

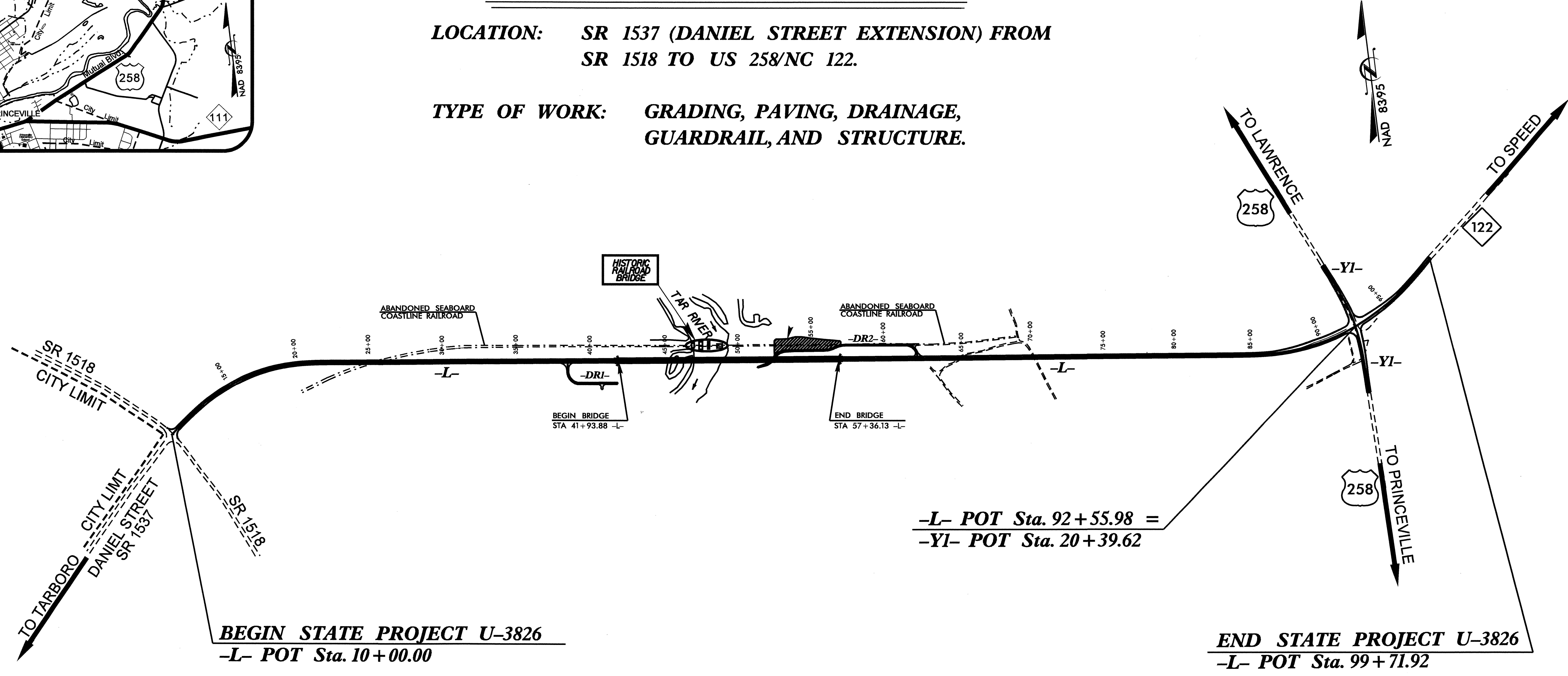
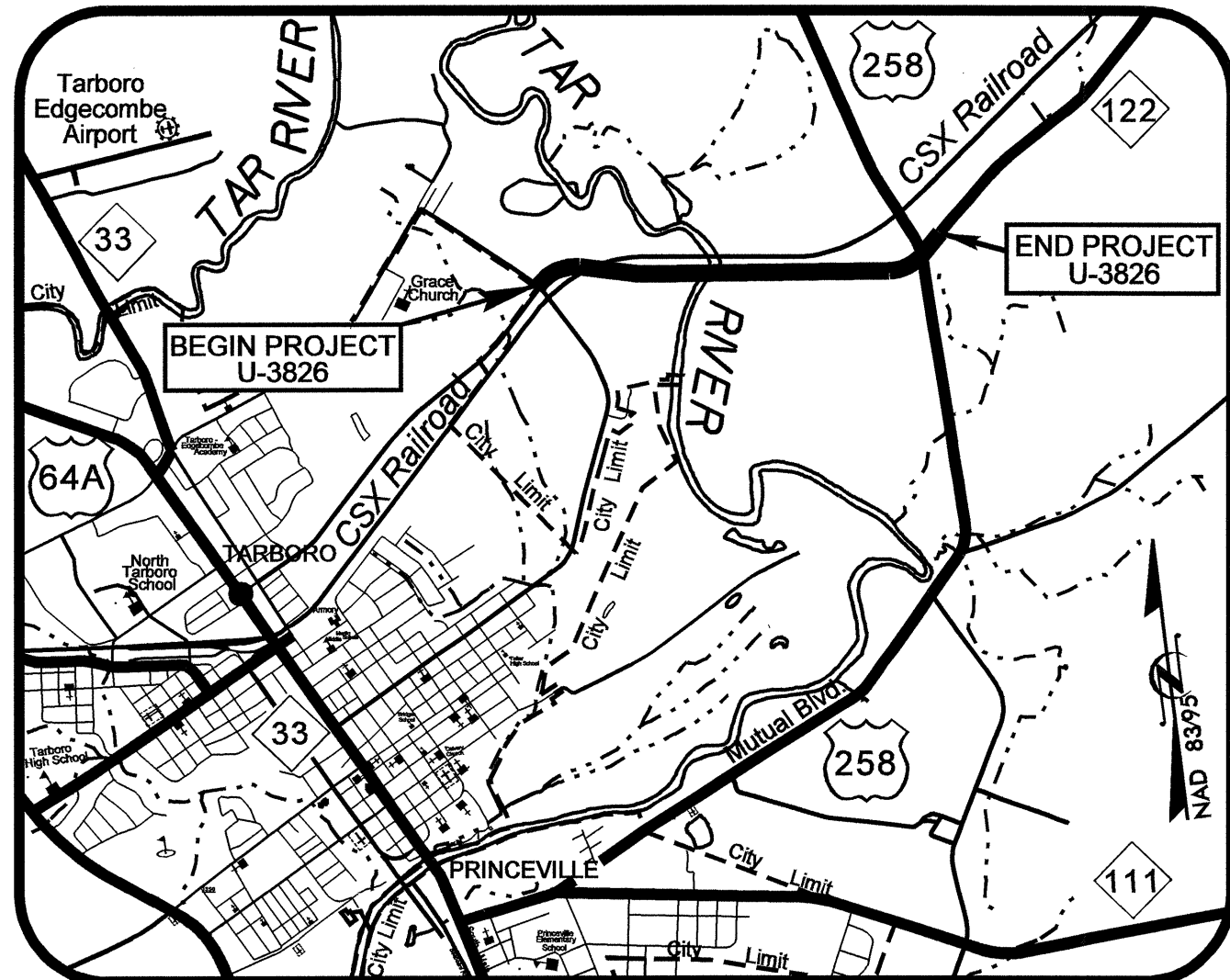
CONTRACT: C202157 TIP NO: U-3826

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-3826		
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34983.1.1	STP-1537(2)	PE	
34983.2.2	STP-1537(2)	R/W /UTILITIES	
34983.3.2	STP-1537(5)	CONSTRUCTION	

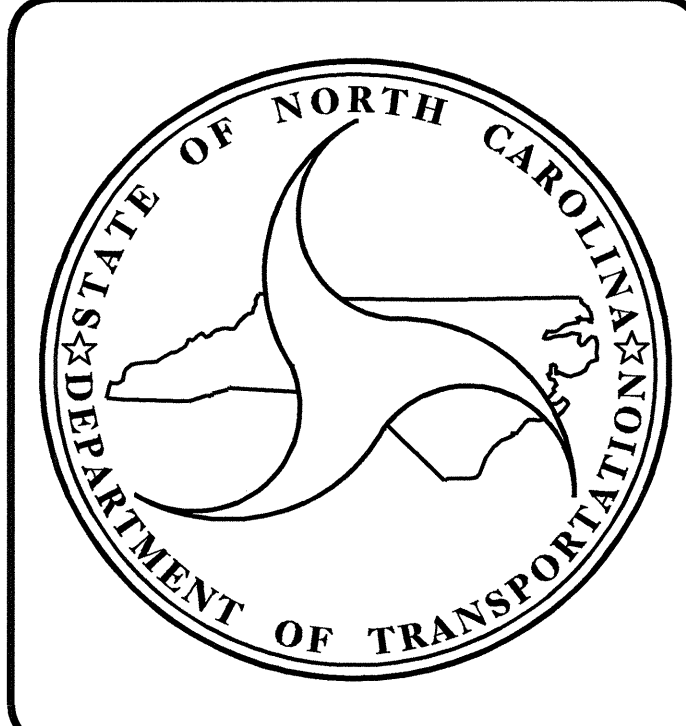
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
EDGECOMBE COUNTY

LOCATION: SR 1537 (DANIEL STREET EXTENSION) FROM SR 1518 TO US 258/NC 122.

TYPE OF WORK: GRADING, PAVING, DRAINAGE, GUARDRAIL, AND STRUCTURE.



STRUCTURE



DESIGN DATA

ADT 2009 =	4,000
ADT 2030 =	6,100
DHV =	12 %
D =	60 %
T =	11 % *
V =	60 MPH
* TTST 8%	DUAL 3%

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT U-3826 =	1.407 MILES
LENGTH STRUCTURE TIP PROJECT U-3826 =	0.292 MILES
TOTAL LENGTH TIP PROJECT No. U-3826 =	1.699 MILES
FUNC CLASS = RURAL MAJOR COLLECTOR	

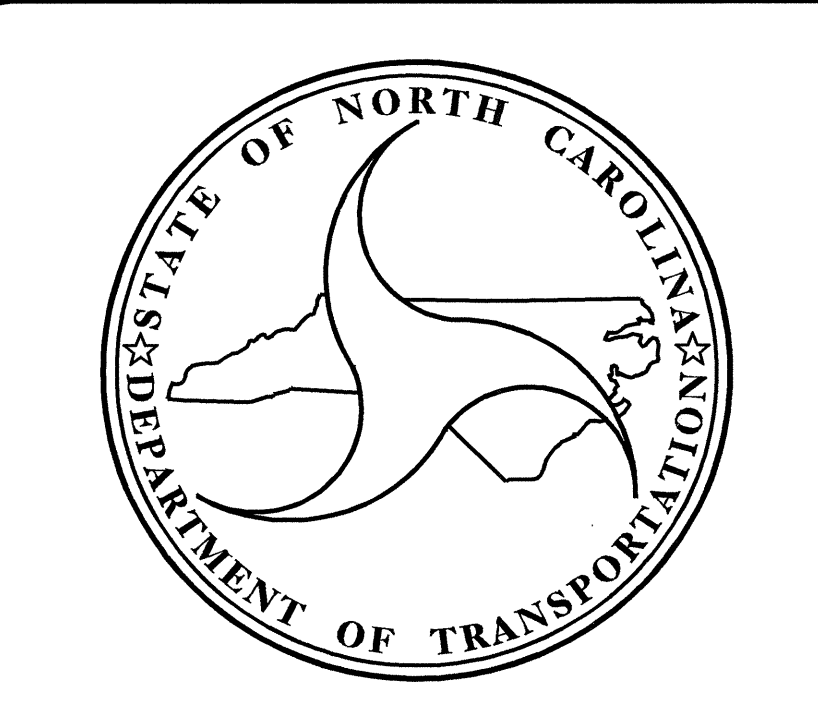
Prepared In the Office of:

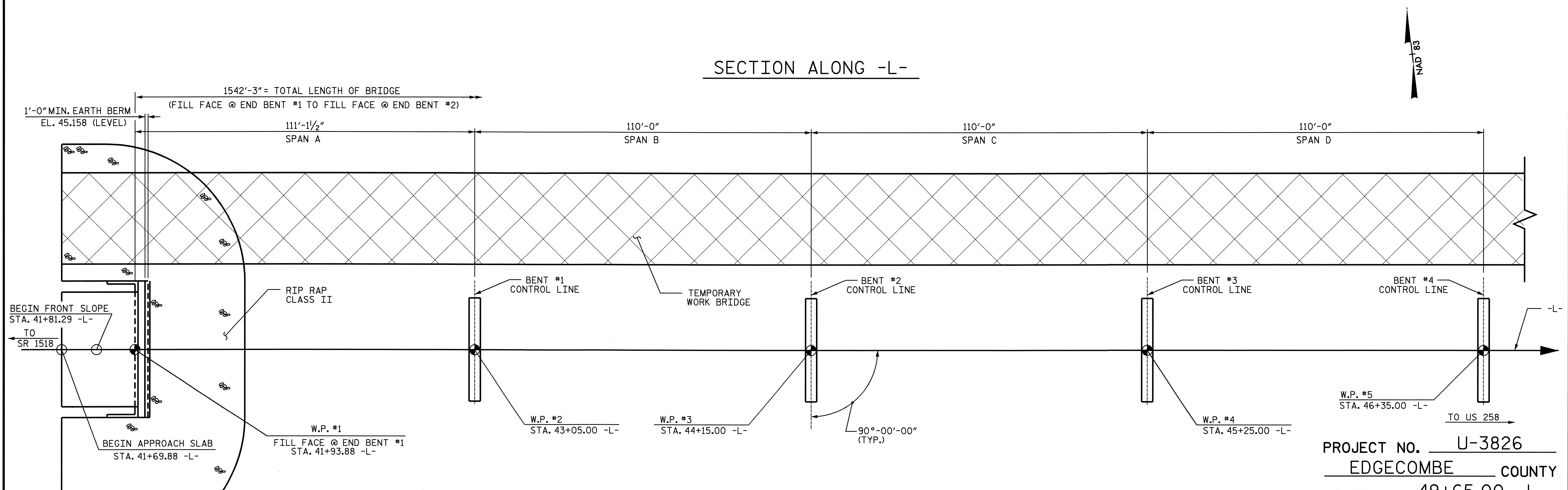
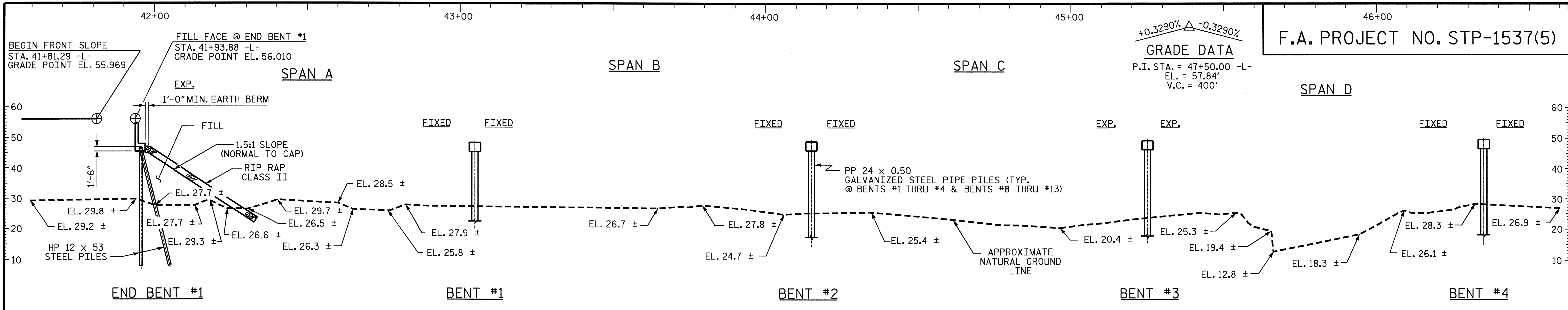
DIVISION OF HIGHWAYS

2006 STANDARD SPECIFICATIONS

<p>LETTING DATE :</p> <p>NOVEMBER 17, 2009</p>	<p>OMAR R. AZIZI, P.E. PROJECT ENGINEER</p> <hr/> <p>TIMOTHY L. COGGINS, P.E. PROJECT DESIGN ENGINEER</p>
--	---

STRUCTURE DESIGN UNIT
1000 BIRCH RIDGE DR.
RALEIGH, N.C. 27610





DRAWN BY: B.N.BARODAWALA DATE: 4-13-09
 CHECKED BY: PEGGY ADKINS DATE: 4-13-09

21-SEP-2009 10:26
 g:\projects\projects-u\3826\structures\3826\final\plans\3826.sd.gd.01.dgn
 taverette

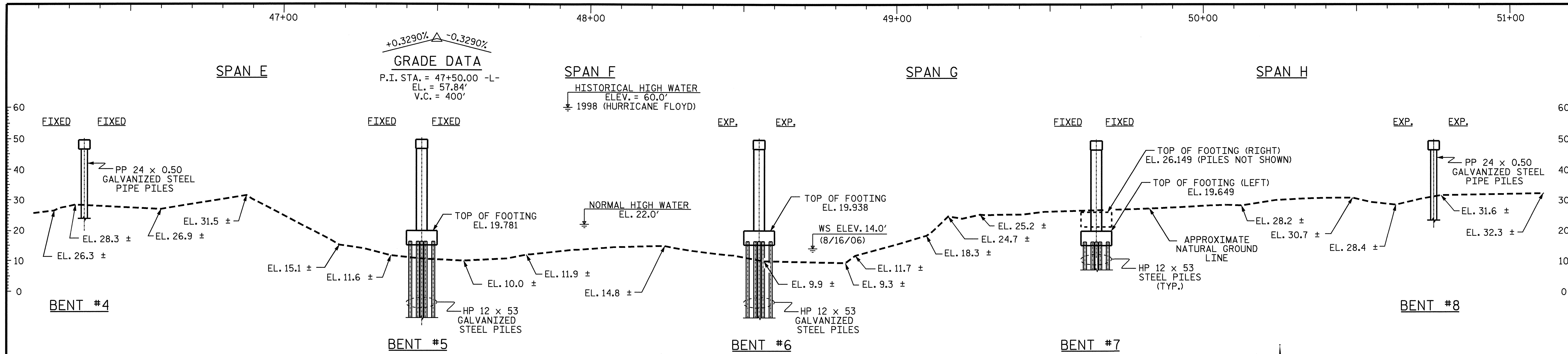
PROFESSIONAL ENGINEER SEAL
 OMAR R. AZIL
 SEAL 12274
 9/28/09

PROFESSIONAL ENGINEER SEAL
 MORTY W. COLEMAN
 SEAL 14045
 9/28/09

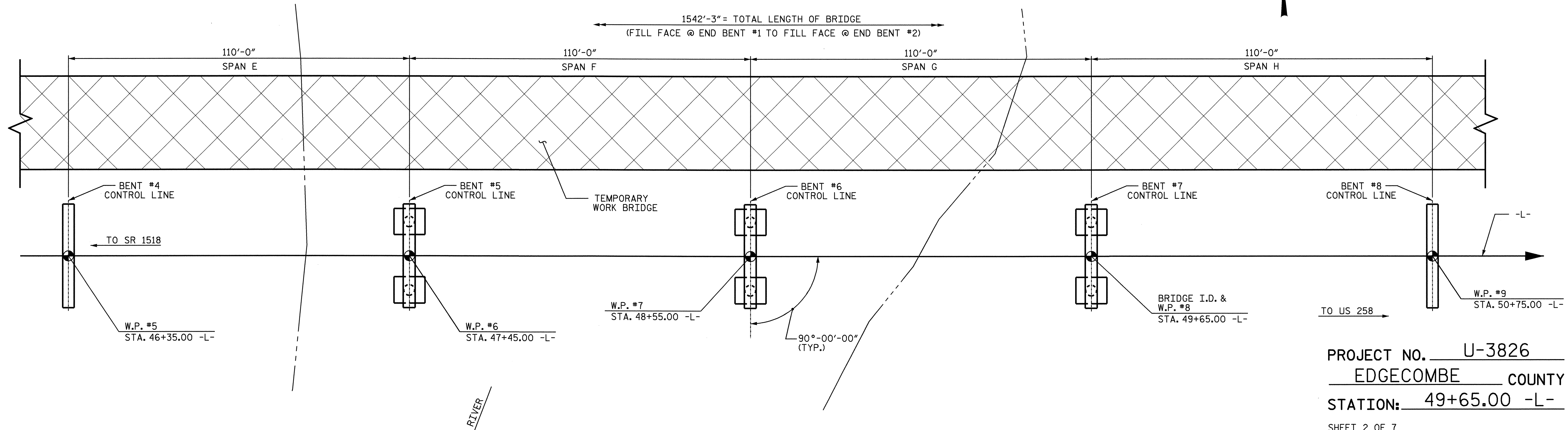
PROJECT NO. U-3826
EDGECOMBE COUNTY
 STATION: 49+65.00 -L-
 SHEET 1 OF 7 BRIDGE NO. 345

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE OVER TAR RIVER
 ON SR 1537 BETWEEN
 SR 1518 AND US 258

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



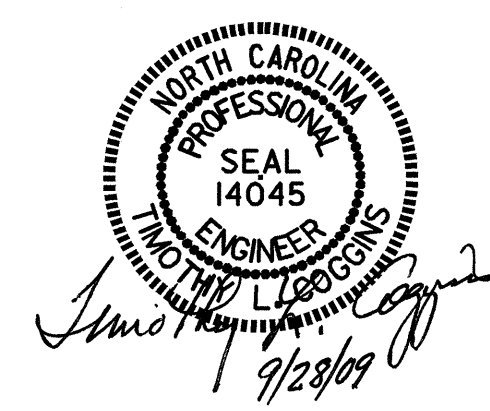
SECTION ALONG -L-



PLAN
PILES NOT SHOWN FOR CLARITY

PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-

SHEET 2 OF 7
 STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 GENERAL DRAWING
 FOR BRIDGE OVER TAR RIVER
 ON SR 1537 BETWEEN
 SR 1518 AND US 258



DRAWN BY: B.N.BARODAWALA DATE: 4-13-09
 CHECKED BY: PEGGY ADKINS DATE: 4-13-09

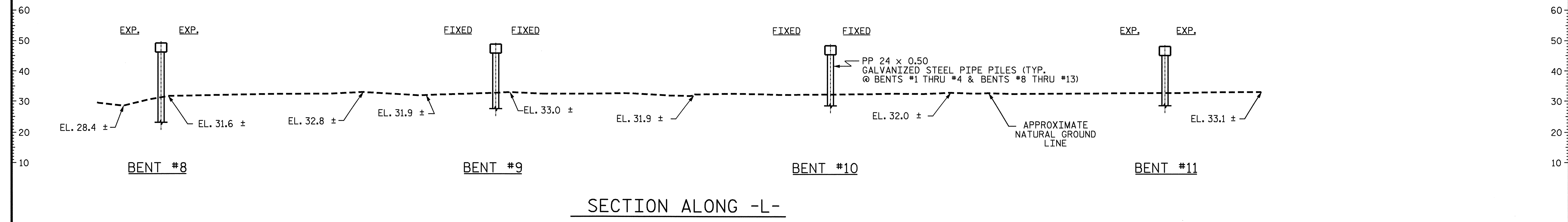
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-2
1			3			TOTAL SHEETS
2			4			50

21-SEP-2009 10:26
 g:\t\pp\projects-u\3826\structures\3826\final\plans\3826.ed_gd.01.dgn
 faverette

+0.3290% Δ -0.3290%
GRADE DATA
 P.I. STA. = 47+50.00 -L-
 EL. = 57.84'
 V.C. = 400'

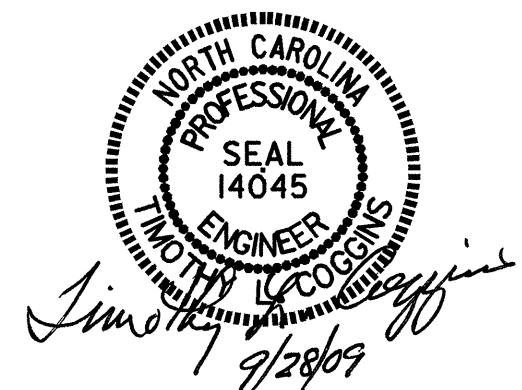
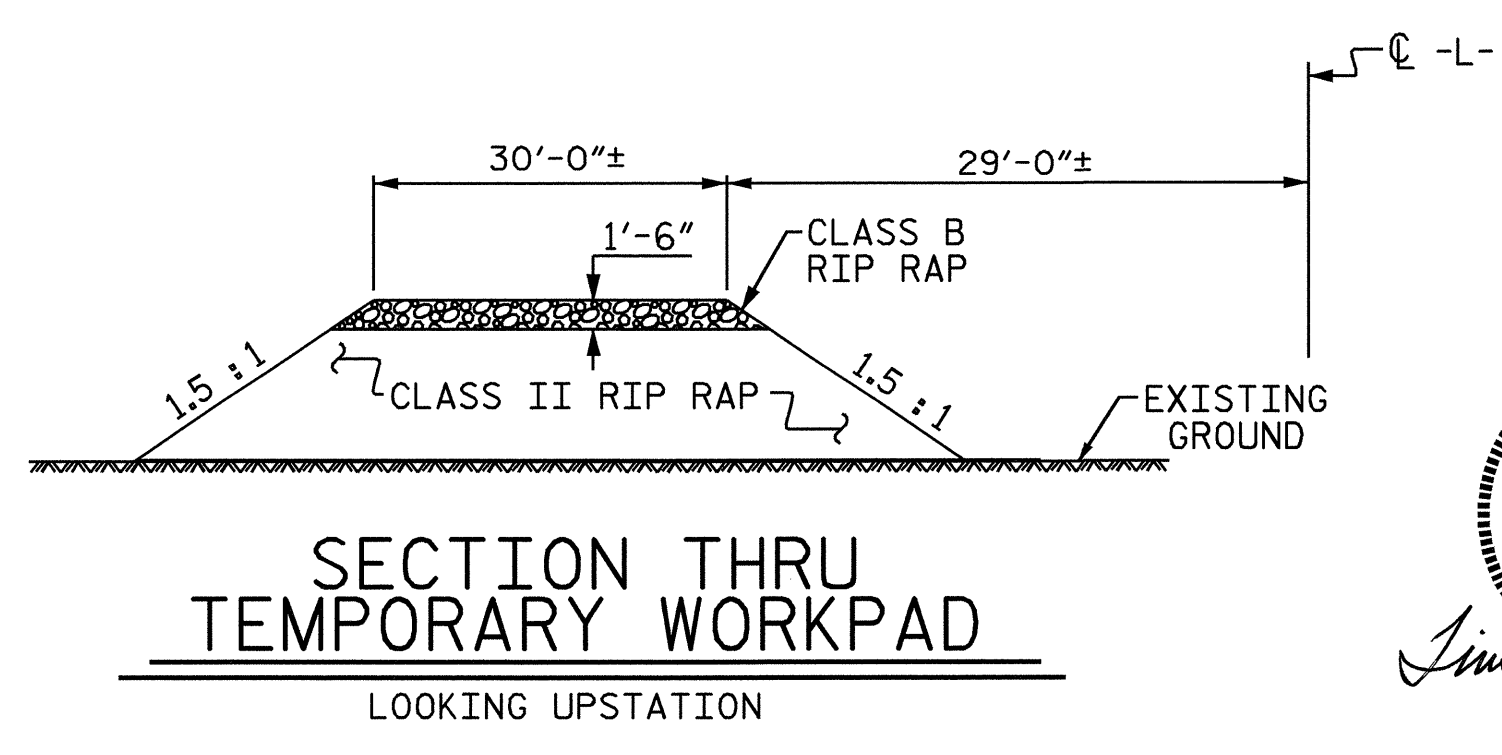
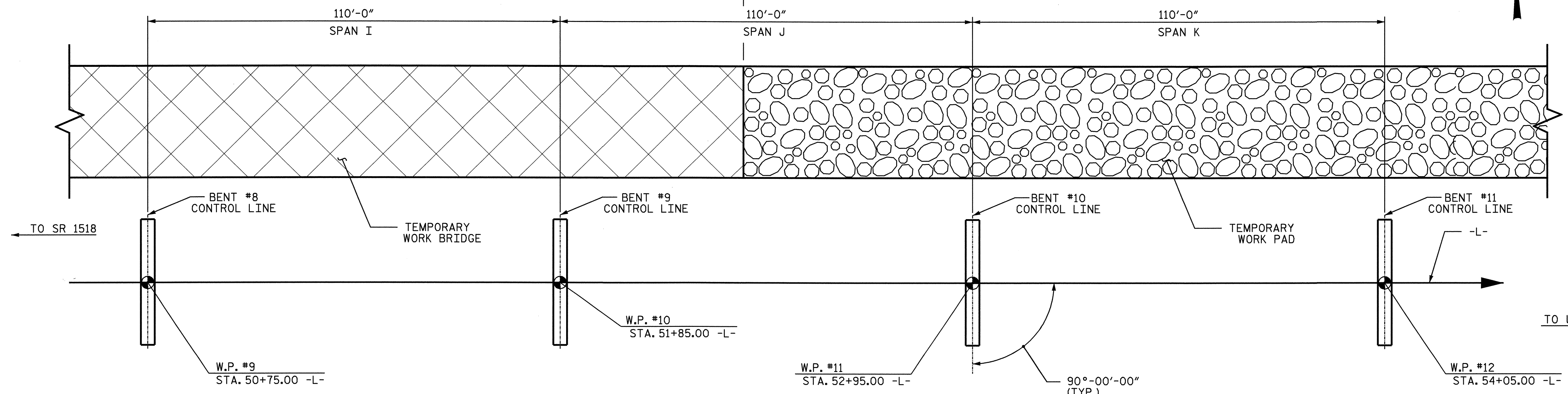
51+00 52+00 53+00 54+00

SPAN I SPAN J SPAN K



1542'-3" = TOTAL LENGTH OF BRIDGE
 (FILL FACE @ END BENT #1 TO FILL FACE @ END BENT #2)

TEMPORARY WORK BRIDGE TEMPORARY WORK PAD



PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-

SHEET 3 OF 7

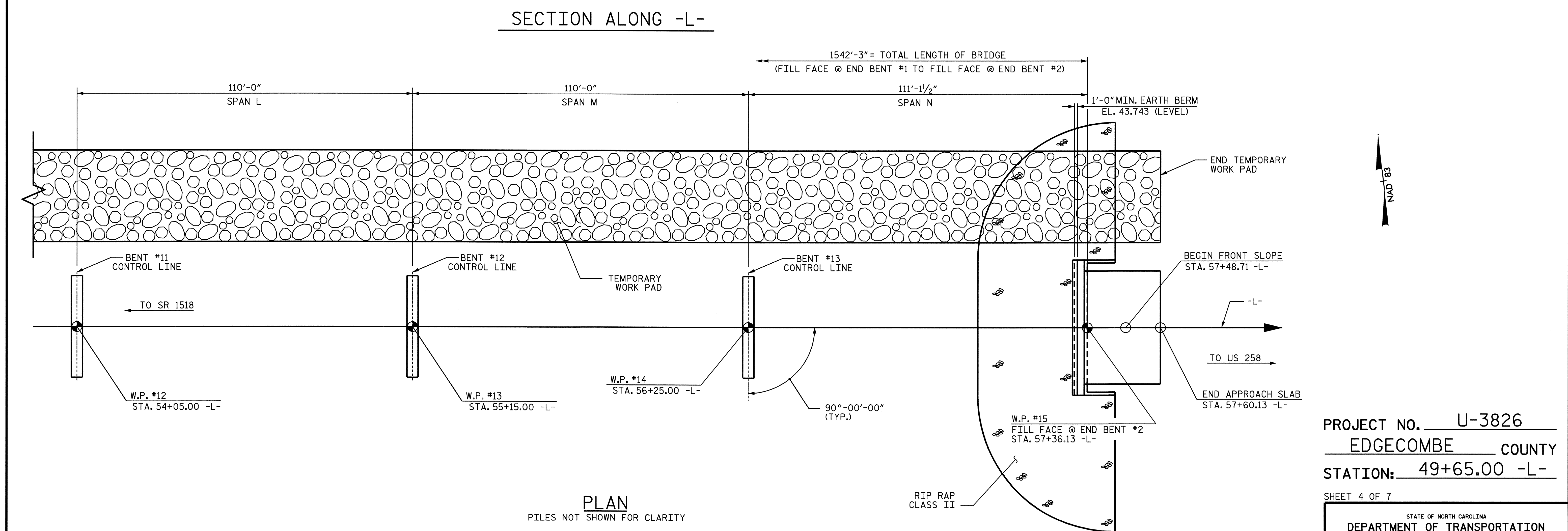
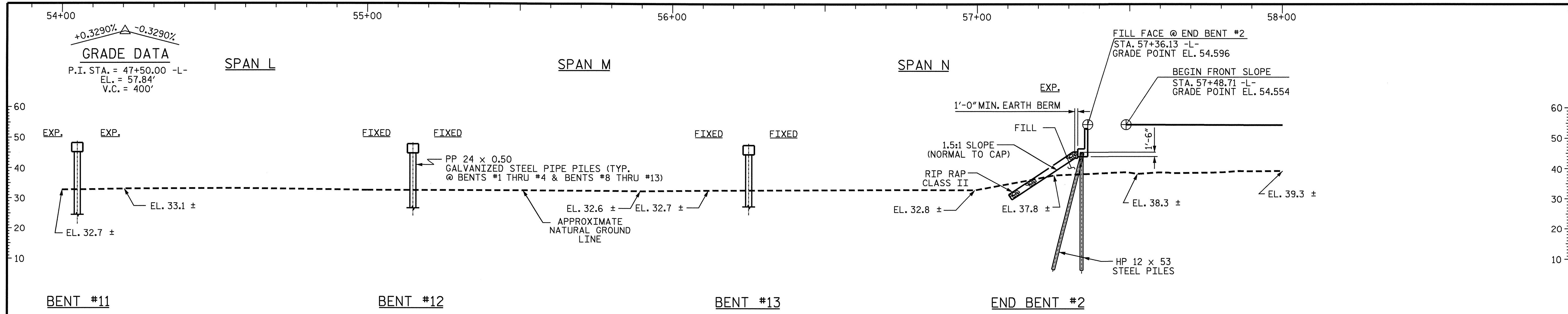
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING

FOR BRIDGE OVER TAR RIVER
 ON SR 1537 BETWEEN
 SR 1518 AND US 258

DRAWN BY : B.N.BARODAWALA DATE : 4-13-09
 CHECKED BY : PEGGY ADKINS DATE : 4-13-09

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



PROJECT NO. U-3826
EDGECOMBE COUNTY
 STATION: 49+65.00 -L-
 SHEET 4 OF 7

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

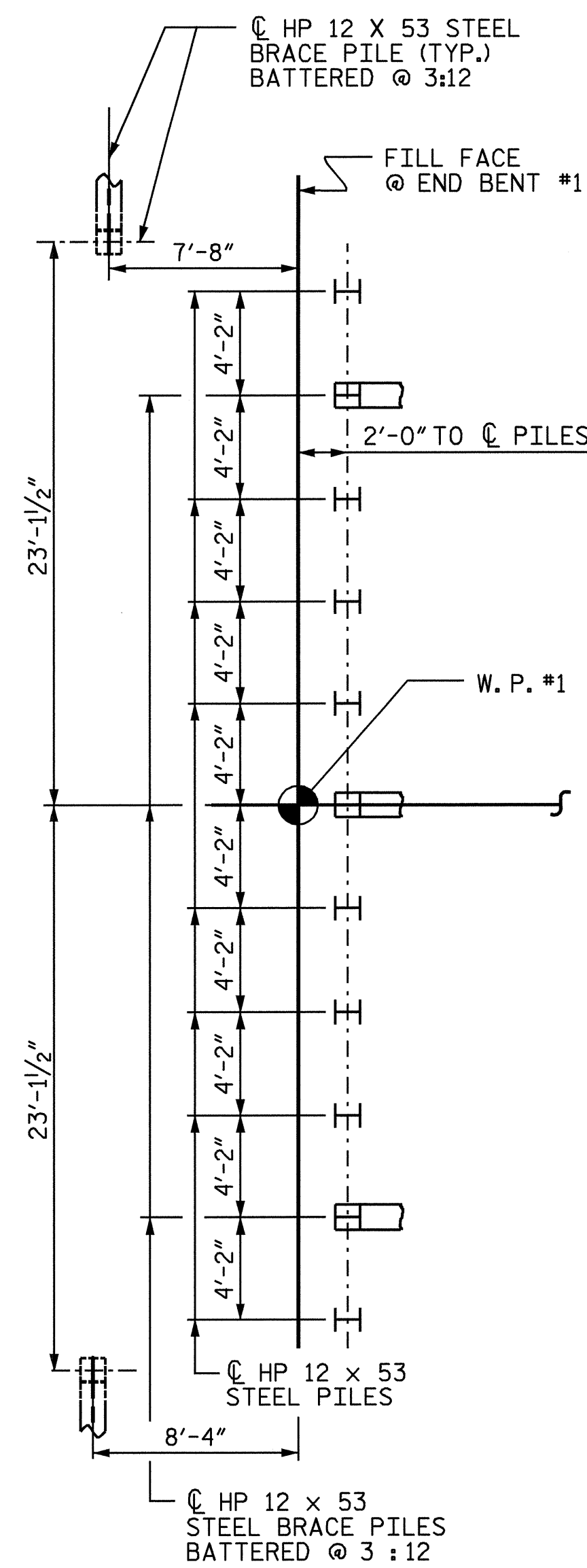
GENERAL DRAWING

FOR BRIDGE OVER TAR RIVER
 ON SR 1537 BETWEEN
 SR 1518 AND US 258

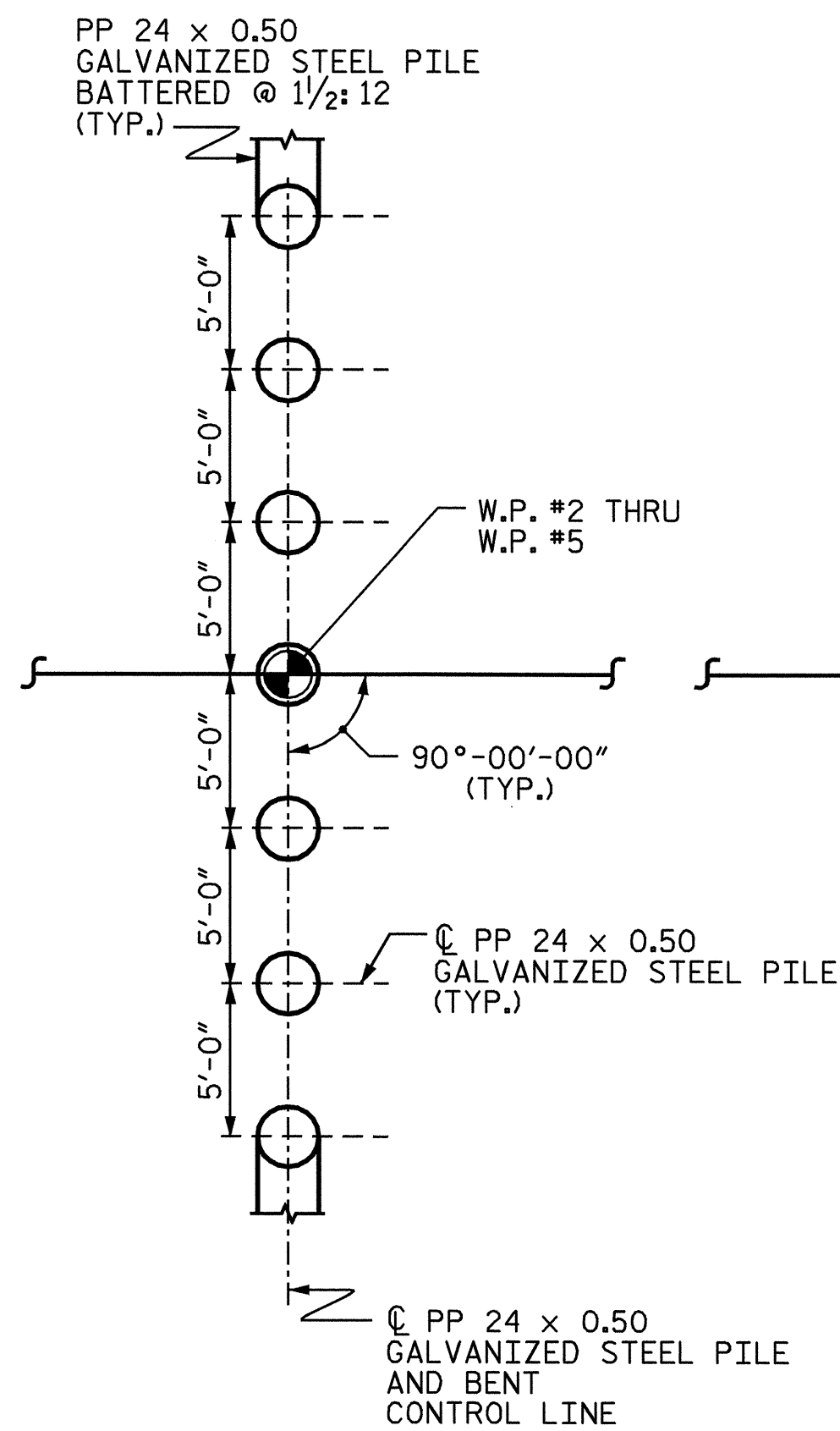


DRAWN BY: B.N. BARODAWALA DATE: 4/13/09
 CHECKED BY: PEGGY ADKINS DATE: 4/13/09

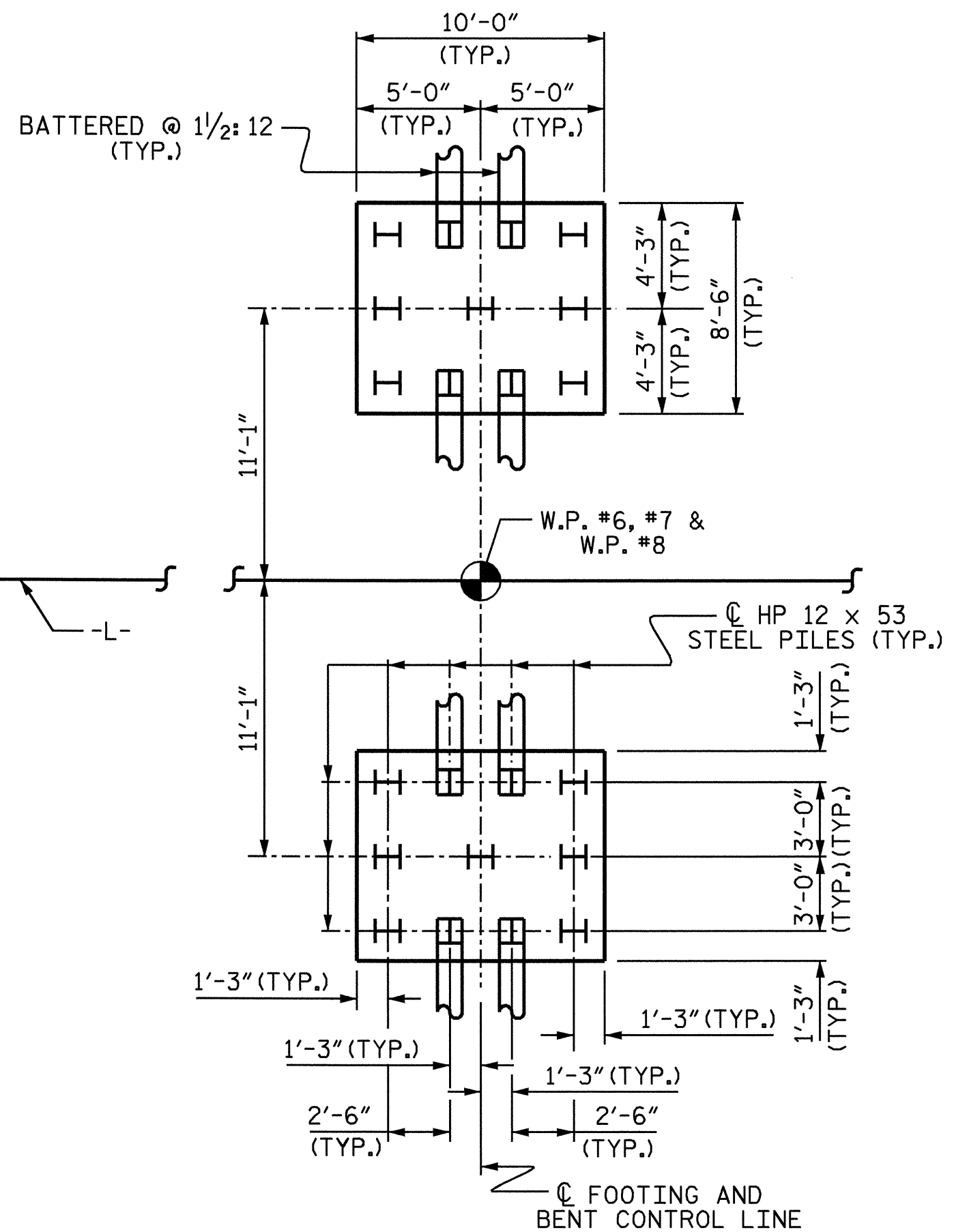
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-4
1			3			TOTAL SHEETS
2			4			50



END BENT #1

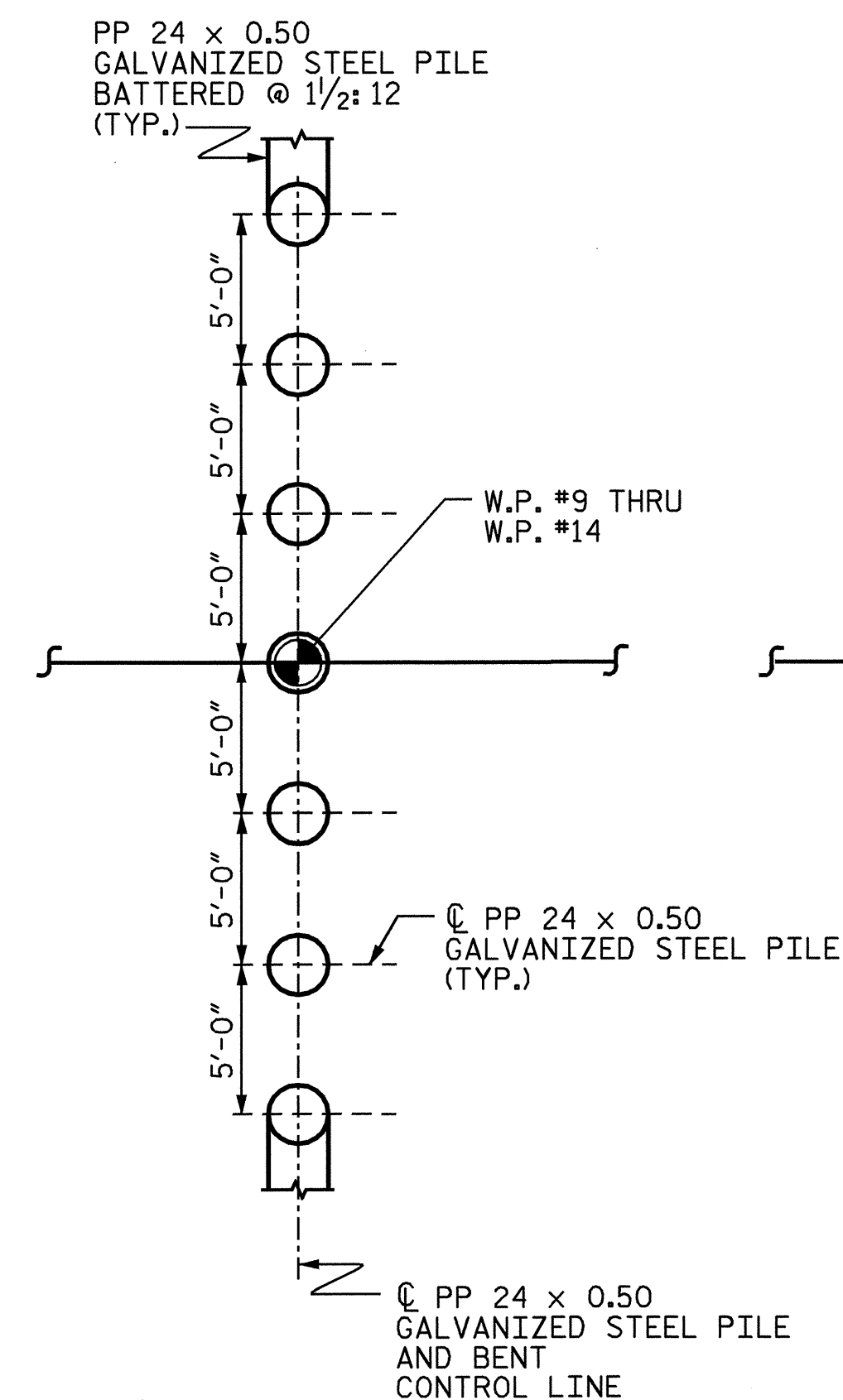


BENT #1 THRU #4

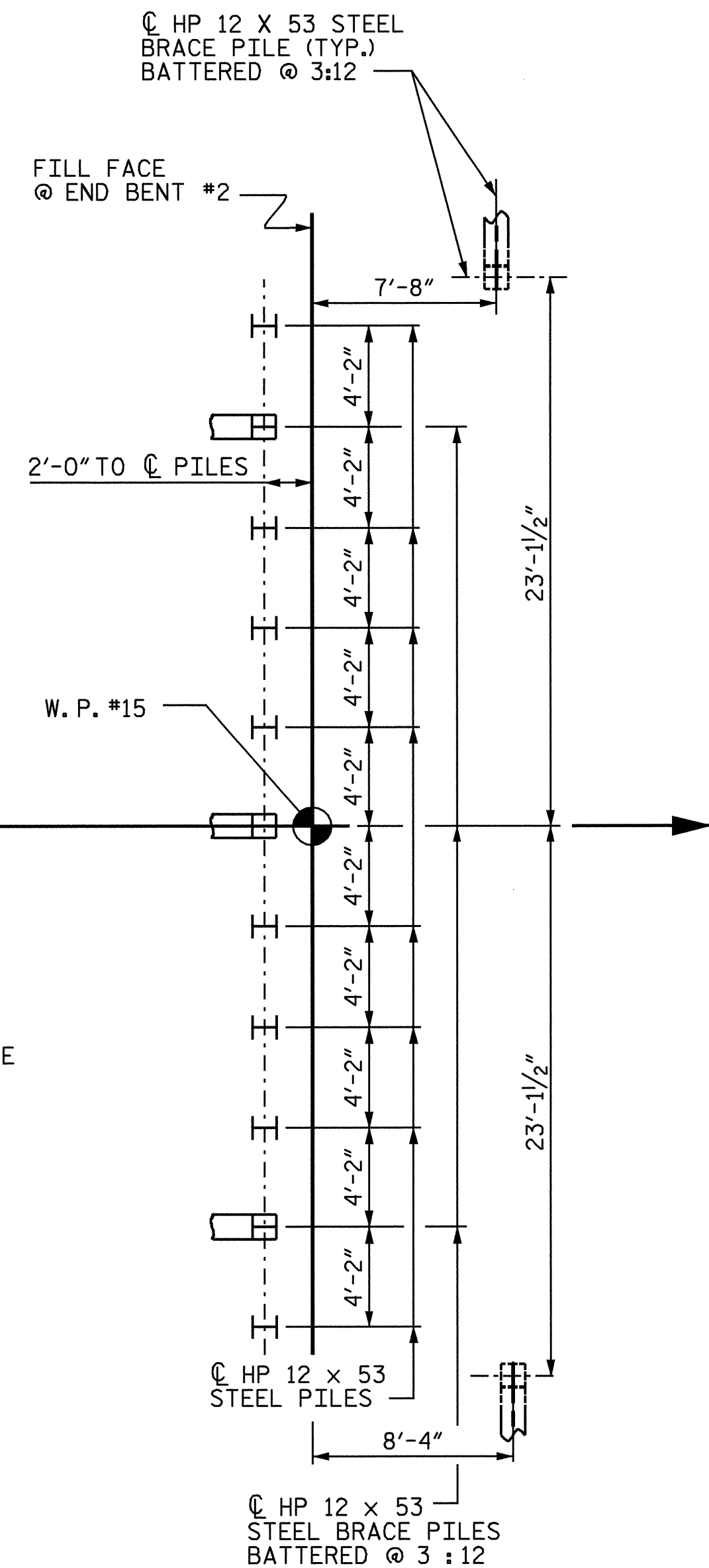


BENT #5 THRU #7

PILES AT BENT #5 AND BENT #6 ARE GALVANIZED.



BENT #8 THRU #13



END BENT #2

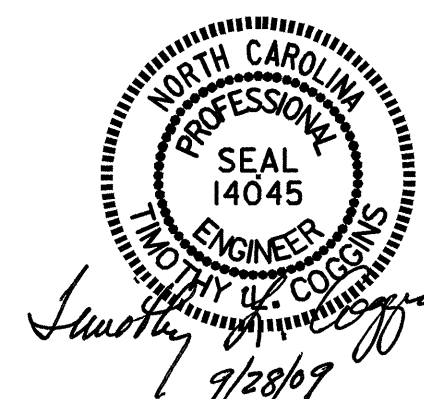
FOUNDATION LAYOUT

DIMENSIONS LOCATING PILES ARE SHOWN TO PILE CENTERLINE AT BOTTOM OF CAP OR FOOTING.

W.P. NO.	STATION NO.	W.P. NO.	STATION NO.
1	41+93.88 -L-	8	49+65.00 -L-
2	43+05.00 -L-	9	50+75.00 -L-
3	44+15.00 -L-	10	51+85.00 -L-
4	45+25.00 -L-	11	52+95.00 -L-
5	46+35.00 -L-	12	54+05.00 -L-
6	47+45.00 -L-	13	55+15.00 -L-
7	48+55.00 -L-	14	56+25.00 -L-
		15	57+36.13 -L-

PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-

SHEET 5 OF 7



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE OVER TAR RIVER
 ON SR 1537 BETWEEN
 SR 1518 AND US 258

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-5
1			3			TOTAL SHEETS
2			4			50

DRAWN BY: B.N.BARODAWALA DATE: 4-9-09
 CHECKED BY: PEGGY ADKINS DATE: 4-9-09

NOTES:

ASSUME LIVE LOAD = HS20 OR ALTERNATIVE LOADING EXCEPT THAT THE GIRDERS HAVE BEEN DESIGNED FOR HS25.

FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.

FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.

THIS BRIDGE HAS BEEN DESIGNED BY THE STRENGTH DESIGN METHOD AS SPECIFIED IN STANDARD SPECIFICATION.

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH HEC 18, "EVALUATING SCOUR AT BRIDGES", MAY, 2001.

THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO STANDARD SPECIFICATIONS FOR SEISMIC DESIGN OF HIGHWAY BRIDGES FOR SEISMIC CATEGORY ZONE A.

THE CONTRACTOR SHALL PROVIDE INDEPENDENT ASSURANCE SAMPLES OF REINFORCING STEEL AS FOLLOWS: FOR PROJECTS REQUIRING UP TO 400 TONS OF REINFORCING STEEL, ONE 30 INCH SAMPLE OF EACH SIZE BAR USED, AND FOR PROJECTS REQUIRING OVER 400 TONS OF REINFORCING STEEL, TWO 30 INCH 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.

NEEDLE BEAMS WILL NOT BE ALLOWED UNLESS OTHERWISE CALLED FOR ON THE PLANS OR APPROVED BY THE ENGINEER.

FOR BRIDGE DECK RIDEABILITY AND GROOVING, SEE SPECIAL PROVISIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS AT STATION 49+65.00 -L-, SEE SPECIAL PROVISIONS.

AT THE CONTRACTOR'S OPTION, AND UPON REMOVAL OF THE WORKPAD, THE CLASS II RIP RAP USED IN THE WORKPAD MAY BE PLACED AS RIP RAP SLOPE PROTECTION. SEE SPECIAL PROVISIONS FOR CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS AT STATION 49+65.00-L-.

FOR CURING CONCRETE, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

REMOVABLE FORMS MAY BE USED IN LIEU OF METAL STAY-IN-PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE STANDARD SPECIFICATIONS.

FOR PILES, SEE SPECIAL PROVISIONS.

DRIVE PILES AT END BENT NO. 1 AND END BENT NO. 2 TO A REQUIRED BEARING CAPACITY OF 120 TONS PER PILE. THE REQUIRED BEARING CAPACITY IS EQUAL TO THE ALLOWABLE BEARING CAPACITY WITH A MINIMUM FACTOR OF SAFETY OF TWO.

THE ALLOWABLE BEARING CAPACITY FOR PILES AT END BENT NO. 1 AND END BENT NO. 2 IS 60 TONS PER PILE.

DRIVE PILES AT BENT NO. 1 THROUGH BENT NO. 4 AND BENT NO. 8 THROUGH BENT NO. 13 TO A REQUIRED BEARING CAPACITY OF 420 TONS PER PILE. THE REQUIRED BEARING CAPACITY IS EQUAL TO THE ALLOWABLE BEARING CAPACITY WITH A MINIMUM FACTOR OF SAFETY OF TWO PLUS ANY ADDITIONAL CAPACITY TO ACCOUNT FOR DOWN DRAG OR NEGATIVE SKIN FRICTION AND SCOUR.

THE ALLOWABLE BEARING CAPACITY FOR PILES AT BENT NO. 1 THROUGH BENT NO. 4 AND BENT NO. 8 THROUGH BENT NO. 13 IS 205 TONS PER PILE.

DRIVE PILES AT BENT NO. 5 THROUGH BENT NO. 7 TO A REQUIRED BEARING CAPACITY OF 165 TONS PER PILE. THE REQUIRED BEARING CAPACITY IS EQUAL TO THE ALLOWABLE BEARING CAPACITY WITH A MINIMUM FACTOR OF SAFETY OF TWO PLUS ANY ADDITIONAL CAPACITY TO ACCOUNT FOR DOWN DRAG OR NEGATIVE SKIN FRICTION AND SCOUR.

THE ALLOWABLE BEARING CAPACITY FOR PILES AT BENT NO. 5 THROUGH BENT NO. 7 IS 65 TONS PER PILE.

INSTALL PILES AT BENT NO. 1 THROUGH BENT NO. 4 AND BENT NO. 8 TO A TIP ELEVATION NO HIGHER THAN -8 FT.

INSTALL PILES AT BENT NO. 5 THROUGH BENT NO. 7 TO A TIP ELEVATION NO HIGHER THAN -35 FT.

INSTALL PILES AT BENT NO. 9 THROUGH BENT NO. 13 TO A TIP ELEVATION NO HIGHER THAN -4 FT.

SCOUR CRITICAL ELEVATION FOR BENT NO. 1 AND BENT NO. 8 IS ELEVATION 20 FT. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

SCOUR CRITICAL ELEVATION FOR BENT NO. 2 THROUGH BENT NO. 4 IS ELEVATION 16 FT. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

SCOUR CRITICAL ELEVATION FOR BENT NO. 5 THROUGH BENT NO. 7 IS ELEVATION -8 FT. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

SCOUR CRITICAL ELEVATION FOR BENT NO. 9 THROUGH BENT NO. 13 IS ELEVATION 24 FT. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

PIPE PILE PLATES ARE REQUIRED FOR THE PIPE PILES AT BENT NO. 1 THROUGH BENT NO. 4 AND BENT NO. 8 THROUGH BENT NO. 13. USE PIPE PILE PLATES WITH A DIAMETER EQUAL TO THE PIPE PILE DIAMETER. SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

IT HAS BEEN ESTIMATED THAT A HAMMER WITH AN EQUIVALENT RATED ENERGY IN THE RANGE OF 80,000 TO 123,000 FT.-LBS. PER BLOW WILL BE REQUIRED TO DRIVE THE PILES AT BENT NO. 1 THROUGH BENT NO. 4 AND BENT NO. 8 THROUGH BENT NO. 13. THIS ESTIMATED ENERGY RANGE DOES NOT RELEASE THE CONTRACTOR FROM ARTICLE 450-5 OF THE STANDARD SPECIFICATIONS.

TESTING THE FIRST PRODUCTION PILE WITH THE PILE DRIVING ANALYZER (PDA) DURING DRIVING, RESTRIKING OR REDRIVING IS REQUIRED AT BENT NO. 1 OR BENT NO. 13. FOR PILE DRIVING ANALYZER, SEE SPECIAL PROVISIONS.

FOR PLACING LOAD ON STRUCTURE MEMBERS, SEE SPECIAL PROVISIONS.

GALVANIZED STEEL PILES ARE REQUIRED IN ACCORDANCE WITH SECTION 450 OF THE STANDARD SPECIFICATIONS.

FOR BENTS #1 THRU #4, GALVANIZE THE TOP 40 FEET OF EACH PILE IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS.

FOR BENT #5 & BENT #6, GALVANIZE THE TOP 25 FEET OF EACH PILE IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS.

FOR BENTS #8 THRU #13, GALVANIZE THE TOP 35 FEET OF EACH PILE IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS.

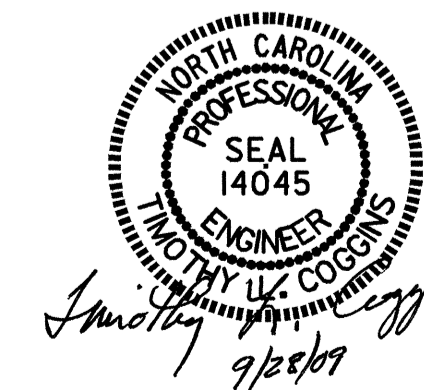
PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-

SHEET 6 OF 7

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING

FOR BRIDGE OVER TAR RIVER
 ON SR 1537 BETWEEN
 SR 1518 AND US 258



DRAWN BY : B.N.BARODAWALA DATE : 3-18-09
 CHECKED BY : PEGGY ADKINS DATE : 4-9-09

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-6
1			3			TOTAL SHEETS
2			4			50

TOTAL BILL OF MATERIAL

	CONSTRUCTION MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS	FOUNDATION EXCAVATION	PDA TESTING	PDA ASSISTANCE	REINFORCED CONCRETE DECK SLAB	GROOVING BRIDGE FLOORS	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	SPIRAL COLUMN REINFORCING STEEL	MODIFIED 72" PRESTRESSED CONCRETE GIRDERS	HP 12 x 53 STEEL PILES	HP 12 x 53 GALVANIZED STEEL PILES	PP 24 x 0.50 GALVANIZED STEEL PILES	PIPE PILE PLATES	PILE REDRIVES	2-BAR METAL RAIL	1'-2" X 2'-6" CONCRETE PARAPET	RIP RAP CLASS II (2'-0" THICK)	FILTER FABRIC FOR DRAINAGE	ELASTOMERIC BEARINGS	EVAZOTE JOINT SEALS	EXPANSION JOINT SEALS	STRUCTURE DRAINAGE SYSTEM	
	LUMP SUM	LUMP SUM	EACH	EACH	SQ. FT.	SQ. FT.	CU. YDS.	LUMP SUM	LBS.	LBS.	NO. LIN. FT.	NO. LIN. FT.	NO. LIN. FT.	NO. LIN. FT.	EACH	EACH	LIN. FT.	LIN. FT.	TONS	SQ. YDS.	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	
SUPERSTRUCTURE					59,424	52,380		LUMP SUM			56 6113.33						3065.04	3080.27							
END BENT 1							36.3		6124			13 910				5				510	566				
BENT 1							16.3		2786					7 595	7 5										
BENT 2							16.3		2786					7 595	7 5										
BENT 3							16.3		2786					7 595	7 5										
BENT 4							16.3		2786					7 595	7 5										
BENT 5							70.8		11091	1391			22 1320			10									
BENT 6							70.6		11091	1378			22 1320			10									
BENT 7		LUMP SUM					68.3		10729	1207		22 1320				10									
BENT 8							16.3		2786					7 455	7 5										
BENT 9							16.3		2786					7 455	7 5										
BENT 10							16.3		2786					7 455	7 5										
BENT 11							16.3		2786					7 455	7 5										
BENT 12							16.3		2786					7 455	7 5										
BENT 13							16.3		2786					7 455	7 5										
END BENT 2							36.3		6124			13 975				5				385	427				
TOTAL	LUMP SUM	LUMP SUM	2	2	59,424	52,380	445.3	LUMP SUM	73019	3976	56 6113.33	48 3205	44 2640	70 5110	70	90	3065.04	3080.27	895	993	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	

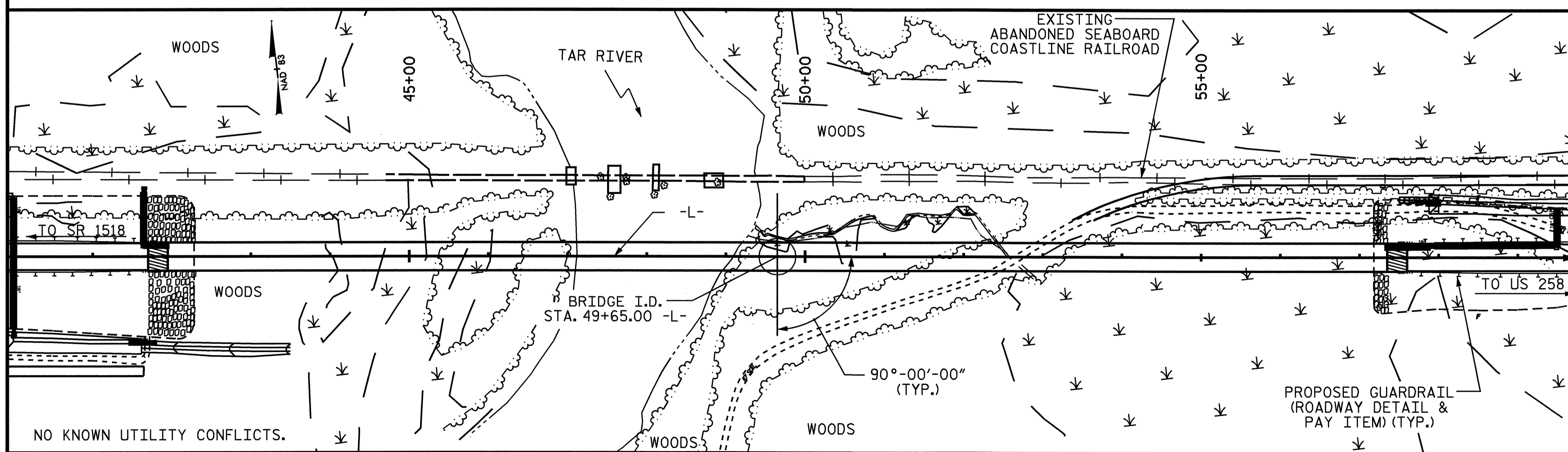
HYDRAULIC DATA

DESIGN DISCHARGE	=	40,000 C.F.S.
FREQUENCY OF DESIGN FLOOD	=	50 YR.
DESIGN HIGH WATER ELEVATION	=	45.12'
DRAINAGE AREA	=	2183 SQ. MI.
BASIC DISCHARGE (Q100)	=	46,700 C.F.S.
BASIC HIGH WATER ELEVATION	=	46.83'

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE	=	44,000 + C.F.S.
FREQUENCY OF OVERTOPPING FLOOD	=	50 YR. +
OVERTOPPING FLOOD ELEVATION	=	45.65'

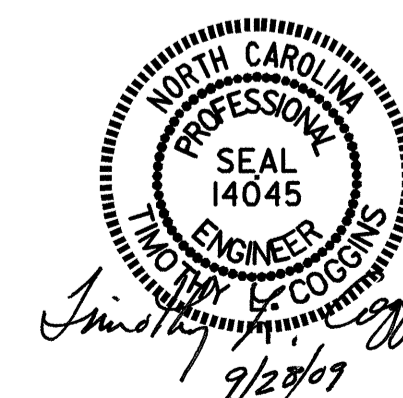
BM #52 : STA. 51+82 -BL- 88' RT., RR SPIKE LOCATED IN BASE OF 15" PINE, ELEV. 39.61', NAVD88.



LOCATION SKETCH

DRAWN BY : B.N.BARODAWALA DATE : 3-18-09
 CHECKED BY : PEGGY ADKINS DATE : 4-9-09

21-SEP-2009 10:25
 g:\h\projects-u\3826\structures\3826\final plans\3826.ed.gd.01.dgn
 taverette



PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-

SHEET 7 OF 7

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE OVER TAR RIVER
 ON SR 1537 BETWEEN
 SR 1518 AND US 258

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-7
1			3			TOTAL SHEETS
2			4			50

NOTES

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

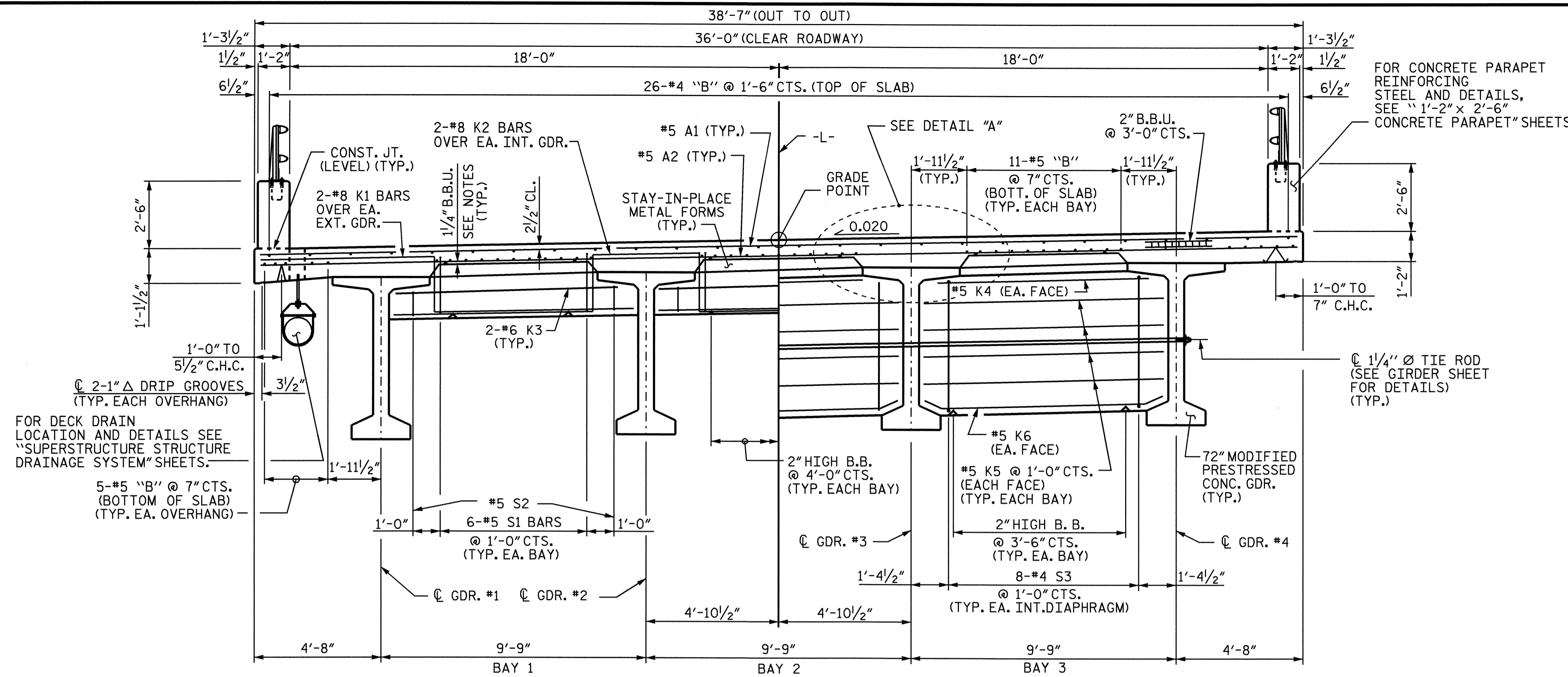
THE CONCRETE PARAPET IN A CONTINUOUS UNIT SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN THE UNIT HAS BEEN CAST AND HAS REACHED A MINIMUM STRENGTH OF 3,000 PSI.

PREVIOUSLY CAST CONCRETE IN A CONTINUOUS UNIT SHALL HAVE ATTAINED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI BEFORE ADDITIONAL CONCRETE IS CAST IN THE UNIT.

CONCRETE IN BENT DIAPHRAGMS FOR BENTS #3, #6, #8 & #11 AND INTERMEDIATE DIAPHRAGMS MAY BE CLASS A IN LIEU OF CLASS AA. PAYMENT SHALL BE MADE UNDER THE UNIT CONTRACT PRICE FOR REINFORCED CONCRETE DECK SLAB.

TEMPORARY STRUTS SHALL BE PLACED BETWEEN PRESTRESSED GIRDERS ADJACENT TO THE DIAPHRAGMS AND THE NUTS ON THE 1/4" 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 RE-TIGHTENED AFTER THE STRUTS HAVE BEEN REMOVED.

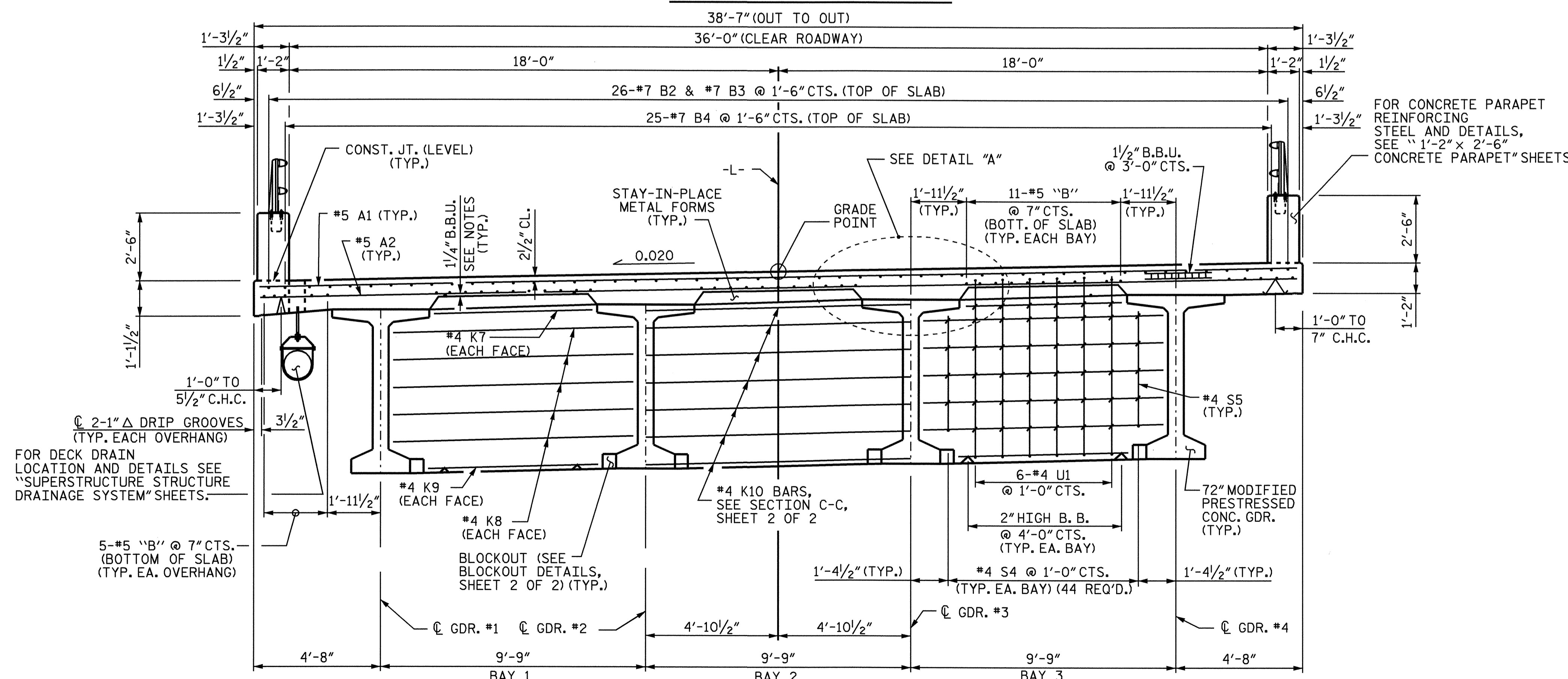
PROVIDE 1/4" HIGH BEAM BOLSTERS UPPER AT 4'-0" CTS. ATOP THE METAL STAY-IN-PLACE FORMS TO SUPPORT THE BOTTOM MAT OF 'A' BARS. WHEN USING REMOVABLE FORMS, PROVIDE CONTINUOUS HIGH CHAIRS FOR METAL DECK (C.H.C.M.) @ 4'-0" CTS. WITH A HEIGHT TO SUPPORT THE BOTTOM MAT OF 'A' BARS A CLEAR DISTANCE OF 2/2" ABOVE THE TOP OF THE REMOVABLE FORM.



