP SUM	LUMP SUM
SUPERSTRUCTURE		834.0	735.0		LUMP SUM			12 309.91		104.00		LUMP SUM	LUMP SUM
END BENT 1				27.3		2512		15 315			210		
BENT 1	58.0			64.8		5743	424	30 300					
END BENT 2				27.3		2515		15 270			270		
TOTAL	58.0	834.0	735.0	119.4	LUMP SUM	10,770	424	12 309.91 60 885		104.00	480	LUMP SUM	LUMP SUM

Professional Engineer Seal
 STATE OF NORTH CAROLINA
 ENGINEER
 14556
 5-17-96

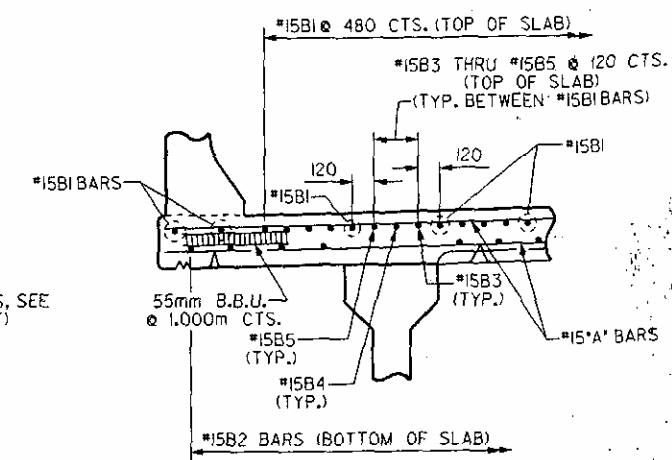
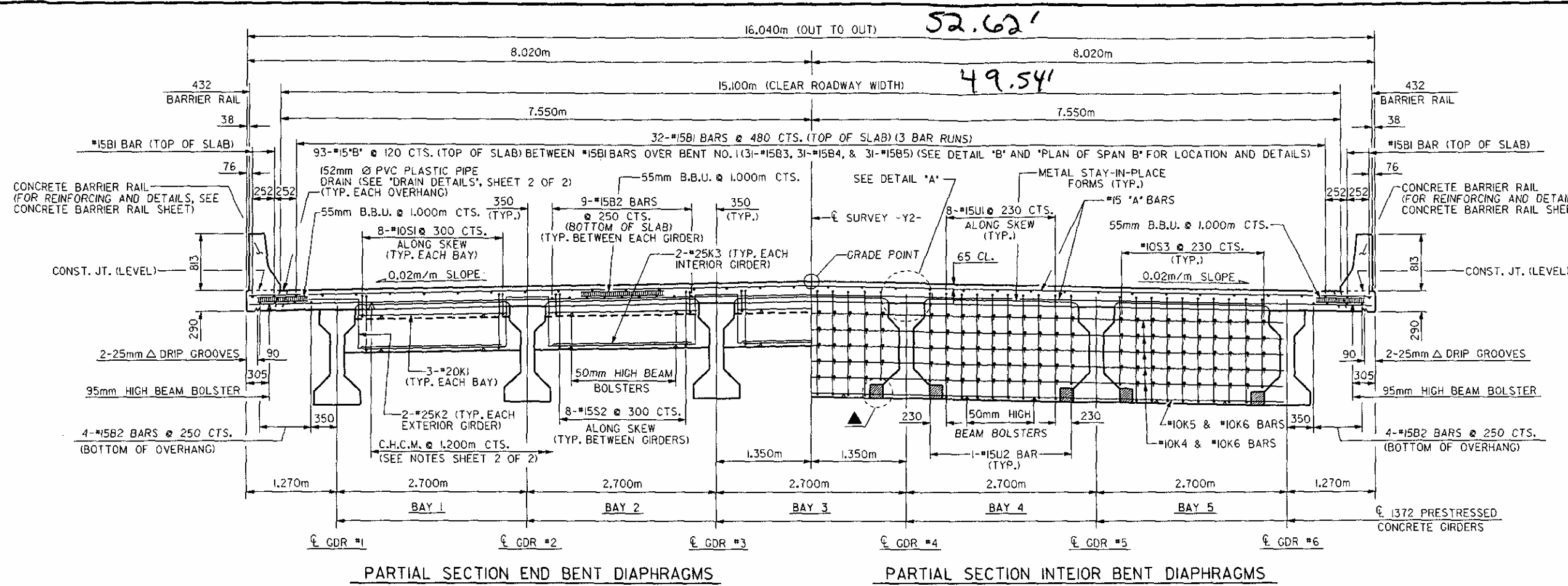
PROJECT NO. R-526G
 PITT COUNTY
 STATION: 109+39.958-L2-

SHEET 3 OF 3

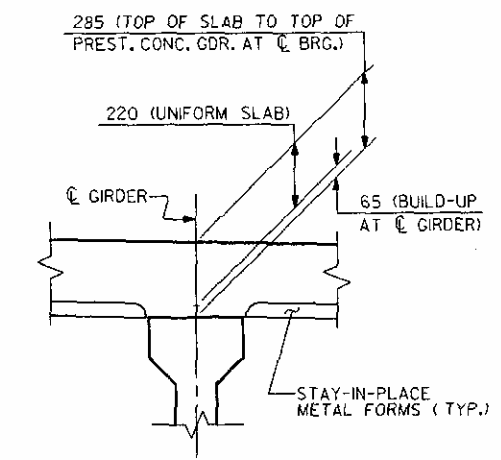
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE ON SR1210
 (MOZINGO ROAD) OVER US264
 BETWEEN SR1212 AND SR1200

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	5-30
1			3			TOTAL SHEETS
2			4			54

DRAWN BY: Tony G. Stephenson DATE: 23-AUG-95
 CHECKED BY: E. J. Salvo DATE: 9-NOV-95

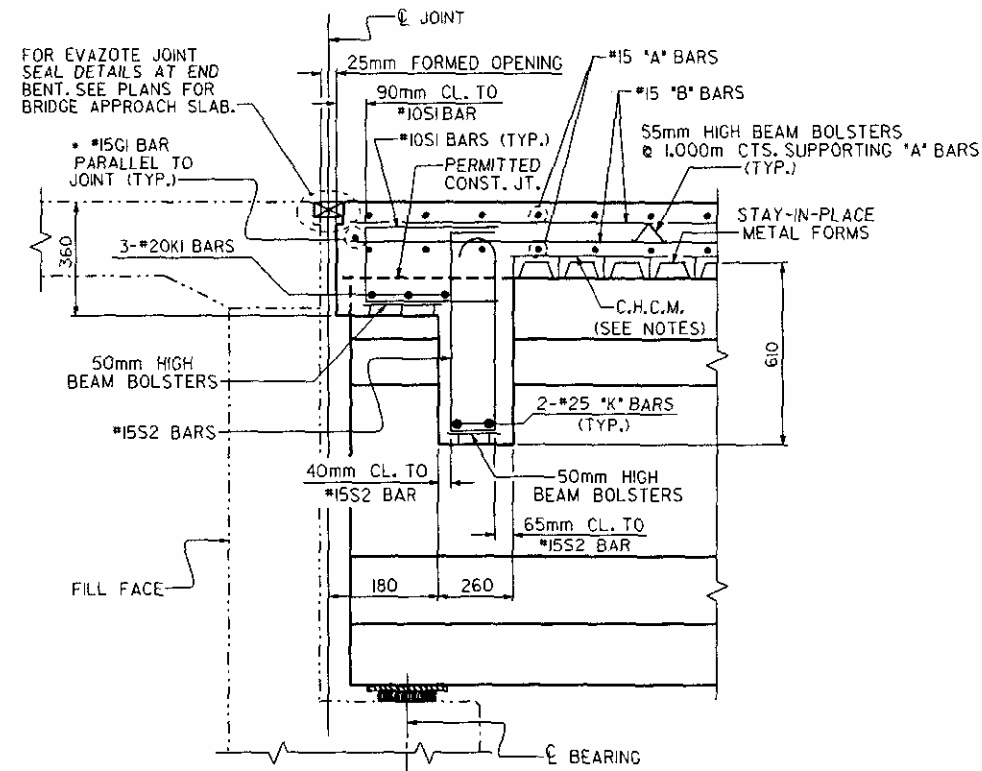


DETAIL "B"
 (DETAIL SHOWING 'B' BARS IN AREA OF BENT NO. 1) (SEE 'PLAN OF SPAN B' FOR ADDITIONAL DETAILS.)

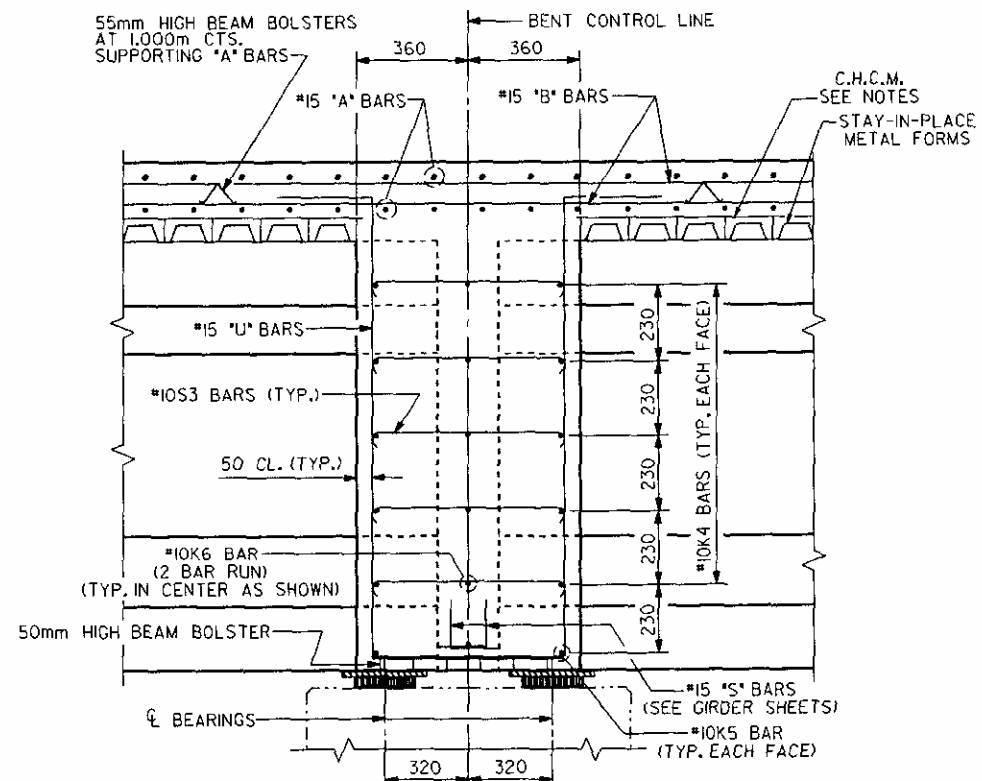


DETAIL "A"

▲ BLOCKOUT, SEE 'BENT DIAPHRAGM BLOCKOUT DETAILS', SHEET 2 OF 2.



SECTION THRU END BENT DIAPHRAGM
 (END BENT NO. 1 SHOWN; END BENT NO. 2 SIMILAR)



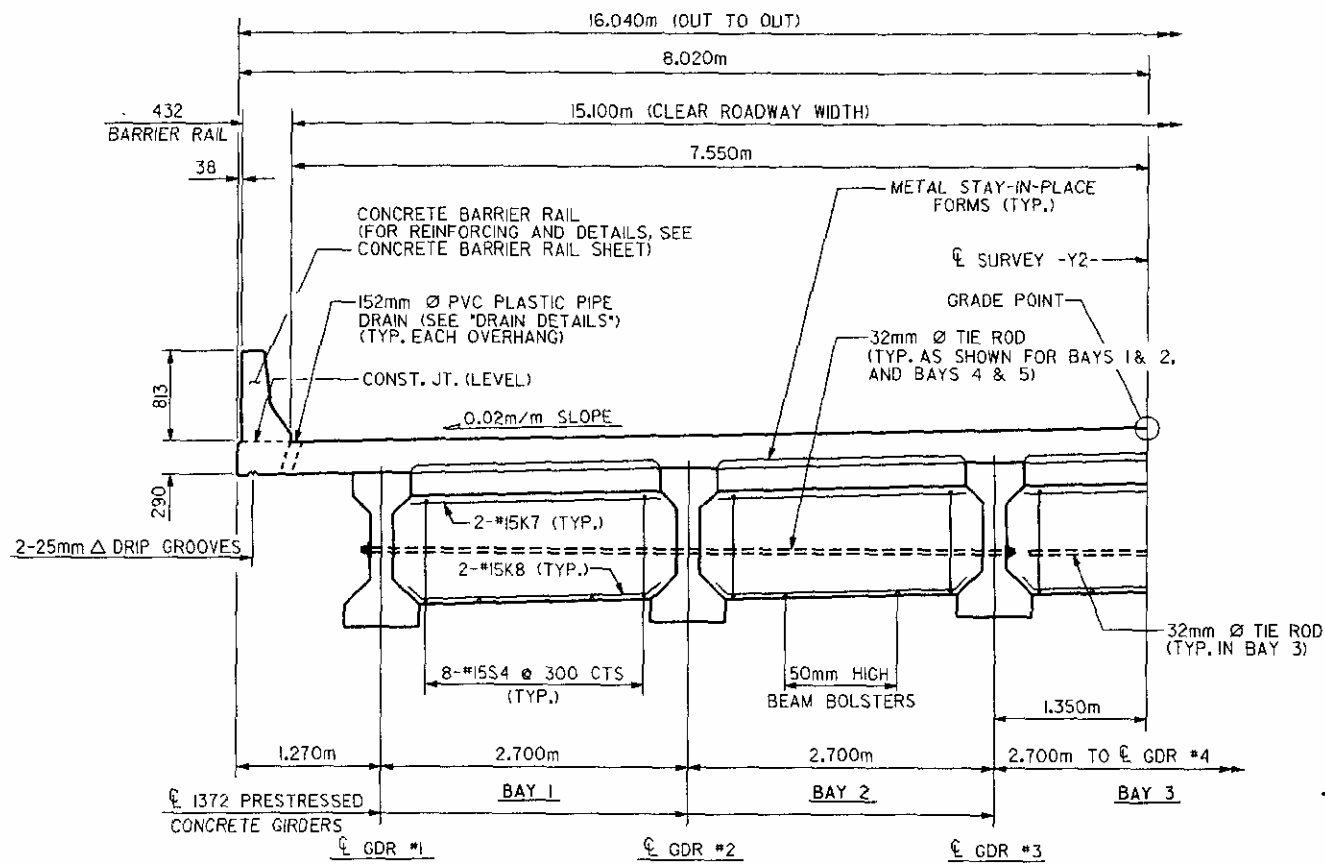
SECTION THRU INTERIOR BENT DIAPHRAGM

DRAWN BY: Tony G. Stephenson DATE: 11-SEPT-95
 CHECKED BY: E.J. Salvo DATE: 9-NOV-95



PROJECT NO. R-526G
 PITT COUNTY
 STATION: 109+39,958-L2-
 SHEET 1 OF 2

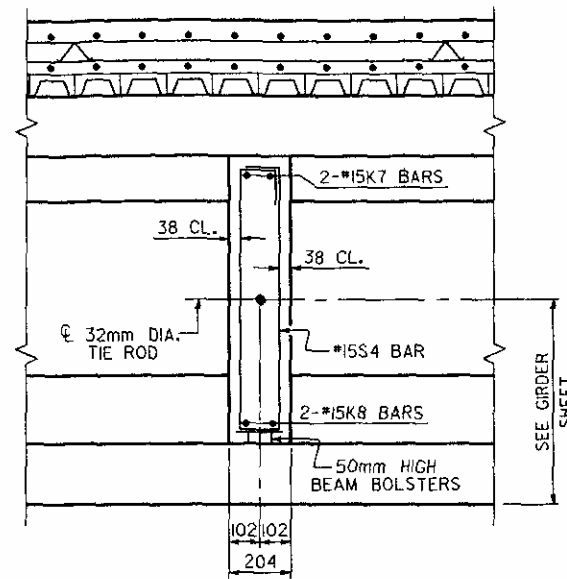
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH SUPERSTRUCTURE					
TYPICAL SECTION					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		
SHEET NO. S-31					TOTAL SHEETS 54



PARTIAL SECTION INTERMEDIATE DIAPHRAGM

PARTIAL TYPICAL SECTION

DETAIL SHOWING INTERMEDIATE DIAPHRAGM DETAILS
(NOTE: DETAIL SYMMETRICAL ABOUT CENTERLINE)



SECTION THRU INTERMEDIATE DIAPHRAGM

NOTES

PROVIDE CONTINUOUS HIGH CHAIR FOR METAL DECK (C.H.C.M.) @ 1.2m CENTERS WITH LEG SPACING TO MATCH THE PITCH OF THE FORM AND WITH A HEIGHT TO SUPPORT THE BOTTOM LAYER OF SLAB REINFORCEMENT A CLEAR DISTANCE OF 30mm ABOVE THE TOP OF THE STAY-IN-PLACE FORM.

LONGITUDINAL STEEL MAY BE SHIFTED SLIGHTLY AS NECESSARY TO AVOID INTERFERENCE WITH STIRRUPS IN PRESTRESSED CONCRETE GIRDERS.

PREVIOUSLY CAST CONCRETE IN A CONTINUOUS UNIT SHALL HAVE ATTAINED A MINIMUM COMPRESSIVE STRENGTH OF 21MPa BEFORE ADDITIONAL CONCRETE IS CAST IN THE UNIT.

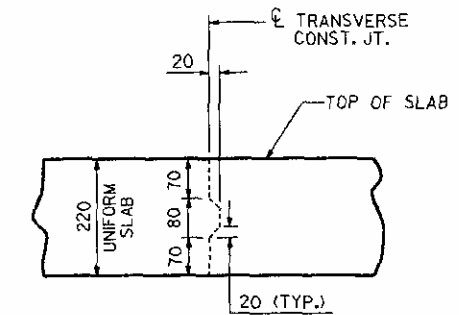
BARRIER RAIL IN A CONTINUOUS UNIT SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN THE UNIT HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 21MPa.

TEMPORARY STRUTS SHALL BE PLACED BETWEEN PRESTRESSED GIRDERS ADJACENT TO THE DIAPHRAGMS AND THE NUTS ON THE 32mm DIA. TIE RODS SHALL BE FULLY TIGHTENED BEFORE THE DIAPHRAGMS ARE CAST. STRUTS SHALL REMAIN IN PLACE THREE (3) DAYS AFTER CONCRETE IS PLACED. THE TIE RODS SHALL BE RETIGHTENED AFTER THE STRUTS HAVE BEEN REMOVED.

CONCRETE IN INTERMEDIATE DIAPHRAGMS MAY BE CLASS AA IN LIEU OF CLASS AA. PAYMENT SHALL BE MADE UNDER THE UNIT CONTRACT PRICE FOR REINFORCED CONCRETE DECK SLAB.

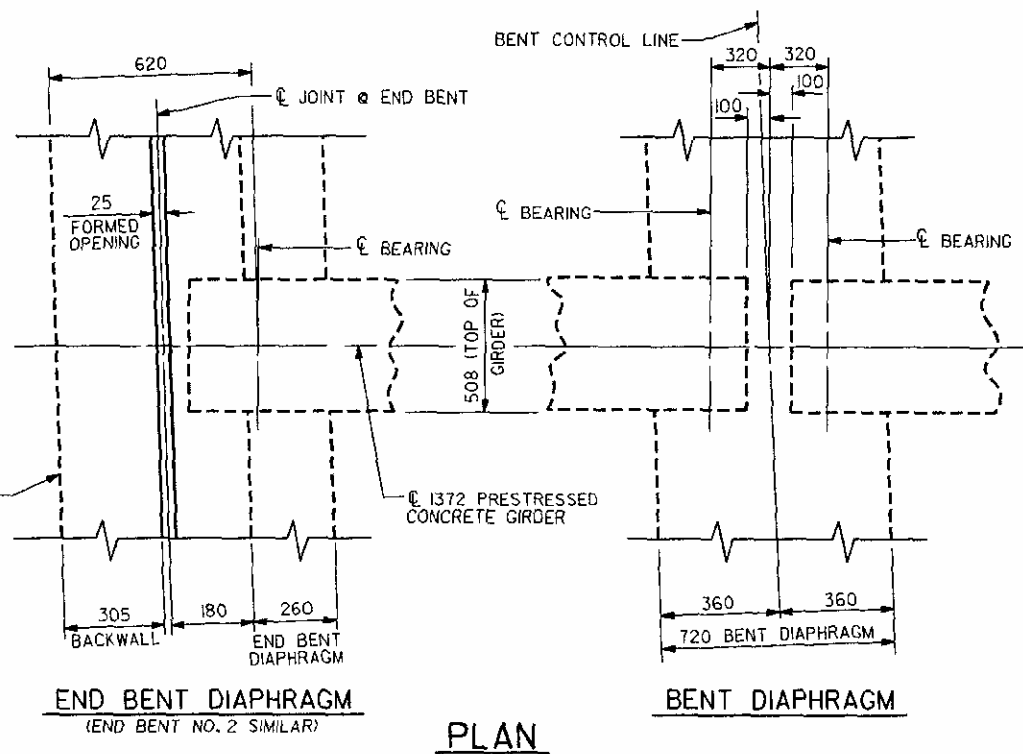
ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE EVAZOTE JOINT SEAL SHALL BE 7mm AT END BENTS AND 2. FOR EVAZOTE JOINT SEALS, SEE SPECIAL PROVISIONS.

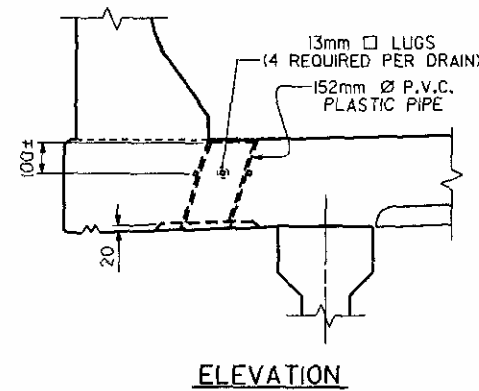


TRANSVERSE CONSTRUCTION JOINT DETAIL

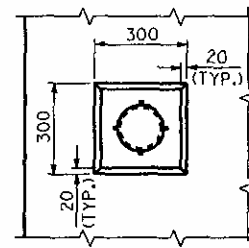
NOTE: REINFORCING STEEL IN SLAB NOT SHOWN. LONGITUDINAL REINFORCING STEEL SHALL BE CONTINUOUS THRU JOINT.



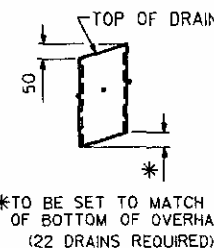
PLAN



ELEVATION



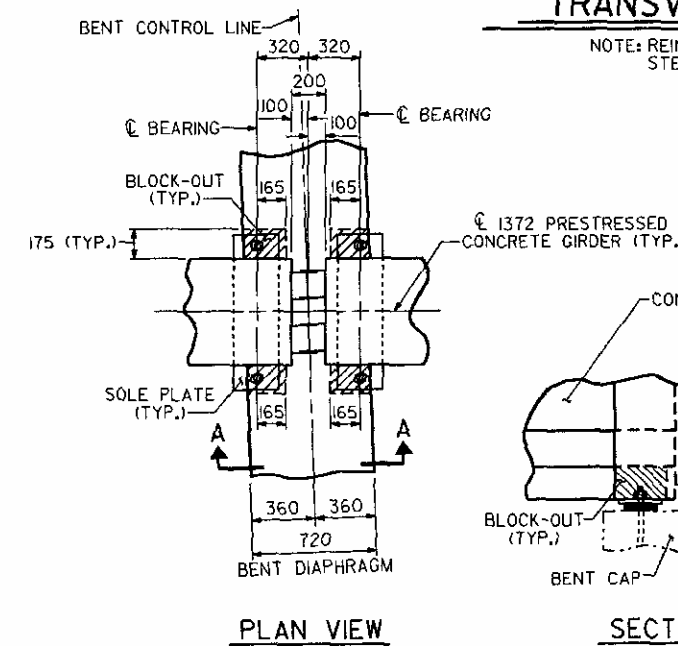
PLAN OF RECESS



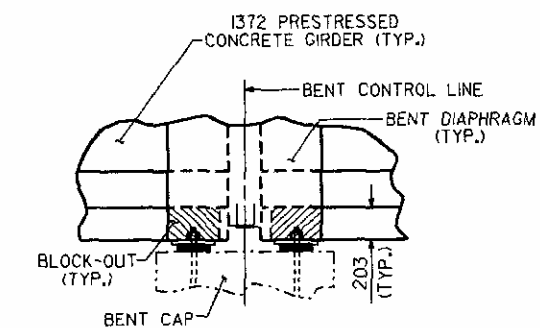
PIPE DRAIN

DRAIN DETAILS

TOP OF FLOOR DRAINS TO SET 10mm BELOW SURFACE OF SLAB.
4-13mm □ LUGS TO BE GLUED TO THE P.V.C. PLASTIC PIPE AT EQUAL SPACES AROUND THE PIPE DRAIN.