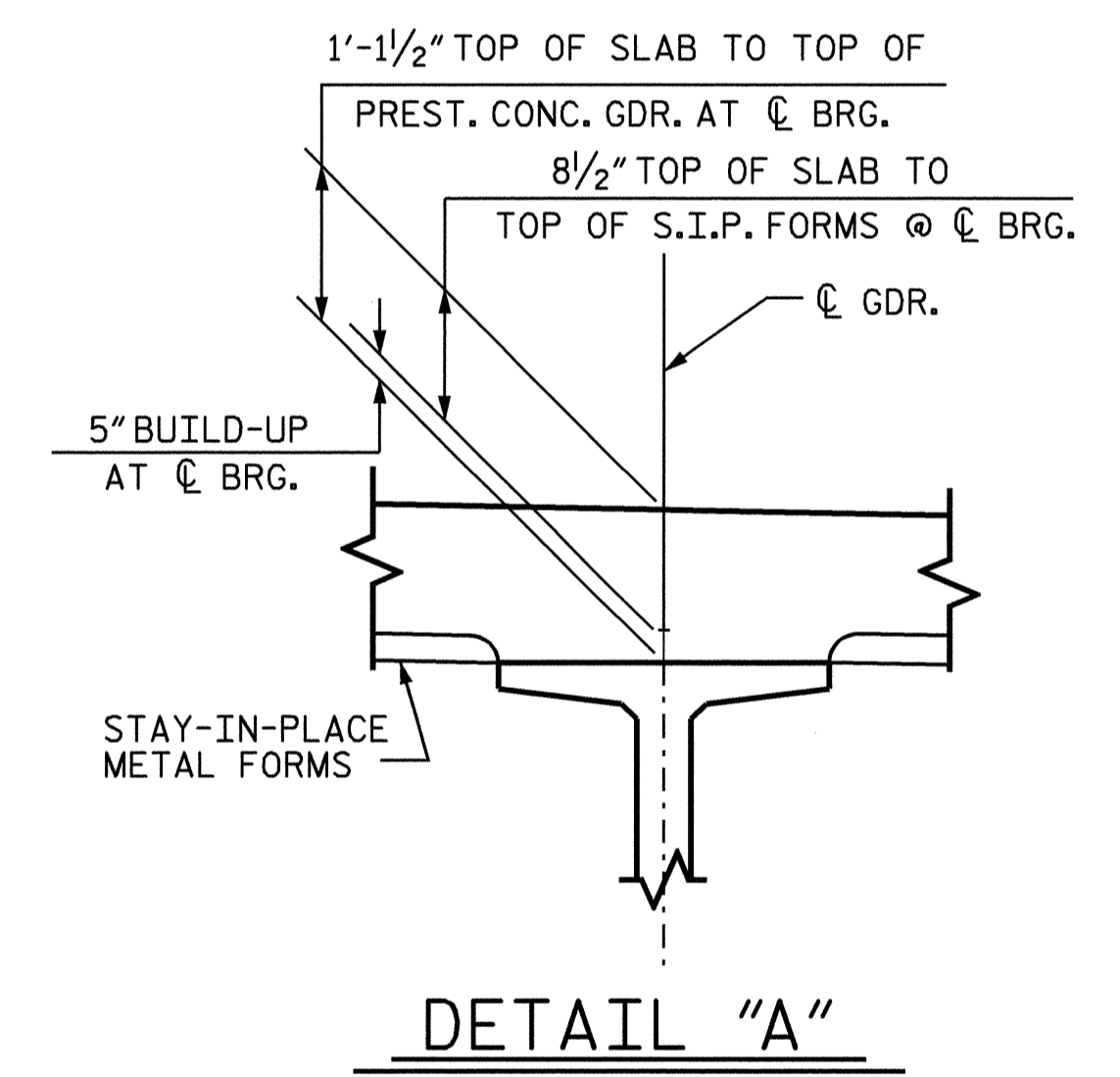
PARTIAL TYPICAL SECTION - END BENT & INTERIOR BENT DIAPHRAGM AT JOINT

PARTIAL TYPICAL SECTION - INTERMEDIATE DIAPHRAGM

TYPICAL SECTION



TYPICAL SECTION (SHOWING CONTINUOUS BENT DIAPHRAGM)

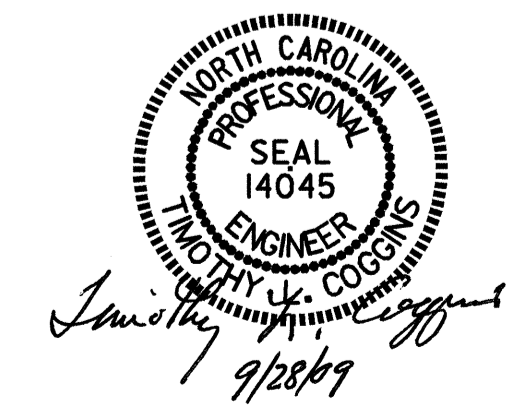


DETAIL "A"

PROJECT NO. U-3826
 EDGECOMBE COUNTY
 STATION: 49+65.00 -L-

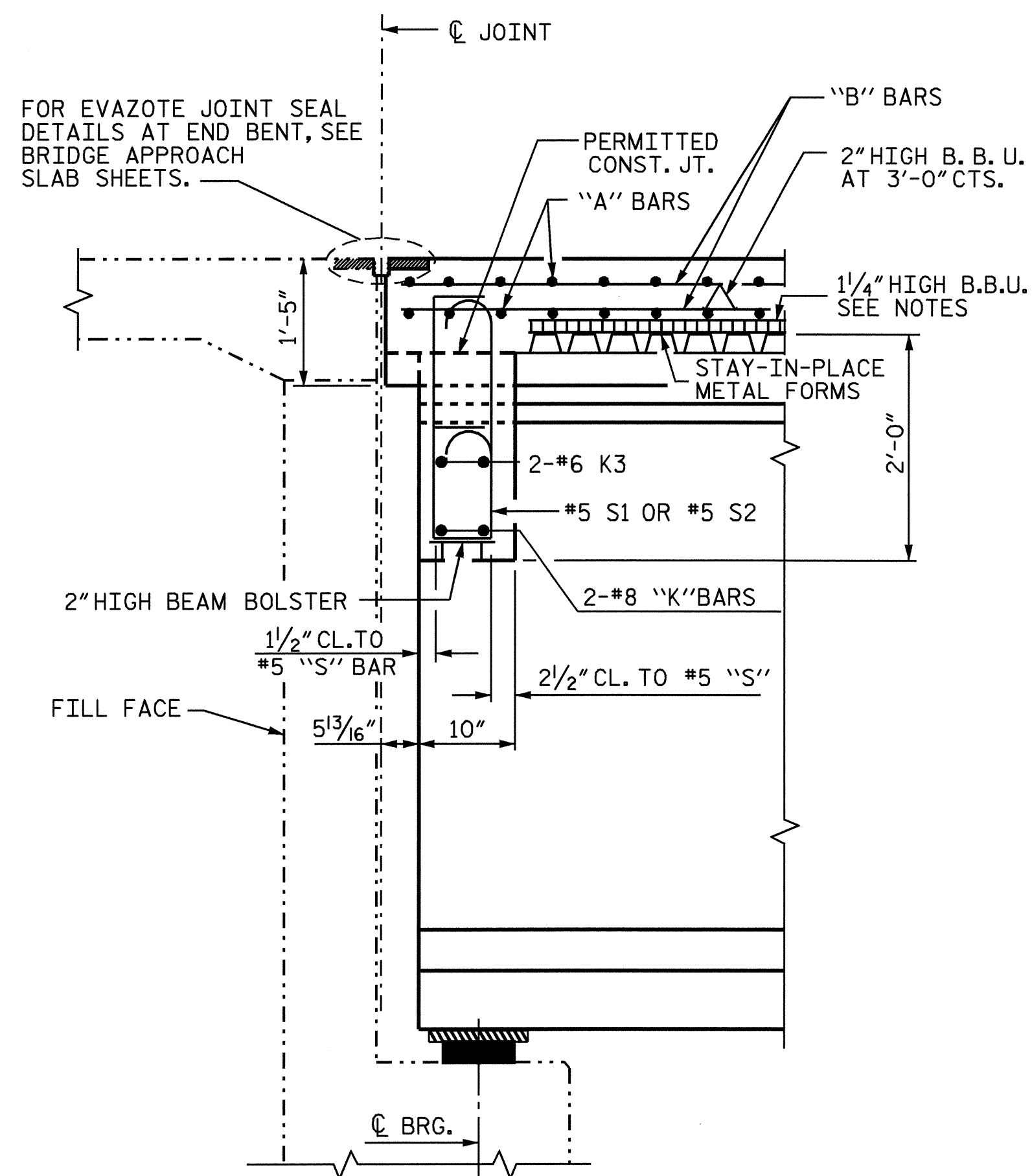
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STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUPERSTRUCTURE TYPICAL SECTION					
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NO.	BY:	DATE:	NO.	BY:	DATE:
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2			4		
SHEET NO. S-8					TOTAL SHEETS 50

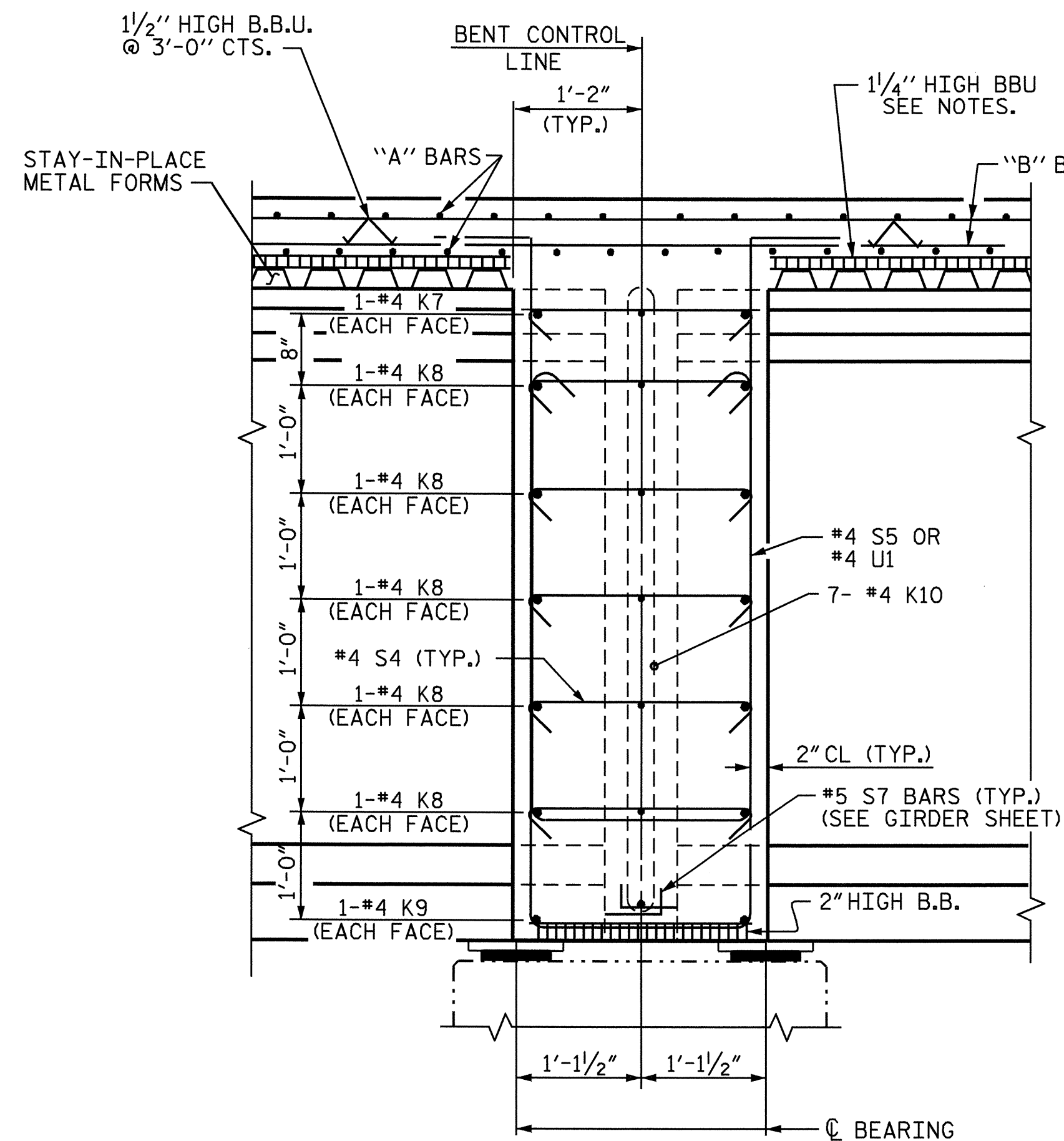


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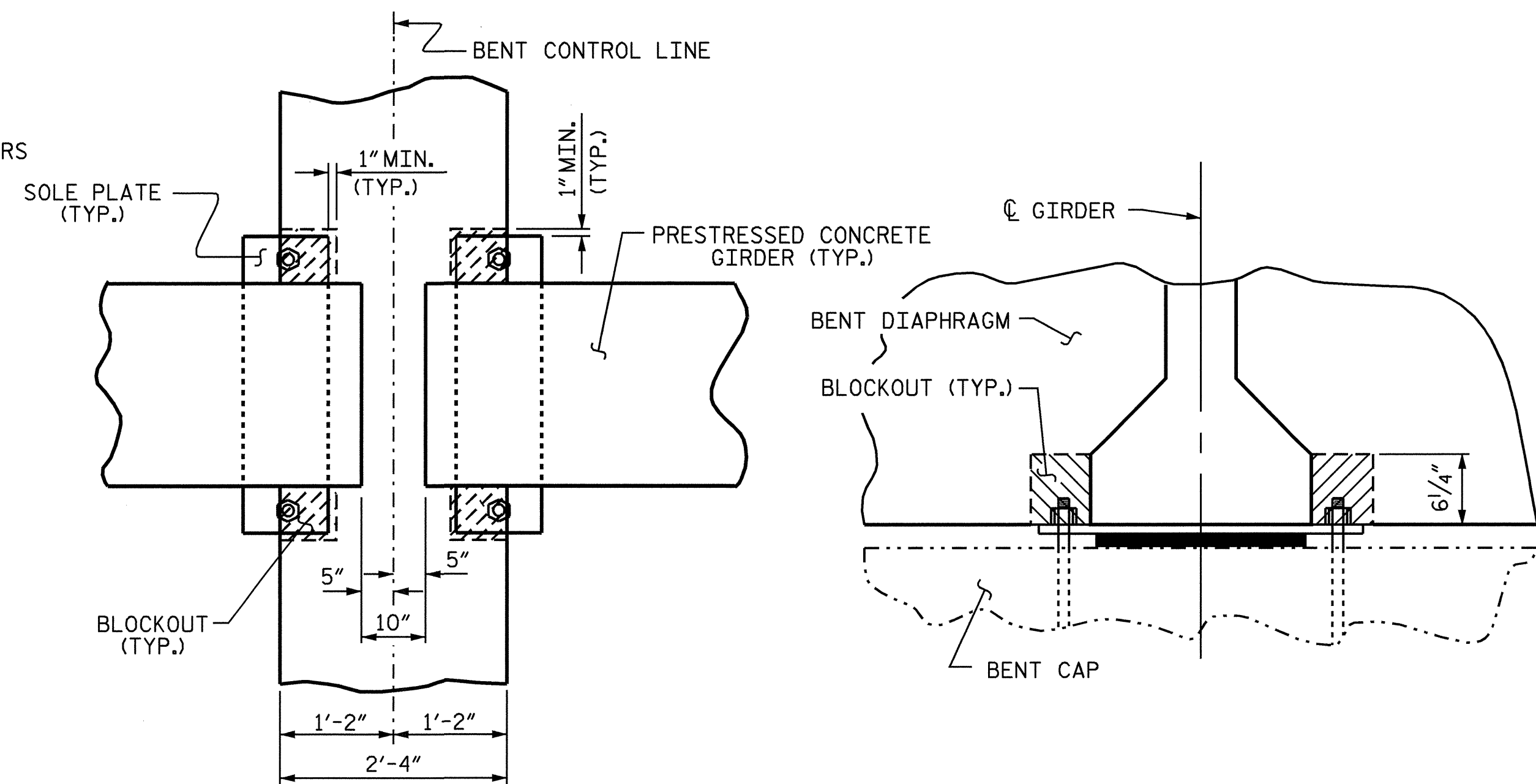
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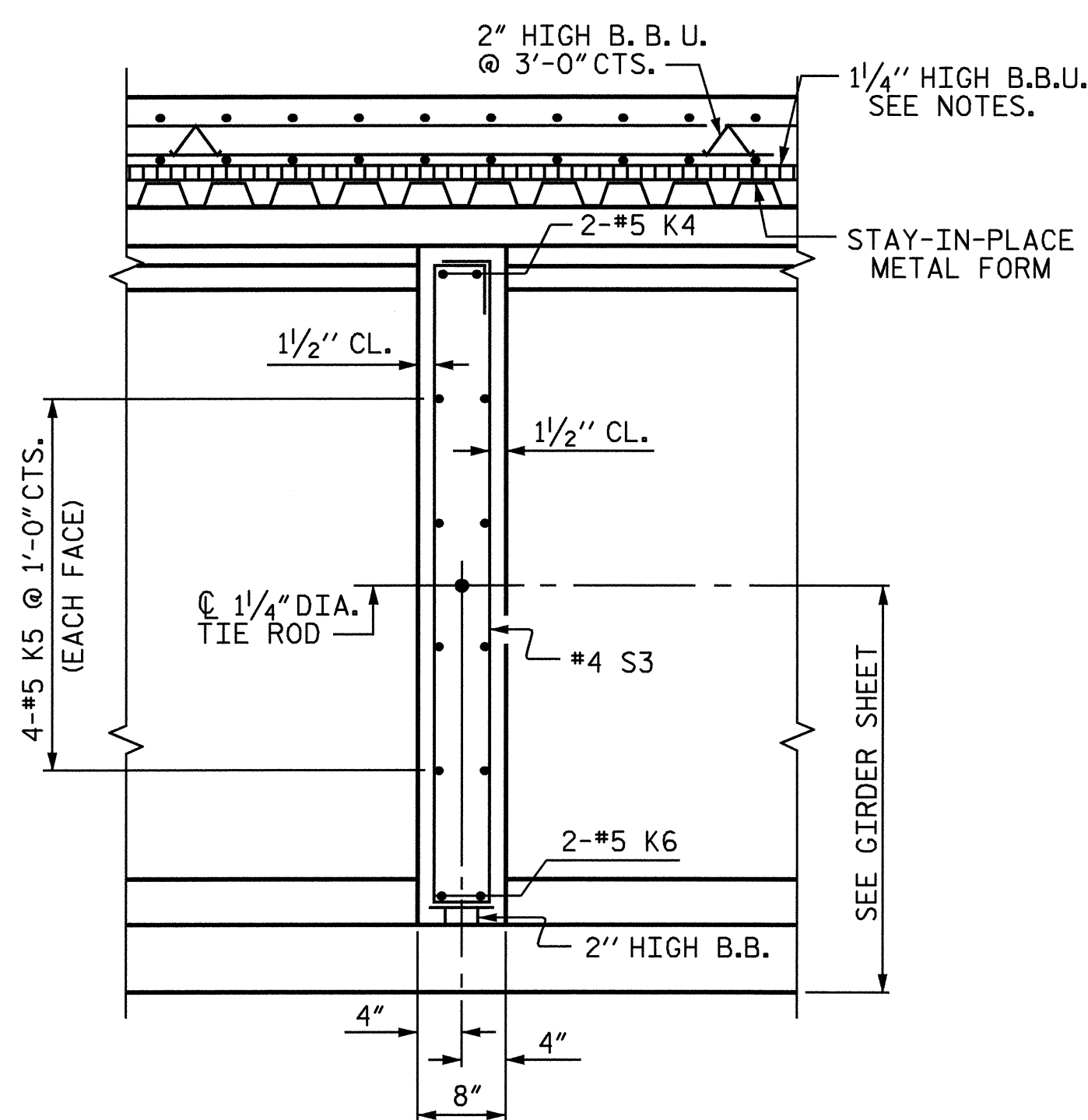
SECTION A-A
SECTION THRU END BENT DIAPHRAGMS



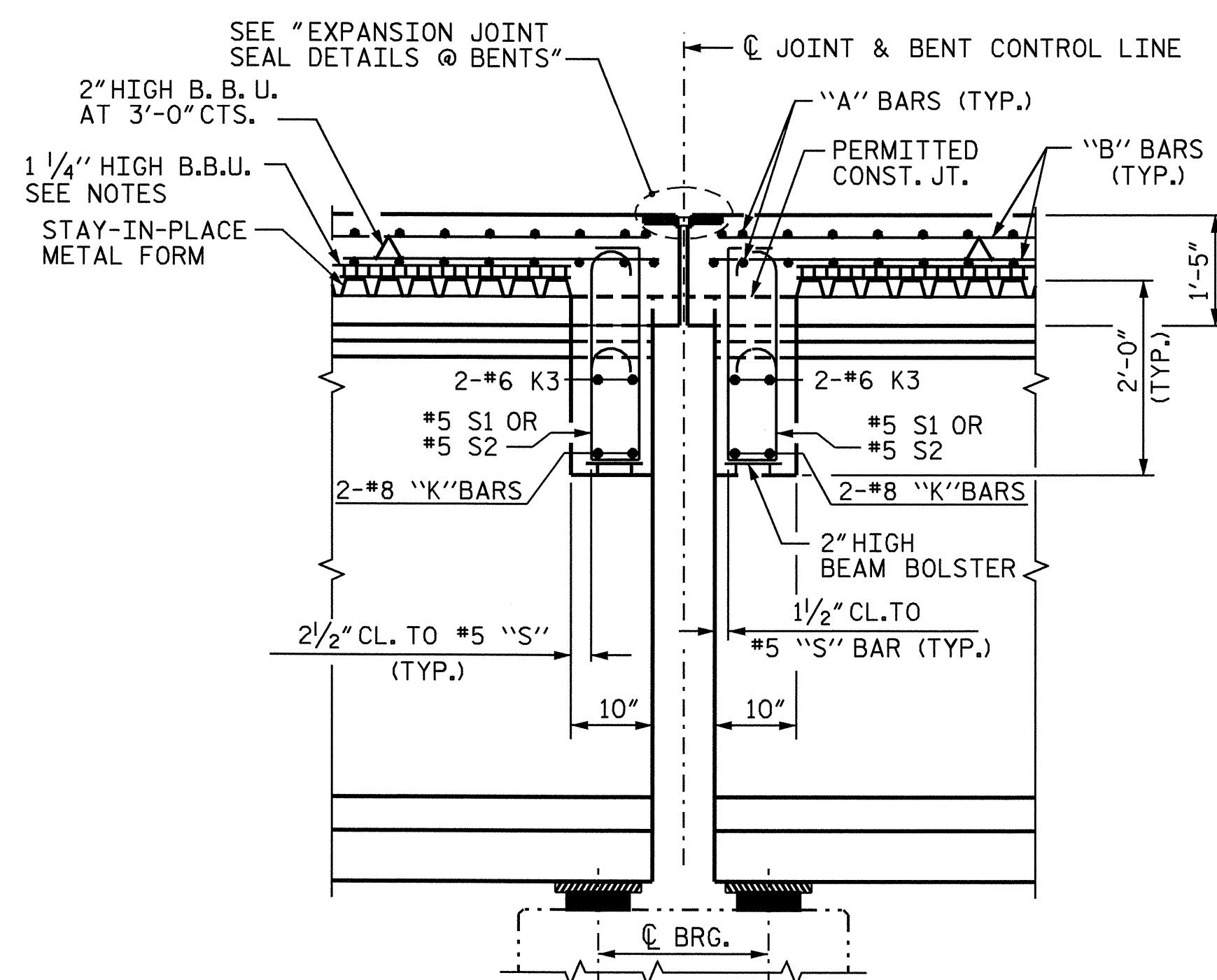
SECTION C-C
SECTION THRU BENT #1, #2, #4, #5, #7,
#9, #10, #12, & #13 DIAPHRAGMS



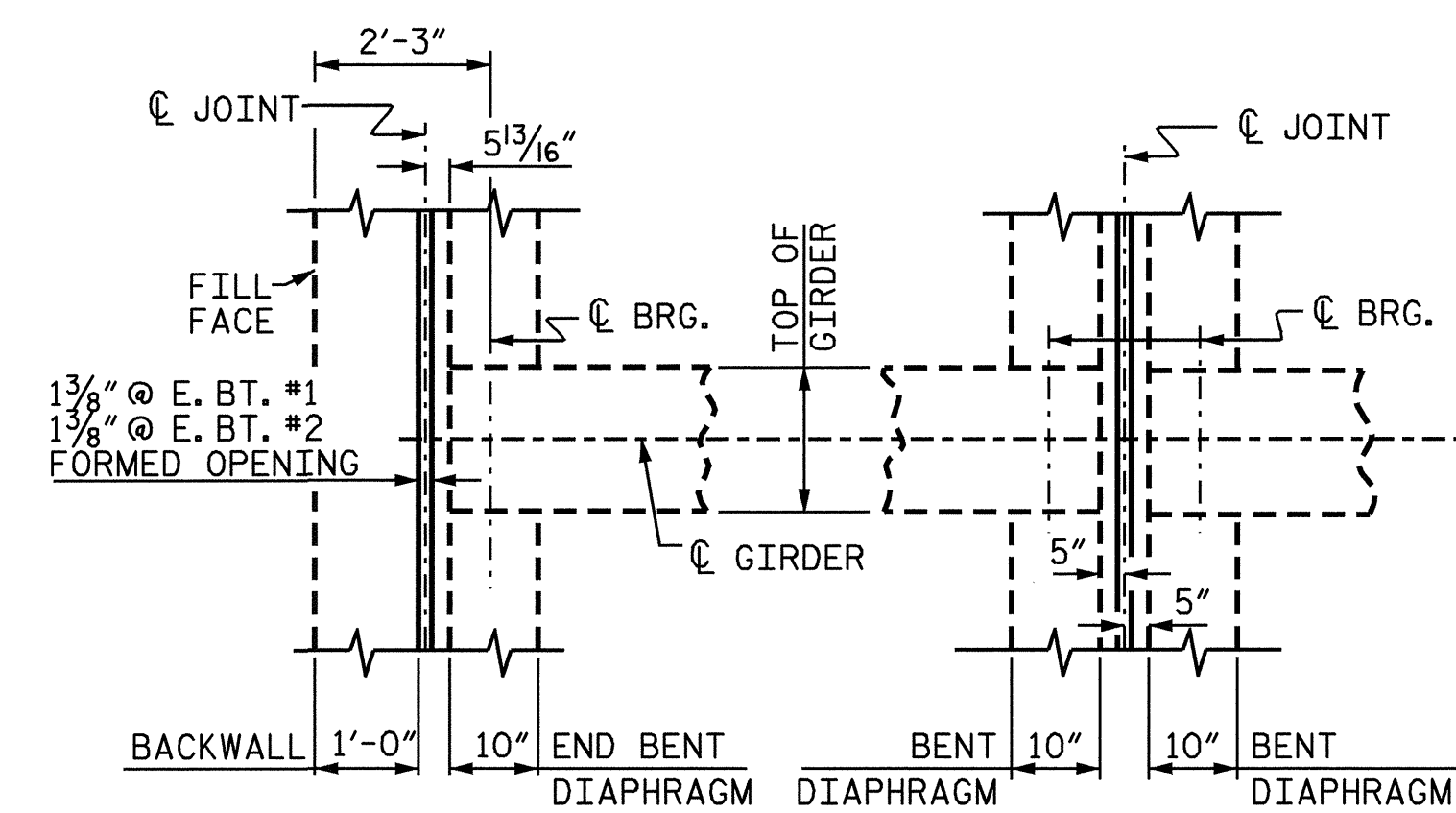
BENT DIAPHRAGM BLOCK-OUT DETAIL
(@ BENTS #1, #2, #4, #5, #7, #9, #10, #12 & #13)



SECTION B-B
SECTION THRU INTERMEDIATE DIAPHRAGMS



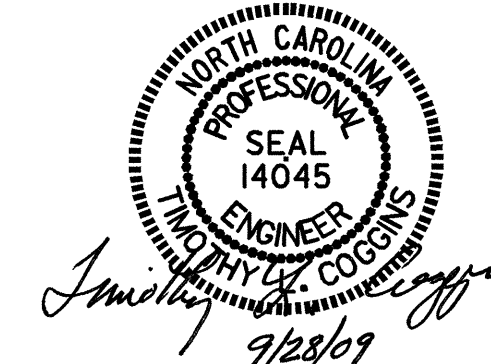
SECTION D-D
SECTION THRU BENT #3, #6,
#8 & #11 DIAPHRAGMS



END BENT DIAPHRAGM
BENT DIAPHRAGM
@ BENTS #3, #6, #8 & #11

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Taverette

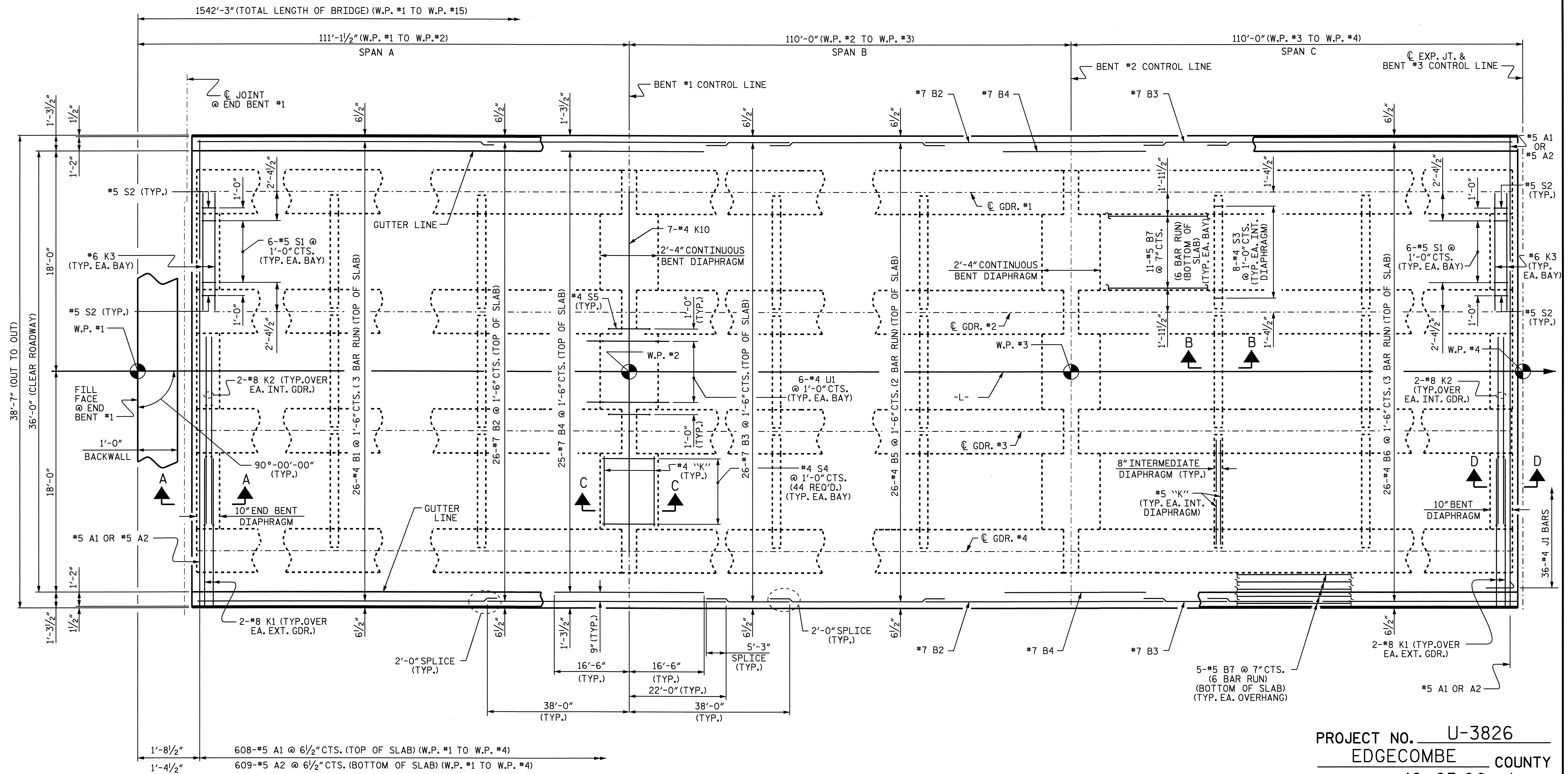


PROJECT NO. U-3826
EDGEcombe COUNTY
STATION: 49+65.00 -L-

SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE
TYPICAL SECTION
DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-9
1			3			TOTAL SHEETS
2			4			50

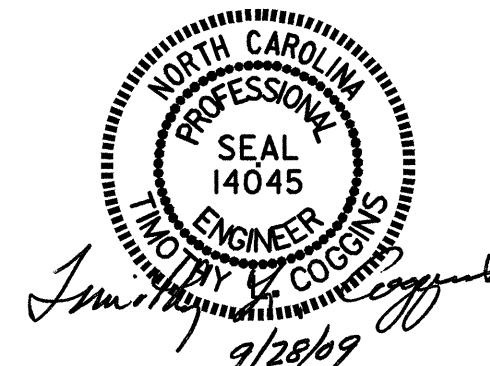


PROJECT NO. U-3826
 EDGEcombe COUNTY
 STATION: 49+65.00 -L-

SHEET 1 OF 4

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUPERSTRUCTURE
 PLAN OF SPANS

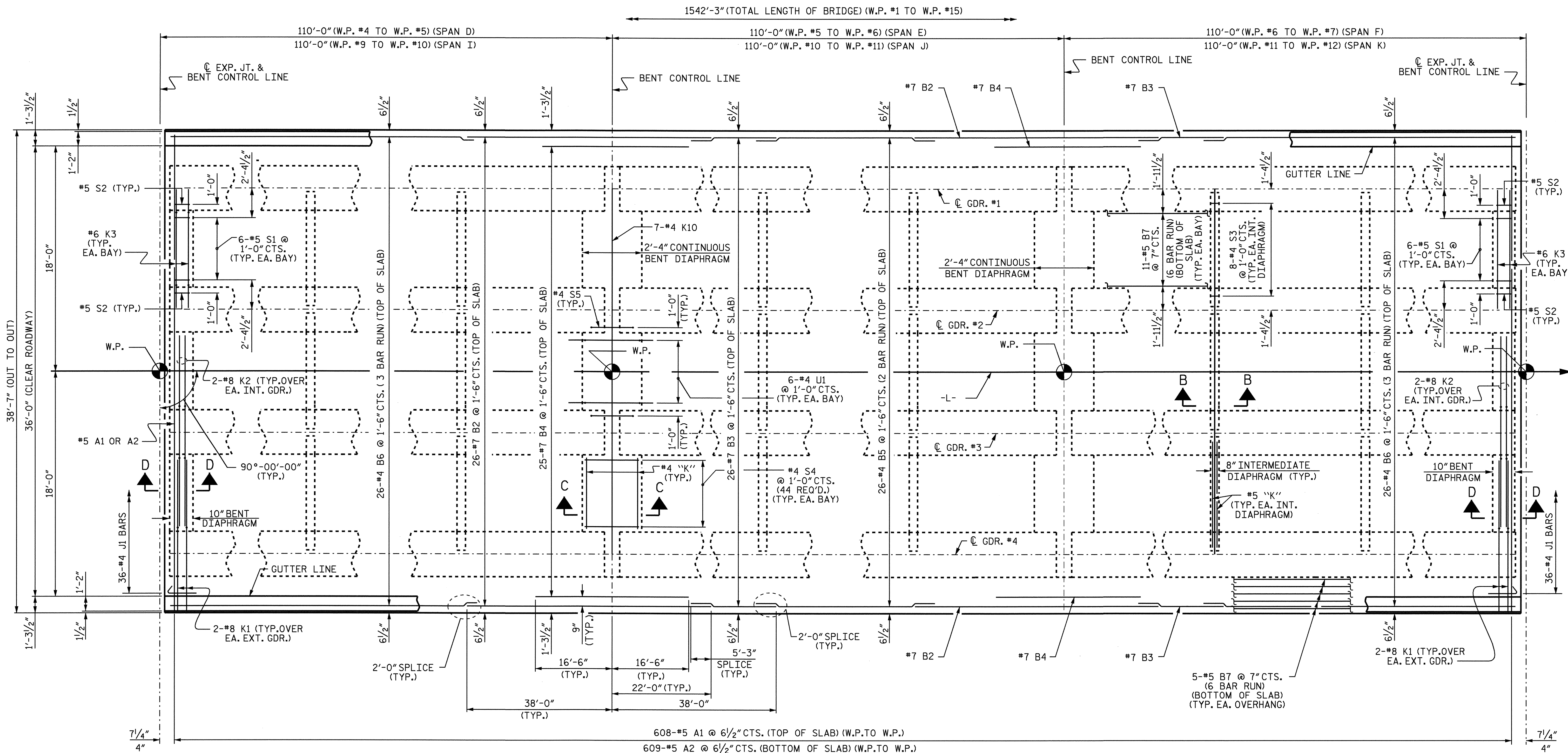


PLAN OF SPAN A, B AND C
 FOR LOCATION OF INTERMEDIATE DIAPHRAGMS, SEE "GIRDER LAYOUT."
 FOR SECTIONS A-A, B-B C-C AND D-D, SEE "TYPICAL SECTION" SHEET 2 OF 2.
 FOR LOCATION OF TRANSVERSE JOINTS, SEE POURING SEQUENCE.
 FOR PLACEMENT OF #4 J1 BARS, SEE "EXPANSION JOINT SEAL DETAILS" SHEET
 FOR LOCATION OF DECK DRAINS, SEE "STRUCTURE DRAINAGE SYSTEM" SHEETS.

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 CHECKED BY: J.B. WILSON DATE: 1/23/09

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REVISIONS						SHEET NO. S-10
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2			4			



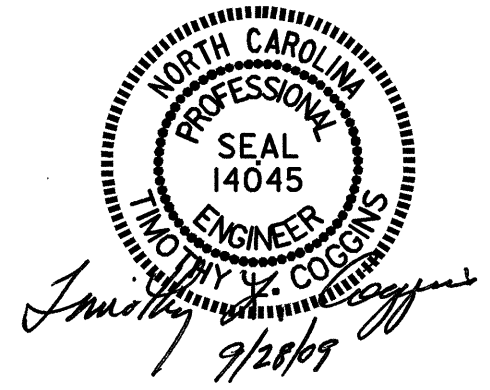
PROJECT NO. U-3826
 EDGEcombe COUNTY
 STATION: 49+65.00 -L-

SHEET 2 OF 4

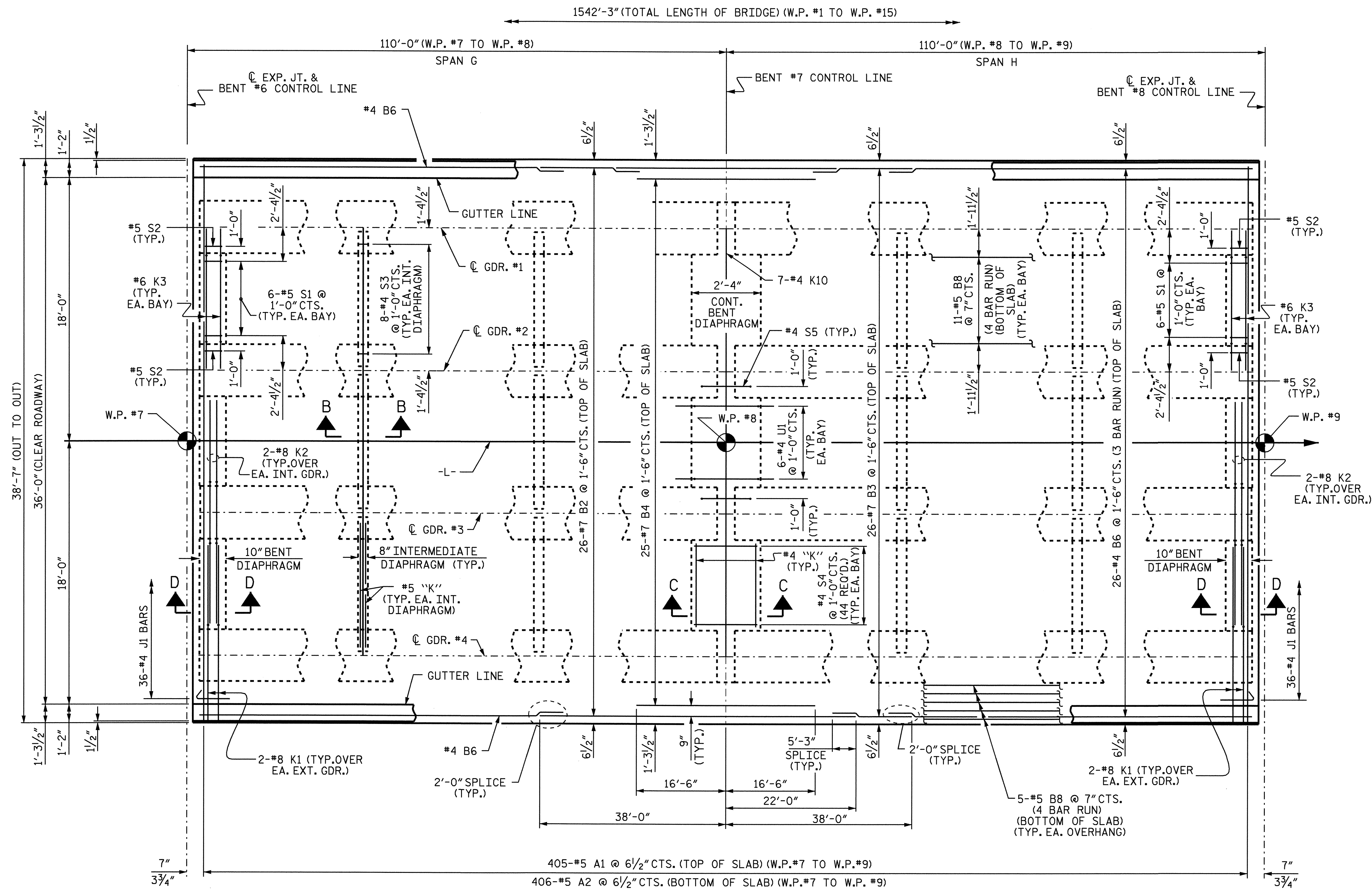
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NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 50
2			4			

PLAN OF SPAN D, E, AND F OR I, J AND K

FOR LOCATION OF INTERMEDIATE DIAPHRAGMS, SEE "GIRDER LAYOUT."
 FOR SECTIONS B-B, C-C AND D-D, SEE "TYPICAL SECTION" SHEET 2 OF 2.
 FOR LOCATION OF TRANSVERSE JOINTS, SEE POURING SEQUENCE.
 FOR PLACEMENT OF #4 J1 BARS, SEE "EXPANSION JOINT SEAL DETAILS" SHEET
 FOR LOCATION OF DECK DRAINS, SEE "STRUCTURE DRAINAGE SYSTEM" SHEETS.



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PLAN OF SPAN G, AND H

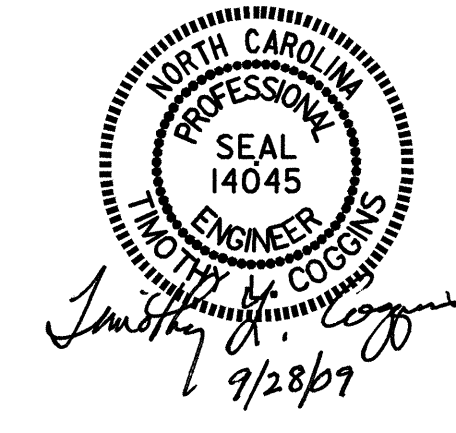
FOR LOCATION OF INTERMEDIATE DIAPHRAGMS, SEE "GIRDER LAYOUT."
 FOR SECTIONS B-B, C-C AND D-D, SEE "TYPICAL SECTION" SHEET 2 OF 2.
 FOR LOCATION OF TRANSVERSE JOINTS, SEE POURING SEQUENCE.
 FOR PLACEMENT OF #4 J1 BARS, SEE "EXPANSION JOINT SEAL DETAILS" SHEET
 FOR LOCATION OF DECK DRAINS, SEE "STRUCTURE DRAINAGE SYSTEM" SHEETS.

PROJECT NO. U-3826
 EDGEcombe COUNTY
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 SHEET 3 OF 4

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

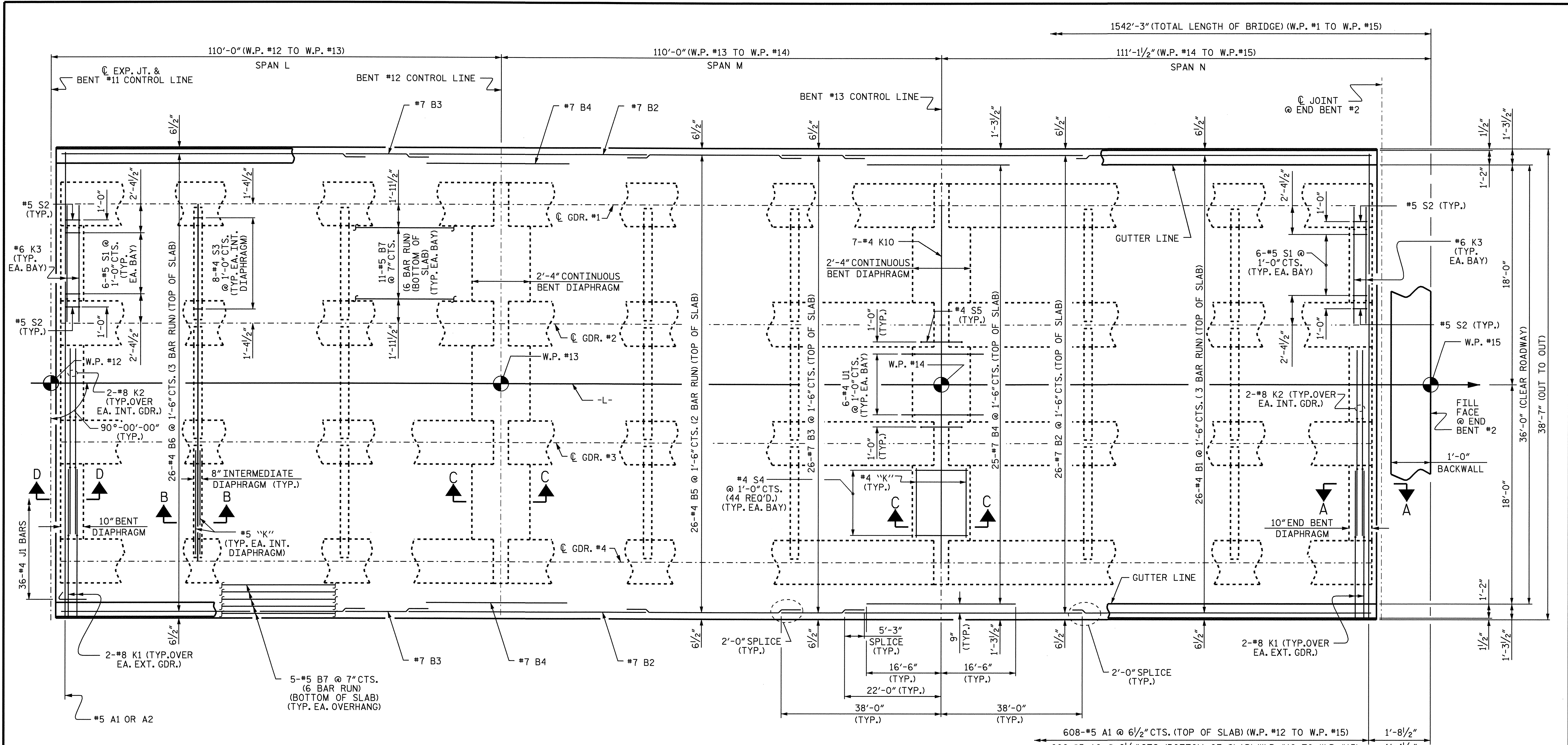
SUPERSTRUCTURE PLAN OF SPANS

REVISIONS						SHEET NO. S-12
NO.	BY:	DATE:	NO.	BY:	DATE:	
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2			4			



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PROJECT NO. U-3826
 EDGEcombe COUNTY
 STATION: 49+65.00 -L-
 SHEET 4 OF 4

PLAN OF SPAN L, M AND N

FOR LOCATION OF INTERMEDIATE DIAPHRAGMS, SEE "GIRDER LAYOUT."
 FOR SECTIONS A-A, B-B, C-C AND D-D, SEE "TYPICAL SECTION" SHEET 2 OF 2.
 FOR LOCATION OF TRANSVERSE JOINTS, SEE POURING SEQUENCE.
 FOR PLACEMENT OF #4 J1 BARS, SEE "EXPANSION JOINT SEAL DETAILS" SHEET
 FOR LOCATION OF DECK DRAINS, SEE "STRUCTURE DRAINAGE SYSTEM" SHEETS.



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUPERSTRUCTURE PLAN OF SPANS					
SHEET NO. S-13					
TOTAL SHEETS 50					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

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NOTES

THE DRAINAGE SYSTEM DETAILS ARE SCHEMATIC DRAWINGS ONLY.

THE CONTRACTOR SHALL SUBMIT FOR ACCEPTANCE, PRIOR TO PURCHASE, A PLAN FOR THE PVC DRAINAGE SYSTEM, INCLUDING ATTACHMENTS TO THE BRIDGE SUPERSTRUCTURE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE HORIZONTAL AND VERTICAL ALIGNMENT OF THE PVC DRAINAGE SYSTEM USING NECESSARY FITTINGS, TEES AND WYES TO PROVIDE A CONTINUOUS DRAINAGE SYSTEM.

DRAINAGE SYSTEM WILL BE PAID FOR UNDER THE PAY ITEM "STRUCTURE DRAINAGE SYSTEM".

FOR "STRUCTURE DRAINAGE SYSTEM", SEE SPECIAL PROVISIONS.

THE CONTRACTOR SHALL DETERMINE THE QUANTITY OF FITTINGS, PIPE LENGTHS, GUIDES AND ATTACHMENTS TO CARRY THE WATER FROM THE DECK DRAINS TO THE OUTLETS.

BOLTS, NUTS AND WASHERS SHALL BE HIGH STRENGTH AND GALVANIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

CONCRETE INSERTS SHALL BE OF AN APPROVED GALVANIZED TYPE HAVING A MINIMUM WORKING LOAD TENSION CAPACITY OF 2.5 KIPS.

DECK DRAIN PIPES AND FITTINGS SHALL BE SCH. 40 PVC, ASTM D 1785. JOINT FITTINGS SHALL BE SOLVENT CEMENT TYPE.

COLLECTOR PIPES SHALL BE ASTM D2241, SDR 26, IPS OD 16. JOINTS SHALL BE GASKETED ELASTOMERIC TYPE.

GASKETED JOINTS SHALL BE POSITIONED TO OCCUR APPROXIMATELY 1'-0" FROM PIPE SUPPORTS, SEE DETAIL "A". SEE ROADWAY PLANS FOR DETAILS AND PAY ITEM FOR JUNCTION BOX AT APPROXIMATE STATION 41+65 -L- & 57+65 -L-.

PVC PIPES FOR DECK DRAINS AND DRAINAGE SYSTEM SHALL BE PAINTED WITH TWO COATS OF GRAY PAINT MEETING THE REQUIREMENTS OF ARTICLE 1080-12 OF THE STANDARD SPECIFICATIONS. EACH COAT SHALL BE 2 DRY MILS THICK, PIPES SHALL BE ROUGHENED PRIOR TO PAINTING. NO SEPARATE PAYMENT SHALL BE MADE FOR PAINTING PVC PIPES AS THIS IS CONSIDERED INCIDENTAL TO THE PAY ITEM FOR STRUCTURE DRAINAGE SYSTEM.

DRAINAGE SYSTEM SHALL BE PLACED TO PROVIDE A MINIMUM SLOPE OF -0.5% TOWARDS OUTLET.

PROVIDE EXPANSION JOINT DEVICES IN THE DRAIN PIPE AT A MAXIMUM SPACING OF 100'-0" WITH A 12" MINIMUM EXPANSION CAPACITY.

LONGITUDINAL RESTRAINTS ON THE 18" TRUNK LINE WILL BE PLACED AT A MAXIMUM SPACING OF 100 FEET. THESE RESTRAINTS SHOULD BE LOCATED MIDWAY BETWEEN EXPANSION JOINTS.

THE CONTRACTOR SUBMITTAL SHALL INCLUDE THE ESTIMATED FORCE REQUIRED TO ACTUATE THE SLIP OF THE EXPANSION JOINT.

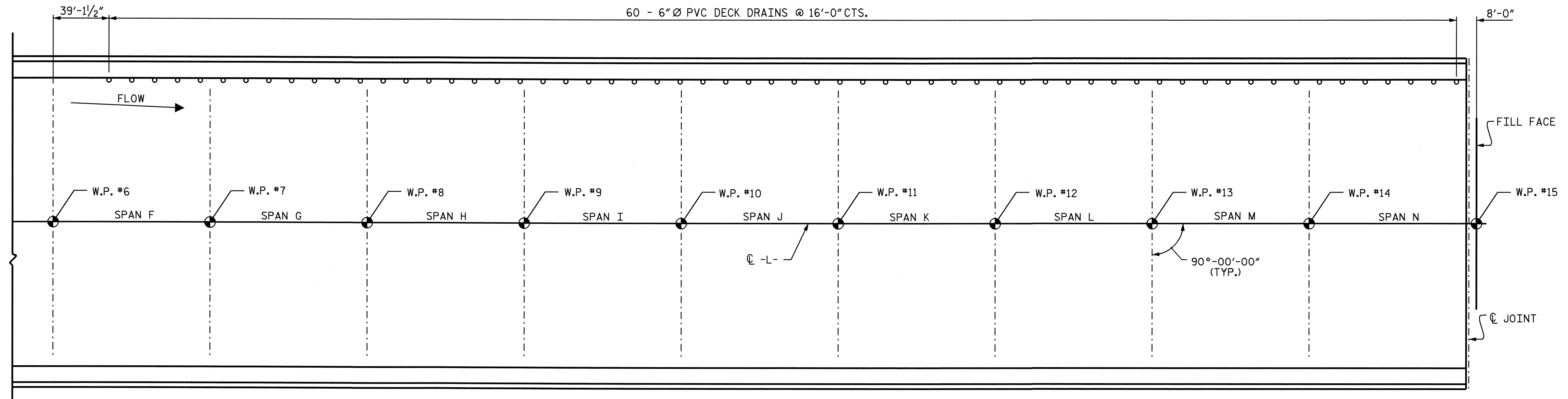
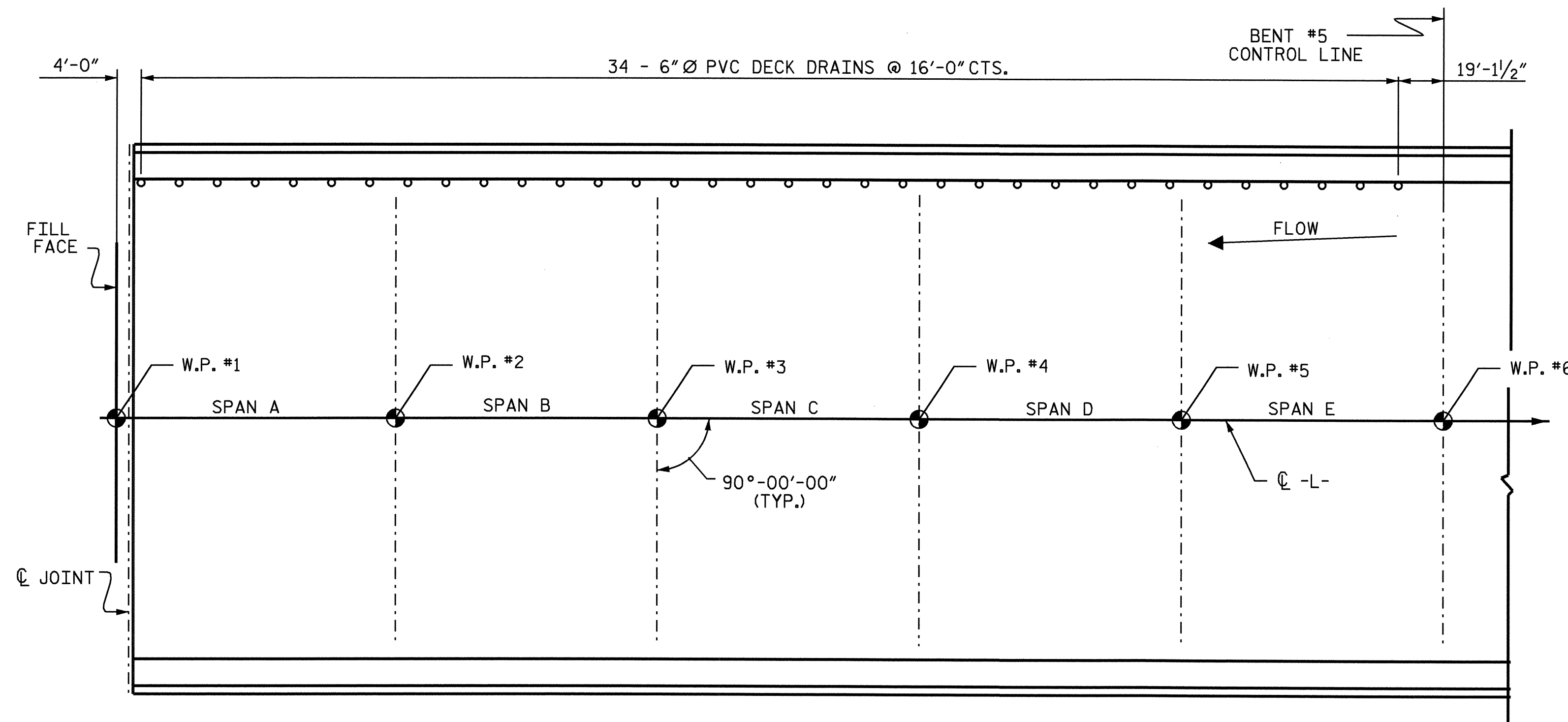
EXPANSION JOINT DEVICES SHALL BE SPACED A MAXIMUM OF 100' APART FOR THE FULL LENGTH OF EACH HORIZONTAL PIPE.

LATERAL GUIDE INSERTS, IN THE GIRDER WEB, MAY BE SHIFTED VERTICALLY DUE TO POSSIBLE INTERFERENCE WITH A GIRDER STRAND.

A LONGITUDINAL RESTRAINTS SHOULD BE LOCATED WITHIN THE FIRST 10 FEET OF THE BEGINNING AND ENDING OF ANY CONTINUOUS SECTION OF DRAINAGE SYSTEM.

AN OPTIONAL DETAIL FOR THE LATERAL GUIDES AND LONGITUDINAL RESTRAINTS MAY BE SUBMITTED FOR APPROVAL.

IN ORDER TO ACCOMMODATE THE EXPANSION OF THE 16" Ø PVC PIPE, GALVANIZED ADJUSTABLE STEEL YOKE PIPE ROLL HANGERS WILL BE REQUIRED.



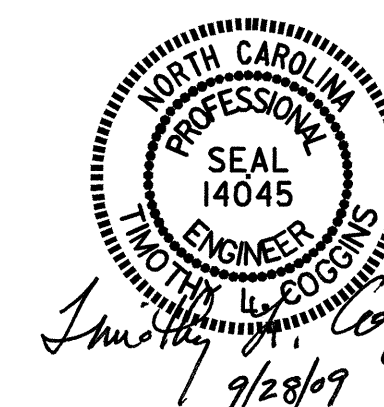
DECK DRAIN LAYOUT

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EDGEcombe COUNTY
 STATION: 49+65.00 -L-

SHEET 1 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

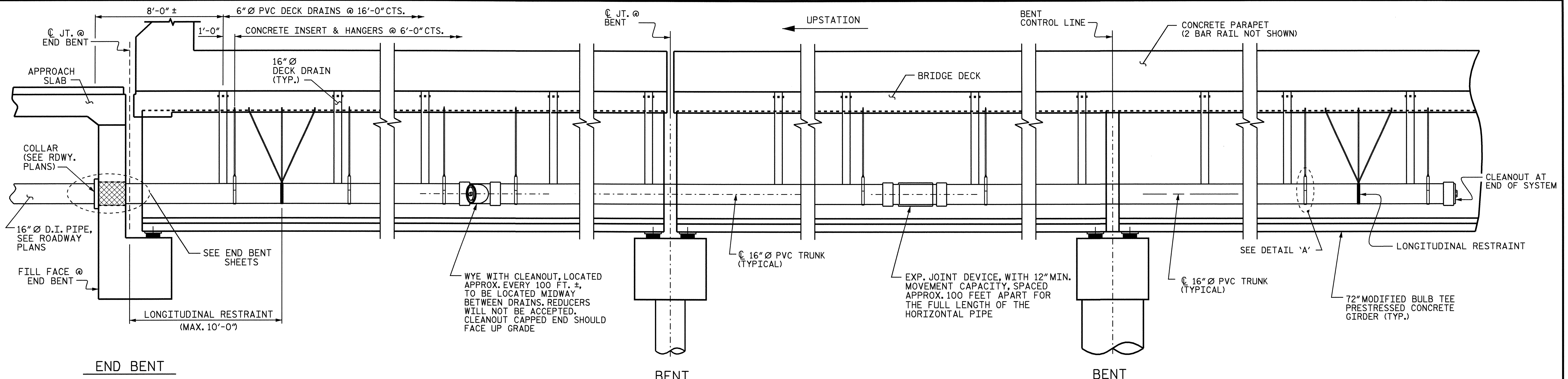
SUPERSTRUCTURE
 STRUCTURE
 DRAINAGE SYSTEM



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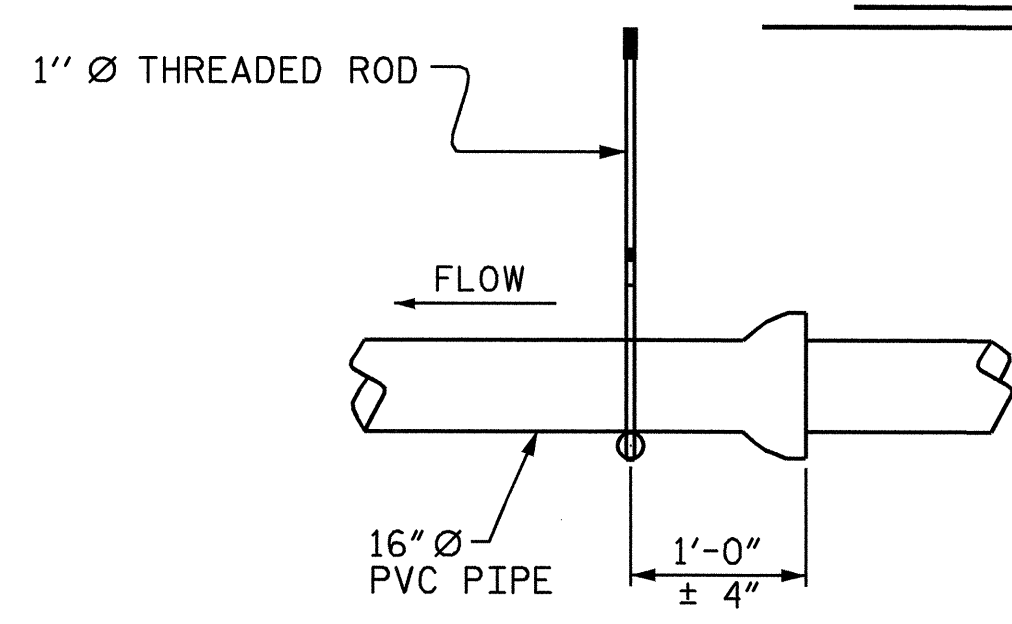
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REVISIONS						SHEET NO.
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2			4			50

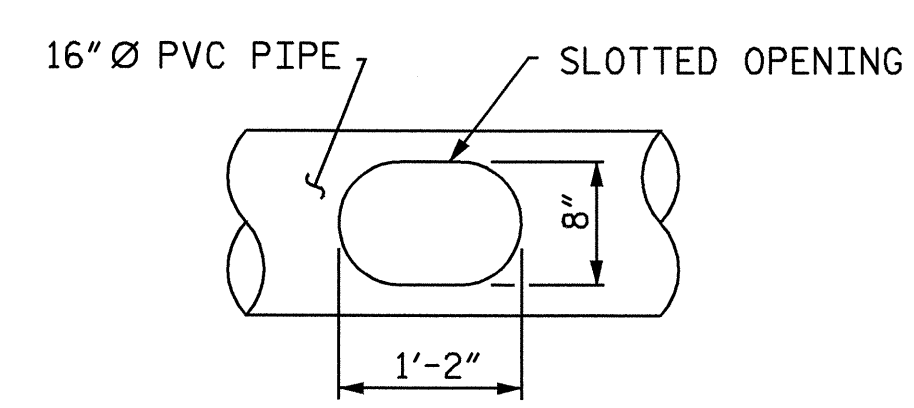


ELEVATION OF DRAINAGE SYSTEM

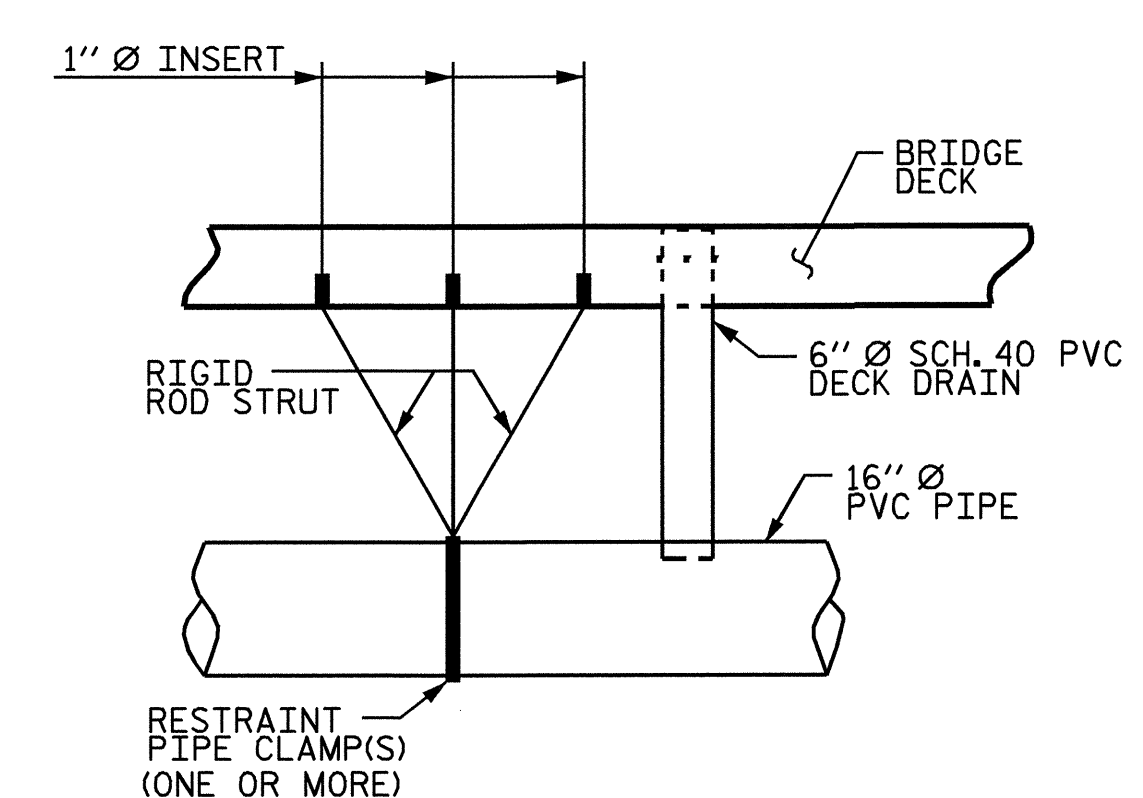
(VIEW AT END BENT #2 SHOWN)



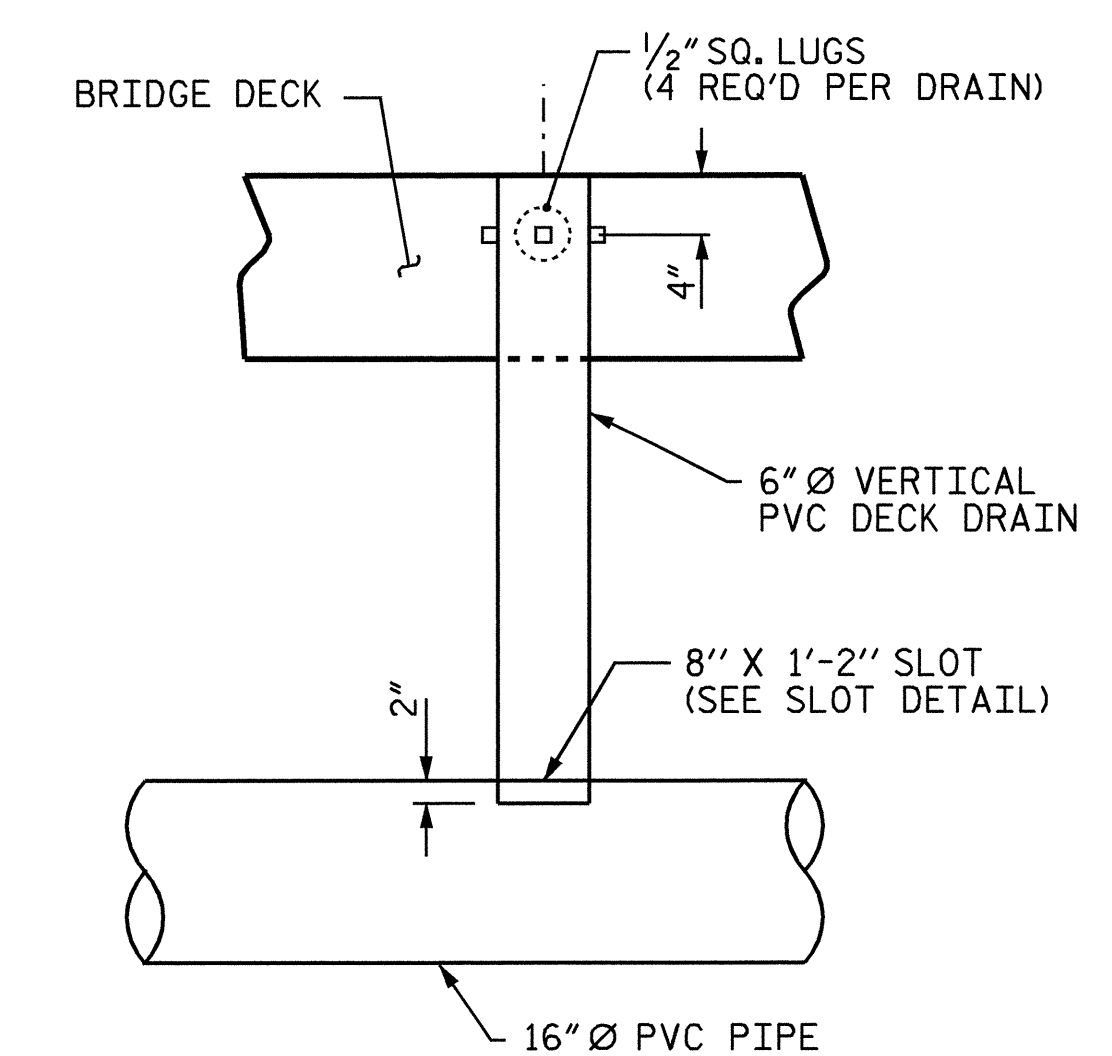
DETAIL 'A'



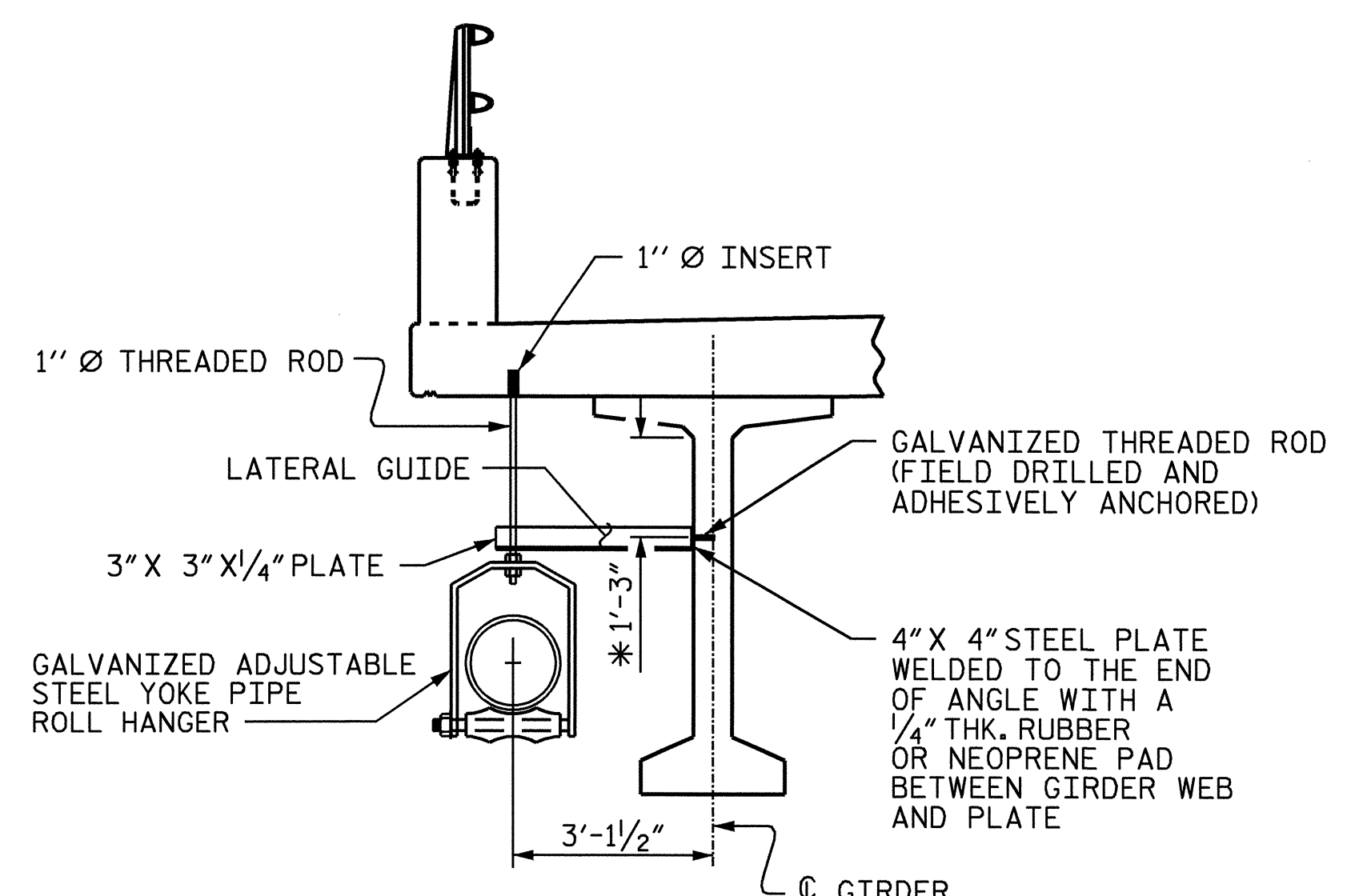
SLOT DETAIL



LONGITUDINAL RESTRAINT

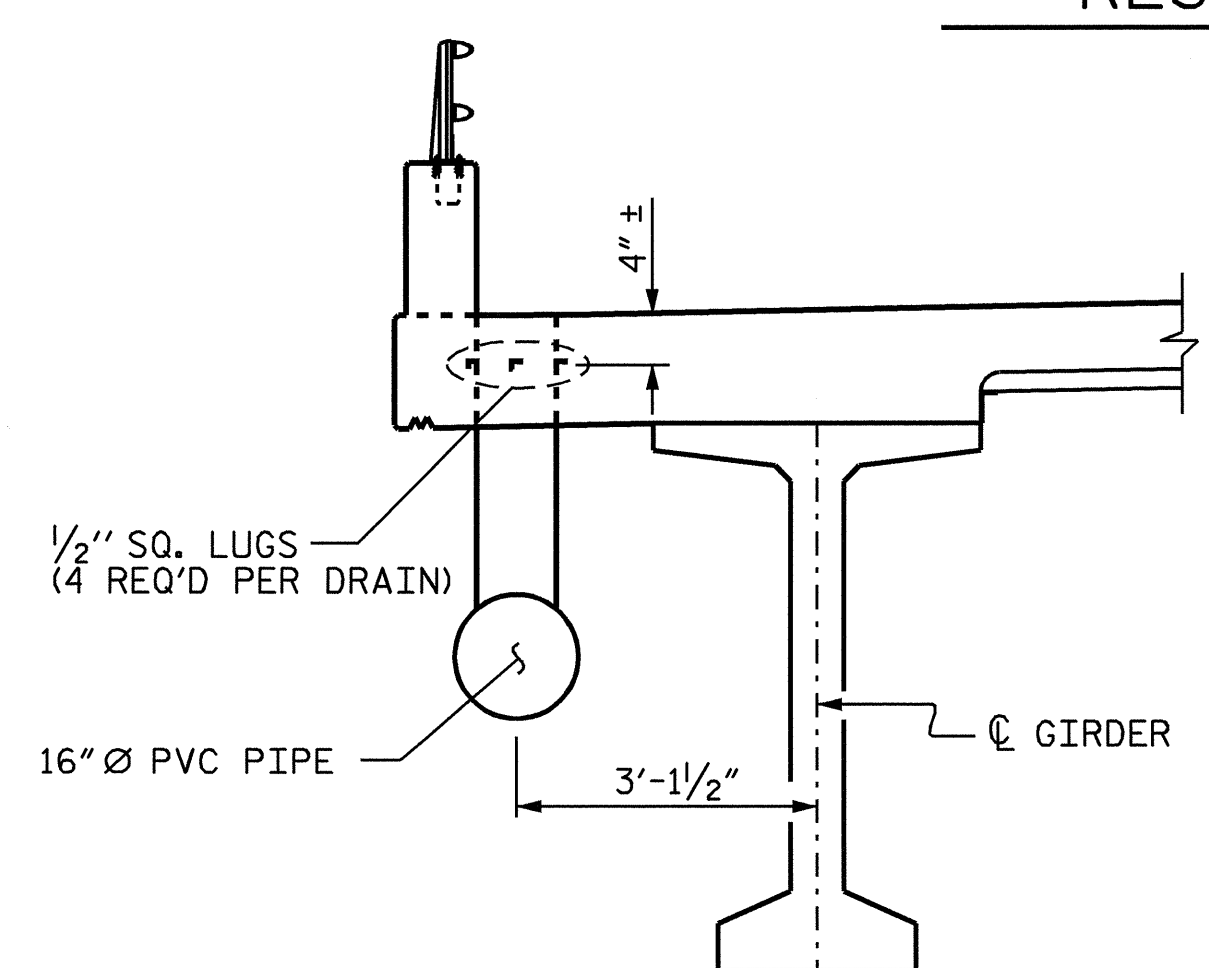


ELEVATION VIEW OF DECK DRAIN AND COLLECTOR PIPE INTERSECTION



SECTION THRU DRAINAGE SYSTEM AT TYPICAL HANGER

*NOTE THAT DEVIATION FROM THIS DRILLED-HOLE LOCATION COULD SEVER GIRDER STANDS

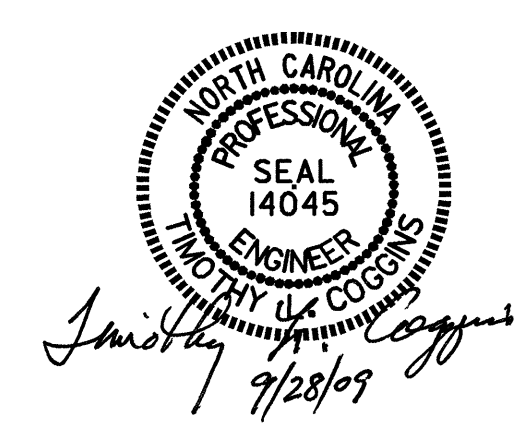


SECTION THRU DRAINAGE SYSTEM AT 6" Ø DECK DRAINS

TOP OF DECK DRAIN IS TO BE SET 3/8" BELOW SURFACE OF SLAB.
4 - 1/2" SQUARE LUGS ARE TO BE GLUED TO THE PVC PIPE AT EQUAL SPACES AROUND THE DECK DRAIN.