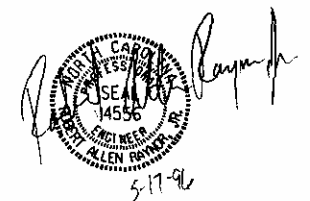
PLAN VIEW



SECTION A-A

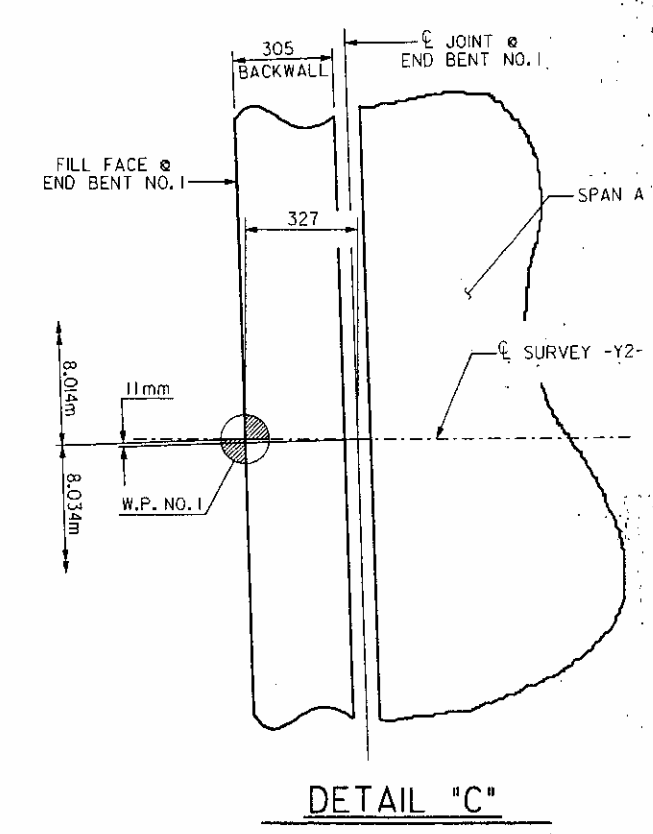
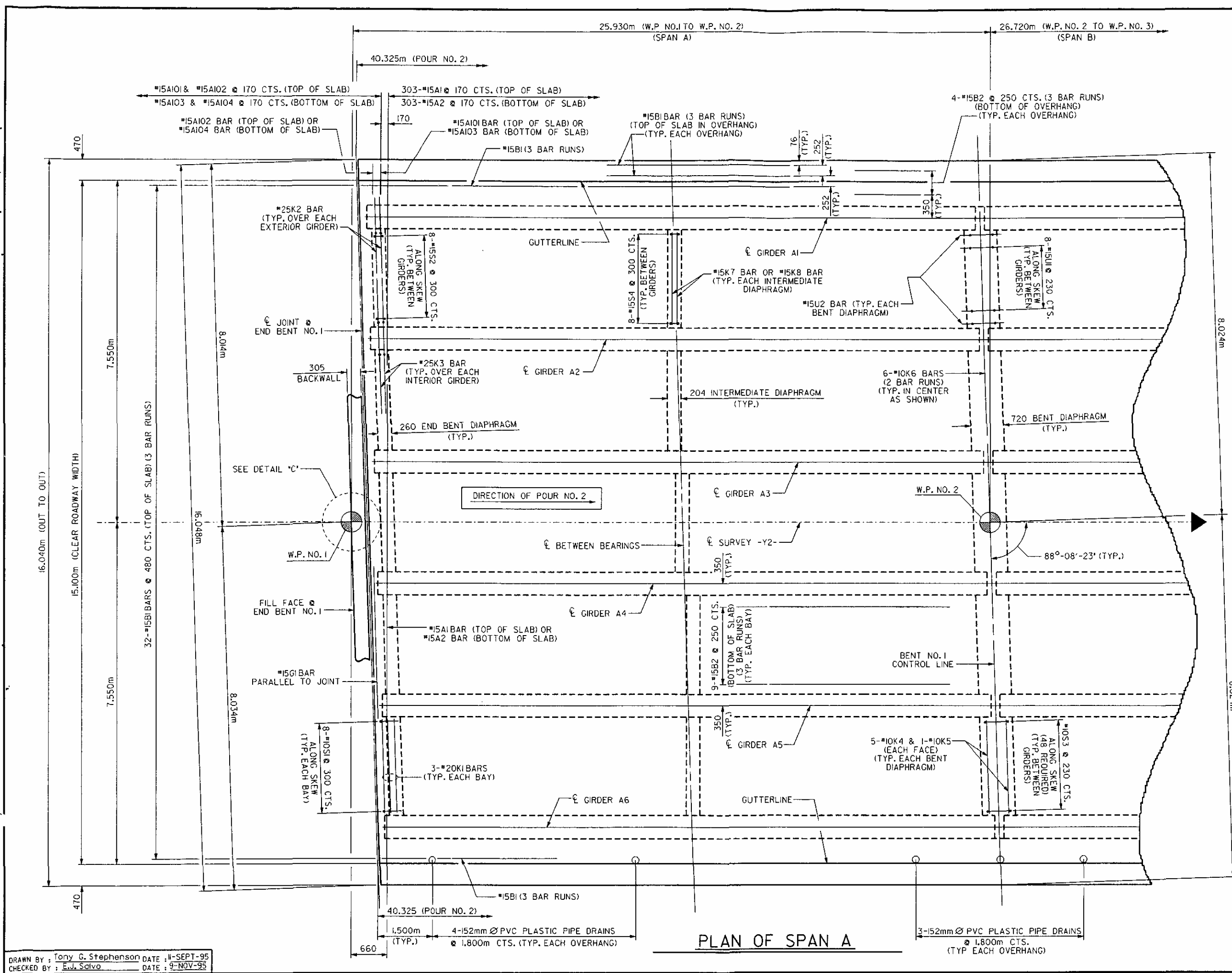
BENT DIAPHRAGM BLOCK-OUT DETAIL

(BENT DIAPHRAGM FOR CONTINUOUS DECK SLAB)



PROJECT NO. R-526G
PITT COUNTY
STATION: 109+39.958-L2-
SHEET 2 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH SUPERSTRUCTURE					
TYPICAL SECTION					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		



NOTE:

FOR LOCATION OF INTERMEDIATE DIAPHRAGMS, SEE "SUPERSTRUCTURE FRAMING PLAN" SHEET.

FOR BARRIER RAIL REINFORCING STEEL, SEE "CONCRETE BARRIER RAIL" SHEETS.

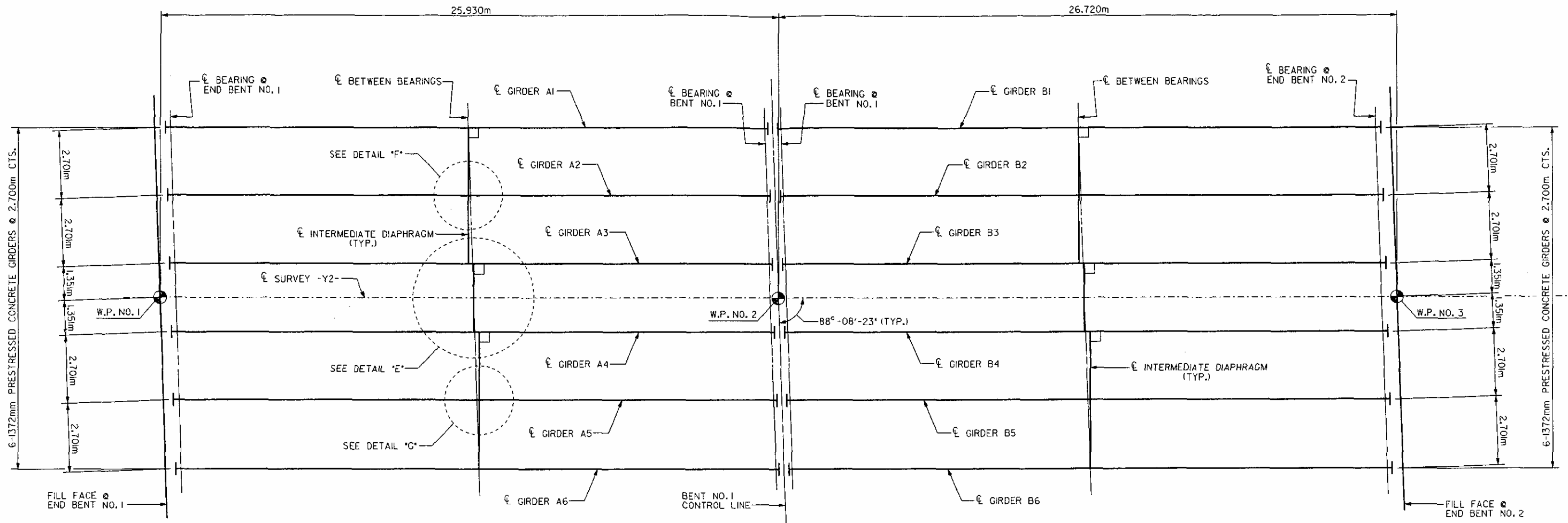
FOR "TRANSVERSE CONSTRUCTION JOINT IN DECK SLAB" DETAIL, SEE "SUPERSTRUCTURE TYPICAL SECTION" SHEET 2 OF 2.



PROJECT NO. R-526G
PITT COUNTY
STATION: 109+39.958-L2-

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH SUPERSTRUCTURE					
PLAN OF SPAN A					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					SHEET NO. S-33
					TOTAL SHEETS 54

DRAWN BY: Tony G. Stephenson DATE: 11-SEPT-95
CHECKED BY: E.J. Salvo DATE: 9-NOV-95



EXPANSION
(EI, P1)

SPAN A

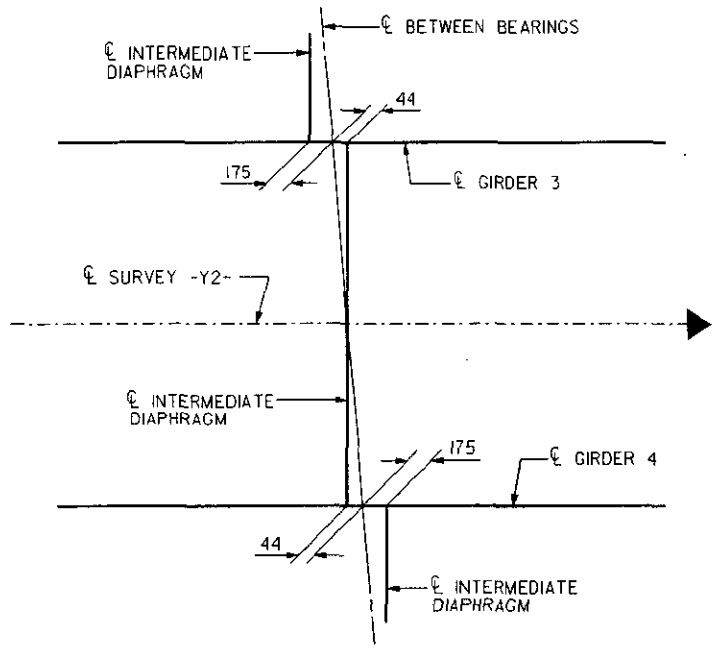
FIXED
(EI, P2)

FIXED
(EI, P3)

SPAN B

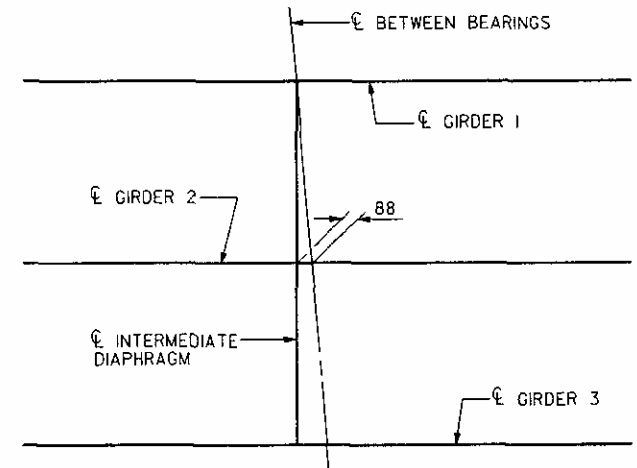
EXPANSION
(EI, P4)

FRAMING PLAN



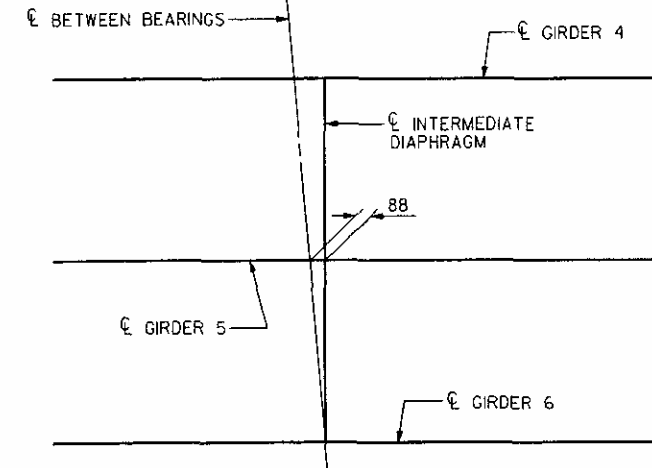
DETAIL "E"

(DETAIL TYPICAL FOR SPAN A AND SPAN B)



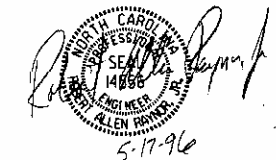
DETAIL "F"

(DETAIL TYPICAL FOR SPAN A AND SPAN B)



DETAIL "G"

(DETAIL TYPICAL FOR SPAN A AND SPAN B)

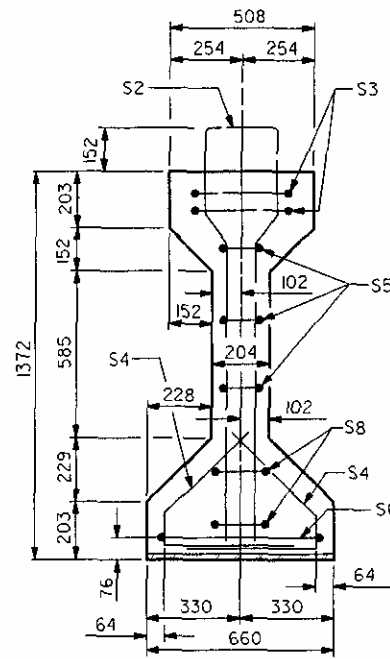


PROJECT NO. R-526G
PITT COUNTY
STATION: 109+39.958-L2-

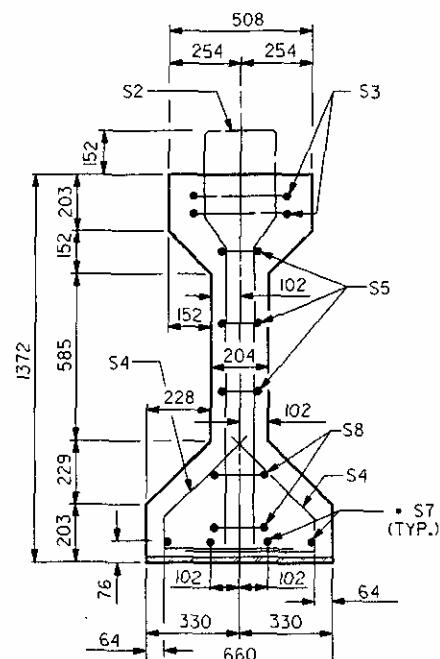
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE
FRAMING PLAN

REVISIONS						SHEET NO. S-35
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 54
2			4			

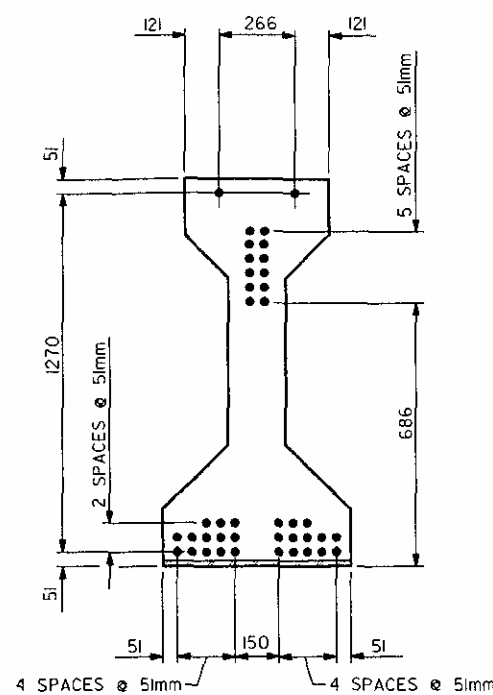
DRAWN BY: Tony G. Stephenson DATE: 11-SEPT-95
CHECKED BY: E.J. Salvo DATE: 9-NOV-95



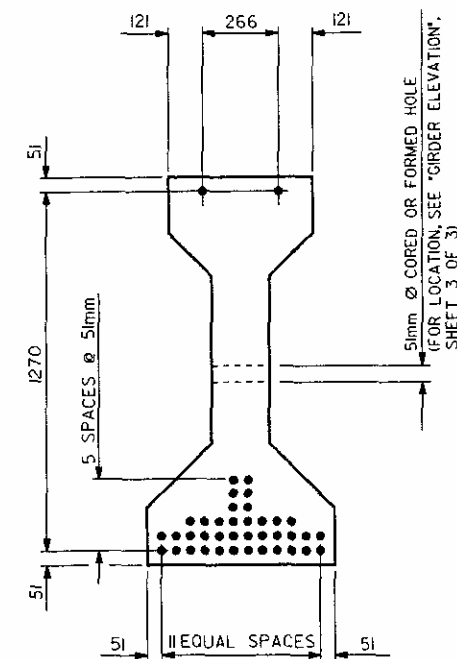
SECTION A-A



SECTION B-B

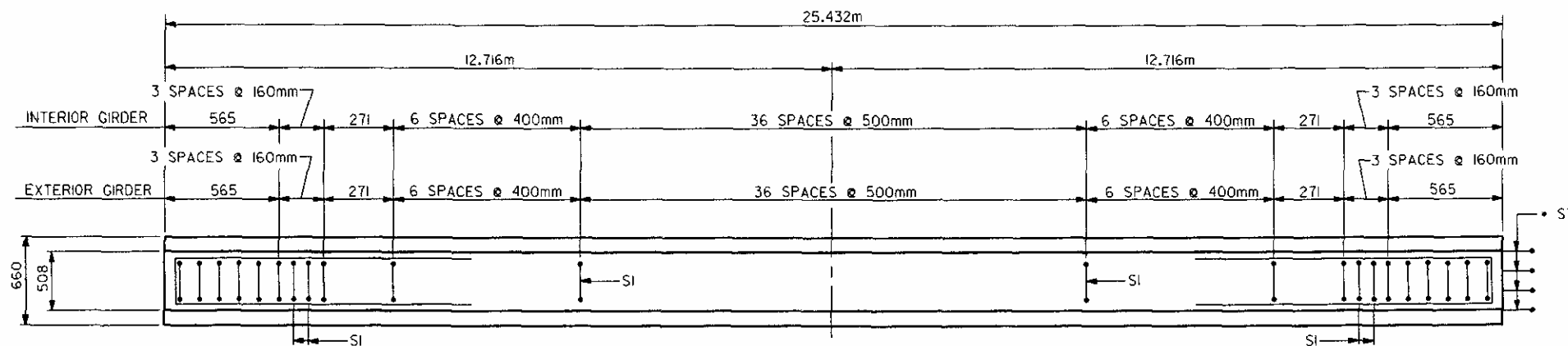


AT END OF GIRDER

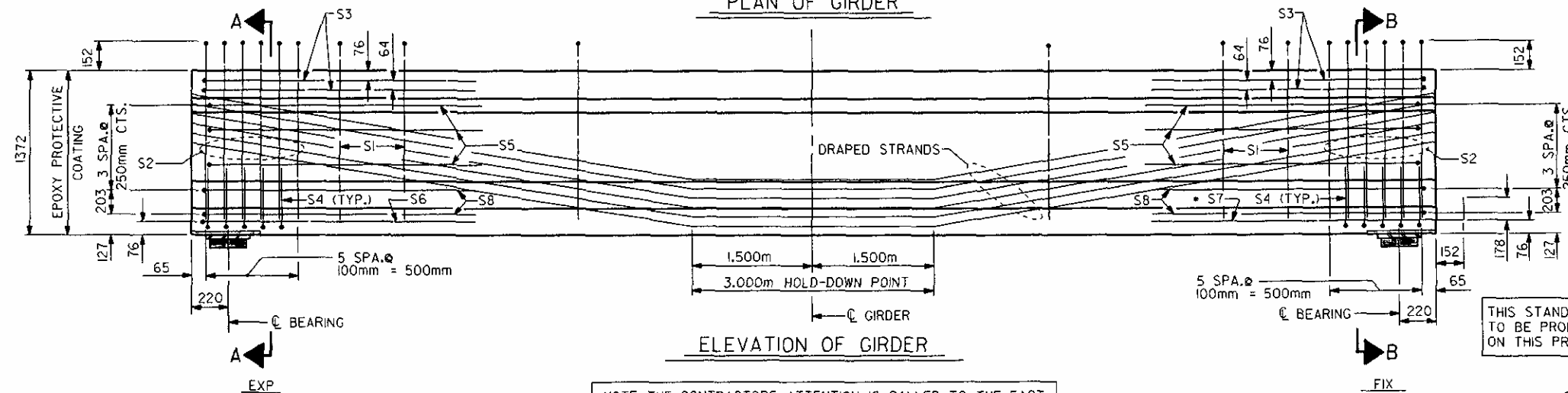


AT C. OF GIRDER

12.70mm Ø LOW RELAXATION STRAND LAYOUT



PLAN OF GIRDER



ELEVATION OF GIRDER

NOTE: THE CONTRACTORS ATTENTION IS CALLED TO THE FACT THAT THE CONCRETE STRENGTH IS 41.4 MPa.

12.70mm Ø L. R. GRADE 270 STRANDS

AREA (mm ²)	ULTIMATE STRENGTH (kN PER STRAND)	APPLIED PRESTRESS (kN PER STRAND)
98.71	183.7	137.8

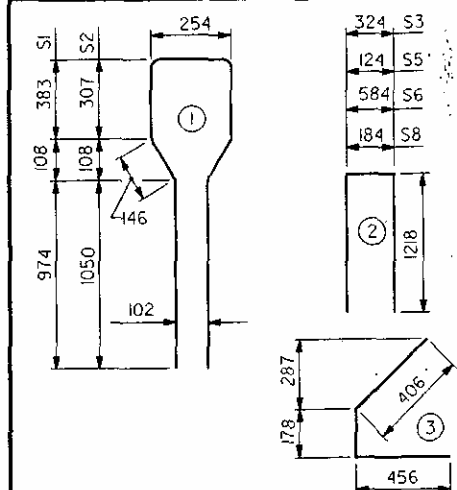
REINFORCING STEEL FOR ONE GIRDER

BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT	
INTERIOR GDR.	S1	55	#15	3260	282	
EXTERIOR GDR.	S1	55	#15	3260	282	
	S2	12	#20	3260	92	
	S3	4	#15	2760	17	
	S4	20	#15	1040	33	
	S5	6	#15	2560	24	
	S6	1	#15	3020	5	
	S7	4	#15	STR	1600	10
	S8	4	#15	2	2620	16

NOTE: S7 BARS SHALL BE BENT AFTER GIRDER FABRICATION AND BEFORE SHIPMENT.

BAR TYPES

ALL BAR DIMENSIONS ARE OUT-TO-OUT



QUANTITIES FOR ONE GIRDER

	REINFORCING STEEL (kg)	41.4 MPa CONCRETE (m ³)	12.70mm Ø L.R. STRANDS (No.)
INTERIOR GIRDER	479	12.9	40
EXTERIOR GIRDER	479	12.9	40

1372mm GIRDERS REQUIRED

NUMBER	LENGTH	TOTAL LENGTH
6	25.43m	152.59m

PROJECT NO. R-526G
PITT COUNTY
STATION: 109+39.958-L2-

SHEET 1 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD

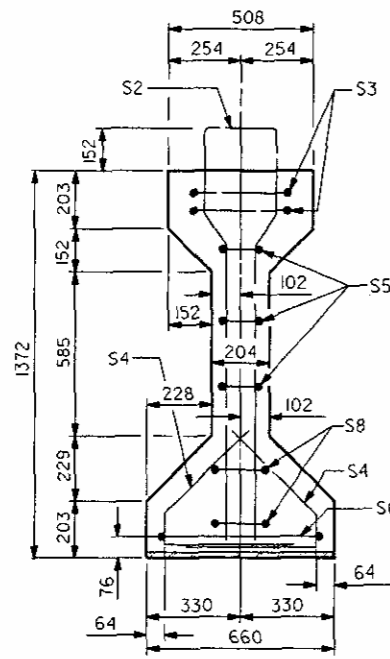
1372mm PRESTRESSED
CONCRETE GIRDER
CONTINUOUS FOR LIVE LOAD
SPAN A

THIS STANDARD DRAWING HAS BEEN FOUND TO BE PROPERLY SITE ADAPTED FOR USE ON THIS PROJECT BY THE UNDERSIGNED.

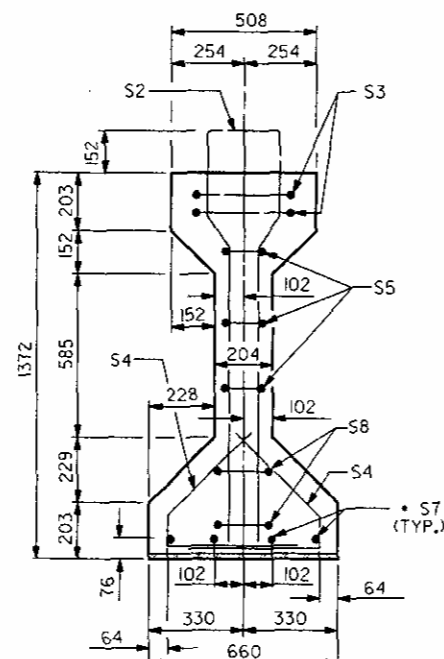


ASSEMBLED BY: Tony G. Stephenson	DATE: 18-SEPT-95	SPECIAL
CHECKED BY: E.J. Salvo	DATE: 9-NOV-95	
DRAWN BY: ED ROSE	DATE: AUG. 1991	STANDARD
CHECKED BY: GREG PERFETTI	DATE: AUG. 1991	

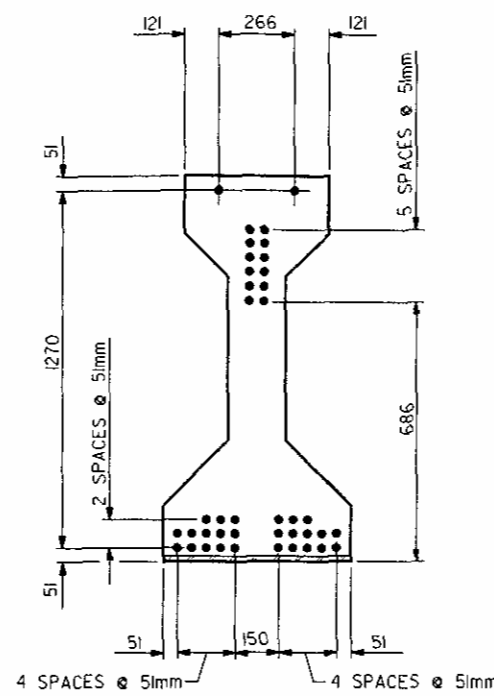
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-36
1			3			TOTAL SHEETS 54
2			4			



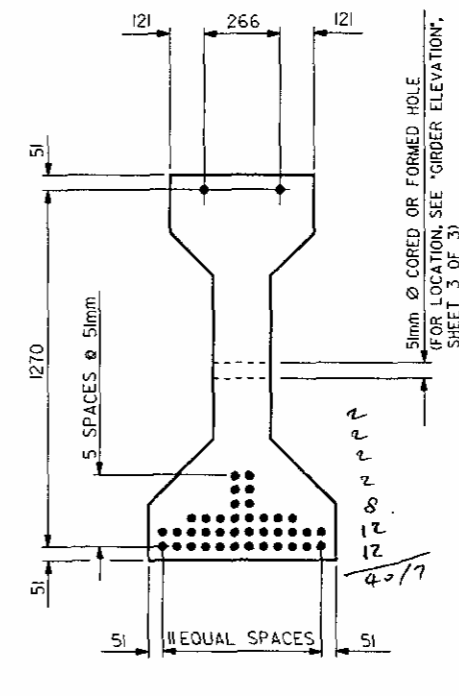
SECTION A-A



SECTION B-B

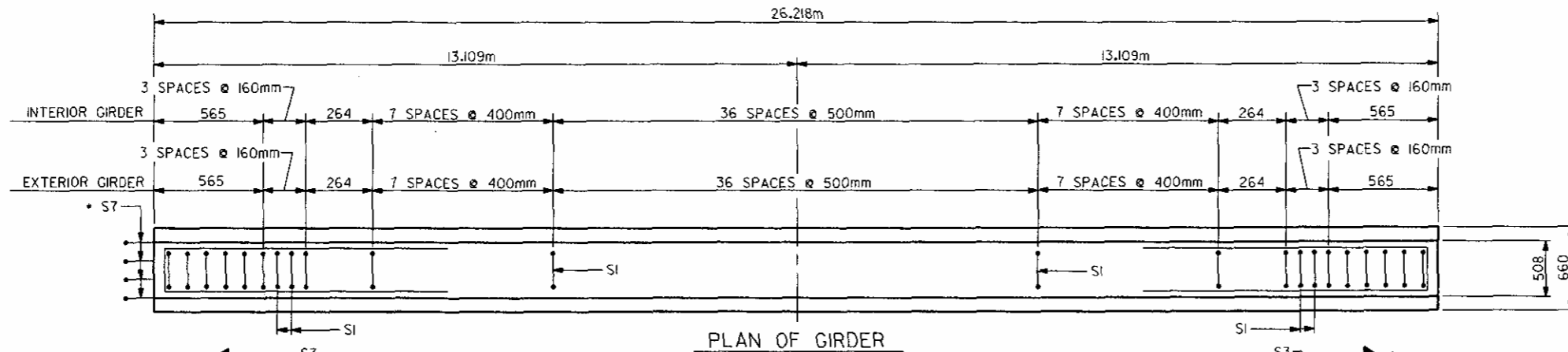


AT END OF GIRDER

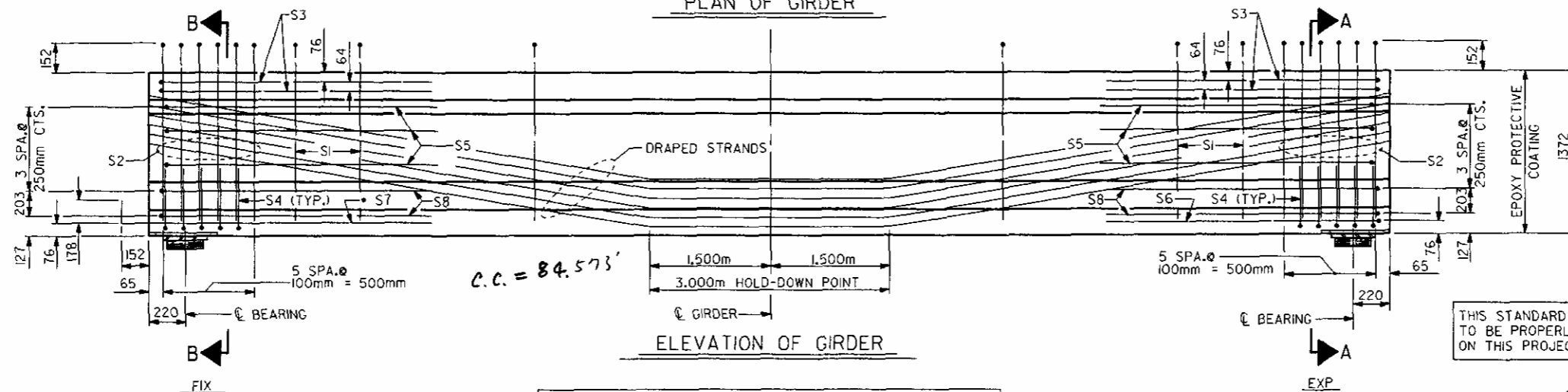


AT C OF GIRDER

12.70mm Ø LOW RELAXATION STRAND LAYOUT



PLAN OF GIRDER



ELEVATION OF GIRDER

NOTE: THE CONTRACTORS ATTENTION IS CALLED TO THE FACT THAT THE CONCRETE STRENGTH IS 41.4 MPa.

THIS STANDARD DRAWING HAS BEEN FOUND TO BE PROPERLY SITE ADAPTED FOR USE ON THIS PROJECT BY THE UNDERSIGNED.

Professional Engineer Seal: Tony G. Stephenson, No. 10358, State of North Carolina. Date: 5-17-96.

12.70mm Ø L. R. GRADE 270 STRANDS		
AREA (mm ²)	ULTIMATE STRENGTH (KN PER STRAND)	APPLIED PRESTRESS (KN PER STRAND)
98.71	183.7	137.8

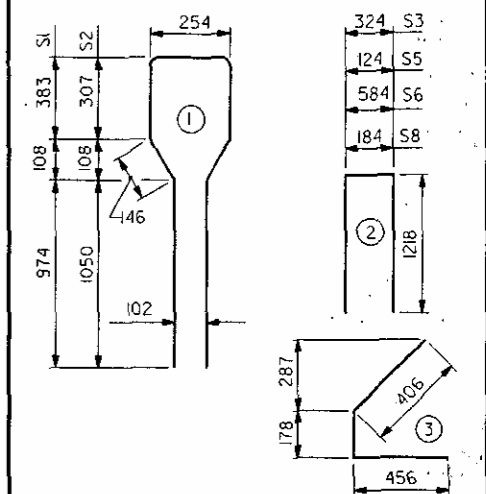
REINFORCING STEEL FOR ONE GIRDER

BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
INTERIOR GDR.	S1	#5	1	3260	292
EXTERIOR GDR.	S1	#5	1	3260	292
	S2	#20	1	3260	92
	S3	#5	2	2760	17
	S4	#5	3	1040	33
	S5	#5	2	2560	24
	S6	#5	2	3020	5
	S7	#5	STR	1600	10
	S8	#5	2	2620	16

NOTE: S7 BARS SHALL BE BENT AFTER GIRDER FABRICATION AND BEFORE SHIPMENT.

BAR TYPES

ALL BAR DIMENSIONS ARE OUT-TO-OUT



QUANTITIES FOR ONE GIRDER

	REINFORCING STEEL	41.4 MPa CONCRETE	12.70mm Ø L.R. STRANDS
	kg	m ³	No.
INTERIOR GIRDER	489	13.3	40
EXTERIOR GIRDER	489	13.3	40

1372mm GIRDERS REQUIRED

NUMBER	LENGTH	TOTAL LENGTH
6	26.22m	157.32m

PROJECT NO. R-526G
PITT COUNTY
STATION: 109+39.958-L2-

SHEET 2 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
1372mm PRESTRESSED
CONCRETE GIRDER
CONTINUOUS FOR LIVE LOAD
SPAN B

ASSEMBLED BY: Tony G. Stephenson DATE: 18-SEPT-95
CHECKED BY: E.J. Salvo DATE: 3-NOV-95
DRAWN BY: ED ROSE DATE: AUG. 1991
CHECKED BY: GREG PERFETTI DATE: AUG. 1991

SPECIAL
STANDARD

REVISIONS						SHEET NO. S-37
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 54
2			4			

NOTES

ALL PRESTRESSING STRANDS SHALL BE 7-WIRE LOW-RELAXATION GRADE 270 STRANDS AND SHALL CONFORM TO ASTM A-416 EXCEPT FOR SAMPLING REQUIREMENTS WHICH SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

TIE ROD ASSEMBLY SHALL BE AASHTO M270 GRADE 250 STRUCTURAL STEEL.

ALL REINFORCING STEEL SHALL BE GRADE 400.

APPLY EPOXY PROTECTIVE COATING TO END OF GIRDER SURFACES INDICATED IN ELEVATION VIEW FOR EPOXY PROTECTIVE COATING, SEE SPECIAL PROVISIONS.

EMBEDDED PLATE "B-1" SHALL BE GALVANIZED IN ACCORDANCE WITH THE SPECIFICATIONS.

STEEL SOLE PLATES, BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE SPECIFICATIONS.

BEVEL EDGES OF PLATE "B-1" TO GIVE CLOSE FIT BUT NOT TIGHT FIT TO STEEL CASTING FORM.

DEFORMED ANCHOR STUDS SHALL CONFORM TO ASTM A-496. WELDING PROCEDURE QUALIFICATION TEST FOR DEFORMED ANCHOR STUDS MAY BE REQUIRED.

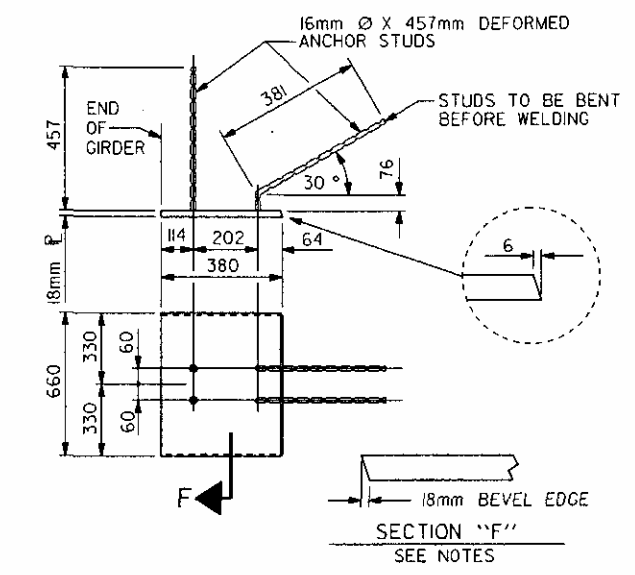
AT FIXED ENDS OF GIRDERS TO BE EMBEDDED IN CONCRETE DIAPHRAGMS OR END WALLS, PRESTRESSING STRANDS MAY EXTEND A MAXIMUM OF 50mm BEYOND GIRDER END. EXPOSED PRESTRESSING STRANDS AT EXPANSION ENDS OF GIRDERS SHALL BE CUT FLUSH WITH GIRDER END.

THE TRANSFER OF LOAD FROM THE ANCHORAGES TO THE GIRDER SHALL BE DONE WHEN CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF NOT LESS THAN 31MPa.

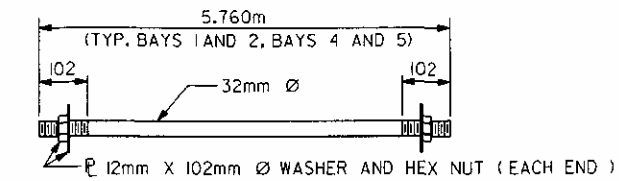
DEPENDING ON THE TYPE OF SYSTEM USED TO SUPPORT THE DECK SLAB FORMS, PRESET ANCHORS MAY BE NECESSARY IN THE PRESTRESSED CONCRETE GIRDER.

THE TOP SURFACE OF THE GIRDER SHALL BE RAKED TO A DEPTH OF 6mm EXCEPT IN THE AREA BETWEEN THE STIRRUP AND THE EDGE OF THE GIRDER.

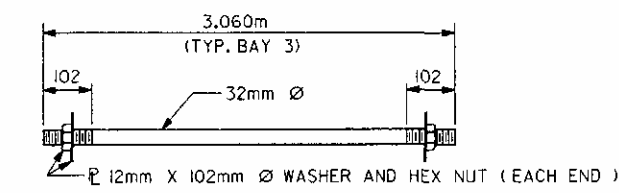
WHEN DRAPPED STRANDS ARE DETAILED, THE LONGITUDINAL LOCATION OF THE HOLD DOWN DEVICES SHALL BE WITHIN 150mm OF THE LOCATION SHOWN AND THE CENTER OF GRAVITY OF THE GROUP OF STRANDS SHALL BE LOCATED WITHIN 13mm OF THE THEORETICAL LOCATION SHOWN.



EMBEDDED PLATE "B-1" DETAILS FOR 1372mm GIRDER
(2 REQ'D PER GIRDER; TYP. SPANS A AND B)

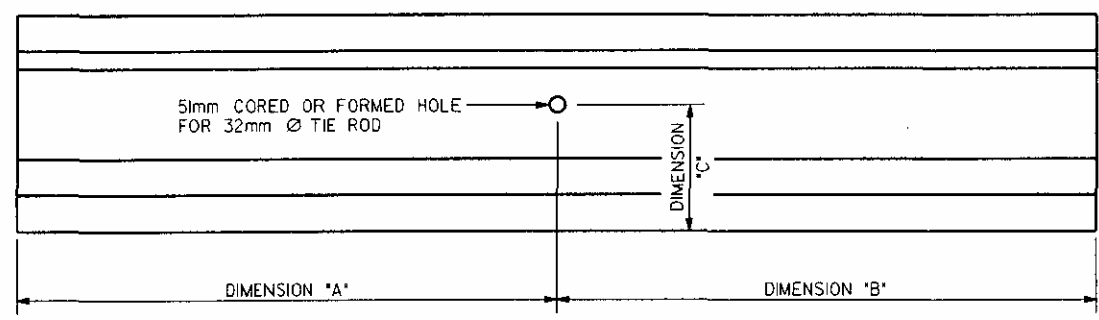


32mm Ø TIE ROD ASSEMBLY
(4 COMPLETE ASSEMBLIES REQUIRED)



32mm Ø TIE ROD ASSEMBLY
(2 COMPLETE ASSEMBLIES REQUIRED)

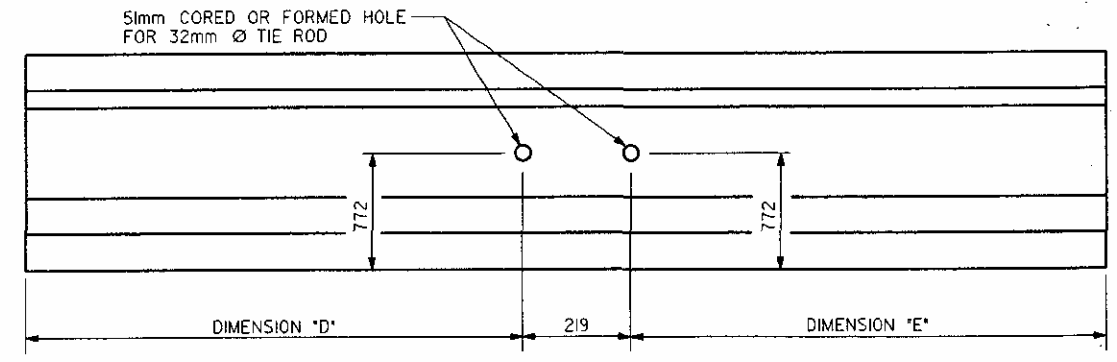
NOTE: THE CONTRACTORS ATTENTION IS CALLED TO THE FACT THAT THE CONCRETE STRENGTH IS 41.4 MPa.



GIRDER 1, GIRDER 2, GIRDER 5, AND GIRDER 6
(ONE HOLE REQUIRED)

GIRDER	*A*	*B*	*C*	GIRDER	*D*	*E*
SPAN A 1	12.716m	12.716m	880	3	12.541m	12.672m
SPAN A 2	12.628m	12.804m	826	4	12.672m	12.541m
SPAN A 5	12.804m	12.628m	826			
SPAN A 6	12.716m	12.716m	880			
SPAN B 1	13.109m	13.109m	880	3	12.934m	13.065m
SPAN B 2	13.021m	13.197m	826	4	13.065m	12.934m
SPAN B 5	13.197m	13.021m	826			
SPAN B 6	13.109m	13.109m	880			

GIRDER ELEVATION AND PLACEMENT OF 32mm Ø TIE ROD HOLES
(DETAIL TYPICAL FOR SPAN A AND SPAN B)



GIRDER 3 AND GIRDER 4
(TWO HOLES REQUIRED)

TENTH POINTS	SPAN A											SPAN B										
	GIRDERS 1 THRU 6											GIRDERS 1 THRU 6										
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0
12.70mm Ø LOW RELAXATION																						
CAMBER (GIRDER ALONE IN PLACE) ↑	0.000	0.024	0.045	0.062	0.073	0.077	0.073	0.062	0.045	0.024	0.000	0.000	0.024	0.046	0.063	0.074	0.078	0.074	0.063	0.046	0.024	0.000
• DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD ↓	0.000	0.010	0.018	0.025	0.029	0.031	0.029	0.025	0.018	0.010	0.000	0.000	0.011	0.021	0.029	0.034	0.036	0.034	0.029	0.021	0.011	0.000
FINAL CAMBER ↑	0.000	0.014	0.027	0.037	0.044	0.046	0.044	0.037	0.027	0.014	0.000	0.000	0.013	0.025	0.034	0.040	0.042	0.040	0.034	0.025	0.013	0.000

* INCLUDES FUTURE WEARING SURFACE
ALL VALUES ARE SHOWN IN METERS

PROJECT NO. R-526G
PITT COUNTY
STATION: 109+39.958-L2-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
PRESTRESSED CONCRETE GIRDER
CONTINUOUS FOR LIVE LOAD
DETAILS
SPANS A AND B



ASSEMBLED BY: Tony G. Stephenson DATE: 18-SEPT-95	SPECIAL
CHECKED BY: E.J. Salvo DATE: 9-NOV-95	
DRAWN BY: ED ROSE DATE: NOV. 1991	STANDARD
CHECKED BY: GREG PERFETTI DATE: NOV. 1991	

THIS STANDARD DRAWING HAS BEEN FOUND TO BE PROPERLY SITE ADAPTED FOR USE ON THIS PROJECT BY THE UNDERSIGNED.

REVISIONS						SHEET NO. S-38
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 54
2			4			

NOTES

FOR ELASTOMERIC BEARINGS, SEE SPECIAL PROVISIONS.

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 51mm DIA. PIPE SLEEVE SHALL BE CUT FROM SCHEDULE 40 P.V.C. PLASTIC PIPE. THE P.V.C. PLASTIC PIPE SHALL MEET THE REQUIREMENTS OF A.S.T.M. D1785.

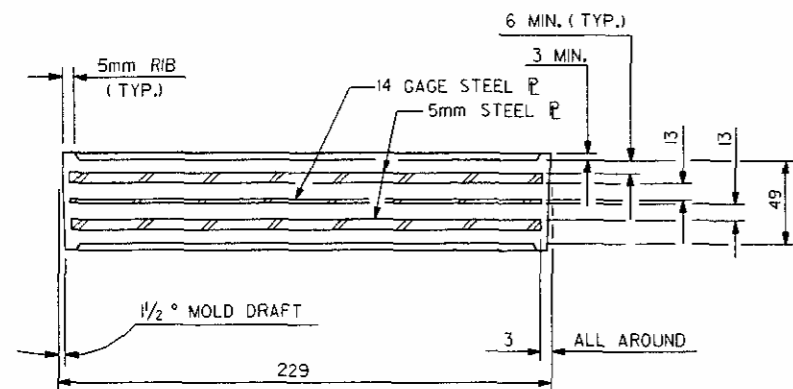
STEEL SOLE PLATES, BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE SPECIFICATIONS.

PRIOR TO WELDING, GRIND THE GALVANIZED SURFACE OF THE PORTION OF THE EMBEDDED PLATE AND SOLE PLATE THAT ARE TO BE WELDED. AFTER WELDING, DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED IN ACCORDANCE WITH THE SPECIFICATIONS.

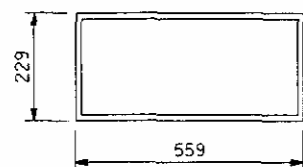
WHEN WELDING THE SOLE PLATE TO THE EMBEDDED PLATE IN THE GIRDER, USE TEMPERATURE INDICATING WAX PENS, OR OTHER SUITABLE MEANS, TO ENSURE THAT THE TEMPERATURE OF THE SOLE PLATE DOES NOT EXCEED 149° C. TEMPERATURES ABOVE THIS MAY DAMAGE THE ELASTOMER.

SOLE PLATE "P", BOLTS, NUTS, WASHERS, AND PIPE SLEEVE SHALL BE INCLUDED IN THE PAY ITEM FOR PRESTRESSED CONCRETE GIRDERS.

ALL SURFACES OF BEARING PLATES SHALL BE SMOOTH AND STRAIGHT.



TYPICAL SECTION OF ELASTOMERIC BEARINGS

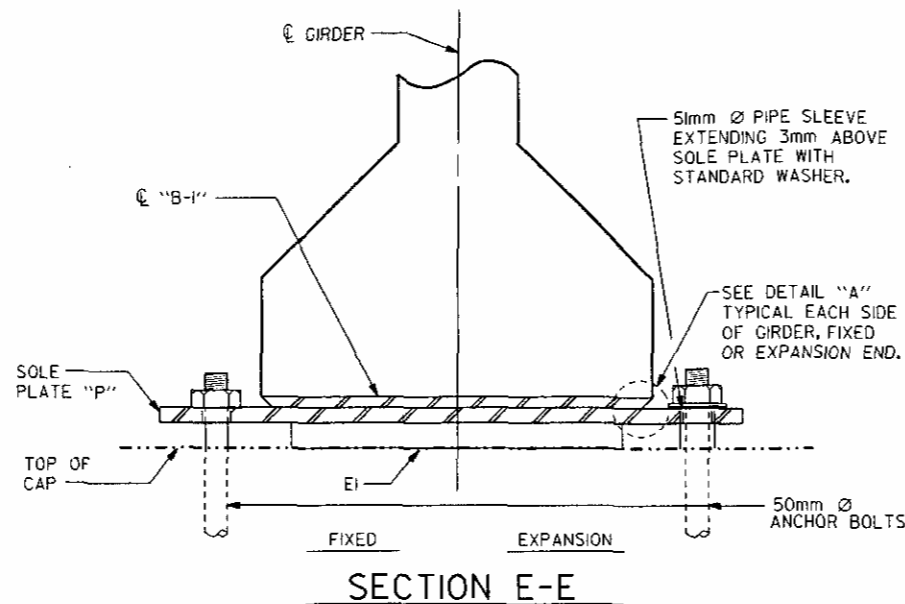


EI (24 REQ'D)

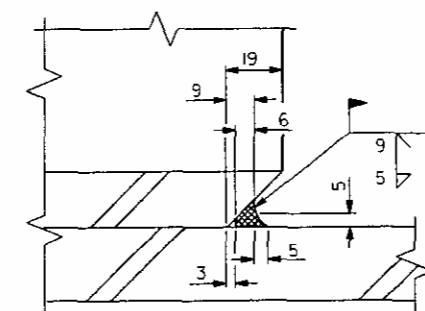
PLAN VIEW OF ELASTOMERIC BEARING

TYPE IV

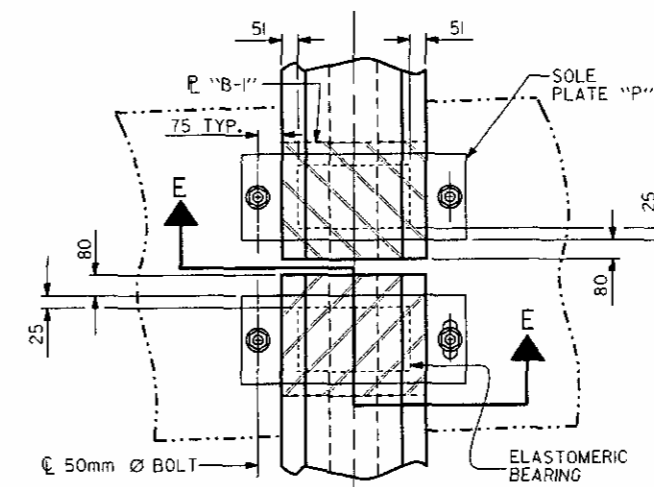
(1372mm PCG)



SECTION E-E



DETAIL "A"

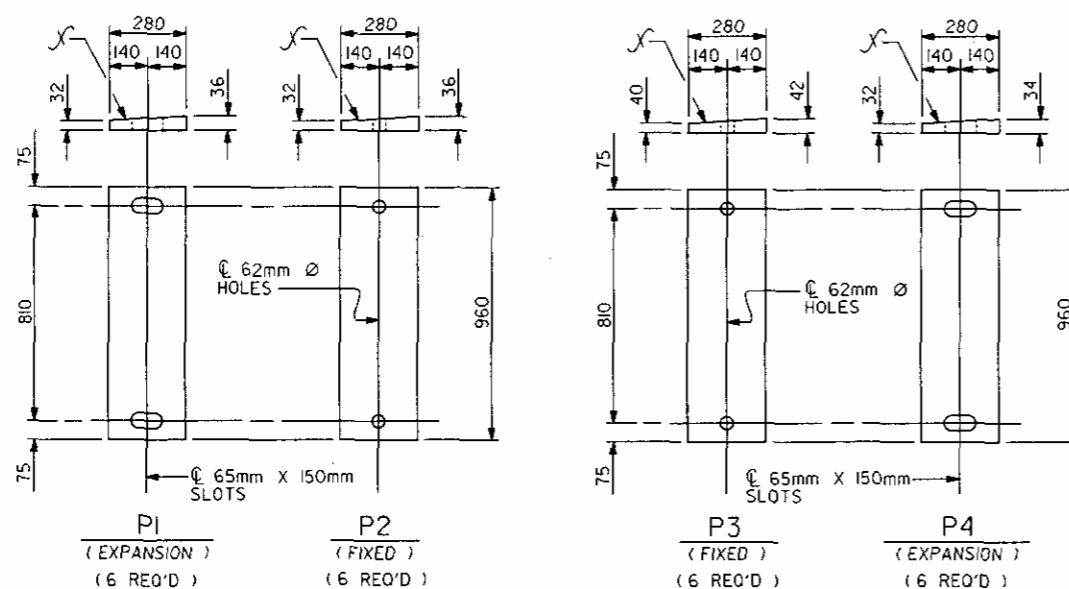


TYPICAL HALF-PLAN (SHOWING CONTINUOUS BENT)

TYPICAL HALF-PLAN (AT END BENT)

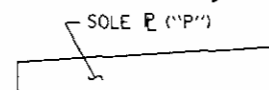
- LOAD RATINGS -	
	MAX. D.L. + L.L.
1372mm PCG - TYPE IV	611 kN

ALL ELASTOMERIC BEARINGS ARE 60 DUROMETER



SOLE PLATE DETAILS ("P")

UP-STATION →



SOLE PLATE PLACEMENT DETAIL

THIS STANDARD DRAWING HAS BEEN FOUND TO BE PROPERLY SITE ADAPTED FOR USE ON THIS PROJECT BY THE UNDERSIGNED.