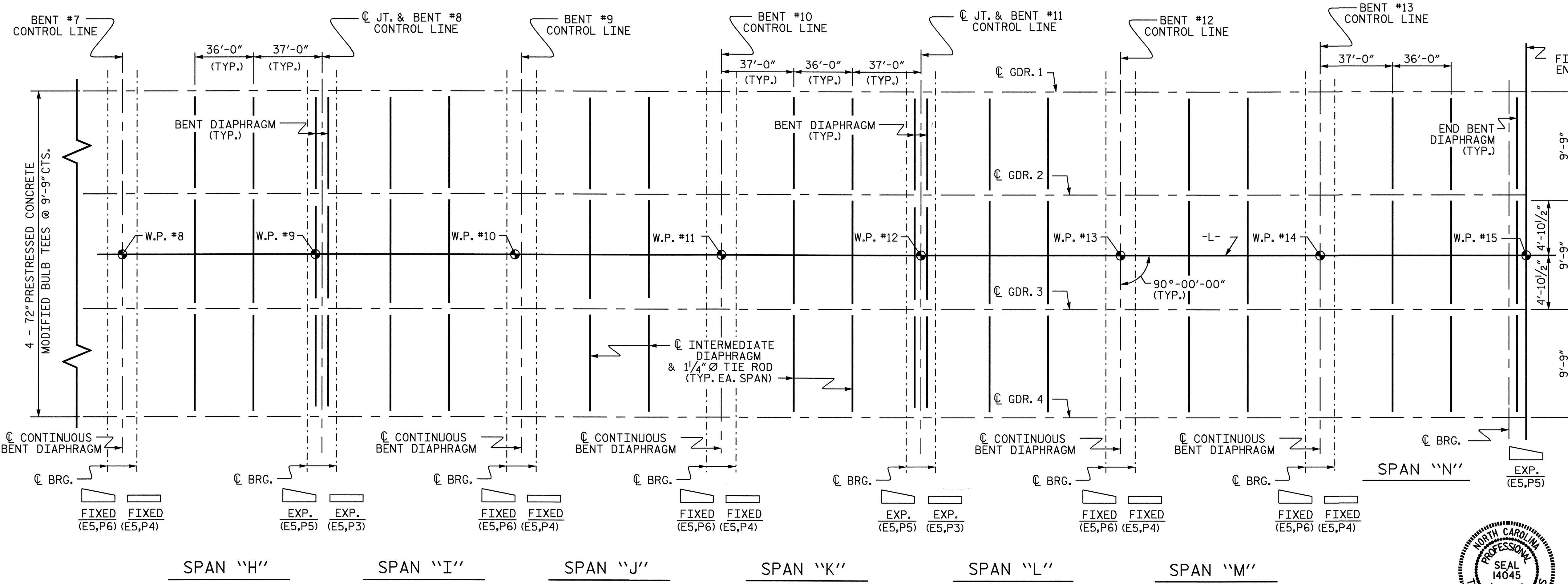
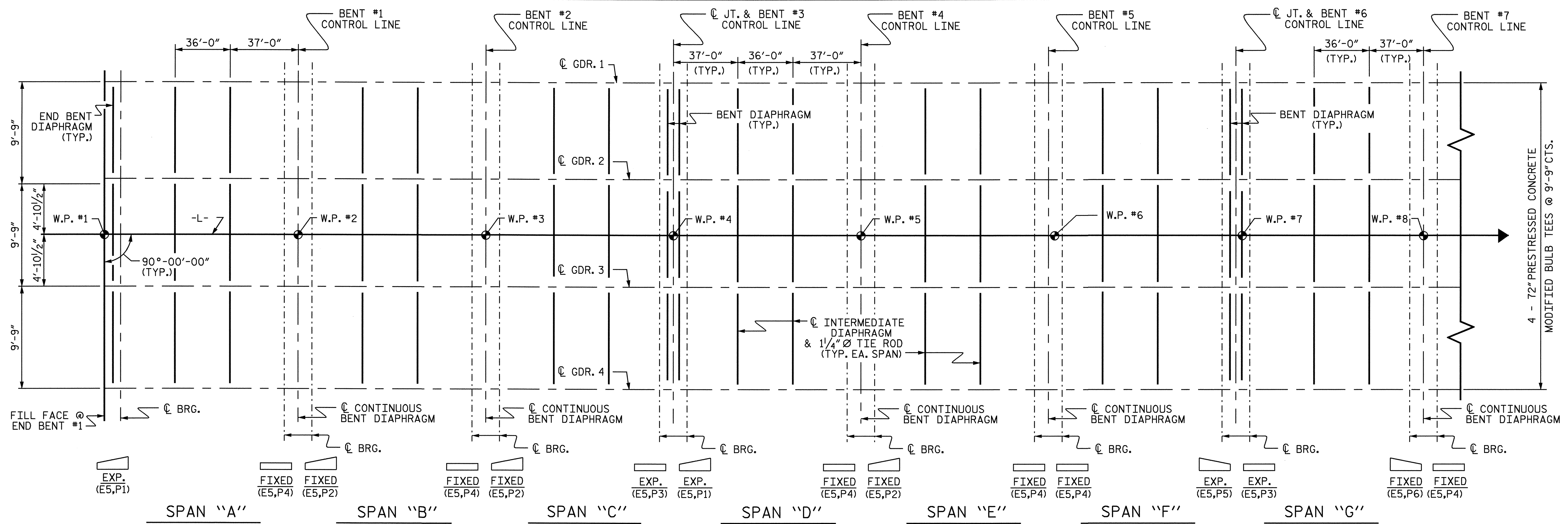
PROJECT NO. U-3826
EDGEcombe COUNTY
STATION: 49+65.00 -L-
SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE
STRUCTURE
DRAINAGE SYSTEM



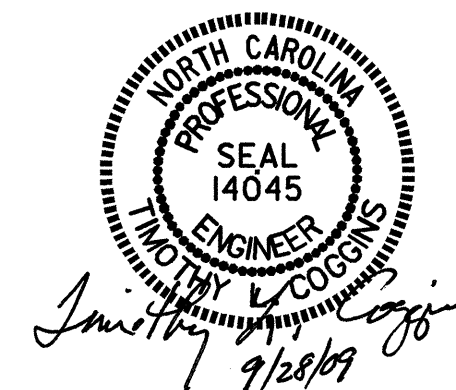
REVISIONS						SHEET NO. S-15
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 50
2			4			

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CHECKED BY: J.B.WILSON DATE: 1/23/09



GIRDER LAYOUT

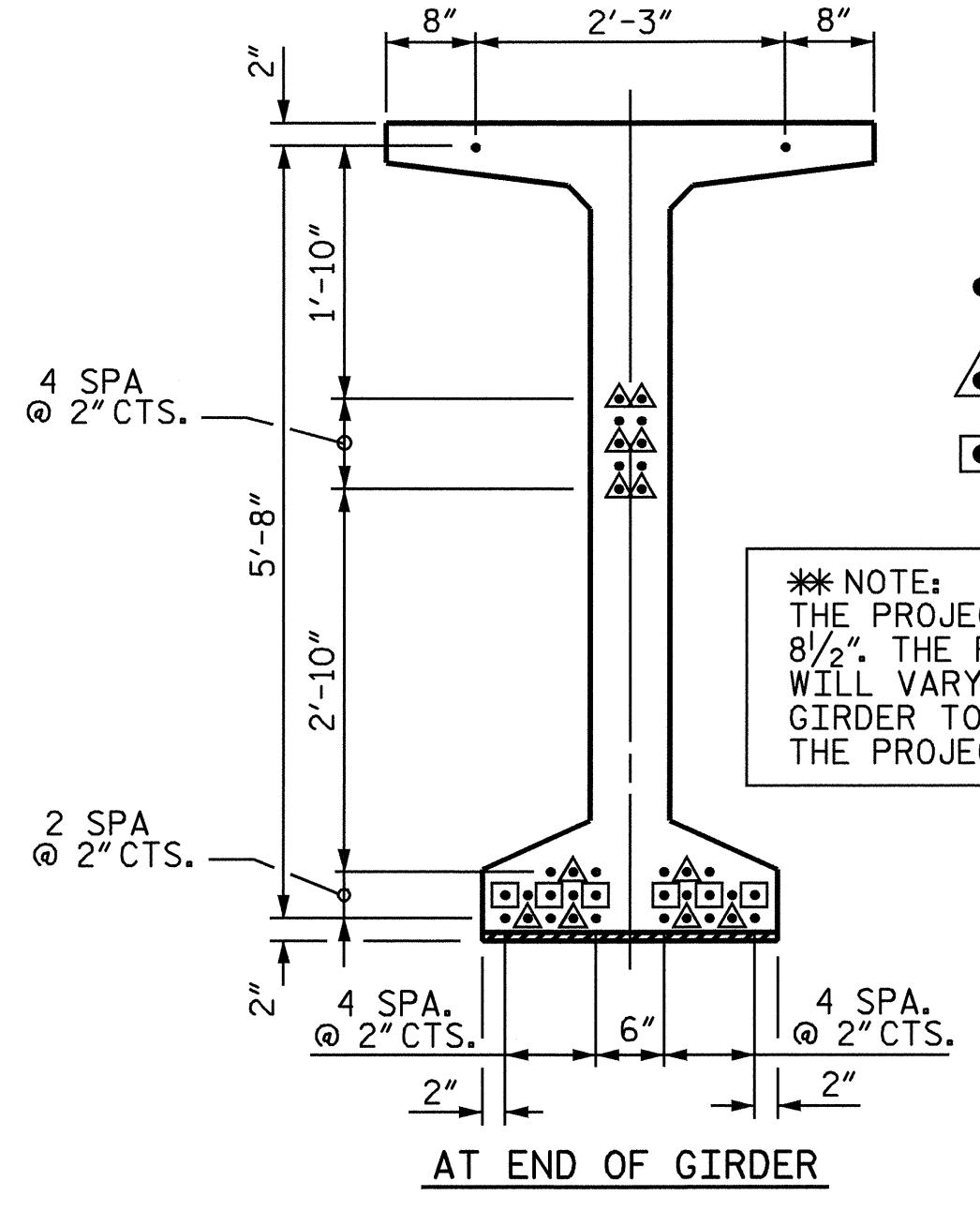
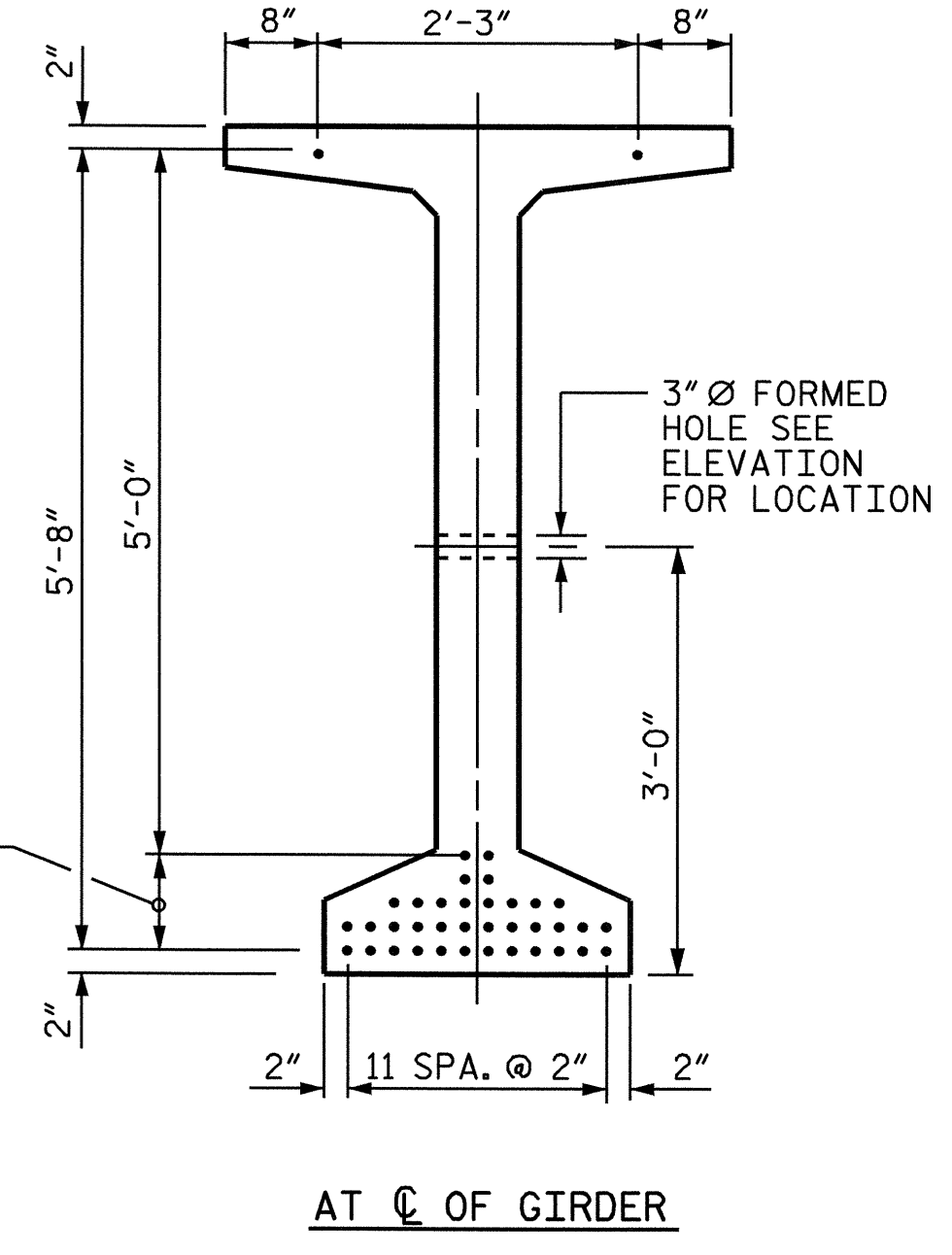
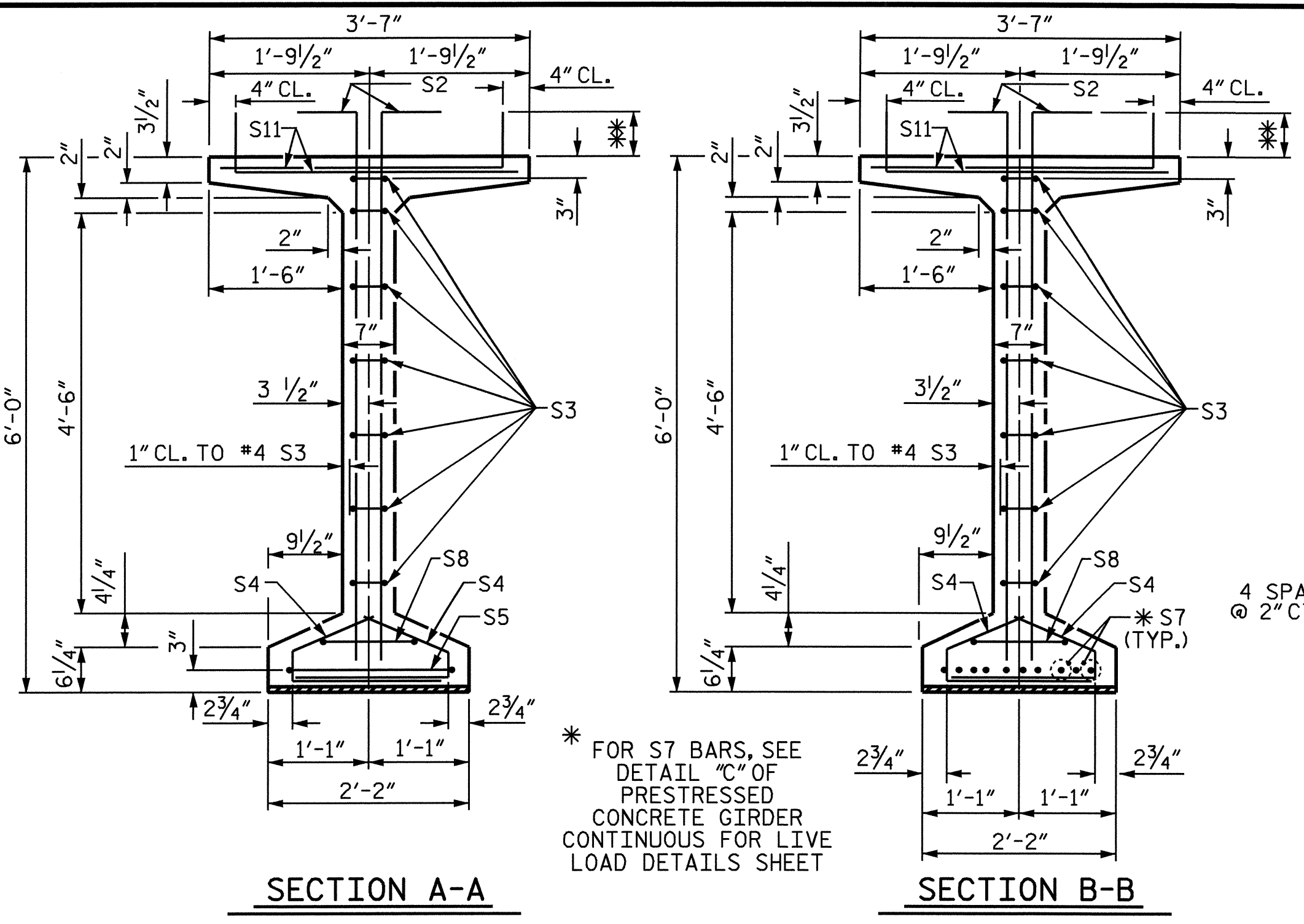
PROJECT NO. U-3826
 EDGEcombe COUNTY
 STATION: 49+65.00 -L-



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUPERSTRUCTURE GIRDER LAYOUT					
SHEET NO. S-16					
TOTAL SHEETS 50					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

DRAWN BY: B.N.BARODAWALA DATE: 10/27/08
 CHECKED BY: J.B.WILSON DATE: 1/23/09

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 Taverette

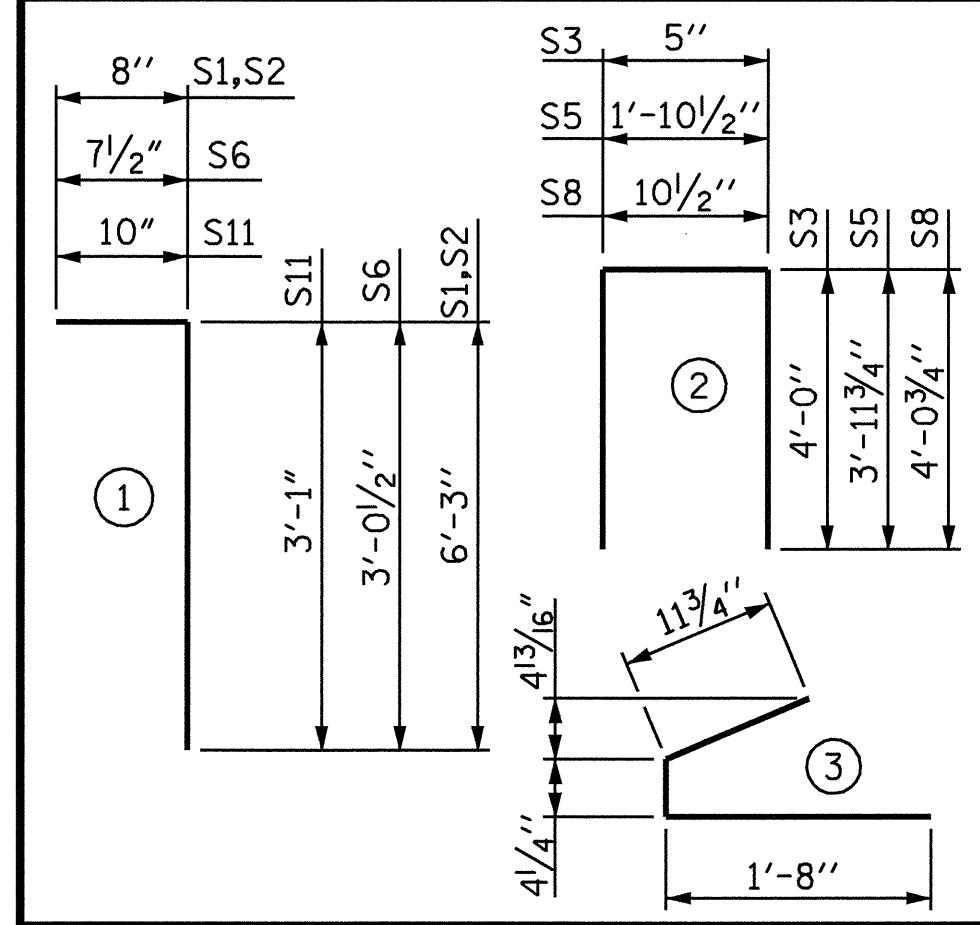
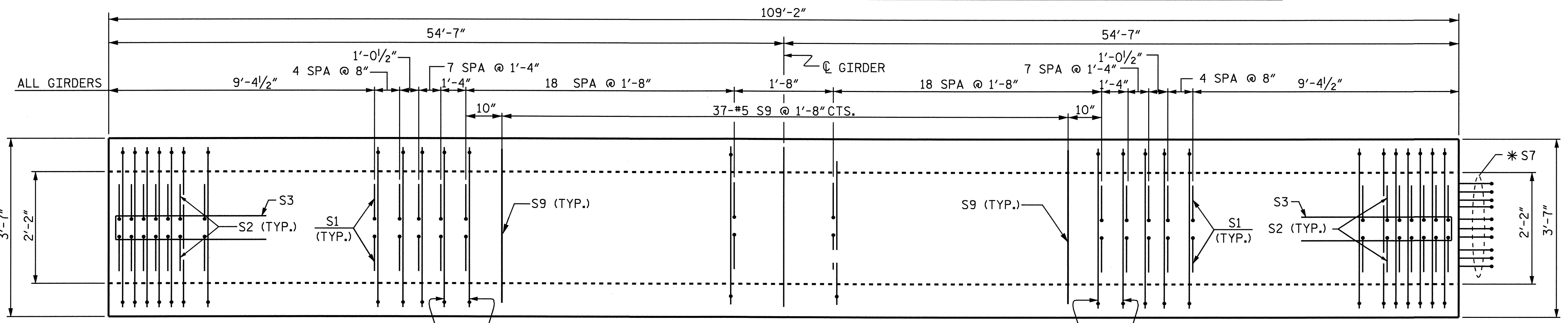


- DEBONDING LEGEND**
- FULLY BONDED STRANDS
 - ▲ STRANDS DEBONDED FOR 2'-0" FROM END OF GIRDER
 - ◻ STRANDS DEBONDED FOR 4'-0" FROM END OF GIRDER

*** NOTE:**
 THE PROJECTION OF THE S2 AND S11 BARS IS 8 1/2". THE PROJECTION OF THE S1 BARS WILL VARY FROM 8 1/2" AT THE ENDS OF THE GIRDER TO 6" AT THE CENTER OF THE GIRDER. THE PROJECTION OF THE S6 BARS IS 6".

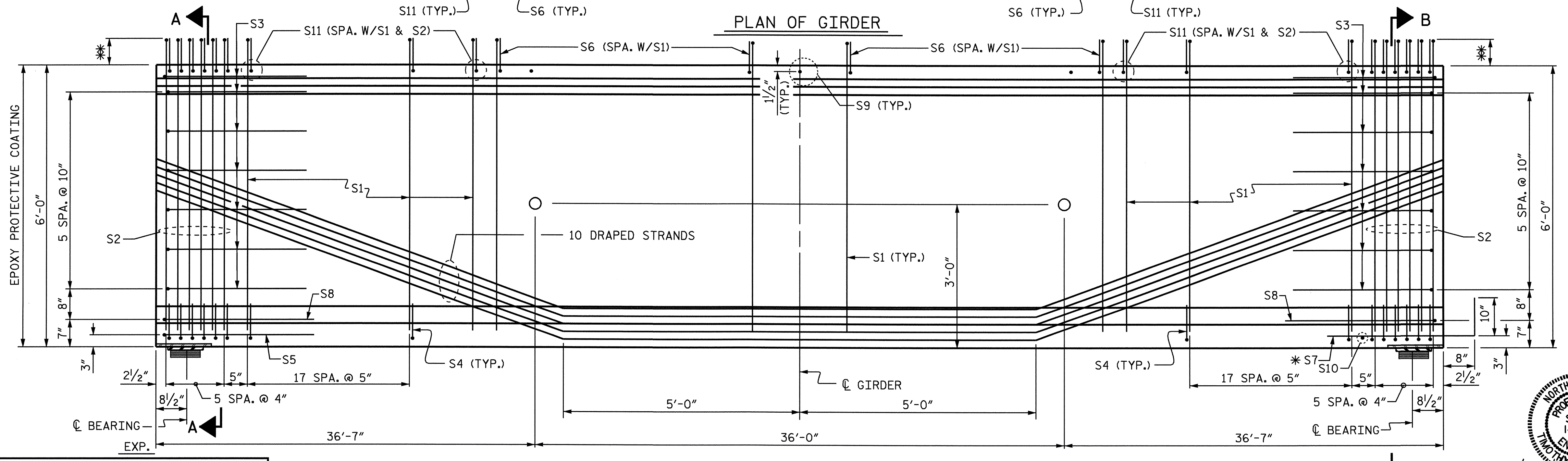
*** FOR S7 BARS, SEE
 DETAIL "C" OF
 PRESTRESSED
 CONCRETE GIRDER
 CONTINUOUS FOR LIVE
 LOAD DETAILS SHEET**

0.6" Ø LOW RELAXATION STRAND LAYOUT

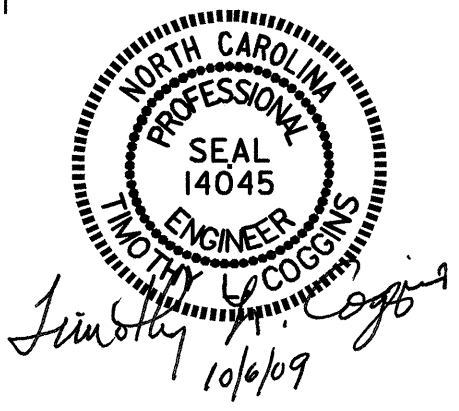


QUANTITIES FOR ONE GIRDER

	REINFORCING STEEL	7500 PSI CONCRETE	0.6" Ø L.R. STRAND
	LB.	C.Y.	No.
ALL GIRDERS	2422	23.4	38



ELEVATION OF GIRDER



ASSEMBLED BY: B.N.BARODAWALA DATE: 10/21/08
 CHECKED BY: J.B.WILSON DATE: 1/23/09
 DRAWN BY: EEM 2/6/97 REV. 8/16/99 RWW/LES
 CHECKED BY: VAP 2/6/97 REV. 10/17/00 RWW/LES
 REV. 5/1/06 TLA/GM

GIRDERS REQUIRED

NUMBER	LENGTH	TOTAL LENGTH
40	109'-2"	4366'-8"

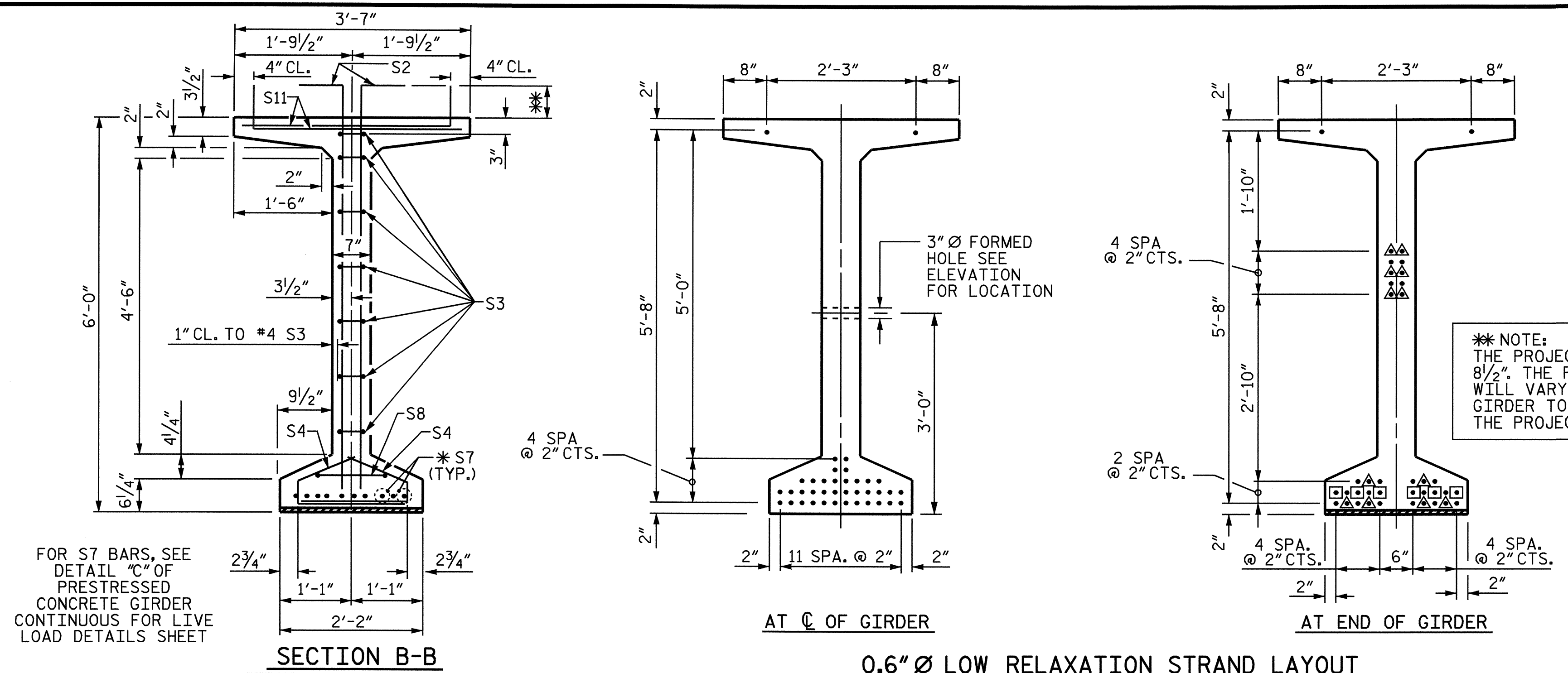
PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-
 SHEET 1 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 72" PRESTRESSED CONCRETE
 MODIFIED BULB TEE
 CONTINUOUS FOR LIVE LOAD
 SPANS A, C, D, F, G,
 H, I, K, L, & N

REVISIONS

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

SHEET NO. S-17
 TOTAL SHEETS 50



DEBONDING LEGEND

- FULLY BONDED STRANDS
- ▲ STRANDS DEBONDED FOR 2'-0" FROM END OF GIRDER
- ◻ STRANDS DEBONDED FOR 4'-0" FROM END OF GIRDER

**** NOTE:**
THE PROJECTION OF THE S2 AND S11 BARS IS 8 1/2". THE PROJECTION OF THE S1 BARS WILL VARY FROM 8 1/2" AT THE ENDS OF THE GIRDER TO 6" AT THE CENTER OF THE GIRDER. THE PROJECTION OF THE S6 BARS IS 6".

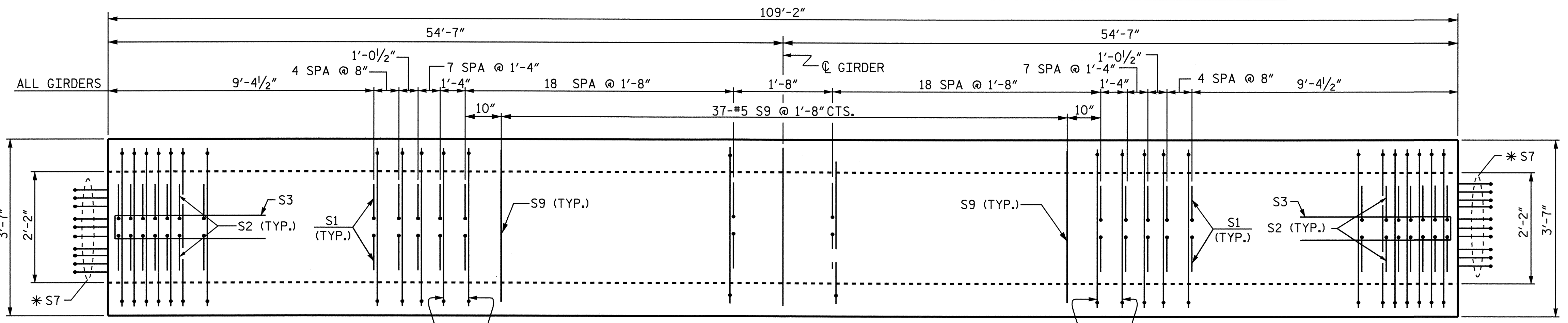
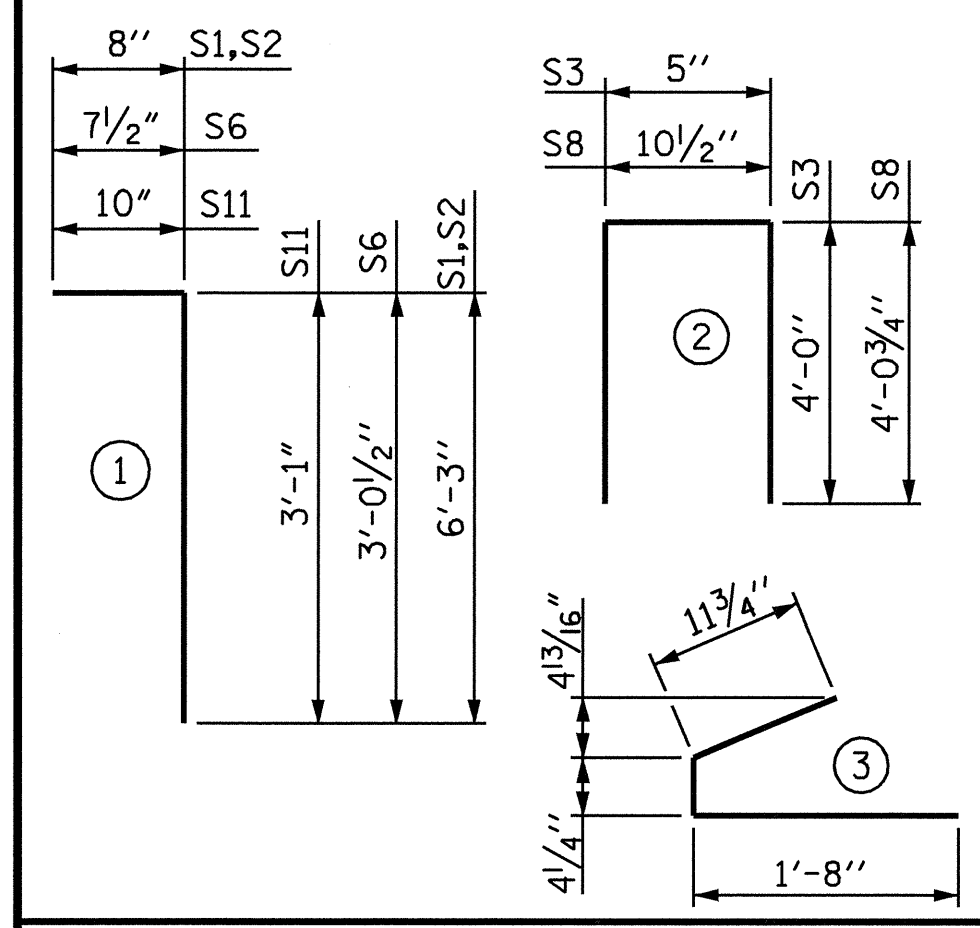
FOR S7 BARS, SEE DETAIL "C" OF PRESTRESSED CONCRETE GIRDER CONTINUOUS FOR LIVE LOAD DETAILS SHEET

0.6"Ø L.R GRADE 270 STRANDS		
AREA (SQUARE INCHES)	ULTIMATE STRENGTH (LBS. PER STRAND)	APPLIED PRESTRESS (LBS. PER STRAND)
0.217	58,600	43,950

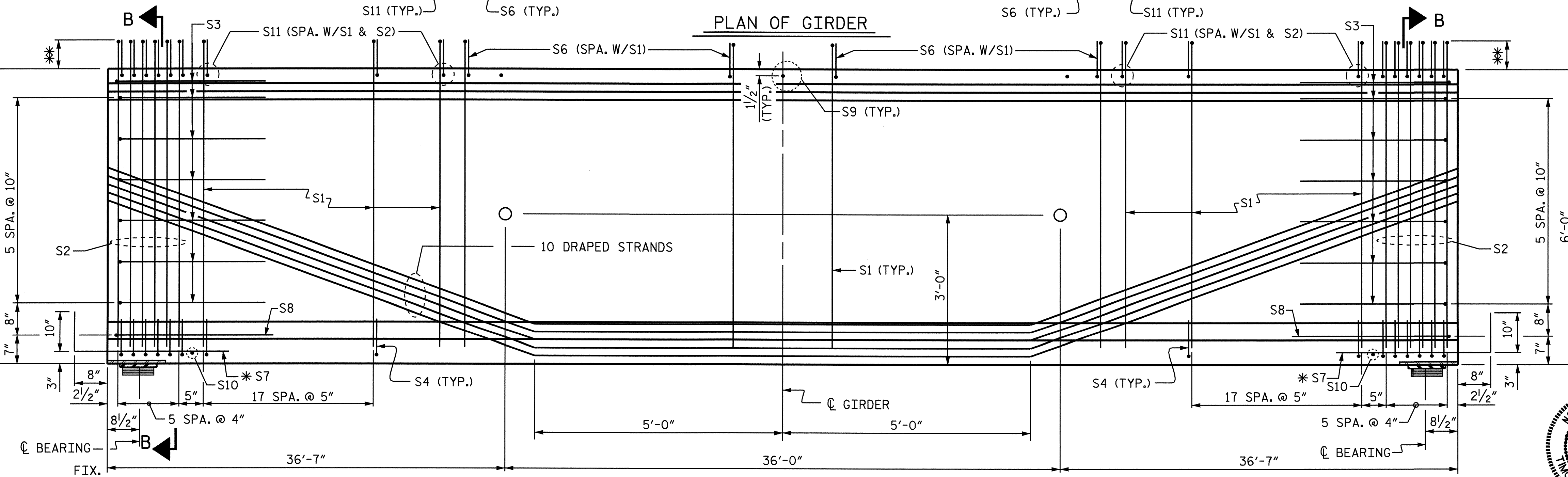
REINFORCING STEEL FOR ONE GIRDER					
BAR	NUMBER	SIZE	TYPE	LENGTH	WEIGHT
S1	196	#4	1	6'-11"	906
S2	24	#5	1	6'-11"	173
S3	14	#4	2	8'-5"	79
S4	96	#4	3	3'-0"	192
S6	76	#5	1	3'-8"	291
*S7	20	#5	STR	3'-8"	76
S8	2	#5	2	9'-0"	19
S9	37	#5	STR	3'-3"	125
S10	2	#3	STR	1'-10"	1
S11	144	#5	1	3'-11"	588

* NOTE: S7 BARS SHALL BE BENT BEFORE SHIPMENT. HEAT BENDING SHALL NOT BE ALLOWED.

BAR TYPES
ALL BAR DIMENSIONS ARE OUT-TO-OUT



QUANTITIES FOR ONE GIRDER			
	REINFORCING STEEL LB.	7500 PSI CONCRETE C.Y.	0.6"Ø L.R. STRAND No.
ALL GIRDERS	2450	23.4	38



GIRDERS REQUIRED		
NUMBER	LENGTH	TOTAL LENGTH
16	109'-2"	1746'-8"

PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-
 SHEET 2 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 72" PRESTRESSED CONCRETE
 MODIFIED BULB TEE
 CONTINUOUS FOR LIVE LOAD
 SPANS B, E, J, & M



ASSEMBLED BY: B.N. BARODAWALA DATE: 10/21/08
 CHECKED BY: J.B. WILSON DATE: 1/23/09
 DRAWN BY: EEM 2/6/97 REV. 8/16/99 RWW/LES
 CHECKED BY: VAP 2/6/97 REV. 10/17/00 RWW/LES
 REV. 5/1/06 TLA/GM

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

NOTES

ALL PRESTRESSING STRANDS SHALL BE 7-WIRE LOW-RELAXATION GRADE 270 STRANDS AND SHALL CONFORM TO AASHTO M203 EXCEPT FOR SAMPLING REQUIREMENTS WHICH SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

TIE ROD ASSEMBLY SHALL BE AASHTO M270 GRADE 36 STRUCTURAL STEEL.

ALL REINFORCING STEEL SHALL BE GRADE 60.

APPLY EPOXY PROTECTIVE COATING TO END OF GIRDER SURFACES INDICATED IN ELEVATION VIEW.

EMBEDDED PLATE "B-1" SHALL BE GALVANIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. BEVEL EDGES OF PLATE "B-1" TO GIVE CLOSE FIT BUT NOT TIGHT FIT TO STEEL CASTING FORM.

ANCHOR STUDS SHALL CONFORM TO AASHTO M169 GRADES 1010 THROUGH 1020 OR APPROVED EQUAL, AND SHALL MEET THE TYPE "B" REQUIREMENTS OF SUBSECTION 7.3 OF THE ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE.

AT ENDS OF GIRDERS TO BE EMBEDDED IN CONCRETE DIAPHRAGMS OR END WALLS, PRESTRESSING STRANDS MAY EXTEND A MAXIMUM OF 2" BEYOND THE GIRDER ENDS. OTHERWISE, PRESTRESSING STRANDS SHALL BE CUT FLUSH WITH THE GIRDER ENDS.

THE TRANSFER OF LOAD FROM THE ANCHORAGES TO THE GIRDER SHALL BE DONE WHEN CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF NOT LESS THAN 6100 PSI.

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, EXCLUDING THE OUTSIDE 4", SHALL BE RAKED TO A DEPTH OF 1/4".

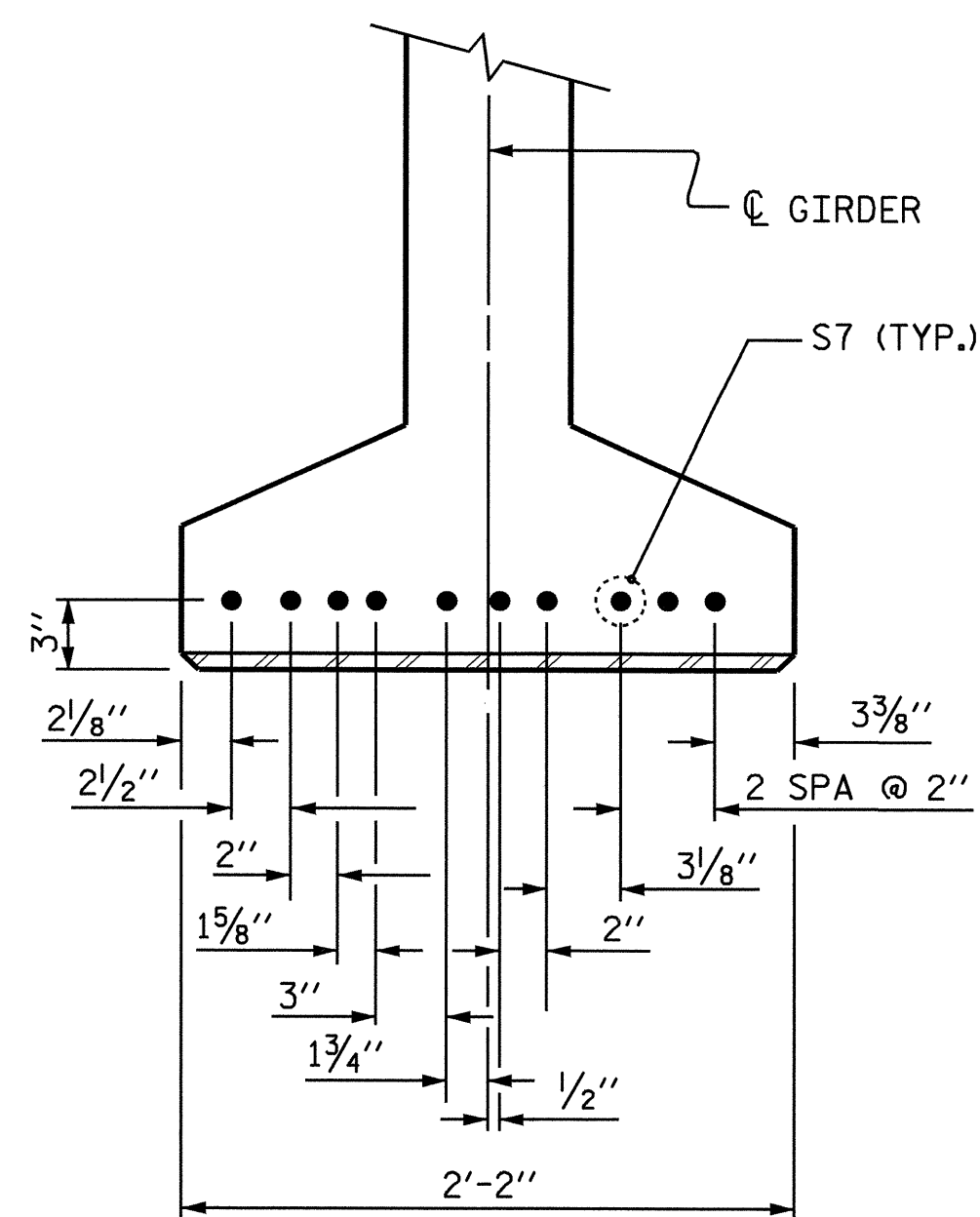
WHEN DRAPED STRANDS ARE DETAILED, THE LONGITUDINAL LOCATION OF THE HOLD DOWN DEVICES SHALL BE WITHIN 6" OF THE LOCATION SHOWN AND THE CENTER OF GRAVITY OF THE GROUP OF DRAPED STRANDS SHALL BE LOCATED WITHIN 1/2" OF THE THEORETICAL LOCATION SHOWN.

A 2" x 2" CHAMFER IS ALLOWED AT THE INTERSECTION OF THE WEB AND THE BOTTOM FLANGE OF THE 72" MODIFIED BULB TEES ONLY.

THE CONTRACTOR HAS THE OPTION TO PROVIDE, AT NO ADDITIONAL COST TO THE DEPARTMENT, 2 ADDITIONAL STRANDS AT THE TOP OF THE GIRDER TO FACILITATE TYING OF THE REINFORCING STEEL. THESE STRANDS SHALL BE PULLED TO A LOAD OF 4500 lbs.

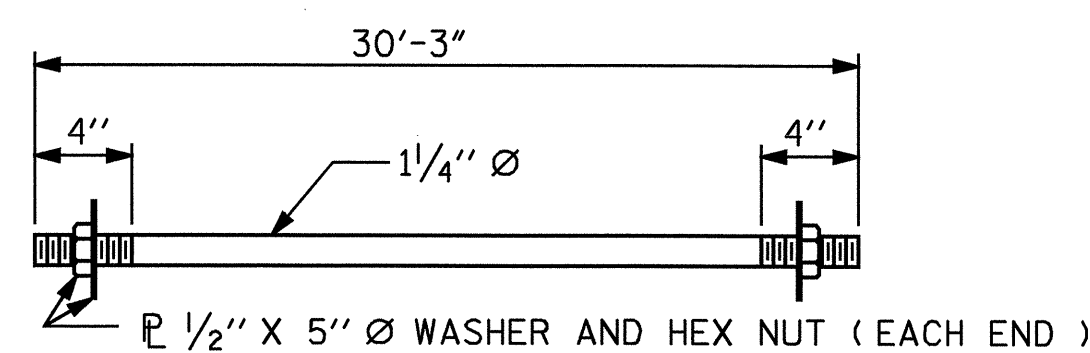
THE UPLIFT FORCE DUE TO DRAPED STRANDS IS 28.0 KIPS.

FOR PRESTRESSED CONCRETE MEMBERS, SEE SPECIAL PROVISIONS.



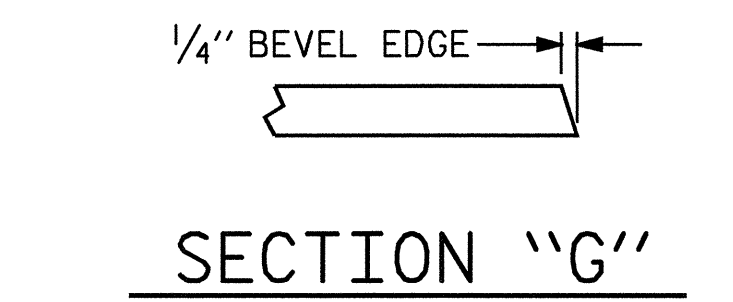
DETAIL "C"

(FOR 72" MODIFIED BULB TEES)

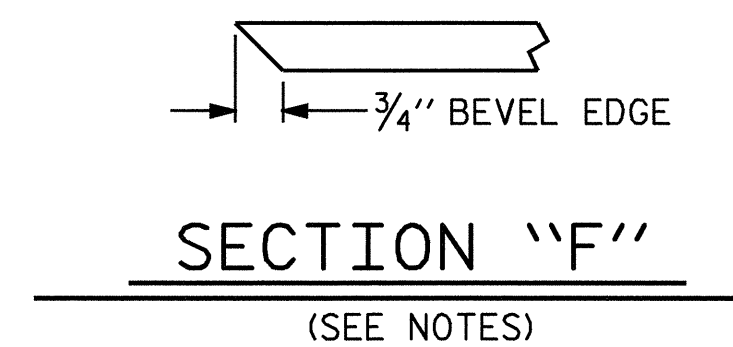


1 1/4" Ø TIE ROD ASSEMBLY

(28 COMPLETE ASSEMBLIES REQUIRED)

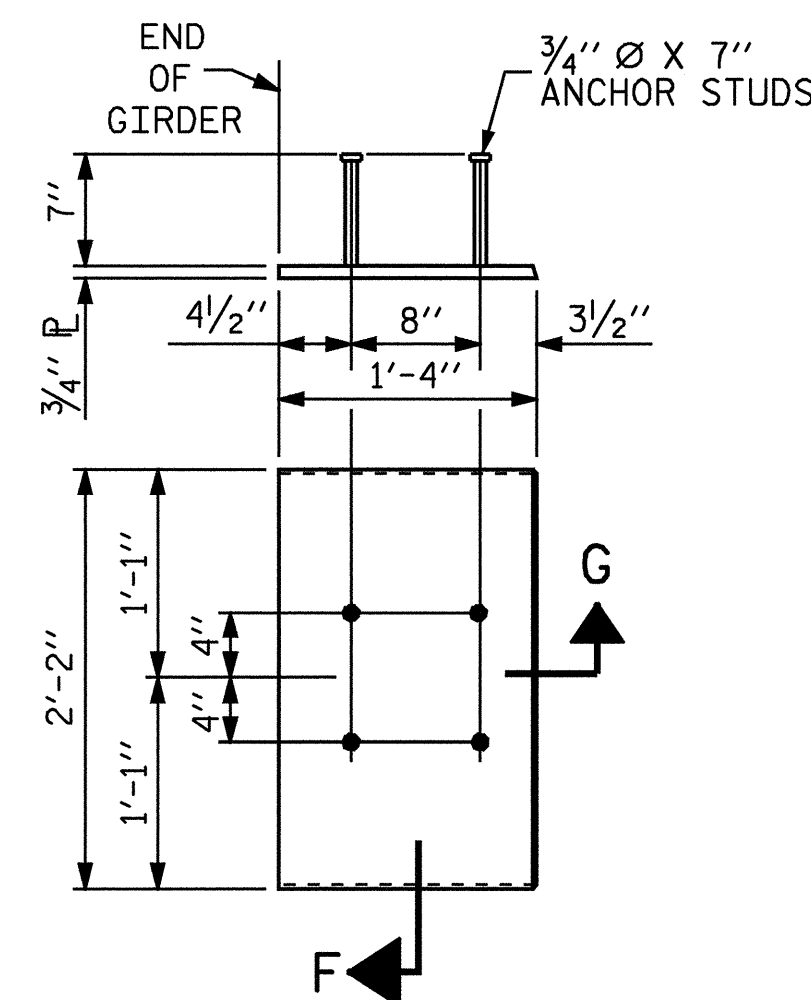


SECTION "G"



SECTION "F"

(SEE NOTES)



EMBEDDED PLATE "B-1" DETAILS FOR 72" MODIFIED BULB TEES

(2 REQ'D PER GIRDER)

DEAD LOAD DEFLECTION TABLE FOR SPANS A THRU N

0.6" Ø LOW RELAXATION	GIRDERS 1 AND 4											GIRDERS 2 AND 3										
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	0
TENTH POINTS	0	.131	0.249	0.340	0.399	0.418	0.399	0.340	0.249	0.131	0	0	0.131	0.249	0.340	0.399	0.418	0.399	0.340	0.249	0.131	0
CAMBER (GIRDER ALONE IN PLACE)	0	0.050	0.095	0.130	0.153	0.160	0.153	0.130	0.095	0.050	0	0	0.047	0.089	0.122	0.143	0.149	0.143	0.122	0.089	0.047	0
* DEFLECTION DUE TO SUPERIMPOSED D.L.	0	0.050	0.095	0.130	0.153	0.160	0.153	0.130	0.095	0.050	0	0	0.047	0.089	0.122	0.143	0.149	0.143	0.122	0.089	0.047	0
FINAL CAMBER	0	1"	1 7/8"	2 1/2"	2 5/8"	3 1/8"	2 5/8"	2 1/2"	1 7/8"	1"	0	0	1"	1 5/16"	2 1/8"	3 1/16"	3 1/4"	3 1/16"	2 5/8"	1 5/8"	1"	0

* INCLUDES FUTURE WEARING SURFACE IN SUPERIMPOSED DEAD LOAD.
ALL VALUES ARE SHOWN IN FEET (DECIMAL FORM), EXCEPT "FINAL CAMBER", WHICH IS GIVEN IN INCHES (FRACTION FORM).

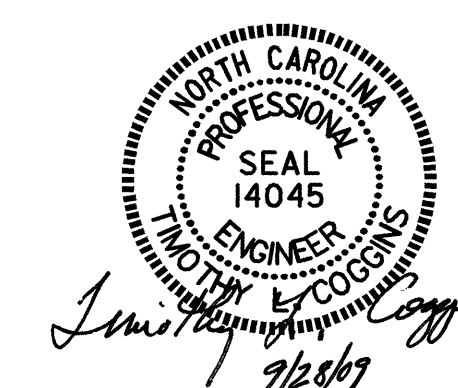
PROJECT NO. U-3826

EDGEcombe COUNTY

STATION: 49+65.00 -L-

SHEET 3 OF 3

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



ASSEMBLED BY : B.N.BARODAWALA DATE : 10/27/08
CHECKED BY : J.B.WILSON DATE : 1/23/09
DRAWN BY : ELR 11/91
CHECKED BY : GRP 11/91
REV. 10/17/00 RWW/LES
REV. 7/10/01RR LES/RDR
REV. 5/1/06 TLA/GM

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-19
1			3			TOTAL SHEETS
2			4			50

NOTES

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 2" Ø PIPE SLEEVE SHALL BE CUT FROM SCHEDULE 40 PVC PLASTIC PIPE. THE PVC PLASTIC PIPE SHALL MEET THE REQUIREMENTS OF ASTM D1785.

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

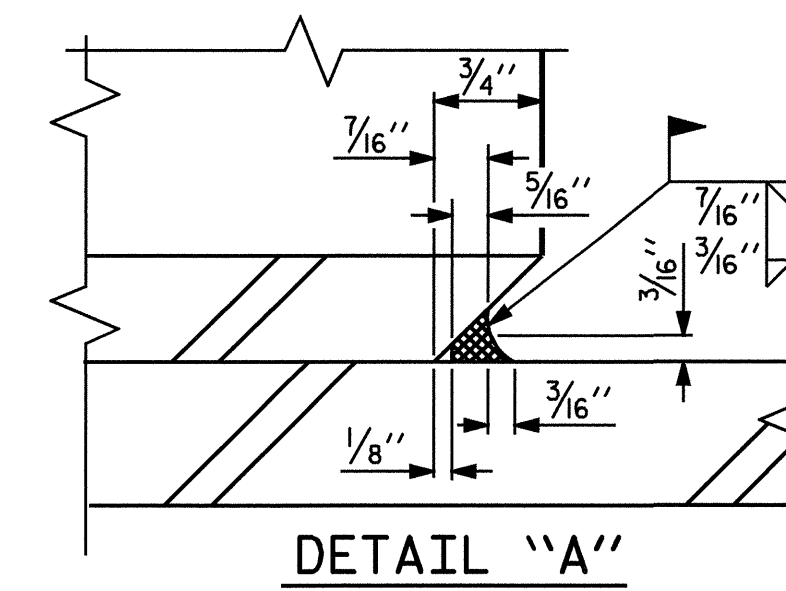
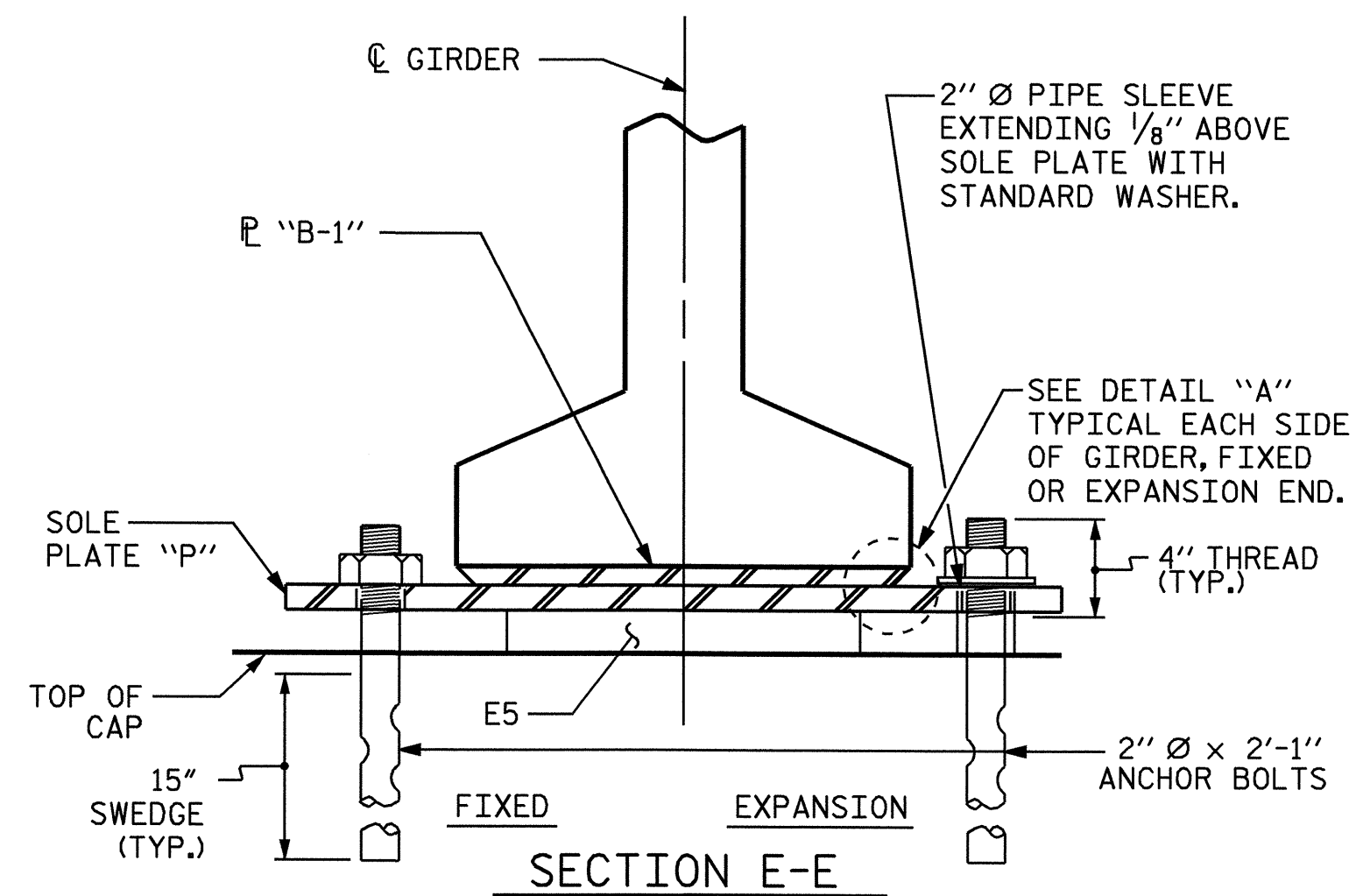
PRIOR TO WELDING, GRIND THE GALVANIZED SURFACE OF THE PORTION OF THE EMBEDDED PLATE AND SOLE PLATE THAT ARE TO BE WELDED. AFTER WELDING, DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

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 300°F. 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.

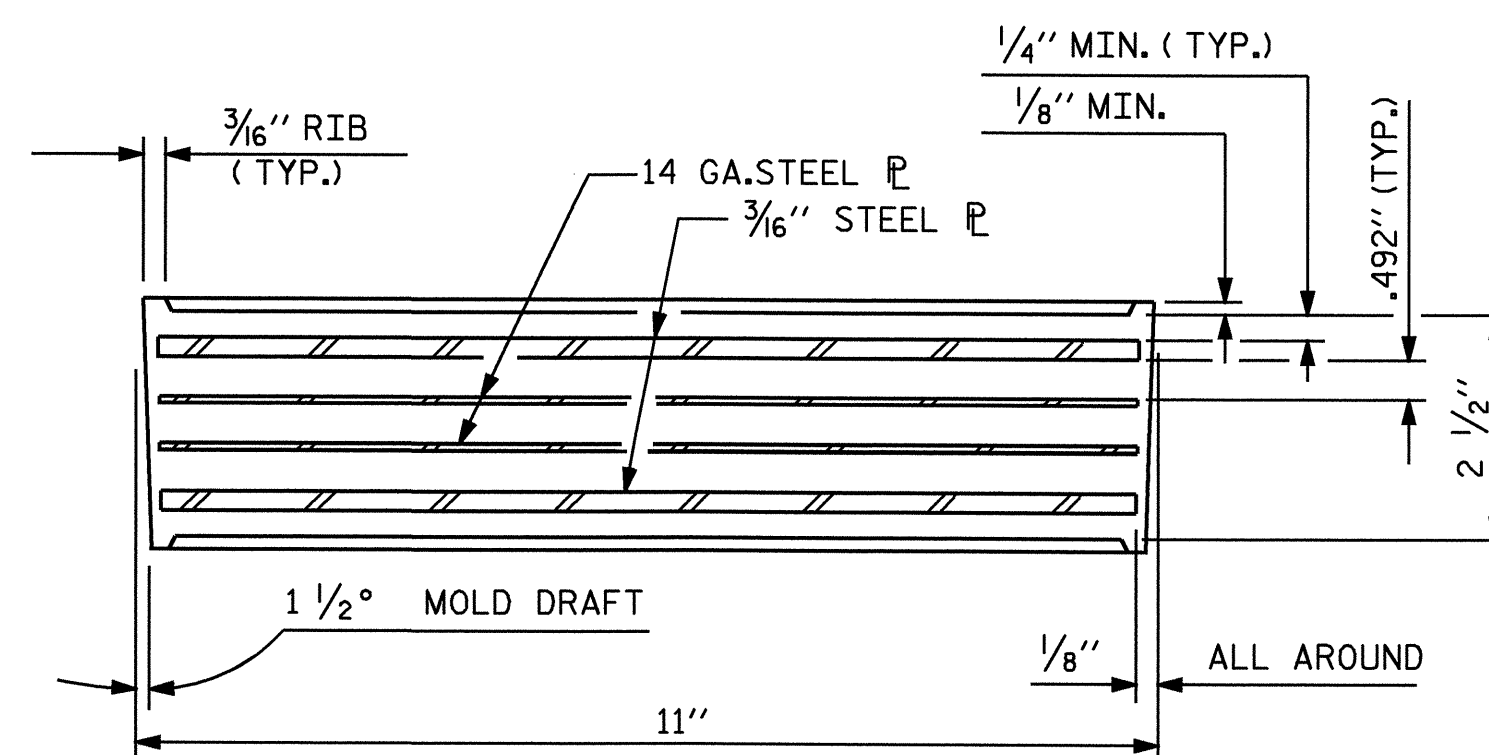
ANCHOR BOLTS SHALL MEET THE REQUIREMENTS OF ASTM A449. NUTS SHALL MEET THE REQUIREMENTS OF AASHTO M291-DH OR AASHTO M292-2H. WASHERS SHALL MEET THE REQUIREMENTS OF AASHTO M293. NO SHOP DRAWINGS ARE REQUIRED FOR ANCHOR BOLTS, NUTS AND WASHERS. SHOP INSPECTION IS REQUIRED.

ALL SURFACES OF BEARING PLATES SHALL BE SMOOTH AND STRAIGHT.

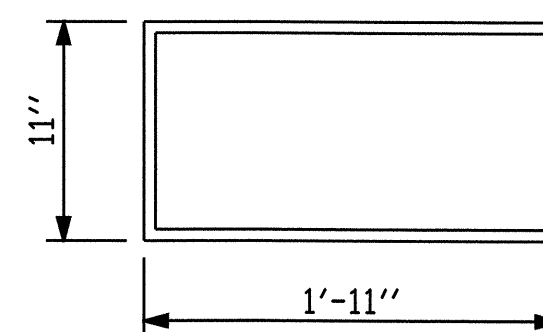


— LOAD RATINGS —

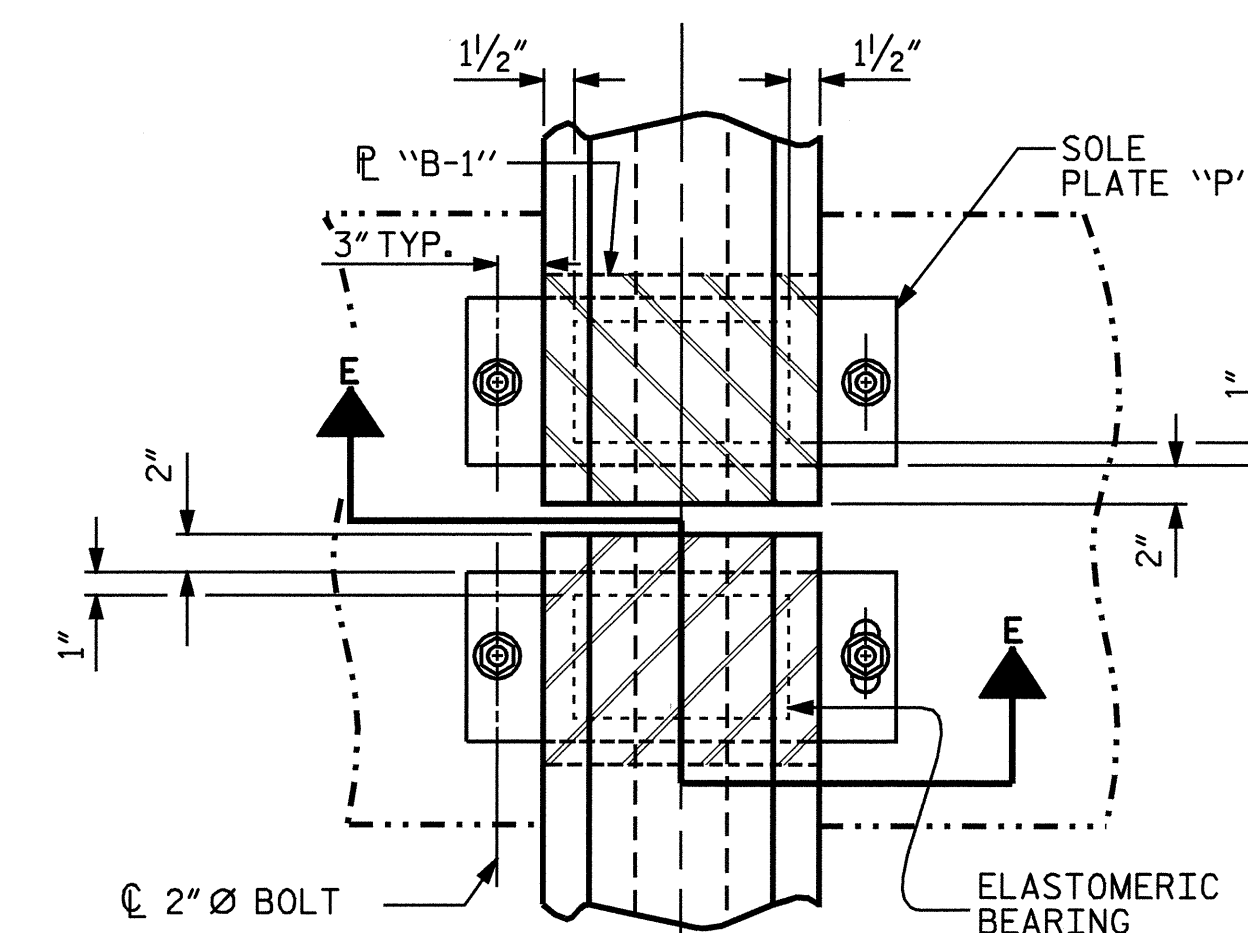
	MAX.D.L.+ L.L.
TYPE VI	211 K



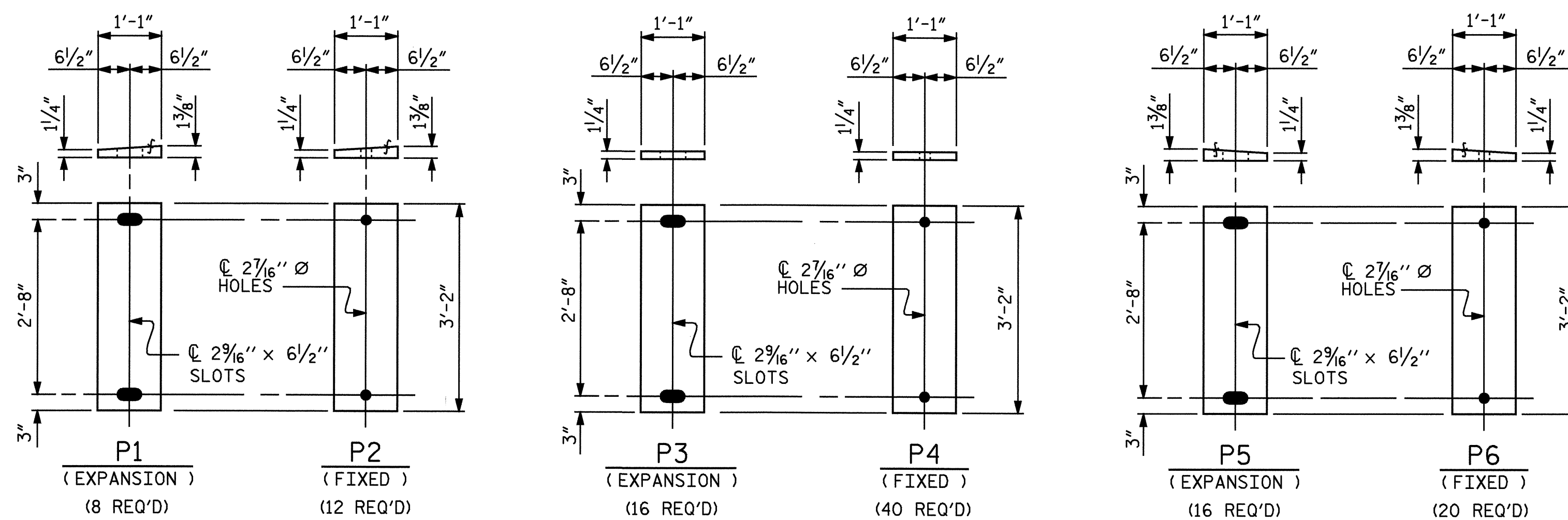
TYPICAL SECTION OF ELASTOMERIC BEARINGS



E5 (112 REQ'D)
PLAN VIEW OF ELASTOMERIC BEARING
TYPE VI

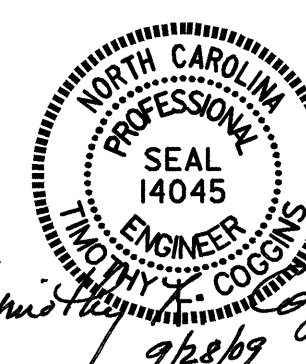


TYPICAL HALF-PLAN (SHOWING CONTINUOUS BENT) | TYPICAL HALF-PLAN (SHOWING SIMPLE SPAN BENT)



SOLE PLATE DETAILS ("P")

FOR SOLE PLATE PLACEMENT, SEE GIRDER LAYOUT

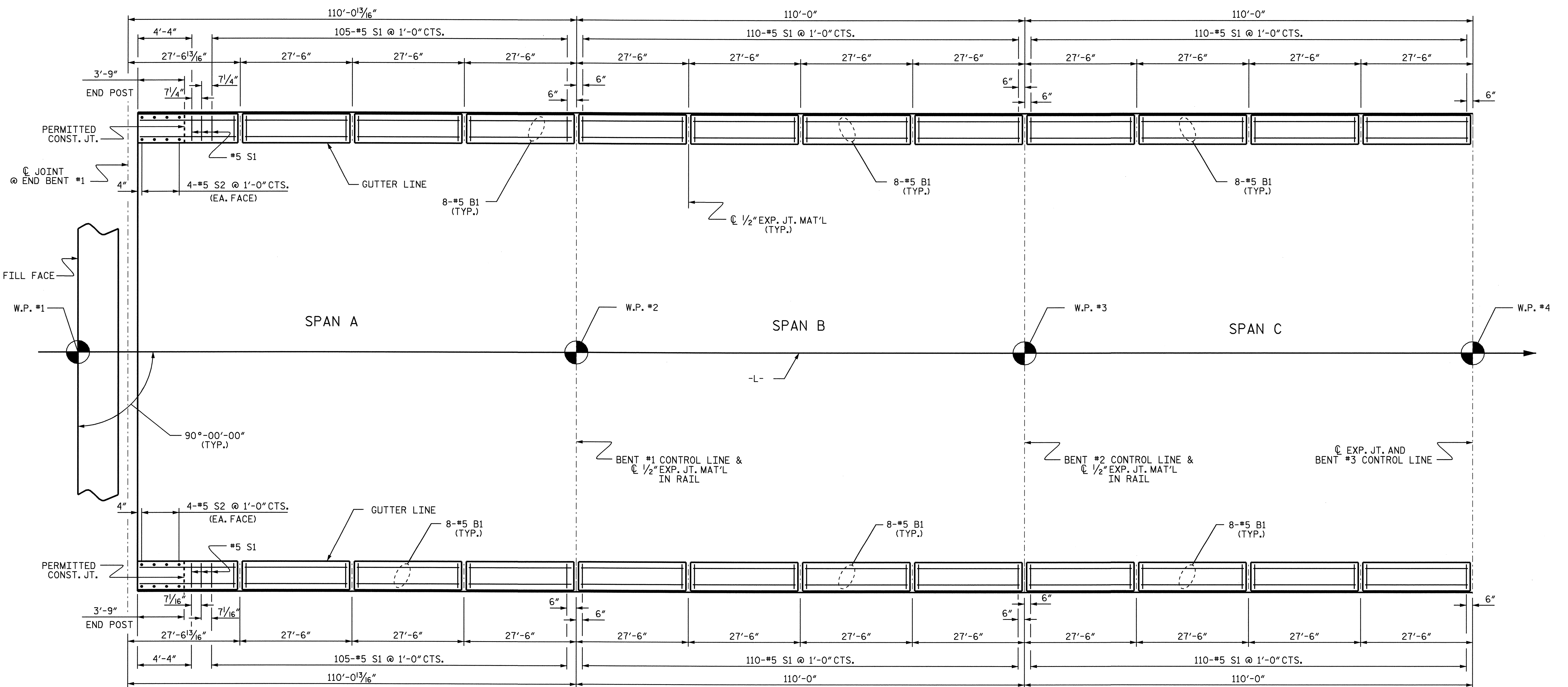


PROJECT NO. U-3826
EDGEcombe COUNTY
STATION: 49+65.00 -L-

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

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-20
1			3			TOTAL SHEETS 50
2			4			

ASSEMBLED BY: B.N.BARODAWALA	DATE: 10/21/08
CHECKED BY: J.B.WILSON	DATE: 1/23/09
DRAWN BY: EEM 2/97	REV. 8/16/99 RWW/LES
CHECKED BY: VAP 2/97	REV. 10/17/00 RWW/LES
	REV. 5/1/06 TLA/GM



SPAN A, B AND C

PLAN OF PARAPET

FOR DETAILS OF PARAPET, ENDPOSTS, AND ADDITIONAL REINFORCEMENT, SEE SHEET 5 OF 10.

PROJECT NO. U-3826
 EDGEcombe COUNTY
 STATION: 49+65.00 -L-

SHEET 1 OF 10

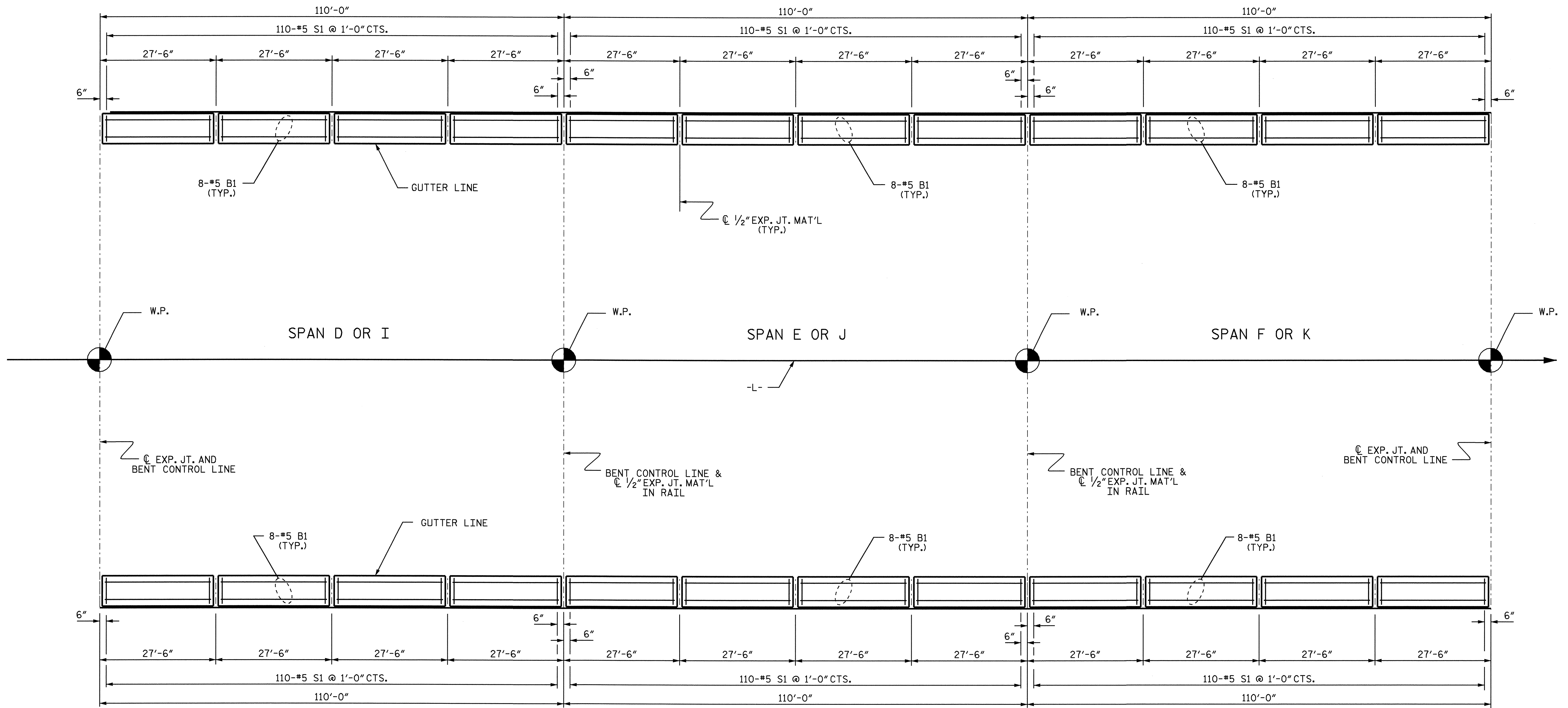
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
 1'-2" x 2'-6"
 CONCRETE PARAPET



DRAWN BY: B.N. BARODAWALA DATE: 10/27/08
 CHECKED BY: J.B. WILSON DATE: 1/23/09

21-SEP-2009 10:08
 g:\projects\U3826\structures\U3826\final plans\U3826.sd_2mr_01.dgn
 towerette

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-21	
1			3			TOTAL SHEETS	50
2			4				



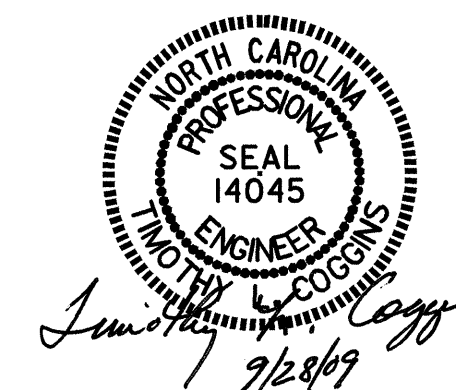
SPAN D, E AND F OR SPAN I, J AND K

PLAN OF PARAPET

PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-

SHEET 2 OF 10

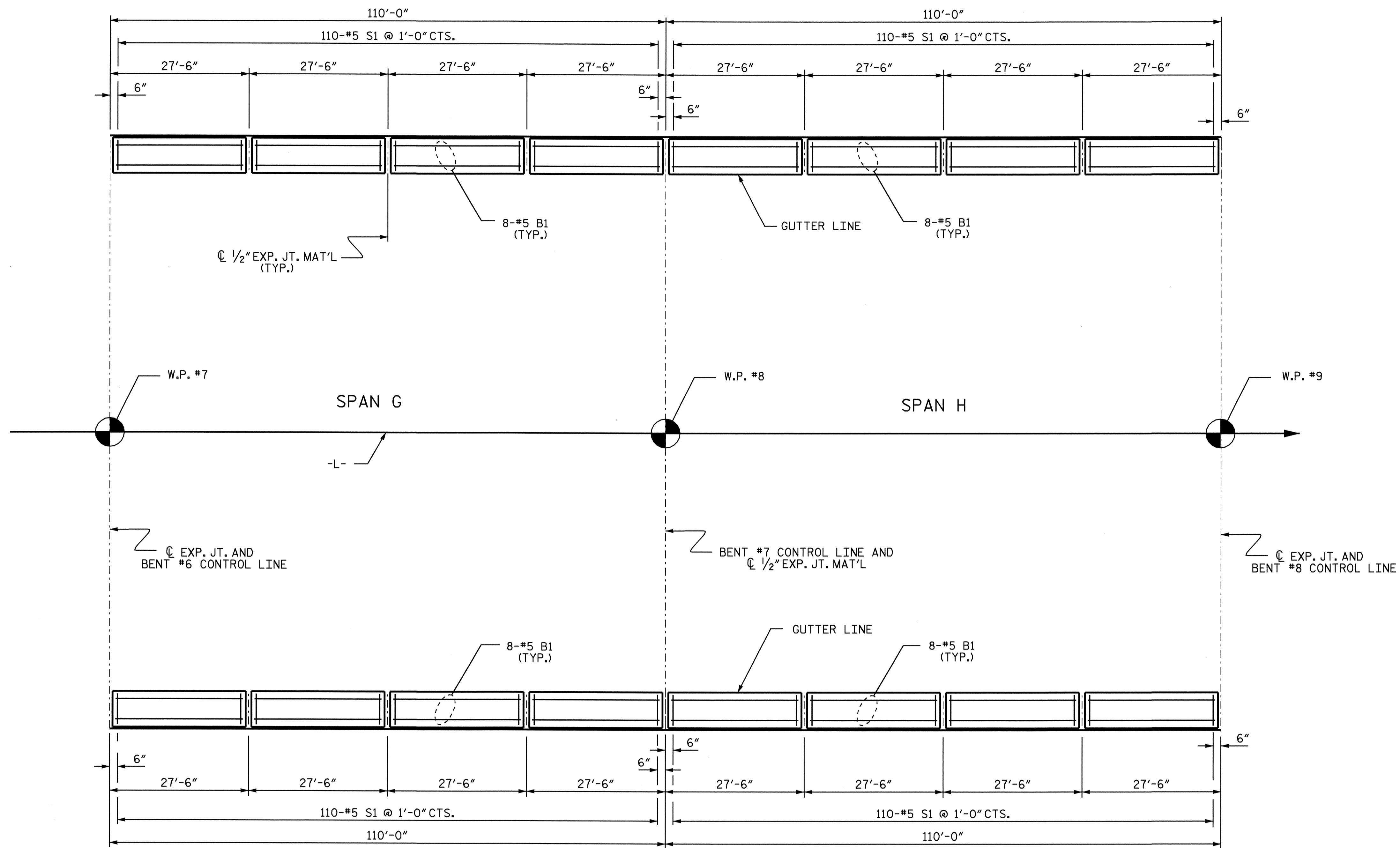
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
 1'-2" x 2'-6"
 CONCRETE PARAPET



DRAWN BY: B.N. BARODAWALA DATE: 10/27/08
 CHECKED BY: J.B. WILSON DATE: 1/23/09

21-SEP-2009 10:08
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 foverette

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-22	
1			3			TOTAL SHEETS	
2			4			50	

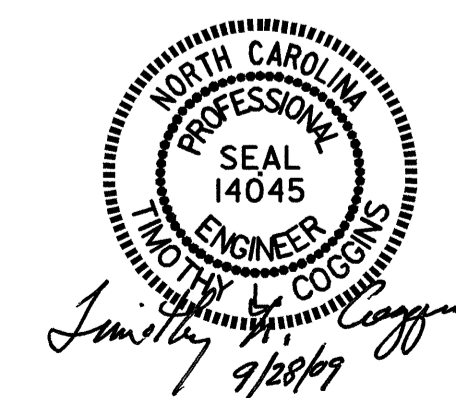


SPAN G AND H
 PLAN OF PARAPET

PROJECT NO. U-3826
EDGECOMBE COUNTY
 STATION: 49+65.00 -L-

SHEET 3 OF 10

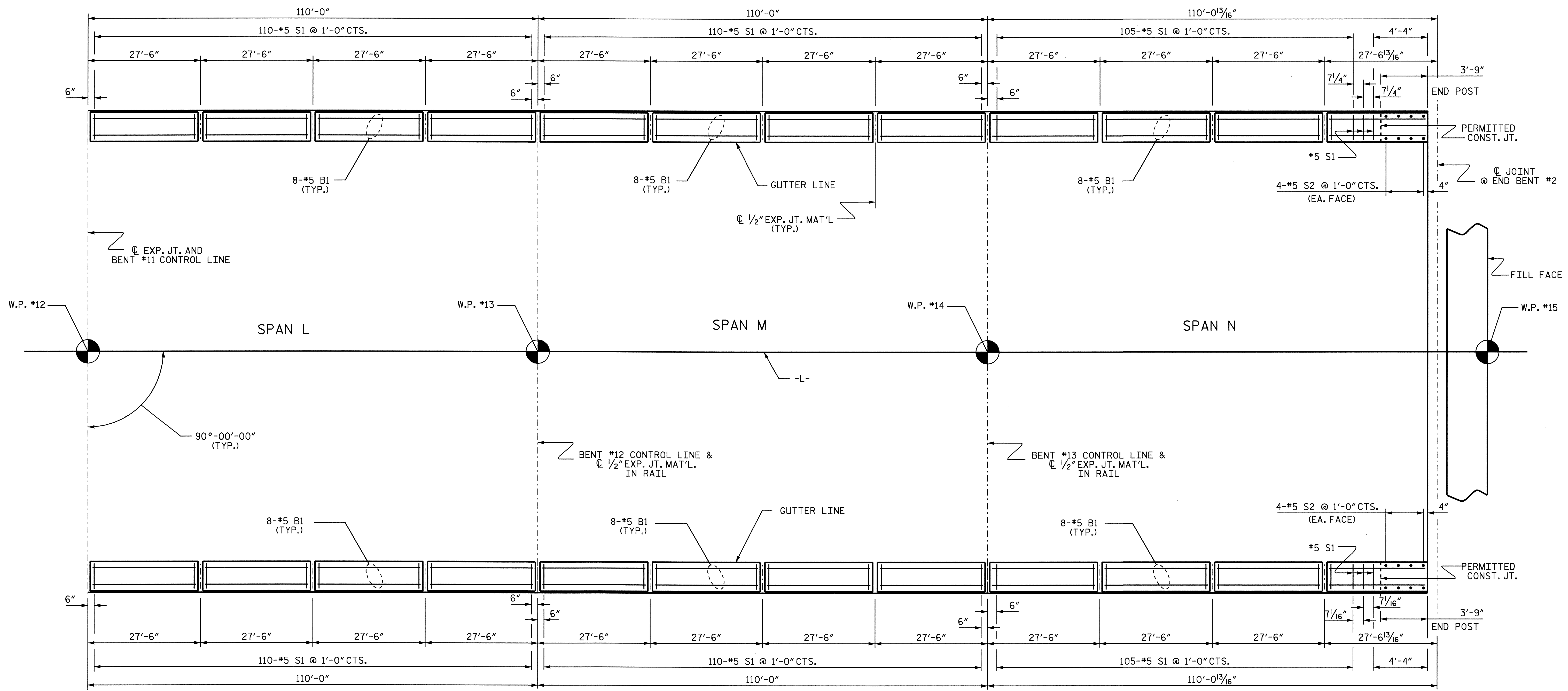
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
 1'-2" x 2'-6"
 CONCRETE PARAPET



DRAWN BY : B.N.BARODAWALA DATE : 10/27/08
 CHECKED BY : J.B.WILSON DATE : 1/23/09

21-SEP-2009 10:08
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 Toverette

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-23	
1			3			TOTAL SHEETS	50
2			4				



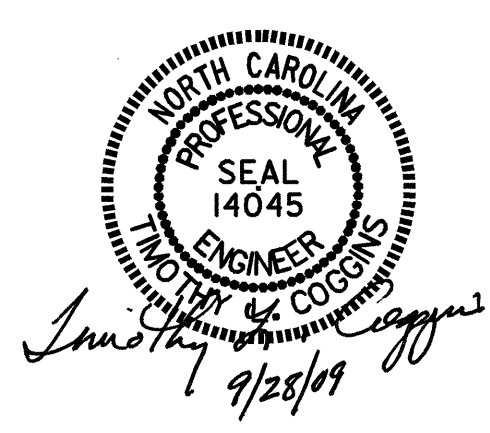
SPAN L, M AND N

PLAN OF PARAPET

PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-

SHEET 4 OF 10

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
 1'-2" x 2'-6"
 CONCRETE PARAPET



DRAWN BY: B.N. BARODAWALA DATE: 10/27/08
 CHECKED BY: J.B. WILSON DATE: 1/23/09

REVISIONS						SHEET NO. S-24
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 50
2			4			

NOTES

THE CONCRETE PARAPET 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 3,000 PSI.

ALL REINFORCING STEEL IN CONCRETE PARAPETS SHALL BE EPOXY COATED.

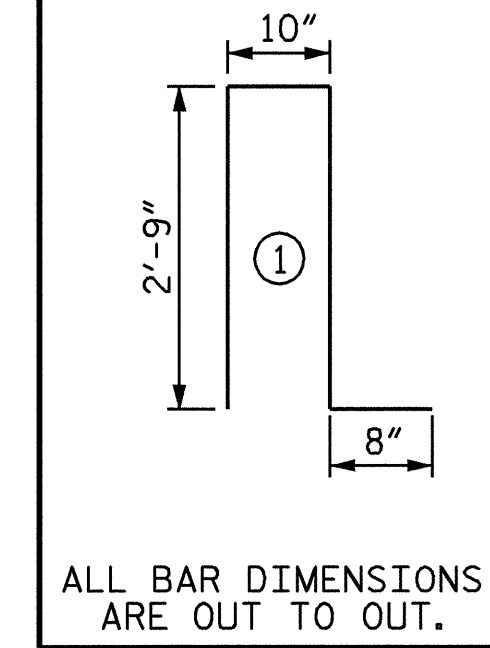
THE #5 S2 BARS SHALL BE INSTALLED USING AN ADHESIVE ANCHORING SYSTEM AFTER SAWING THE JOINT. LEVEL TWO FIELD TESTING IS REQUIRED AND THE YIELD LOAD FOR THE #5 S2 BAR IS 18.6 KIPS. FOR ADHESIVELY ANCHORED ANCHOR BOLTS OR DOWELS, SEE SPECIAL ROVISIONS.

SEE "END OF RAIL DETAILS" SHEET FOR CONCRETE INSERT DETAILS.