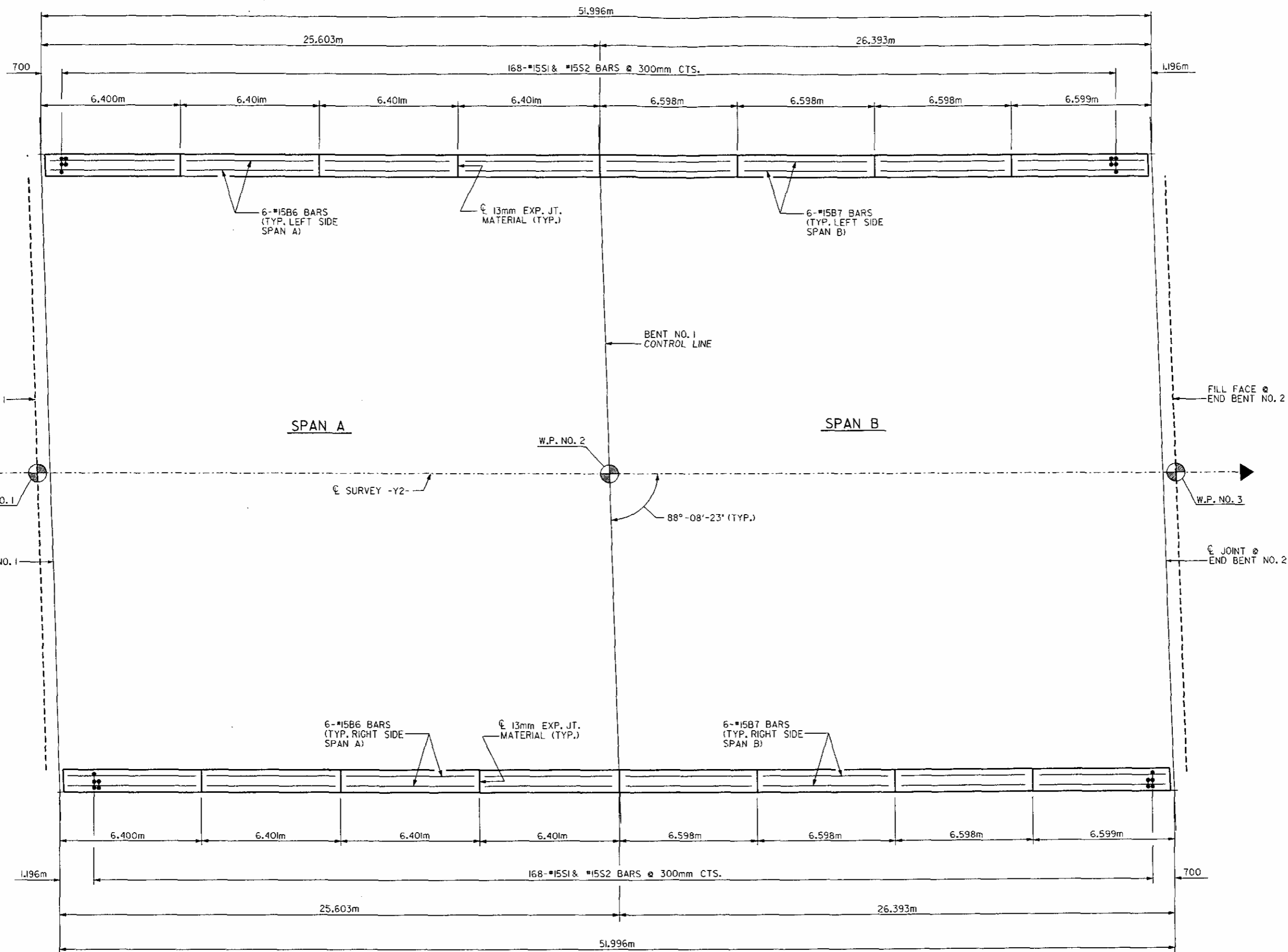
Signature
5-17-96

PROJECT NO. R-526G
PITT COUNTY
STATION: 109+39.958-L2-

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
ELASTOMERIC BEARING
DETAILS
PRESTRESSED CONCRETE GIRDER
SUPERSTRUCTURE

ASSEMBLED BY: Tony G. Stephenson	DATE: 16-SEPT-95	SPECIAL
CHECKED BY: E.J. Salvo	DATE: 9-NOV-95	
DRAWN BY: W.J. HARRIS	DATE: 8-22-89	STANDARD
CHECKED BY: C.R. KING	DATE: 8-22-89	

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-39
1			3			TOTAL SHEETS
2			4			54



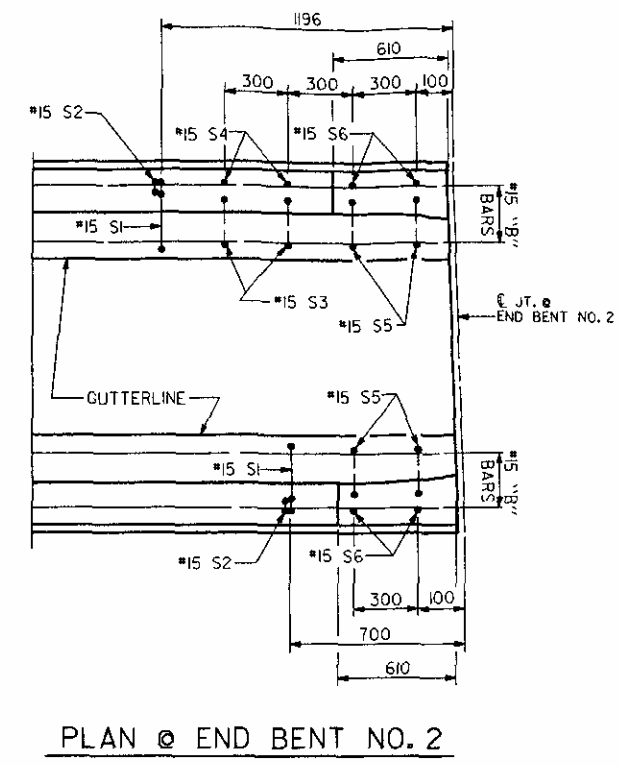
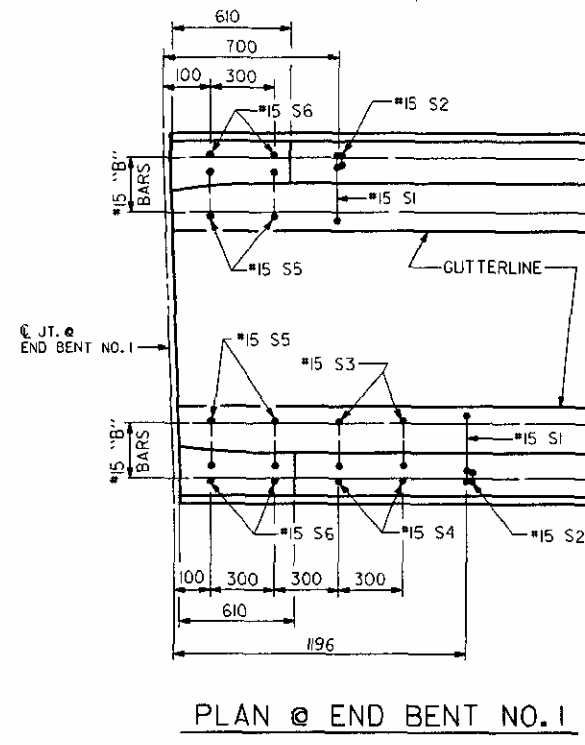
DRAWN BY : Tony G. Stephenson DATE : 3-OCT-95
 CHECKED BY : E.J. Salvo DATE : 9-NOV-95

PLAN OF BARRIER RAIL
 FOR END OF RAIL REINFORCING STEEL AND DETAILS, SEE SHEET 2 OF 2.



PROJECT NO. R-526G
 PITT COUNTY
 STATION: 109+39.958-L2-
 SHEET 1 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
CONCRETE BARRIER RAIL					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					SHEET NO. S-40
					TOTAL SHEETS 54



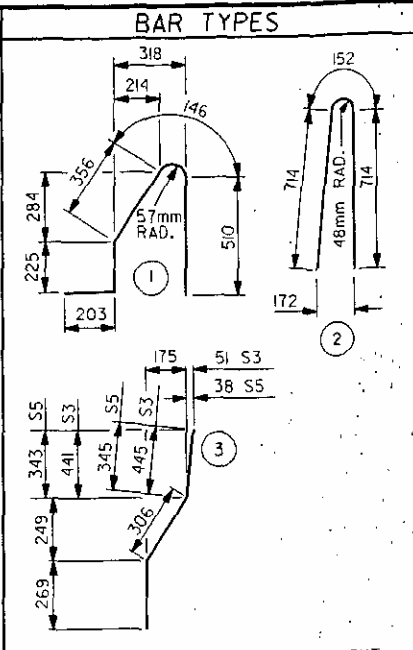
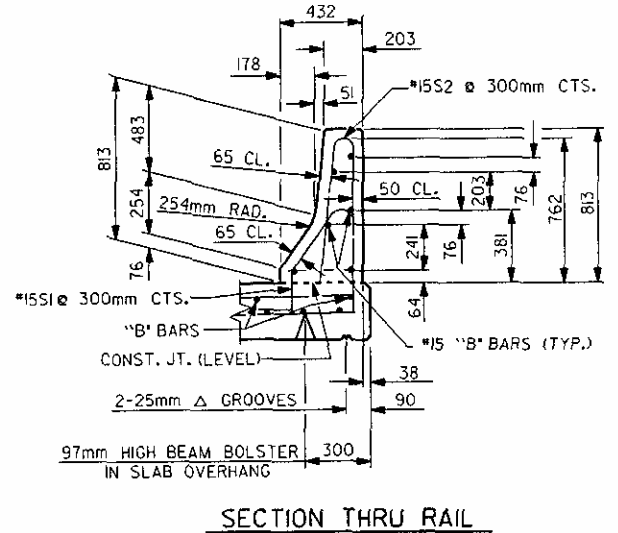
NOTES

BARRIER RAIL IN A CONTINUOUS UNIT SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN THAT SPAN HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 21MPa.

WHEN COMPRESSION JOINT SEAL OR EVAZOTE JOINT SEAL IS REQUIRED, THE JOINT IN THE DECK SHALL BE SAWS PRIOR TO THE CASTING OF BARRIER RAIL.

ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

THE #15S3 THRU #15S6 BARS SHALL BE INSTALLED, USING AN ADHESIVE ANCHORING SYSTEM, AFTER SAWING THE JOINT. FOR ADHESIVELY ANCHORED ANCHOR BOLTS OR DOWELS, SEE SPECIAL PROVISIONS. THE YIELD LOAD FOR THE #15 S3 THRU #15 S6 BARS IS 82.7 KN. FIELD TESTING FOR THE ADHESIVE BONDING SYSTEM IS NOT REQUIRED.

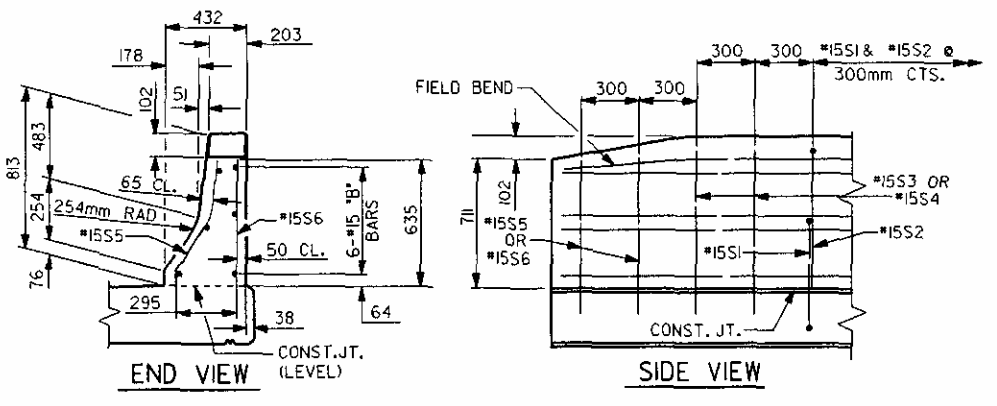


ALL BAR DIMENSIONS ARE OUT TO OUT

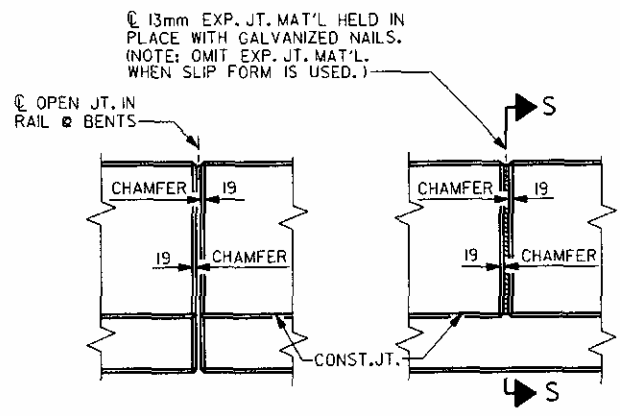
BILL OF MATERIAL
FOR CONCRETE BARRIER RAIL ONLY

BAR NO.	SIZE	TYPE	LENGTH	WEIGHT
B6	48	#15 STR	6300	475
B7	48	#15 STR	6480	488
S1	336	#15	1440	760
S2	336	#15	1580	833
S3	4	#15	1020	6
S4	4	#15 STR	960	6
S5	8	#15	920	12
S6	8	#15 STR	840	11

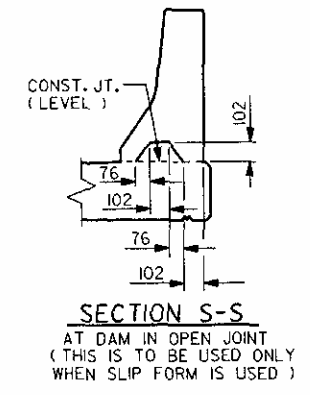
EPOXY COATED REINFORCING STEEL	2591 kg
CLASS AA CONCRETE	24.0 CU. METERS
CONCRETE BARRIER RAIL	104.00 METERS



BARRIER RAIL - END OF RAIL DETAILS



ELEVATION AT EXPANSION JOINTS BARRIER RAIL DETAILS



SECTION S-S
AT DAM IN OPEN JOINT
(THIS IS TO BE USED ONLY WHEN SLIP FORM IS USED)

THIS STANDARD DRAWING HAS BEEN FOUND TO BE PROPERLY SITE ADAPTED FOR USE ON THIS PROJECT BY THE UNDERSIGNED.



PROJECT NO. R-526G
PITT COUNTY
STATION: 109+39.958-L2-
SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
CONCRETE BARRIER RAIL

ASSEMBLED BY: Tony G. Stephenson	DATE: 3-OCT-95	SPECIAL
CHECKED BY: E.J. Salvo	DATE: 9-NOV-95	
DRAWN BY: R. BISSETTE	DATE: 5/28/87	STANDARD
CHECKED BY: S.J. DAVIS	DATE: 9/3/87	

REVISIONS					SHEET NO.
NO.	BY	DATE	NO.	DATE	S-41
1			3		TOTAL SHEETS 54
2			4		

NOTES

THE GUARDRAIL ANCHOR ASSEMBLY SHALL CONSIST OF THE FOLLOWING COMPONENTS:

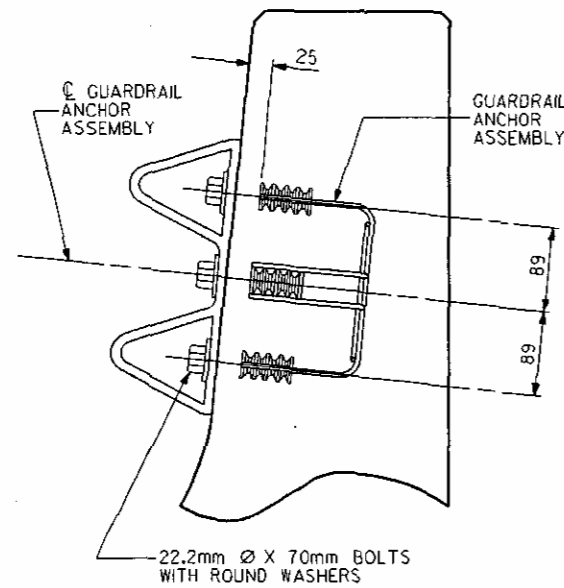
- A. FERRULES SHALL BE MADE FROM STEEL MEETING THE REQUIREMENTS OF ASTM A108, GRADE 12L14 AND SHALL HAVE A MINIMUM LENGTH OF THREADS OF 38mm.
- B. 4 - 22.2mm DIA. X 70mm BOLTS WITH WASHERS FOR GUARDRAIL ANCHOR ASSEMBLY SHALL CONFORM TO THE REQUIREMENTS OF ASTM A307. BOLTS AND WASHERS SHALL BE GALVANIZED. (AT THE CONTRACTOR'S OPTION, STAINLESS STEEL BOLTS WITH WASHERS MAY BE USED AS AN ALTERNATE FOR THE 22.2mm DIA. X 70mm GALVANIZED BOLTS AND WASHERS. THEY SHALL CONFORM TO OR EXCEED THE MECHANICAL REQUIREMENTS OF ASTM A307. THE USE OF THIS ALTERNATE SHALL BE APPROVED BY THE ENGINEER.)
- C. WIRE STRUTS SHOWN IN THE ANCHOR ASSEMBLY ARE THE MINIMUM ALLOWABLE SIZE AND SHALL HAVE A MINIMUM TENSILE STRENGTH OF 689 MPa.

THE GUARDRAIL ANCHOR ASSEMBLIES WITH BOLTS SHALL BE ASSEMBLED IN THE SHOP. BOLT THREADS MAY BE RECUT AS NECESSARY.

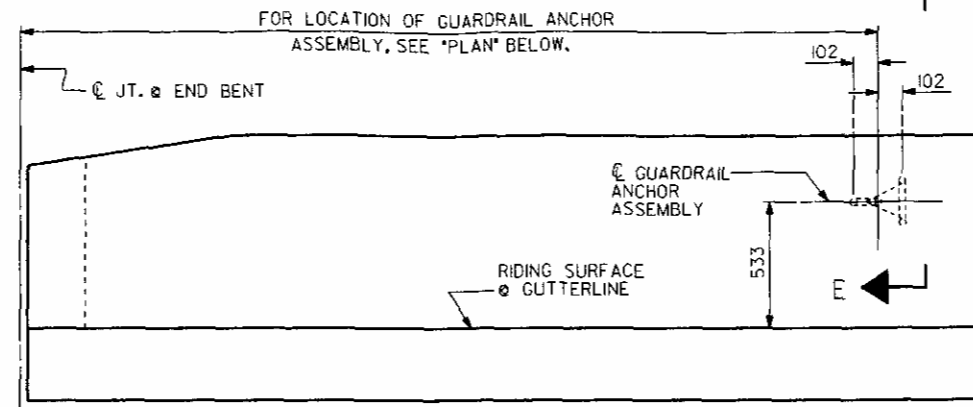
THE COST OF THE GUARDRAIL ANCHOR ASSEMBLIES WITH BOLTS AND WASHERS COMPLETE, IN PLACE, SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR CONCRETE BARRIER RAIL.

THE GUARDRAIL ANCHOR ASSEMBLY IS REQUIRED AT ALL POINTS WHERE APPROACH GUARDRAIL IS TO BE ATTACHED TO THE END OF BARRIER RAIL. FOR POINTS OF ATTACHMENT, SEE SKETCH.

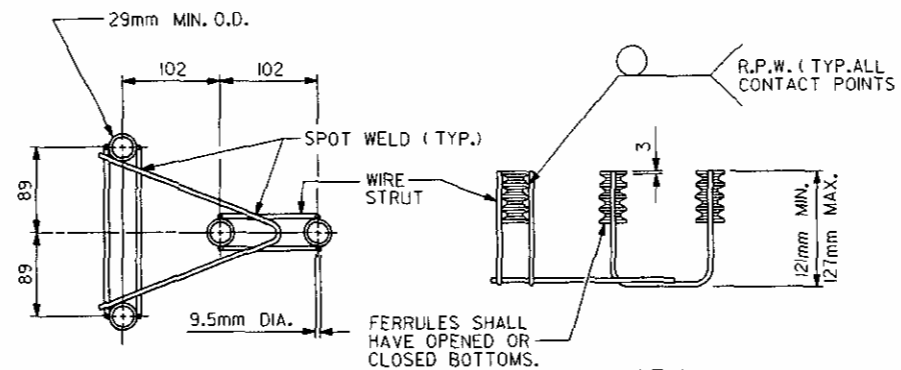
THE CONTRACTOR MAY, AT HIS OPTION, USE ADHESIVELY ANCHORED ANCHOR BOLTS IN PLACE OF GUARDRAIL ANCHOR ASSEMBLY. SEE SPECIAL PROVISIONS FOR "ADHESIVELY ANCHORED ANCHOR BOLTS OR DOWELS". THE YIELD LOAD OF THE 22.2mm DIA. BOLT IS 73.8 KN. FIELD TESTING OF THE ADHESIVE BONDING SYSTEM IS NOT REQUIRED.



SECTION E-E

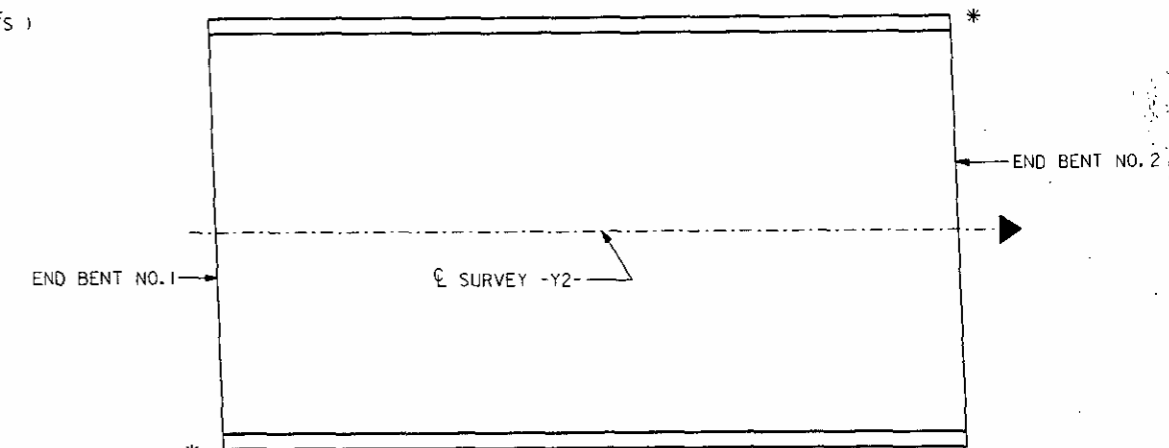


ELEVATION
(DETAIL SHOWING END BENT NO. 1, END BENT NO. 2
SIMILAR BY ROTATION.)



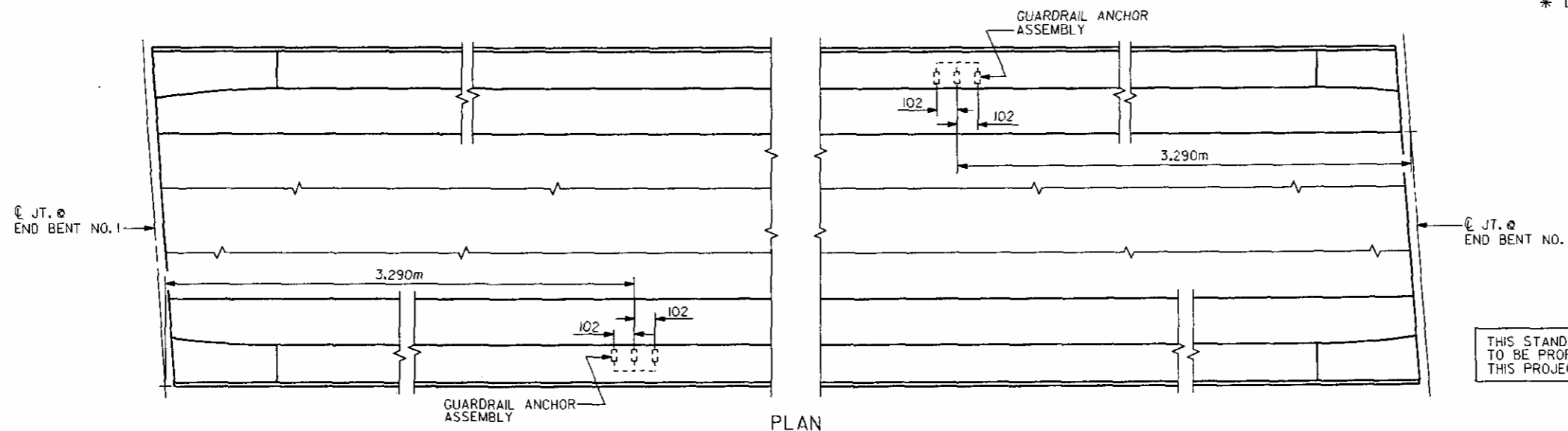
PLAN ELEVATION

GUARDRAIL ANCHOR ASSEMBLY



SKETCH SHOWING POINTS OF ATTACHMENTS

* DENOTES GUARDRAIL ANCHOR ASSEMBLY ATTACHMENT



LOCATION OF ANCHORS FOR GUARDRAIL

PROJECT NO. R-526G
PITT COUNTY
STATION: 109+39.958-L2-

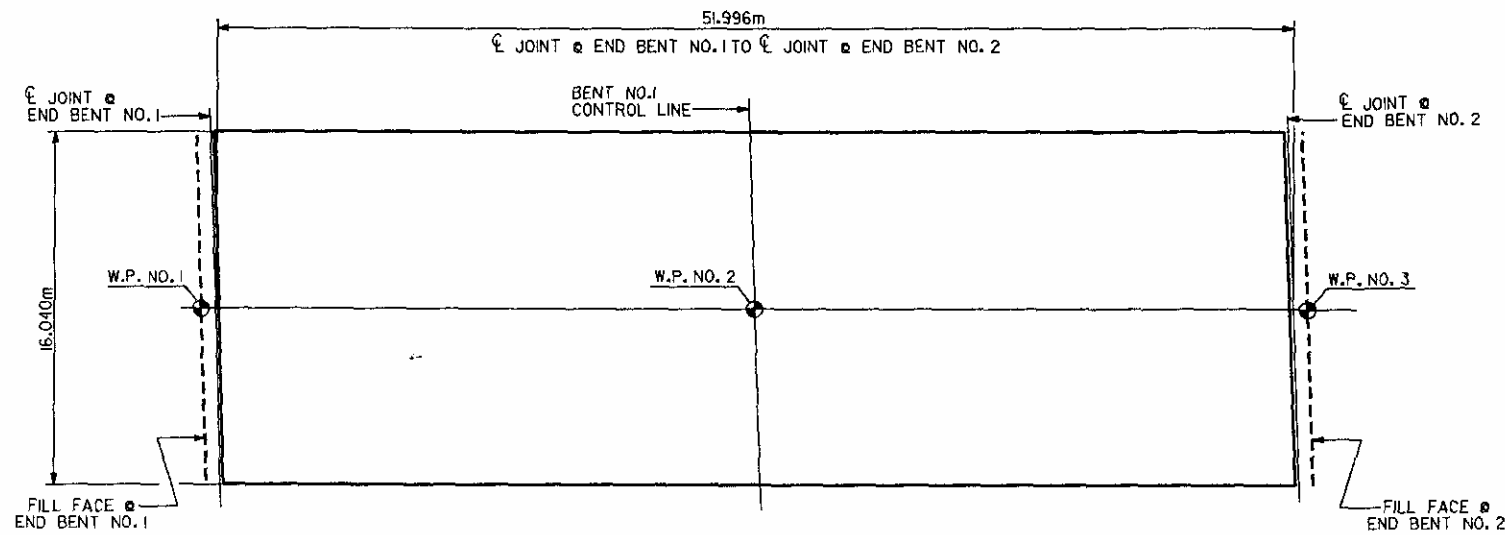
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
GUARDRAIL ANCHORAGE
FOR BARRIER RAIL

THIS STANDARD DRAWING HAS BEEN FOUND TO BE PROPERLY SITE ADAPTED FOR USE ON THIS PROJECT BY THE UNDERSIGNED.



ASSEMBLED BY : Tony G. Stephenson	DATE : 3-OCT-95	SPECIAL
CHECKED BY : E.J. Salvo	DATE : 9-NOV-95	
DRAWN BY : MIKE BRITT	DATE : DEC. 1987	STANDARD
CHECKED BY : RANDY BISSETTE	DATE : DEC. 1987	

REVISIONS						SHEET NO. S-42
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS 54
2			4			



LAYOUT FOR COMPUTING AREA
OF REINFORCED CONCRETE DECK SLAB
(SQ.METER = 834.0)

REINFORCING BAR SCHEDULE

SPAN A AND SPAN B

BAR NO.	SIZE	TYPE	LENGTH	WEIGHT
* A1	303	15 STR	15900	7564
A2	303	15 STR	15900	7564
* A101	2	15 STR	10760	34
* A102	2	15 STR	5520	17
A103	2	15 STR	10760	34
A104	2	15 STR	5520	17
* B1	108	15 STR	17780	3015
B2	159	15 STR	17720	4423
* B3	31	15 STR	11400	555
* B4	31	15 STR	9400	457
* B5	31	15 STR	7400	360
* G1	2	15 STR	15900	50
* K1	30	20 STR	2040	144
* K2	8	25 2	4260	134
* K3	16	25 1	6120	384
* K4	50	10 STR	2100	82
* K5	10	10 STR	1580	12
* K6	12	10 STR	7000	66
* K7	20	15 STR	2180	68
* K8	20	15 8	2240	70
* S1	80	10 3	780	49
* S2	80	15 4	1800	226
* S3	240	10 5	820	154
* S4	80	15 7	2220	279
* U1	40	15 6	3940	247
* U2	10	15 6	3500	55

* EPOXY COATED REINFORCING STEEL

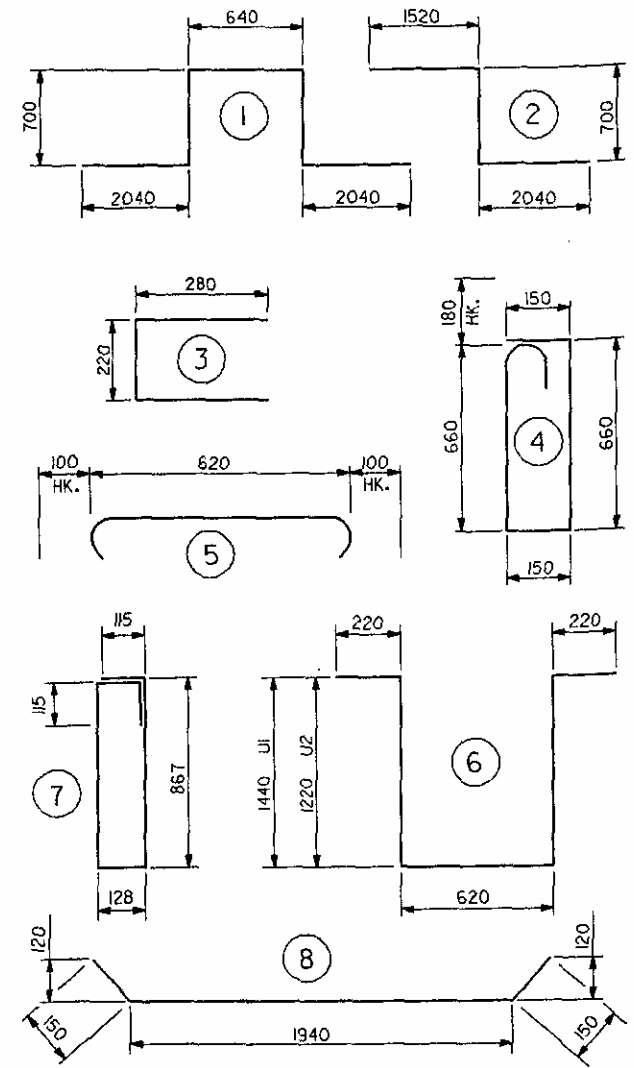
SUPERSTRUCTURE REINFORCING STEEL LENGTHS ARE BASED ON THE FOLLOWING MINIMUM SPLICE LENGTHS

BAR SIZE	SUPERSTRUCTURE EXCEPT APPROACH SLABS, PARAPET, AND BARRIER RAIL		APPROACH SLABS		PARAPET AND BARRIER RAIL
	EPOXY COATED	UNCOATED	EPOXY COATED	UNCOATED	
#10	520	450	520	450	720
#15	730	640	730	640	1020
#20	910	790	1190	790	1350
#25	1980	1320	1980	1320	2240

GROOVING BRIDGE FLOORS

BRIDGE DECK	735.0 SQ.METER
TOTAL	735.0 SQ.METER

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT

SUPERSTRUCTURE BILL OF MATERIAL

	CLASS A-A CONCRETE	REINFORCING STEEL	EPOXY COATED REINFORCING STEEL
SPANS (CU. METER)	(KG)	(KG)	(KG)
A & B	234.2	12,038	14,022

QUANTITIES FOR BARRIER RAIL ARE NOT INCLUDED

PROJECT NO. R-0526G

PITT COUNTY

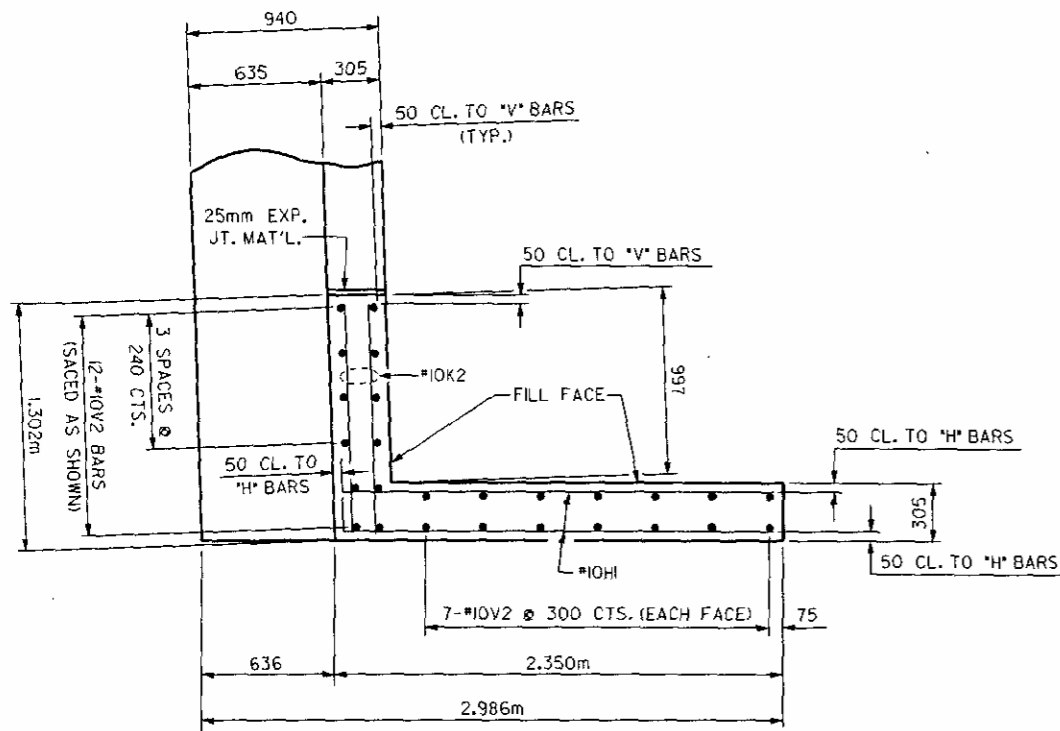
STATION: 109+39.958-L2-

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
**STANDARD
SUPERSTRUCTURE
BILL OF MATERIAL**

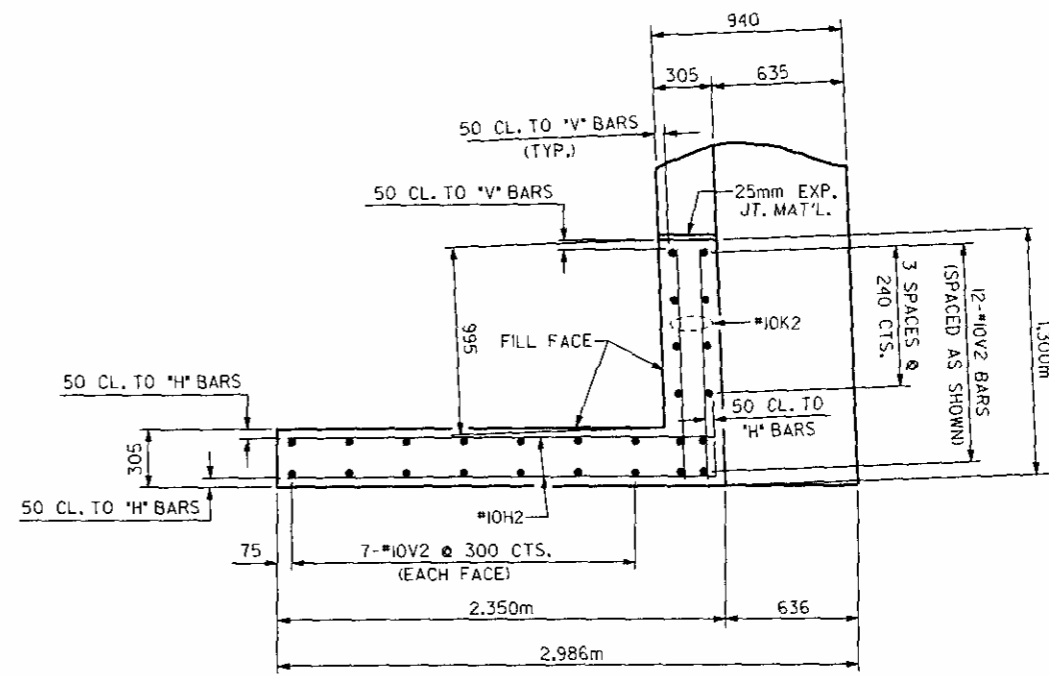


ASSEMBLED BY: Tony G. Stephenson DATE: 26-SEPT-95
CHECKED BY: E.J. Solvo DATE: 9-NOV-95
DRAWN BY: M. BRITT DATE: 5/28/87
CHECKED BY: S.J. DAVIS DATE: 9/3/87

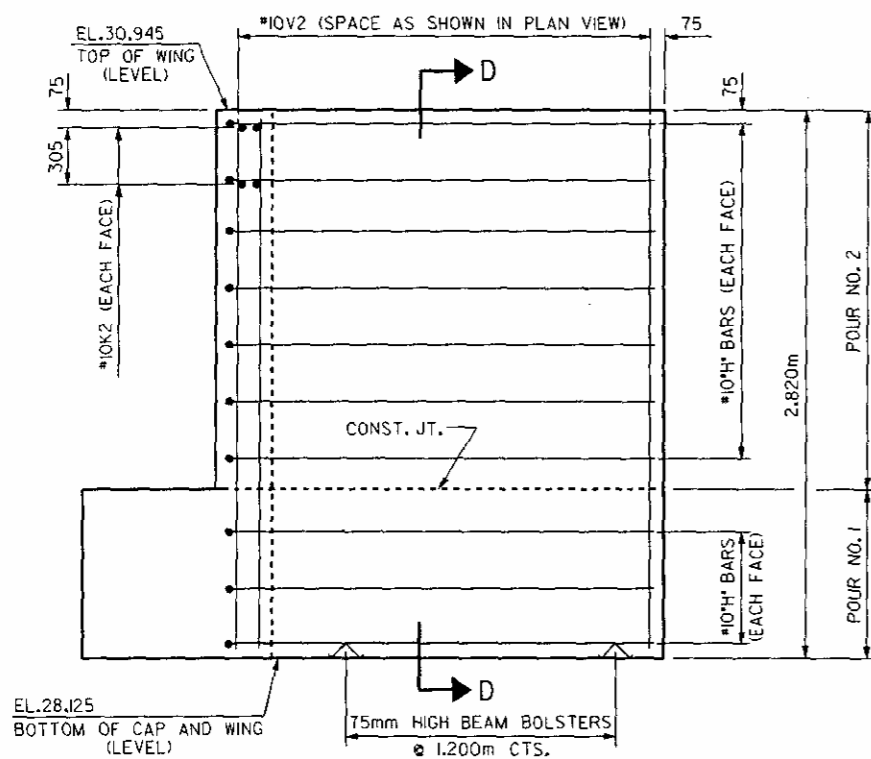
REVISIONS						SHEET NO. S-43
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS 54
2			4			



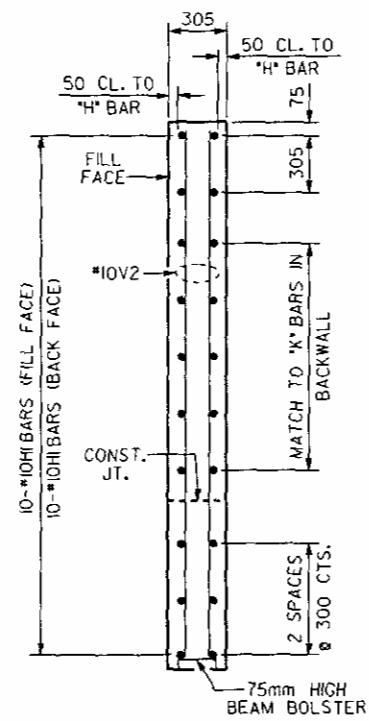
PLAN OF WING (W1)



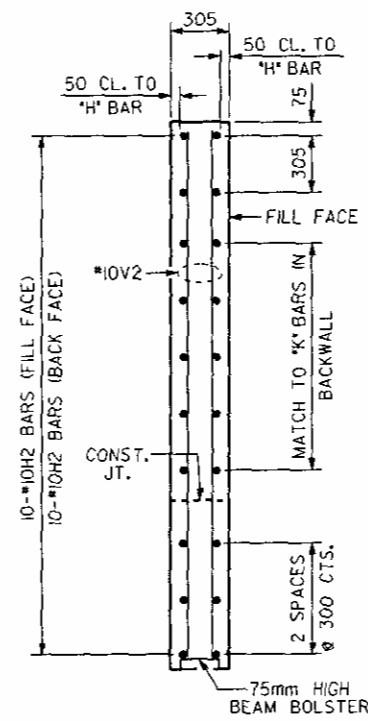
PLAN OF WING (W2)



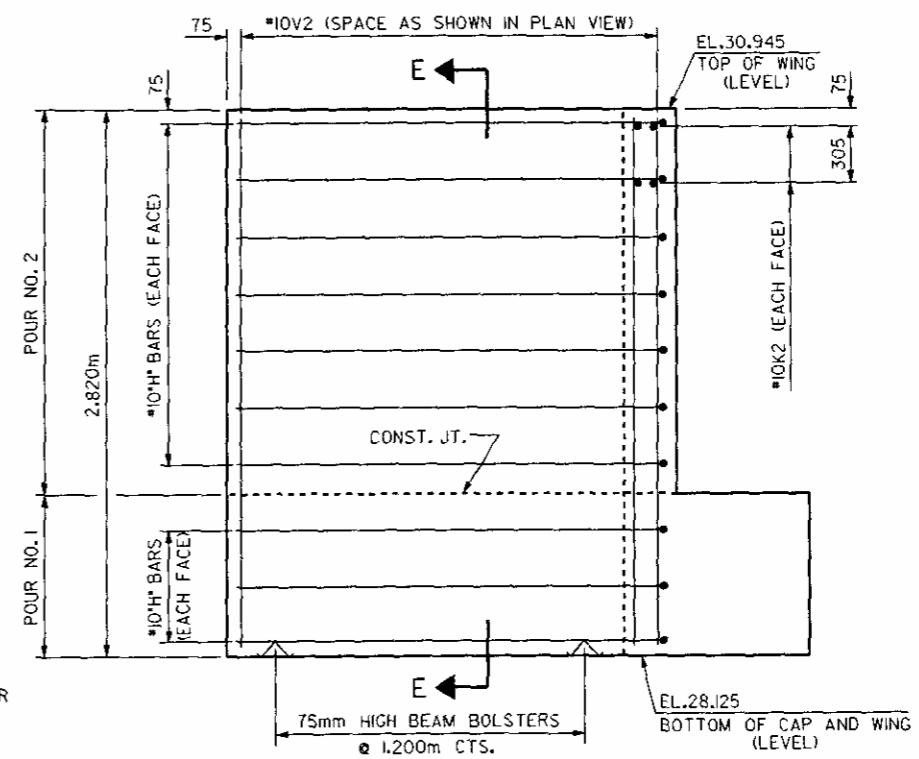
ELEVATION OF WING (W1)



SECTION D-D



SECTION E-E



ELEVATION OF WING (W2)



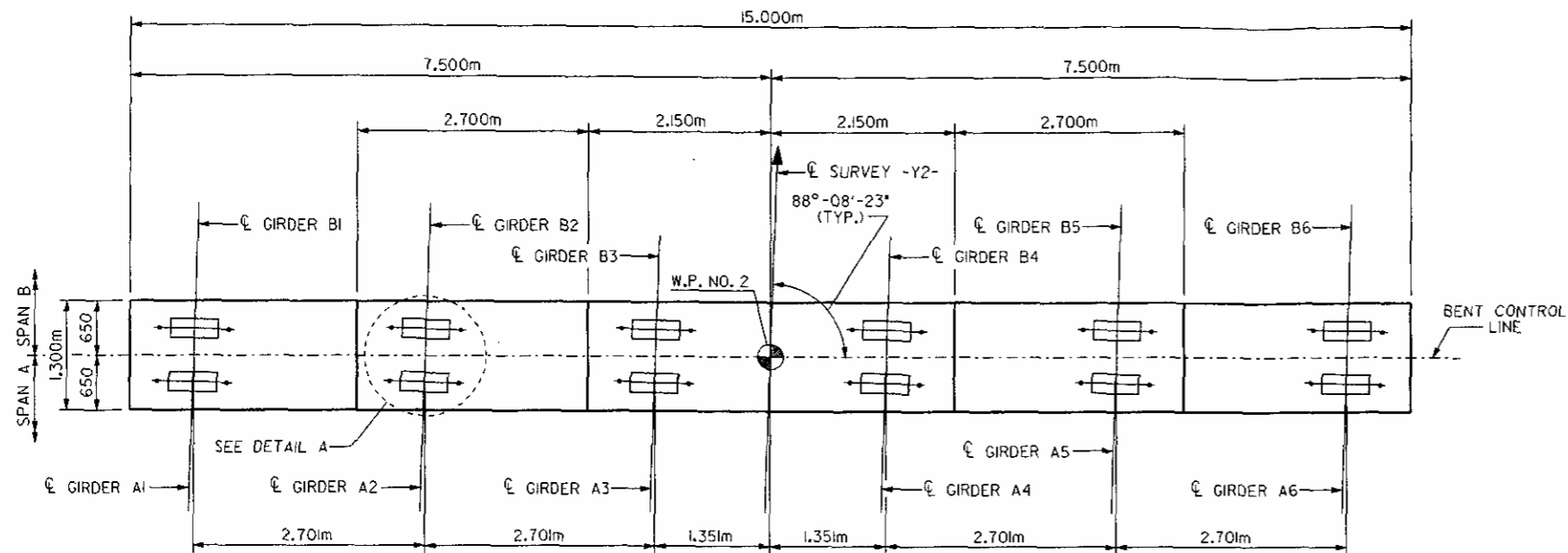
PROJECT NO. R-526G
 PITT COUNTY
 STATION: 109+39.958-L2
 SHEET 2 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUBSTRUCTURE

END BENT NO. 1

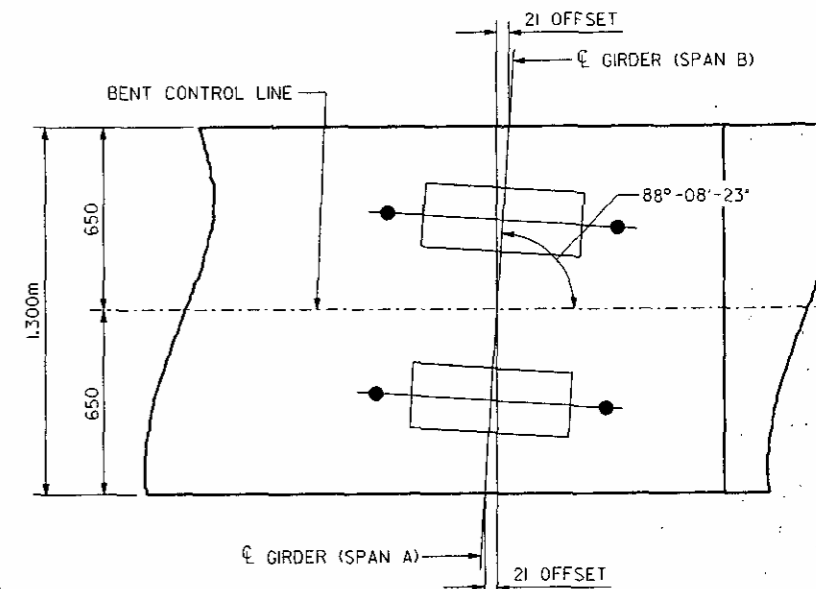
DRAWN BY: Tony G. Stephenson DATE: 19-MAR-96
 CHECKED BY: R.A. Raynor, Jr. DATE: 21-MAR-96