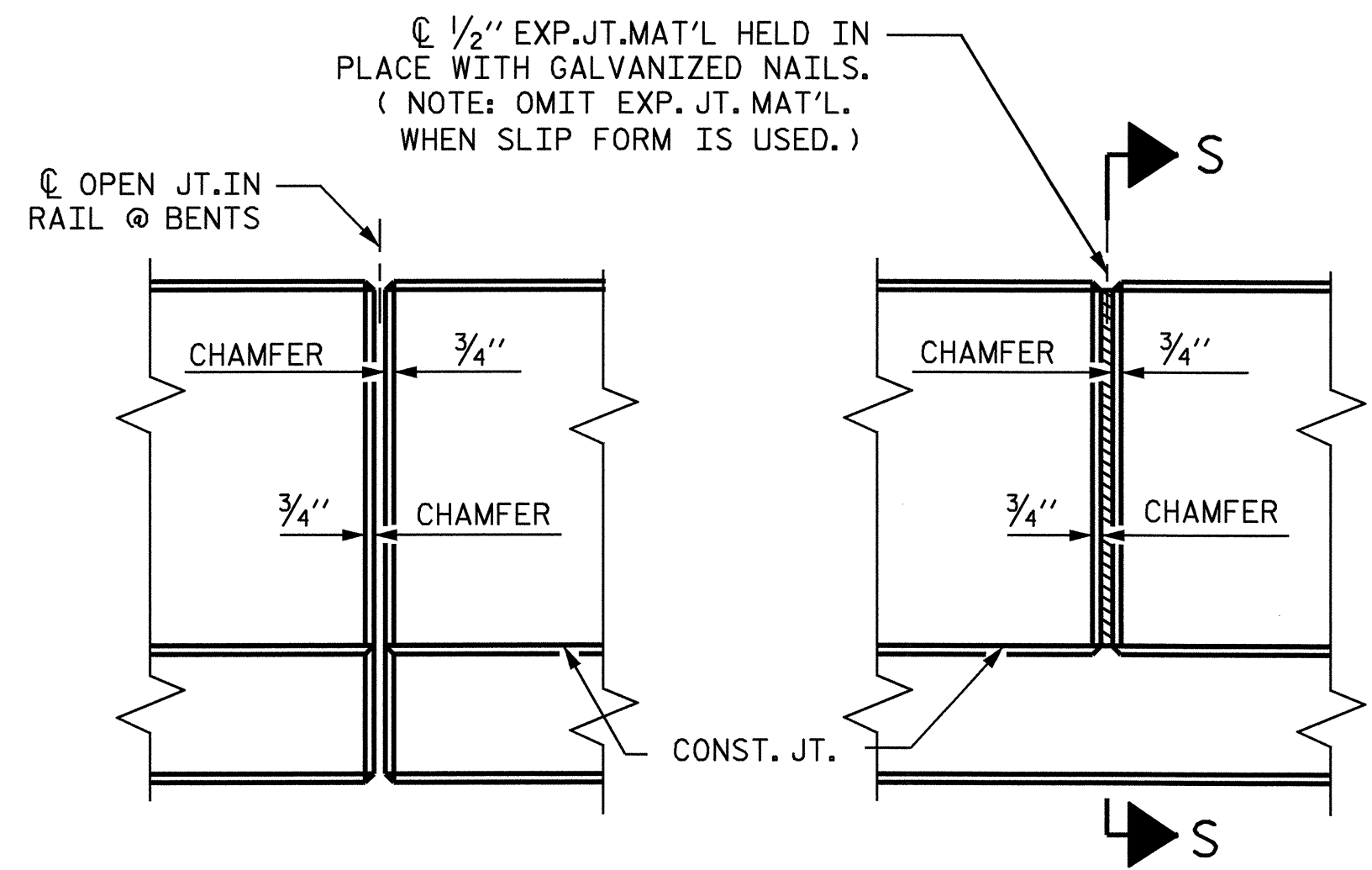
SEE "GUARDRAIL ANCHORAGE DETAILS FOR METAL RAILS" SHEET FOR GUARDRAIL ANCHOR ASSEMBLY.

THE JOINT IN THE DECK SHALL BE SAWED PRIOR TO THE CASTING OF THE CONCRETE PARAPET.

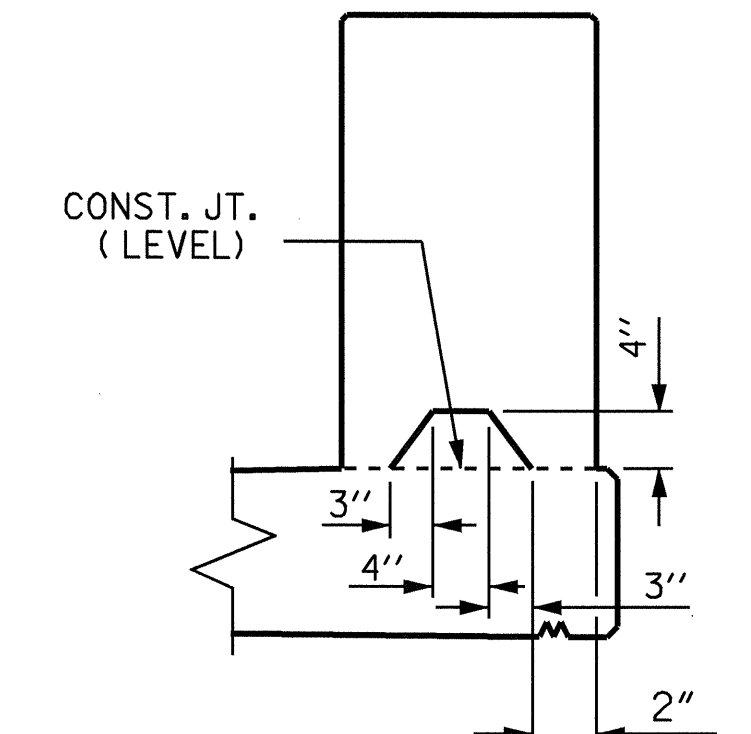
BAR TYPE		BILL OF MATERIAL				
PARAPET & FOUR END POSTS						
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	
*B1	896	#5	STR	27'-1"	25310	
*E1	8	#7	STR	2'-6"	41	
*E2	8	#7	STR	3'-0"	49	
*E3	8	#7	STR	3'-6"	57	
*E4	8	#7	STR	4'-0"	65	
*E5	8	#7	STR	4'-4"	71	
*F1	8	#6	STR	1'-10"	22	
*F2	8	#6	STR	3'-0"	36	
*F3	8	#6	STR	3'-4"	40	
*S1	3068	#5	1	7'-0"	22399	
*S2	32	#5	STR	3'-0"	100	
		* EPOXY COATED REINFORCING STEEL		LBS.	48190	
		CLASS AA CONCRETE		CU. YDS.	333.5	
		1'-2" x 2'-6" CONCRETE PARAPET		LIN. FT.	3080.27	



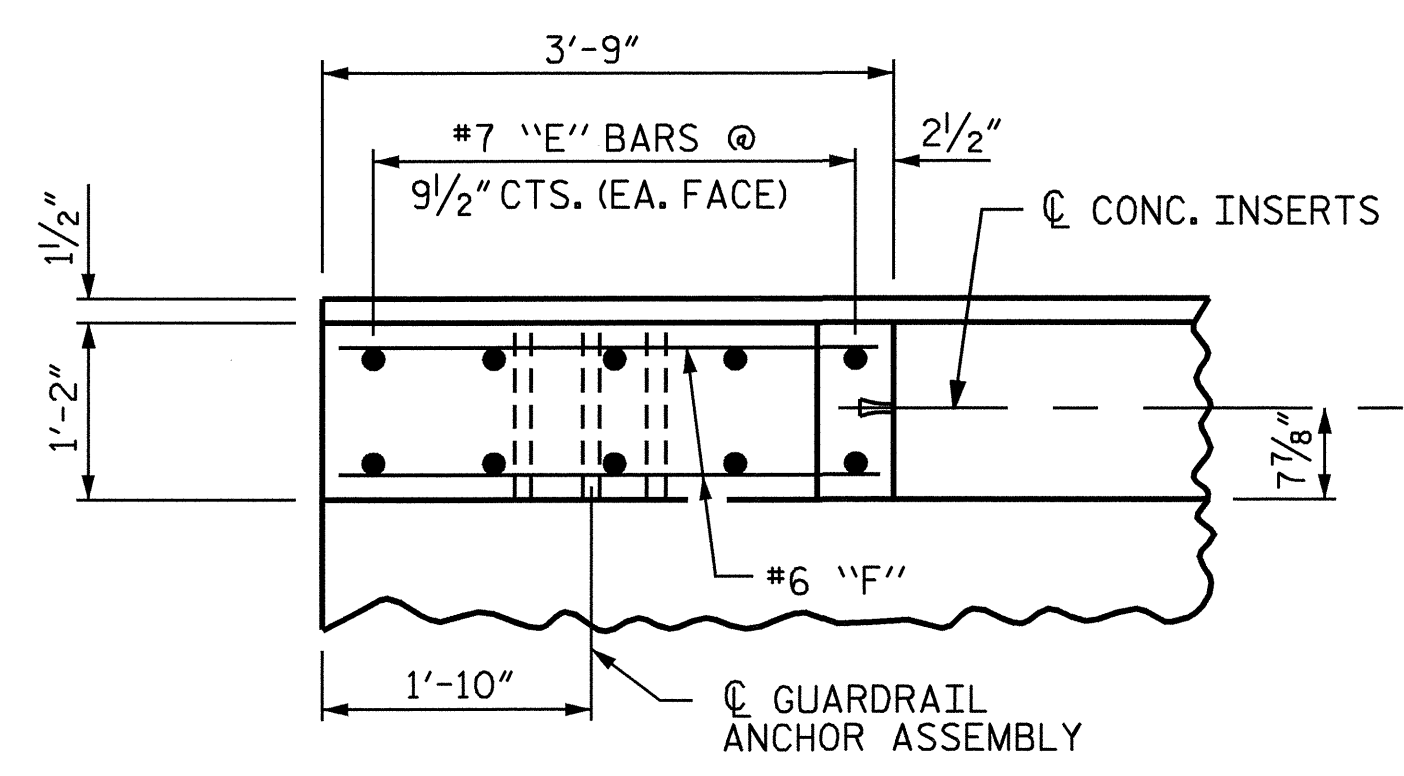
ALL BAR DIMENSIONS ARE OUT TO OUT.



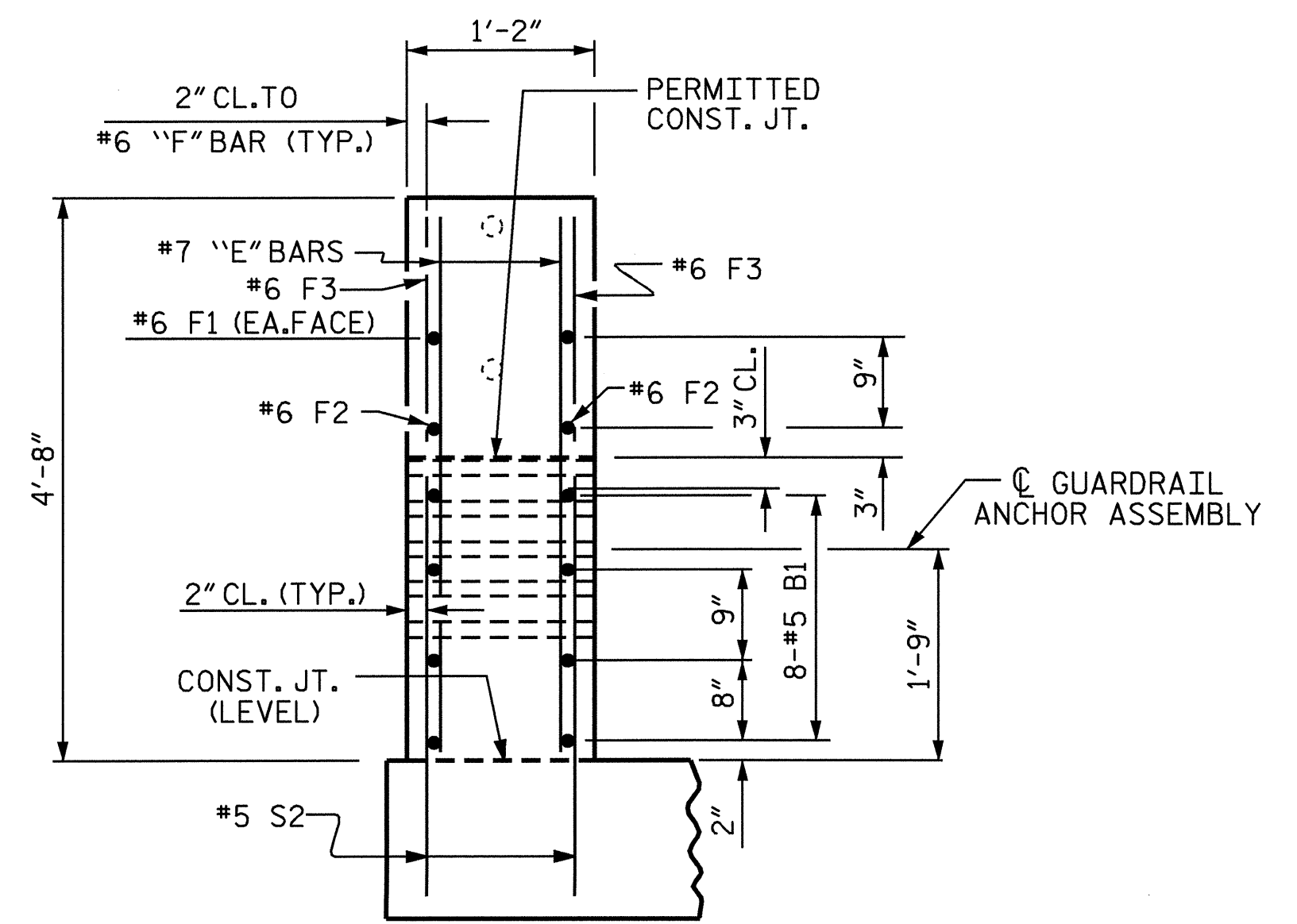
ELEVATION AT EXPANSION JOINTS



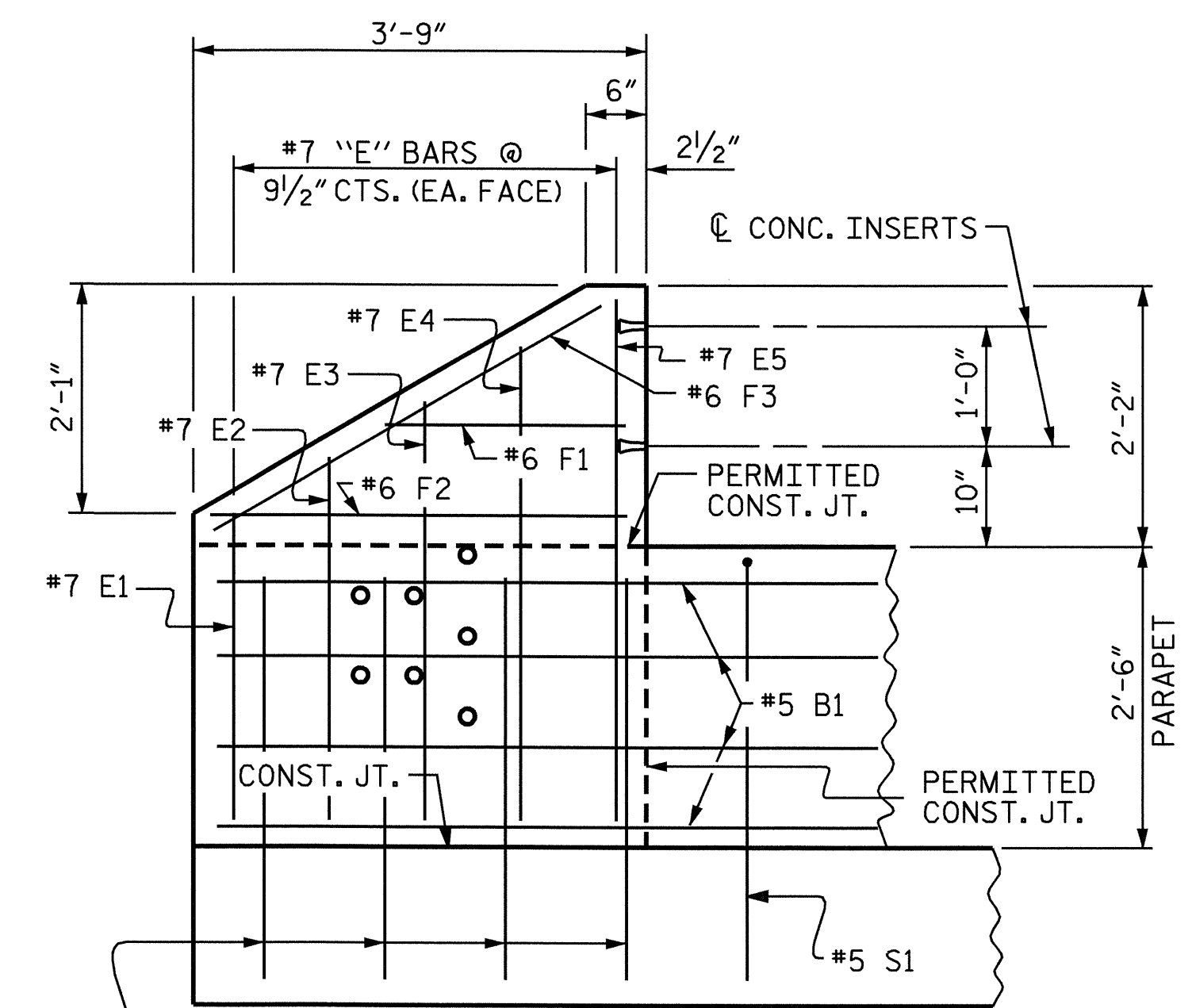
SECTION S-S
AT DAM IN OPEN JOINT
(THIS IS TO BE USED ONLY WHEN SLIP FORM IS USED)



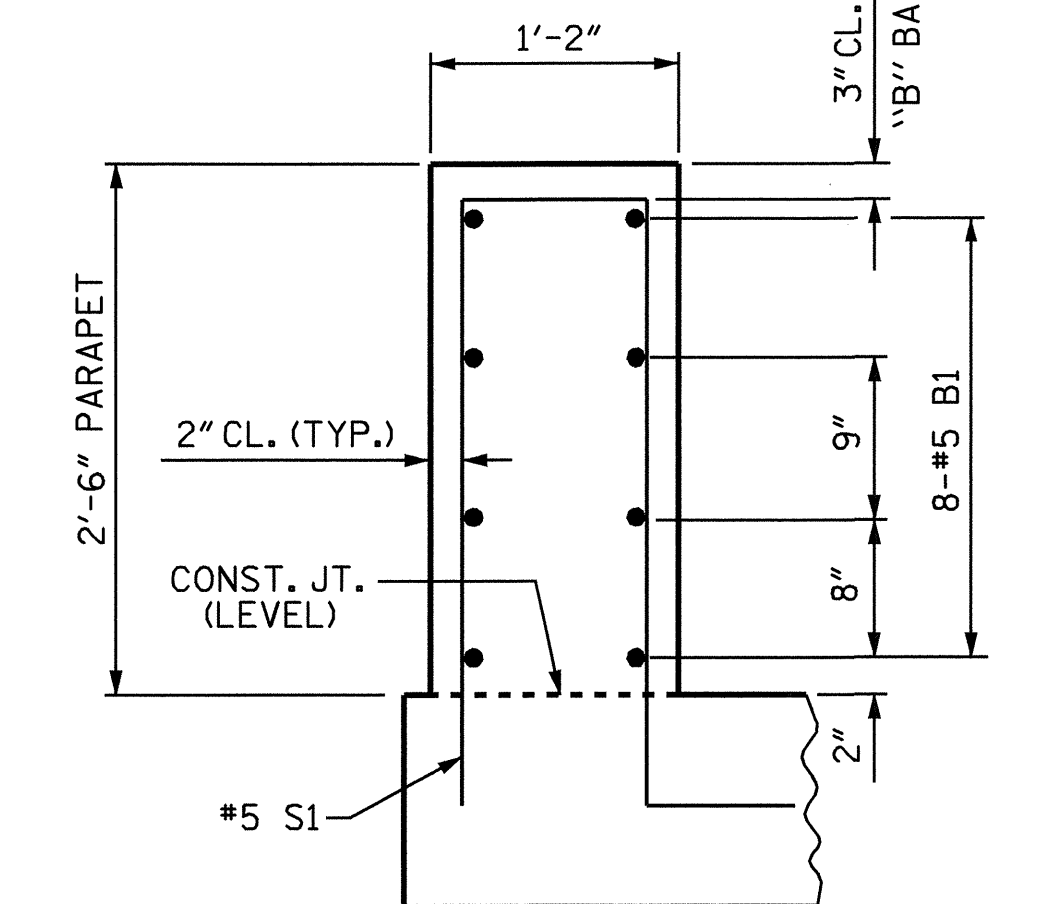
PLAN OF END POST



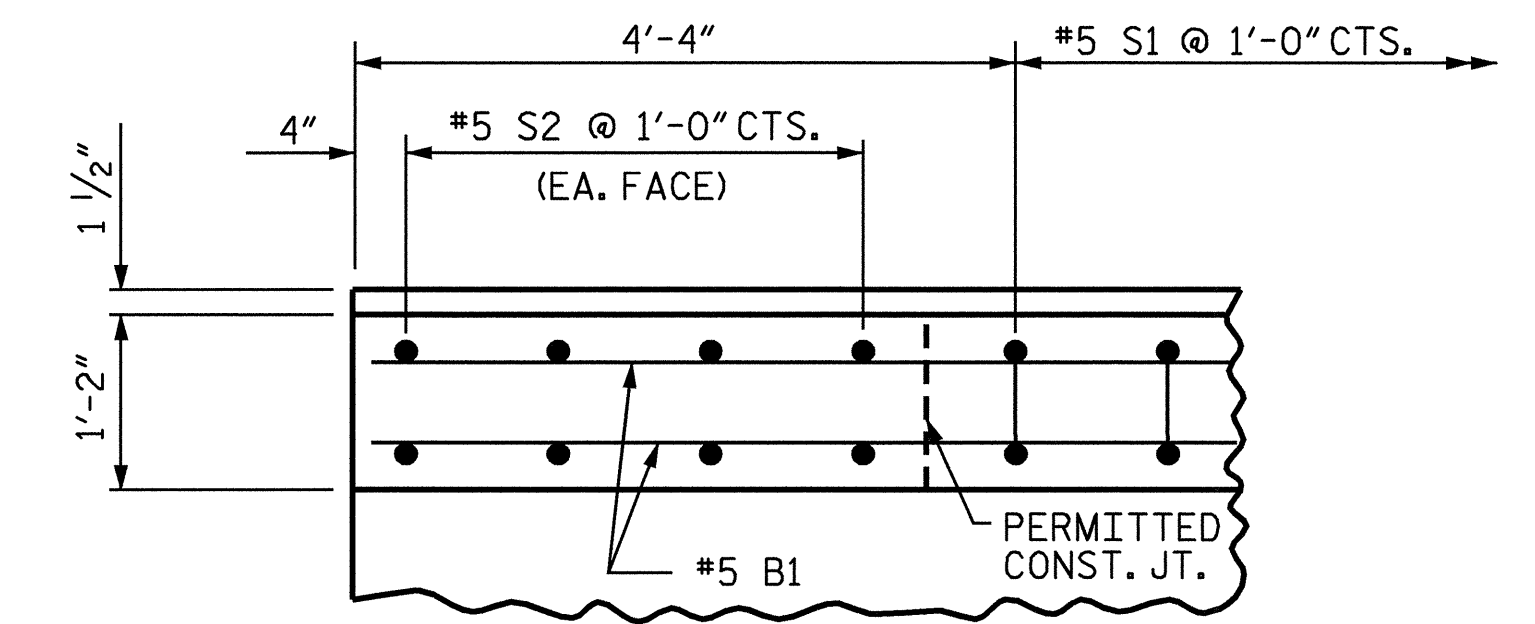
END VIEW



ELEVATION



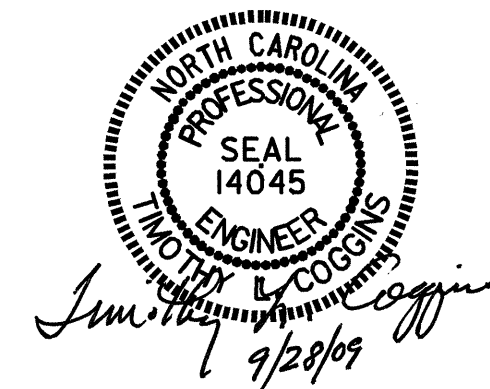
SECTION THRU PARAPET



PLAN OF PARAPET

PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-
 SHEET 5 OF 10

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
 1'-2" x 2'-6"
 CONCRETE PARAPET



REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-25	
1			3			TOTAL SHEETS	50
2			4				

DRAWN BY: B.N.BARODAWALA DATE: 10/27/08
 CHECKED BY: J.B.WILSON DATE: 1/23/09

NOTES

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

ALUMINUM RAILS

MATERIAL FOR POSTS, BASES AND RAILS, EXPANSION BARS AND CLAMP BARS SHALL BE ASTM B-221 ALLOY 6061-T6. MATERIAL FOR RIVETS SHALL BE ASTM B316 ALLOY 6061-T6. RIVETS SHALL BE STANDARD BUTTON HEAD AND CONE POINT COLD DRIVEN AS PER DRAWING.

THE BASE OF RAIL POSTS, OR ANY OTHER ALUMINUM SURFACE IN CONTACT WITH CONCRETE SHALL BE THOROUGHLY COATED WITH AN ALUMINUM IMPREGNATED CAULKING COMPOUND OF APPROVED QUALITY.

MATERIAL FOR SHIMS TO BE ASTM B209 ALLOY 6061-T6.

GALVANIZED STEEL RAILS

MATERIAL AND GALVANIZING ARE TO CONFORM TO THE FOLLOWING SPECIFICATIONS:

POST, POST BASES, RAILS, EXPANSION BARS AND CLAMP BARS: AASHTO M270 GRADE 36 STRUCTURAL STEEL - GALVANIZED TO AASHTO M111.

RIVETS: RIVETS SHALL MEET THE REQUIREMENTS OF ASTM A502 FOR GRADE 1 RIVETS.

THE CUT ENDS OF GALVANIZED STEEL RAILING, AFTER GRINDING SMOOTH SHALL BE GIVEN TWO COATS OF ZINC RICH PAINT MEETING THE REQUIREMENTS OF FEDERAL SPECIFICATION MIL-P-26915 USAF TYPE 1, OR OF FEDERAL SPECIFICATIONS TT-P-641.

SHIMS: SHIMS SHALL MEET THE REQUIREMENTS OF ASTM A570 FOR GRADE 33 OR A611 FOR GRADE C AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111.

RAIL CAPS: RAIL CAPS SHALL MEET THE REQUIREMENTS OF ASTM A570 FOR GRADE 33 OR A611 FOR GRADE C AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111.

GENERAL NOTES

RAILING SHALL BE CONTINUOUS FROM END POST TO END POST OF BRIDGE. EACH JOINT IN RAIL LENGTH SHALL BE SPLICED AS DETAILED. PANEL LENGTHS OF RAIL SHALL BE ATTACHED TO A MINIMUM OF THREE POSTS.

FOR END OF RAIL TO CLEAR FACE OF CONCRETE END POST DIMENSION, SEE STANDARD NO. BMR2.

CAP SCREWS SHALL BE ASTM F593 ALLOY 305 STAINLESS STEEL. WASHERS SHALL MEET THE REQUIREMENTS OF ASTM F844 EXCEPT THEY SHALL BE MADE FROM ALLOY 304 STAINLESS STEEL.

CERTIFIED MILL REPORTS ARE REQUIRED FOR RAILS AND POSTS. SHOP INSPECTION IS NOT REQUIRED.

METAL RAIL POSTS SHALL BE SET NORMAL TO CURB GRADE.

METHOD OF MEASUREMENT FOR METAL RAILS: FOR LENGTH OF METAL RAILS TO BE PAID FOR, SEE THE STANDARD SPECIFICATIONS.

CURVED RAIL USAGE: WHERE RAILS ARE TO BE USED ON BRIDGES ON HORIZONTAL AND/OR VERTICAL CURVATURE THE CONTRACTOR MAY, AT HIS OPTION, HAVE THE REQUIRED CURVATURE IN THE RAIL FORMED IN THE SHOP OR IN THE FIELD. IN EITHER EVENT, THE RAIL SHALL CONFORM WITHOUT BUCKLING OR KINKING TO THE REQUIRED CURVATURE IN A UNIFORM MANNER ACCEPTABLE TO THE ENGINEER.

TO INSURE FUTURE IDENTIFICATION OF THE FABRICATOR, A PERMANENT IDENTIFYING MARK SHALL BE PLACED ON EACH POST. THE METHOD OF MARKING AND LOCATION SHALL BE SUCH THAT IT DOES NOT DETRACT FROM THE APPEARANCE OF THE POST, BUT REMAINS VISIBLE AFTER RAIL PLACEMENT.

SHIMS SHALL BE USED AS NECESSARY FOR POST ALIGNMENT.

ALLOY 6351-T5 MAY BE SUBSTITUTED FOR ALLOY 6061-T6 WHERE APPLICABLE.

MINOR VARIATIONS IN DETAILS OF METAL RAIL WILL BE CONSIDERED. DETAILS OF SUCH VARIATIONS, IF DESIRED, SHALL BE SUBMITTED FOR APPROVAL.

GROOVED CONTRACTION JOINTS, 1/2" IN DEPTH, SHALL BE TOOLED IN ALL EXPOSED FACES OF THE PARAPET IN ACCORDANCE WITH ARTICLE 825-10(B) OF THE STANDARD SPECIFICATIONS. THE CONTRACTION JOINT SHALL BE LOCATED AT A SPACING OF 8 FT. TO 10 FT. BETWEEN EXPANSION JOINTS. NO CONTRACTION JOINTS WILL BE REQUIRED FOR SEGMENTS LESS THAN 10 FEET IN LENGTH.

PAY LENGTH = 3065.04 LIN. FT.

PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-

SHEET 6 OF 10

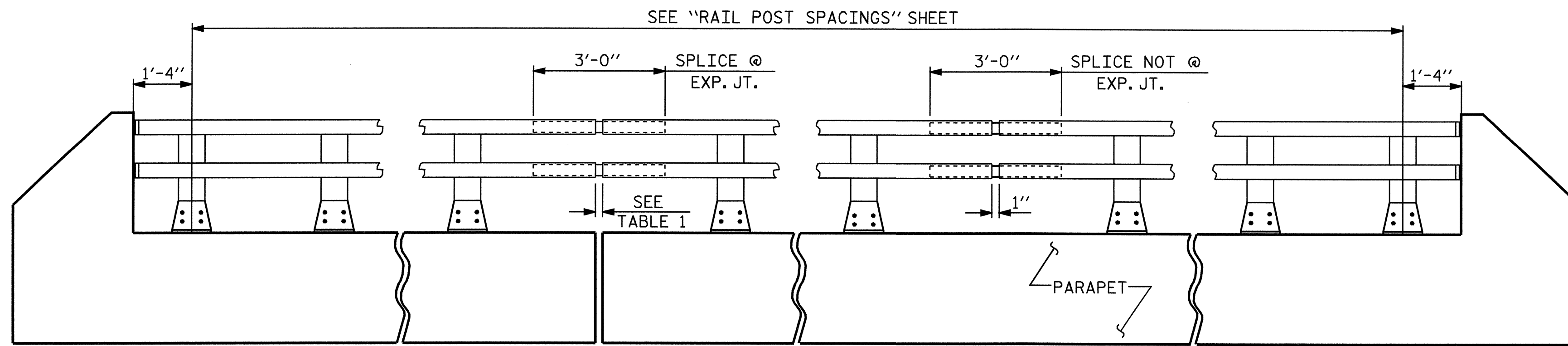
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 STANDARD

2 BAR METAL RAIL



REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-26
1			3			TOTAL SHEETS 50
2			4			

STD. NO. BMR3

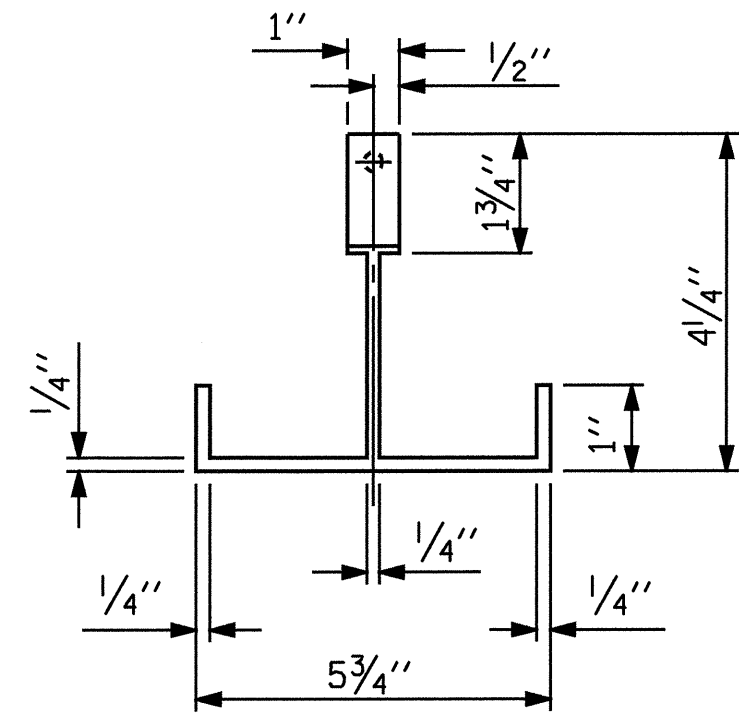


ELEVATION

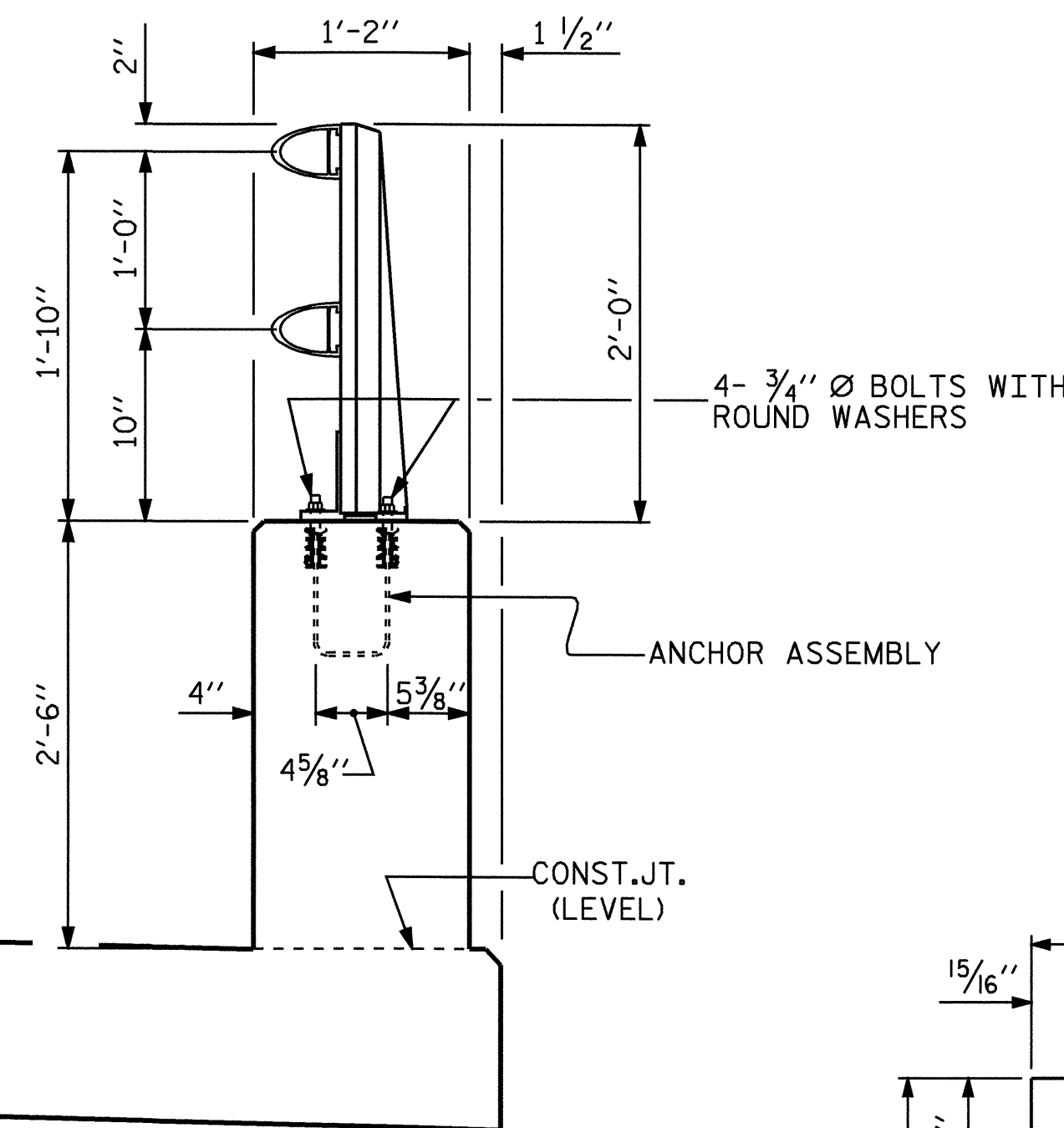
NOTE: FOR ATTACHMENT OF METAL RAIL TO END POST, SEE STANDARD NO. BMR2.

TABLE 1

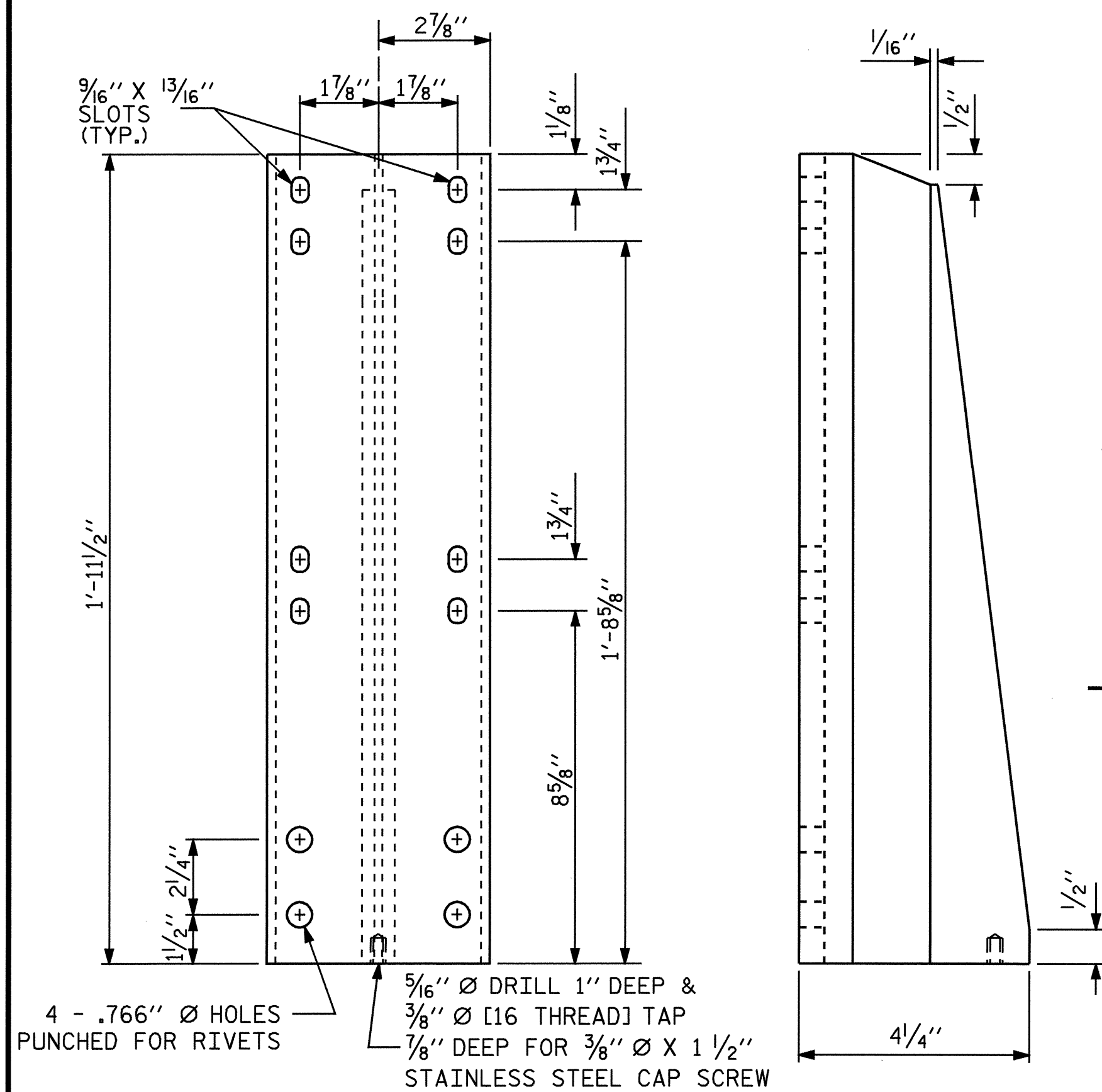
EXP. JT. @	RAIL OPENING
BENT No. 3	2 1/4"
BENT No. 6	2 1/4"
BENT No. 8	2 1/4"
BENT No. 11	2 1/4"



PLAN



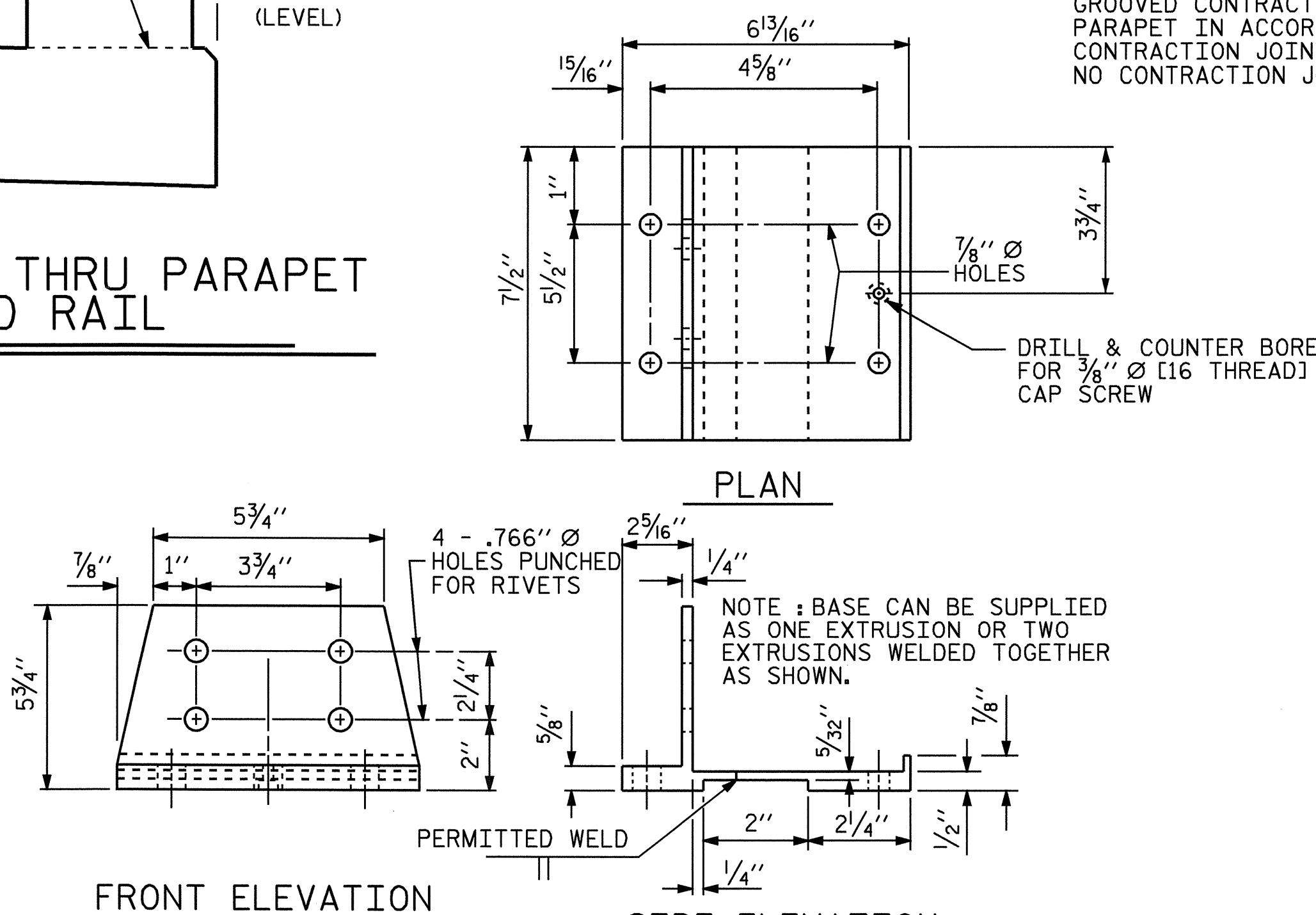
SECTION THRU PARAPET AND RAIL



FRONT ELEVATION

SIDE ELEVATION

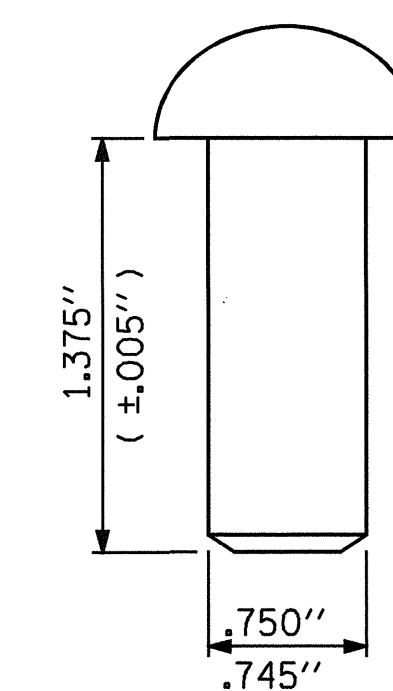
DETAILS OF POST



FRONT ELEVATION

SIDE ELEVATION

POST BASE DETAILS



RIVET DETAIL

ASSEMBLED BY: B.N. BARODAWALA DATE: 10/27/08
 CHECKED BY: J.B. WILSON DATE: 11/23/09
 DRAWN BY: EEM 6/94 REV. 10/17/00 LES/RDR
 CHECKED BY: RGW 6/94 REV. 5/7/03R RWW/JTE
 REV. 5/1/06 TLA/GM

NOTES

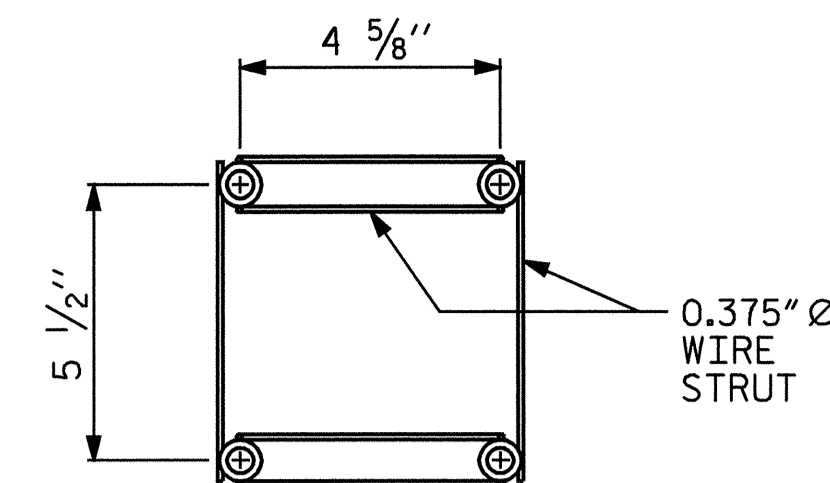
STRUCTURAL CONCRETE ANCHOR ASSEMBLY

THE STRUCTURAL CONCRETE ANCHOR ASSEMBLY SHALL CONSIST OF THE FOLLOWING COMPONENTS :

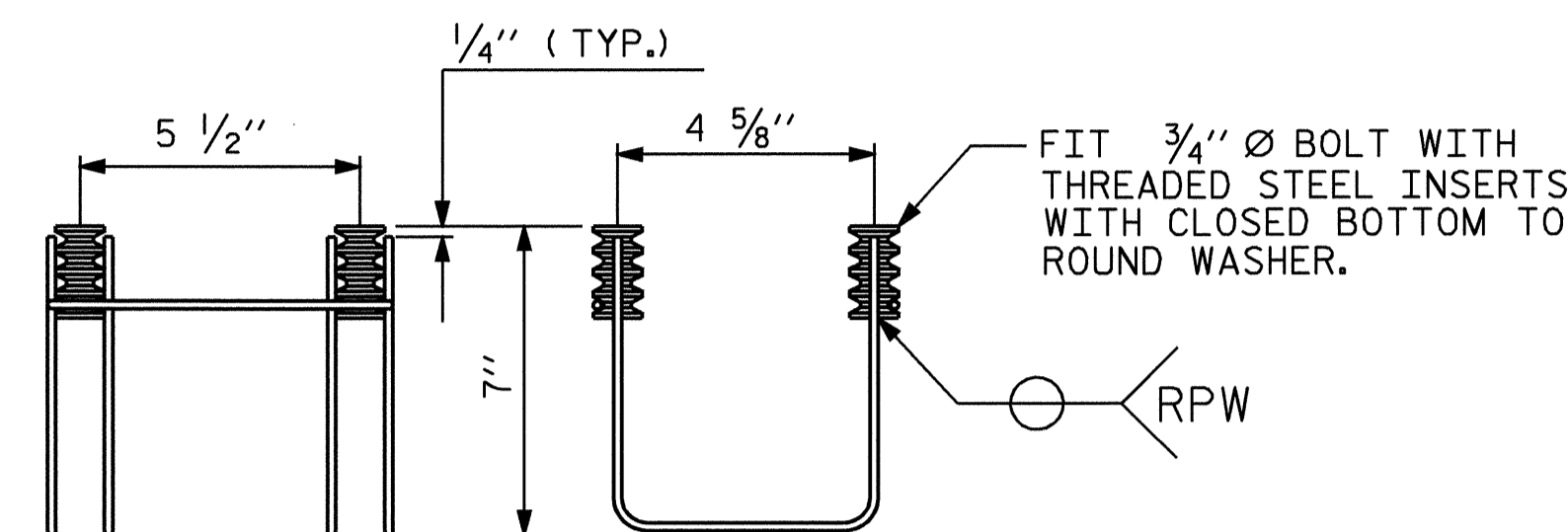
- A. FERRULES SHALL BE MADE FROM STEEL MEETING THE REQUIREMENTS OF AASHTO M169, GRADE 12L14 AND SHALL HAVE A MINIMUM LENGTH OF THREADS OF 2" FOR 3/4" FERRULES.
- B. 4 - 3/4" Ø X 2 1/2" BOLTS WITH WASHERS. BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A307. BOLTS AND WASHERS SHALL BE GALVANIZED. AT THE CONTRACTOR'S OPTION, STAINLESS STEEL BOLTS AND WASHERS MAY BE USED AS AN ALTERNATE FOR THE 3/4" Ø X 2 1/2" 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 STRUT SHOWN IN THE CONCRETE ANCHOR ASSEMBLY DETAIL IS THE MINIMUM ALLOWABLE SIZE AND SHALL HAVE A MINIMUM TENSILE STRENGTH OF 100,000 PSI. AS AN OPTION, A 1/6" Ø WIRE STRUT WITH A MINIMUM TENSILE STRENGTH OF 90,000 PSI IS ACCEPTABLE.
- D. THE METAL RAIL ANCHOR ASSEMBLIES TO BE HOT DIPPED GALVANIZED TO CONFORM TO REQUIREMENTS OF AASHTO M111.
- E. THE COST OF THE METAL RAIL ANCHOR ASSEMBLY WITH BOLTS AND WASHERS COMPLETE IN PLACE SHALL BE INCLUDED IN THE PRICE BID FOR LINEAR FEET OF METAL RAIL.
- F. BOLTS TO BE TIGHTENED ONE-HALF TURN WITH A WRENCH FROM A FINGER-TIGHT POSITION.

THE CONTRACTOR MAY USE ADHESIVELY ANCHORED ANCHOR BOLTS IN PLACE OF THE METAL RAIL ANCHOR ASSEMBLY. LEVEL ONE FIELD TESTING IS REQUIRED, AND THE YIELD LOAD OF THE 3/4" Ø BOLT IS 10 KIPS. FOR ADHESIVELY ANCHORED ANCHOR BOLTS OR DOWELS, SEE SPECIAL PROVISIONS.

WHEN ADHESIVELY ANCHORED ANCHOR BOLTS ARE USED, BOLTS SHALL MEET THE REQUIREMENTS OF ASTM F593 ALLOY 304 STAINLESS STEEL WITH MINIMUM 75,000 PSI ULTIMATE STRENGTH. NUTS SHALL MEET THE REQUIREMENTS OF ASTM F594 ALLOY 304 STAINLESS STEEL AND WASHERS SHALL MEET THE REQUIREMENTS OF ASTM F844 EXCEPT THEY SHALL BE MADE FROM ALLOY 304 STAINLESS STEEL.



PLAN



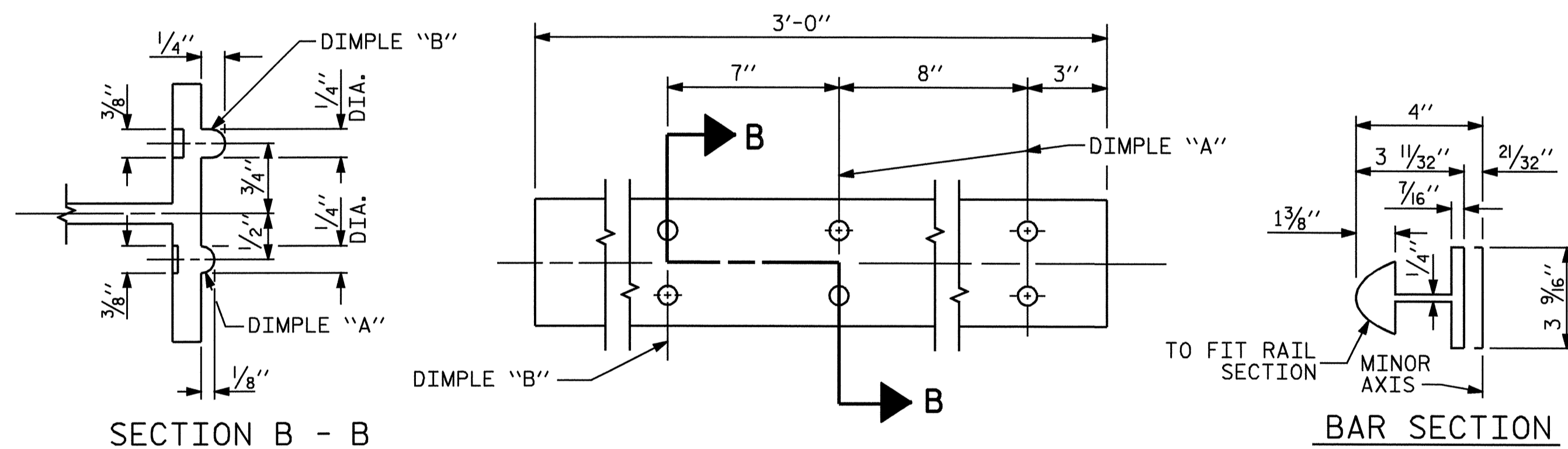
SIDE VIEW

ELEVATION

MINIMUM LENGTH OF THREADS IN INSERT (FERRULE) : 1 3/4"

4-BOLT METAL RAIL ANCHOR ASSEMBLY

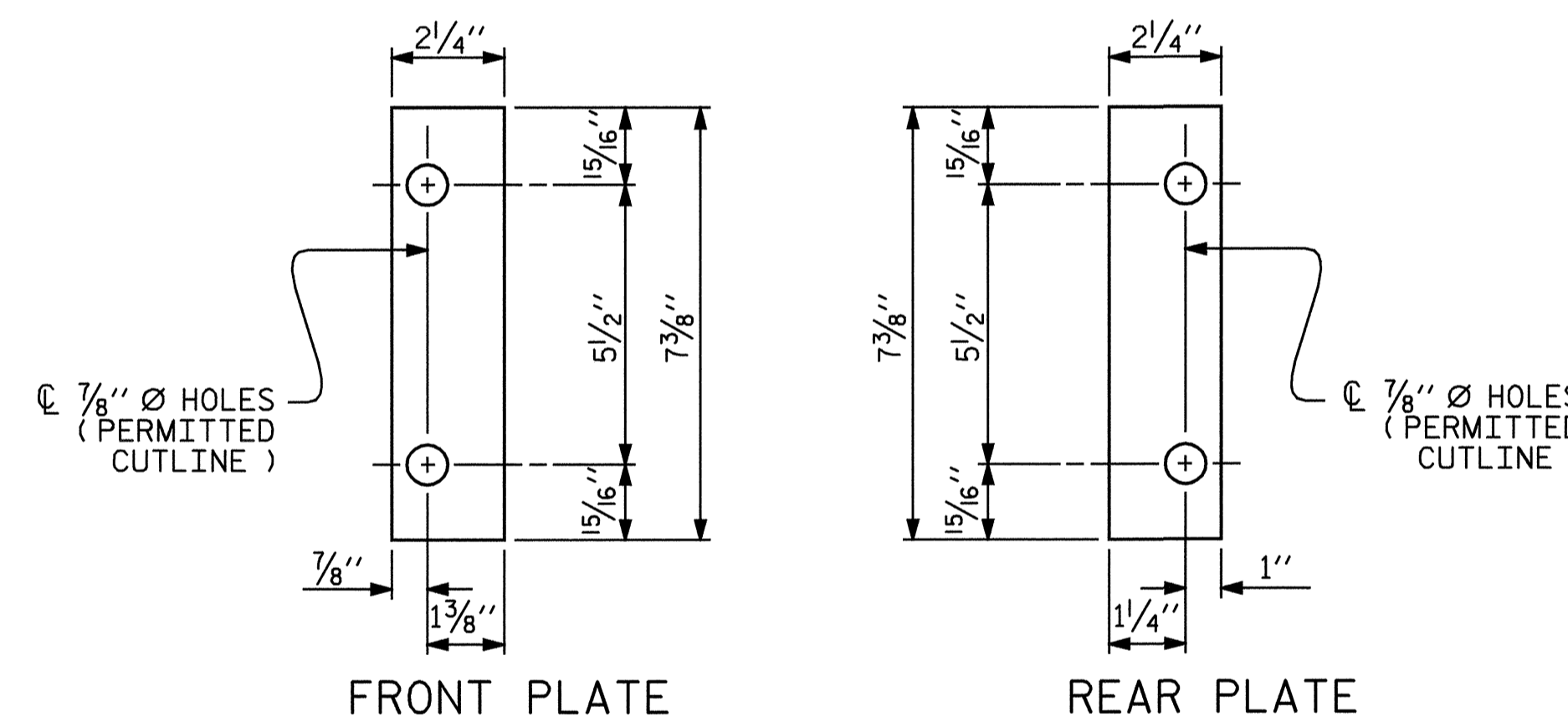
(560 ASSEMBLIES REQUIRED)



SECTION B - B

EXPANSION BAR DETAILS

BAR SECTION

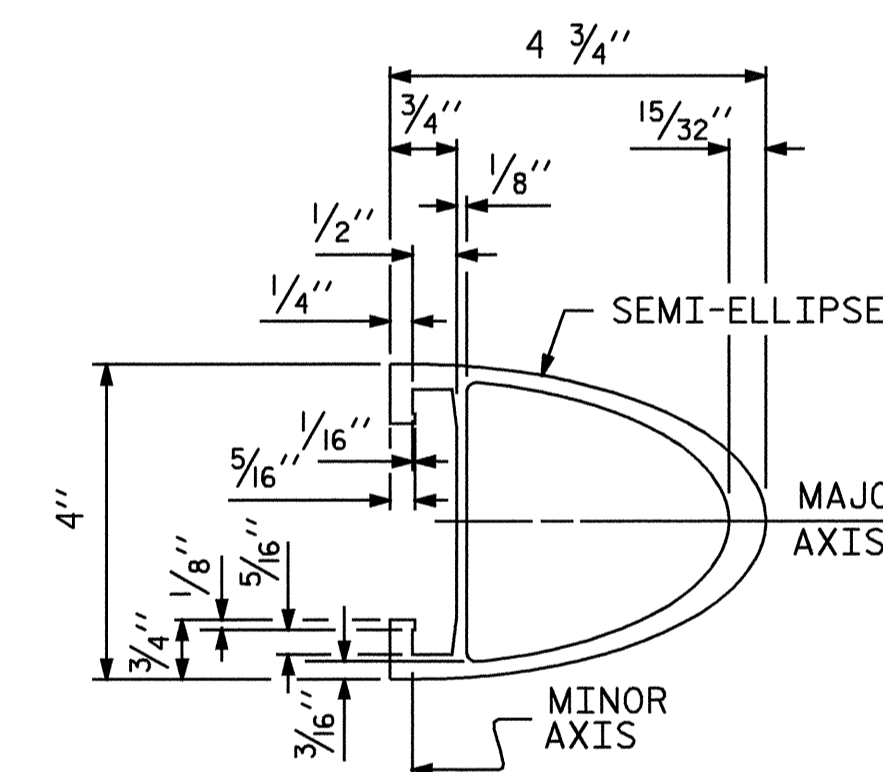


FRONT PLATE

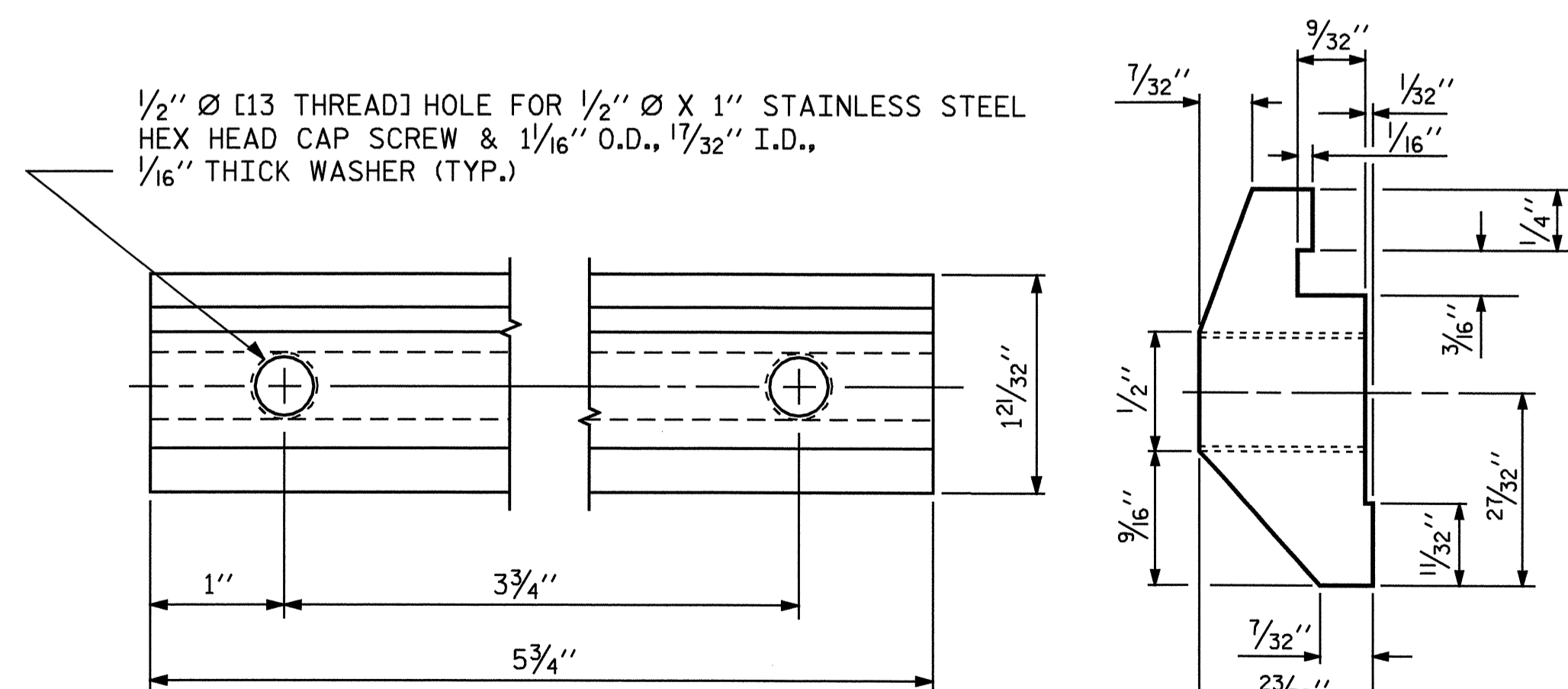
REAR PLATE

SHIM DETAILS

NOTE : SHIMS MAY BE CUT ALONG PERMITTED CUTLINE OR SLOTTED TO EDGE OF PLATE TO FACILITATE PLACEMENT.

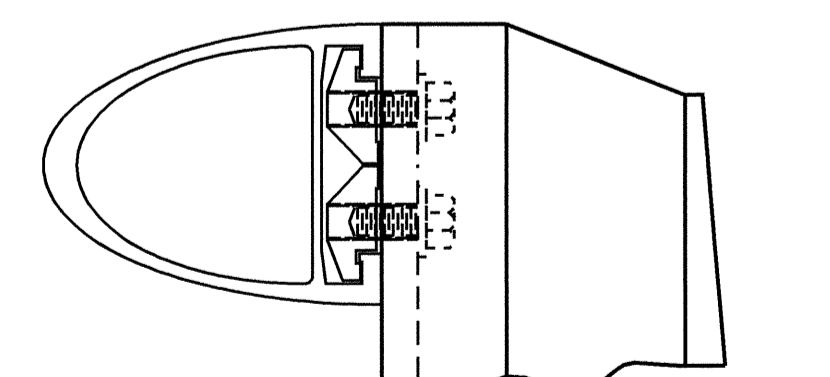


RAIL SECTION

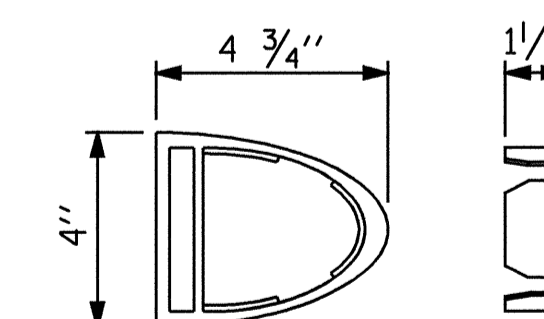


CLAMP BAR DETAIL

(4 REQUIRED PER POST)



CLAMP ASSEMBLY



RAIL CAP

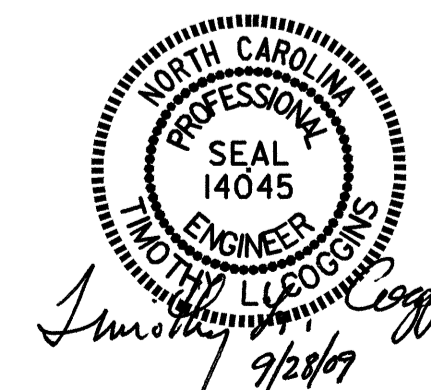
PROJECT NO. U-3826
 EDGEcombe COUNTY
 STATION: 49+65.00 -L-

SHEET 7 OF 10

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 STANDARD

2 BAR METAL RAIL

ASSEMBLED BY : B.N.BARODAWALA	DATE : 10/27/08
CHECKED BY : J.B.WILSON	DATE : 1/23/09
DRAWN BY : EEM 6/94	REV. 2/6/97 EEM/RGW
CHECKED BY : RGW 6/94	REV. 8/16/99 MAB/LES
	REV. 5/1/06R KMM/GM



REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-27
1			3			TOTAL SHEETS 50
2			4			

STD. NO. BMR4

NOTES

STRUCTURAL CONCRETE INSERT

THE STRUCTURAL CONCRETE INSERT ASSEMBLY SHALL CONSIST OF THE FOLLOWING COMPONENTS:

- A. FERRULES SHALL BE MADE FROM STEEL MEETING THE REQUIREMENTS OF AASHTO M169, GRADE 12L14 AND SHALL HAVE A MINIMUM LENGTH OF THREADS OF 1 1/2".
- B. 1 - 3/4" Ø X 1 5/8" BOLT WITH WASHER. BOLT SHALL CONFORM TO THE REQUIREMENTS OF ASTM A307. BOLT AND WASHER SHALL BE GALVANIZED. (AT THE CONTRACTOR'S OPTION, STAINLESS STEEL BOLT AND WASHER MAY BE USED AS AN ALTERNATE FOR THE 3/4" Ø X 1 5/8" GALVANIZED BOLT AND WASHER. 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 STRUT SHOWN IN THE CONCRETE INSERT ASSEMBLY DETAIL IS THE MINIMUM ALLOWABLE SIZE AND SHALL HAVE A MINIMUM TENSILE STRENGTH OF 100,000 PSI. AS AN OPTION, A 7/16" Ø WIRE STRUT WITH A MINIMUM TENSILE STRENGTH OF 90,000 PSI IS ACCEPTABLE.

NOTES

METAL RAIL TO END POST CONNECTION

THE METAL RAIL TO END POST CONNECTION SHALL CONSIST OF THE FOLLOWING COMPONENTS:

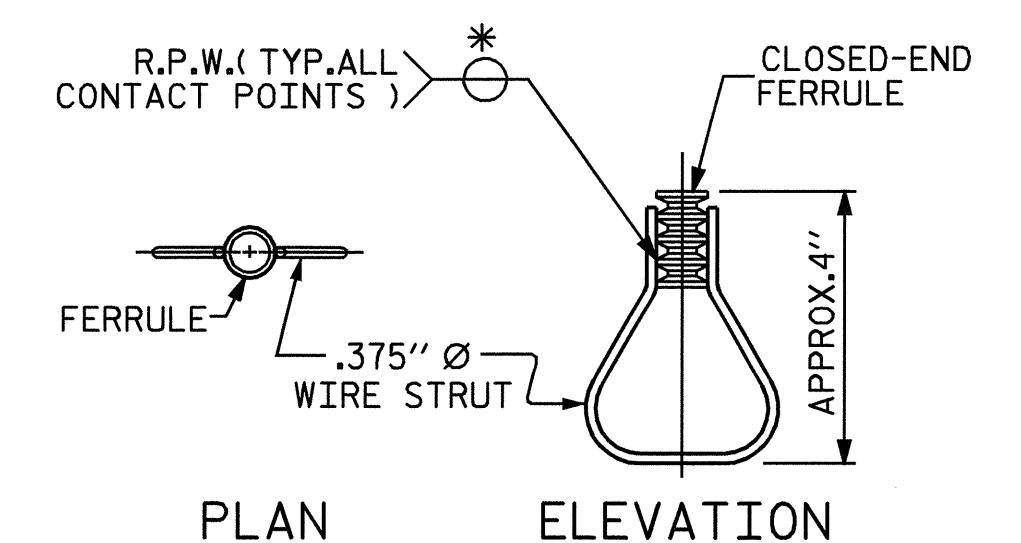
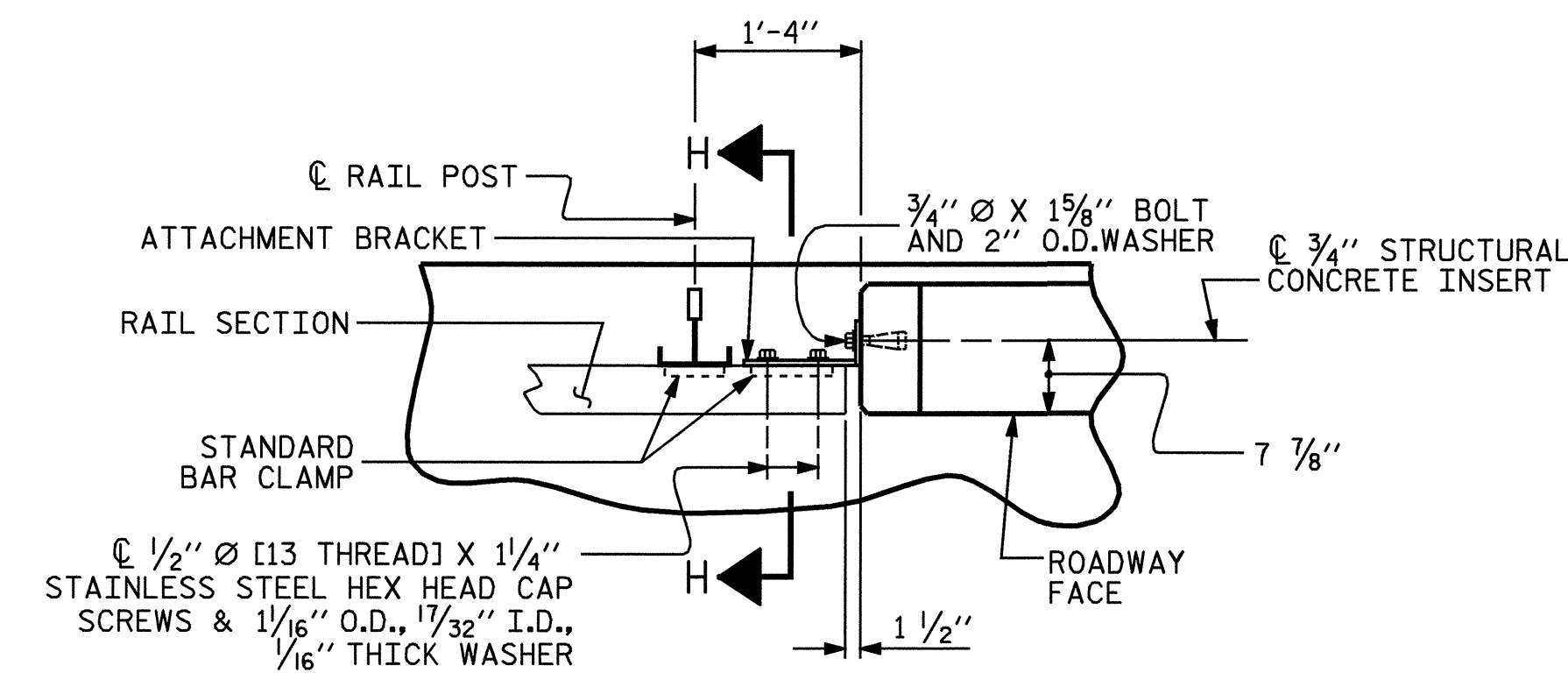
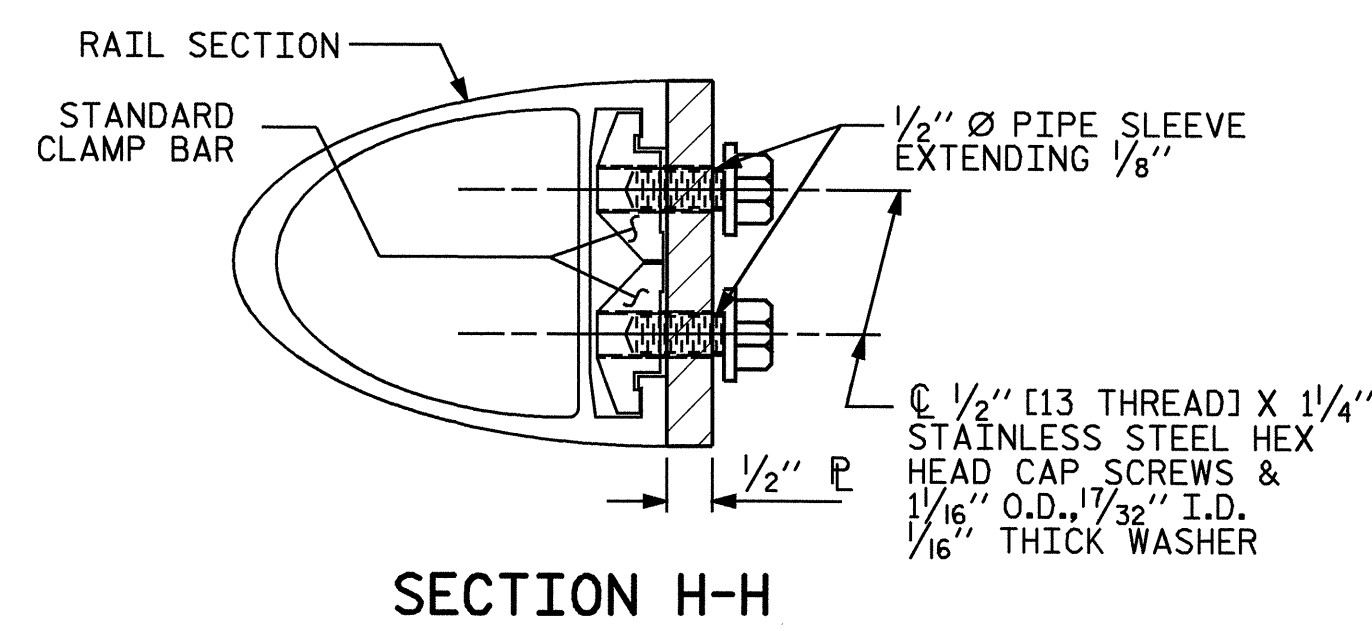
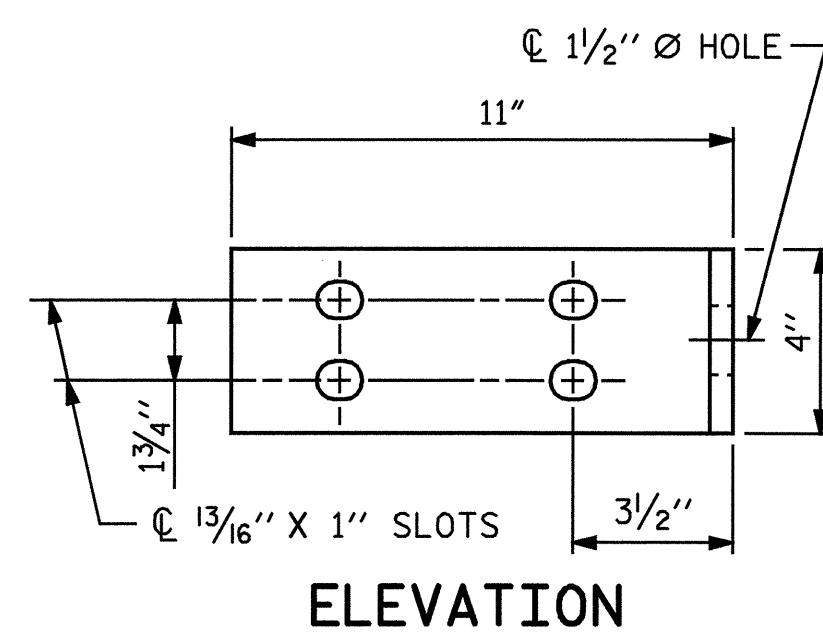
- A. 1/2" PLATES SHALL CONFORM TO AASHTO M270 GRADE 36 AND SHALL BE GALVANIZED AFTER FABRICATION.
- B. 3/4" STRUCTURAL CONCRETE INSERT SHALL HAVE A WORKING LOAD SHEAR CAPACITY OF 4800 LBS. THE FERRULES SHALL ENGAGE A 3/4" Ø X 1 5/8" BOLT WITH 2" O.D. WASHER IN PLACE. THE 3/4" Ø X 1 5/8" BOLT SHALL HAVE N. C. THREADS.
- C. CAP SCREWS FOR RAIL ATTACHMENT TO ANGLE SHALL CONFORM TO THE REQUIREMENTS OF ASTM F593 ALLOY 305 STAINLESS STEEL. CAP SCREWS TO BE CENTERED IN SLOTS AT 60°F.
- D. STANDARD CLAMP BARS (SEE METAL RAIL SHEET).
- E. 1/2" Ø PIPE SLEEVES (IF REQUIRED) TO BE GALVANIZED.

THE COST OF THE STANDARD CLAMP BARS AND CAP SCREWS USED IN THE METAL RAIL TO END POST CONNECTION SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR LINEAR FEET OF 1 OR 2 BAR METAL RAILS.

THE 3/4" STRUCTURAL CONCRETE INSERT WITH BOLT SHALL BE ASSEMBLED IN THE SHOP.

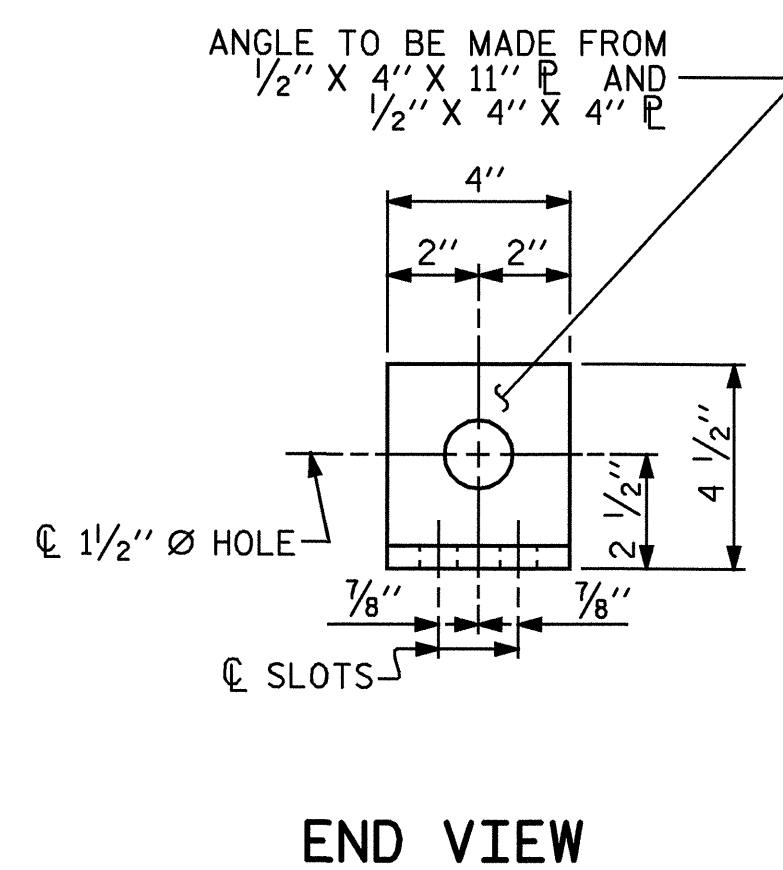
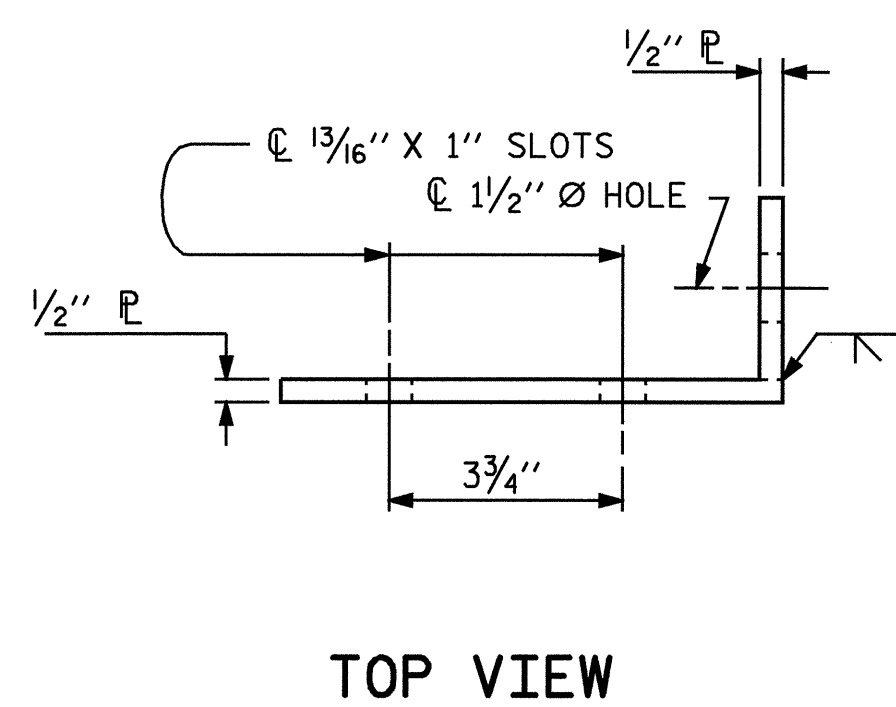
THE COST OF THE 3/4" STRUCTURAL CONCRETE INSERT ASSEMBLY, AND THE 1/2" PLATES COMPLETE IN PLACE SHALL BE INCLUDED IN THE VARIOUS PAY ITEMS.