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-45	
1			3			TOTAL SHEETS	54
2			4				



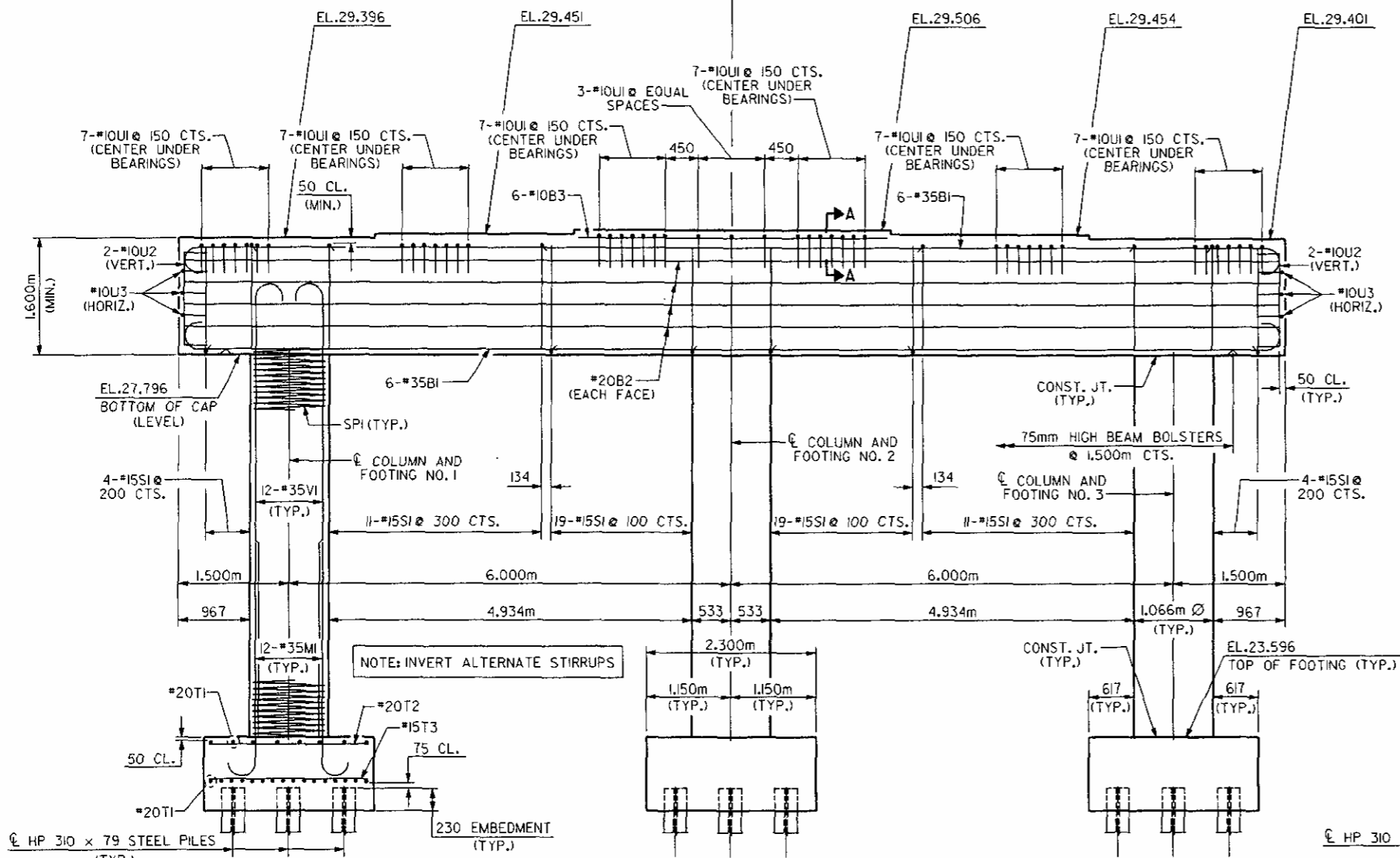
PLAN

NOTES:
 STIRRUPS AND "U" BARS IN CAP MAY BE SHIFTED, SLIGHTLY, AS NECESSARY TO CLEAR ANCHOR BOLTS.
 HOOKS ON "V" BARS MAY BE TURNED AS NECESSARY FOR PLACING REINFORCING STEEL.
 FOR SPIRAL COLUMN REINFORCING STEEL, SEE SPECIAL PROVISIONS.
 FOR PILE SPlice DETAILS, SEE END BENT NO. 1, SHEET 3 OF 3.

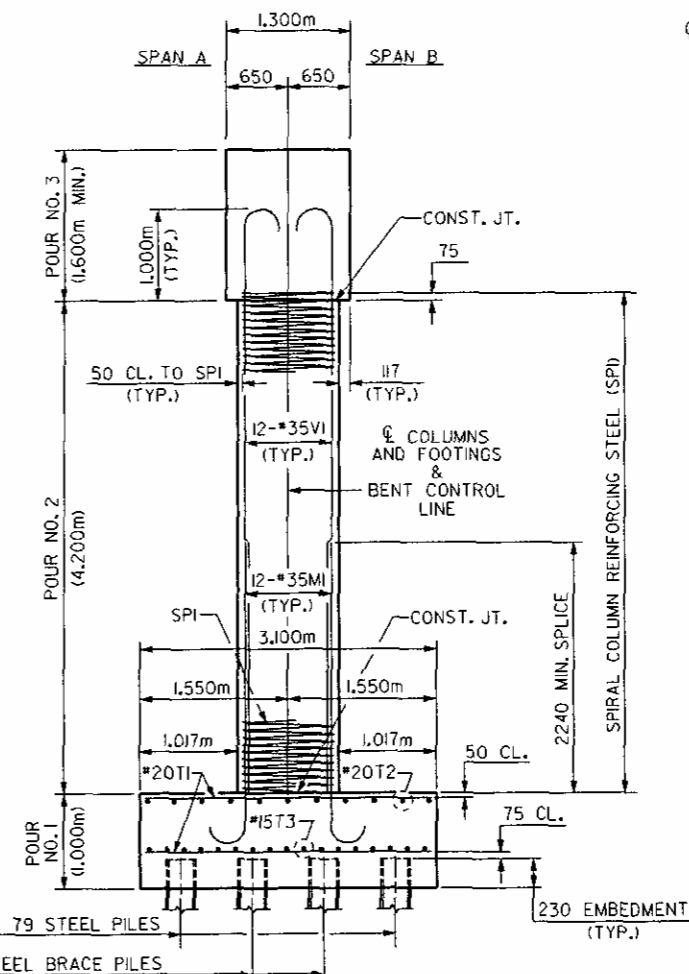


OFFSET DETAIL
 (DETAIL TYPICAL FOR ALL GIRDERS)

NOTE:
 REINFORCING STEEL TYPICAL FOR ALL FOOTINGS AND COLUMNS.
 HP 310 x 79 STEEL PILES TYPICAL FOR ALL FOOTINGS.
 BRACE PILES IN FOOTINGS NOT SHOWN FOR CLARITY, SEE "PLAN OF FOOTINGS."



ELEVATION



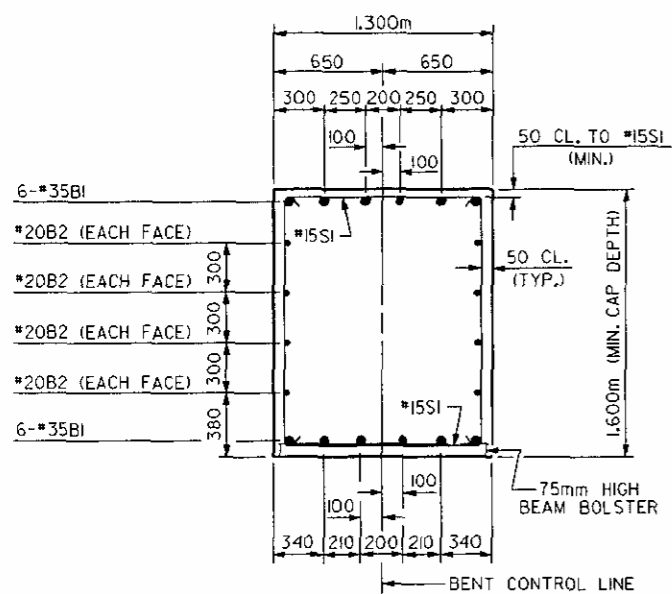
END ELEVATION



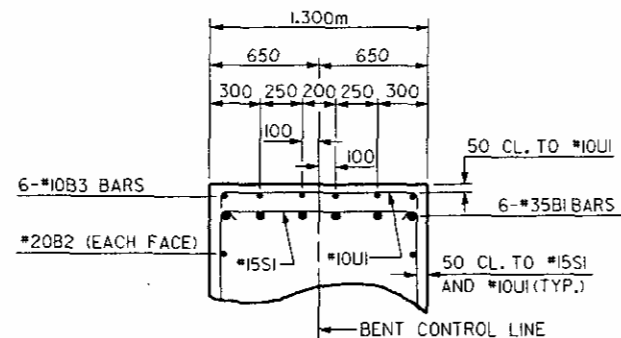
PROJECT NO. R-525G
 PITT COUNTY
 STATION: 109+39.958-L2-
 SHEET 1 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH SUBSTRUCTURE					
BENT NO. 1					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		
SHEET NO. S-47					TOTAL SHEETS 54

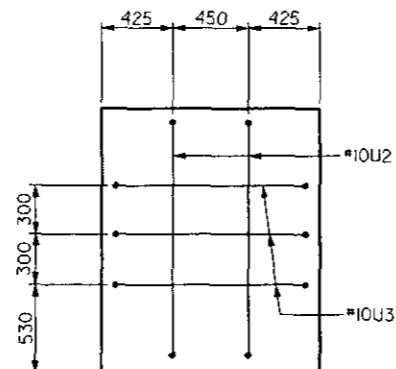
DRAWN BY: Tony G. Stephenson DATE: 19-MAR-96
 CHECKED BY: R.A. Raynor, Jr. DATE: 21-MAR-96



TYPICAL SECTION THRU CAP

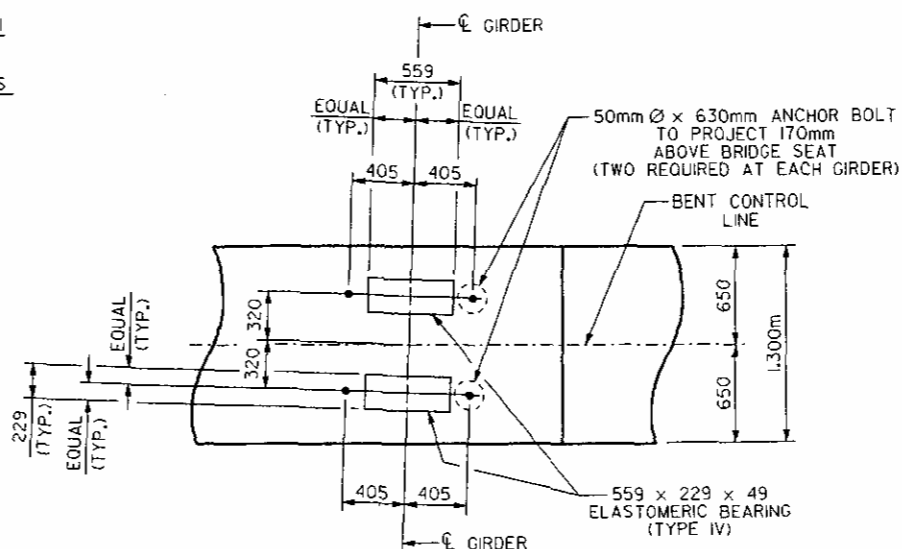


SECTION A-A



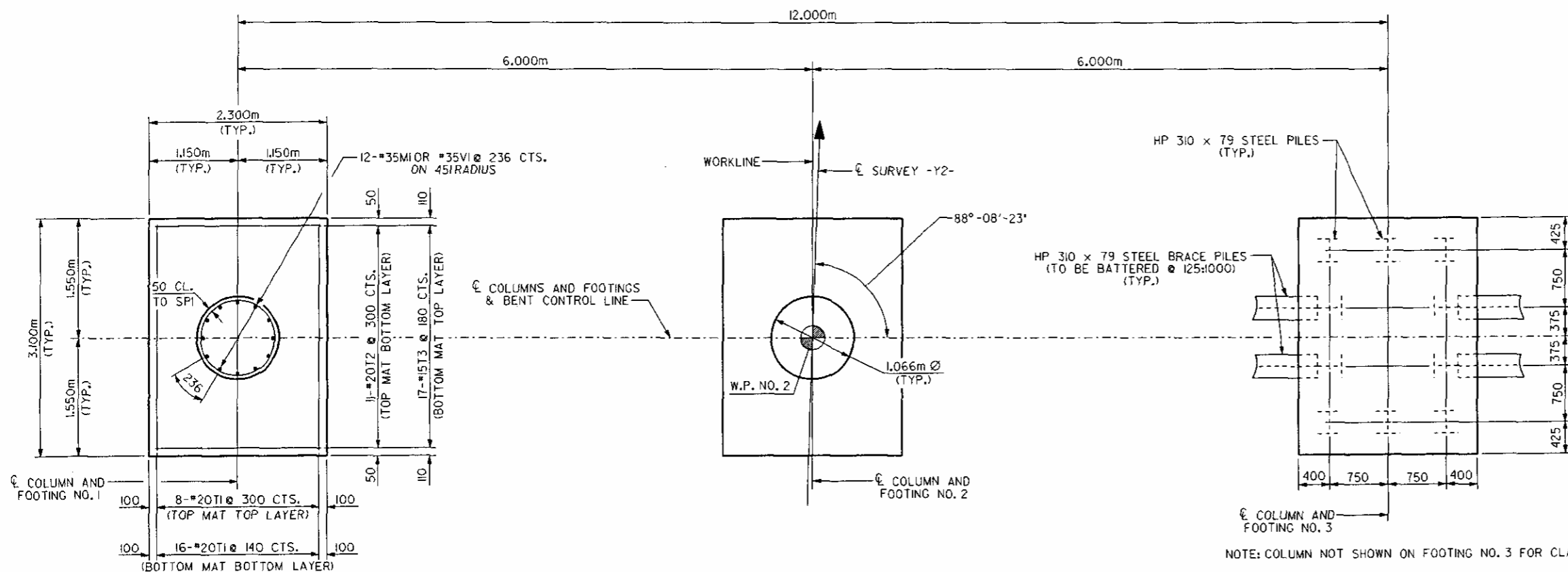
END OF CAP ELEVATION

(FOR PLACEMENT OF #10"U" BARS)



DETAIL A

(DETAIL TYPICAL FOR ALL GIRDERS; BENT NO. 1)



PLAN OF FOOTINGS

(REINFORCING STEEL TYPICAL FOR ALL COLUMNS.)
(HP 310 x 79 STEEL PILES AND DIMENSIONS TYPICAL FOR ALL FOOTINGS)

BAR TYPES		BILL OF MATERIAL			
BENT NO 1					
BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	
B1	12	35	1	15820	1490
B2	8	20	STR	14900	281
B3	6	10	STR	4200	20
M1	36	35	2	3360	950
S1	68	15	3	4460	476
T1	72	20	STR	2940	499
T2	33	20	STR	2200	171
T3	51	15	STR	2140	171
U1	45	10	4	2000	71
U2	4	10	4	2040	6
U3	6	10	4	1760	8
V1	36	35	2	5660	1600
SPI	3		5	180,060	424
REINFORCING STEEL				KILOGRAMS	5743
SPIRAL COLUMN REINFORCING STEEL					424
CLASS 'A' CONCRETE BREAKDOWN					
POUR NO. 1: FOOTINGS				21.4 M ³	
POUR NO. 2: COLUMNS				11.2 M ³	
POUR NO. 3: CAP				32.2 M ³	
TOTAL CLASS 'A' CONCRETE				64.8 M ³	
HP 310 x 79 STEEL PILES					
NUMBER: 30				METERS: 300	

PROJECT NO. R-526G
PITT COUNTY
STATION: 109+39.958-L2-
SHEET 2 OF 2

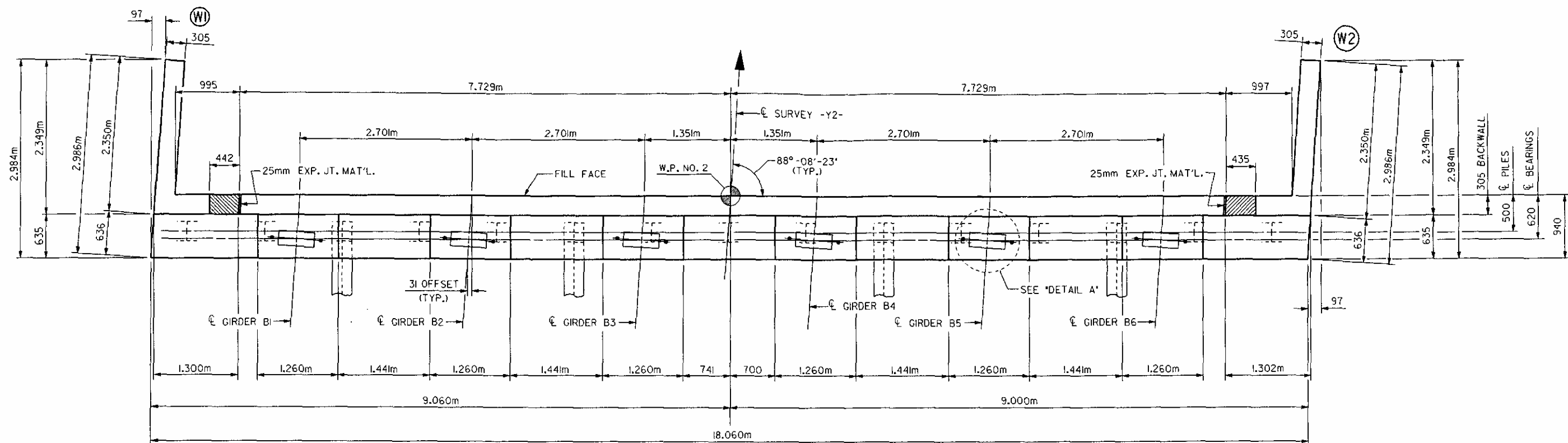
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE
BENT NO. 1

REVISIONS

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

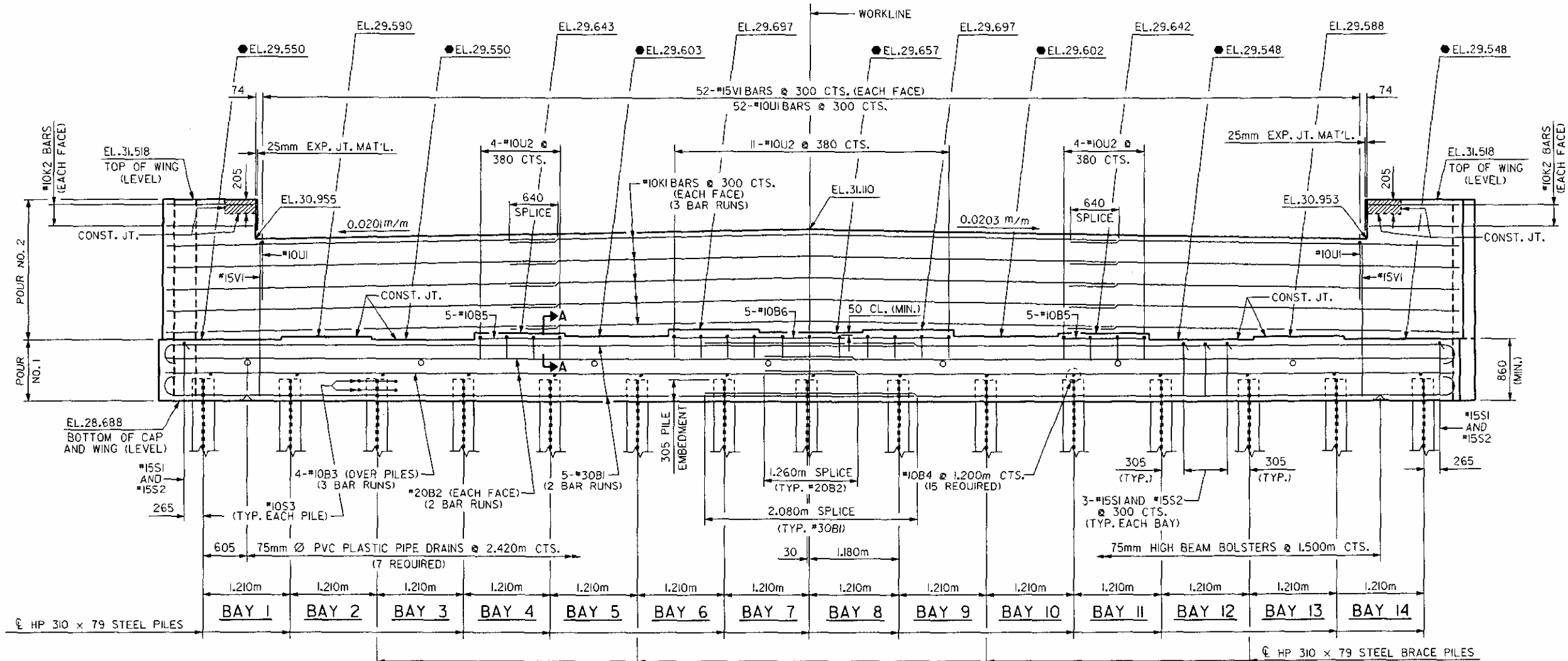
SHEET NO. S-48
TOTAL SHEETS 54

16-MAY-1996 14:17



PLAN

● FOR LOCATION OF ELEVATION, SEE
 * TYPICAL SECTION THRU CAP, SHEET 3 OF 3.
 NOTE: THE SPLICE LENGTH FOR THE #10B3 BAR
 (OVER PILES) SHALL BE 640mm.