THE CONTRACTOR, AT HIS OPTION, MAY USE AN ADHESIVE BONDING SYSTEM IN LIEU OF THE STRUCTURAL CONCRETE INSERT EMBEDDED IN THE END POST. IF THE ADHESIVE BONDING SYSTEM IS USED, THE 3/4" Ø X 1 5/8" BOLT WITH WASHER SHALL BE REPLACED WITH A 3/4" Ø X 6 1/2" BOLT AND 2" O.D. WASHER. ALL SPECIFICATIONS THAT APPLY TO THE 3/4" Ø X 1 5/8" BOLT SHALL APPLY TO THE 3/4" Ø X 6 1/2" BOLT. FIELD TESTING OF THE ADHESIVE BONDING SYSTEM IS NOT REQUIRED.



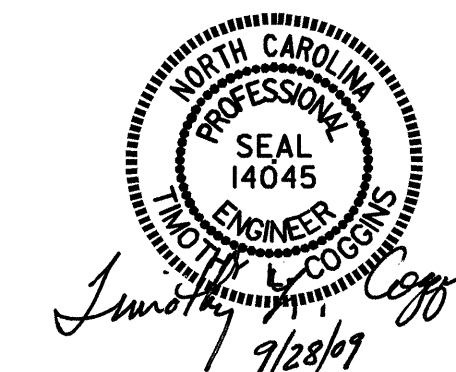
STRUCTURAL CONCRETE INSERT

* EACH WELDED ATTACHMENT OF WIRE TO FERRULE SHALL DEVELOP THE TENSILE STRENGTH OF THE WIRE.



DETAILS FOR ATTACHING METAL RAIL TO END POST EXPANSION

ASSEMBLED BY : B.N.BARODAWALA	DATE : 10/27/08
CHECKED BY : J.B.WILSON	DATE : 1/23/09
DRAWN BY : FCJ 1/88	REV. 10/17/00 LES/RDR
CHECKED BY : CRK 3/89	REV. 5/7/03 RWW/JTE
	REV. 5/1/06 TLA/GM



PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-

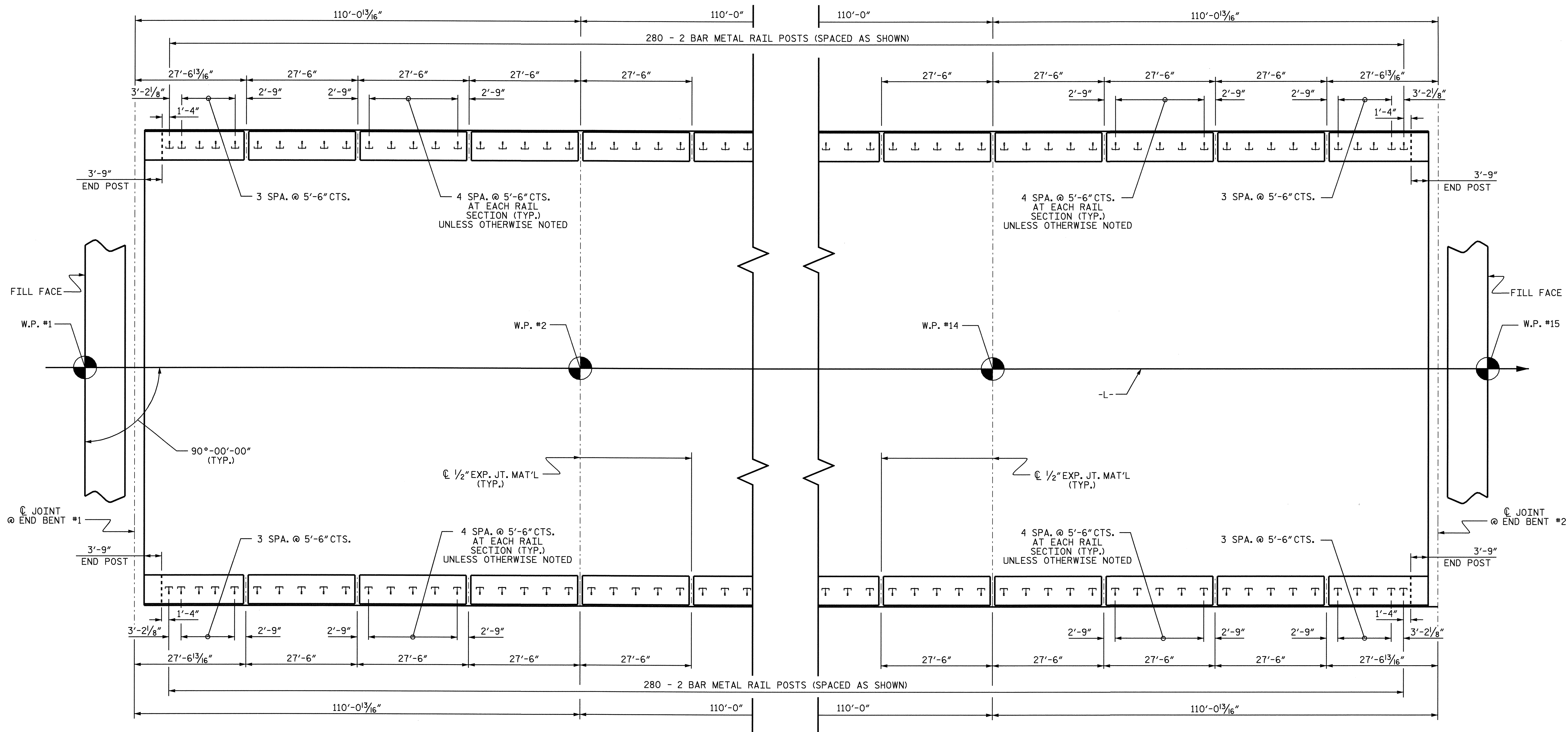
SHEET 8 OF 10

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 STANDARD

END OF RAIL DETAILS
 FOR TWO BAR METAL RAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-28
1			3			TOTAL SHEETS
2			4			50

STD. NO. BMR2



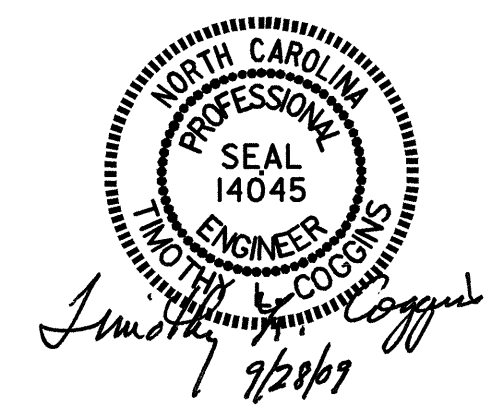
PLAN OF RAIL POST SPACINGS

PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-

SHEET 9 OF 10

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUPERSTRUCTURE
 RAIL POST SPACINGS

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-29	
1			3			TOTAL SHEETS	
2			4			50	



DRAWN BY: B.N.BARODAWALA DATE: 10/27/08
 CHECKED BY: J.B.WILSON DATE: 1/23/09

21-SEP-2009 10:07
 g:\p\projects-u\3826\structures\3826\final plans\3826.ed.2mr_01.dgn
 Taverette

NOTES

THE GUARDRAIL ANCHOR ASSEMBLY SHALL CONSIST OF A 1/4" HOLD DOWN PLATE AND 7 - 7/8" Ø BOLTS WITH NUTS AND WASHERS.

THE HOLD-DOWN PLATE SHALL CONFORM TO AASHTO M270 GRADE 36. AFTER FABRICATION, THE HOLD-DOWN PLATE SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH AASHTO M111.

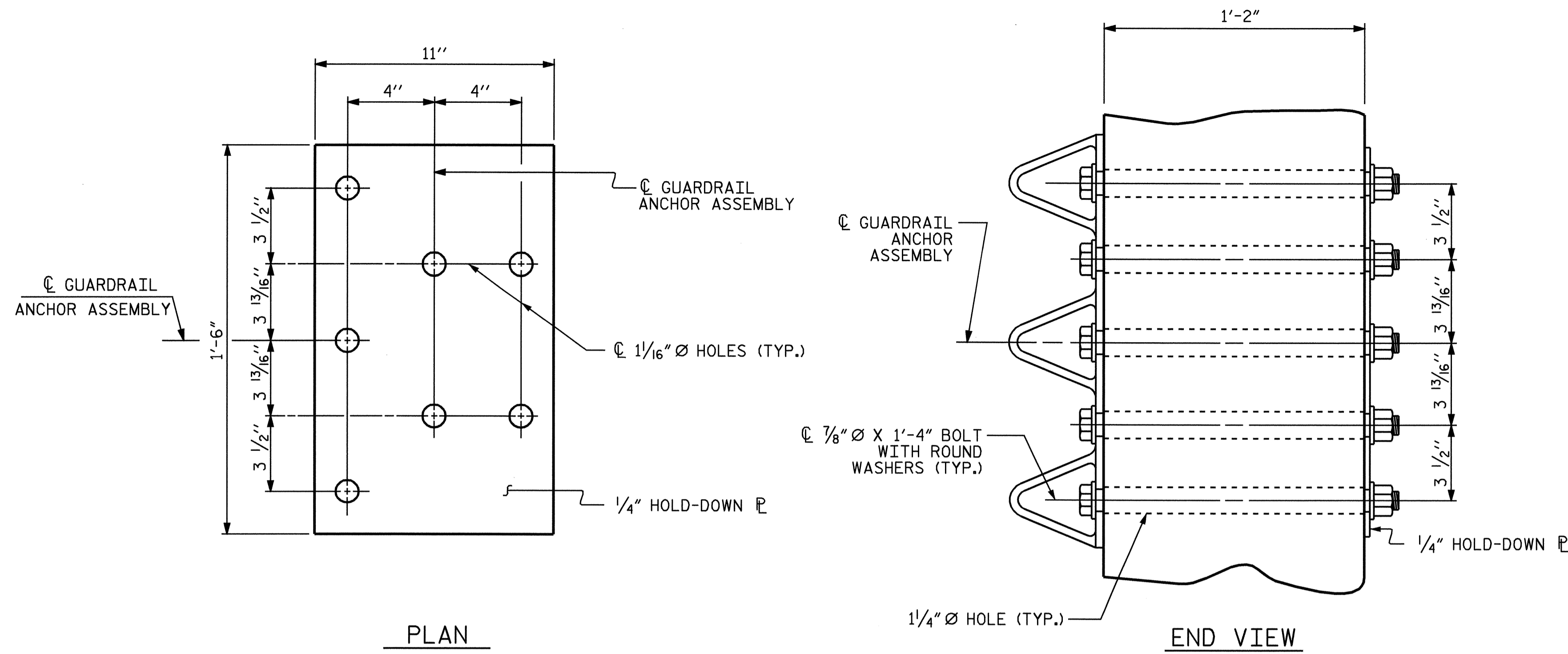
BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A307 AND NUTS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M291. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED. AT THE CONTRACTOR'S OPTION, STAINLESS STEEL BOLTS, NUTS AND WASHERS MAY BE USED AS AN ALTERNATE FOR THE 7/8" Ø GALVANIZED BOLTS, NUTS AND WASHERS. THEY SHALL CONFORM TO OR EXCEED THE MECHANICAL REQUIREMENTS OF ASTM A307. THE USE OF THIS ALTERNATE SHALL BE APPROVED BY THE ENGINEER.

AFTER INSTALLATION, THE EXPOSED THREAD OF THE BOLT SHALL BE BURRED WITH A SHARP POINTED TOOL.

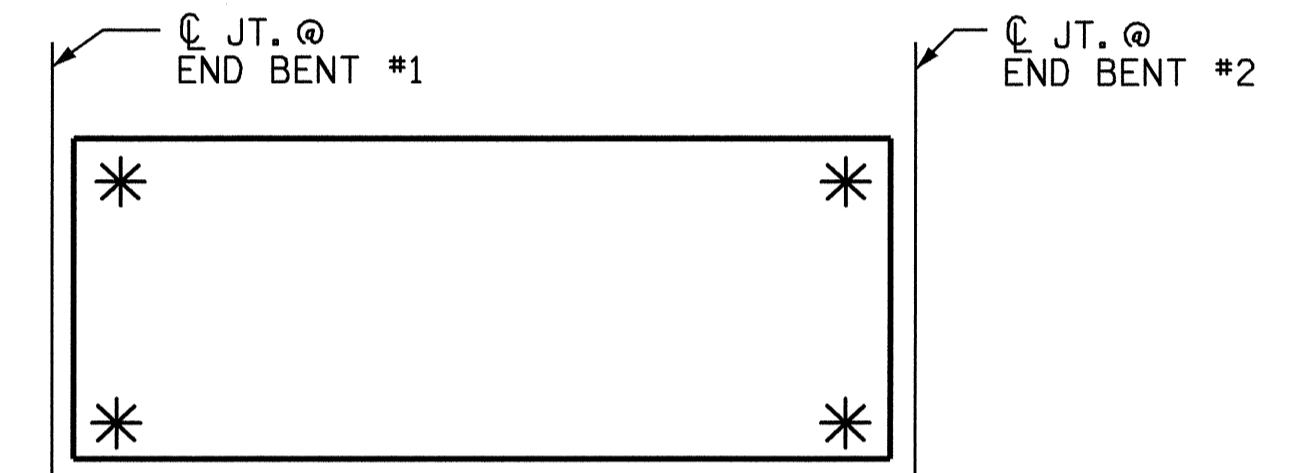
THE COST OF THE GUARDRAIL ANCHOR ASSEMBLIES WITH BOLTS, NUTS AND WASHERS COMPLETE IN PLACE, SHALL BE INCLUDED IN THE VARIOUS PAY ITEMS.

THE VERTICAL REINFORCING BARS MAY BE SHIFTED SLIGHTLY IN THE END POST TO CLEAR ASSEMBLY BOLTS.

THE 1 1/4" Ø HOLES SHALL BE FORMED OR DRILLED WITH A CORE BIT. IMPACT TOOLS WILL NOT BE PERMITTED. ANY CONCRETE DAMAGED BY THIS WORK SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER.

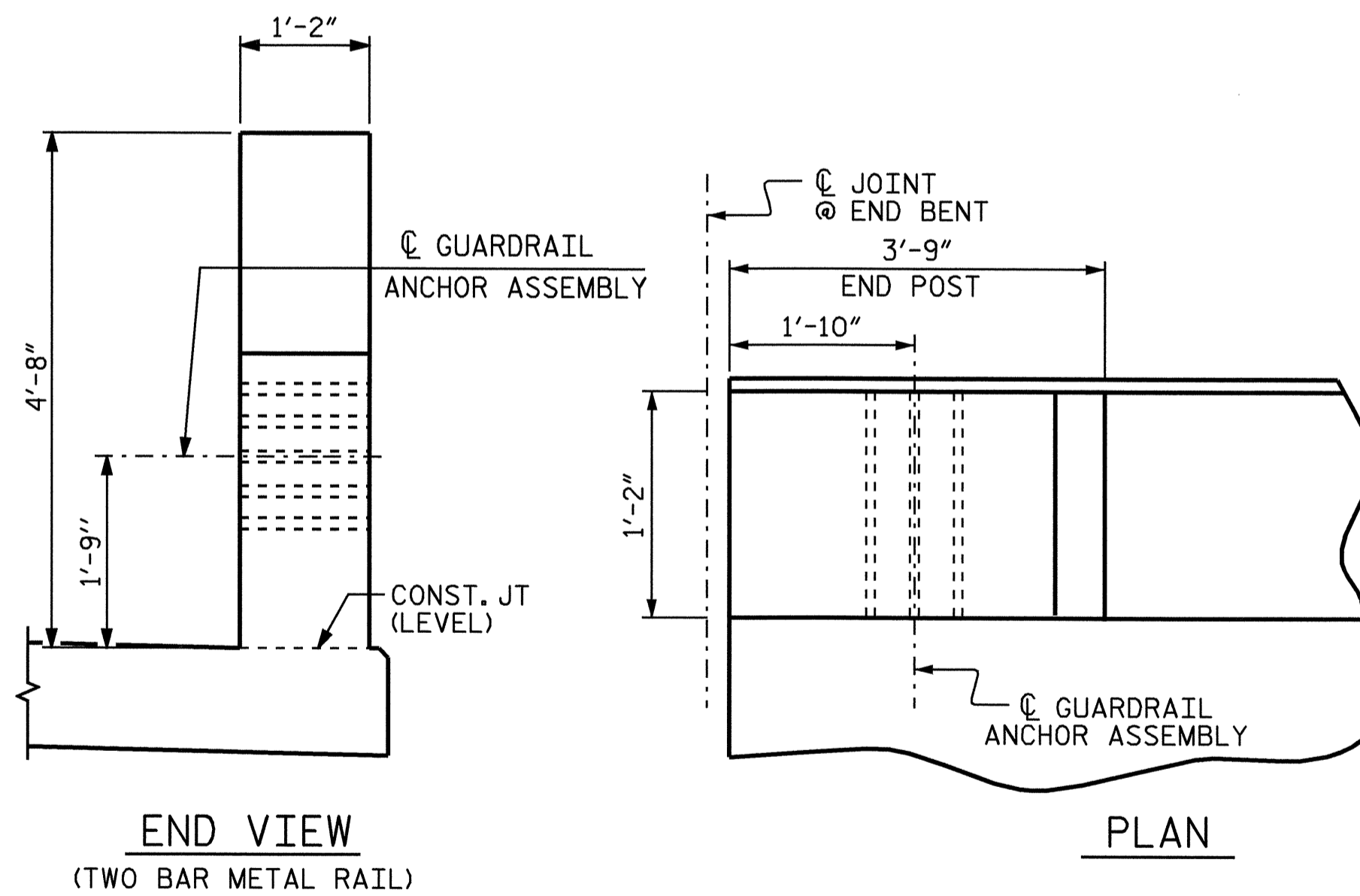


GUARDRAIL ANCHOR ASSEMBLY DETAILS



SKETCH SHOWING POINTS OF ATTACHMENT

* LOCATION OF GUARDRAIL ATTACHMENT



LOCATION OF GUARDRAIL ANCHOR AT END POST

PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-

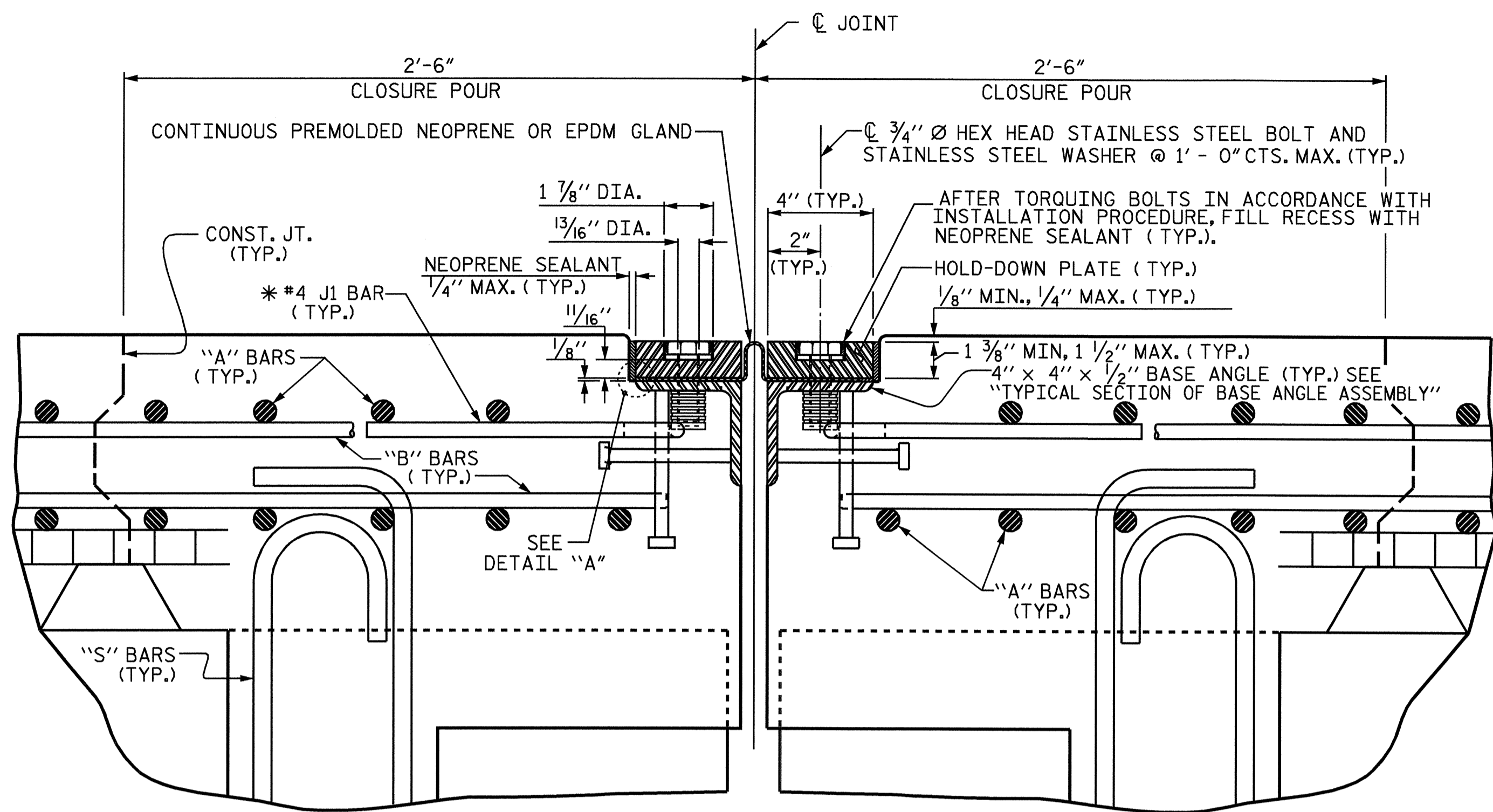
SHEET 10 OF 10

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 STANDARD
 GUARDRAIL ANCHORAGE
 DETAILS
 FOR METAL RAILS



ASSEMBLED BY : B.N.BARODAWALA	DATE : 10/27/08
CHECKED BY : J.B.WILSON	DATE : 1/23/09
DRAWN BY : EEM 6/94	REV. 10/17/00 RWW/LES
CHECKED BY : RGW 6/94	REV. 5/17/03 RWW/JTE
	REV. 5/1/06 TLA/GM

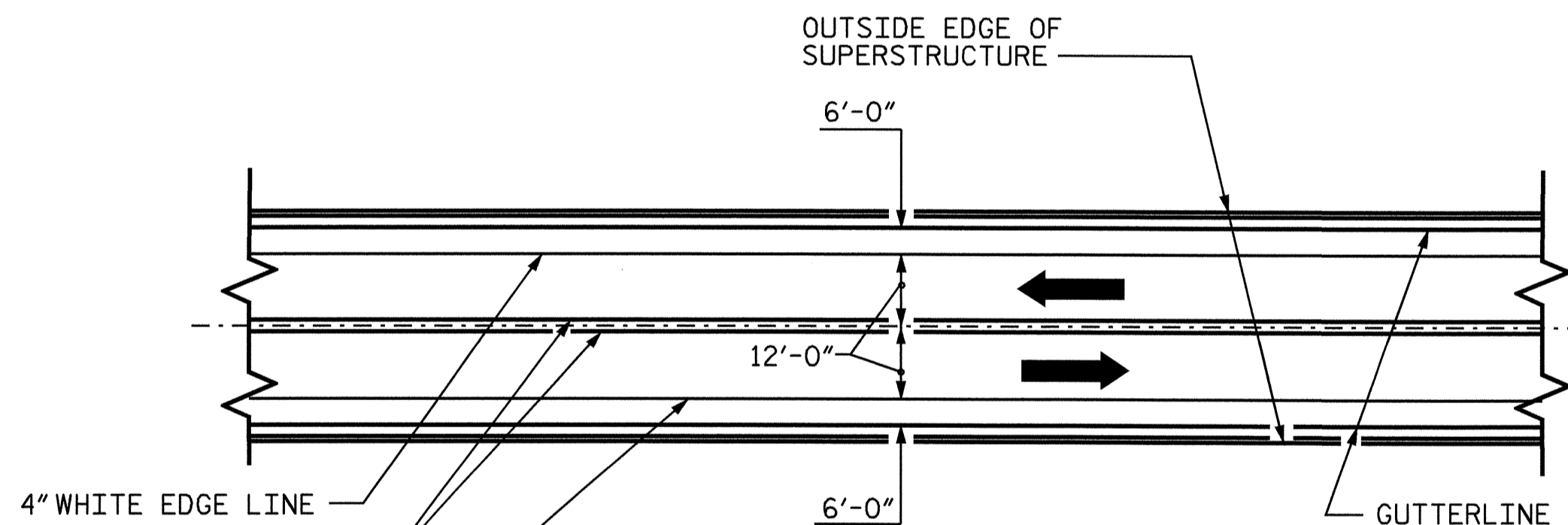
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-30
1			3			TOTAL SHEETS 50
2			4			



EXPANSION JOINT DETAILS

SECTION NORMAL TO JOINT -- PRESTRESSED GIRDER SUPERSTRUCTURE

* THE QUANTITY OF #4 J1 BARS ON THE BILL OF MATERIAL IS BASED ON 1'-0" CENTERS. J1 BARS SHALL BE PLACED AT EACH VERTICAL STUD ANCHOR BOLT. IN THE EVENT THAT THE NUMBER OF VERTICAL STUD ANCHORS EXCEEDS THE NUMBER OF J1 BARS SPECIFIED, ADDITIONAL J1 BARS WILL NOT BE REQUIRED.



PAVEMENT MARKING ALIGNMENT

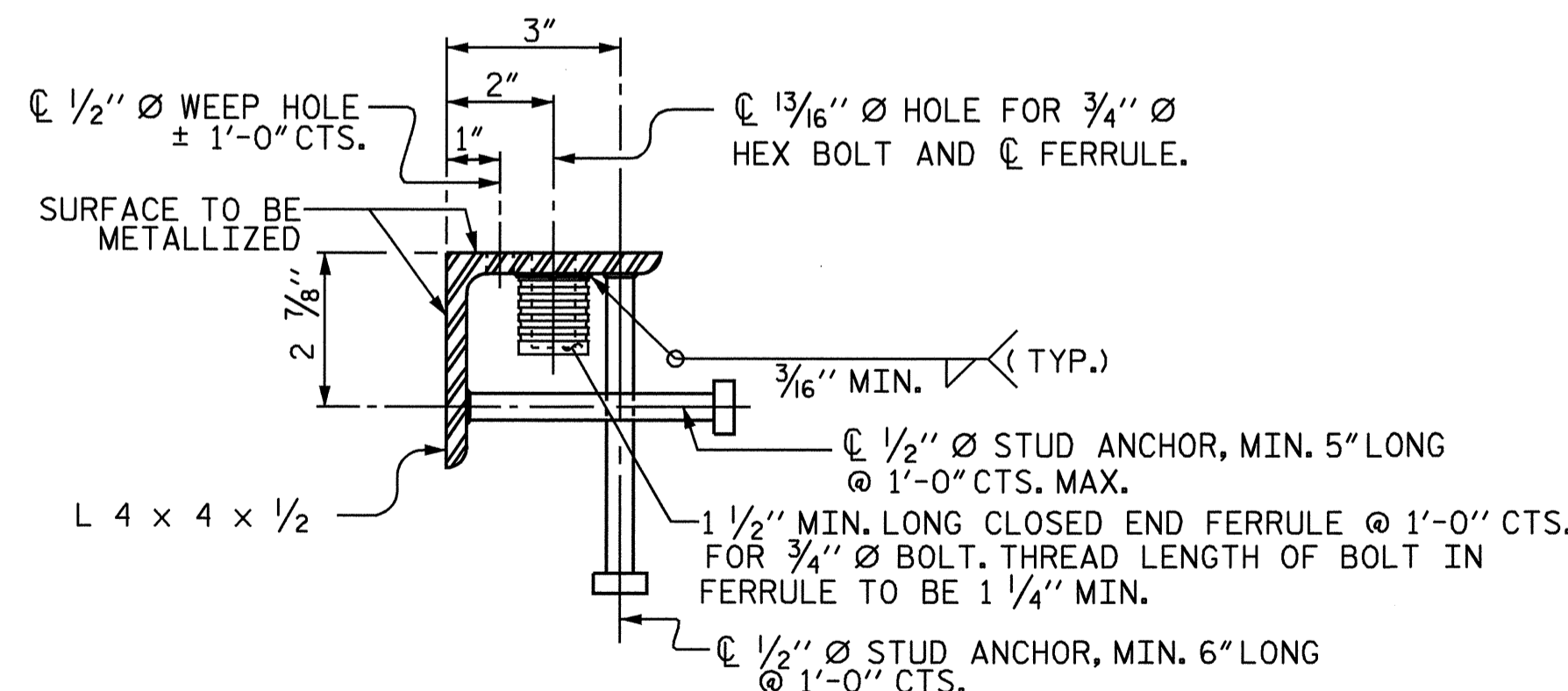
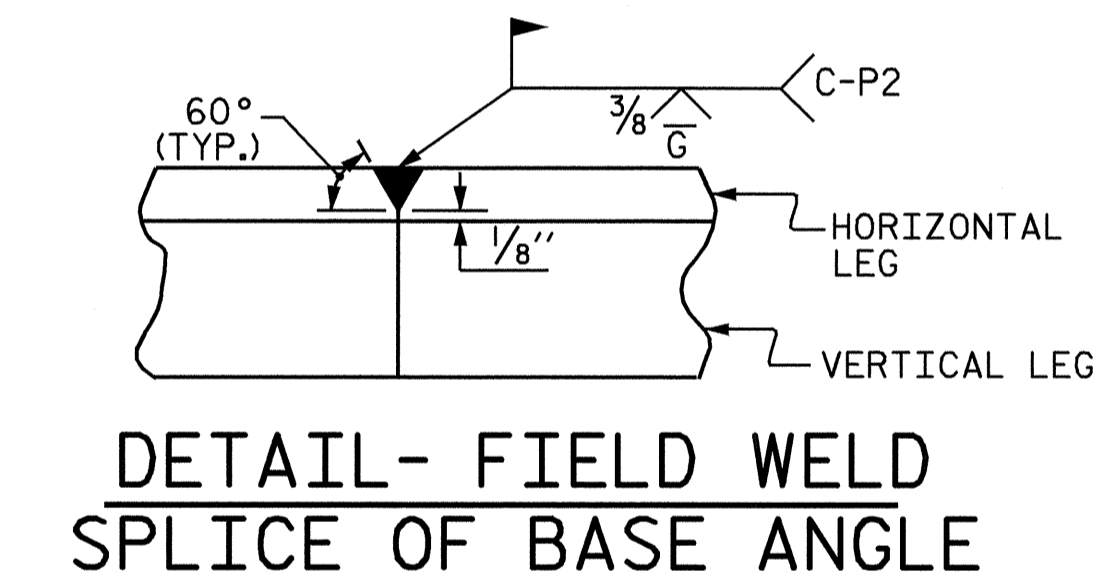
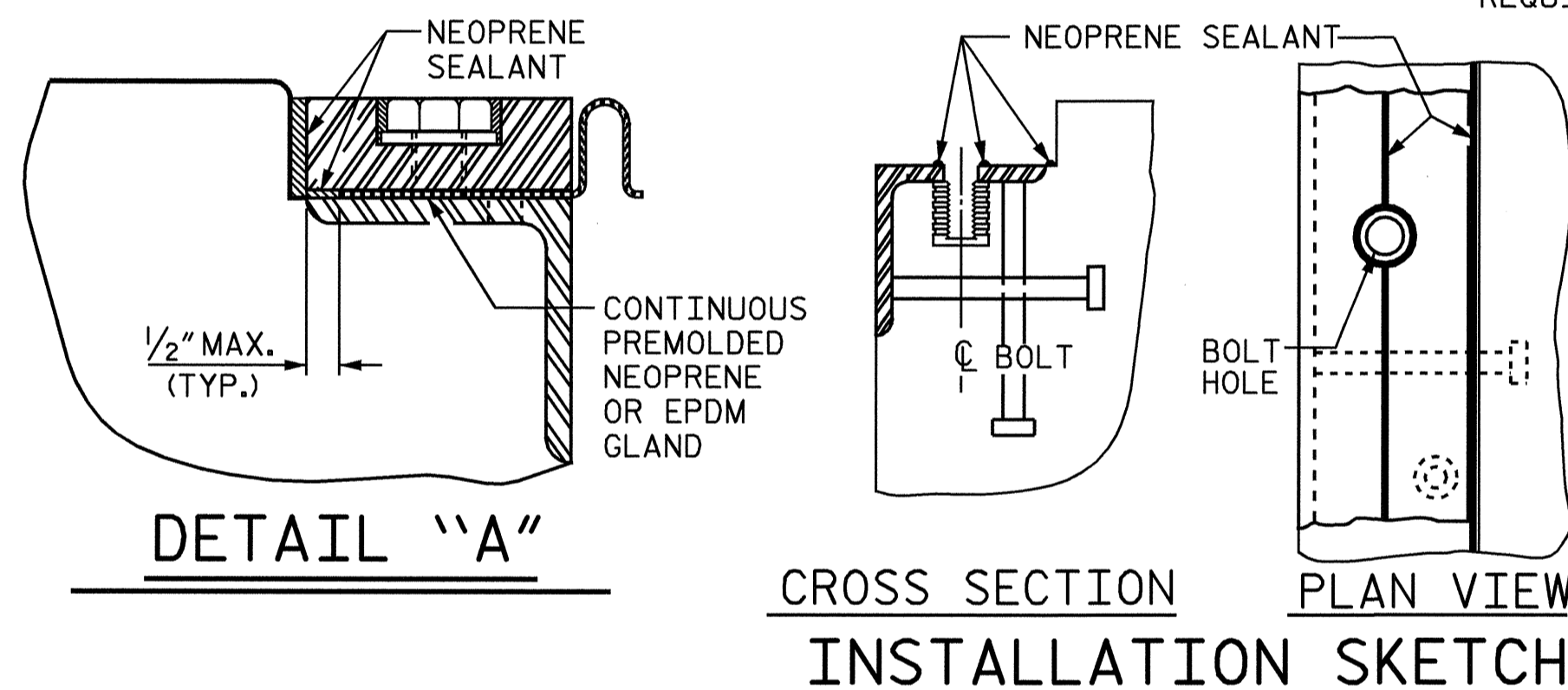
MOVEMENT AND SETTING AT JOINT					
LOCATION	SKIEW ANGLE	TOTAL MOVEMENT (ALONG C RDWY)	PERPENDICULAR JOINT OPENING AT 45° F	PERPENDICULAR JOINT OPENING AT 60° F	PERPENDICULAR JOINT OPENING AT 90° F
BENT #3, #6, #8 & #11	90°-00'-00"	2 5/16"	2 5/16"	2 1/4"	1 1/2"

INSTALLATION PROCEDURE

1. A TEMPLATE OR OTHER SUITABLE DEVICE SHALL BE USED TO FORM THE TOP OF THE EXPANSION JOINT SEAL BLOCKOUT TO THE PROPER DEPTH AND WIDTH. THE TEMPLATE SHALL BE 4/8" TO 4/4" WIDE AND OF SUCH THICKNESS AS TO PROVIDE FOR CORRECT FINAL ELEVATION OF TOP OF HOLD-DOWN PLATES. THE TEMPLATE SHALL BE ATTACHED TO THE BASE ANGLE ASSEMBLY WITH THE 3/4" Ø HEX HEAD BOLTS PROVIDED FOR THE HOLD-DOWN PLATES. A 1" Ø HOLE SHALL BE PROVIDED IN THE TEMPLATE CENTERED OVER EACH WEEP HOLE IN THE 4" X 4" X 1/2" BASE ANGLE. OTHER METHODS OF INSURING DRAINAGE THROUGH WEEP HOLES MAY BE EMPLOYED SUBJECT TO ENGINEER'S APPROVAL.
2. AFTER THE CONCRETE HAS BEEN CAST ON BOTH SIDES OF THE JOINT, REMOVE THE TEMPLATE. THOROUGHLY CLEAN THE BOLT HOLES AND THE ANGLE PLATE. REMOVE ANY EXCESS CONCRETE THAT COMES OUT OF THE WEEP HOLES. ANY DAMAGED STEEL SHALL BE COATED WITH A MINIMUM THICKNESS OF 4 DRY MILS OF ZINC-RICH PAINT IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
3. LAY THE GLAND ON THE BASE ANGLE AND FIELD MARK THE GLAND FOR THE BOLT HOLES. HOLES IN THE GLAND SHALL BE PUNCHED 1/8" IN DIAMETER WITH A HAND PUNCH.
4. IN ORDER TO CHECK FOR PROPER ALIGNMENT, PLACE THE GLAND AND HOLD-DOWN PLATES ON THE BASE ANGLE. DO NOT APPLY NEOPRENE SEALANT. BOLT THE HOLD-DOWN PLATES TO THE BASE ANGLE BUT DO NOT TIGHTEN. THE ENGINEER SHALL INSPECT THE JOINT SEAL DEVICE FOR PROPER ALIGNMENT.
5. AFTER INSPECTION, REMOVE THE HOLD-DOWN PLATES AND GLAND. APPLY NEOPRENE SEALANT TO THE BASE ANGLE IN ACCORDANCE WITH THE "INSTALLATION SKETCH". PLACE GLAND AND HOLD-DOWN PLATES ON THE BASE ANGLE. BOLT THE HOLD-DOWN PLATES TO THE BASE ANGLE ASSEMBLY AND TORQUE THE BOLTS TO 88 FT-LBS WITH A TORQUE WRENCH. THE TORQUE WRENCH SHALL BE CALIBRATED IN ACCORDANCE WITH SECTION 440-10 (D) OF THE STANDARD SPECIFICATIONS. CHECK THE TORQUE AFTER THREE (3) HOURS AND, IF NECESSARY, RETIGHTEN TO 88 FT-LBS. A FINAL CHECK SHALL BE MADE AT SEVEN (7) DAYS. TORQUE SHALL NOT BE LESS THAN 80 FT-LBS AFTER SEVEN (7) DAYS.
6. AFTER PROPER TORQUING, CLEAN THE BOLT HOLE RECESSES AND THE RECESS BETWEEN THE JOINT SEAL DEVICE AND CONCRETE, COMPLETELY FILL THESE RECESSES WITH NEOPRENE SEALANT.

GENERAL NOTES

1. FOR EXPANSION JOINT SEALS, SEE SPECIAL PROVISIONS.
2. ALL PLATES AND ANGLES SHALL CONFORM TO AASHTO M270 GRADE 36 STEEL OR APPROVED EQUAL. ALL HOLD-DOWN BOLTS SHALL CONFORM TO ASTM F593 ALLOY 304 STAINLESS STEEL AND WASHERS SHALL CONFORM TO ASTM F844 EXCEPT THEY SHALL BE MADE FROM ALLOY 304 STAINLESS STEEL. ALL STUD ANCHORS SHALL CONFORM TO AASHTO M169, GRADES 1010 THRU 1020 OR APPROVED EQUAL. ALL CONCRETE INSERTS SHALL BE CLOSED END AND SHALL CONFORM TO AASHTO M169, GRADE 12L14. TENSILE CAPACITY SHALL BE 3000 LBS. MIN.
3. A PREMOLDED CORRUGATED OR NON-CORRUGATED GLAND SHALL BE USED FOR JOINTS SKEWED BETWEEN 50° THRU 130°. FOR JOINTS SKEWED LESS THAN 50° OR MORE THAN 130°, ONLY A CORRUGATED GLAND SHALL BE USED.
4. CLOSED END FERRULES AND STUD ANCHORS SHALL BE SHOP WELDED AND ALL HOLES SHALL BE SHOP DRILLED AS SHOWN ON PLANS. STUD ANCHORS SHALL BE ELECTRIC ARC END WELDED WITH COMPLETE FUSION.
5. SURFACES COMING IN CONTACT WITH NEOPRENE SHALL BE GROUND SMOOTH PRIOR TO METALLIZING.
6. UPON COMPLETION OF SHOP FABRICATION, THE HOLD DOWN PLATE AND BASE ANGLE ASSEMBLY, AS SHOWN IN THE "TYPICAL SECTION OF BASE ANGLE ASSEMBLY", SHALL BE METALLIZED. SEE SPECIAL PROVISION FOR THERMAL SPRAYED COATINGS (METALLIZATION).
7. BASE ANGLE ASSEMBLY SHALL BE CONTINUOUS FOR THE LENGTH OF THE JOINT. AT CROWN BREAKS, THE ENDS OF THE BASE ANGLE ASSEMBLY SHALL BE CUT PARALLEL TO THE BRIDGE CENTERLINE FOR SKEWS LESS THAN 80° AND GREATER THAN 100°. FINISHED WELD SHALL BE GROUND SMOOTH AND COATED WITH A MINIMUM THICKNESS OF 4 DRY MILS OF ZINC-RICH PAINT IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
8. FIELD SPLICES OF HOLD-DOWN PLATES SHALL BE KEPT TO A MINIMUM. CONTRACTOR SHALL FURNISH DETAILED PLANS SHOWING PROPOSED SPLICE LOCATIONS FOR APPROVAL. HOLD-DOWN PLATES SHALL NOT EXCEED 20' LENGTHS UNLESS APPROVED BY THE ENGINEER.
9. NO ALTERNATE JOINT DETAILS SHALL BE PERMITTED IN LIEU OF THOSE SHOWN ON THESE PLANS.
10. THE CONTRACTOR MAY, AT HIS OPTION, USE ADHESIVELY ANCHORED ANCHOR BOLTS IN PLACE OF CONCRETE INSERTS FOR COVER PLATES. THE YIELD LOAD OF THE 3/4" Ø BOLT IS 10 KIPS. FIELD TESTING OF THE ADHESIVE BONDING SYSTEM IS NOT REQUIRED.



TYPICAL SECTION OF BASE ANGLE ASSEMBLY

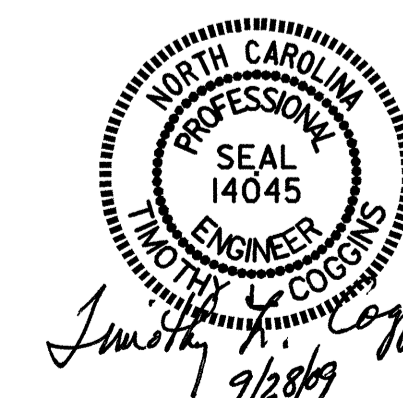
PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-

SHEET 1 OF 2

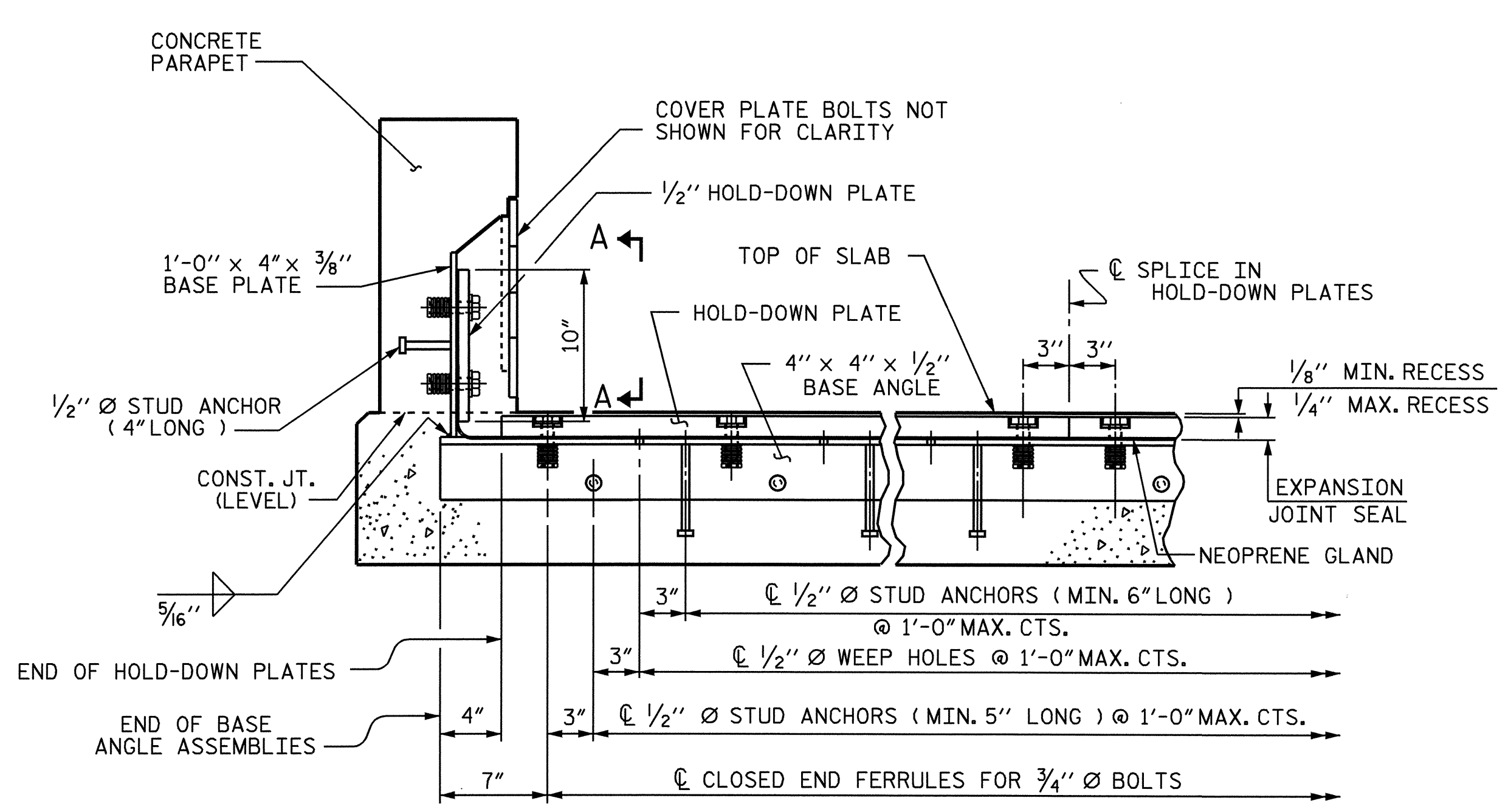
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 STANDARD
 EXPANSION JOINT
 SEAL DETAILS

@ BENTS #3, #6, #8 & #11

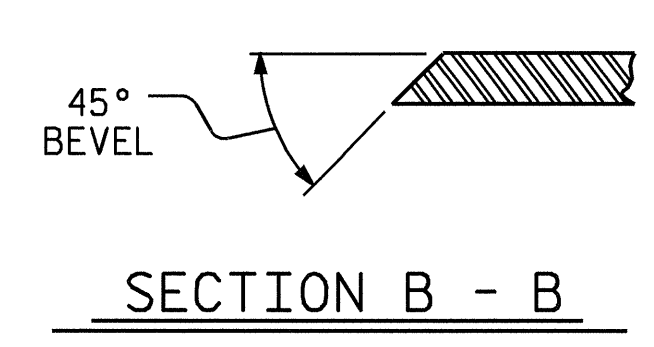
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-31
1			3			TOTAL SHEETS
2			4			50



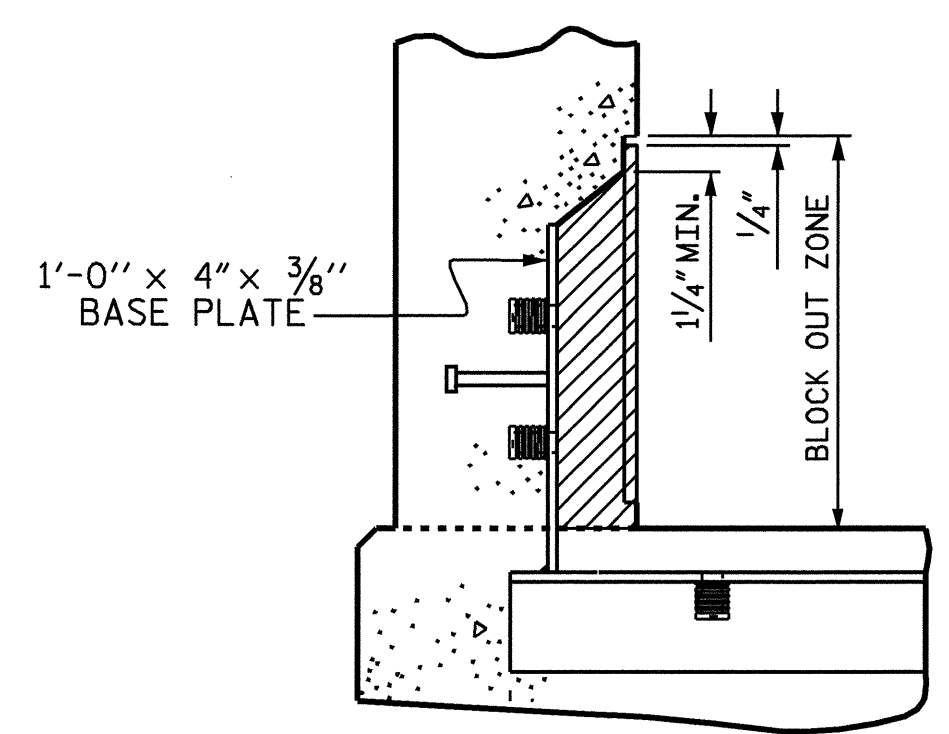
ASSEMBLED BY: B.N. BARODAWALA DATE: 3-20-09
 CHECKED BY: T.L. COGGINS DATE: 3-29-09
 DRAWN BY: REK 9/87 REV. 10/17/00 RWW/LES
 CHECKED BY: CRK 10/87 REV. 5/7/03R RWW/JTE
 REV. 5/1/06 TLA/GM



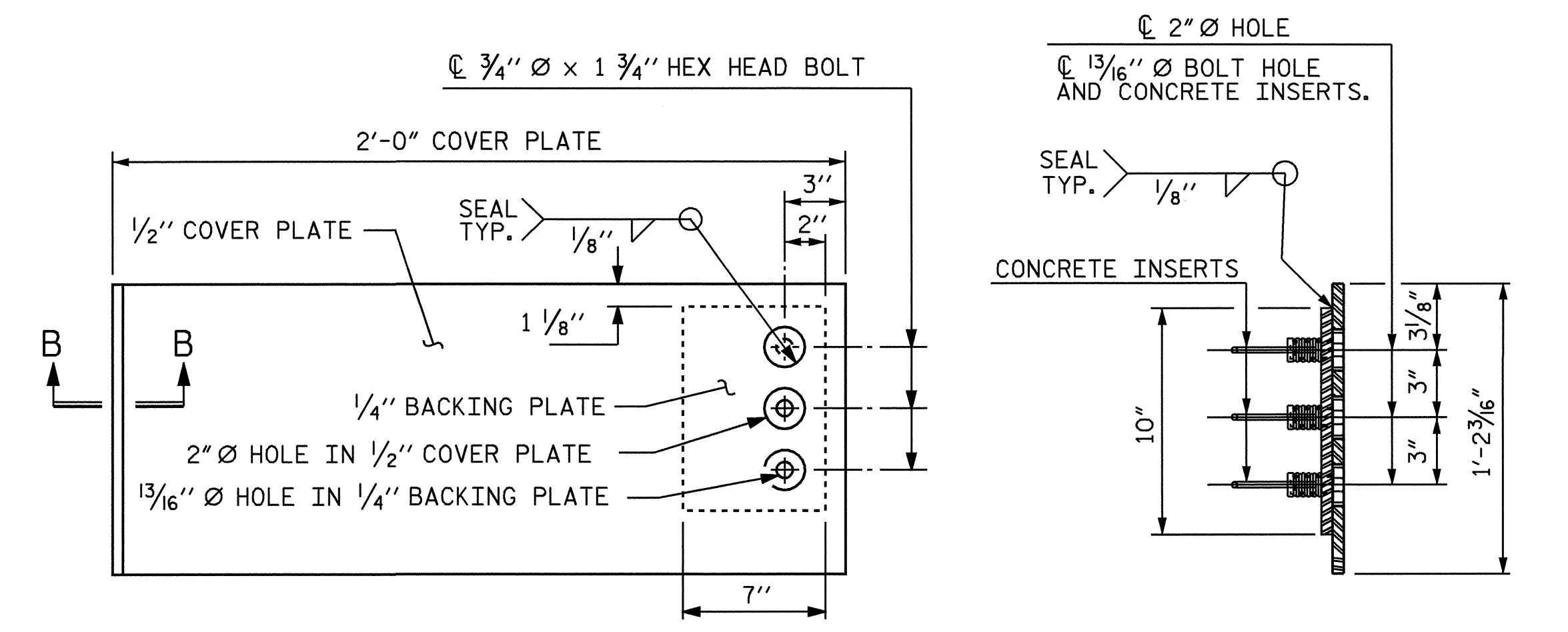
SECTION THRU RAIL NORMAL TO JOINT



SECTION B - B

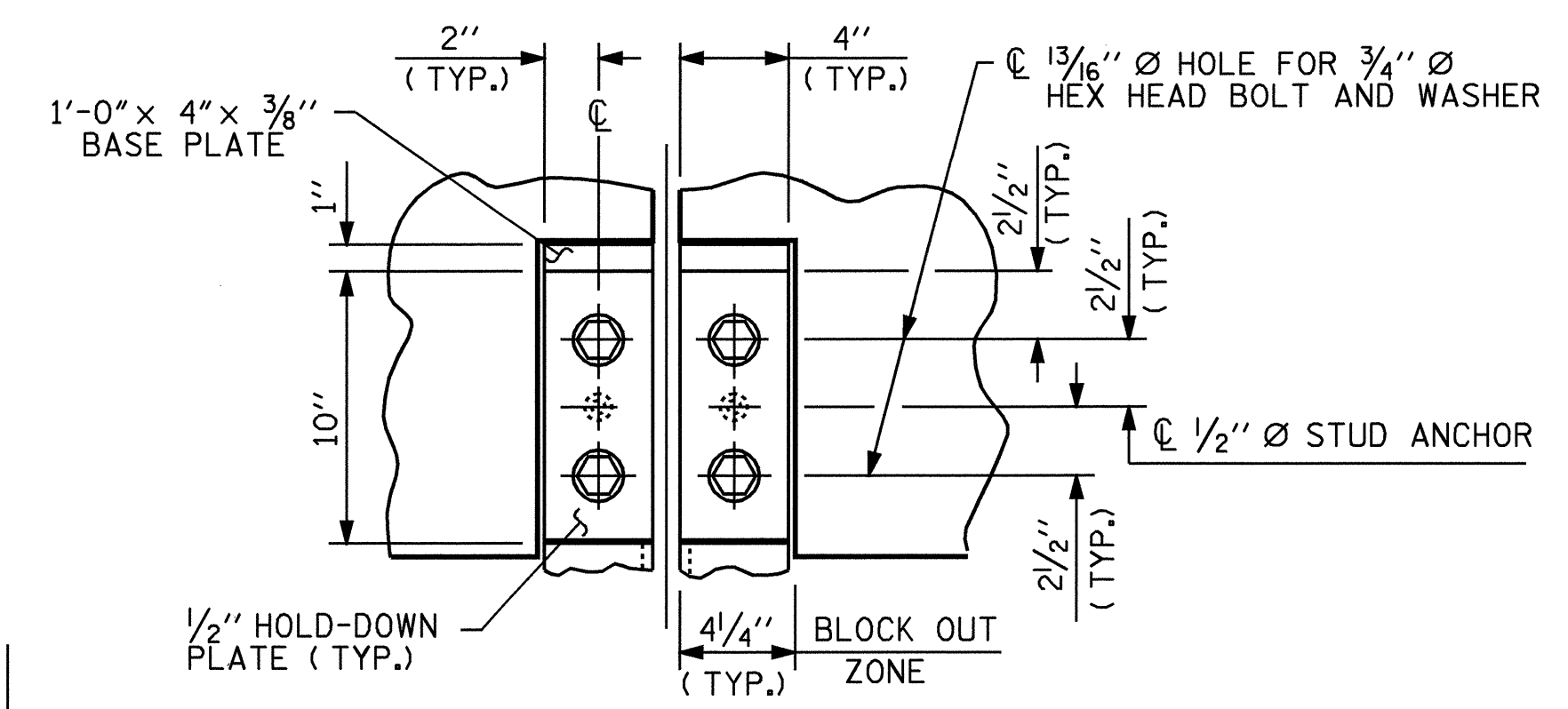


BLOCK OUT DETAIL
SEE "SECTION A - A" FOR OTHER DETAILS.

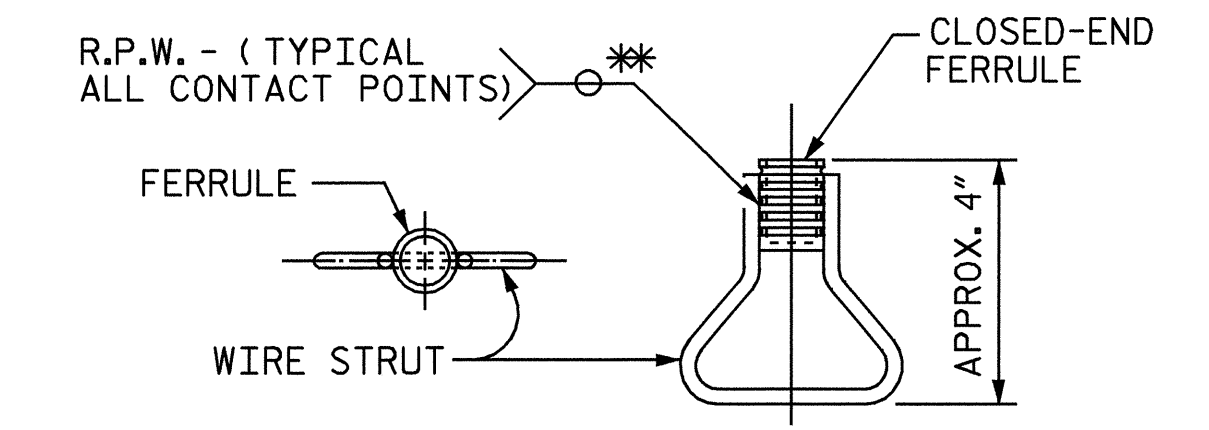


TYPE II - ELEVATION VIEW
COVER PLATE DETAILS

END VIEW

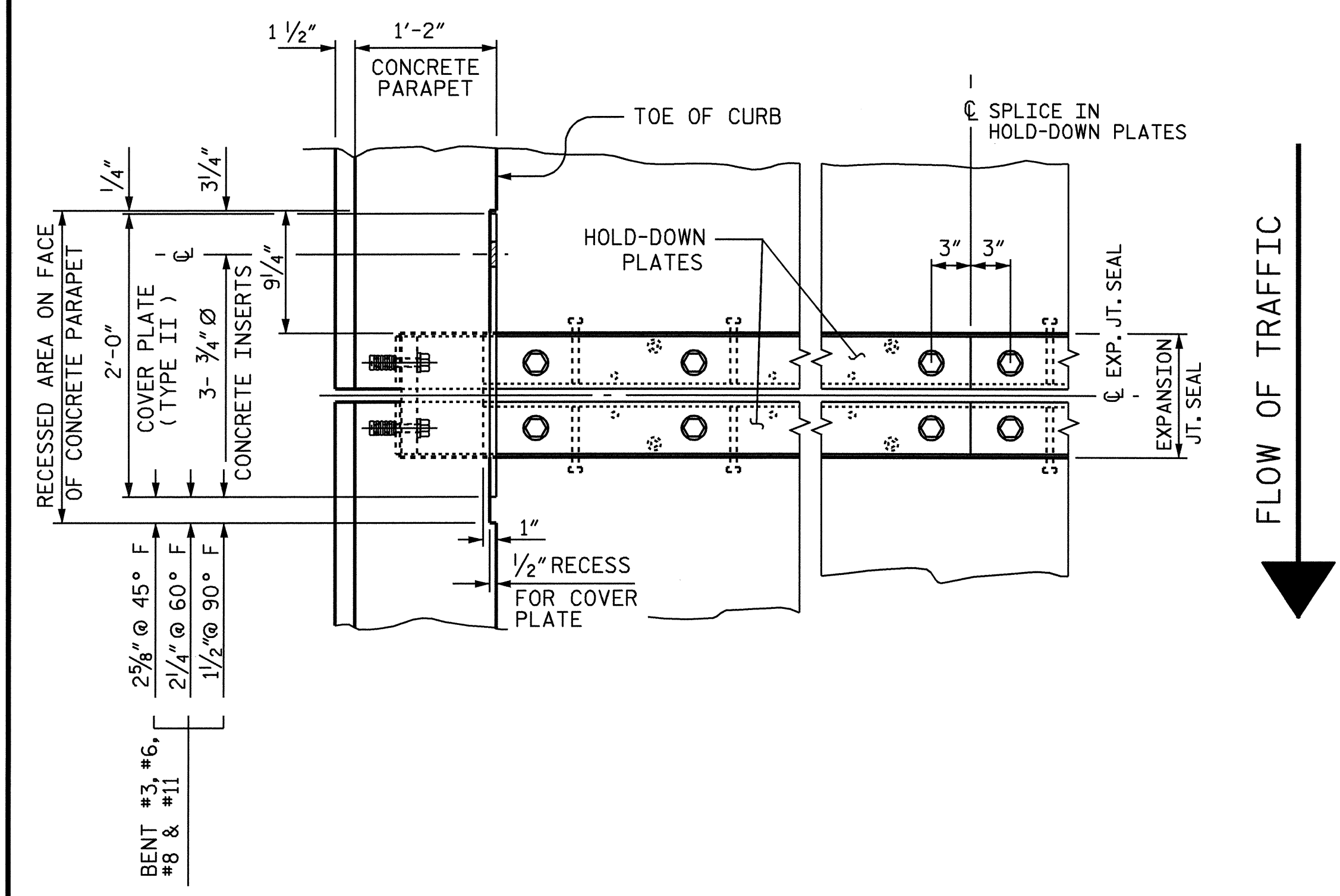


SECTION A - A

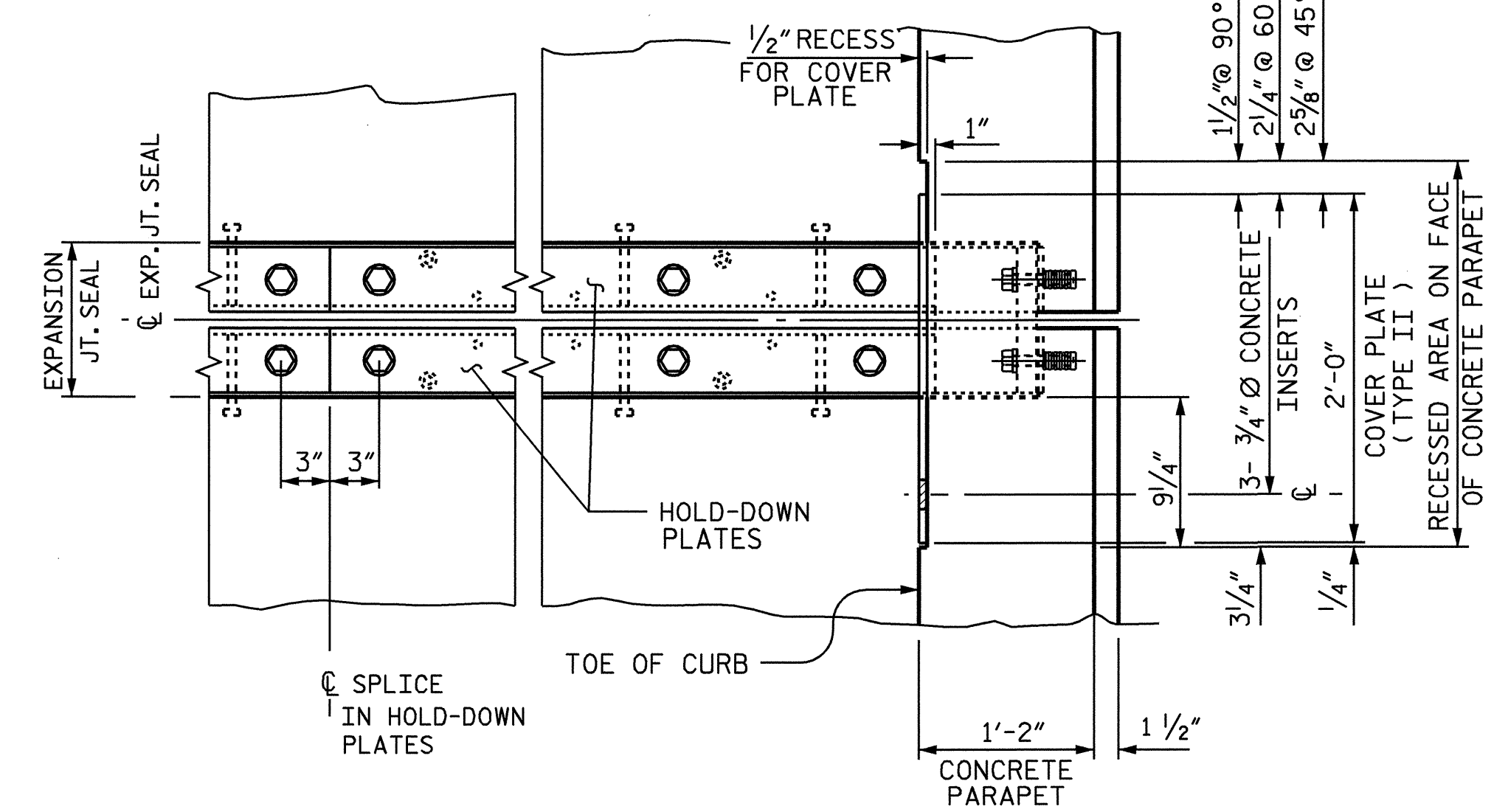


PLAN ELEVATION
CONCRETE INSERT

* EACH WELDED ATTACHMENT OF WIRE TO FERRULE SHALL DEVELOP THE TENSILE STRENGTH OF THE WIRE.



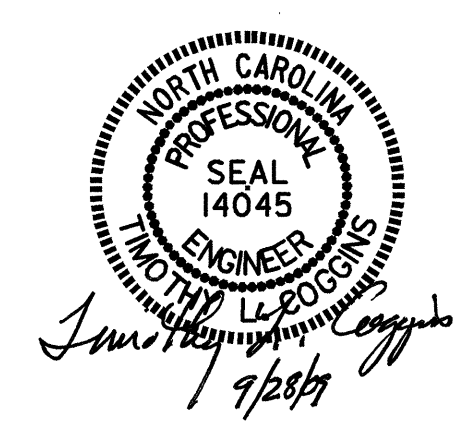
PLAN OF EXPANSION JOINT SEAL - LEFT SIDE



PLAN OF EXPANSION JOINT SEAL - RIGHT SIDE

PROJECT NO. U-3826
EDGEcombe COUNTY
STATION: 49+65.00 -L-

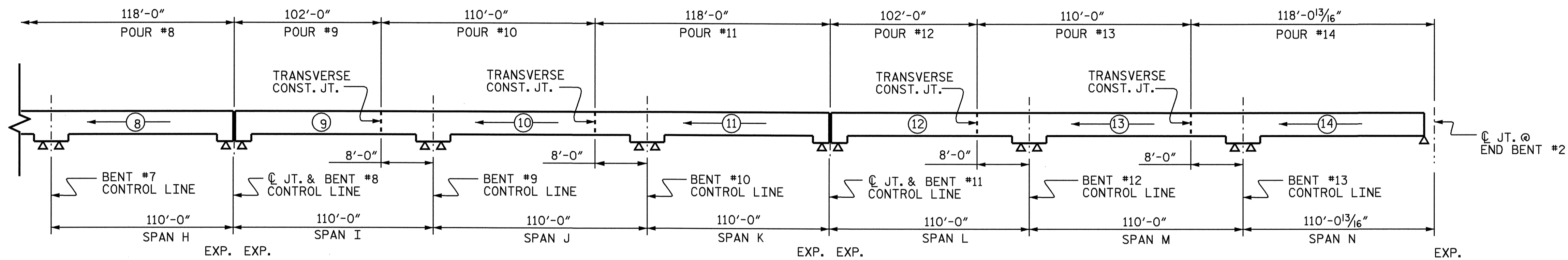
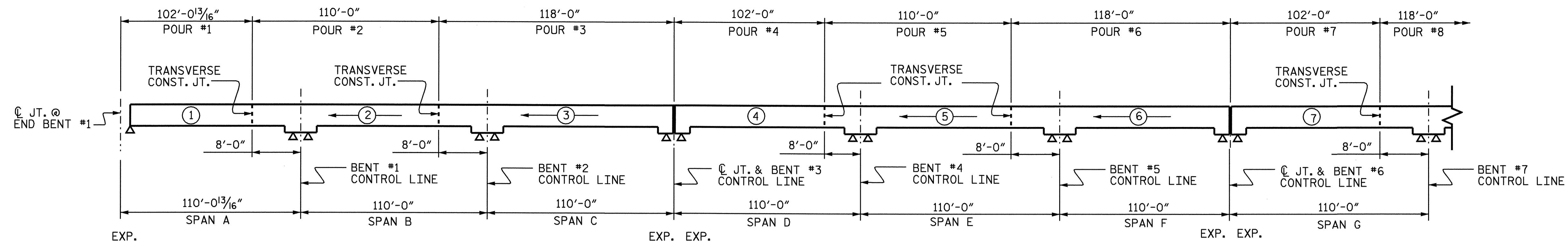
SHEET 2 OF 2



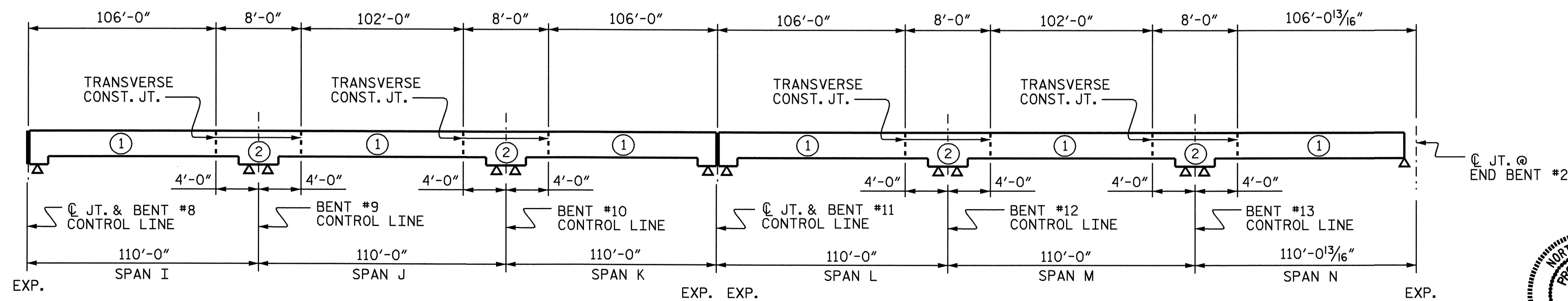
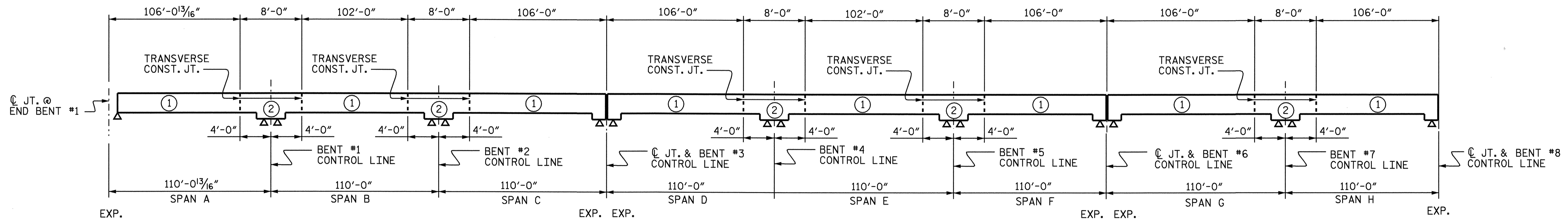
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
EXPANSION JOINT
SEAL DETAILS
FOR CONCRETE PARAPET
@ BENTS #3, #6, #8 & #11

ASSEMBLED BY : B.N.BARODAWALA	DATE : 3-20-09
CHECKED BY : T. L. COGGINS	DATE : 3-29-09
DRAWN BY : REK	9/87
CHECKED BY : CRK	10/87
REV. 7/17/98	RWW/LES
REV. 10/17/00	RWW/LES
REV. 5/1/06	TLA/GM

REVISIONS						SHEET NO. S-32
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTALS 50
2			4			



POURING SEQUENCE



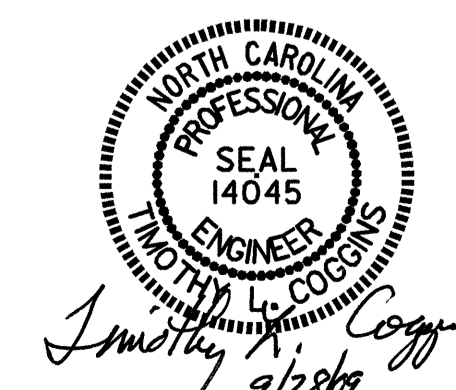
OPTIONAL POURING SEQUENCE

POUR ② CAN NOT BE STARTED UNTIL BOTH ADJACENT ① POURS REACH A MINIMUM OF 3000 PSI.

PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

POURING SEQUENCE



DRAWN BY: B.N. BARODAWALA DATE: 3-26-09
 CHECKED BY: T.L. COGGINS DATE: 3-29-09

21-SEP-2009 10:05
 g:\projects\U3826\structures\U3826\final\plans\U3826.sd.bm.01.dgn
 faverette

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-33	
1			3			TOTAL SHEETS 50	
2			4				

— SUPERSTRUCTURE BILL OF MATERIAL —

	CLASS AA CONCRETE	REINFORCING STEEL	EPOXY COATED REINFORCING STEEL
	(CU. YDS.)	(LBS.)	(LBS.)
SPAN "A"	POUR 1 150.5	205,541	190,856
SPAN "B"	POUR 2 174.7		
SPAN "C"	POUR 3 187.7		
SPAN "D"	POUR 4 150.5		
SPAN "E"	POUR 5 174.7		
SPAN "F"	POUR 6 187.7		
SPAN "G"	POUR 7 150.5		
SPAN "H"	POUR 8 187.7		
SPAN "I"	POUR 9 150.5		
SPAN "J"	POUR 10 174.7		
SPAN "K"	POUR 11 187.7		
SPAN "L"	POUR 12 150.5		
SPAN "M"	POUR 13 174.7		
SPAN "N"	POUR 14 187.7		
TOTALS**	2389.8	205,541	190,856

** QUANTITIES FOR TWO BAR METAL RAIL ARE NOT INCLUDED

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

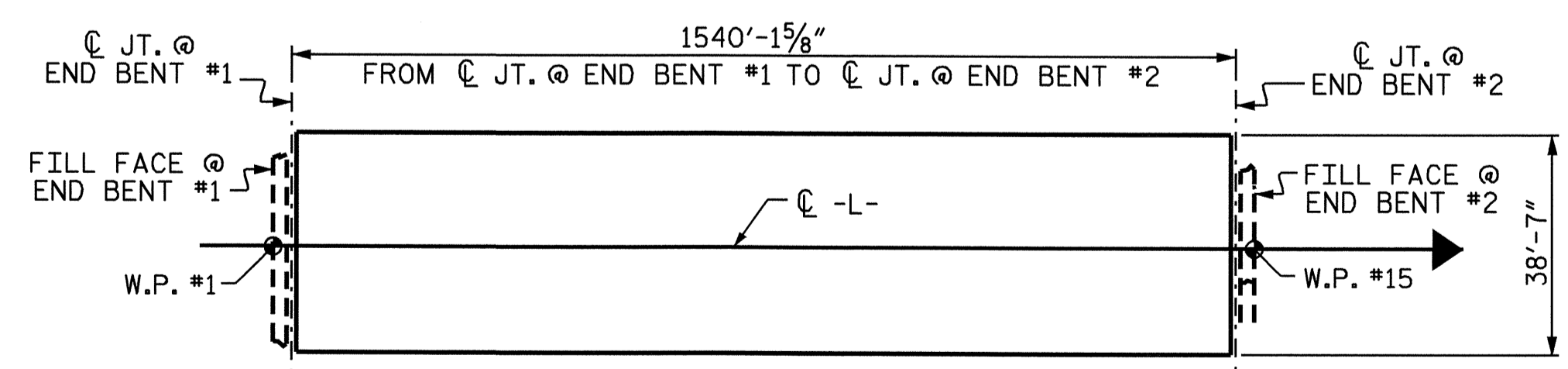
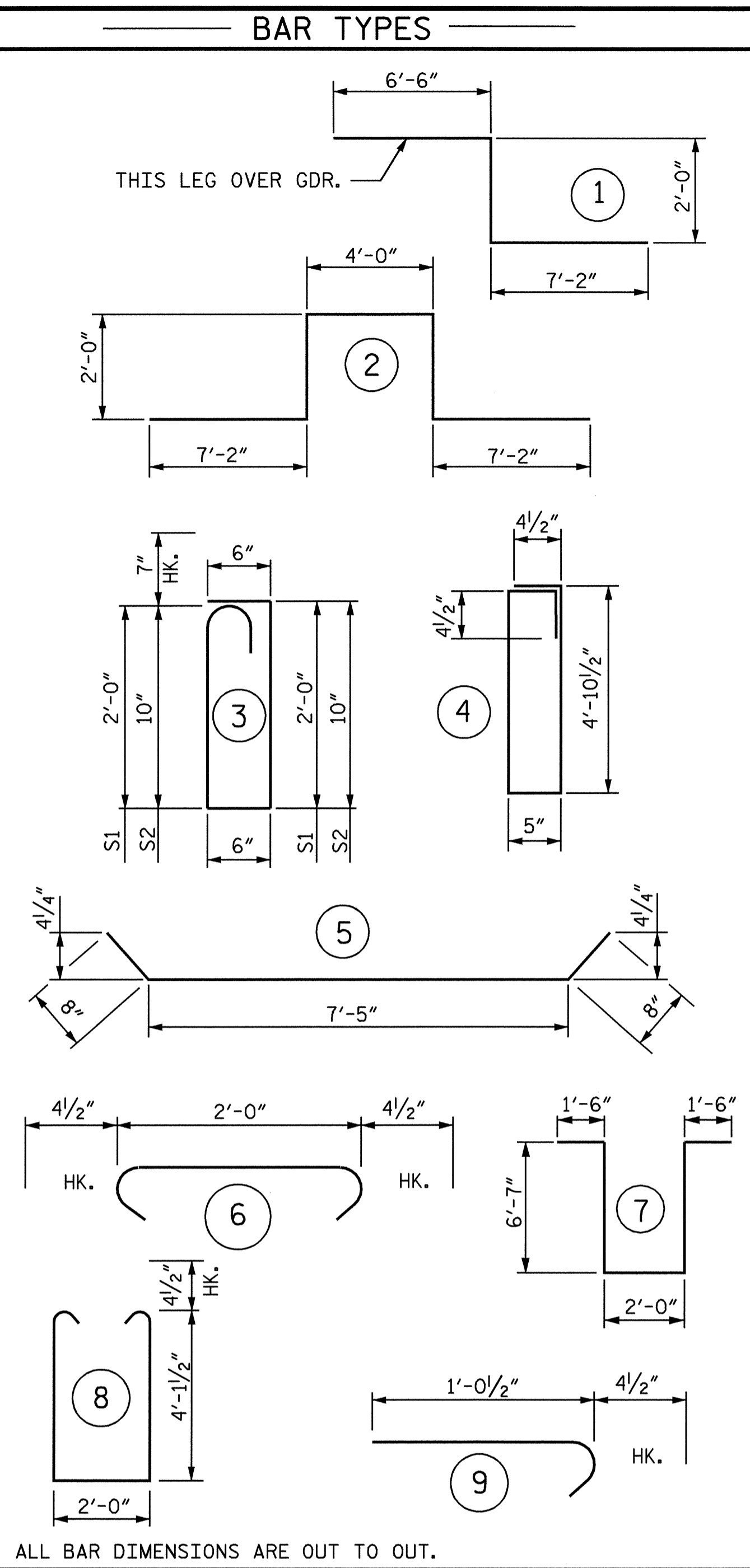
BAR SIZE	SUPERSTRUCTURE EXCEPT APPROACH SLABS, PARAPET, AND BARRIER RAIL		APPROACH SLABS		PARAPET AND BARRIER RAIL
	EPOXY COATED	UNCOATED	EPOXY COATED	UNCOATED	
#4	2'-0"	1'-9"	2'-0"	1'-9"	2'-9"
#5	2'-6"	2'-2"	2'-6"	2'-2"	3'-5"
#6	3'-0"	2'-7"	3'-10"	2'-7"	4'-4"
#7	5'-3"	3'-6"			
#8	6'-10"	4'-7"			

BILL OF MATERIAL

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
*A1	2837	#5	STR	38'-3"	113181
A2	2842	#5	STR	38'-3"	113381
*B1	156	#4	STR	26'-0"	2709
*B2	234	#7	STR	60'-0"	28698
*B3	234	#7	STR	21'-3"	10164
*B4	225	#7	STR	33'-0"	15177
*B5	208	#4	STR	20'-0"	2779
*B6	624	#4	STR	25'-11"	10803
B7	1032	#5	STR	56'-9"	61084
B8	172	#5	STR	56'-6"	10136
*J1	288	#4	9	1'-5"	273
*K1	40	#8	1	15'-8"	1673
*K2	40	#8	2	22'-4"	2385
K3	60	#6	STR	8'-2"	736
K4	168	#5	STR	7'-9"	1358
K5	672	#5	STR	8'-10"	6191
K6	168	#5	5	8'-9"	1533
K7	54	#4	STR	5'-10"	210
K8	270	#4	STR	8'-10"	1593
K9	54	#4	STR	6'-1"	219
K10	63	#4	STR	29'-3"	1231
*S1	180	#5	3	5'-7"	1048
S2	60	#5	3	3'-3"	203
S3	672	#4	4	11'-4"	5087
S4	1188	#4	6	2'-9"	2182
S5	54	#4	8	11'-0"	397
*U1	162	#4	7	18'-2"	1966
REINFORCING STEEL					= 205,541 LBS.
* EPOXY COATED REINFORCING STEEL					= 190,856 LBS.