ELEVATION



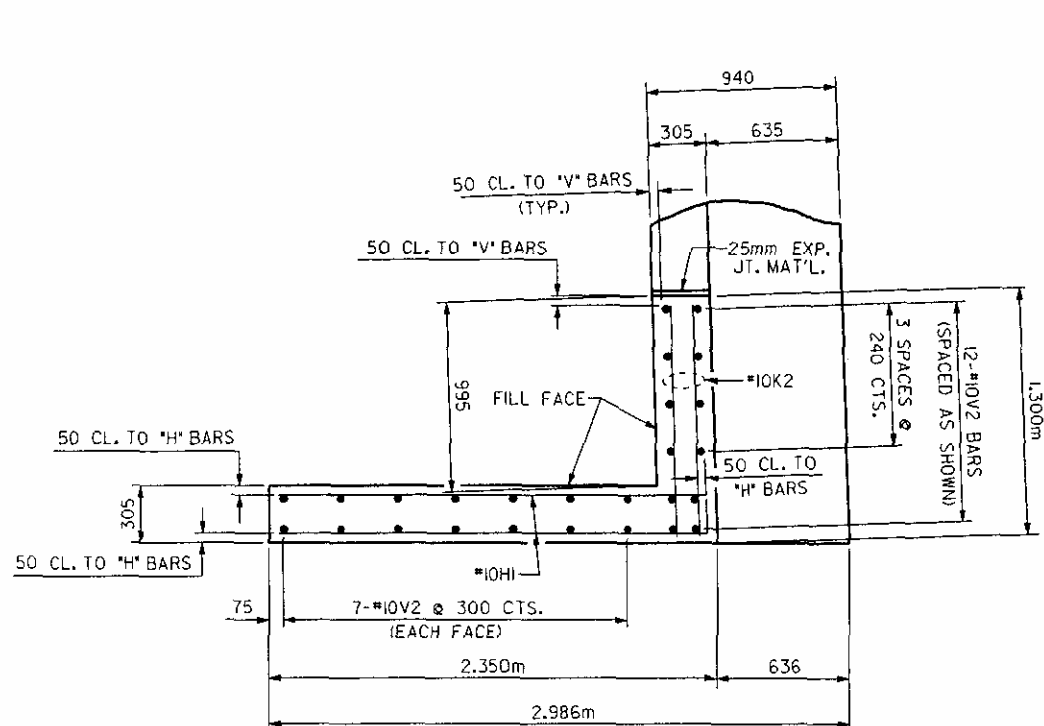
PROJECT NO. R-526G
 PITT COUNTY
 STATION: 109+39.958-L2-

SHEET 1 OF 3

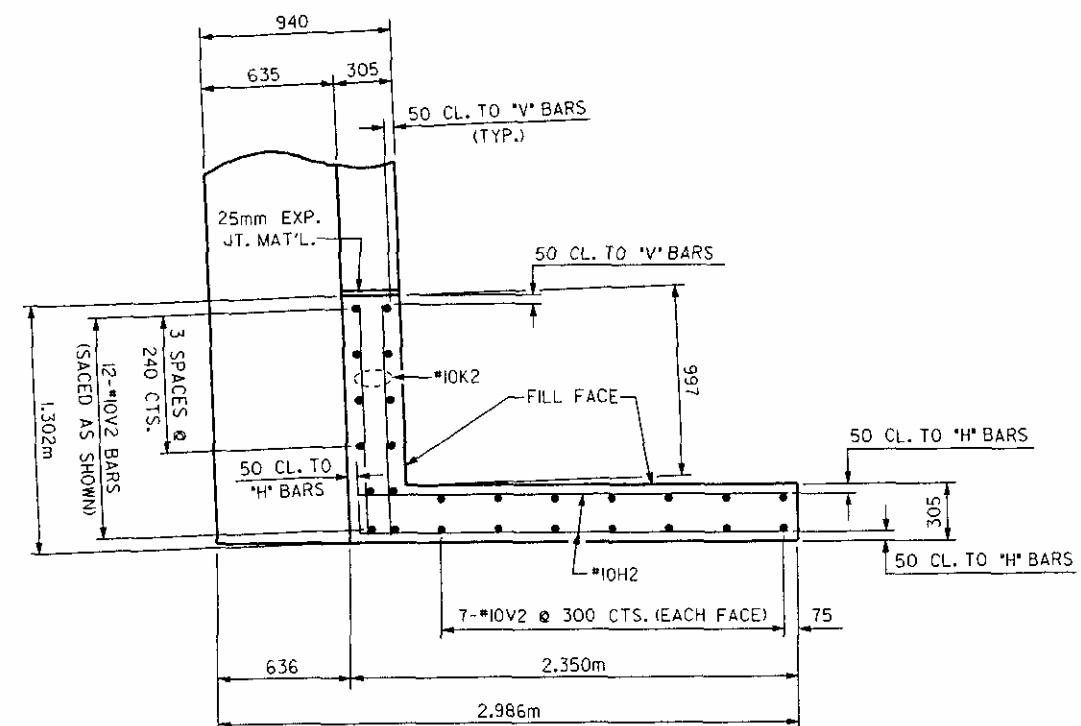
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUBSTRUCTURE
 END BENT NO. 2

DRAWN BY: Tony G. Stephenson DATE: 19-MAR-96
 CHECKED BY: R.A. ROYDOR, JR. DATE: 21-MAR-96

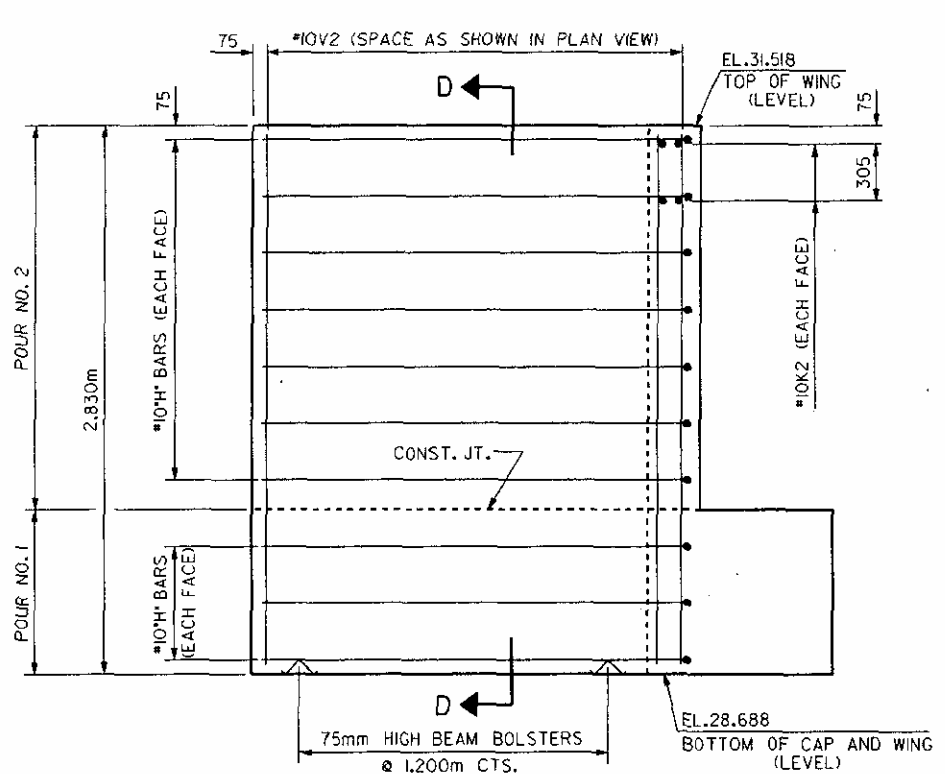
REVISIONS						SHEET NO.	
NO.	BY	DATE	NO.	BY	DATE	S-49	
1			3			TOTAL SHEETS 54	
2			4				



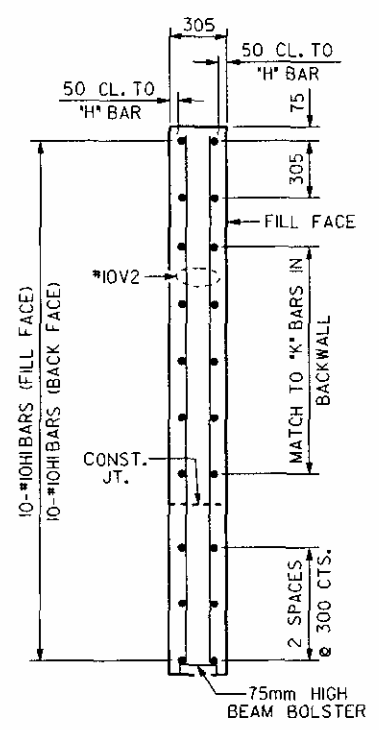
PLAN OF WING (W1)



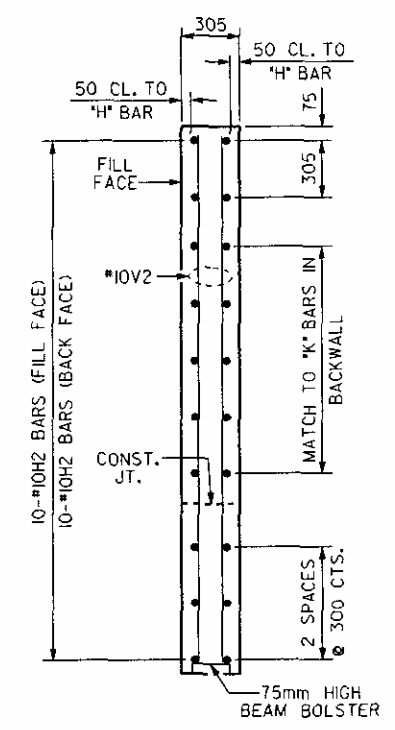
PLAN OF WING (W2)



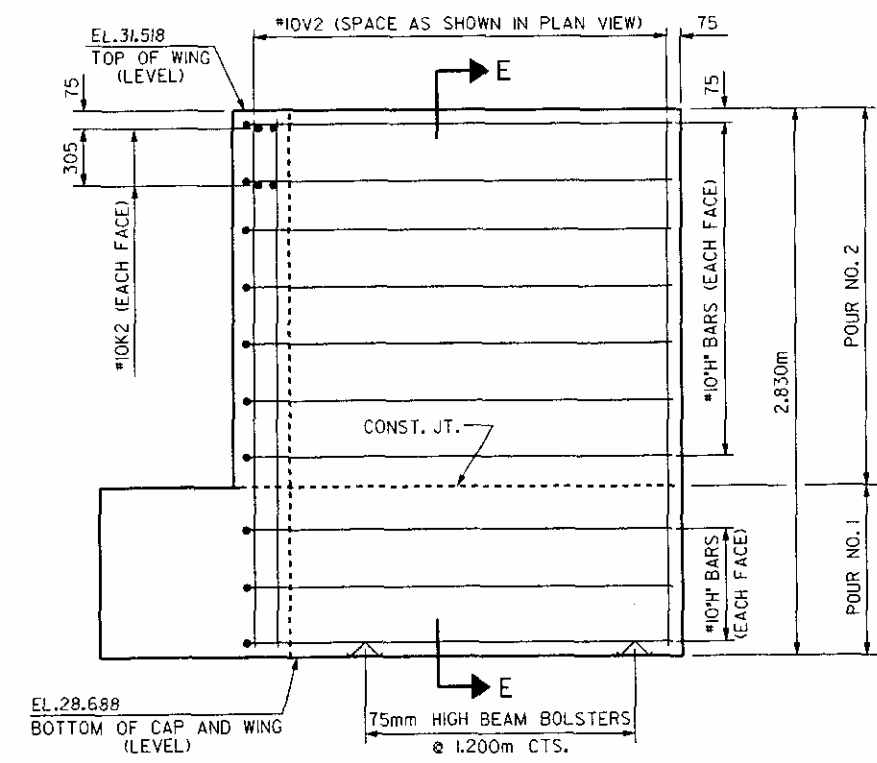
ELEVATION OF WING (W1)



SECTION D-D



SECTION E-E



ELEVATION OF WING (W2)



PROJECT NO. R-526G
 PITT COUNTY
 STATION: 109+39.958-L2-

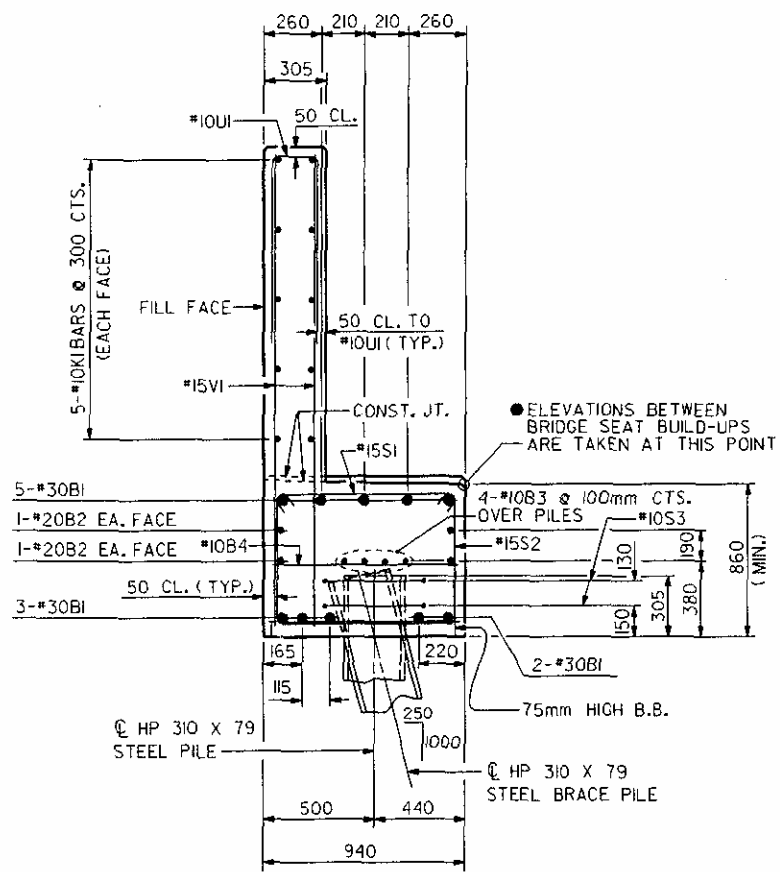
SHEET 2 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUBSTRUCTURE

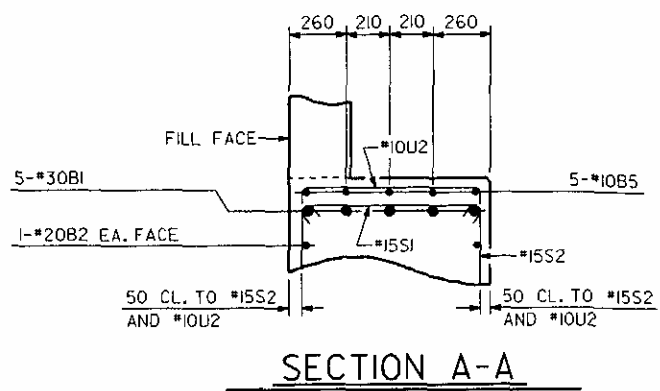
END BENT NO. 2

DRAWN BY: Tony G. Stephenson DATE: 19-MAR-96
 CHECKED BY: R.A. Raynor, Jr. DATE: 21-MAR-96

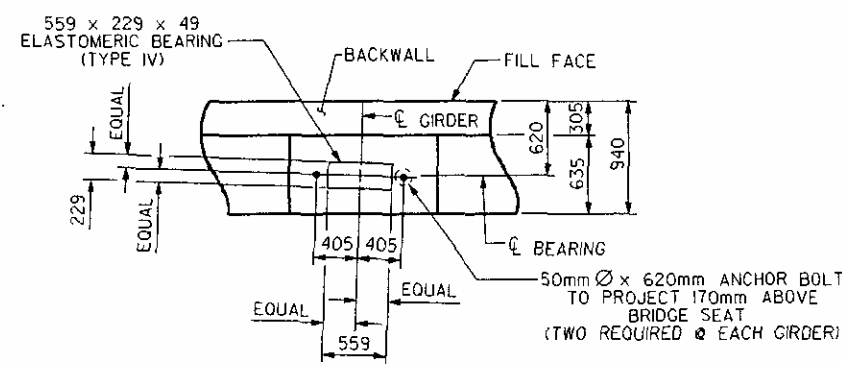
REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-50	
1			3			TOTAL SHEETS	
2			4			54	



TYPICAL SECTION THRU CAP



SECTION A-A

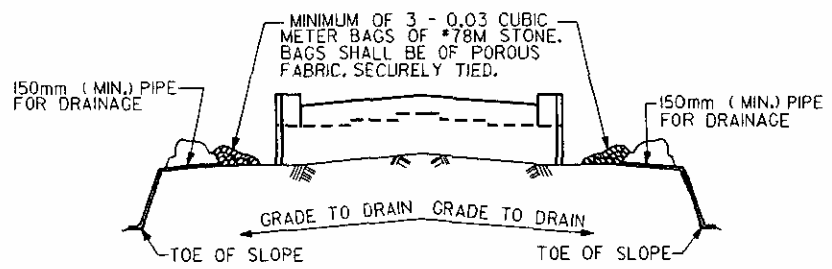


DETAIL A

(DETAIL TYPICAL FOR EACH GIRDER; END BENT NO. 2)

NOTES:
STIRRUPS IN CAP MAY BE SHIFTED AS NECESSARY TO CLEAR ANCHOR BOLTS.
FOR EPOXY PROTECTIVE COATING, SEE SPECIAL PROVISIONS.
PIPE DRAINS MAY BE SHIFTED SLIGHTLY AS NECESSARY TO CLEAR REINFORCING STEEL AND ANCHOR BOLTS.
BACKWALL SHALL BE PLACED BEFORE APPLYING THE EPOXY PROTECTIVE COATING.
THE TOP SURFACE AREAS OF THE END BENT CAP SHALL BE CURED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS EXCEPT THAT THE MEMBRANE CURING COMPOUND METHOD SHALL NOT BE USED.
THE TOP SURFACE OF THE END BENT CAP EXCEPT THE BRIDGE SEAT BUILDUPS SHALL BE SLOPED TRANSVERSELY FROM THE FILL FACE TO THE BACK FACE AT THE RATE OF 2%.

BAR TYPES		BILL OF MATERIAL				
END BENT NO. 2						
BAR NO.	SIZE	TYPE	LENGTH	WEIGHT		
B1	20	30	10420	145		
B2	8	20	9600	181		
B3	12	10	6420	60		
B4	15	10	840	10		
B5	10	10	1160	9		
B6	5	10	3860	15		
H1	20	10	2440	38		
H2	20	10	2440	38		
K1	30	10	6420	151		
K2	8	10	1200	8		
S1	44	15	1120	77		
S2	44	15	2620	181		
S3	30	10	1980	47		
U1	52	10	1800	73		
U2	19	10	1560	23		
V1	104	15	2140	349		
V2	52	10	2700	110		
REINFORCING STEEL				KILOGRAMS	2515	
CLASS 'A' CONCRETE BREAKDOWN						
POUR NO. 1: CAP AND LOWER PART OF WINGS 16.6 M ³						
POUR NO. 2: BACKWALL AND UPPER PART OF WINGS 10.7 M ³						
TOTAL CLASS 'A' CONCRETE 27.3 M ³						
HP 310 x 79 STEEL PILES NUMBER: 15 METERS: 270						

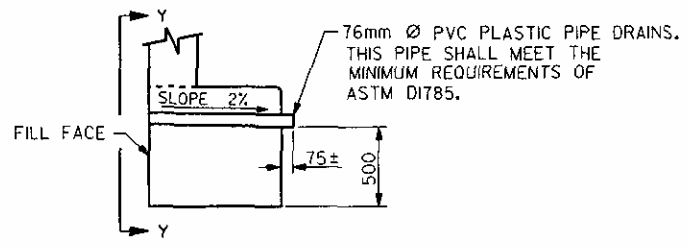


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

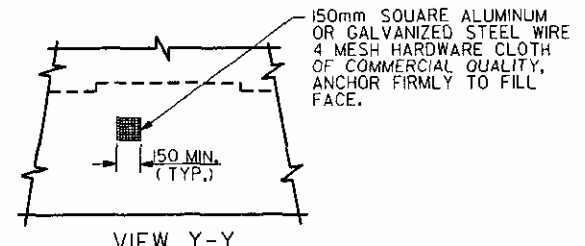
BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR EFFECTIVENESS.

NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

TEMPORARY DRAINAGE AT END BENT NO. 2



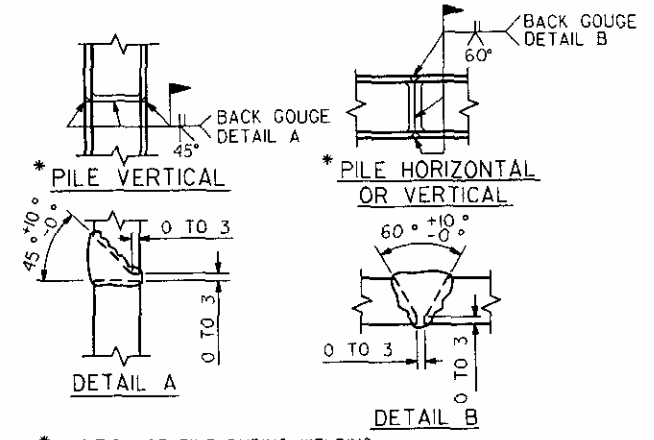
SECTION THRU CAP



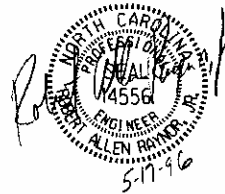
VIEW Y-Y

NOTE: NO SEPARATE PAYMENT WILL BE MADE FOR FURNISHING AND INSTALLING THE PVC PLASTIC PIPE DRAINS, HARDWARE CLOTH AND FASTENERS. THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

PIPE DRAIN DETAILS



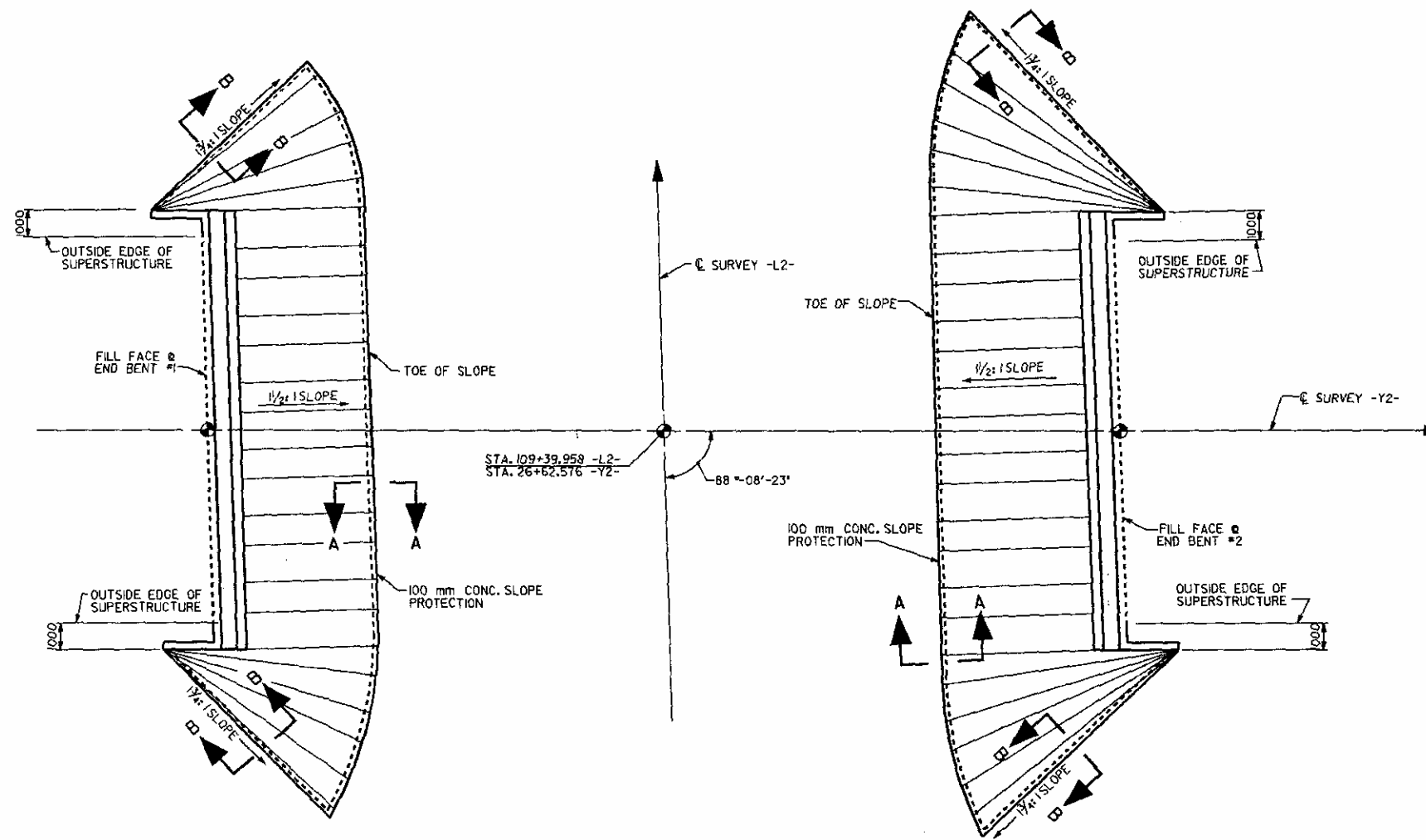
PILE SPLICE DETAILS



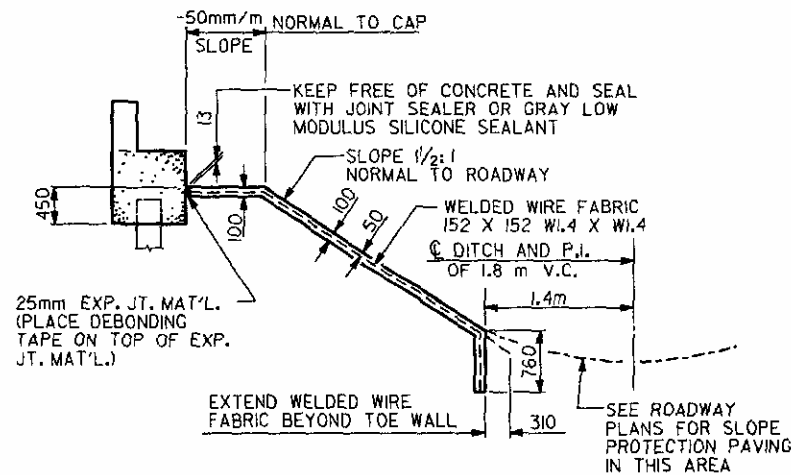
PROJECT NO. R-526G
PITT COUNTY
STATION: 109+39.958-L2
SHEET 3 OF 3

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE					
END BENT NO. 2					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

SHEET NO. S-51
TOTAL SHEETS 54



PLAN



SECTION ALONG @ ROADWAY WHEN FILL CATCHES IN DITCH

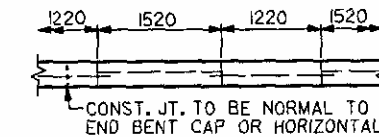
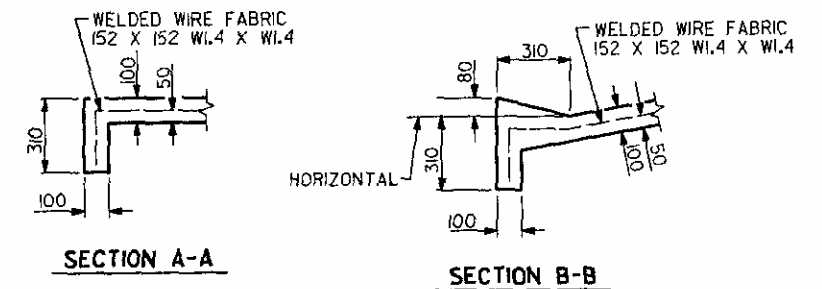
GENERAL NOTES

SLOPE PROTECTION SHALL BE PLACED UNDER THE ENDS OF THE BRIDGE AS SHOWN IN THE DETAILS. 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 462 OF THE STANDARD SPECIFICATIONS. FOR BERM WIDTH, SEE GENERAL DRAWING.

ALTERNATE "A"

ALTERNATE "A" SHALL CONSIST OF 100mm POURED-IN-PLACE CONCRETE PAVING AS SHOWN IN THE DETAILS ON THIS SHEET. CONCRETE SHALL BE CLASS "B". THE CONCRETE SURFACE SHALL BE FLOATED WITH A WOODEN FLOAT AND FINISHED. WELDED WIRE FABRIC REINFORCING SHALL BE 152 X 152 W 1.4 X W 1.4, 1524mm WIDE. ADJACENT RUNS OF WELDED WIRE FABRIC SHALL LAP AT LEAST 150mm. SLOPE PROTECTION SHALL BE POURED IN ALTERNATE 1220mm AND 1520mm STRIPS AS SHOWN IN THE POURING DETAIL. THE COST OF THE WELDED WIRE FABRIC SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID PER SQUARE METER FOR SLOPE PROTECTION.

	100 mm SLOPE PROTECTION SQUARE METERS		WELDED WIRE FABRIC 1524mm WIDE APPROX. L.M.
	END BENT 1	END BENT 2	
BRIDGE @ STA. 109+39.958 -L2-	210	270	960



POUR A 1220mm STRIP FIRST. STRIP WIDTHS MAY VARY IN CURVED PORTION.