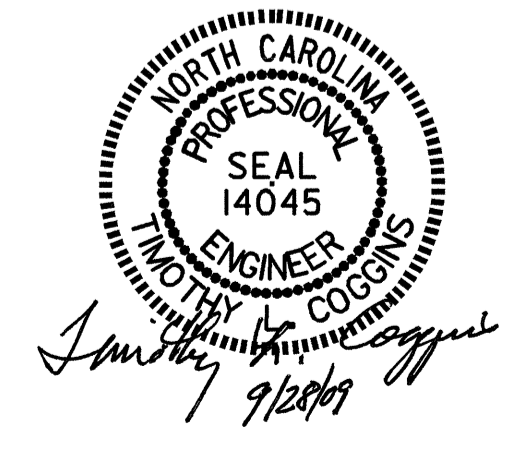
GROOVING BRIDGE FLOORS

APPROACH SLABS	1,598 SQ.FT.
BRIDGE DECK	50,782 SQ.FT.
TOTAL	52,380 SQ.FT.



LAYOUT FOR COMPUTING AREA REINFORCED CONCRETE DECK SLAB
(SQ. FT. = 59,424)

PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-



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

ASSEMBLED BY : B.N.BARODAWALA	DATE : 10/27/08
CHECKED BY : J.B.WILSON	DATE : 1/23/09
DRAWN BY : JMB 5/87	REV. 6/1/94 EEM/GRP
CHECKED BY : SJD 9/87	REV. 8/16/99 RWW/LES
	REV. 5/1/06 TLA/GM

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-34
1			3			TOTAL SHEETS 50
2			4			

NOTES

STIRRUPS IN CAP MAY BE SHIFTED AS NECESSARY TO CLEAR ANCHOR BOLTS.

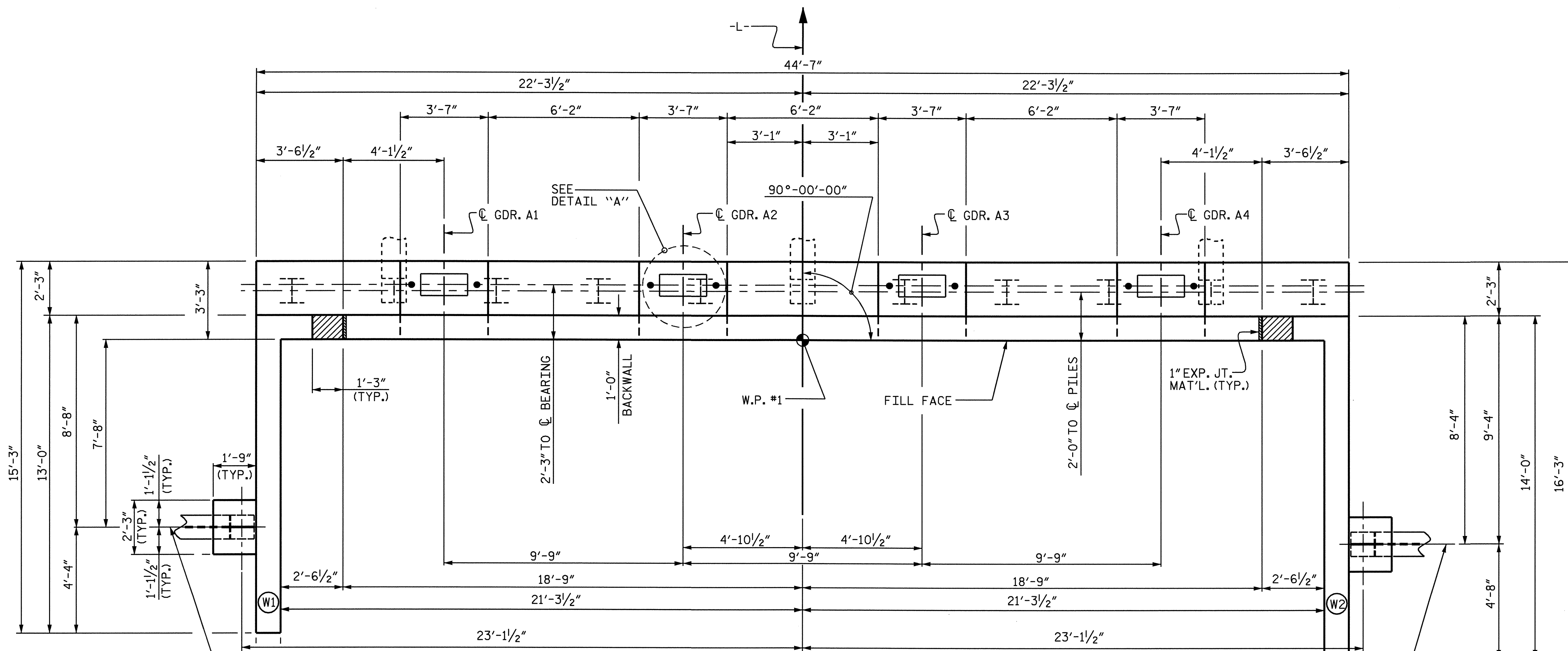
BACKWALL SHALL BE PLACED BEFORE APPLYING THE EPOXY PROTECTIVE COATING.

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

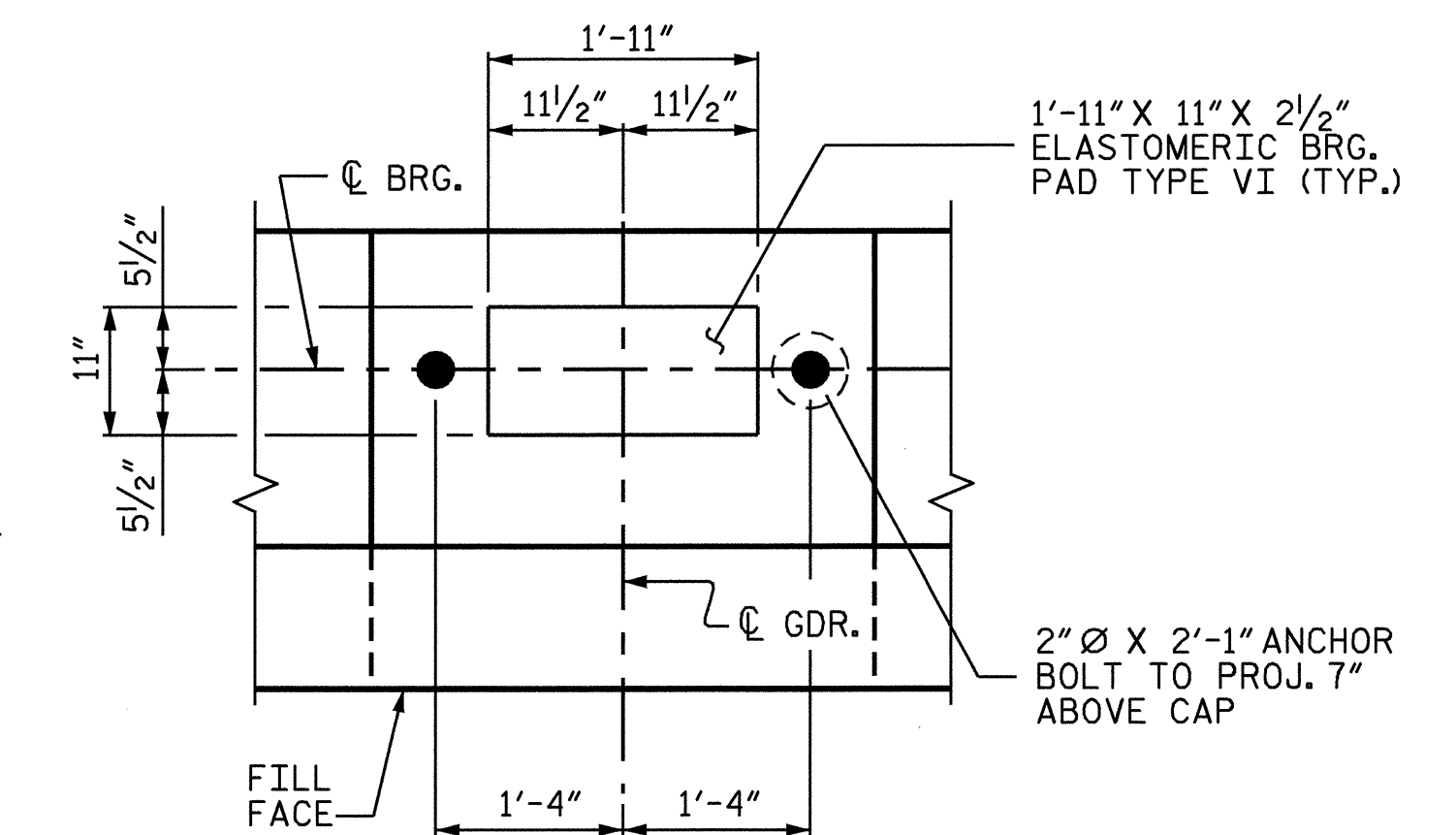
THE TOP SURFACE OF THE CAP EXCEPT THE BRIDGE SEAT BUILDUPS SHALL BE SLOPED TRANSVERSELY FROM THE FILL FACE TO THE BACK FACE AT THE RATE OF 2%.

THE CONTRACTOR SHALL PROVIDE FOR INSTALLATION OF THE 4" DIAMETER DRAIN PIPE THROUGH THE WING WALL AS REQUIRED FOR REINFORCED BRIDGE APPROACH FILLS, SEE THE ROADWAY PLANS. REINFORCING STEEL IN THE WING WALL MAY BE SHIFTED AS NECESSARY TO CLEAR THE DRAIN PIPE.

CENTER UTILITY IN BLOCKOUT AND FILL ANNULAR SPACE AROUND UTILITY PIPE WITH JOINT FILLER IN ACCORDANCE WITH STANDARD SPECIFICATIONS ARTICLE 1028-1.

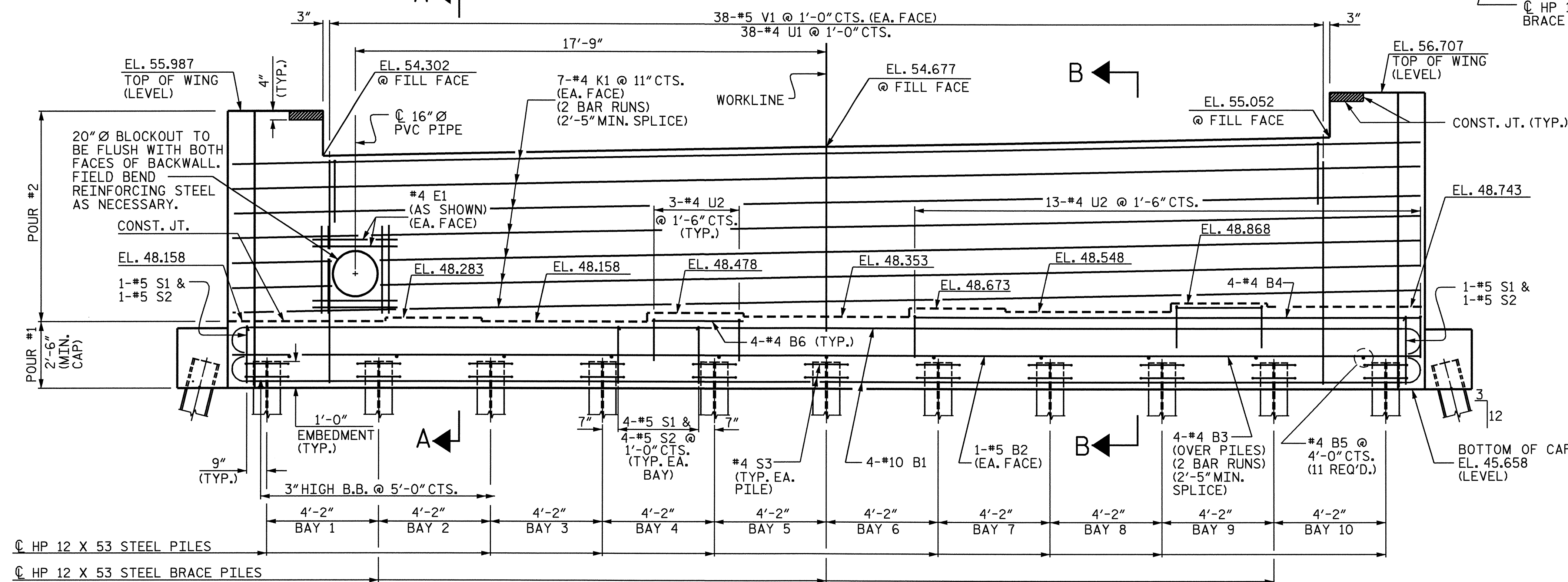


PLAN



DETAIL "A"

(TYP. EA. GDR.)



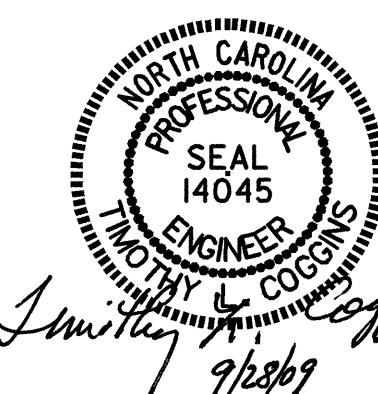
ELEVATION

REINFORCING STEEL NOT SHOWN IN WING AND BRACE PILE FOOTING FOR CLARITY, SEE WING DETAILS, SHEET 2 OF 3.

PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-

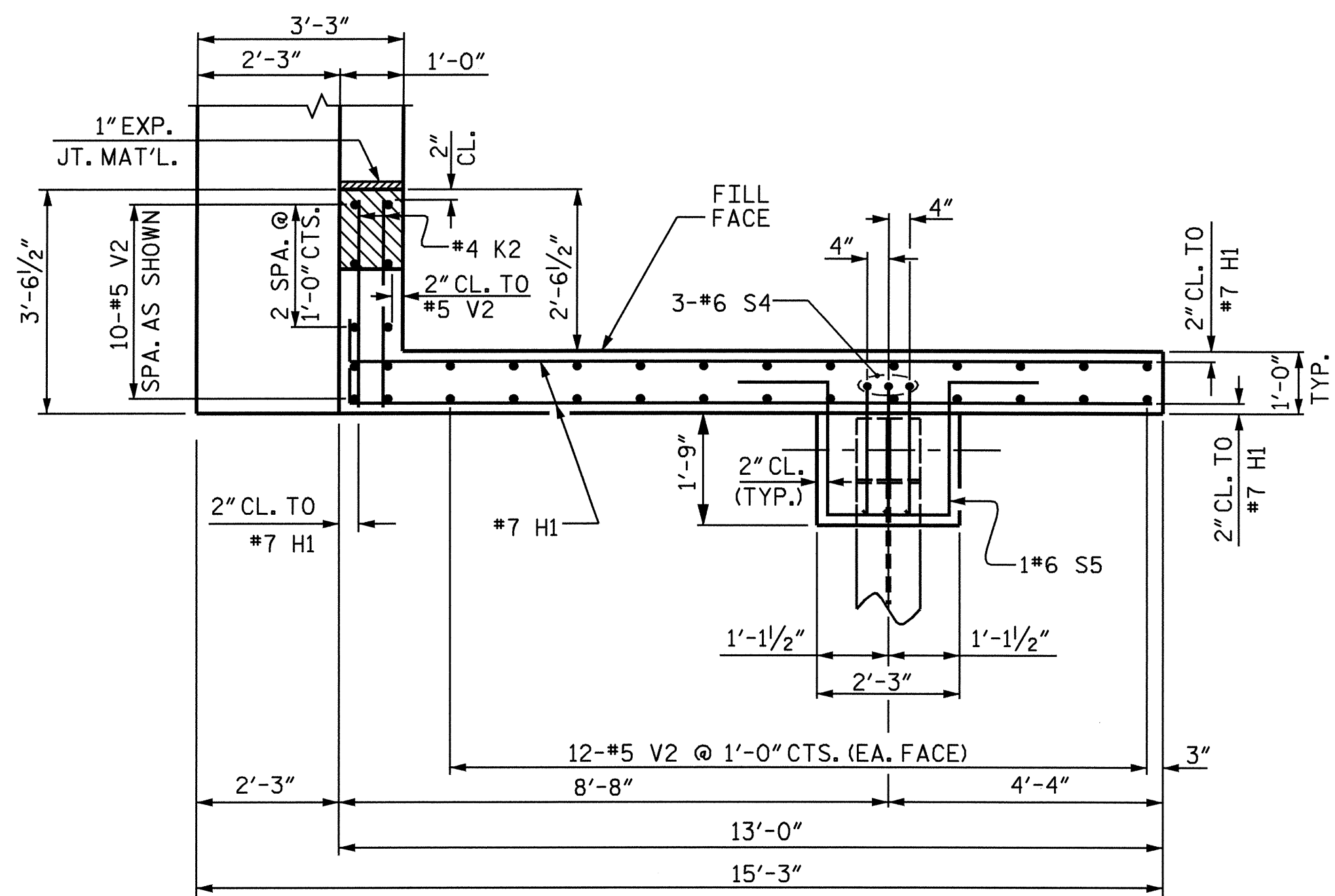
SHEET 1 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUBSTRUCTURE
 END BENT #1

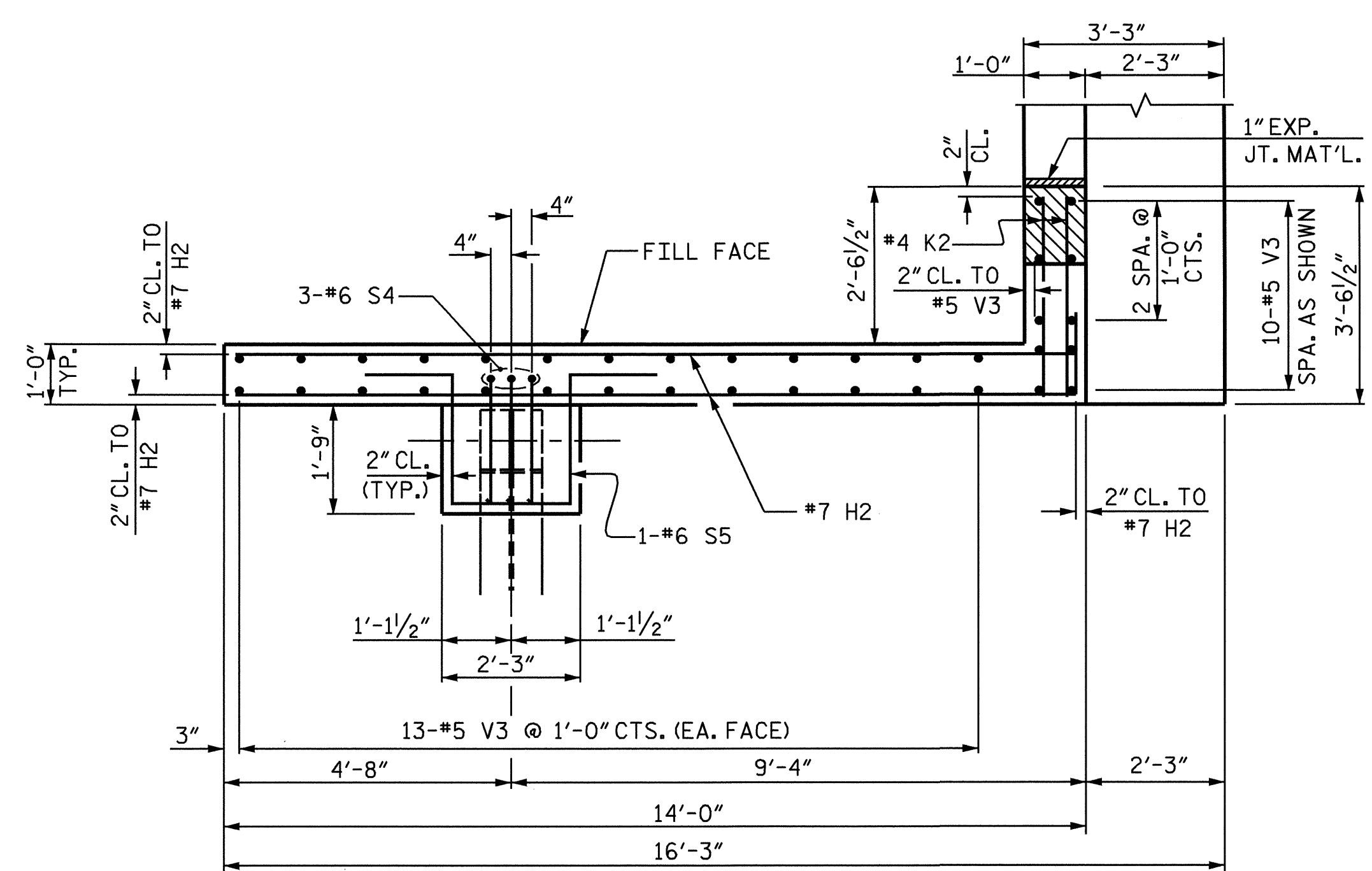


DRAWN BY: M.D. PISO DATE: 12/2008
 CHECKED BY: J.B. WILSON DATE: 01/2009

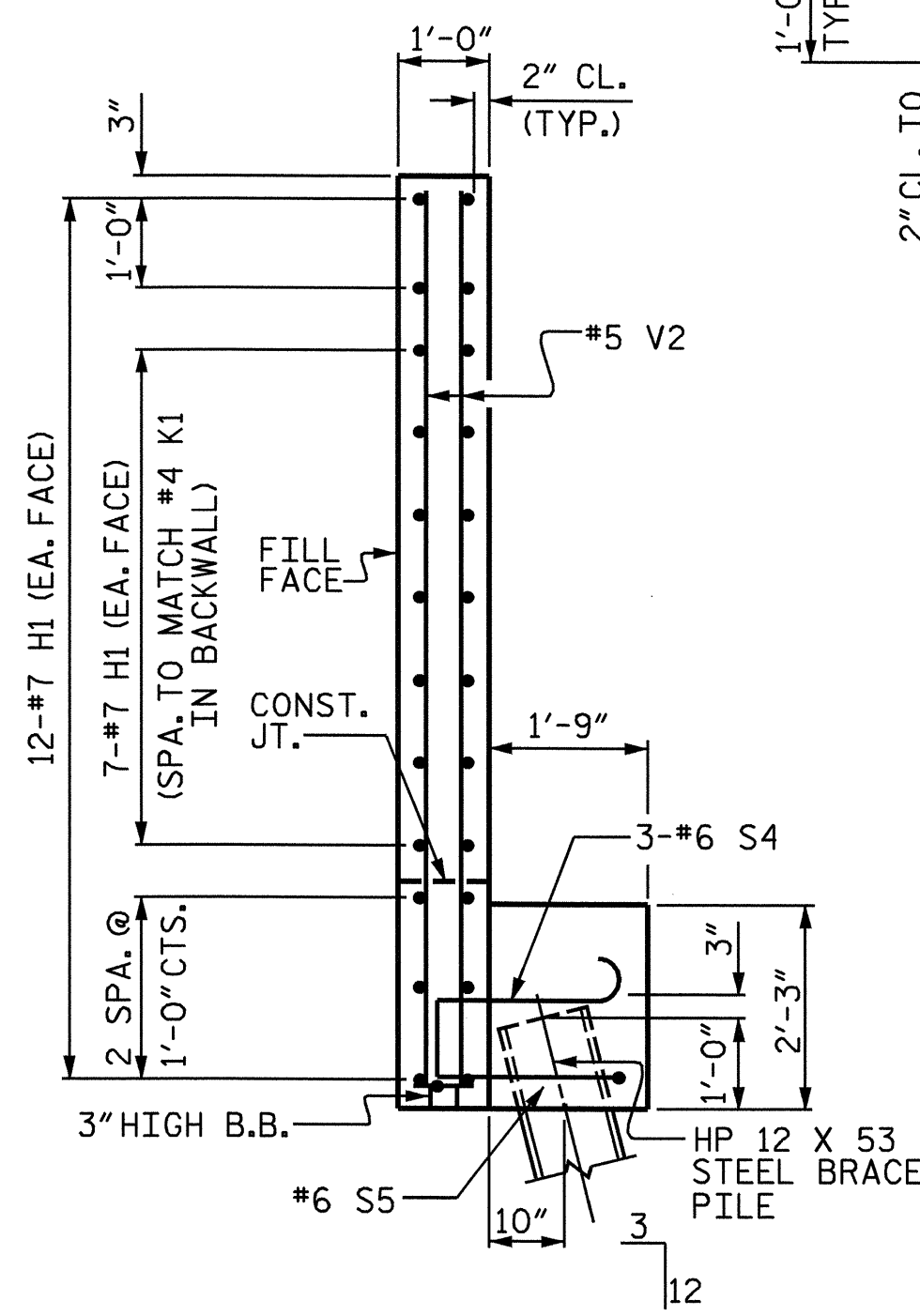
REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-35	
1			3			TOTAL SHEETS 50	
2			4				



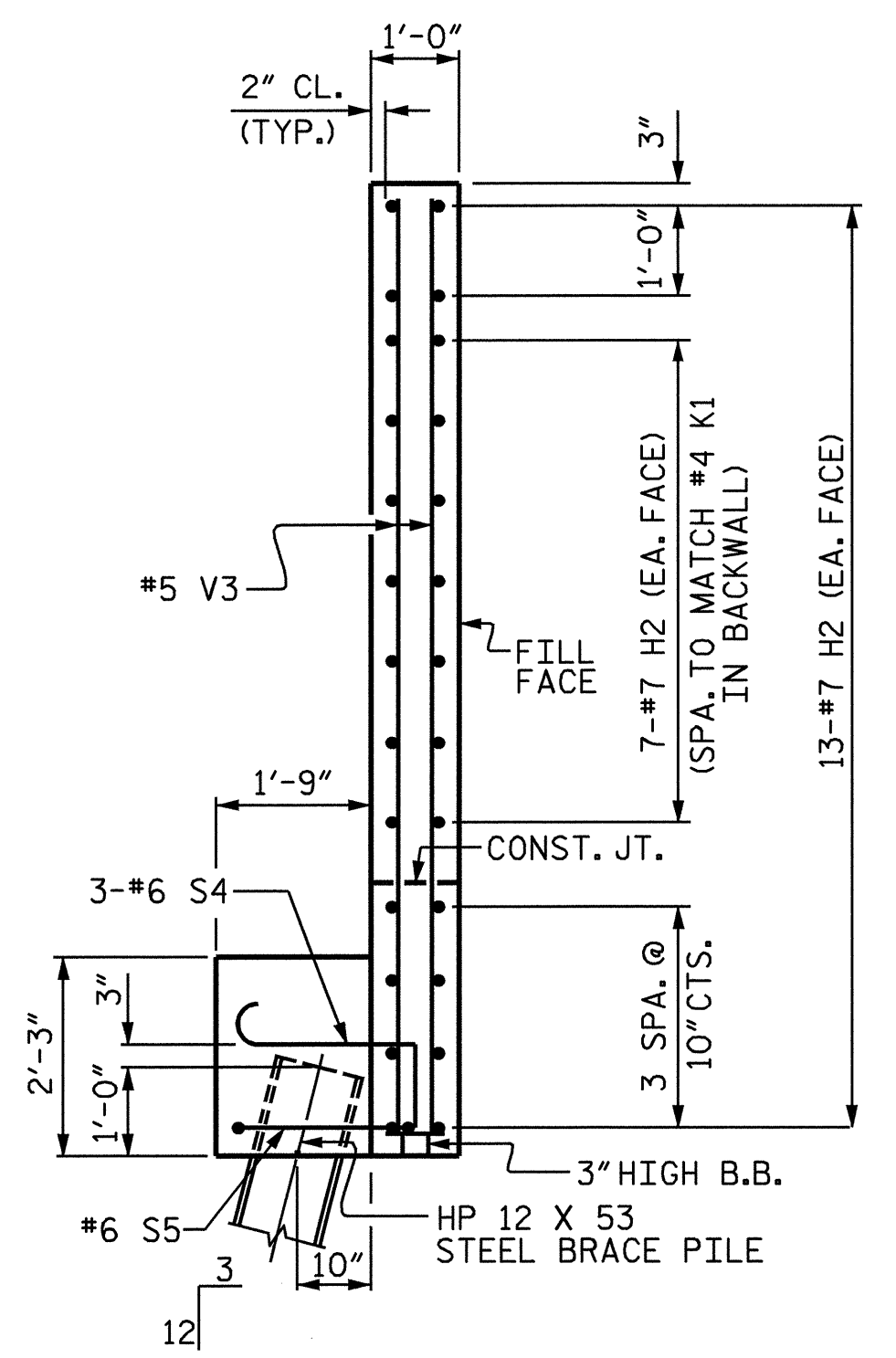
PLAN OF LEFT WING (W1)



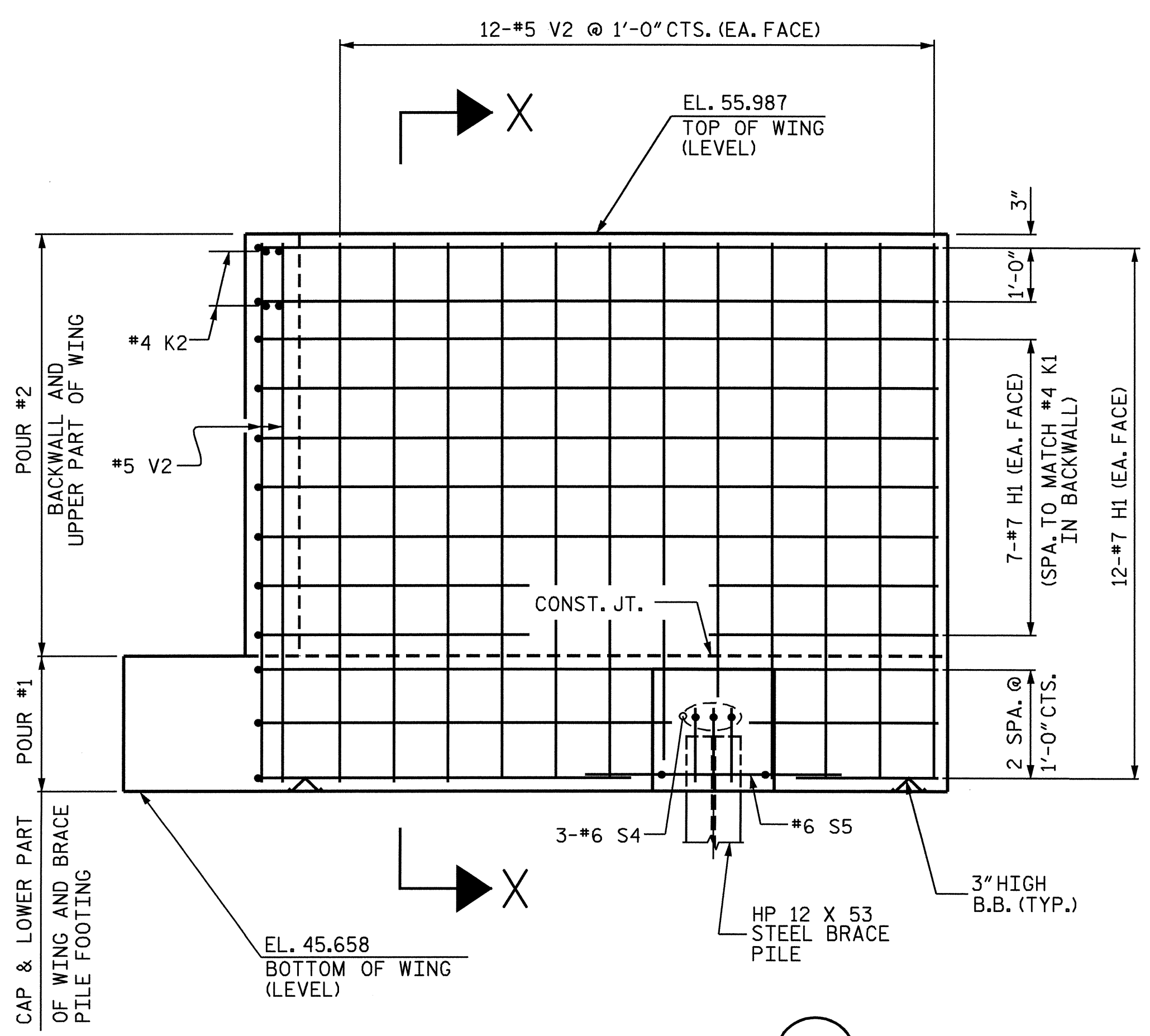
PLAN OF RIGHT WING (W2)



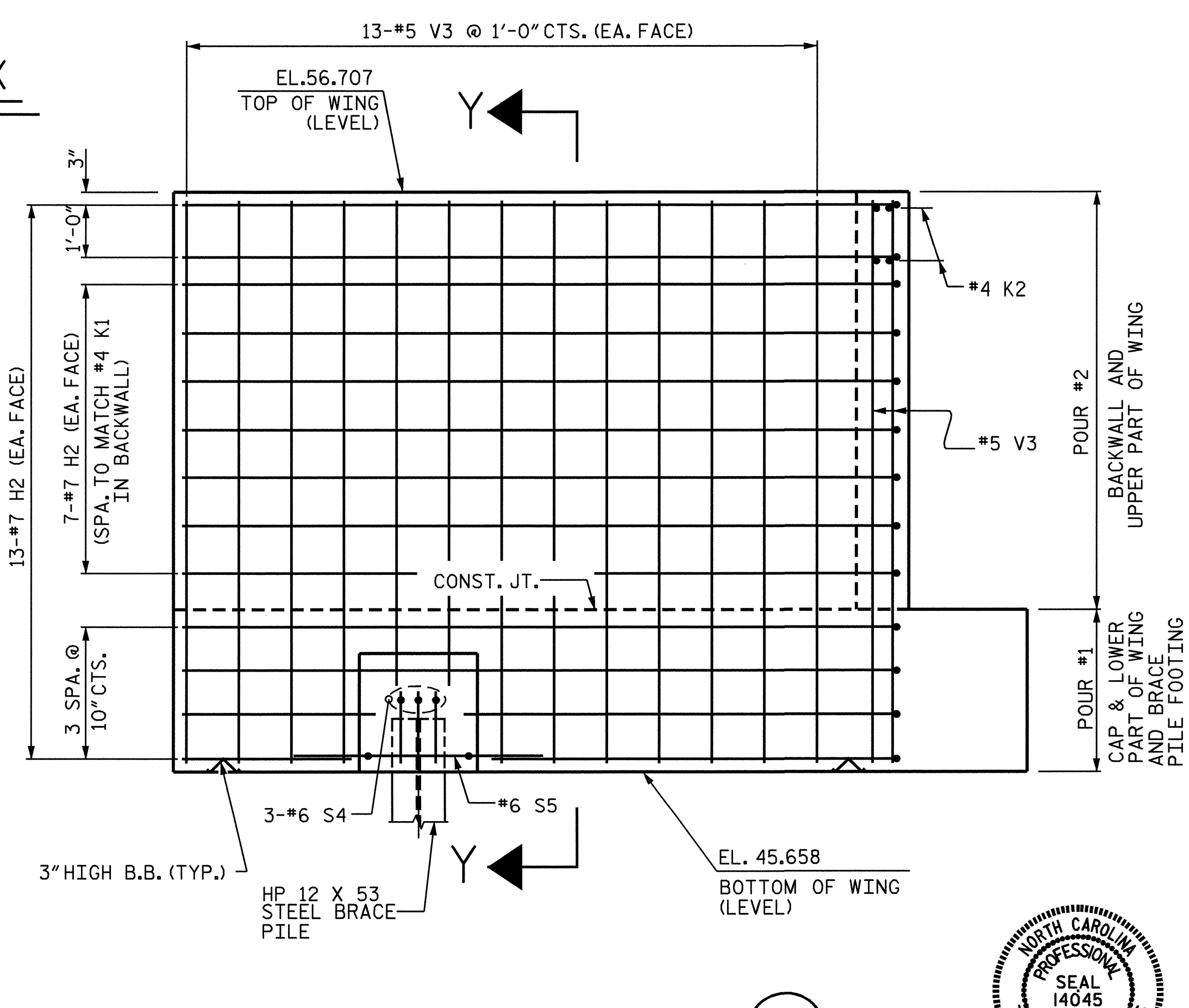
SECTION X-X



SECTION Y-Y



ELEVATION OF LEFT WING (W1)



ELEVATION OF RIGHT WING (W2)



PROJECT NO. U-3826
 EDGEcombe COUNTY
 STATION: 49+65.00 -L-
 SHEET 2 OF 3

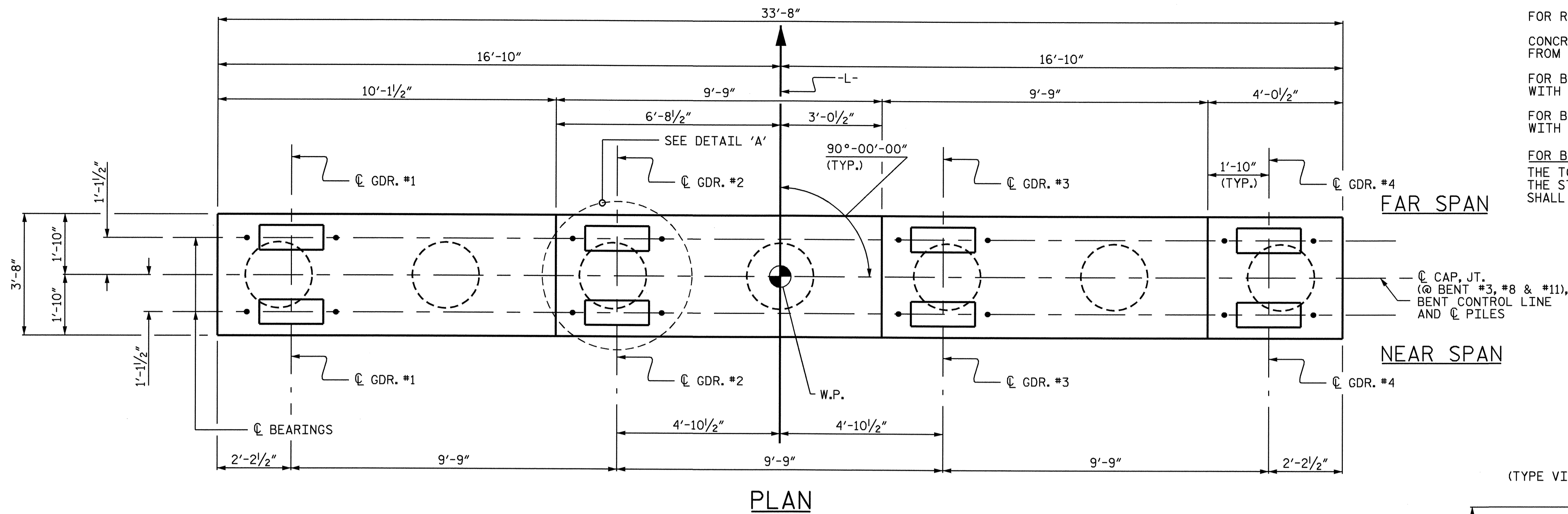
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUBSTRUCTURE
 END BENT #1

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-36	
1			3			TOTAL SHEETS 50	
2			4				

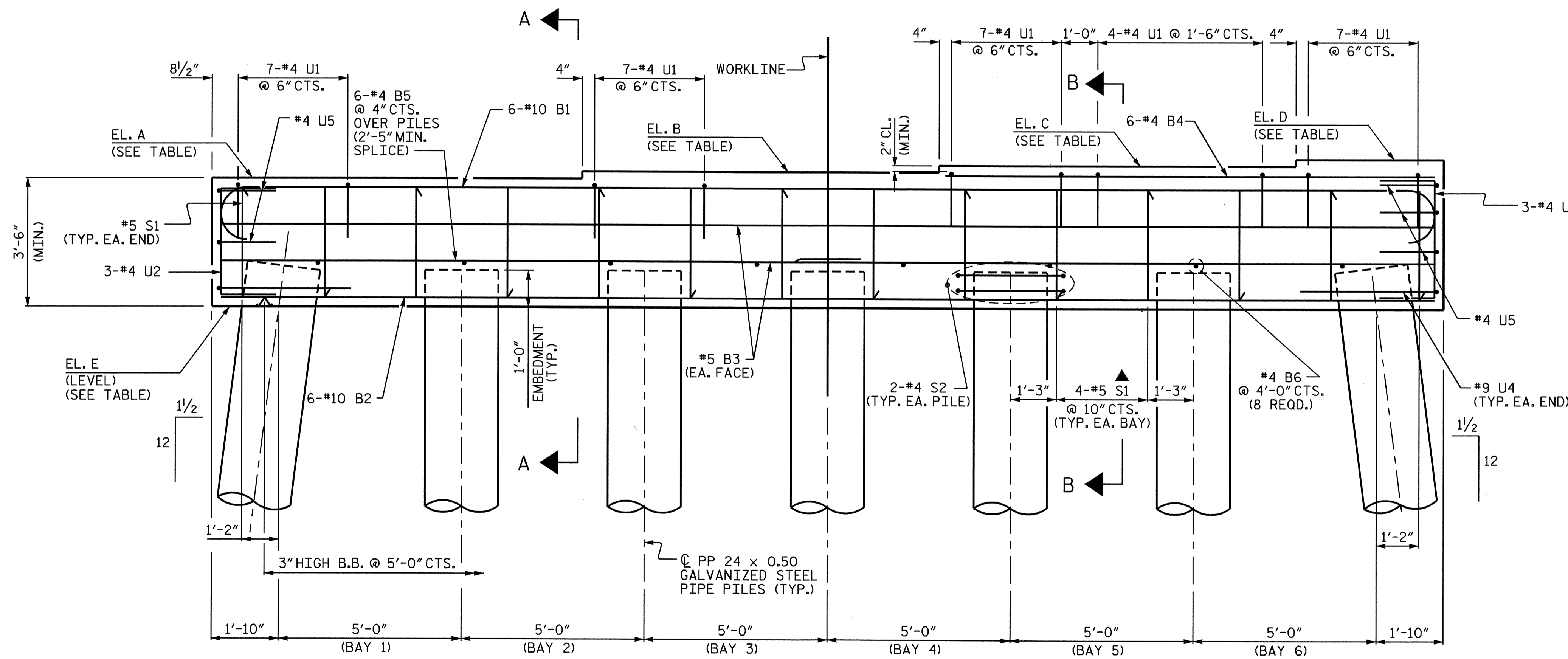
DRAWN BY: M.D.PISO DATE: 12/2008
 CHECKED BY: J.B.WILSON DATE: 01/2009

NOTES

STIRRUPS IN CAP MAY BE SHIFTED AS NECESSARY TO CLEAR ANCHOR BOLTS.
 FOR REINFORCING STEEL IN PIPE PILES, SEE "24" STEEL PIPE PILE" SHEET.
 CONCRETE DISPLACED BY THE FILLED 24" STEEL PIPE PILES HAS BEEN DEDUCTED FROM THE QUANTITY OF CLASS "A" CONCRETE FOR THE BENT CAP.
 FOR BENTS #1 THRU #4, GALVANIZE THE TOP 40 FEET OF EACH PILE IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS.
 FOR BENTS #8 THRU #13, GALVANIZE THE TOP 35 FEET OF EACH PILE IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS.
 FOR BENT #3, #8 AND #11 ONLY:
 THE TOP SURFACE AREAS OF THE BENT CAP SHALL BE CURED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS EXCEPT THE MEMBRANE CURING COMPOUND METHOD SHALL NOT BE USED.

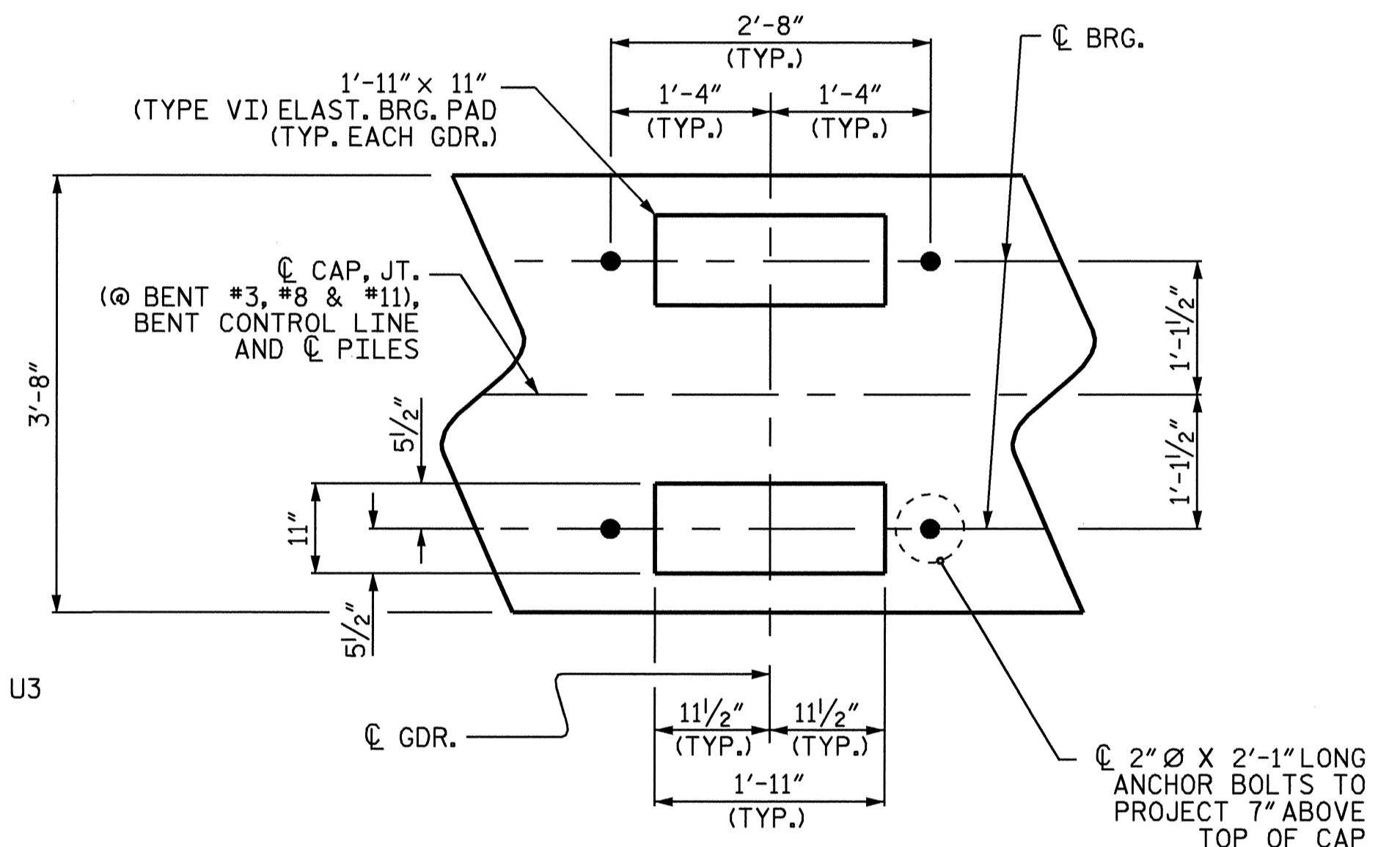


PLAN



ELEVATION
FOR ELEVATION TABLE
SEE SHEET 2 OF 2.

▲ INVERT
ALTERNATE
STIRRUPS



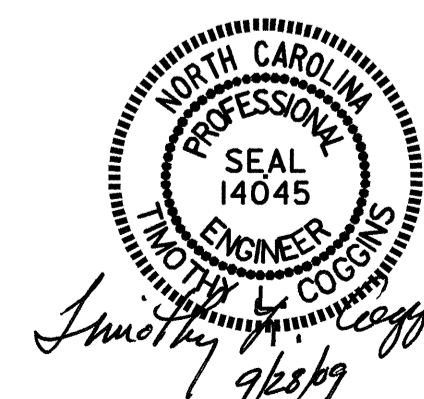
DETAIL "A"
(TYP. EA. GDR.)

PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-

SHEET 1 OF 2

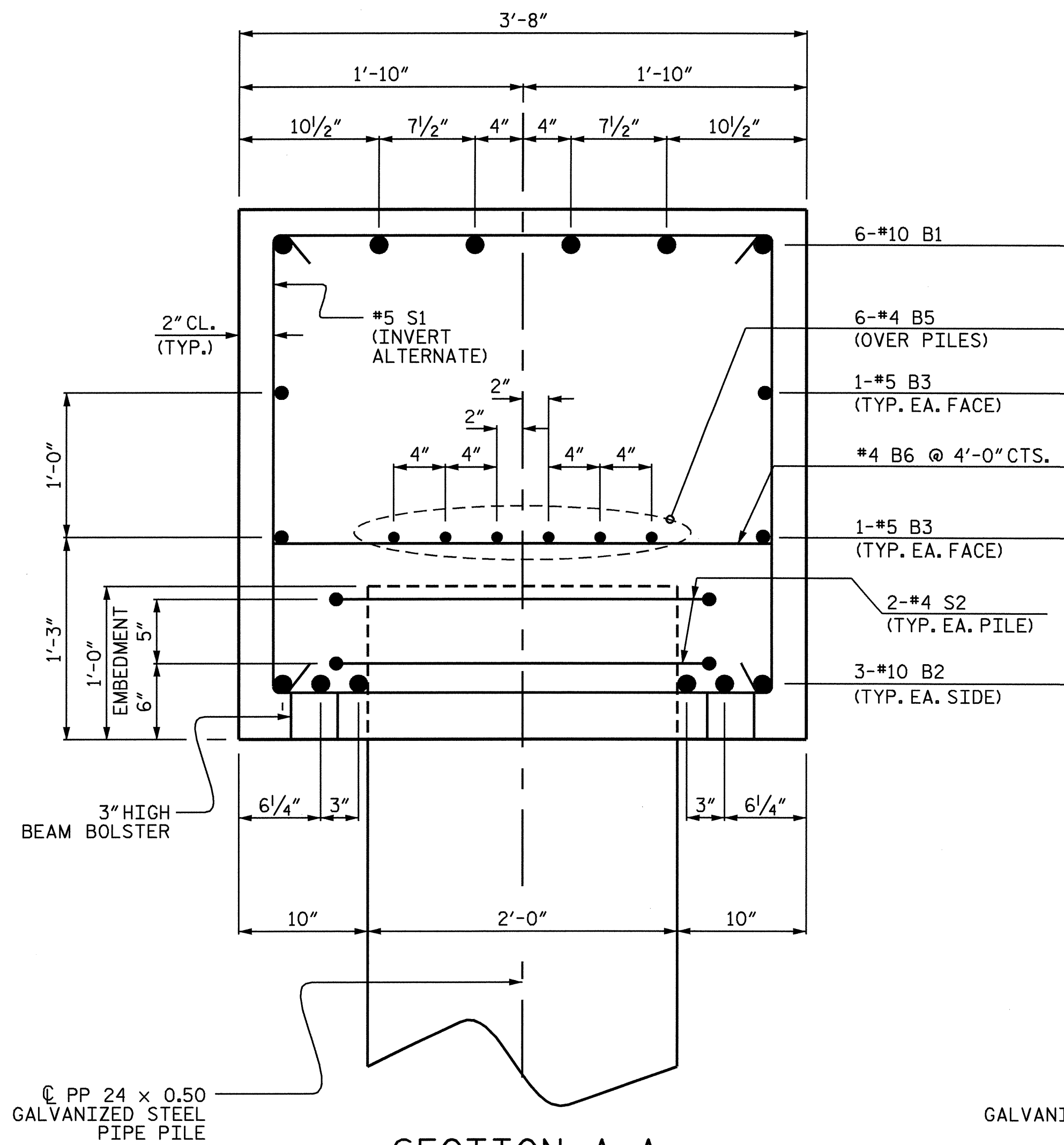
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
 BENTS
 #1 THRU #4
 &
 #8 THRU #13

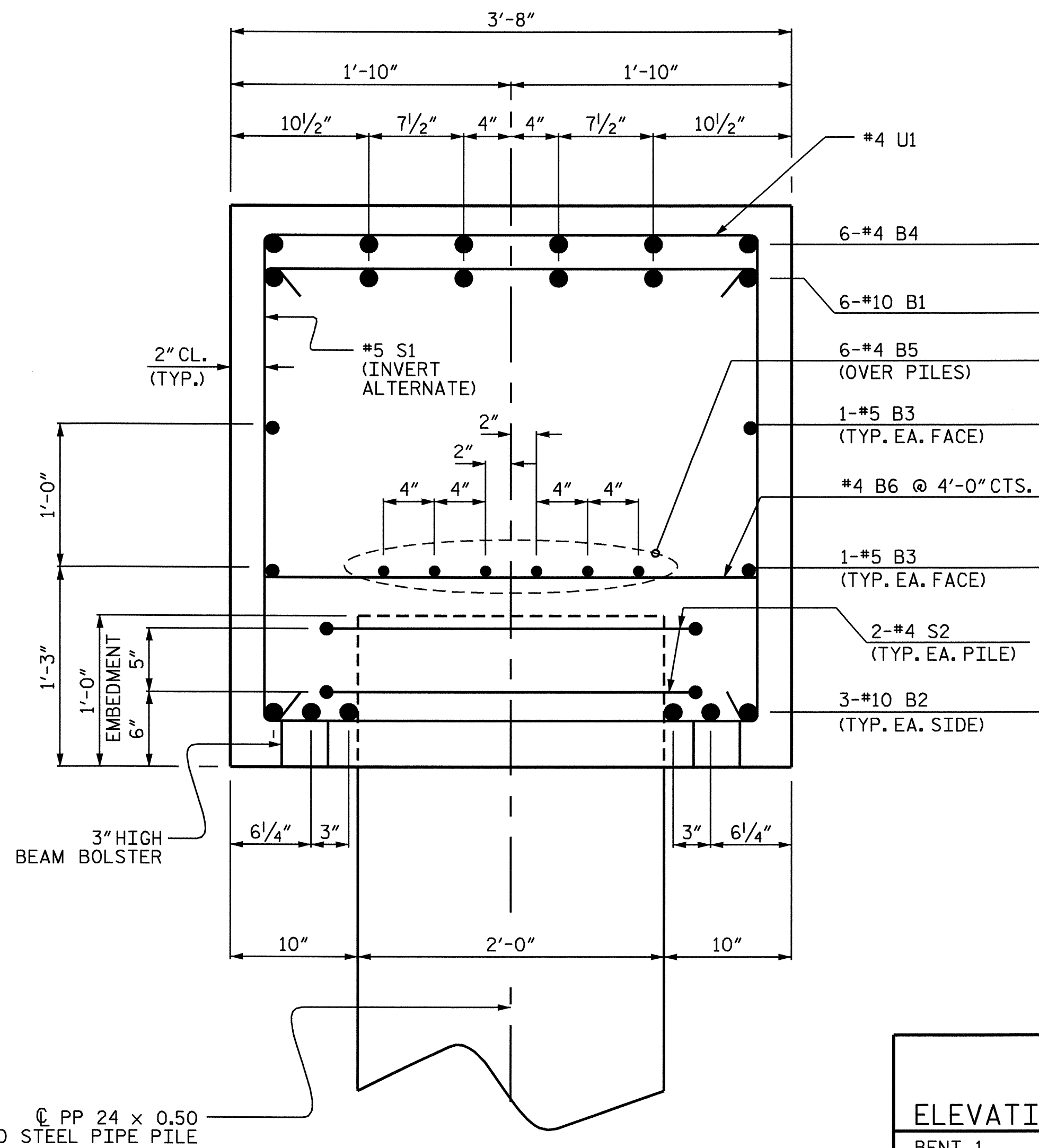


REVISIONS						TOTAL SHEETS
NO.	BY:	DATE:	NO.	BY:	DATE:	50
1			3			
2			4			

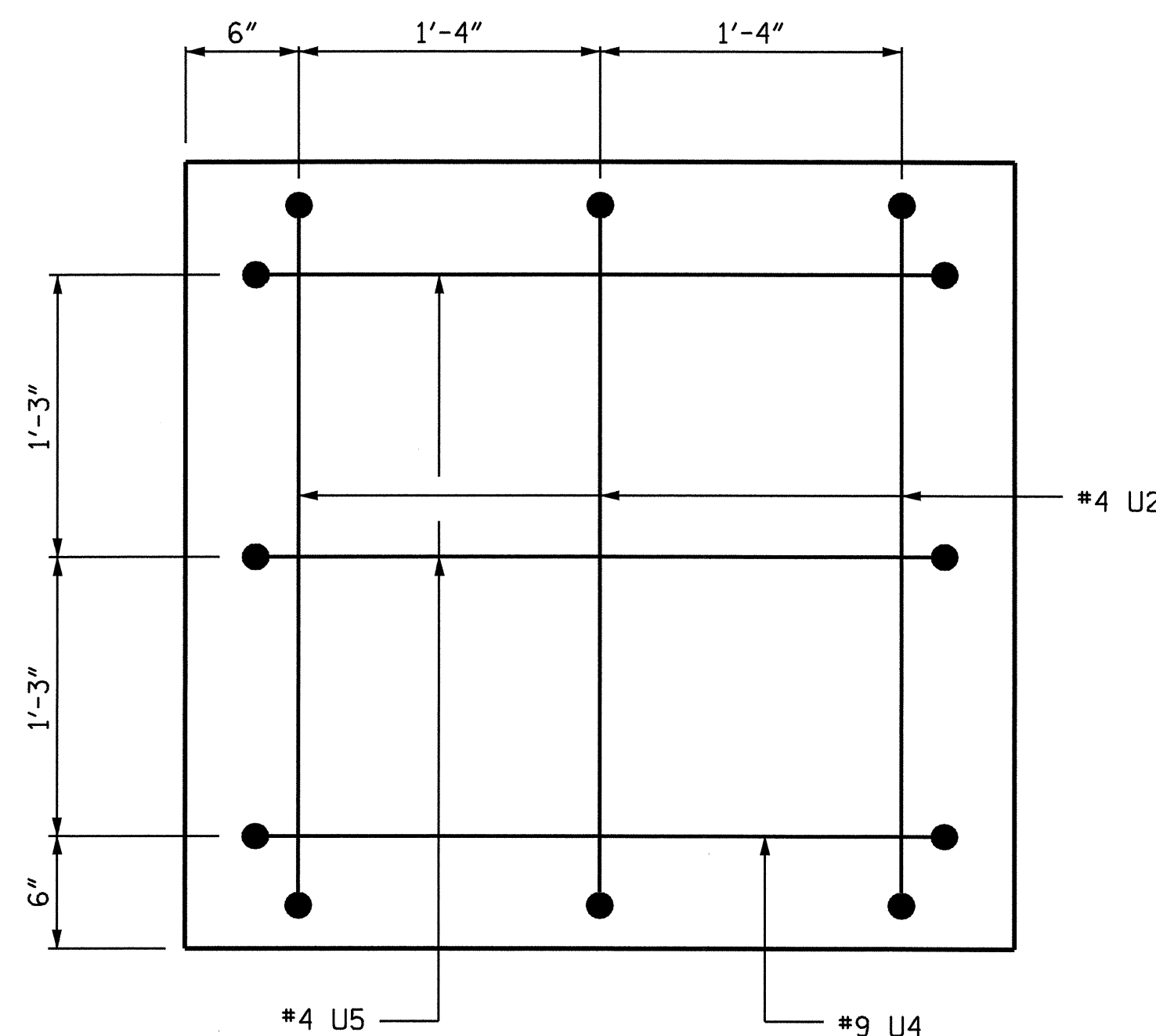
DRAWN BY : J.B. WILSON DATE : 2/14/09
 CHECKED BY : PEGGY PARISI DATE : 3/31/09



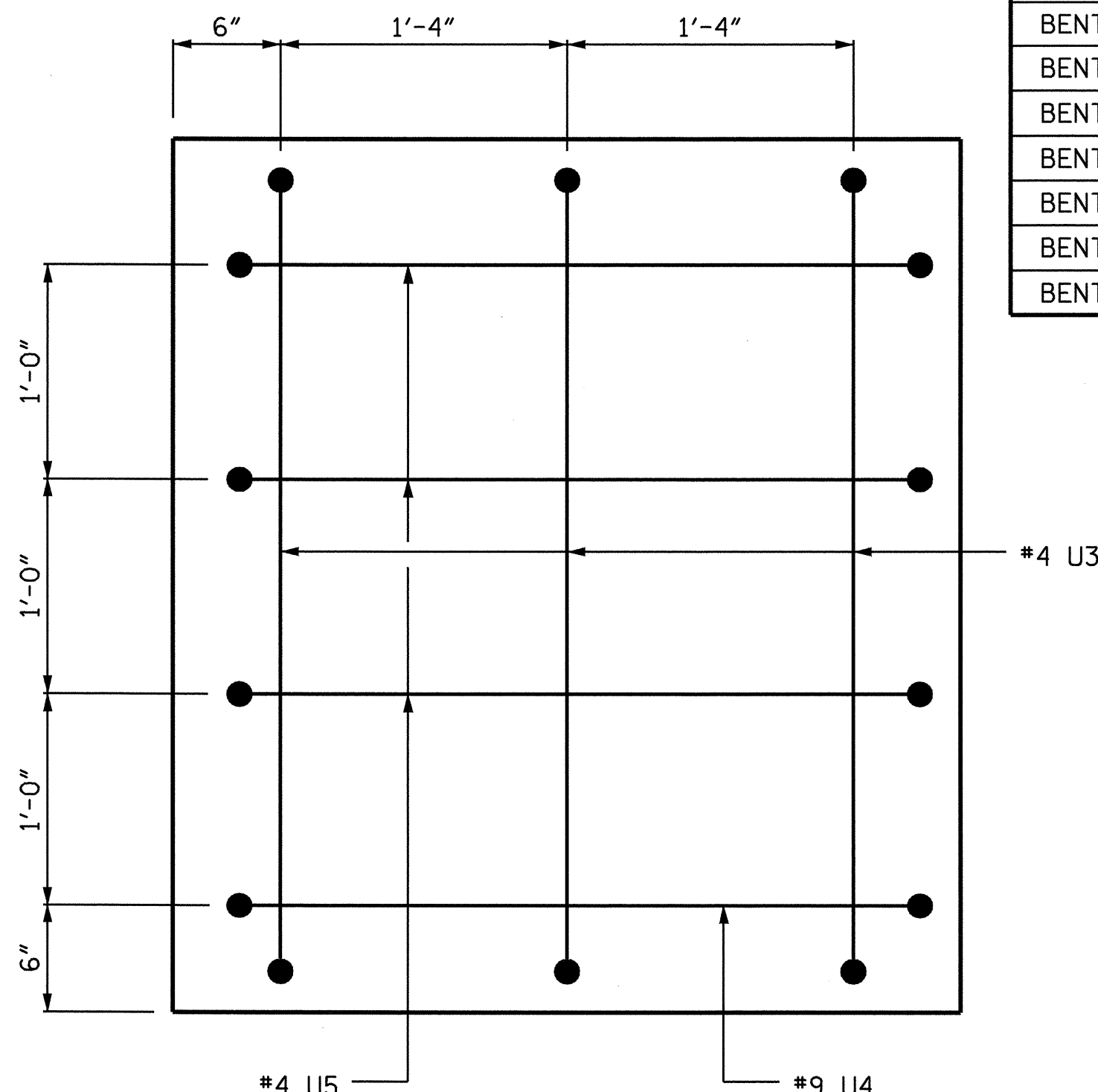
SECTION A-A



SECTION B-B



LEFT END VIEW



RIGHT END VIEW

BAR TYPES

ALL BAR DIMENSIONS ARE OUT TO OUT.

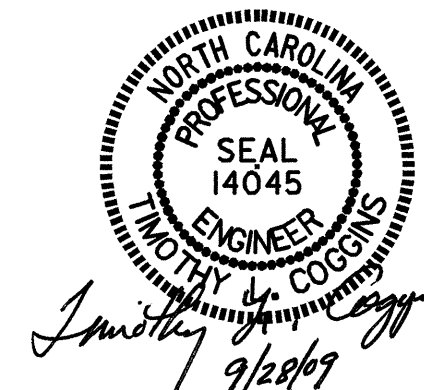
BILL OF MATERIAL FOR ONE BENT ONLY

BAR NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	#10	1	36'-1"	932
B2	#10	STR	33'-4"	861
B3	#5	STR	33'-4"	139
B4	#4	STR	13'-5"	54
B5	#4	STR	17'-11"	144
B6	#4	STR	3'-4"	18
S1	#5	2	10'-6"	285
S2	#4	3	10'-9"	101
U1	#4	4	6'-4"	135
U2	#4	4	6'-0"	12
U3	#4	4	6'-7"	13
U4	#9	4	10'-6"	71
U5	#4	4	6'-2"	21
REINFORCING STEEL				LBS. 2786
CLASS A CONCRETE TOTAL				CU.YD. 16.3

ELEVATION	A	B	C	D	E	PILE REDRIVES	PP 24 x 0.50 GALVANIZED STEEL PILES	PIPE PILE PLATES
BENT 1	48.642	48.837	49.032	49.227	45.142	5 EACH	No. 7 595 LIN. FT.	7 EACH
BENT 2	49.004	49.199	49.394	49.589	45.504	5 EACH	No. 7 595 LIN. FT.	7 EACH
BENT 3	49.366	49.561	49.756	49.951	45.866	5 EACH	No. 7 595 LIN. FT.	7 EACH
BENT 4	49.670	49.865	50.060	50.255	46.170	5 EACH	No. 7 595 LIN. FT.	7 EACH
BENT 8	49.037	49.232	49.427	49.622	45.537	5 EACH	No. 7 455 LIN. FT.	7 EACH
BENT 9	48.675	48.870	49.065	49.260	45.175	5 EACH	No. 7 455 LIN. FT.	7 EACH
BENT 10	48.313	48.508	48.703	48.898	44.813	5 EACH	No. 7 455 LIN. FT.	7 EACH
BENT 11	47.951	48.146	48.341	48.536	44.451	5 EACH	No. 7 455 LIN. FT.	7 EACH
BENT 12	47.589	47.784	47.979	48.174	44.089	5 EACH	No. 7 455 LIN. FT.	7 EACH
BENT 13	47.228	47.423	47.618	47.813	43.728	5 EACH	No. 7 455 LIN. FT.	7 EACH

DRAWN BY: J.B. WILSON DATE: 2/16/09
 CHECKED BY: PEGGY PARISI DATE: 3/31/09

21-SEP-2009 10:04
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 faverette

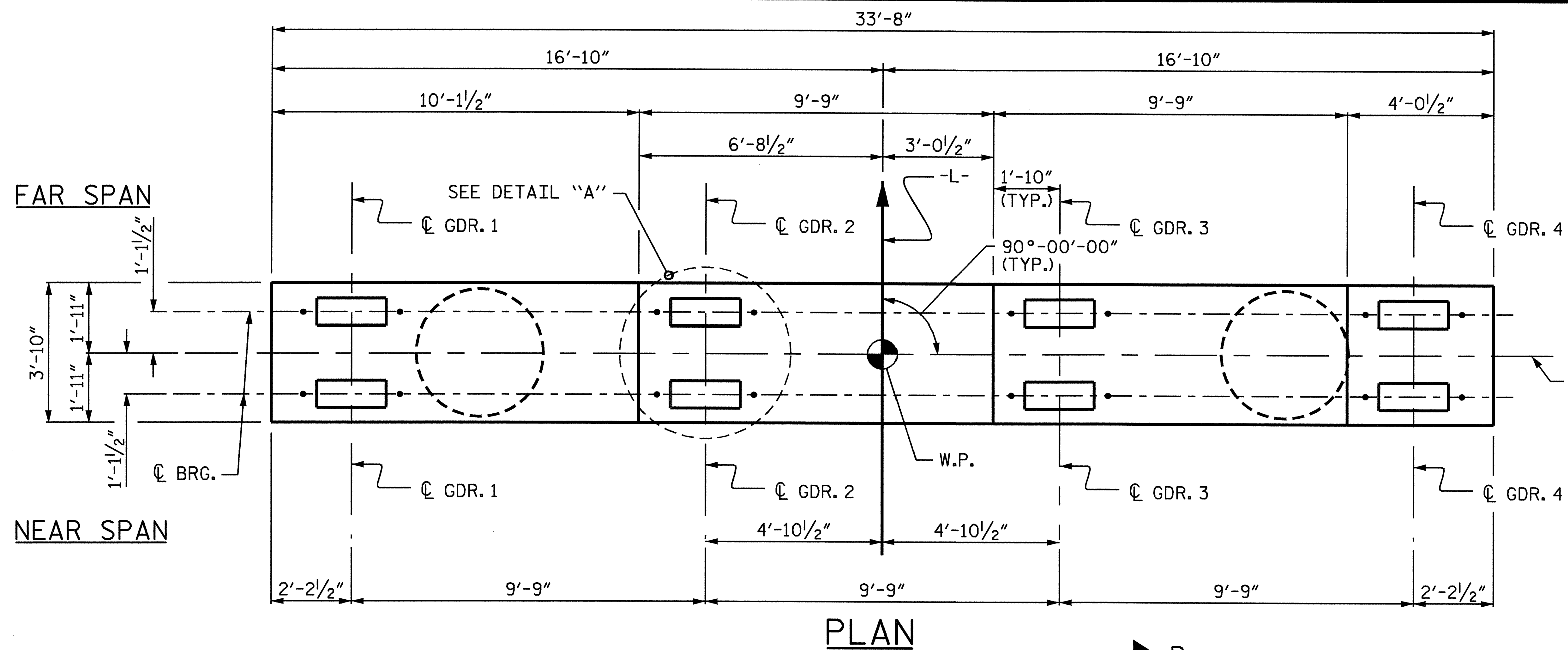


PROJECT NO. U-3826
 EDGEcombe COUNTY
 STATION: 49+65.00 -L-

SHEET 2 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUBSTRUCTURE
 BENTS #1 THRU #4 & #8 THRU #13

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-39
1			3			TOTAL SHEETS 50
2			4			



ELEVATION	A	B	C	D	E	F
BENT 5	49.781	49.976	50.171	50.366	45.281	19.781
BENT 6	49.688	49.883	50.078	50.273	45.188	19.938

NOTES

STIRRUPS IN CAP MAY BE SHIFTED AS NECESSARY TO CLEAR ANCHOR BOLTS.

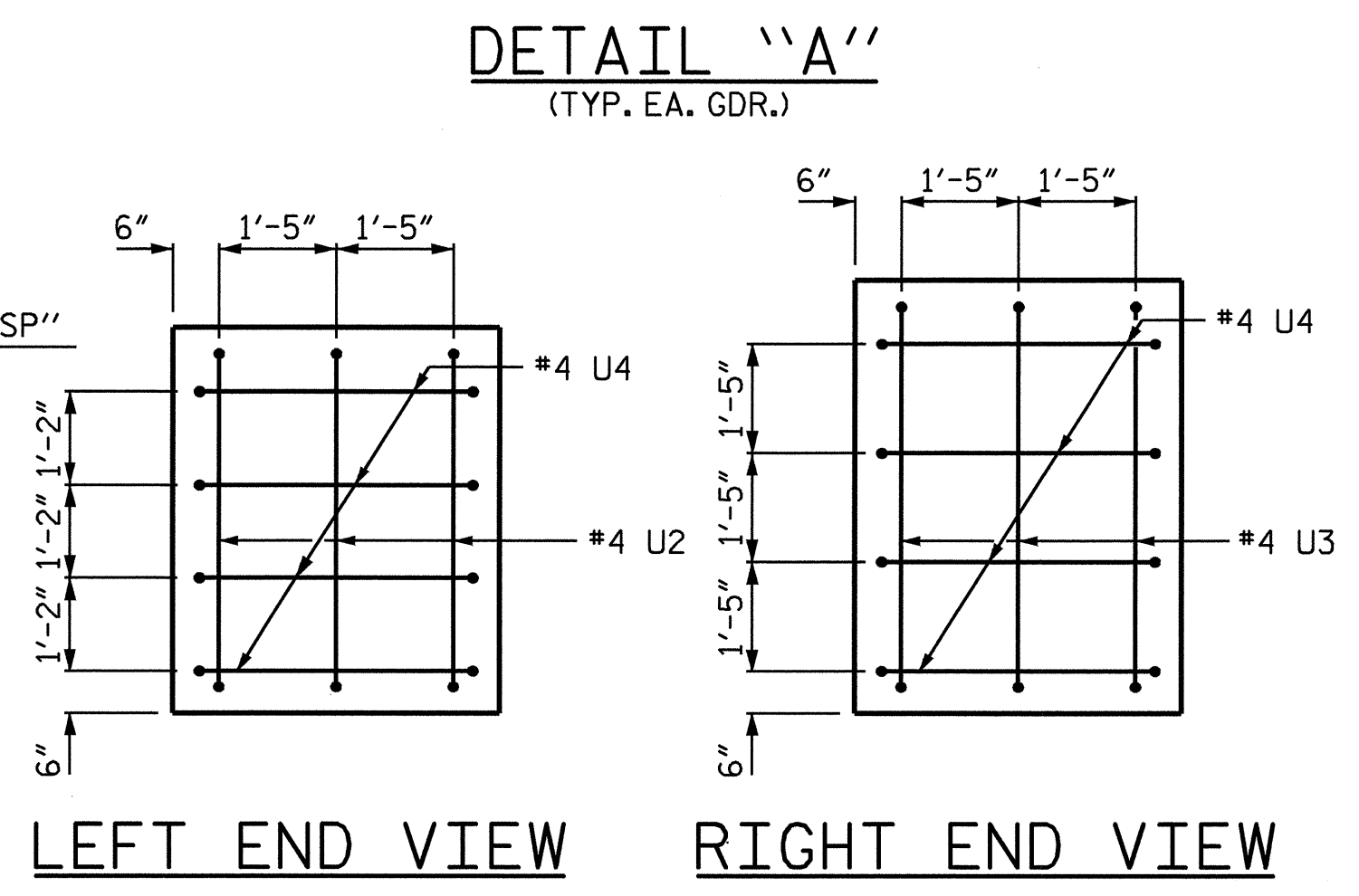
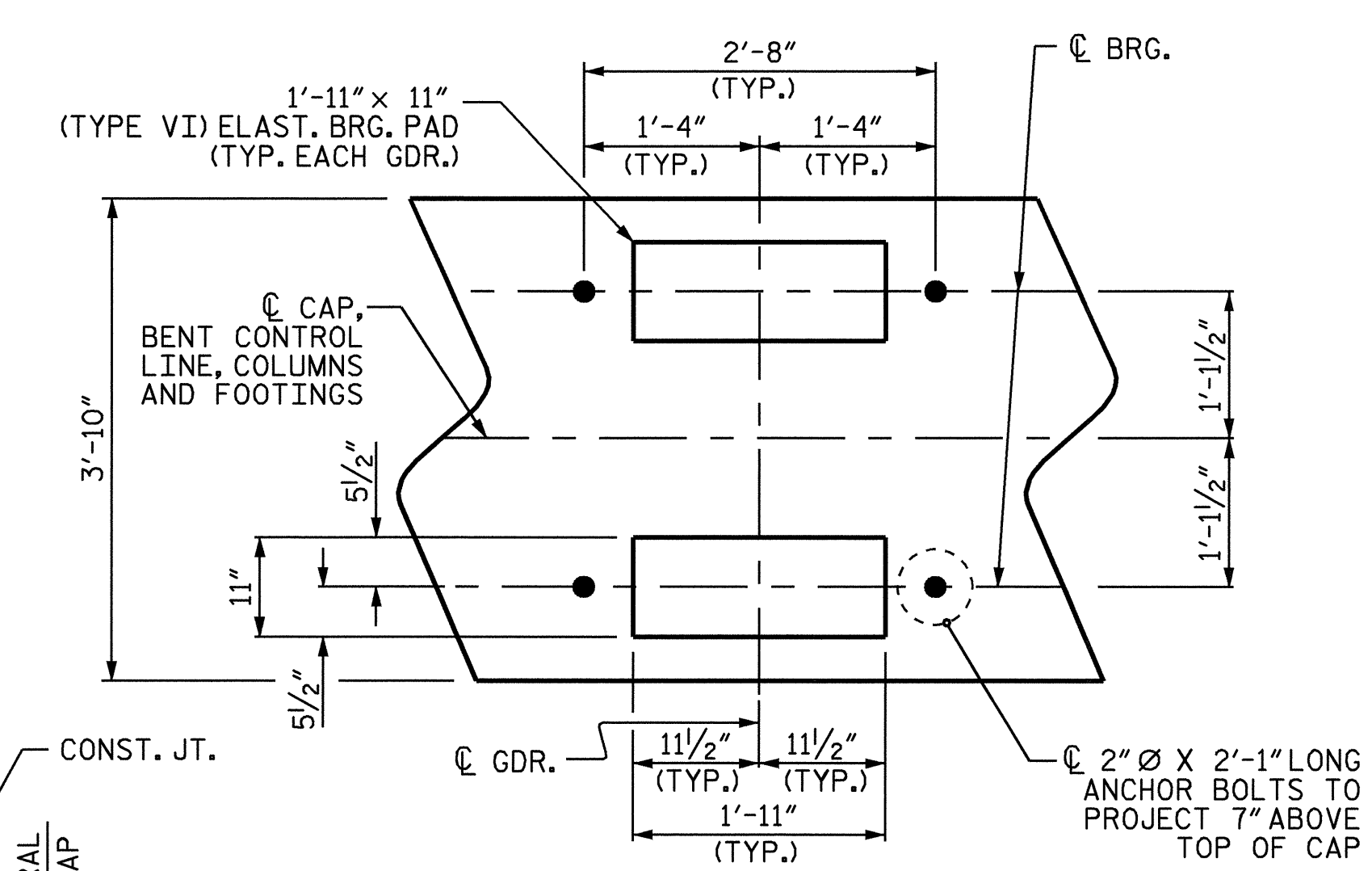
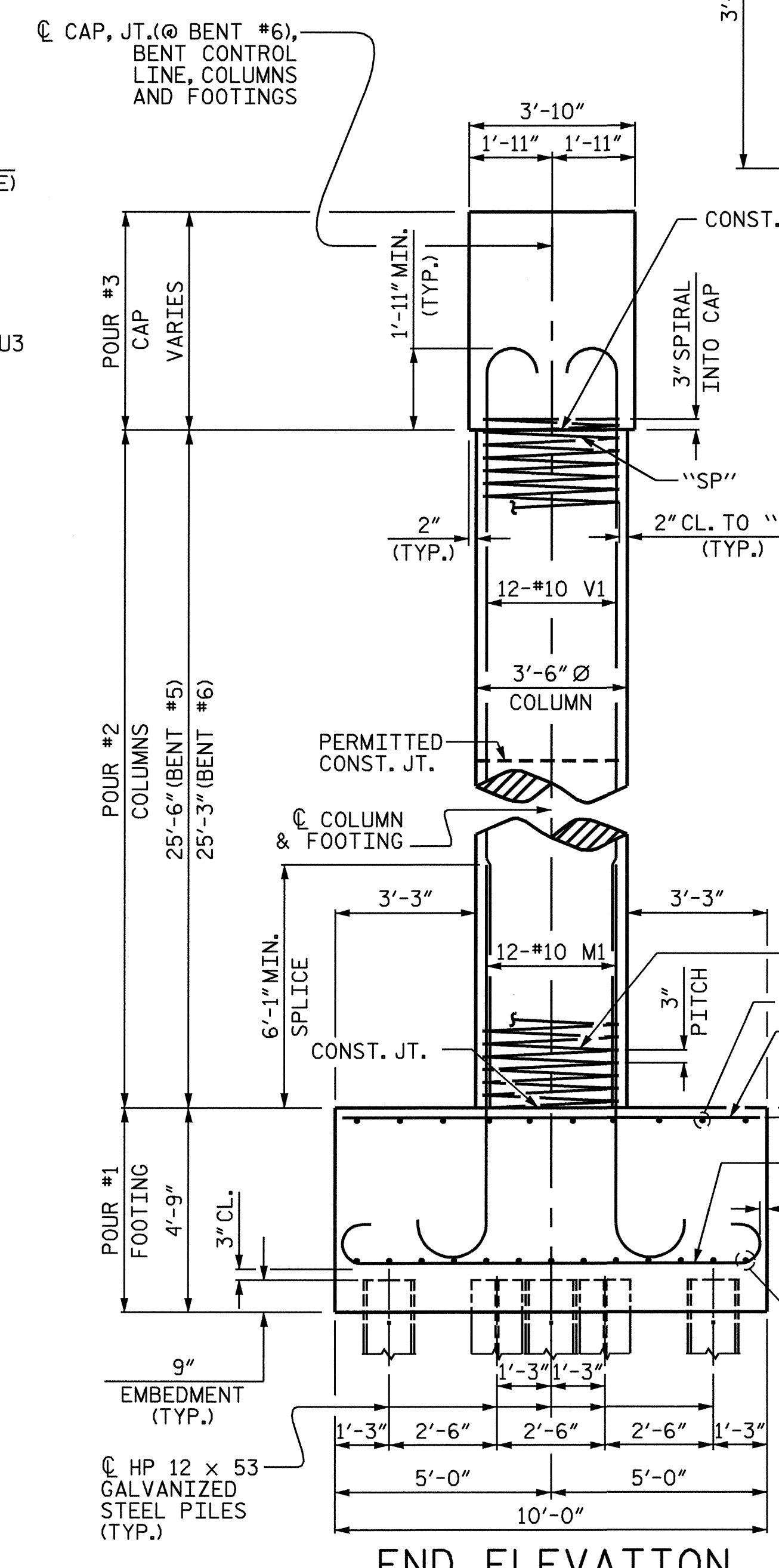
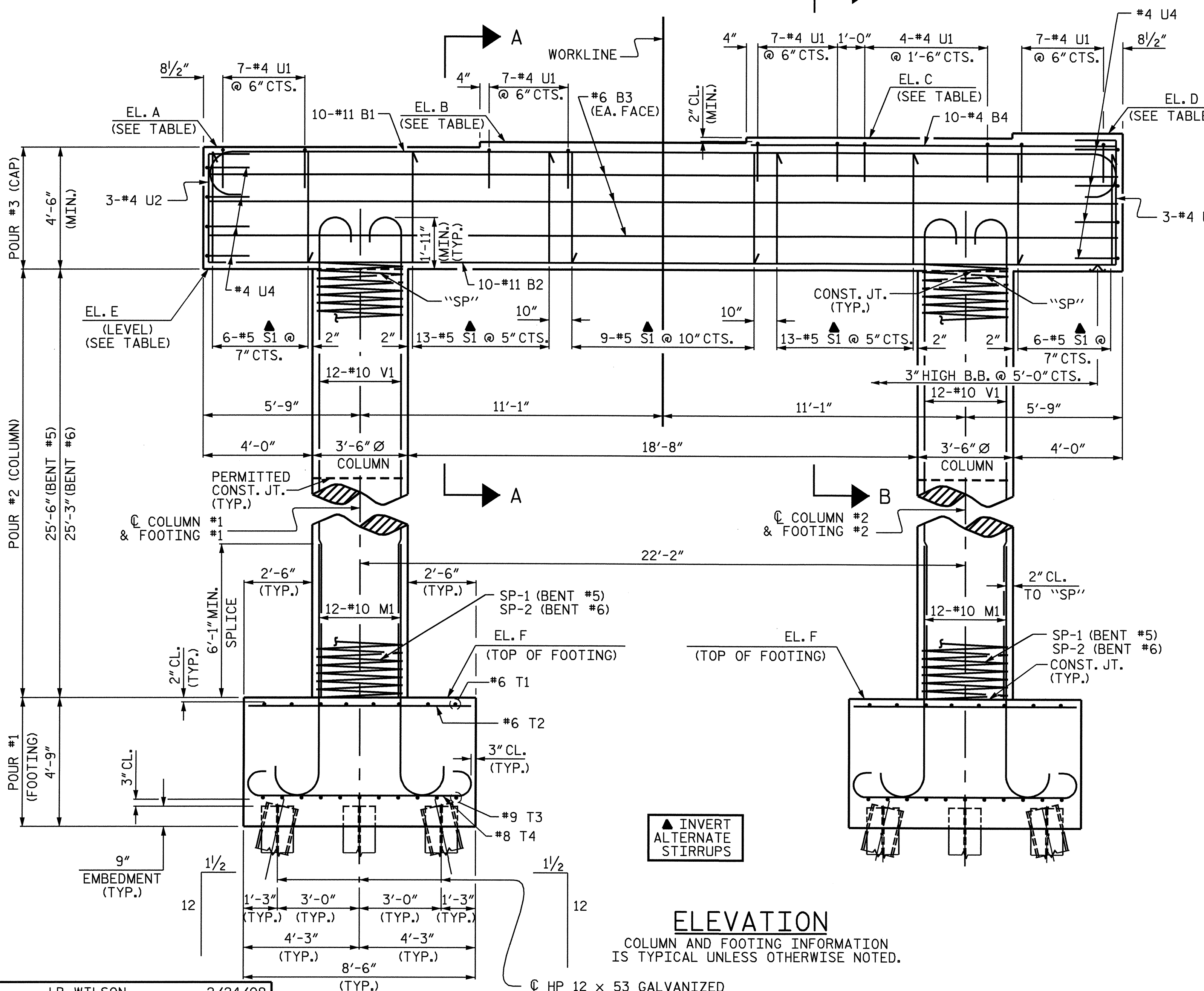
HOOKS ON "V" BARS MAY BE TURNED AS NECESSARY FOR PLACING REINFORCING STEEL.

FOR PILE SPLICE DETAILS, SEE END BENT #1 OR #2, SEE SHEET 3 OF 3.

FOR BENT #5 & BENT #6, GALVANIZE THE TOP 25 FEET OF EACH PILE IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS.

FOR BENT #6 ONLY:

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



ELEVATION
COLUMN AND FOOTING INFORMATION IS TYPICAL UNLESS OTHERWISE NOTED.

END ELEVATION

PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-

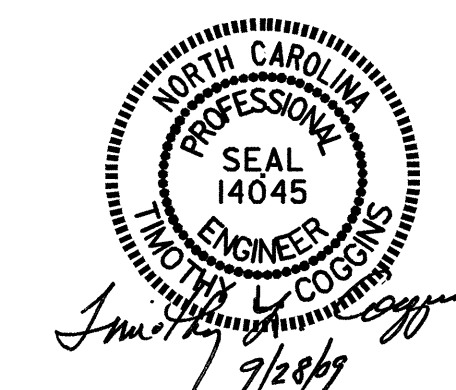
SHEET 1 OF 2

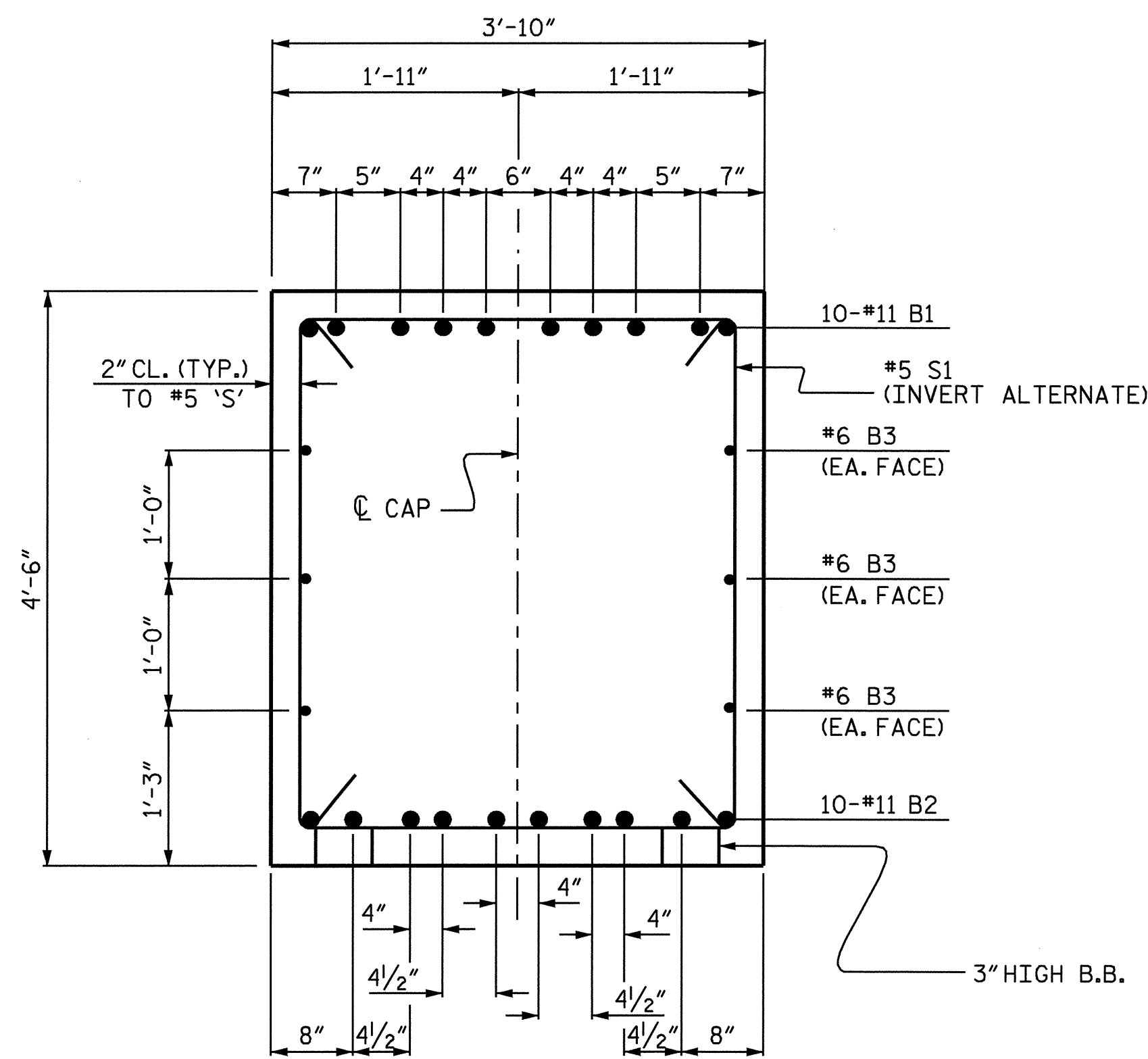
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE BENT #5 & #6					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

SHEET NO. S-40
TOTAL SHEETS 50

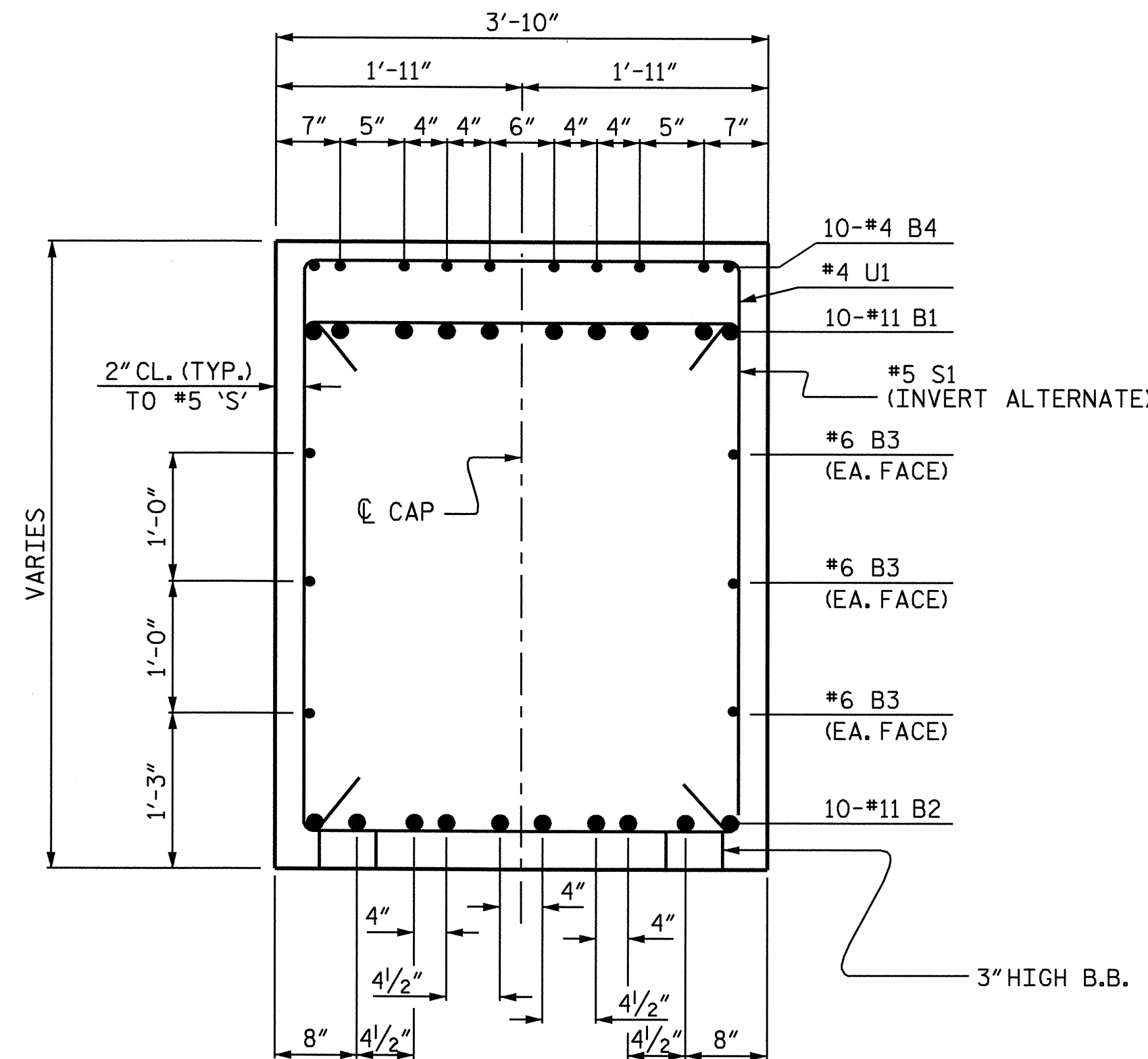
DRAWN BY : J.B. WILSON DATE : 2/24/09
 CHECKED BY : PEGGY PARISI DATE : 03/27/09

28-SEP-2009 10:21
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 Taveretta

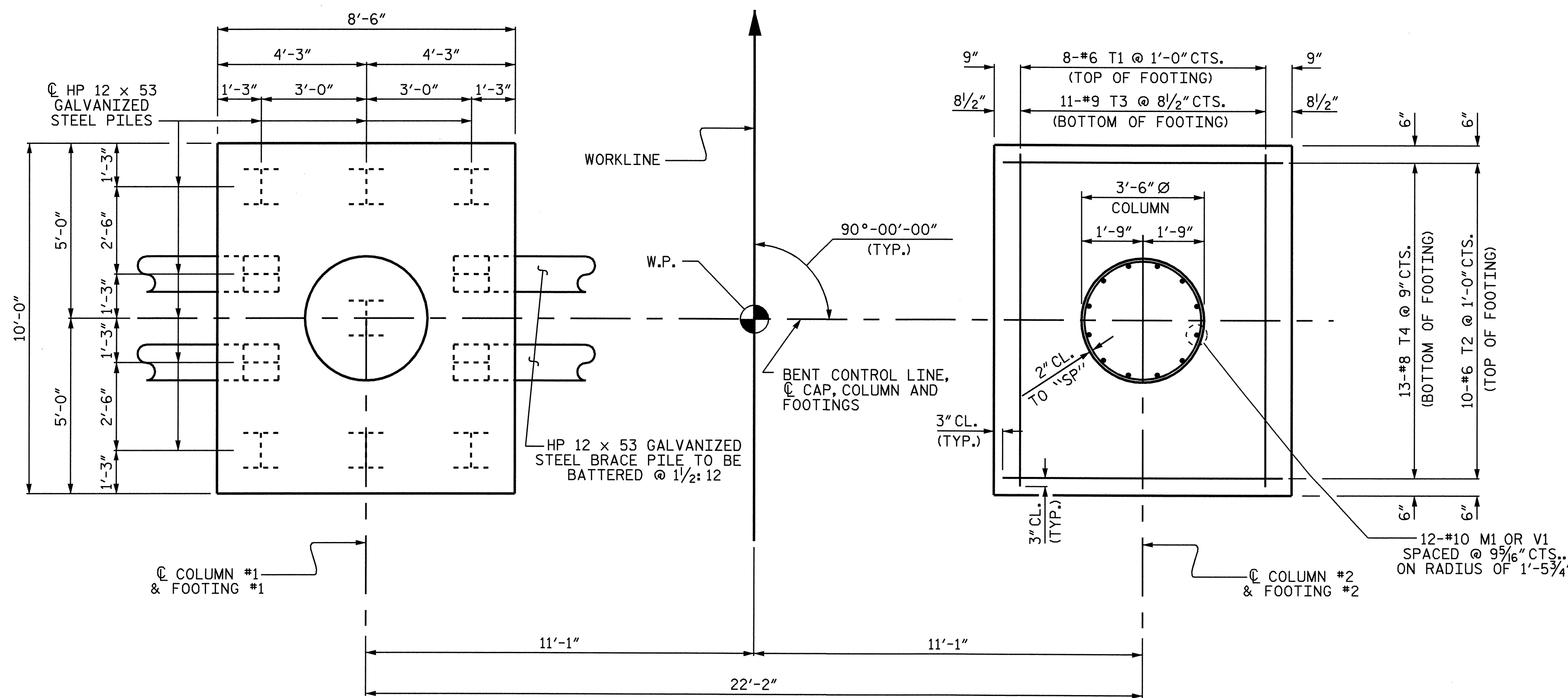




SECTION A-A



SECTION B-B



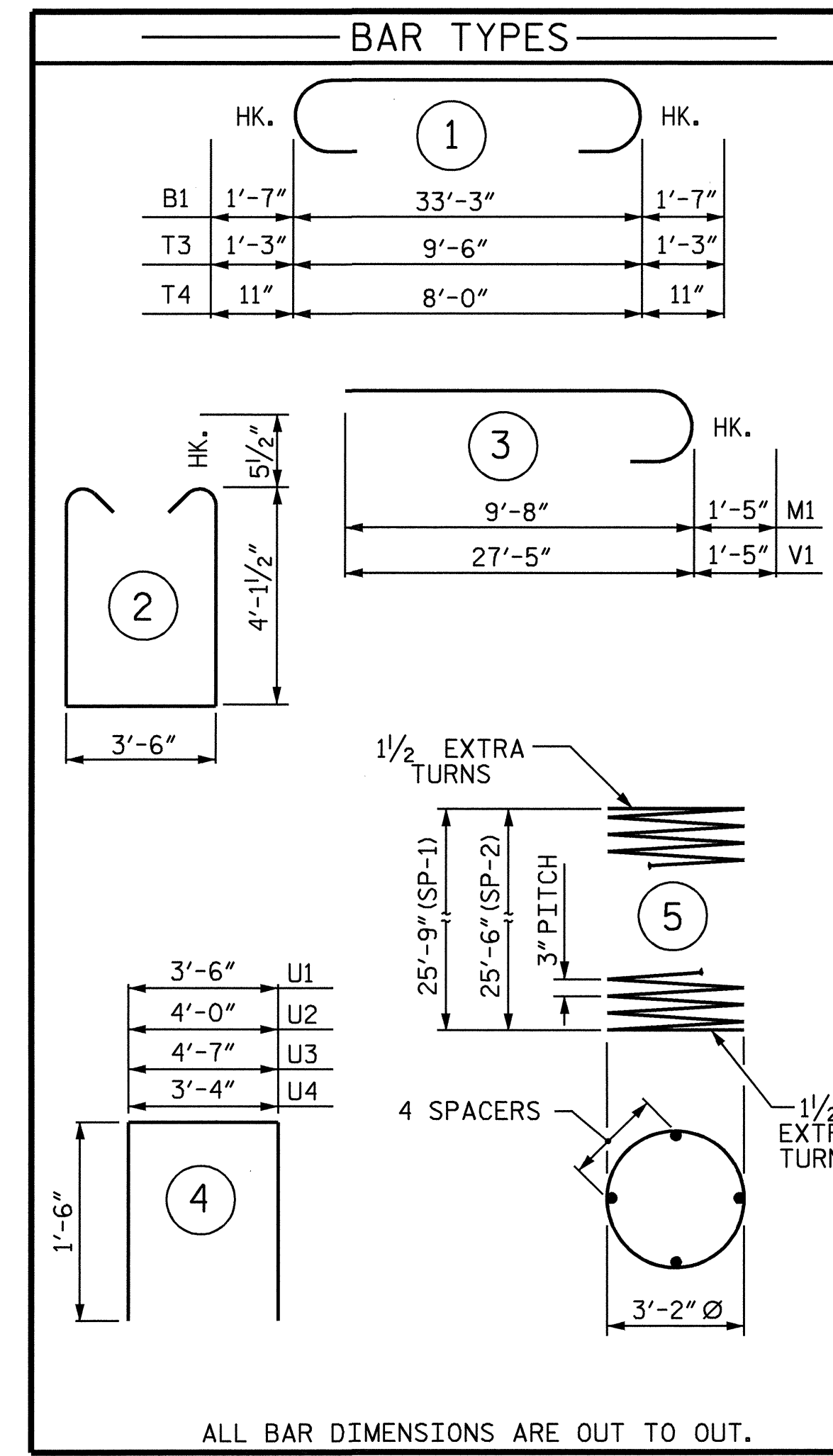
PLAN OF COLUMNS & FOOTINGS

(FOOTING DIMENSIONS, REINFORCING STEEL & PILES ARE TYPICAL EACH FOOTING)

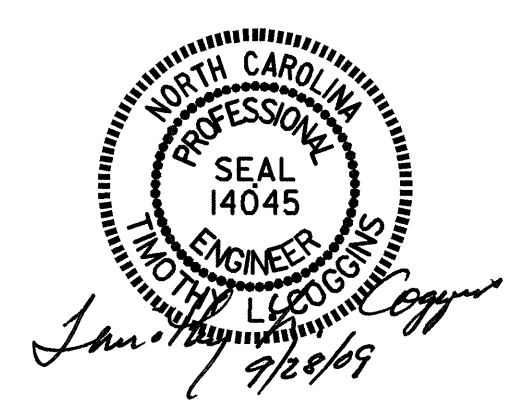
DRAWN BY: J.B. WILSON DATE: 2/24/09
 CHECKED BY: PEGGY PARISI DATE: 3/31/09

21-SEP-2009 10:45
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 taverette

BILL OF MATERIAL FOR BENT #5						BILL OF MATERIAL FOR BENT #6					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	10	#11	1	36'-5"	1935	B1	10	#11	1	36'-5"	1935
B2	10	#11	STR	33'-4"	1771	B2	10	#11	STR	33'-4"	1771
B3	6	#6	STR	33'-4"	300	B3	6	#6	STR	33'-4"	300
B4	10	#4	STR	13'-5"	90	B4	10	#4	STR	13'-5"	90
S1	47	#5	2	12'-8"	621	S1	47	#5	2	12'-8"	621
M1	24	#10	3	11'-1"	1145	M1	24	#10	3	11'-1"	1145
V1	24	#10	3	28'-10"	2978	V1	24	#10	3	28'-10"	2978
T1	16	#6	STR	9'-6"	228	T1	16	#6	STR	9'-6"	228
T2	20	#6	STR	8'-0"	240	T2	20	#6	STR	8'-0"	240
T3	22	#9	1	12'-0"	898	T3	22	#9	1	12'-0"	898
T4	26	#8	1	9'-10"	683	T4	26	#8	1	9'-10"	683
U1	32	#4	4	6'-6"	139	U1	32	#4	4	6'-6"	139
U2	3	#4	4	7'-0"	14	U2	3	#4	4	7'-0"	14
U3	3	#4	4	7'-7"	15	U3	3	#4	4	7'-7"	15
U4	8	#4	4	6'-4"	34	U4	8	#4	4	6'-4"	34
REINFORCING STEEL = 11091 LBS.						REINFORCING STEEL = 11091 LBS.					
SP-1 2 * 5 1041'-0" 1391						SP-2 2 * 5 1031'-3" 1378					
SPIRAL COLUMN REINFORCING STEEL 1391 LBS.						SPIRAL COLUMN REINFORCING STEEL 1378 LBS.					
CLASS A CONCRETE BREAKDOWN						CLASS A CONCRETE BREAKDOWN					
POUR #1 FOOTINGS			CU. YD.	29.9		POUR #1 FOOTINGS			CU. YD.	29.9	
POUR #2 COLUMNS			CU. YD.	18.2		POUR #2 COLUMNS			CU. YD.	18.0	
POUR #3 CAP			CU. YD.	22.7		POUR #3 CAP			CU. YD.	22.7	
TOTAL CLASS A CONCRETE			CU. YD.	70.8		TOTAL CLASS A CONCRETE			CU. YD.	70.6	
HP 12 x 53 GALVANIZED STEEL PILES						HP 12 x 53 GALVANIZED STEEL PILES					
No. 22			LIN. FT.	1320		No. 22			LIN. FT.	1320	
PILE REDRIVES EA. 10						PILE REDRIVES EA. 10					



*THE SP-1 & SP-2 SPIRAL REINFORCING STEEL SHALL BE W20 OR D-20 COLD DRAWN WIRE OR #4 PLAIN OR DEFORMED BAR.



PROJECT NO. U-3826
 EDGEcombe COUNTY
 STATION: 49+65.00 -L-

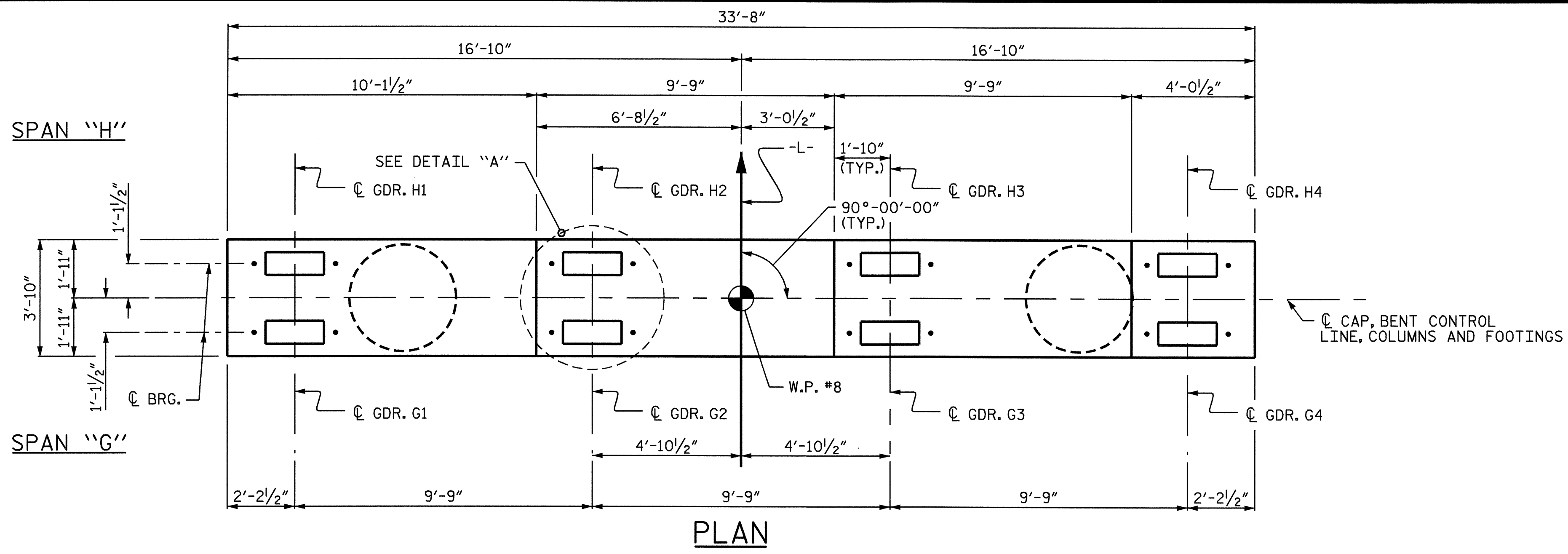
SHEET 2 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

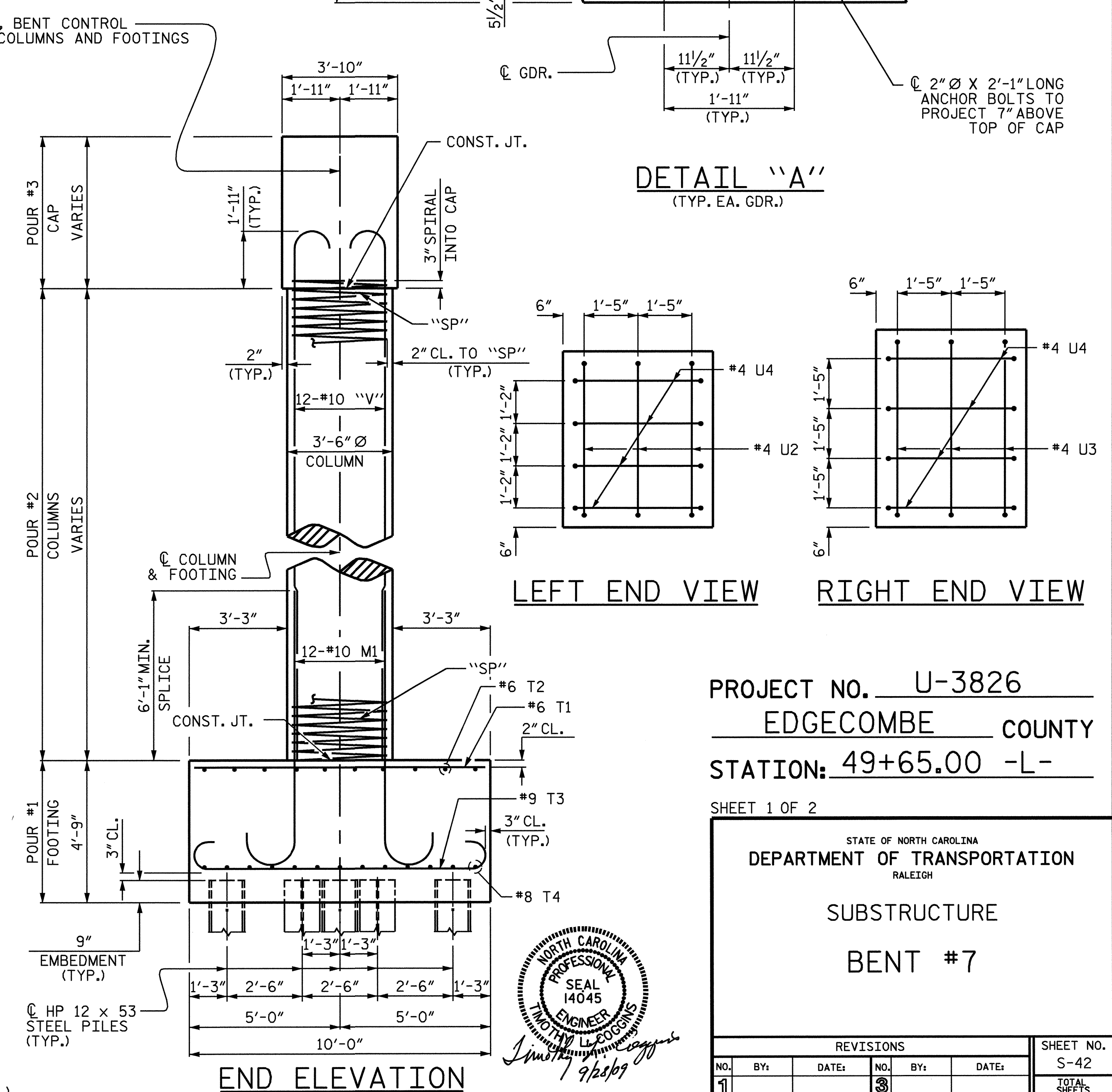
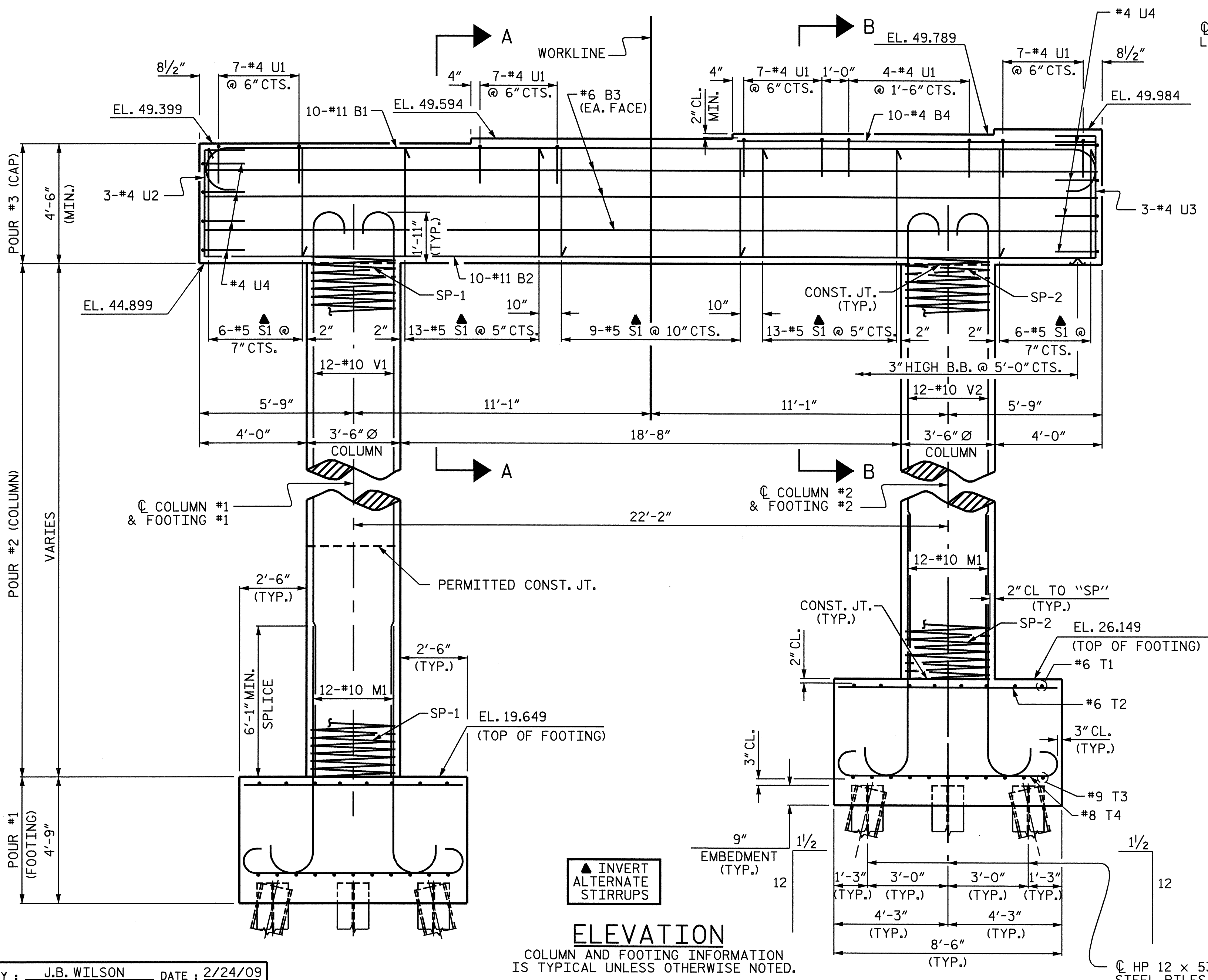
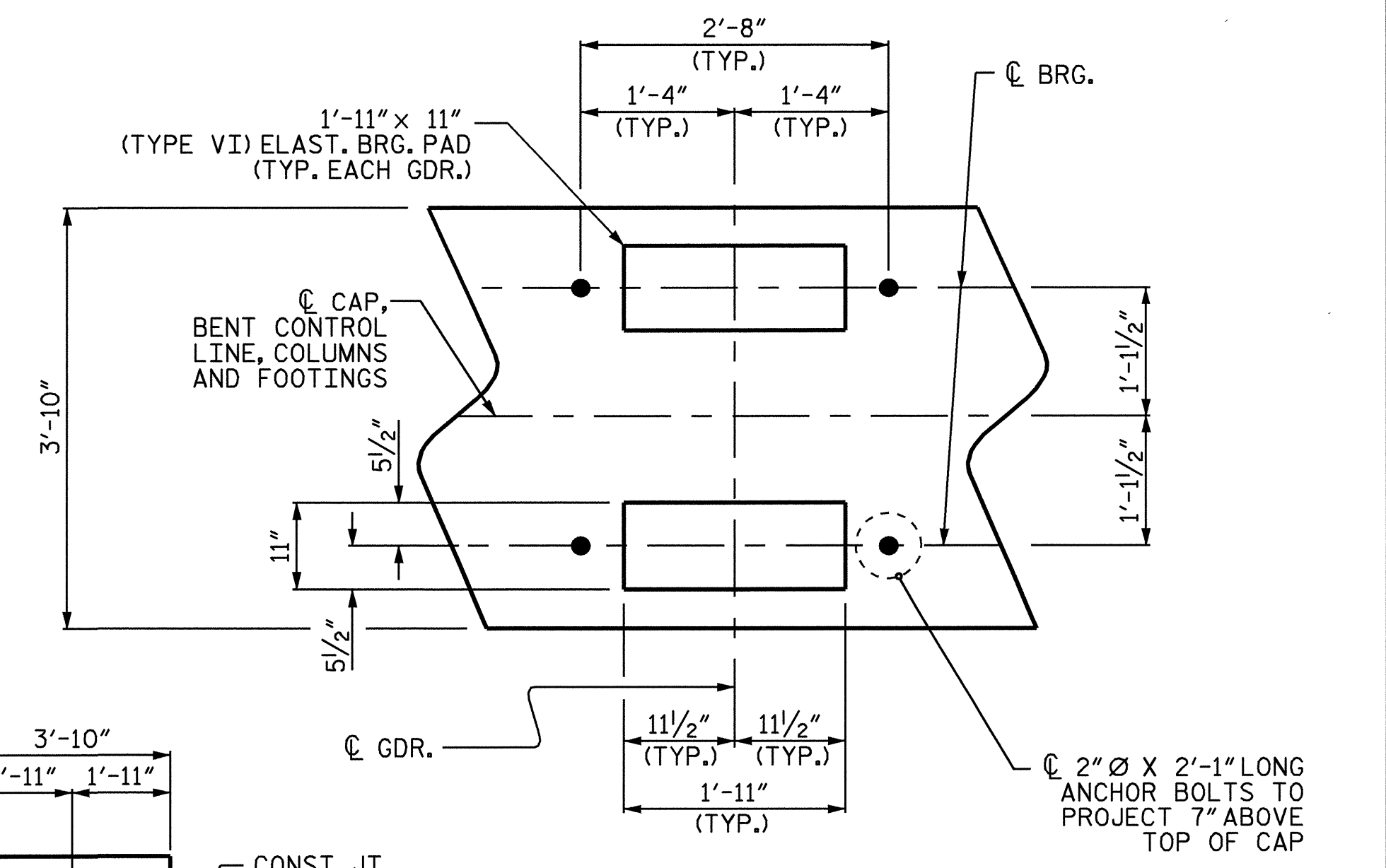
SUBSTRUCTURE
 BENT #5 & #6

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-41	
1			3			TOTAL SHEETS	50
2			4				

ALL BAR DIMENSIONS ARE OUT TO OUT.

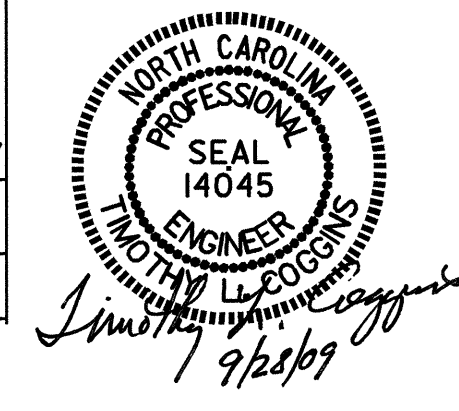


NOTES
 STIRRUPS IN CAP MAY BE SHIFED AS NECESSARY TO CLEAR ANCHOR BOLTS.
 HOOKS ON "V" BARS MAY BE TURNED AS NECESSARY FOR PLACING REINFORCING STEEL.
 FOR PILE SPLICE DETAILS, SEE END BENT #1 OR #2, SEE SHEET 3 OF 3.



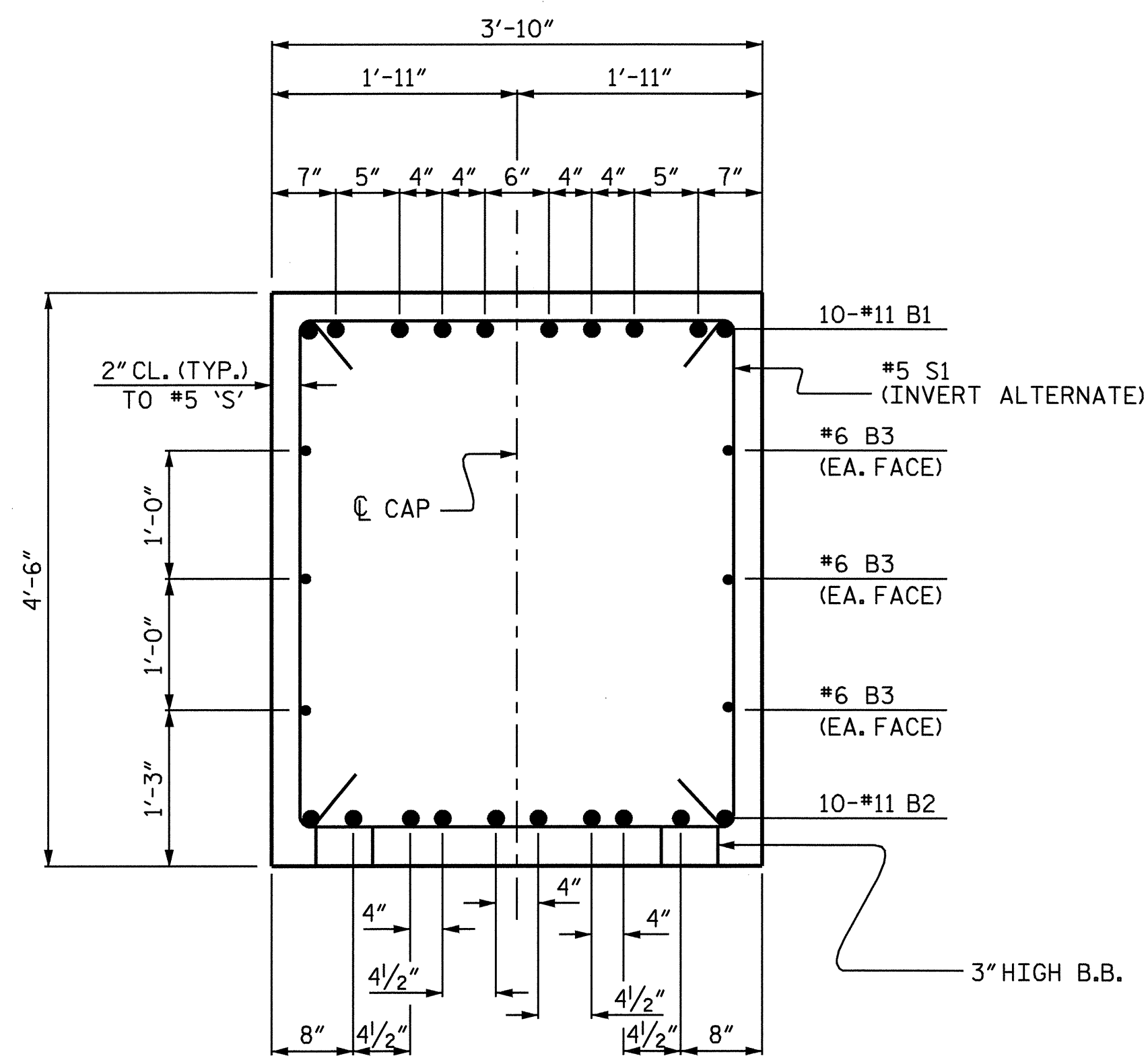
PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-
 SHEET 1 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE BENT #7					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

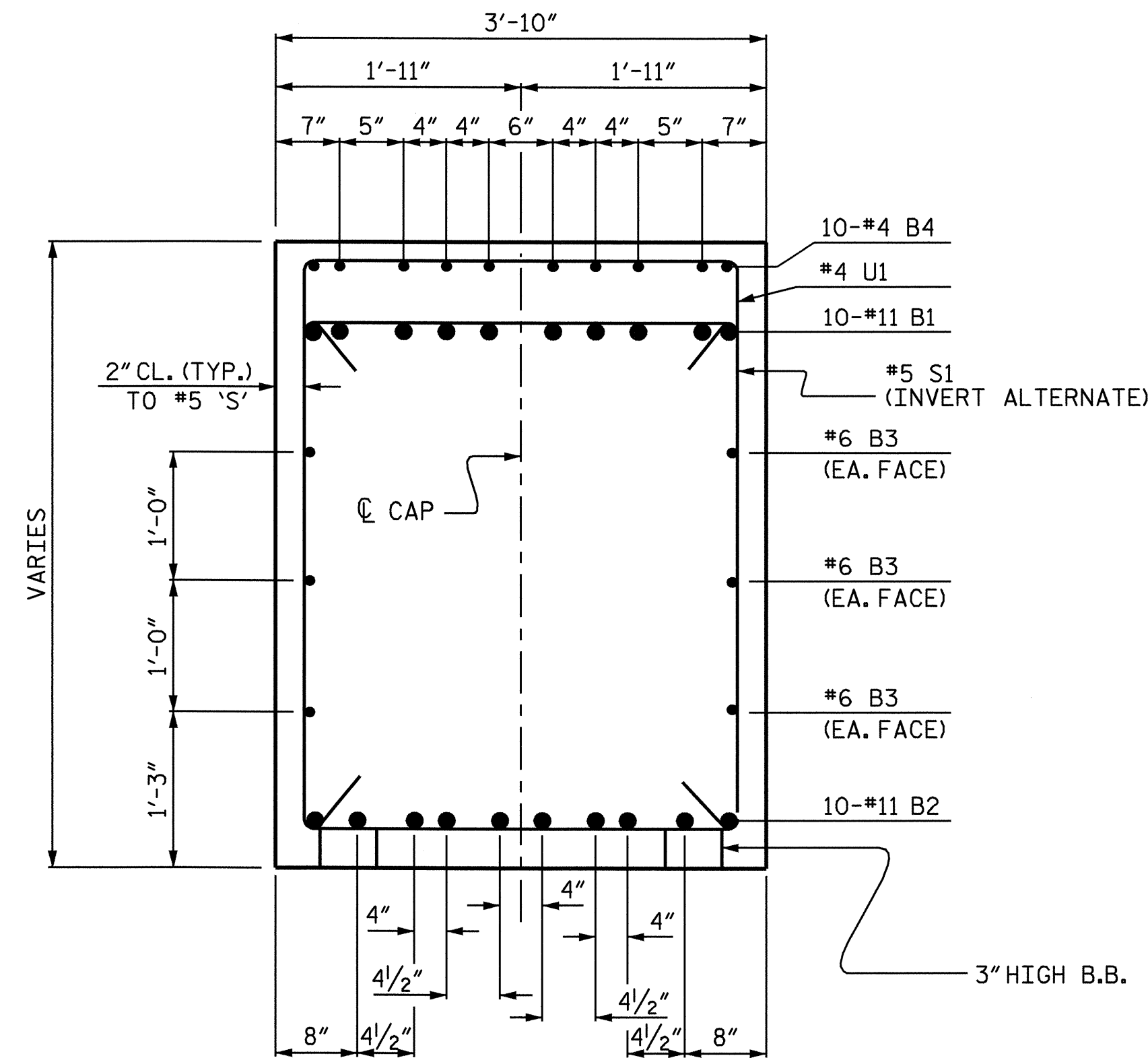


DRAWN BY: J.B. WILSON DATE: 2/24/09
 CHECKED BY: PEGGY PARISI DATE: 03/27/09

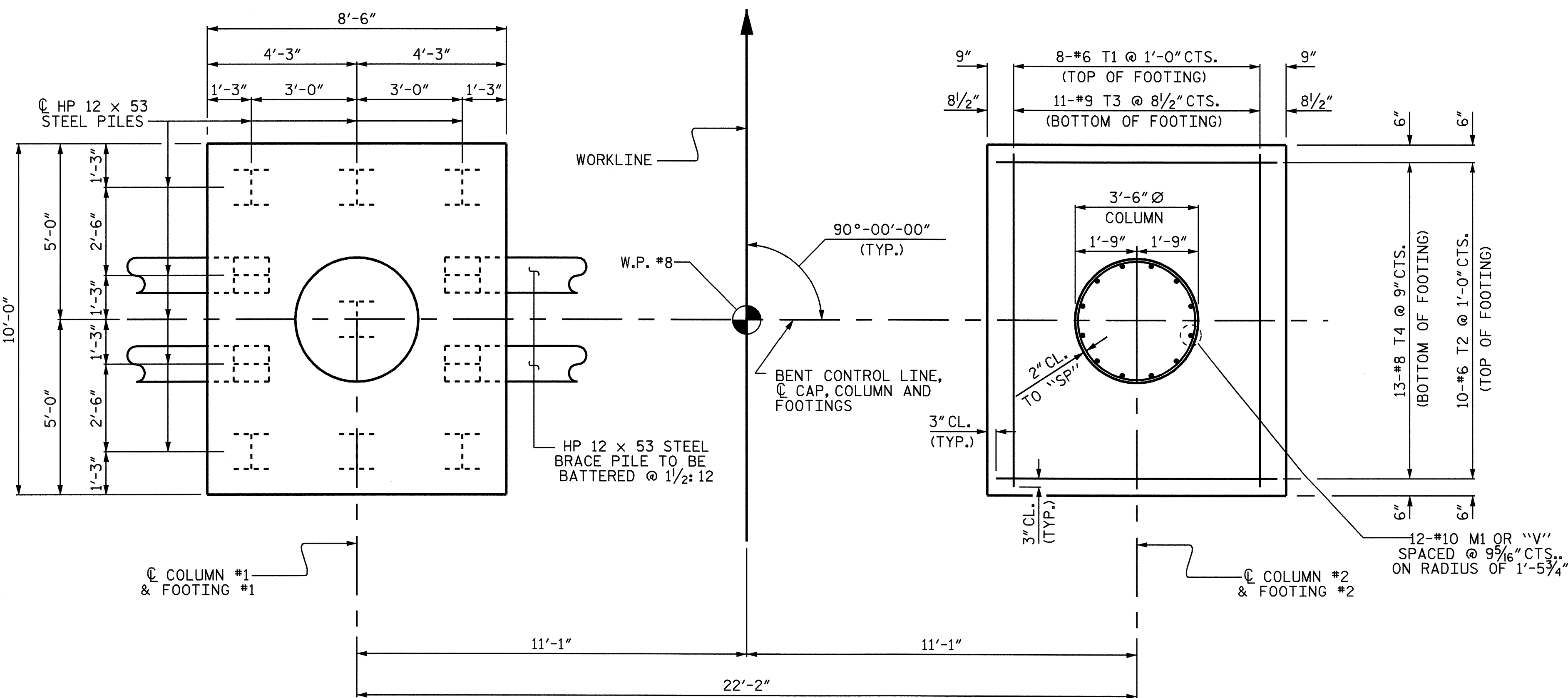
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 Tower1116



SECTION A-A



SECTION B-B



PLAN OF COLUMNS & FOOTINGS

(FOOTING DIMENSIONS, REINFORCING STEEL & PILES ARE TYPICAL EACH FOOTING)

DRAWN BY: J.B. WILSON DATE: 2/24/09
 CHECKED BY: PEGGY PARISI DATE: 3/31/09

21-SEP-2009 10:46
 g:\h\projects-u\3826\structures\3826\final plans\3826.ed.b*.01.dgn
 taverette

BILL OF MATERIAL					
BENT #7					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	10	#11		36'-5"	1935
B2	10	#11	STR	33'-4"	1771
B3	6	#6	STR	33'-4"	300
B4	10	#4	STR	13'-5"	90
S1	47	#5		12'-8"	621
M1	24	#10		11'-1"	1145
T1	16	#6	STR	9'-6"	228
T2	20	#6	STR	8'-0"	240
T3	22	#9		12'-0"	898
T4	26	#8		9'-10"	683
U1	32	#4		6'-6"	139
U2	3	#4		7'-0"	14
U3	3	#4		7'-7"	15
U4	8	#4		6'-4"	34
V1	12	#10		28'-7"	1476
V2	12	#10		22'-1"	1140
REINFORCING STEEL = 10729 LBS.					
SP-1	1	*	5	1031'-3"	689 LBS.
SP-2	1	*	5	775'-10"	518 LBS.
SPIRAL COLUMN REINFORCING STEEL 1207 LBS.					
CLASS A CONCRETE BREAKDOWN					
POUR #1 FOOTINGS				CU. YD.	29.9
POUR #2 COLUMNS				CU. YD.	15.7
POUR #3 CAP				CU. YD.	22.7
TOTAL CLASS A CONCRETE				CU. YD.	68.3
HP 12 x 53 STEEL PILES					
No. 22				LIN. FT.	1320
PILE REDRIVES EA. 10					
FOUNDATION EXCAVATION LUMP SUM					

BAR TYPES

ALL BAR DIMENSIONS ARE OUT TO OUT.

* THE SP-1 AND SP-2 SPIRAL REINFORCING STEEL SHALL BE W20 OR D-20 COLD DRAWN WIRE OR #4 PLAIN OR DEFORMED BAR.

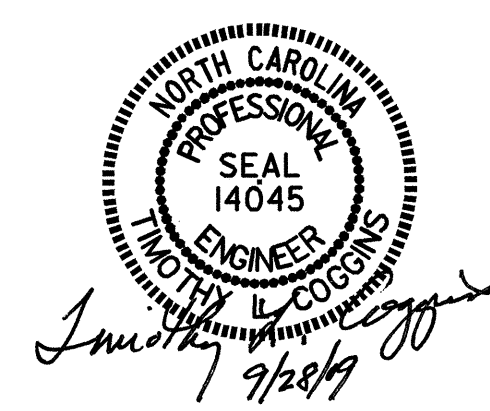
PROJECT NO. U-3826
 EDGEcombe COUNTY
 STATION: 49+65.00 -L-

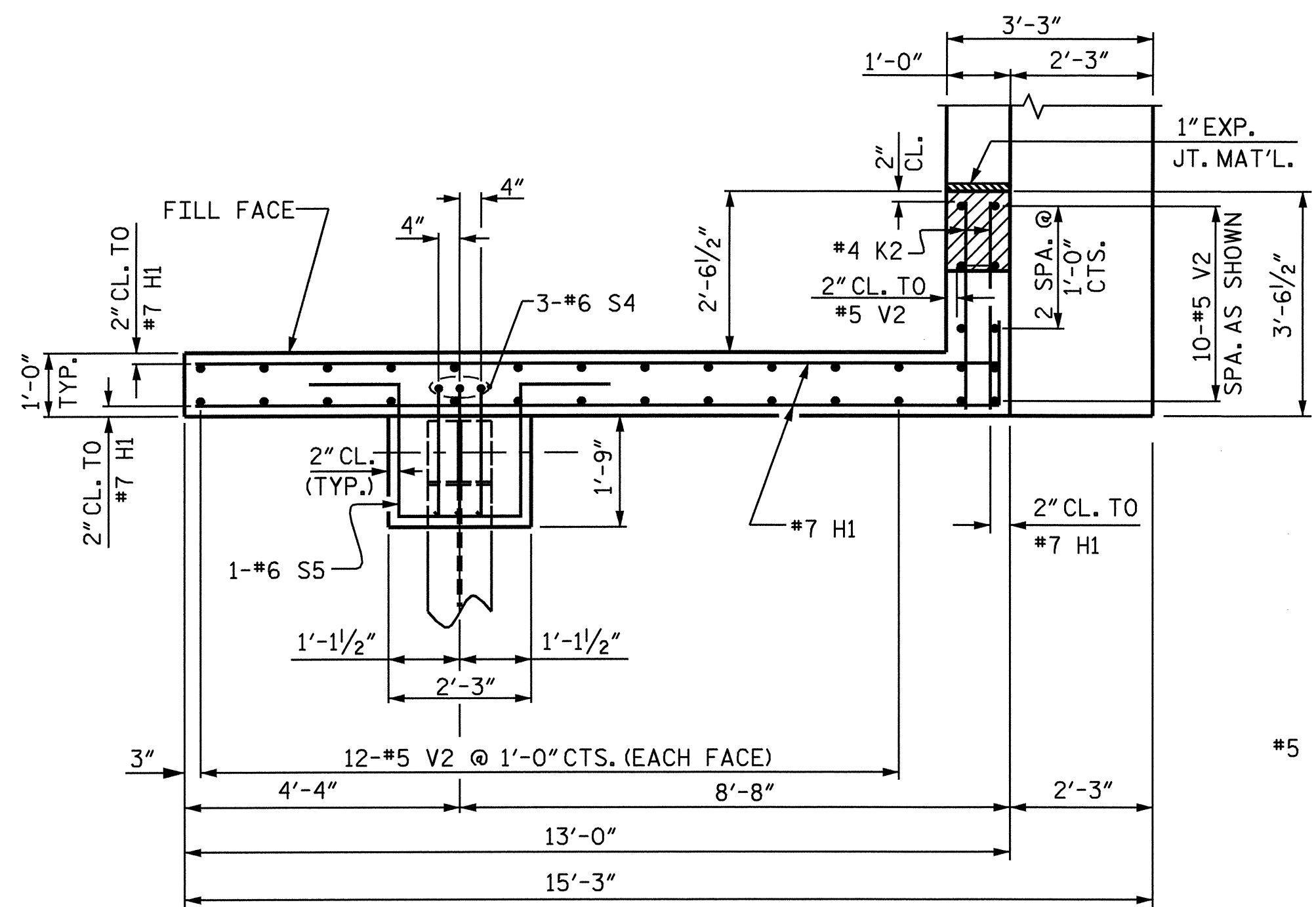
SHEET 2 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

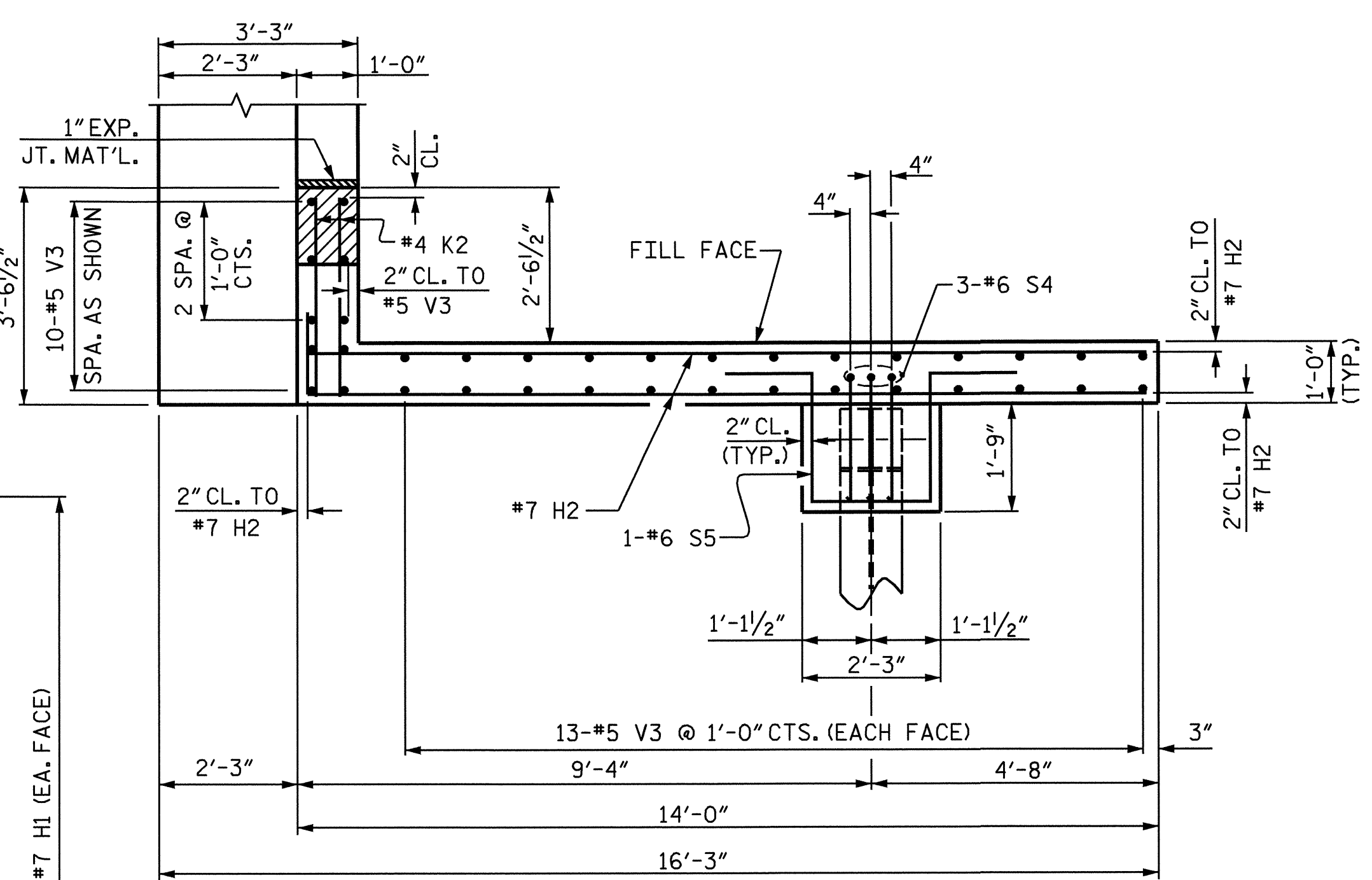
SUBSTRUCTURE
 BENT #7

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-43	
1			3			TOTAL SHEETS	50
2			4				

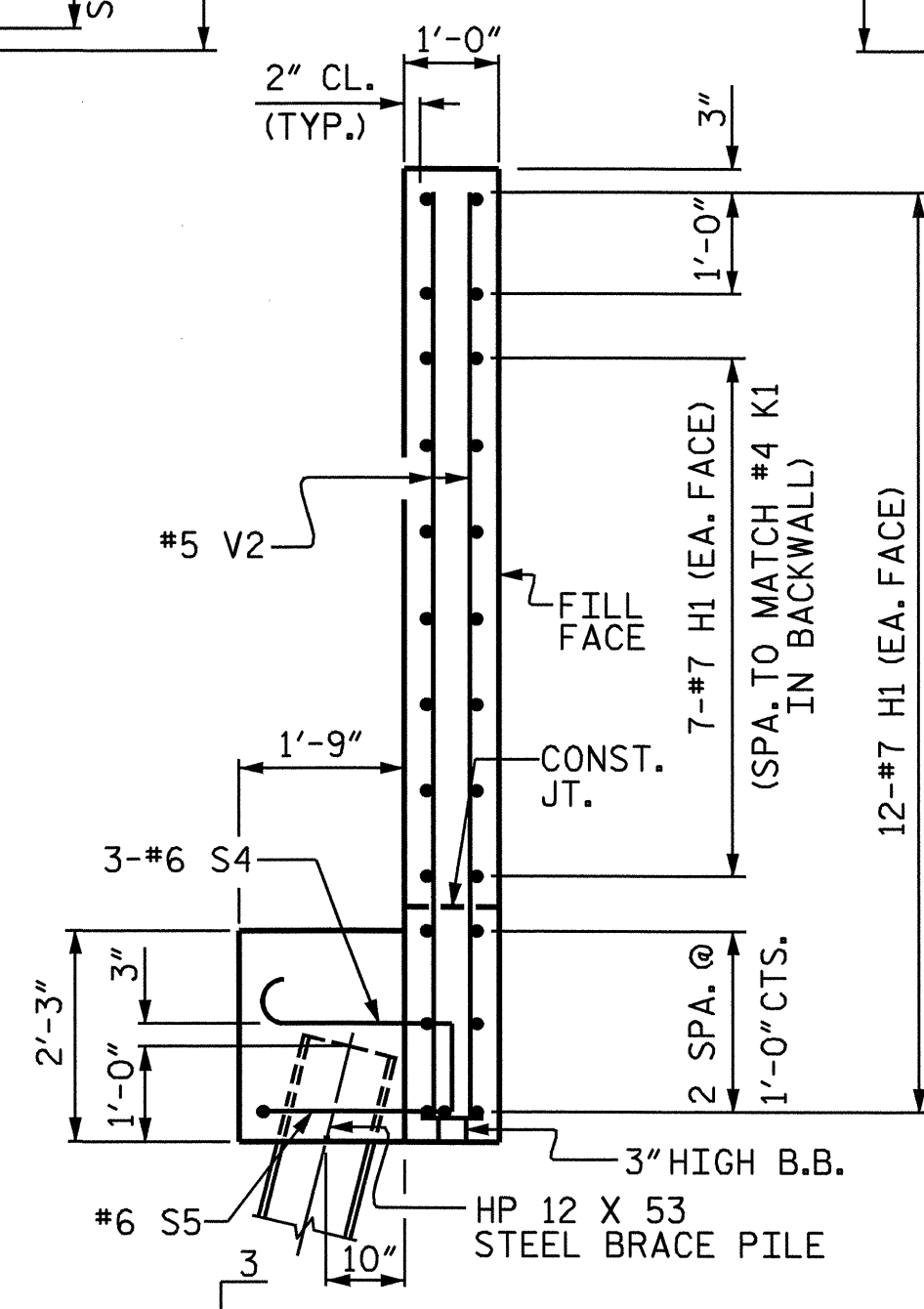




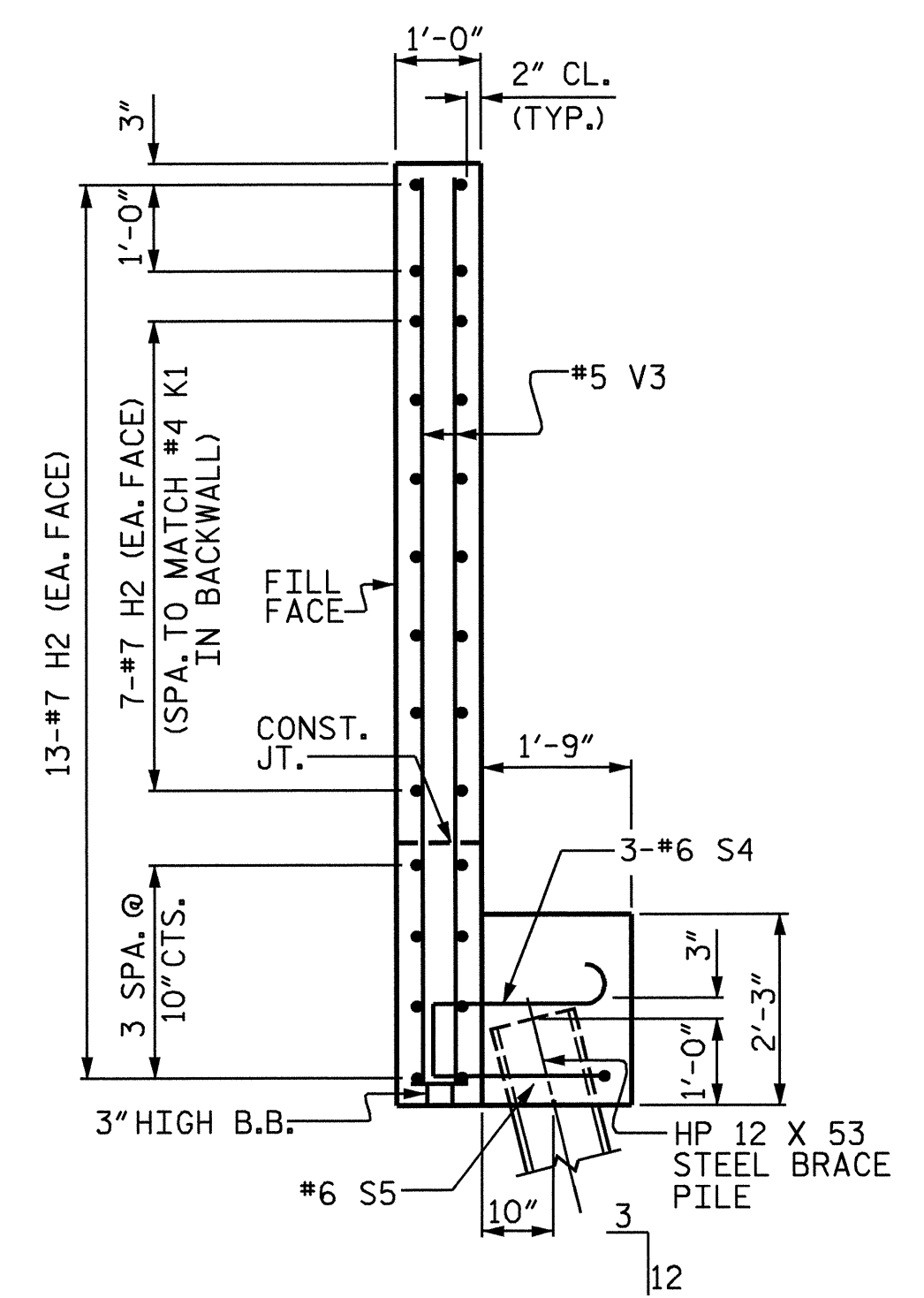
PLAN OF LEFT WING (W1)



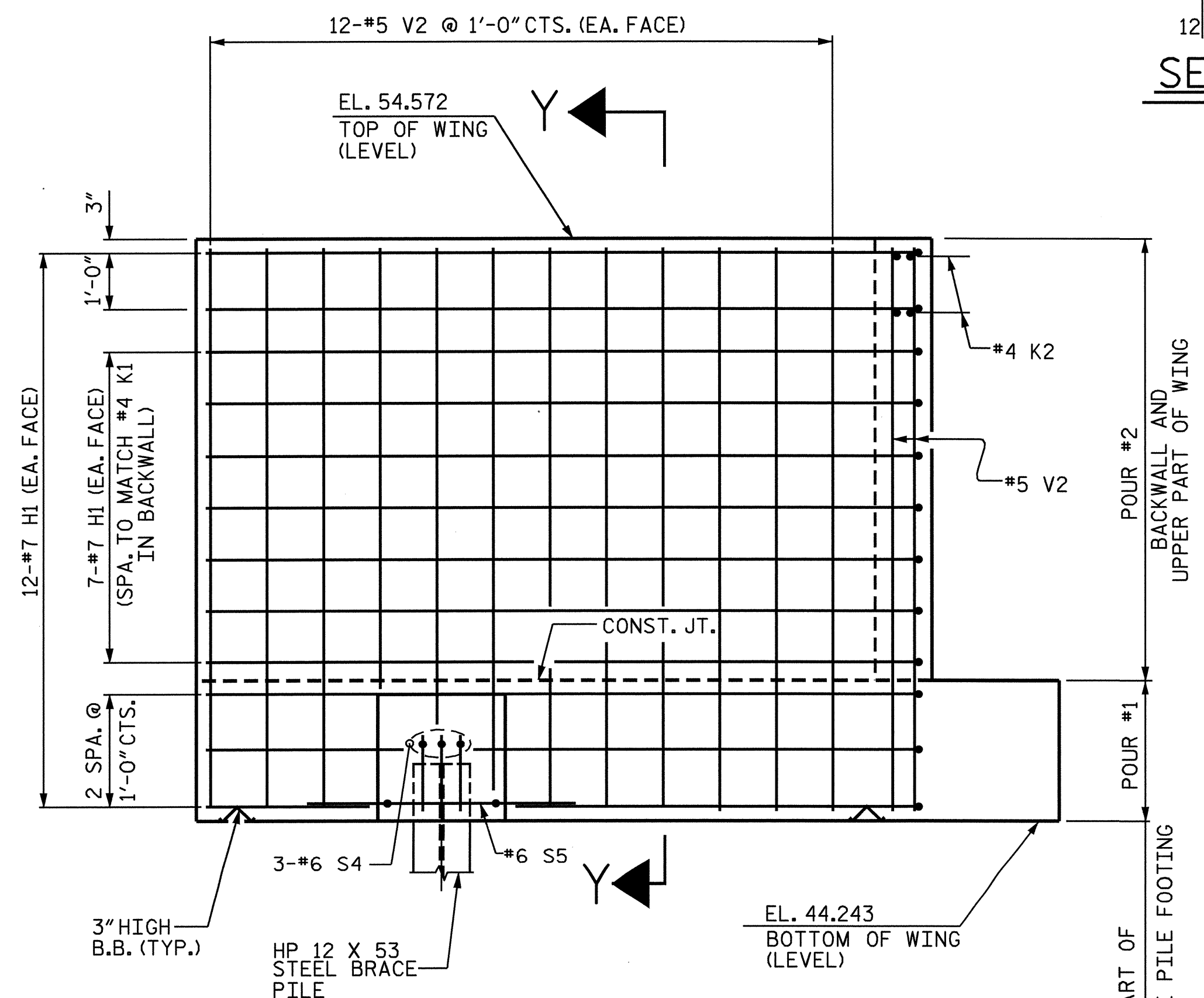
PLAN OF RIGHT WING (W2)



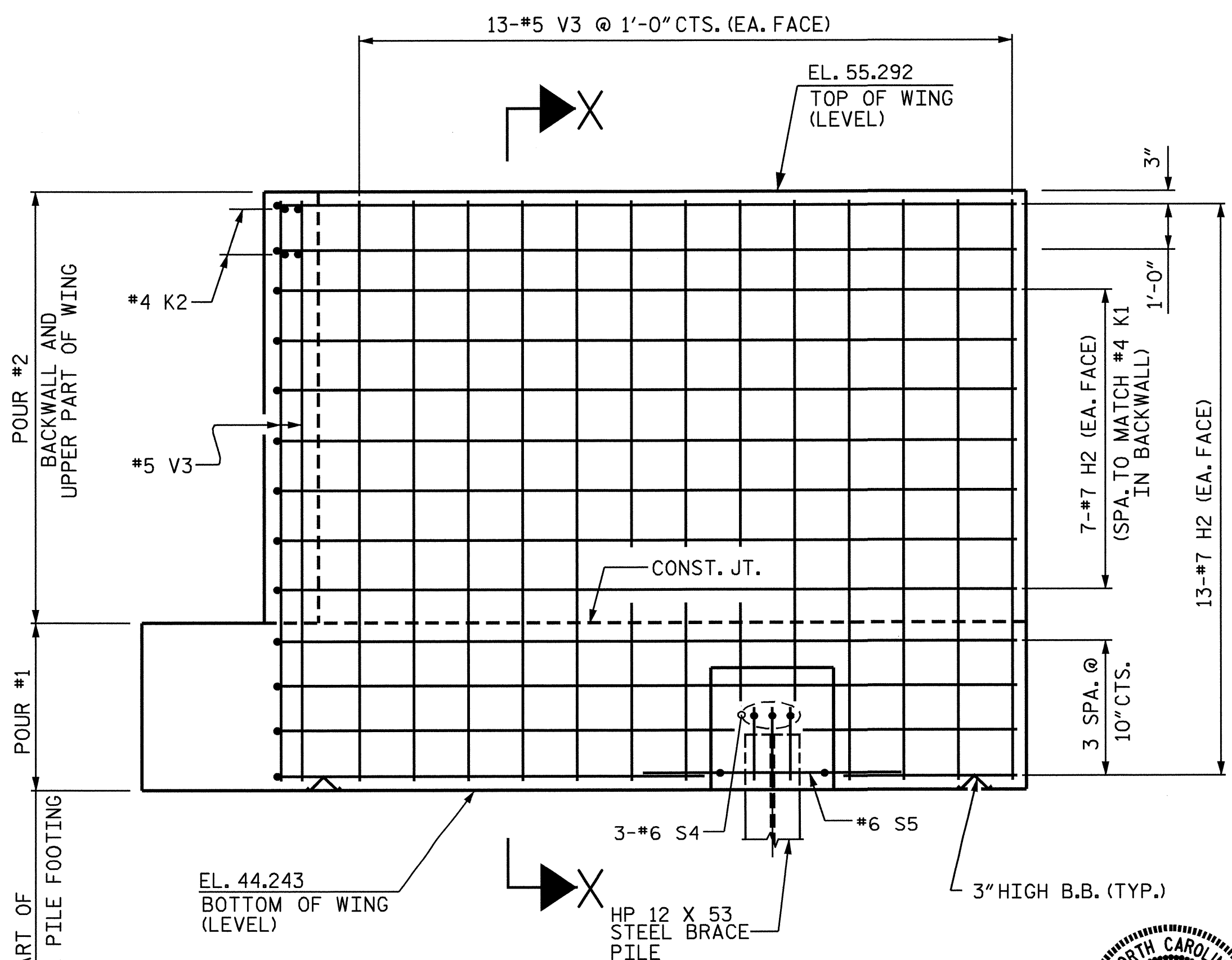
SECTION Y-Y



SECTION X-X



ELEVATION OF LEFT WING (W1)



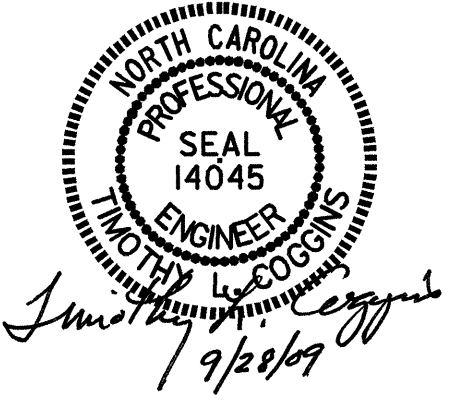
ELEVATION OF RIGHT WING (W2)

PROJECT NO. U-3826
 EDGECOMBE COUNTY
 STATION: 49+65.00 -L-
 SHEET 2 OF 3

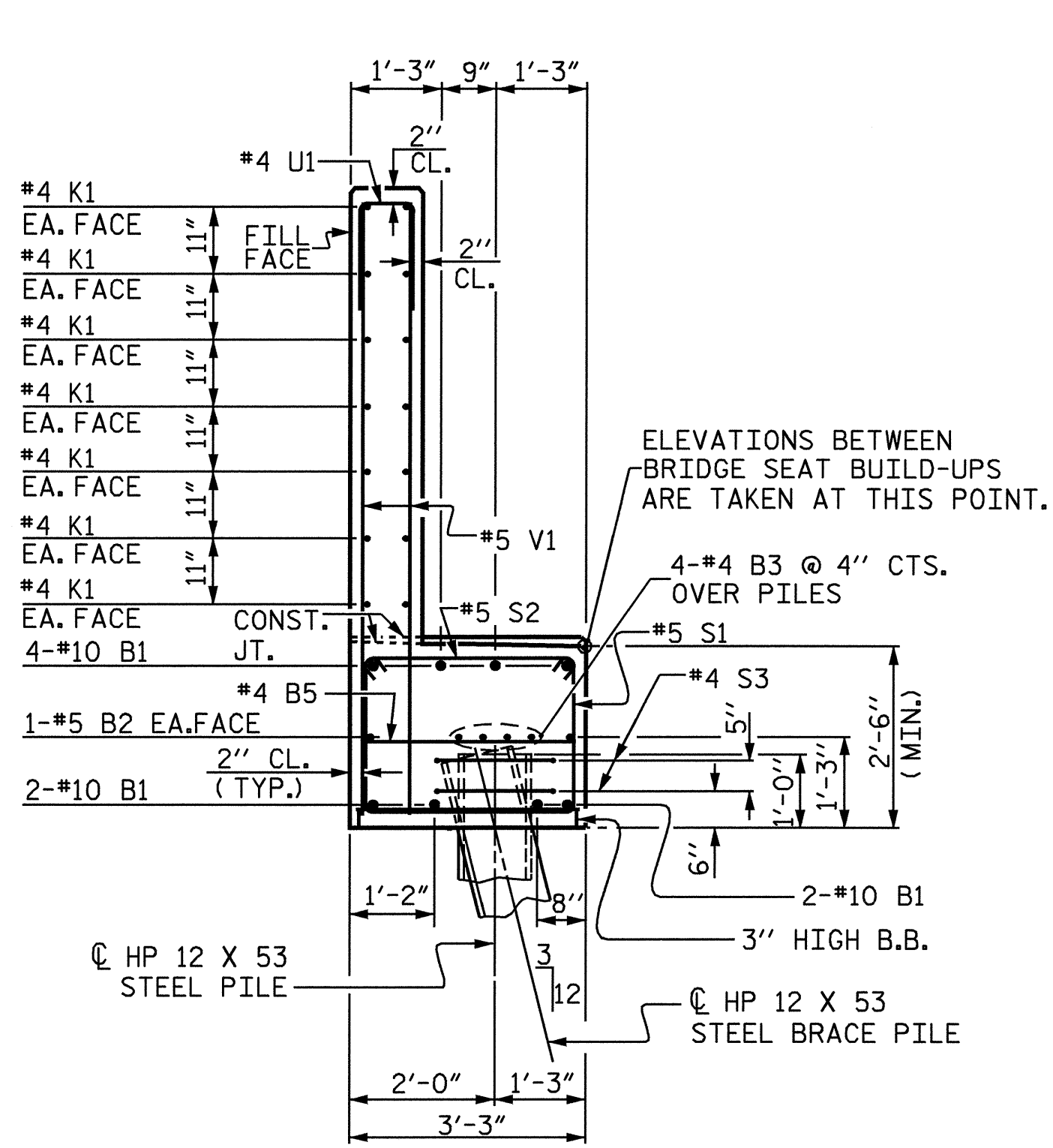
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
 END BENT #2

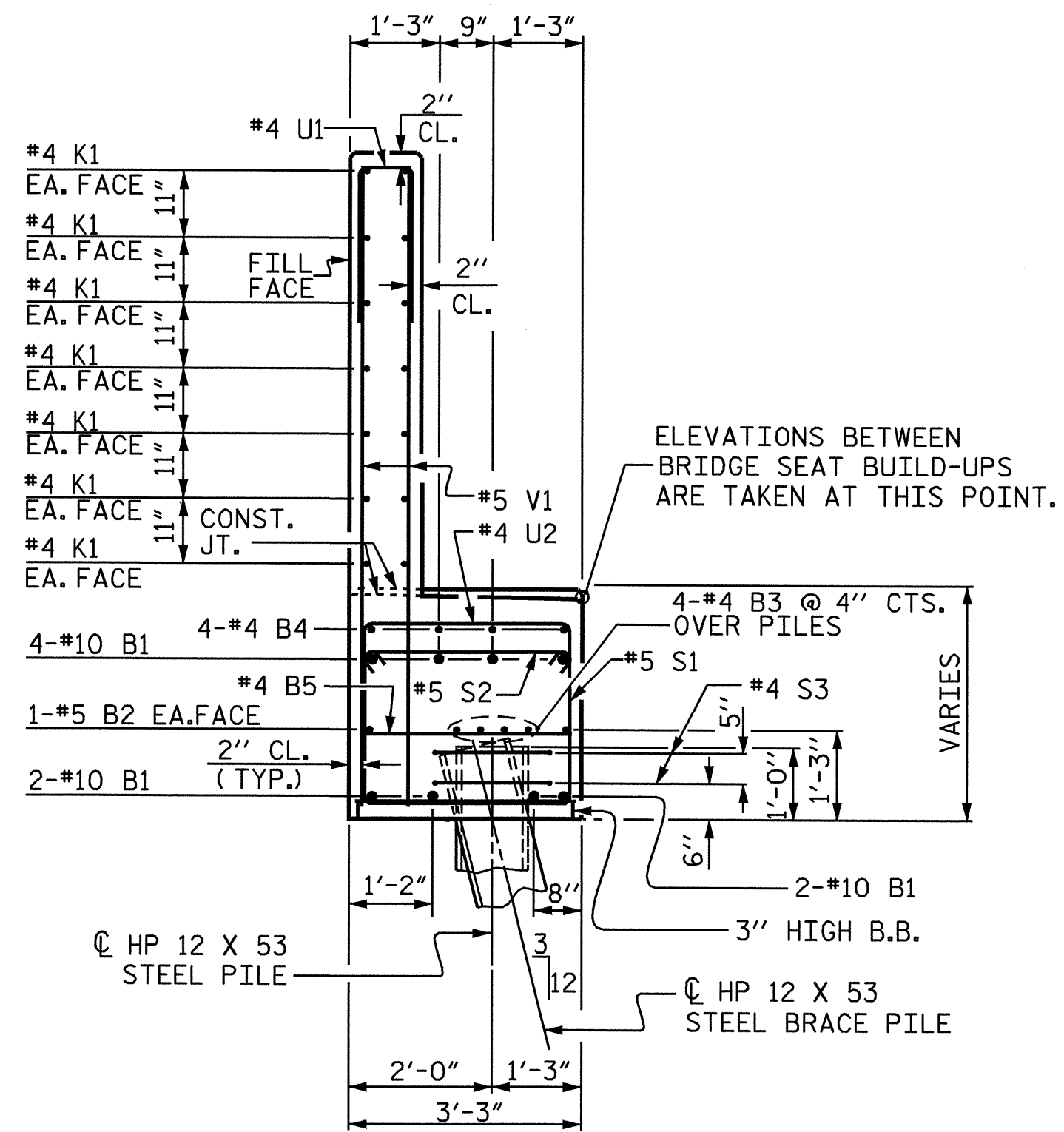
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-45
1			3			TOTAL SHEETS 50
2			4			



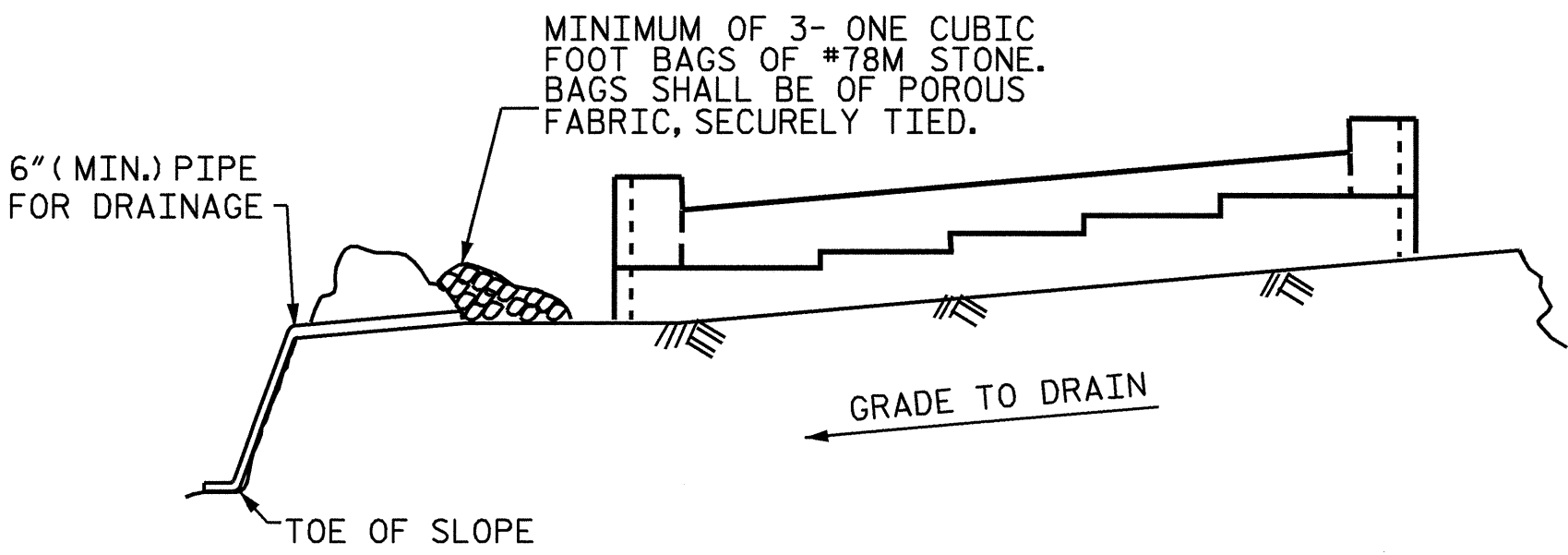
DRAWN BY: M.D.PISO DATE: 12/2008
 CHECKED BY: J.B.WILSON DATE: 01/2009



SECTION A-A



SECTION B-B

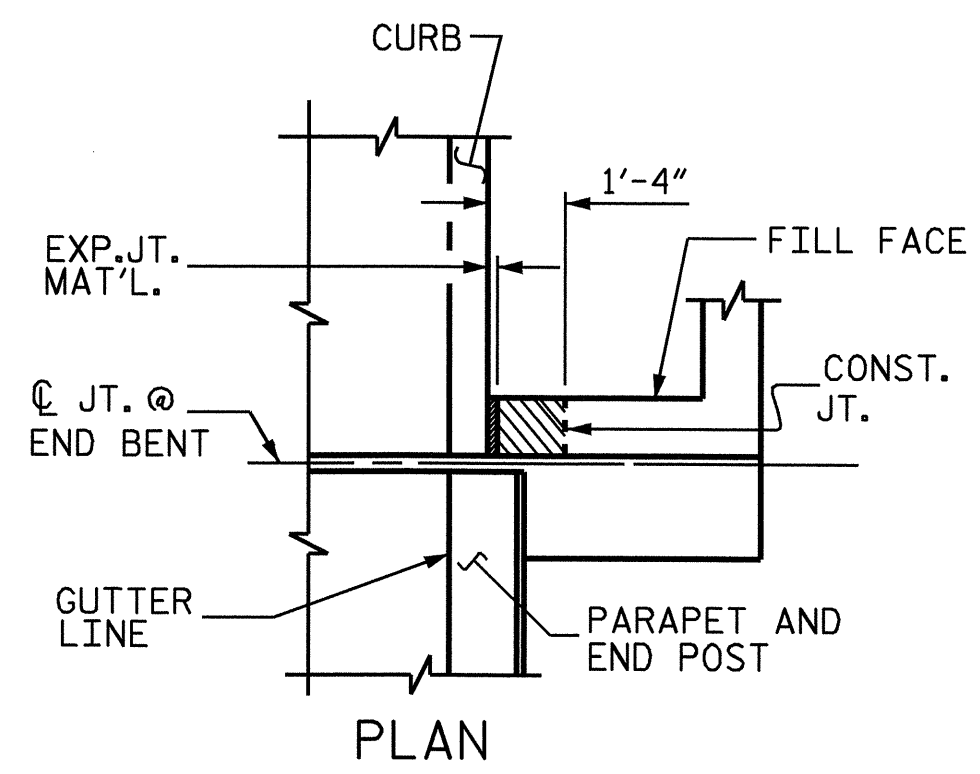


TEMPORARY DRAINAGE AT END BENT

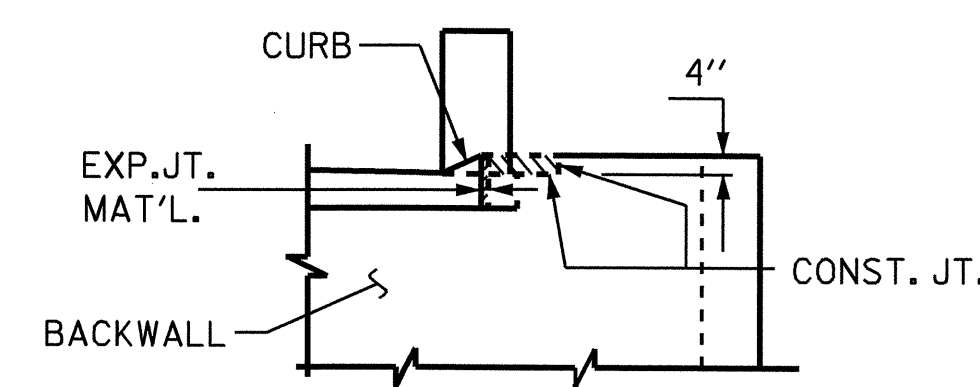
BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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.