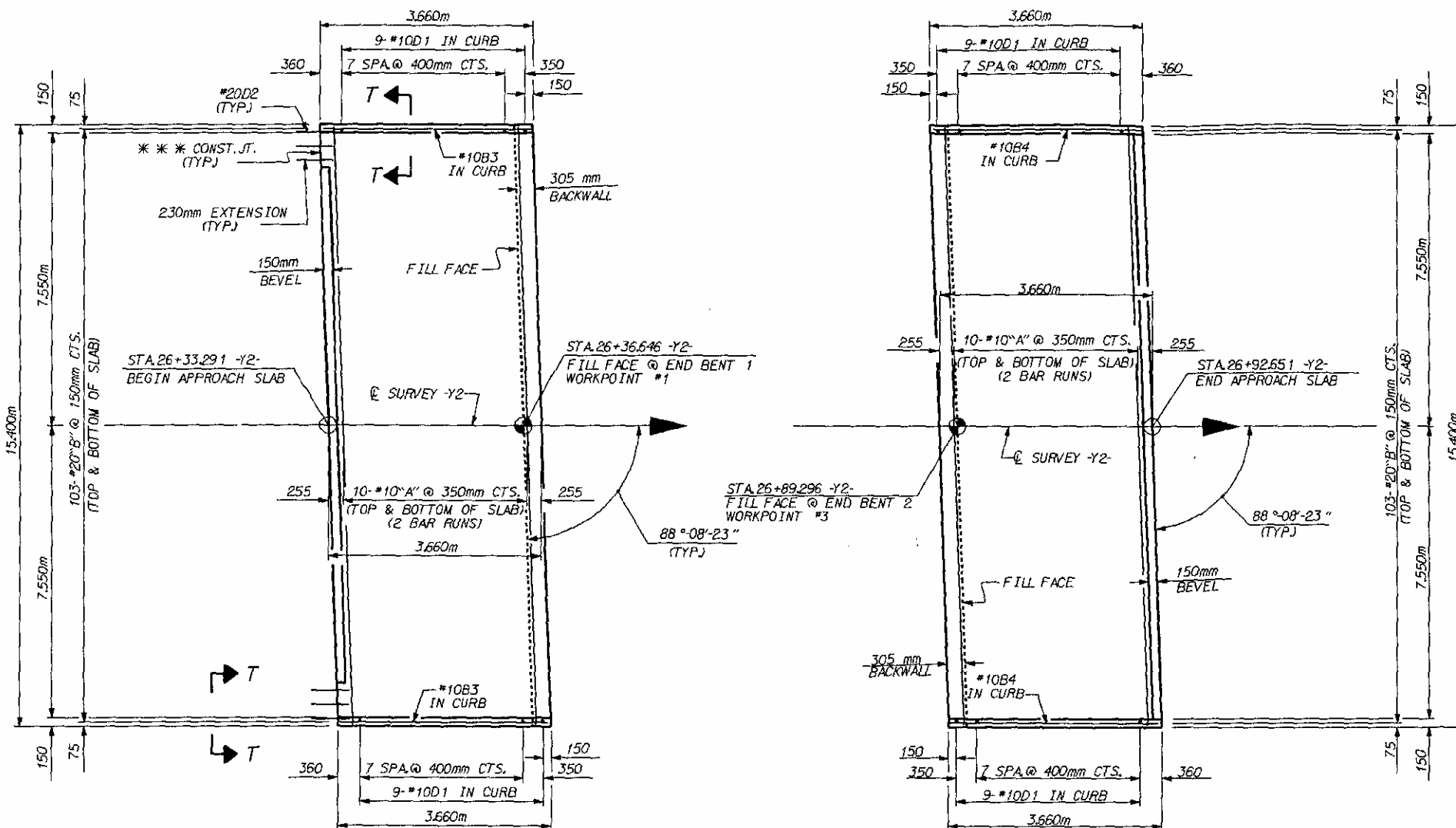
POURING DETAIL

PROJECT NO. R-0526 G
PITT COUNTY
 STATION: 109+39.958 -L2-

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SLOPE PROTECTION DETAILS

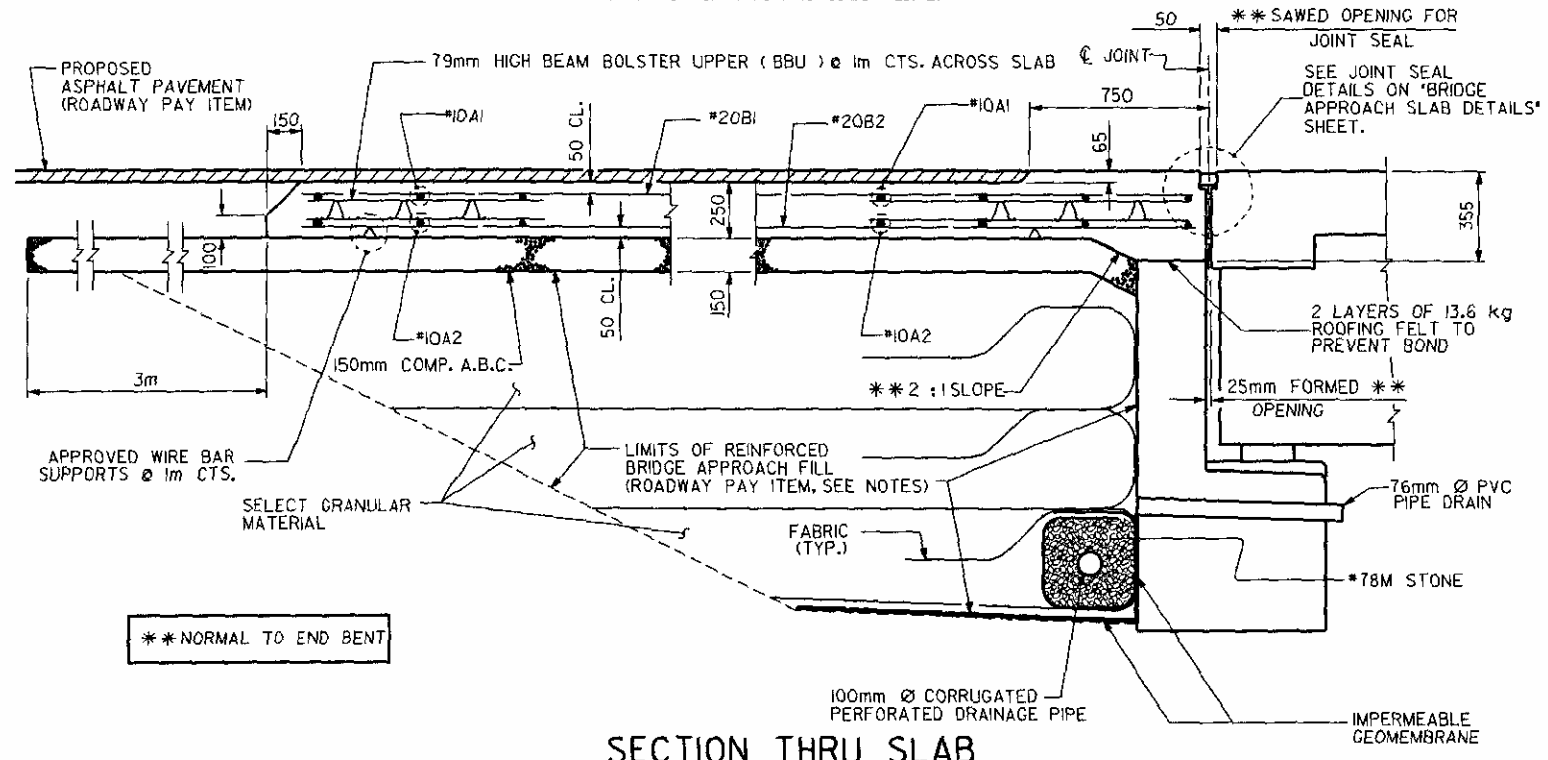
REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			5-52
2			4			TOTAL SHEETS 54



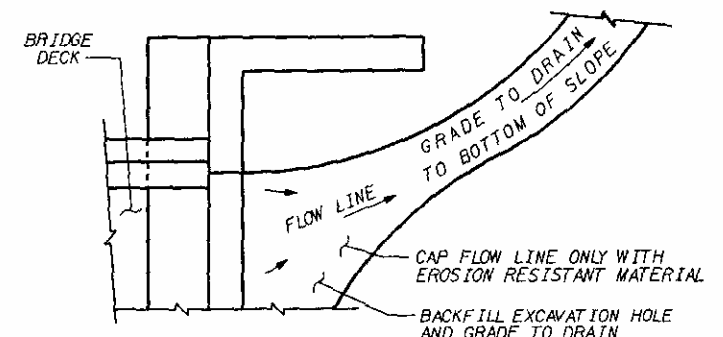
PLAN @ END BENT 1

PLAN @ END BENT 2

*** TEMPORARY BERM AND SLOPE DRAIN REQUIRED AT THIS LOCATION FOR DETAILS SEE SHEET 2 OF 2. THE APPROACH SLAB AND CURB SHALL HAVE A VERTICAL FACE AT THE LOCATION OF THE PROPOSED FLUME.



SECTION THRU SLAB



NOTE: IF THE APPROACH SLAB IS NOT CONSTRUCTED IMMEDIATELY AFTER THE BACKFILLING OF THE END BENT EXCAVATION GRADE TO DRAIN TO THE BOTTOM OF THE SLOPE AND PROVIDE EROSION RESISTANT MATERIAL SUCH AS FIBERGLASS ROVING OR AS DIRECTED BY THE ENGINEER TO PREVENT SOIL EROSION AND TO PROTECT THE AREA ADJACENT TO THE STRUCTURE, THE CONTRACTOR WILL BE REQUIRED TO REMOVE THESE MATERIALS PRIOR TO CONSTRUCTION OF THE APPROACH SLAB.

TEMPORARY DRAINAGE DETAIL

NOTES

THE JOINT SHALL BE SAWS PRIOR TO THE CASTING OF THE CONCRETE CURB TO THE CONSTRUCTION JOINT AND THE BARRIER RAIL FOR LOCATION OF CONSTRUCTION JOINT SEE CURB DETAILS.

THE 150mm COMP. A.B.C. IS TO EXTEND 3m BEYOND THE SLAB AS SHOWN AND 300mm OUTSIDE OF EACH EDGE OF SLAB.

FOR REINFORCED BRIDGE APPROACH FILL INCLUDING FABRIC, IMPERMEABLE GEOMEMBRANE, 100 mm Ø DRAINAGE PIPE, #78M STONE, AND SELECT GRANULAR FILL, SEE ROADWAY PLANS.

THE CONTRACTOR MAY, AT HIS OPTION, USE EITHER 100mm TYPE HB ASPHALT CONCRETE BASE COURSE OR 125mm CLASS 'A' CONCRETE IN LIEU OF 150mm A.B.C. IF 125mm CLASS 'A' CONCRETE IS USED, THE CONCRETE SHALL BE FINISHED TO A SMOOTH SURFACE AND A LAYER OF 13.6 kg ROOFING FELT SHALL BE PLACED BETWEEN THE CONCRETE BASE AND THE APPROACH SLAB TO PREVENT BOND. THE WIDTH OF THE CONCRETE BASE SHALL BE THE SAME WIDTH AS THE APPROACH SLAB. THE APPROACH SLABS SHALL NOT CAST UNTIL THE CONCRETE BASE HAS REACHED AN AGE OF THREE CURING DAYS.

DOWELS MAY BE PUSHED INTO GREEN CONCRETE AFTER THE SLAB HAS BEEN SCREED AND FLOAT FINISHED EXCEPT AS NOTED ON THE PLANS.

TEMPORARY DRAINAGE AND TEMPORARY BERM AND SLOPE DRAINS WILL BE PAID FOR UNDER THE LUMP SUM PRICE FOR BRIDGE APPROACH SLAB.

AREA BETWEEN THE WINGWALL AND APPROACH SLAB SHALL BE GRADED TO DRAIN THE WATER AWAY FROM THE FILL FACE OF THE BRIDGE.

THE AREAS BETWEEN THE WINGWALLS AND APPROACH SLAB SHALL BE PAVED, SEE ROADWAY PLANS.

FOR EVAZOTE JOINT SEAL SEE SPECIAL PROVISIONS.

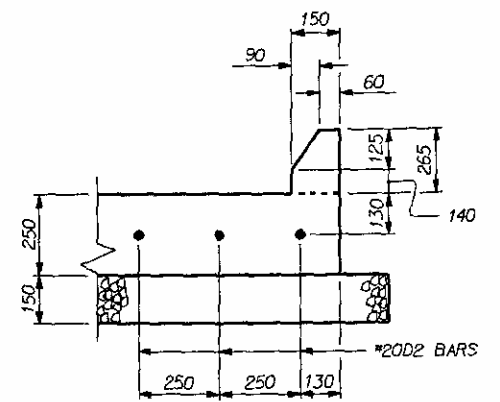
PAYMENT FOR EVAZOTE JOINT SEAL SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR EVAZOTE JOINT SEALS.

THE NOMINAL UNCOMPRESSED SEAL WIDTH OF EVAZOTE JOINT SEALS SHALL BE 64mm.

APPROACH SLAB GROOVING IS NOT REQUIRED.

FOR SKEWS BETWEEN 70° AND 110°, THE CONTRACTOR MAY, AT HIS OPTION, USE A COMPRESSION JOINT SEAL IN LIEU OF THE EVAZOTE JOINT SEAL. SEE SPECIAL PROVISION FOR OPTIONAL PREFORMED COMPRESSION JOINT SEAL.

BILL OF MATERIAL					
END BENT #1					
BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	
* A1	20	10	STR	7920	124
A2	20	10	STR	7880	124
* B1	103	20	STR	3400	825
B2	103	20	STR	3560	864
* B3	2	10	STR	3560	6
* D1	18	10	STR	320	5
* D2	6	20	STR	460	7
REINFORCING STEEL				988	Kg
* EPOXY COATED					
REINFORCING STEEL				967	Kg
CLASS A-A CONCRETE				15.4	m ³
END BENT #2					
BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	
* A1	20	10	STR	7920	124
A2	20	10	STR	7880	124
* B1	103	20	STR	3400	825
B2	103	20	STR	3560	864
* B4	2	10	STR	3420	5
* D1	18	10	STR	320	5
REINFORCING STEEL				988	Kg
* EPOXY COATED					
REINFORCING STEEL				967	Kg
CLASS A-A CONCRETE				15.4	m ³



SECTION T-T

*20D2 BARS TO BE HELD SECURELY IN PLACE

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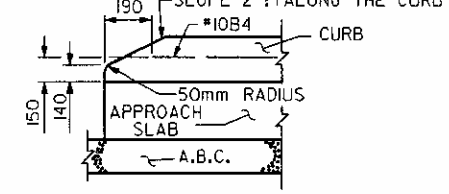
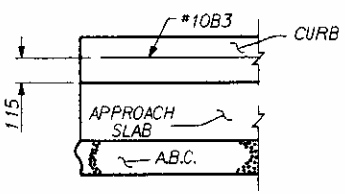
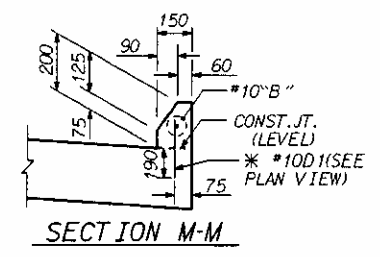
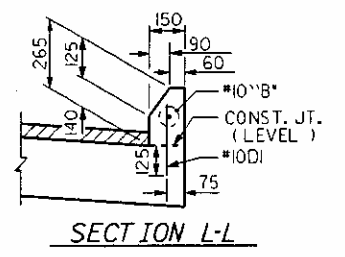
SHEET 1 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
BRIDGE APPROACH SLAB FOR FLEXIBLE PAVEMENT

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

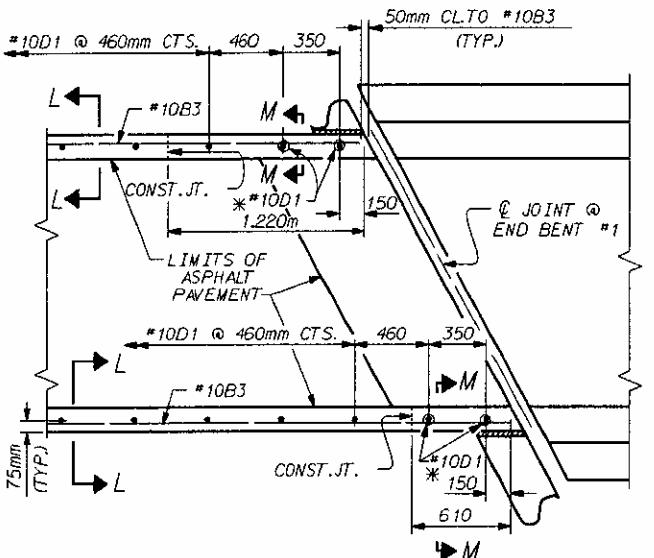
TOTAL SHEETS: 54

DRAWN BY: T.A. WALTER DATE: 3/12/96
 CHECKED BY: L.A. HALL DATE: 5/17/96



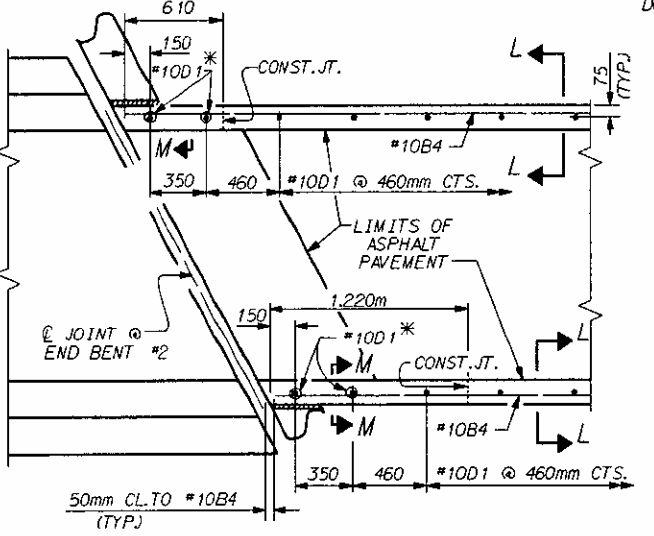
DETAIL AT END OF CURB WITH SPECIAL DRAINAGE

DETAIL AT END OF CURB WITH SPECIAL DRAINAGE



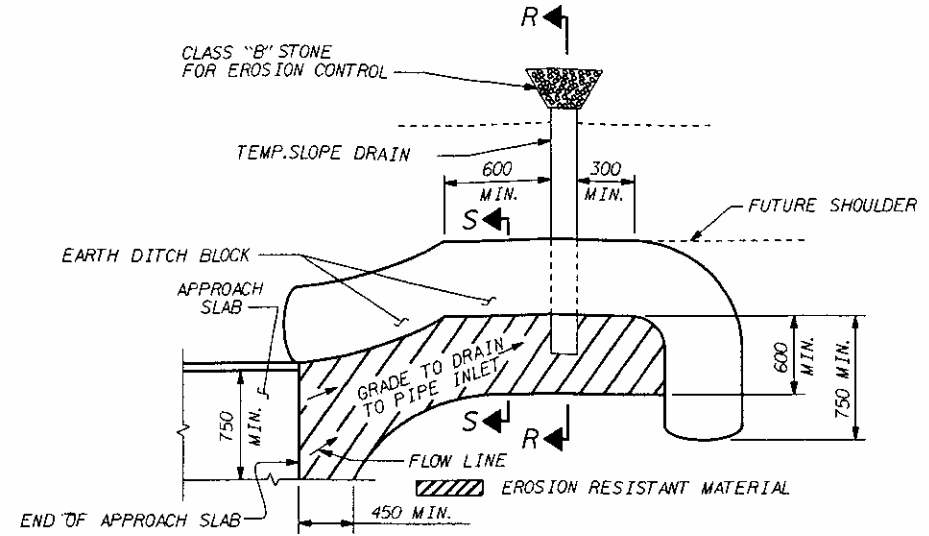
PLAN @ END BENT 1

* THESE DOWELS ARE TO BE PLACED AFTER SAWING OF THE JOINT. THE HOLES SHALL BE DRILLED AND THE DOWELS GROUTED IN PLACE.



PLAN @ END BENT 2

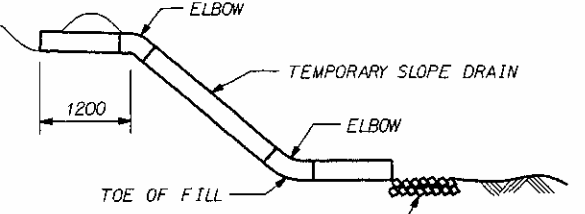
CURB DETAILS



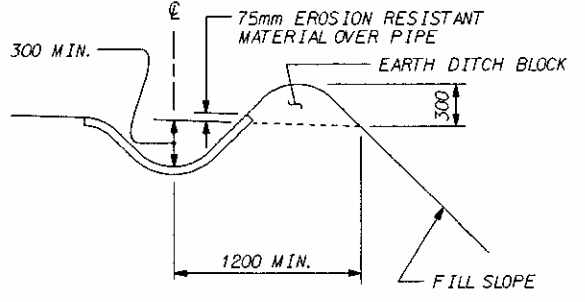
PLAN VIEW

NOTE: IMMEDIATELY AFTER THE CONSTRUCTION OF THE APPROACH SLAB, THE CONTRACTOR SHALL PROVIDE TEMPORARY BERM AND SLOPE DRAIN. CONTRACTOR SHALL GRADE TO PIPE INLET AND PROVIDE EROSION RESISTANT MATERIAL AS SHOWN. THE EROSION RESISTANT MATERIAL SHALL BE EITHER 1) BITUMINOUS PLANT MIX, TYPE 1 OR TYPE 2, MIN. 50mm DEPTH, 2) EROSION CONTROL MAT, OR 3) CONCRETE, AS DIRECTED BY THE ENGINEER. THE SLOPE DRAIN SHALL CONSIST OF A NON-PERFORATED TEMPORARY DRAINAGE PIPE, 305mm IN DIAMETER.

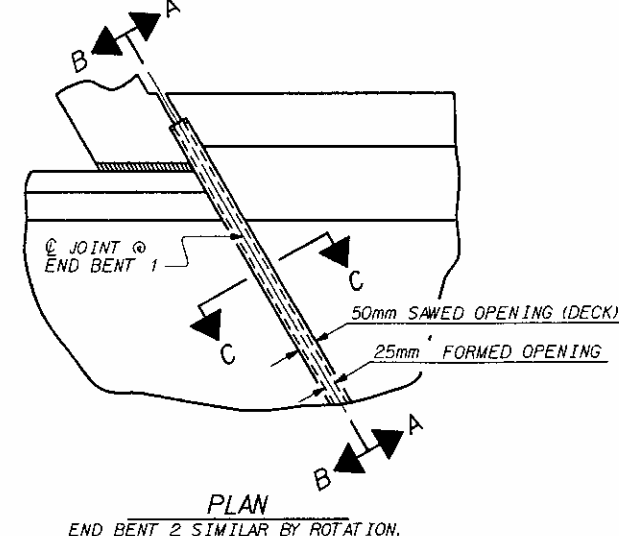
TEMPORARY BERM AND SLOPE DRAIN DETAILS



SECTION R-R

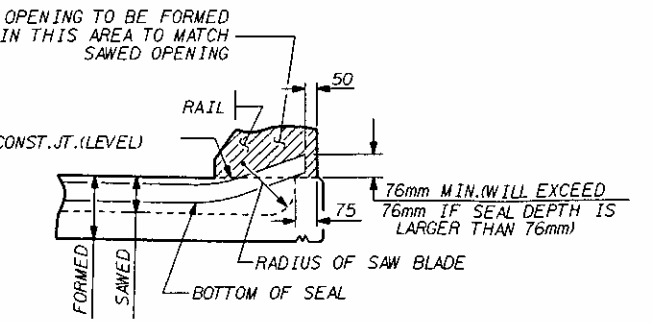


SECTION S-S



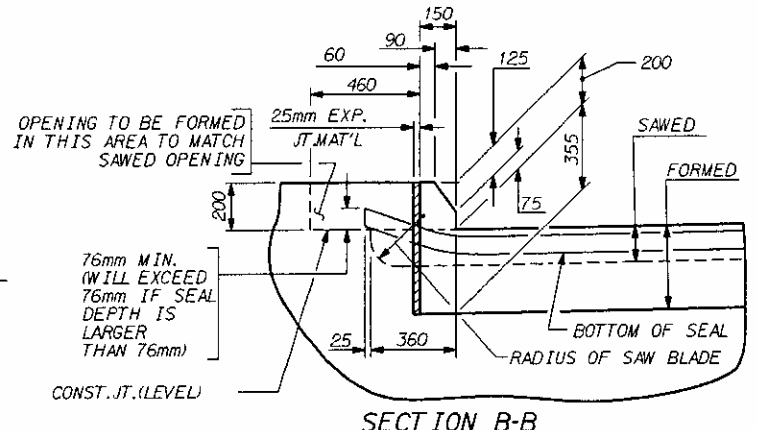
PLAN

END BENT 2 SIMILAR BY ROTATION.

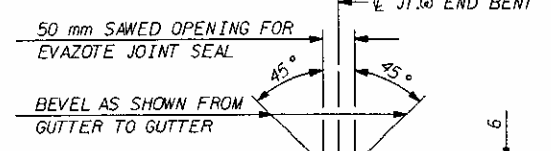


SECTION A-A

JOINT SEAL DETAILS @ END BENT



SECTION B-B



SECTION C-C

EVAZOTE JOINT SEAL

PROJECT NO. R-0526 G
PITT COUNTY
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SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
BRIDGE APPROACH SLAB
FOR FLEXIBLE PAVEMENT

REVISIONS				SHEET NO. 5-54
NO.	DATE	NO.	DATE	
1		3		TOTAL SHEETS 54
2		4		

DRAWN BY: T. AWALTER DATE: 3/12/96
CHECKED BY: L. A. HALL DATE: 3/17/96