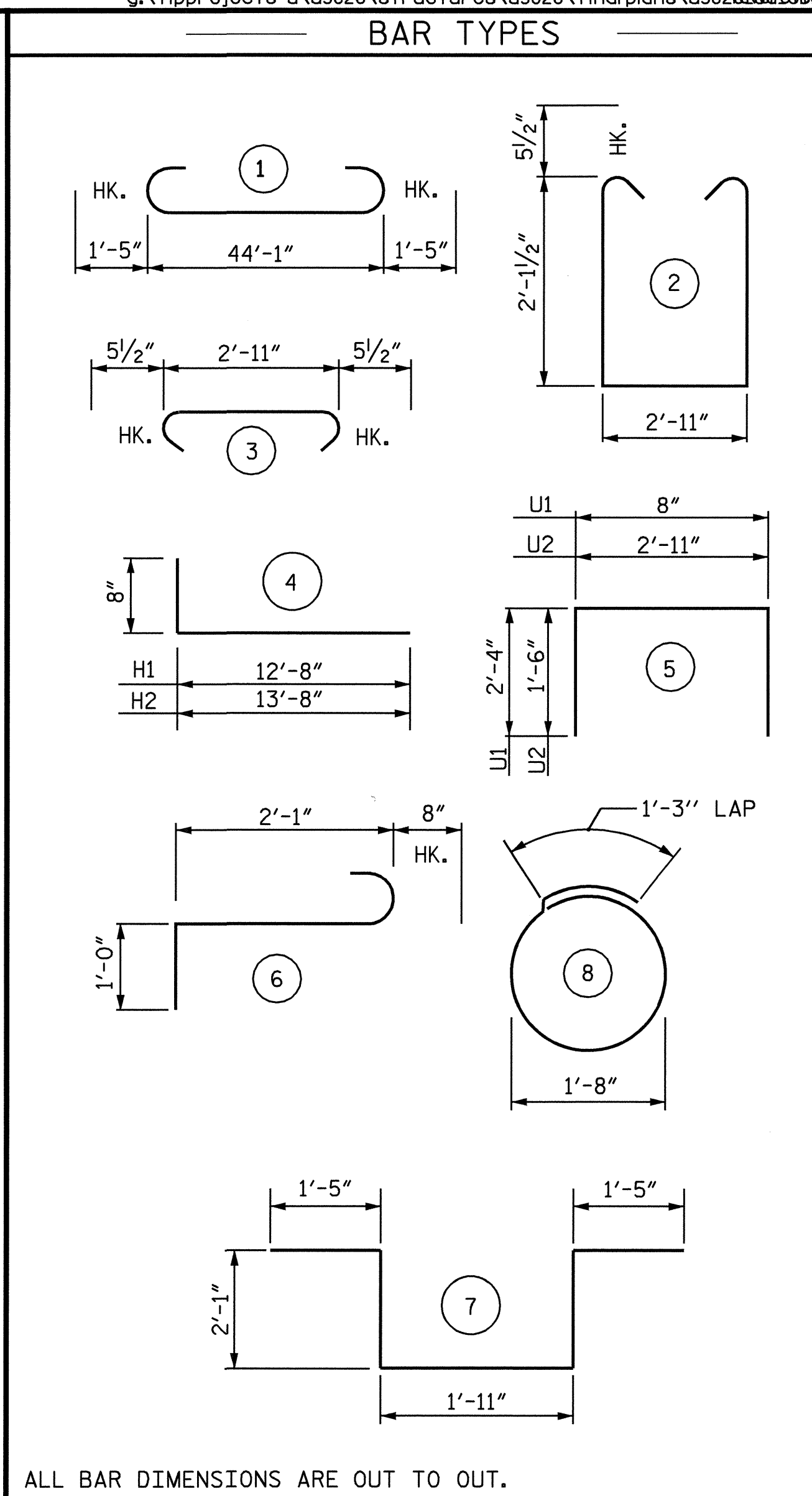
PLAN



ELEVATION

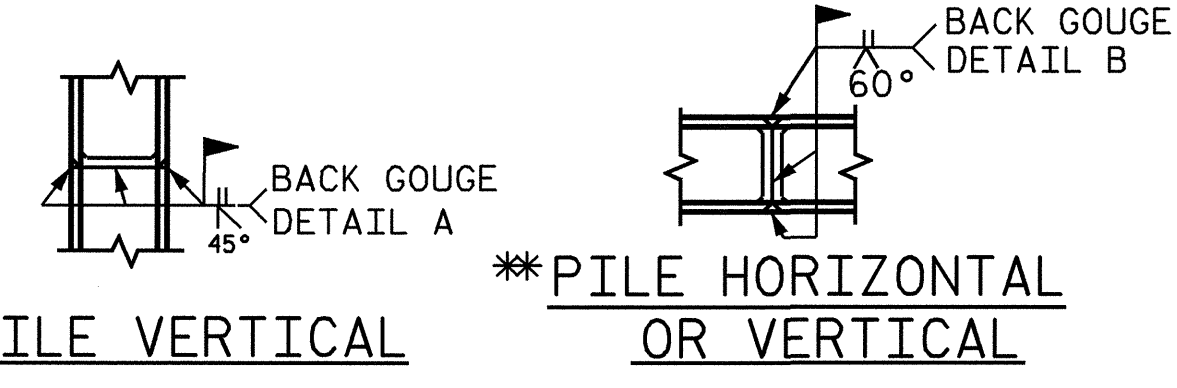
BLOCKOUT IN WING WALL

NOTE: THE CONCRETE IN THE SHADED AREA OF THE WING WALL SHALL BE POURED AFTER THE JOINT BETWEEN THE DECK AND THE APPROACH SLAB HAS BEEN SAWED AND THE PARAPET AND END POST IS CAST IF SLIP FORMING IS USED.

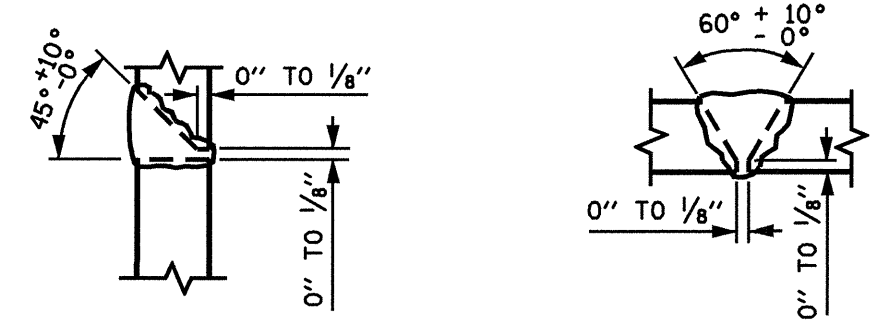


ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL					
END BENT #2					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	8	#10	1	46'-11"	1615
B2	2	#5	STR	44'-3"	92
B3	8	#4	STR	23'-4"	125
B4	4	#4	STR	18'-10"	50
B5	11	#4	STR	2'-11"	21
B6	8	#4	STR	3'-3"	17
E1	16	#4	STR	3'-8"	39
H1	24	#7	4	13'-4"	654
H2	26	#7	4	14'-4"	762
K1	28	#4	STR	23'-4"	436
K2	8	#4	STR	3'-2"	17
S1	42	#5	2	8'-1"	354
S2	42	#5	3	3'-10"	168
S3	22	#4	8	6'-6"	96
S4	6	#6	6	3'-9"	34
S5	2	#6	7	8'-11"	27
V1	76	#5	STR	8'-3"	654
V2	34	#5	STR	9'-11"	352
V3	36	#5	STR	10'-8"	401
U1	38	#4	5	5'-4"	135
U2	19	#4	5	5'-11"	75
REINFORCING STEEL					6124 LBS.
CLASS A CONCRETE POUR #1 CAP, LOWER WINGS AND WING BRACE PILE FOOTINGS					18.5 C.Y.
POUR #2 BACKWALL & UPPER WINGS					17.8 C.Y.
TOTAL					36.3 C.Y.
HP 12 X 53 STEEL PILES					
NO.				TOTAL LENGTH	
13				975 LIN. FT.	
PILE REDRIVES					5 EACH



PILE SPlice DETAILS

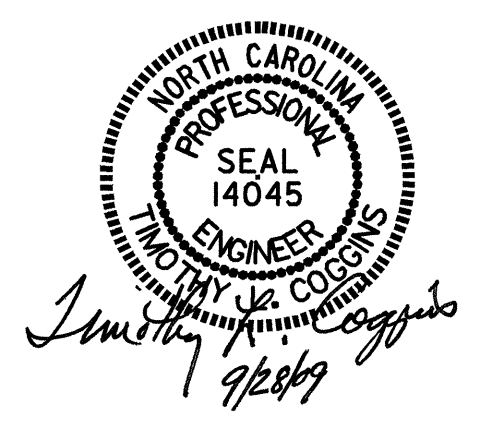


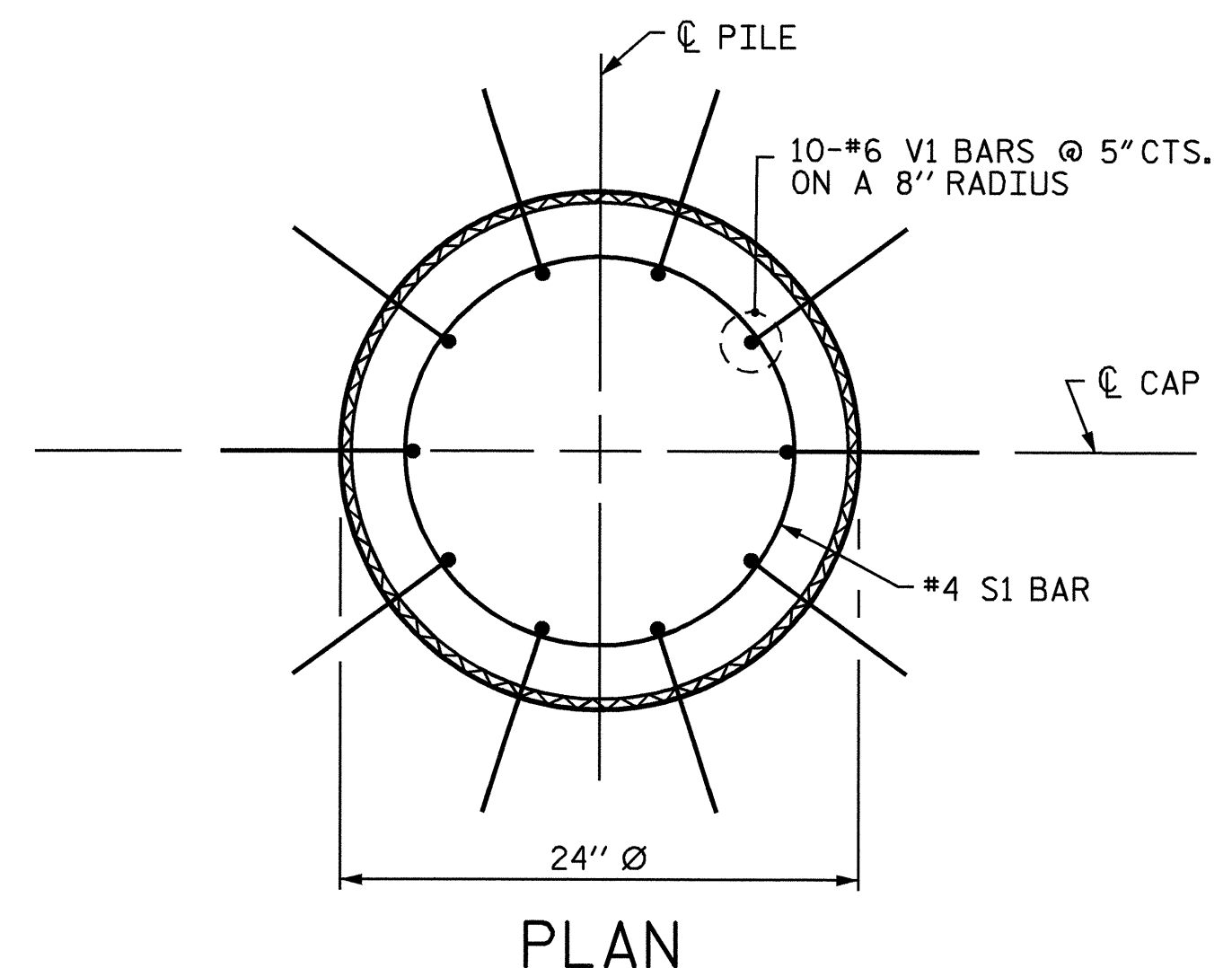
DETAIL A DETAIL B
POSITION OF PILE DURING WELDING.

PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-
 SHEET 3 OF 3

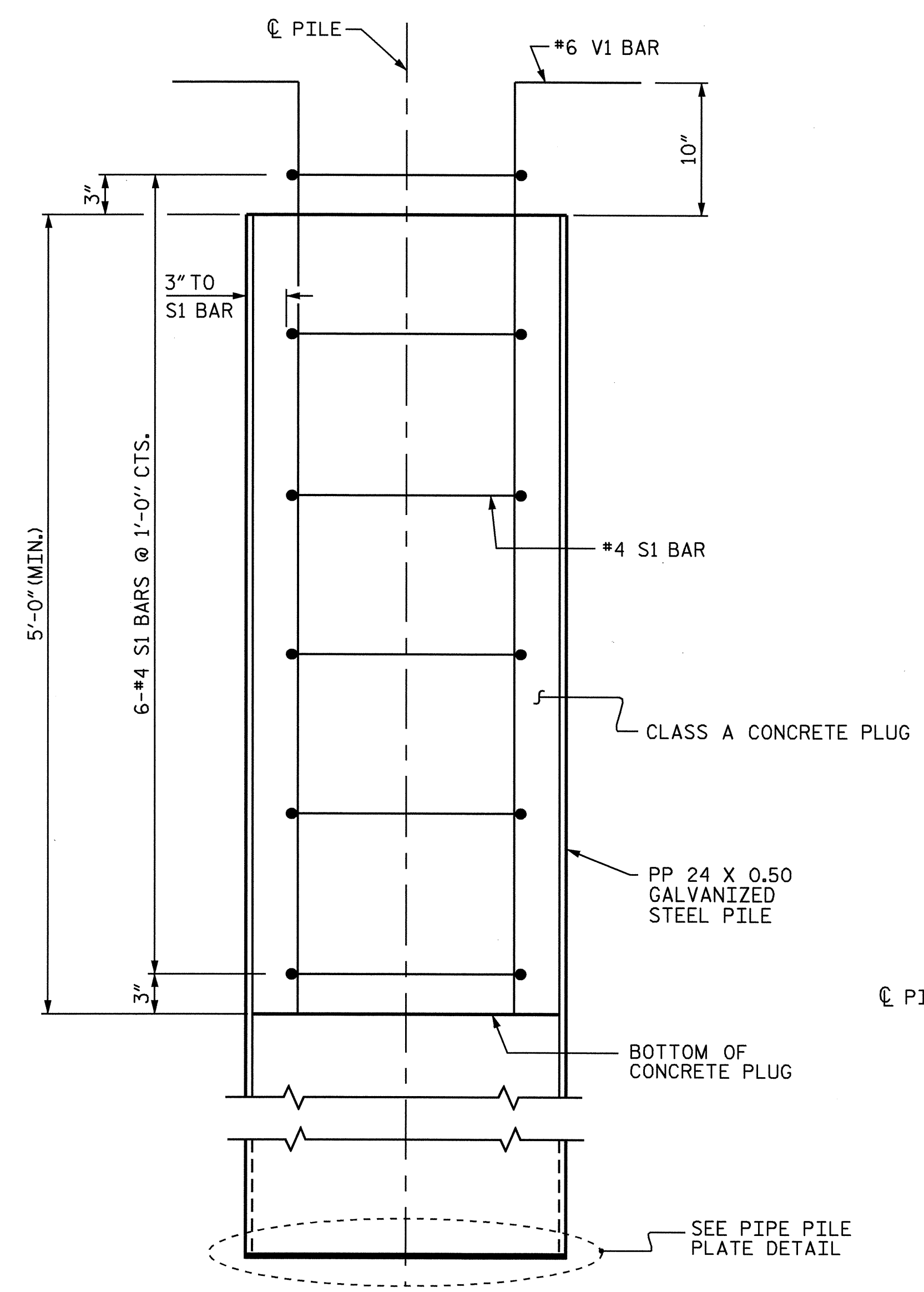
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE					
END BENT #2					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					TOTAL SHEETS 50

DRAWN BY: M.D.PISO DATE: 12/2008
 CHECKED BY: J.B.WILSON DATE: 1/2009



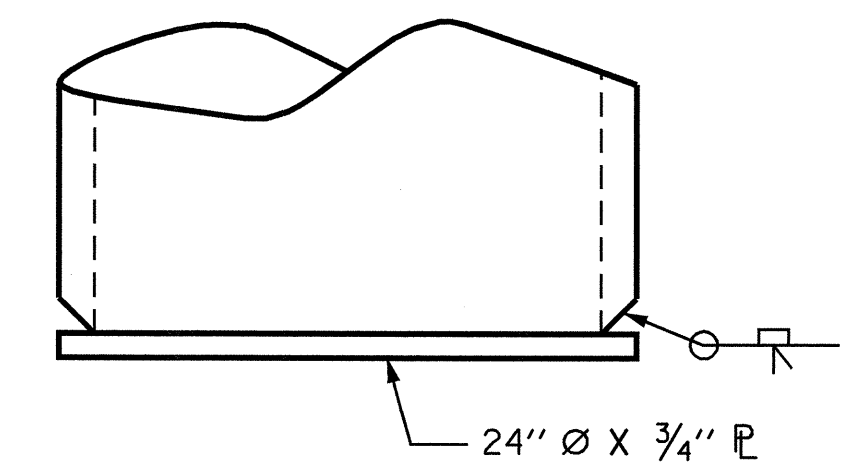


PLAN

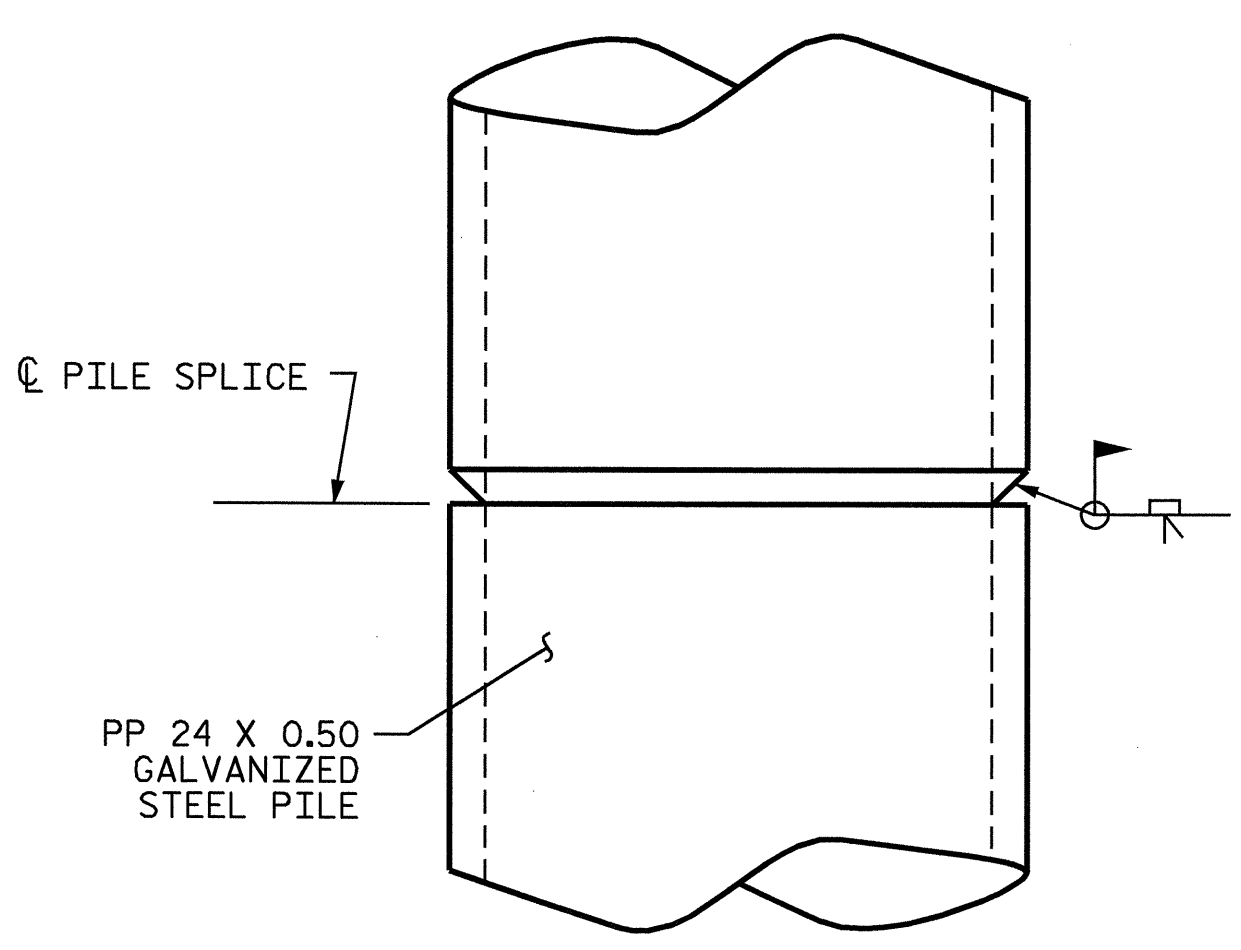


ELEVATION

PP 24 X 0.50 GALVANIZED STEEL PILE
(CLOSED END)



PIPE PILE PLATE DETAIL



PIPE PILE SPLICE DETAIL

NOTES

PIPE PILES SHALL BE IN ACCORDANCE WITH SECTION 1084 OF THE STANDARD SPECIFICATIONS.

FOR BENTS #1 THRU #4, GALVANIZE THE TOP 40 FEET OF EACH PILE IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS.

FOR BENTS #8 THRU #13, GALVANIZE THE TOP 35 FEET OF EACH PILE IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS.

PIPE PILE PLATES SHALL BE IN ACCORDANCE WITH SECTION 450 OF THE STANDARD SPECIFICATIONS.

REMOVE AND REPLACE OR REPAIR TO THE SATISFACTION OF THE ENGINEER PILES THAT ARE DAMAGED, DEFORMED OR COLLAPSED DURING INSTALLATION OR DRIVING.

PILE SPLICES SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND AWS D1.1.

FOR CLOSED END PIPE PILES, REMOVE ALL SOIL AND WATER FROM INSIDE THE PILES JUST PRIOR TO PLACING REINFORCING STEEL AND CONCRETE FOR THE CONCRETE PLUG.

FORM THE CONCRETE PLUG SUCH THAT THE REINFORCING STEEL OR CONCRETE DOES NOT MOVE AND THE CLEARANCE FROM THE REINFORCING STEEL TO THE INSIDE OF THE PILE IS MAINTAINED AFTER CONCRETE PLACEMENT. DO NOT PLACE CONCRETE IN THE BENT CAP UNTIL THE CONCRETE PLUG HAS ATTAINED A MINIMUM COMPRESSIVE STRENGTH OF 1500 PSI.

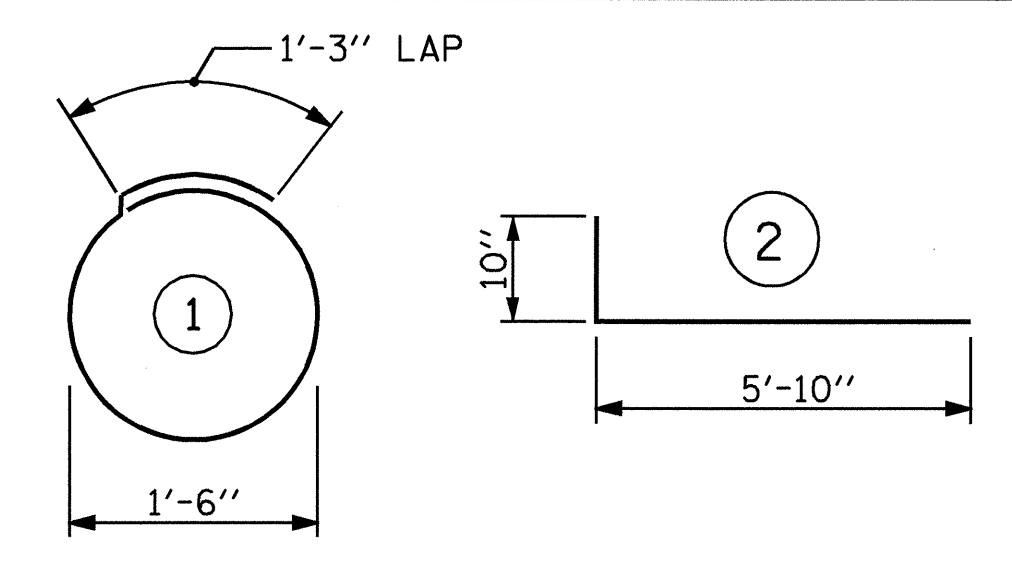
THE REINFORCING STEEL AND THE CLASS A CONCRETE ARE CONSIDERED INCIDENTAL TO THE CONTRACT UNIT PRICE BID PER LINEAR FOOT FOR PP 24 X 0.50 GALVANIZED STEEL PILES.

BILL OF MATERIAL FOR ONE
PP 24 X 0.50 GALVANIZED STEEL PILE

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
S1	6	#4	1	6'-0"	24
V1	10	#6	2	6'-8"	100
REINFORCING STEEL =				124	lbs

CLASS A CONCRETE
5'-0" MINIMUM PLUG 0.5 CY

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

PROJECT NO. U-3826
EDGEcombe COUNTY
STATION: 49+65.00 -L-

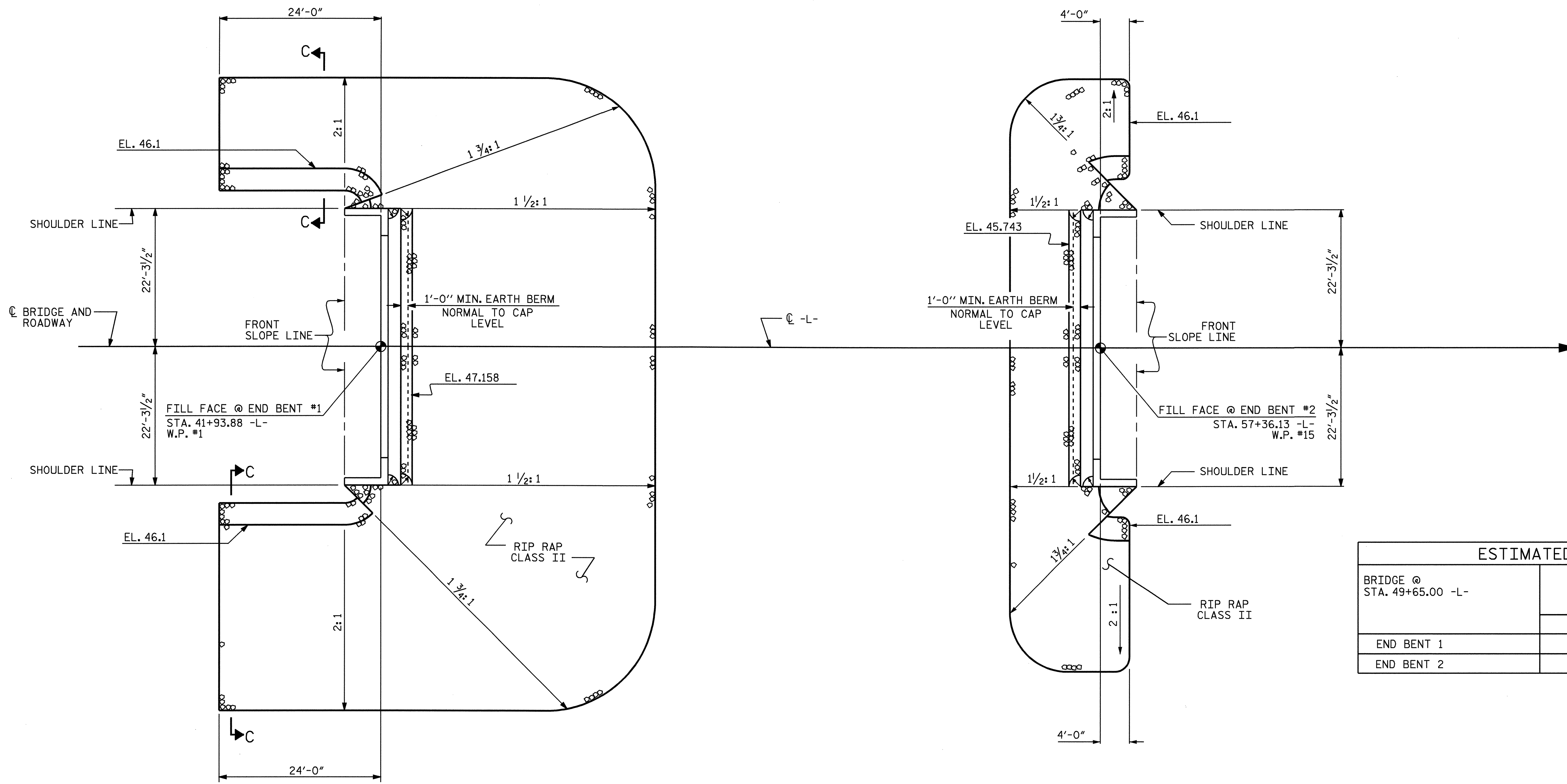
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
24" STEEL PIPE PILE



ASSEMBLED BY : J.B. WILSON DATE : 2/16/09
CHECKED BY : PEGGY PARISI DATE : 3/31/09
DRAWN BY : TLA 8/05
CHECKED BY : GM 9/05

ADDED 10/1/05
REV. 5/1/06R MAA/KMM

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-47	
1			3			TOTAL SHEETS	50
2			4				

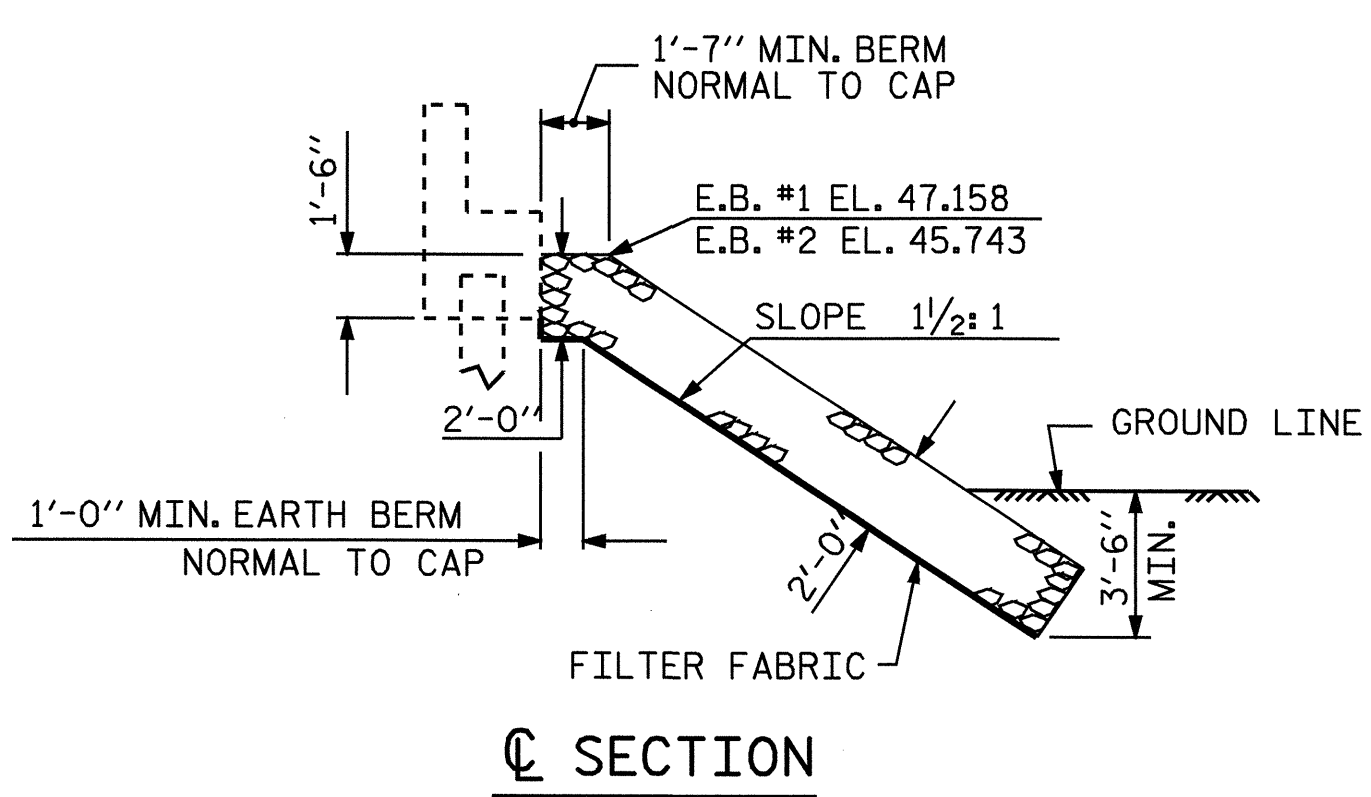


ESTIMATED QUANTITIES		
BRIDGE @ STA. 49+65.00 -L-	RIP RAP CLASS II	FILTER FABRIC FOR DRAINAGE
	TONS	SQUARE YARDS
END BENT 1	510	566
END BENT 2	385	427

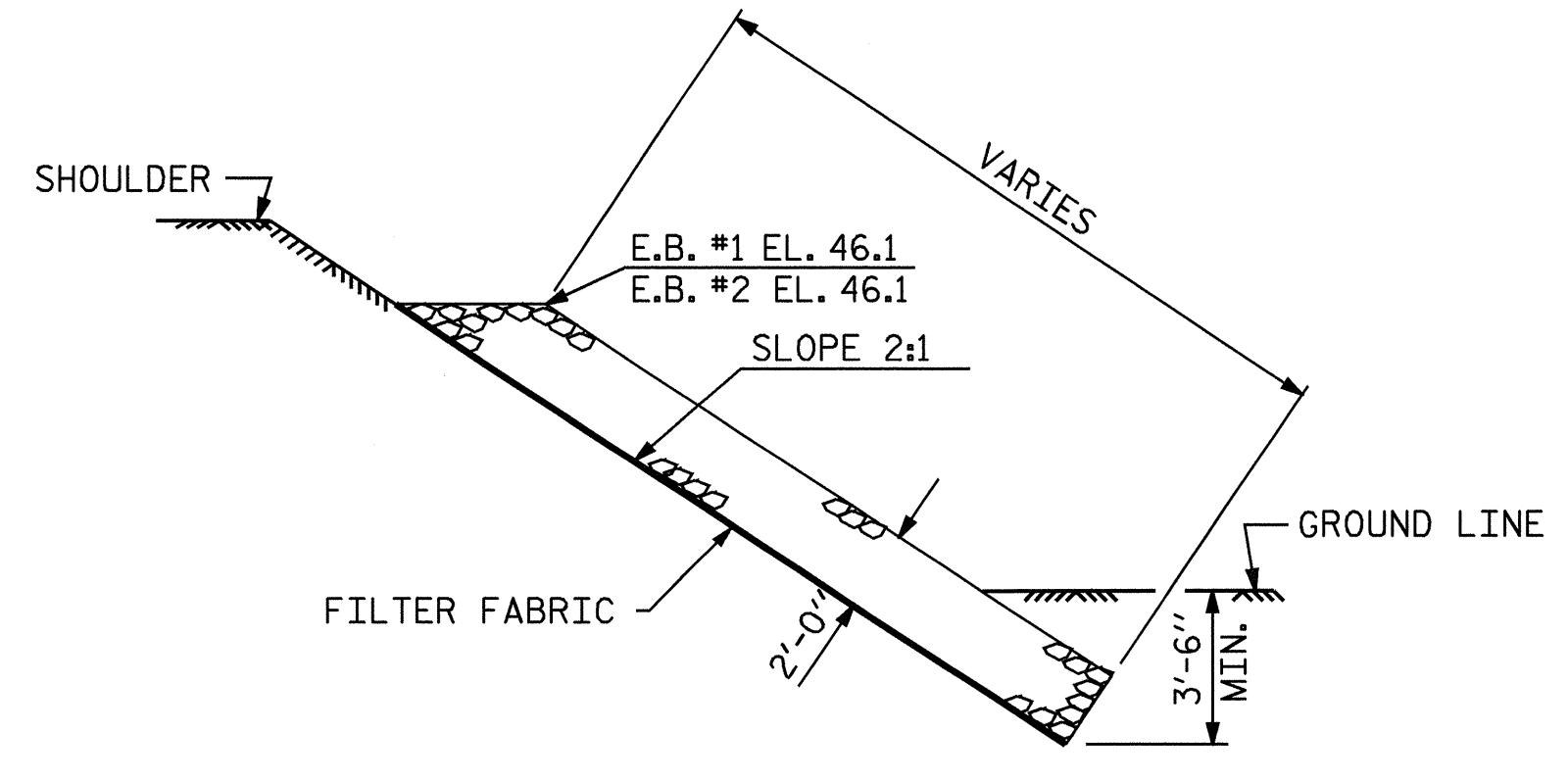
END BENT #1

END BENT #2

PLAN OF RIP RAP



SECTION
BERM RIP RAPPED

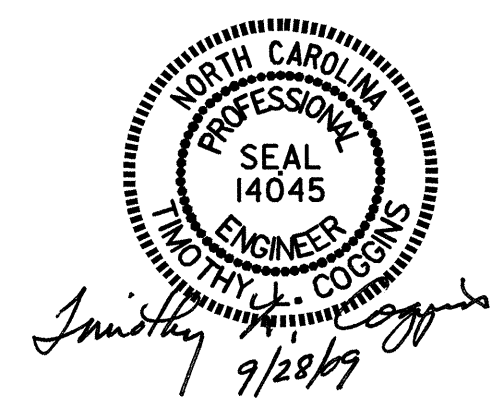


SECTION C-C

PROJECT NO. U-3826
EDGEcombe COUNTY
 STATION: 49+65.00 -L-

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

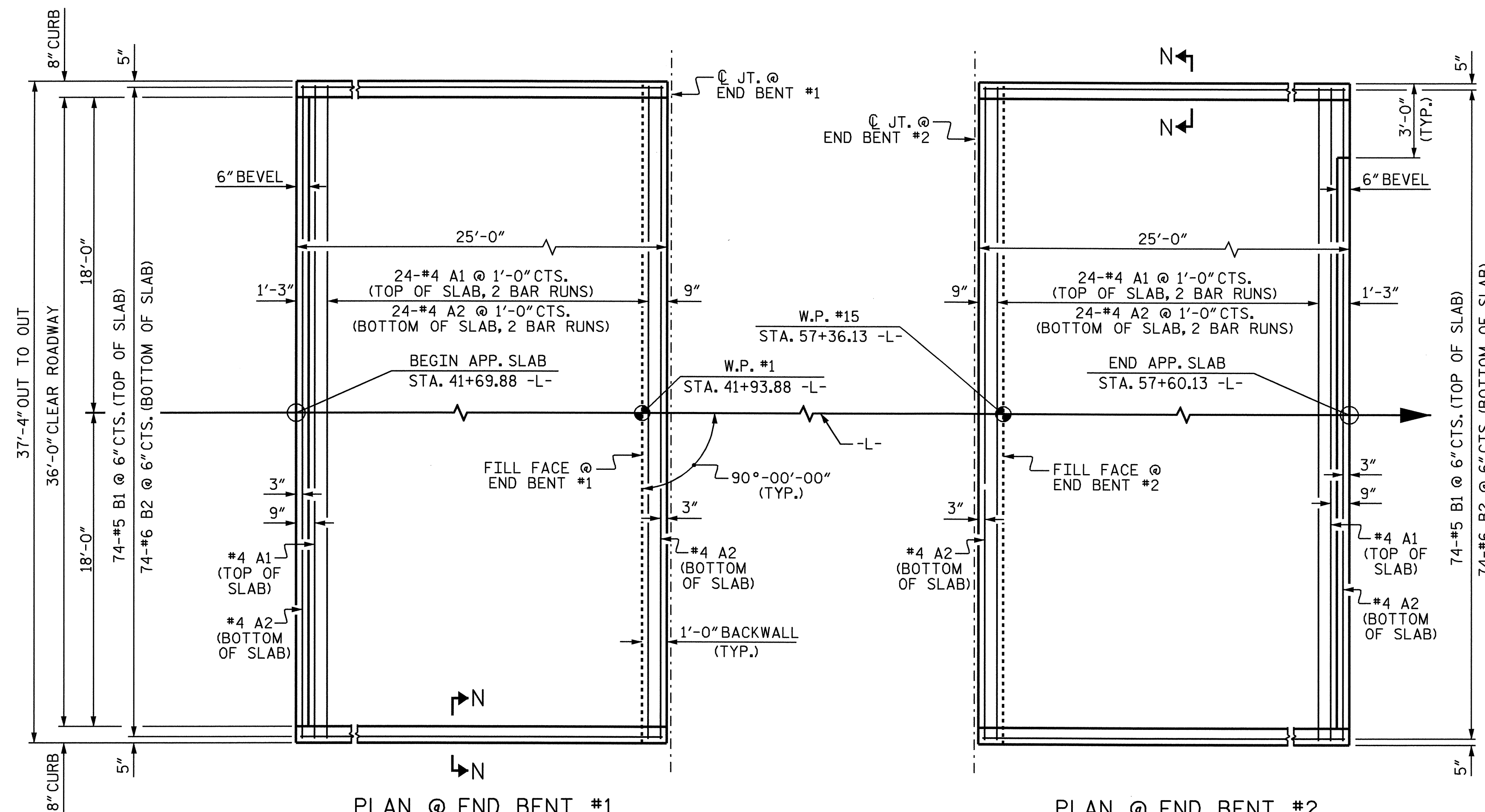
— RIP RAP DETAILS —



ASSEMBLED BY : J.B. WILSON	DATE : 11/25/08
CHECKED BY : M.D. PISO	DATE : 03/01/09
DRAWN BY : FCJ 2/88	REV. 8/16/99 RWW/LES
CHECKED BY : ARB 8/88	REV. 10/17/00 RWW/LES
	REV. 5/1/06 TLA/GM

REVISIONS						SHEET NO. S-48
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 50
2			4			

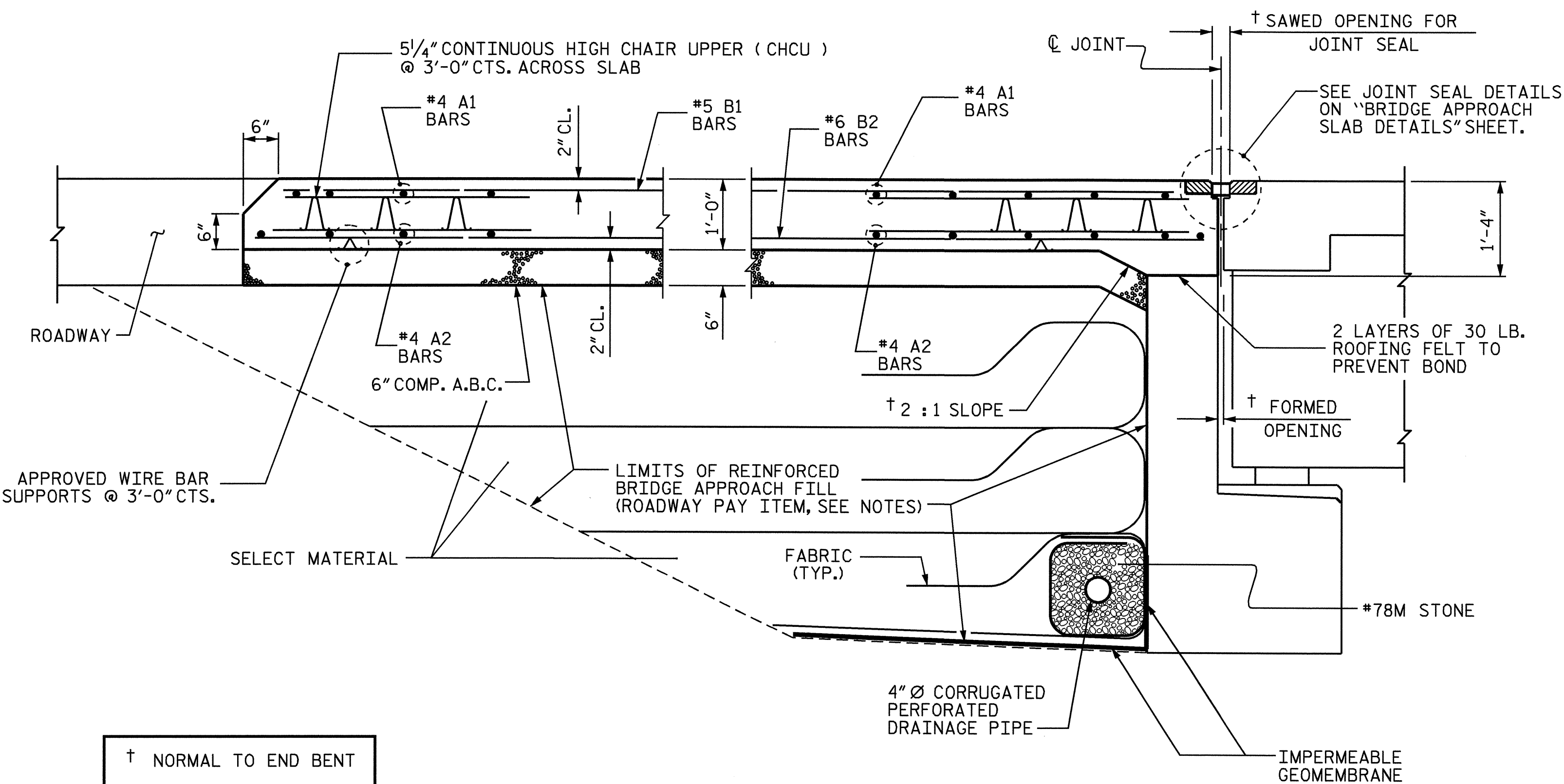
21-SEP-2009 10:47
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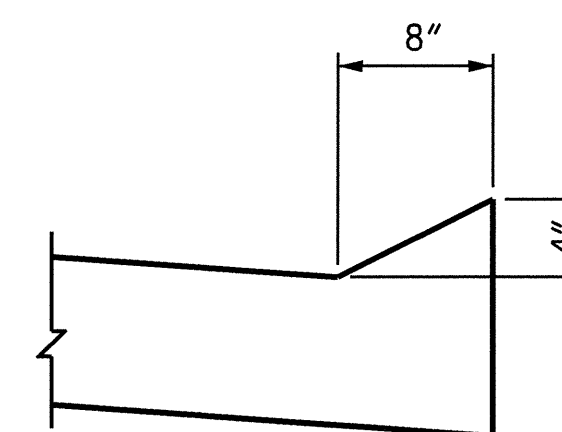
PLAN @ END BENT #1

PLAN @ END BENT #2

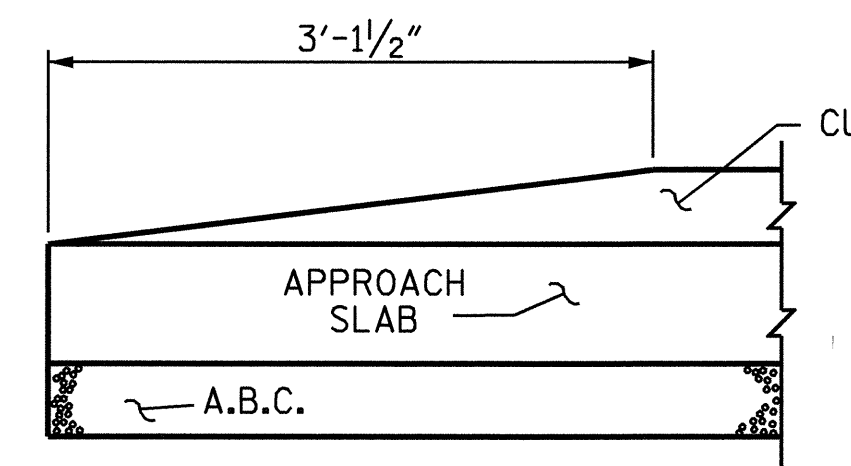
DIMENSIONS SHOWN ARE TYPICAL FOR BOTH APPROACH SLABS



SECTION THRU SLAB



SECTION N-N



END OF CURB WITHOUT SHOULDER BERM GUTTER

NOTES

APPROACH SLAB SHALL NOT BE CONSTRUCTED PRIOR TO COMPLETION OF THE BRIDGE DECK.

FOR REINFORCED BRIDGE APPROACH FILL INCLUDING FABRIC, IMPERMEABLE GEOMEMBRANE, 4" Ø DRAINAGE PIPE, #78M STONE, AND SELECT MATERIAL, SEE ROADWAY PLANS.

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

THE 6" COMP. A.B.C. SHALL BE FLUSH WITH THE ROADWAY END OF THE APPROACH SLAB AND SHALL EXTEND 1'-0" OUTSIDE EACH EDGE OF THE APPROACH SLAB.

THE CONTRACTOR MAY USE 4" TYPE B-25.0B ASPHALT CONCRETE BASE COURSE IN LIEU OF 6" COMP. A.B.C. IF THIS OPTION IS USED, THE BASE COURSE SHALL BE FLUSH WITH THE ROADWAY END OF THE APPROACH SLAB, AND THE WIDTH SHALL BE THE SAME AS THAT OF THE APPROACH SLAB.

THE CONTRACTOR MAY USE 5" CLASS "A" CONCRETE BASE IN LIEU OF 6" COMP. A.B.C. IF THIS OPTION IS USED, THE CONCRETE BASE SHALL BE FLUSH WITH THE ROADWAY END OF THE APPROACH SLAB, AND THE WIDTH SHALL BE THE SAME AS THAT OF THE APPROACH SLAB. THE CONCRETE SHALL BE FINISHED TO A SMOOTH SURFACE AND A LAYER OF 30 LB ROOFING FELT SHALL BE PLACED BETWEEN THE CONCRETE BASE AND THE APPROACH SLAB TO PREVENT BOND. THE APPROACH SLAB SHALL NOT BE CAST UNTIL THE CONCRETE BASE HAS REACHED AN AGE OF THREE CURING DAYS.

THE JOINT SHALL BE SAWED PRIOR TO THE CASTING OF THE PARAPET AND END POST.

WITH EVAZOTE JOINT SEAL

FOR EVAZOTE JOINT SEALS, SEE SPECIAL PROVISIONS.

THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE EVAZOTE JOINT SEAL SHALL BE 3/8".

FOR ELASTOMERIC CONCRETE, SEE SPECIAL PROVISIONS.

BILL OF MATERIAL FOR ONE APPROACH SLAB (2 REQ'D)

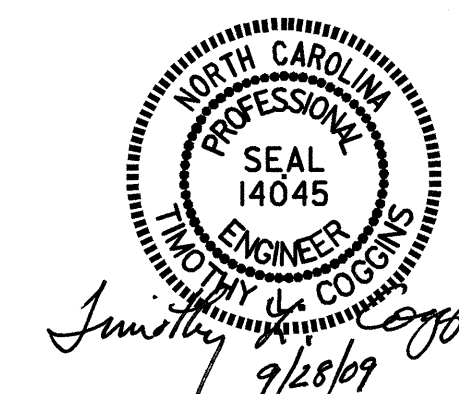
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
*A1	50	#4	STR	19'-6"	651
A2	52	#4	STR	19'-5"	674
*B1	74	#5	STR	23'-8"	1827
B2	74	#6	STR	24'-8"	2742

REINFORCING STEEL	LBS.	3416
*EPOXY COATED REINFORCING STEEL	LBS.	2478
CLASS AA CONCRETE	C. Y.	35.2

SPLICE CHART

BAR SIZE	SPLICE LENGTH
#4 A1	2'-0"
#4 A2	1'-9"

ASSEMBLED BY : J.B. WILSON DATE : 11/24/08
 CHECKED BY : M.D. PISO DATE : 1/4/09
 DRAWN BY : EEM 3/95 REV. 7/10/01 LES/RDR
 CHECKED BY : VAP 3/95 REV. 5/7/03R RWW/JTE
 REV. 5/1/06R KMM/GM



PROJECT NO. U-3826
 EDGEcombe COUNTY
 STATION: 49+65.00 -L-

SHEET 1 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

STANDARD

BRIDGE APPROACH SLAB
 FOR FLEXIBLE PAVEMENT

REVISIONS

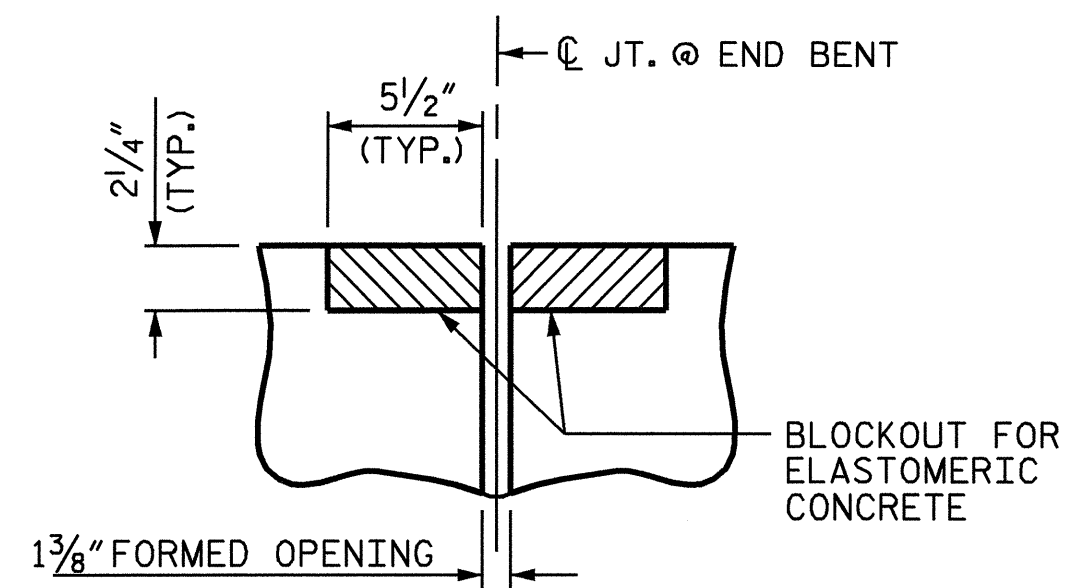
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

SHEET NO.

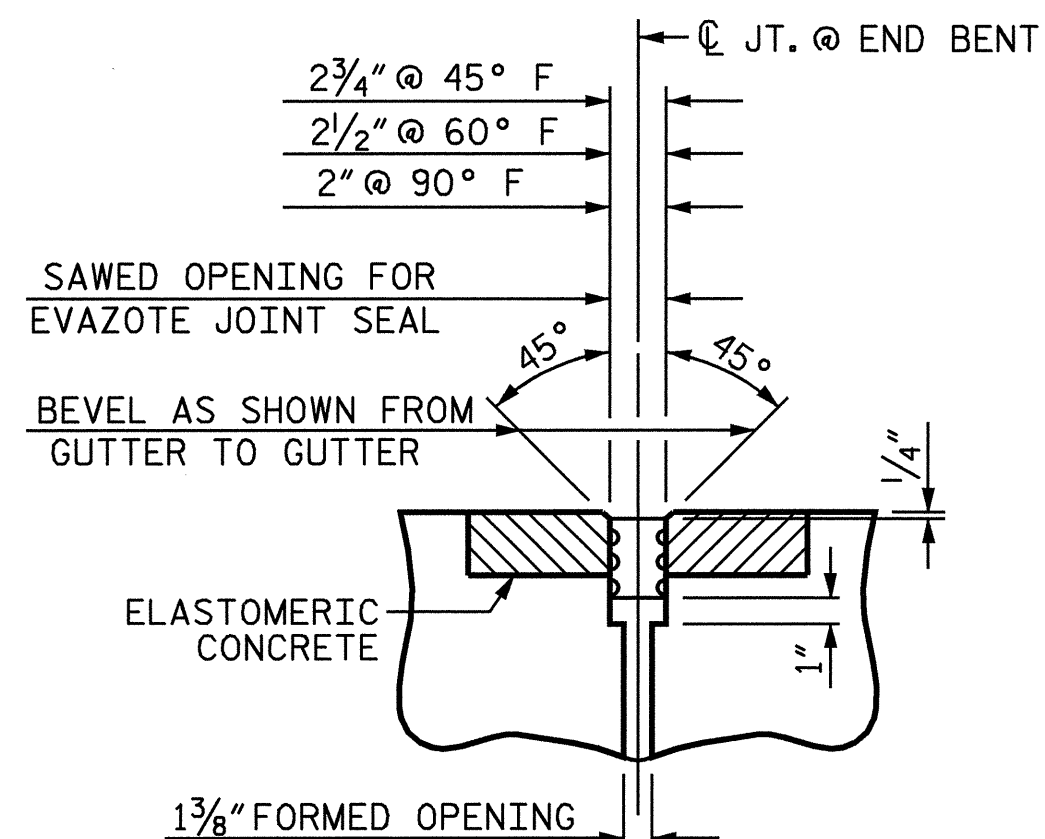
S-49

TOTAL SHEETS

50



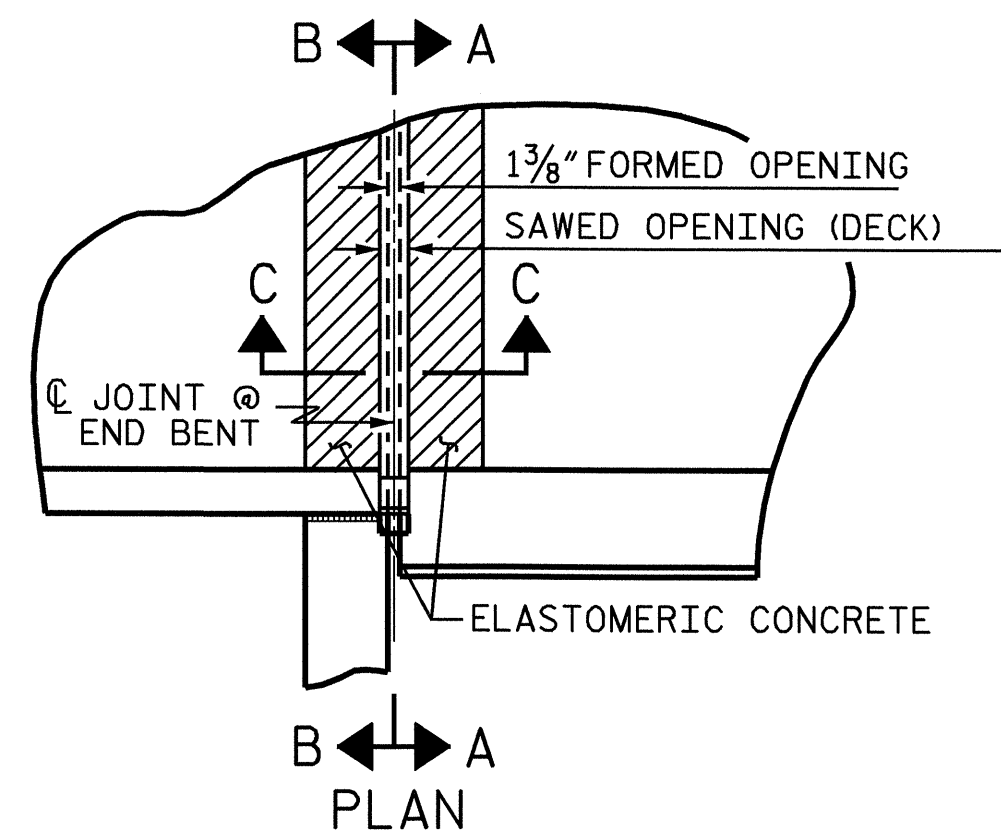
SECTION C-C
EVAZOTE JOINT SEAL
(PRE-SAWED ELASTOMERIC
CONCRETE DIMENSIONS)



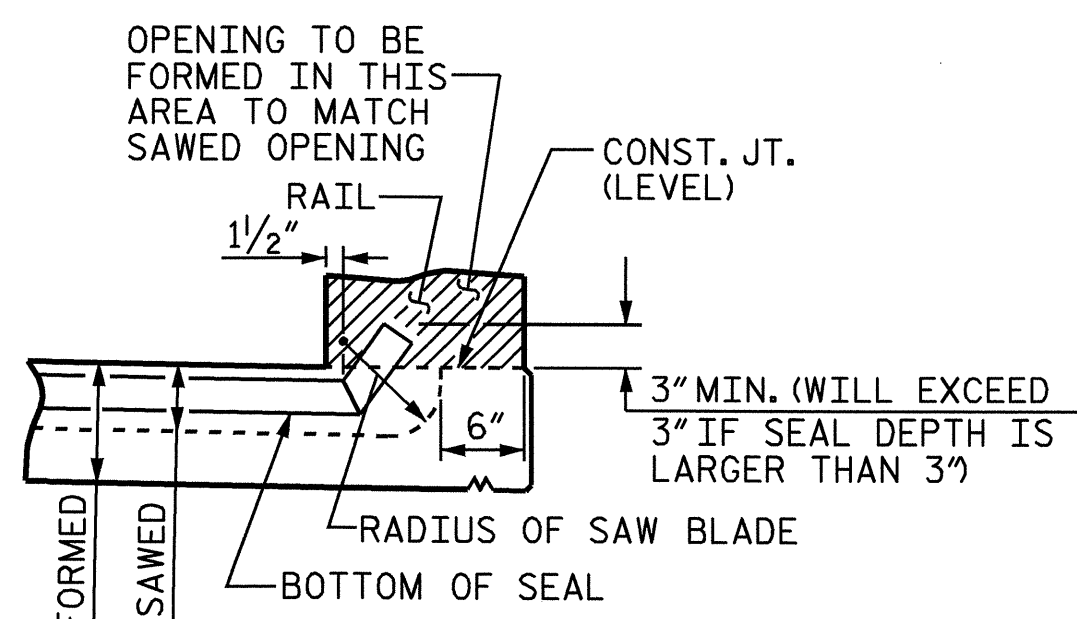
SECTION C-C
EVAZOTE JOINT SEAL
(EXPANSION)

ELASTOMERIC CONCRETE	
END BENT NO.	ELASTOMERIC CONCRETE * (CU. FT.)
1	6.2
2	6.2
TOTAL	12.4

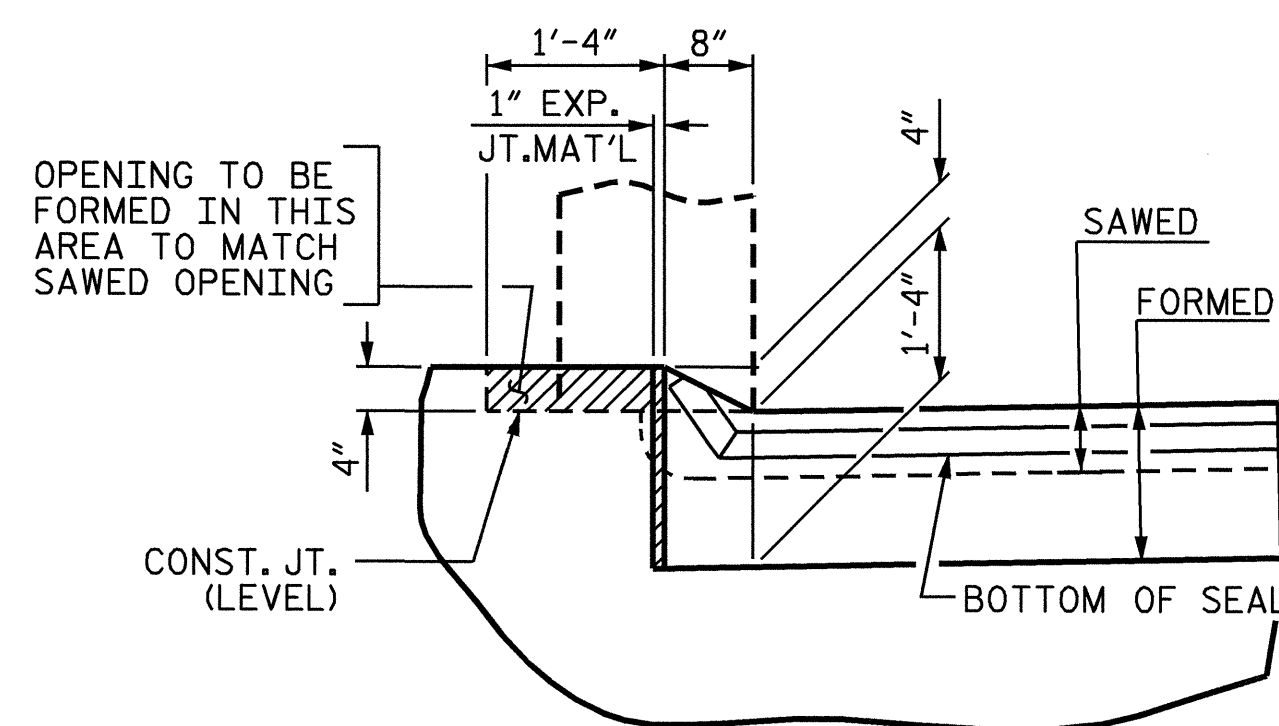
* BASED ON THE MINIMUM BLOCKOUT SHOWN.



PLAN



SECTION A-A

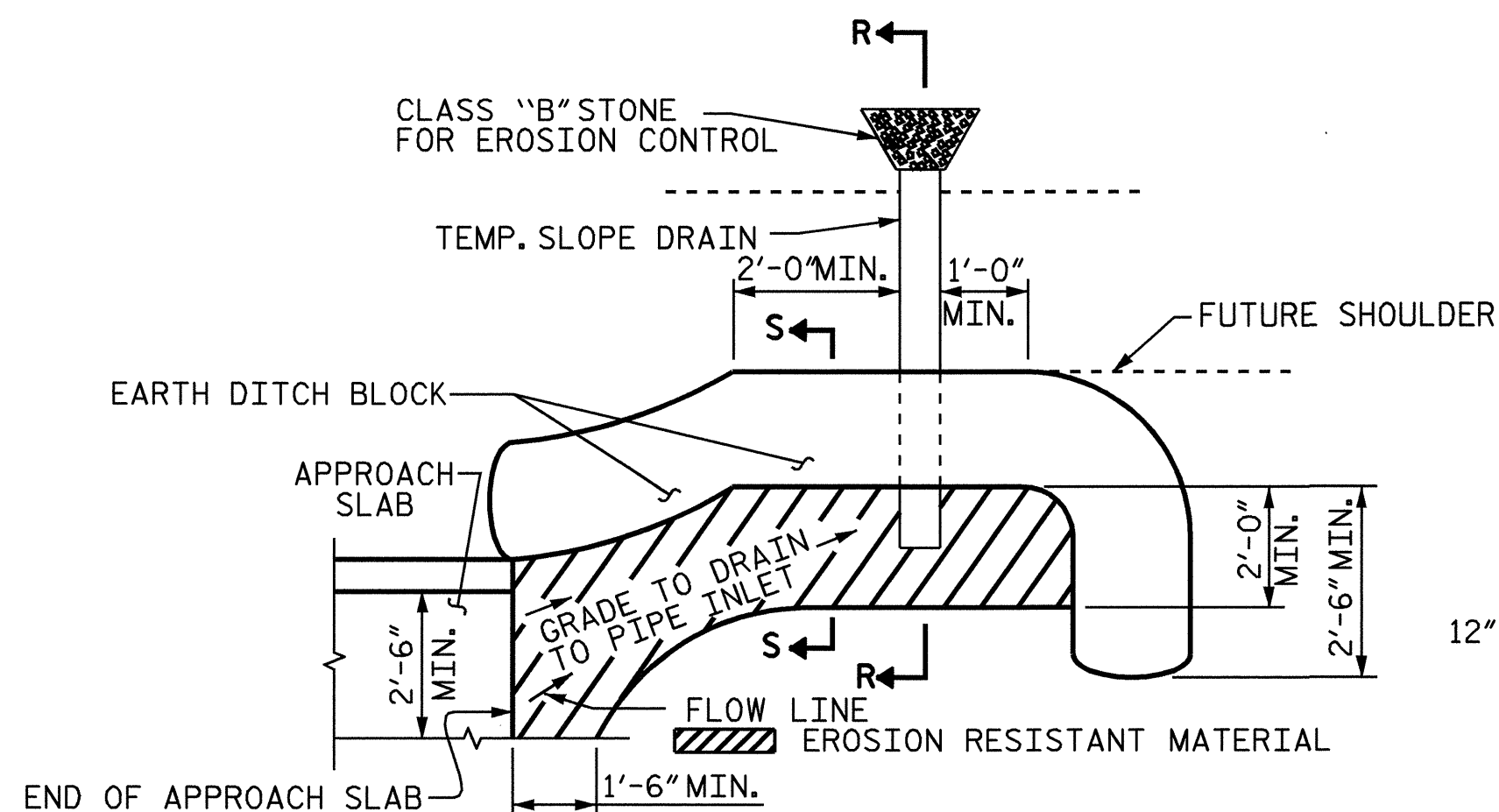


SECTION B-B

JOINT SEAL DETAILS @ END BENT

EVAZOTE JOINT SEAL TO BE CUT, HEAT WELDED AND TURNED UP PARALLEL TO SLOPED FACE OF THE METAL RAIL.

THE JOINT SHALL BE SAWED PRIOR TO THE CASTING OF THE PARAPET AND END POST.

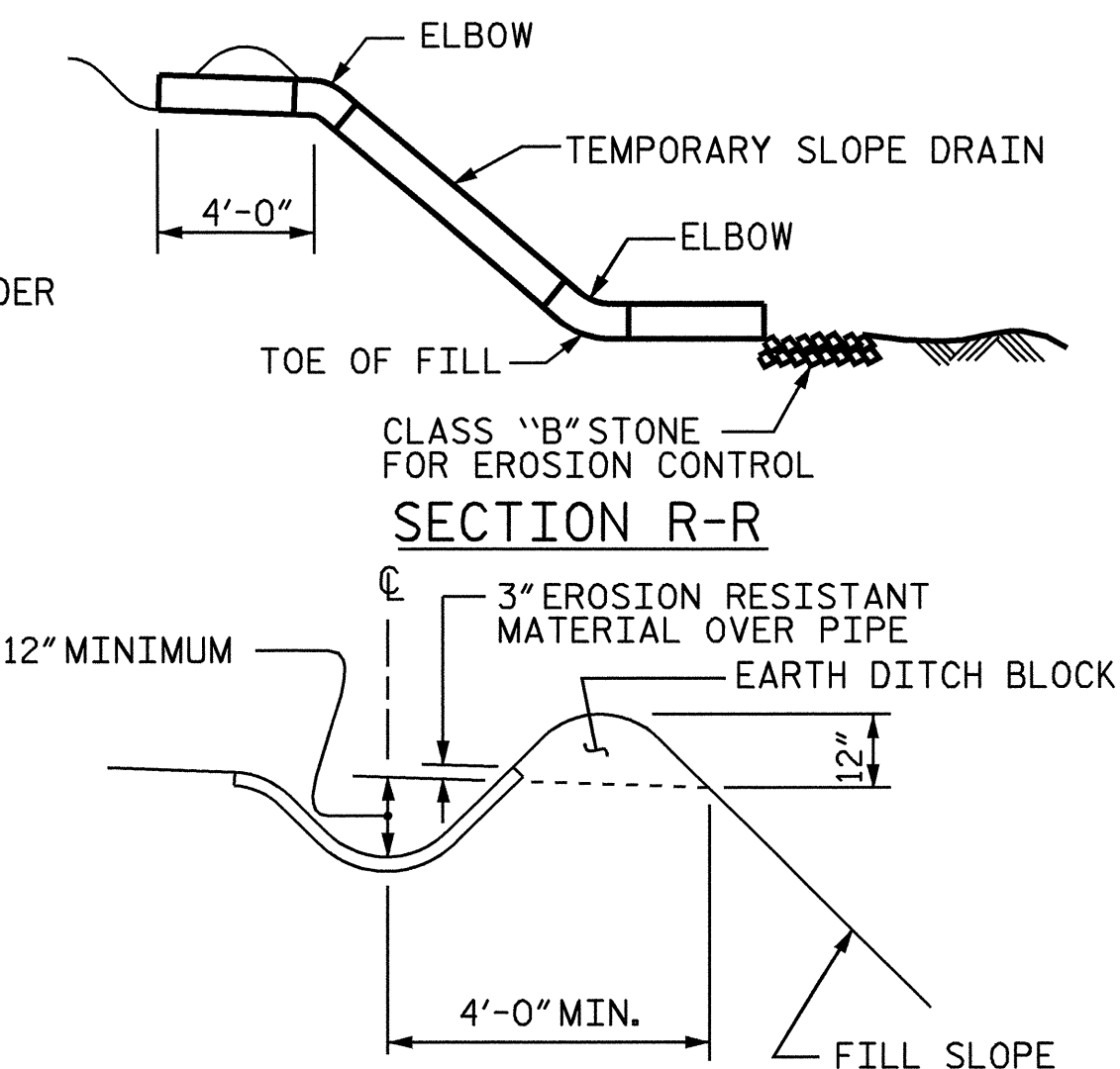


NOTE: IMMEDIATELY AFTER THE CONSTRUCTION OF THE APPROACH SLAB, THE CONTRACTOR SHALL PROVIDE TEMPORARY BERM AND SLOPE DRAIN. CONTRACTOR SHALL GRADE TO PIPE INLET AND PROVIDE EROSION RESISTANT MATERIAL AS SHOWN. THE EROSION RESISTANT MATERIAL SHALL BE EITHER 1) ASPHALT PLANT MIX, TYPE 1 OR TYPE 2, MIN. 2 inch 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, 12 INCHES IN DIAMETER.

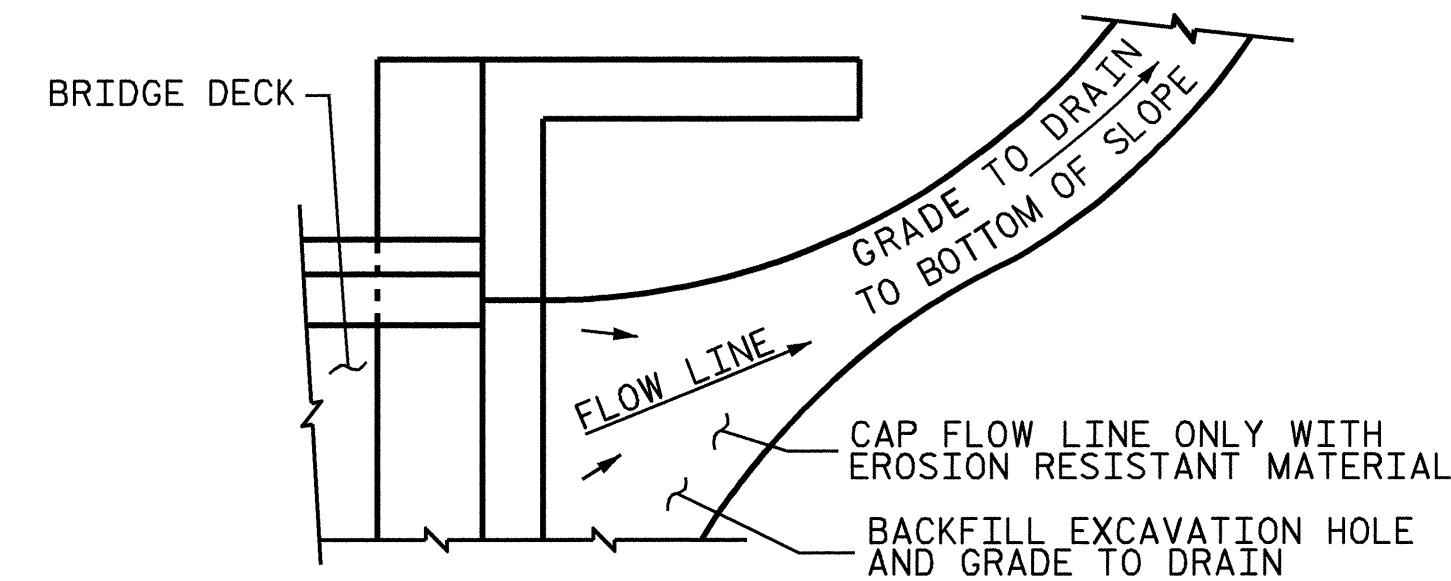
PLAN VIEW

TEMPORARY BERM AND SLOPE DRAIN DETAILS

(TO BE USED WHEN SHOULDER BERM GUTTER IS REQUIRED)



SECTION S-S



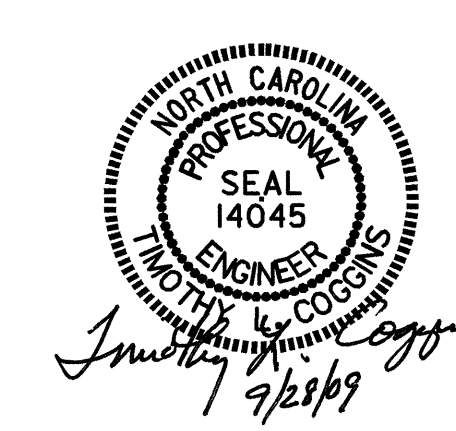
NOTE: IF THE APPROACH SLAB IS NOT CONSTRUCTED IMMEDIATELY AFTER THE BACKFILLING OF THE END BENT EXCAVATION, GRADE TO DRAIN TO THE BOTTOM OF THE SLOPE AND PROVIDE EROSION RESISTANT MATERIAL, SUCH AS FIBERGLASS ROVING OR AS DIRECTED BY THE ENGINEER TO PREVENT SOIL EROSION AND TO PROTECT THE AREA ADJACENT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

TEMPORARY DRAINAGE DETAIL

PROJECT NO. U-3826
EDGEcombe COUNTY
STATION: 49+65.00 -L-

SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
BRIDGE APPROACH
SLAB DETAILS



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

ASSEMBLED BY :	J.B. WILSON	DATE :	11/24/08
CHECKED BY :	M.D. PISO	DATE :	1/4/09
DRAWN BY :	FCJ 11/88	REV. 10/17/00	RWN/LES
CHECKED BY :	ARB 11/88	REV. 5/7/03	RWN/JTE
		REV. 5/1/06R	MAA/KMM

STANDARD NOTES

DESIGN DATA:

SPECIFICATIONS	-----	A.A.S.H.T.O. (CURRENT)
LIVE LOAD	-----	SEE PLANS
IMPACT ALLOWANCE	-----	SEE A.A.S.H.T.O.
STRESS IN EXTREME FIBER OF		
STRUCTURAL STEEL - AASHTO M270 GRADE 36	-	20,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50W	-	27,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50	-	27,000 LBS. PER SQ. IN.
REINFORCING STEEL IN TENSION		
GRADE 60	--	24,000 LBS. PER SQ. IN.
CONCRETE IN COMPRESSION	-----	1,200 LBS. PER SQ. IN.
CONCRETE IN SHEAR	-----	SEE A.A.S.H.T.O.
STRUCTURAL TIMBER - TREATED OR		
UNTREATED - EXTREME FIBER STRESS	-----	1,800 LBS. PER SQ. IN.
COMPRESSION PERPENDICULAR TO GRAIN OF TIMBER	-----	375 LBS. PER SQ. IN.
EQUIVALENT FLUID PRESSURE OF EARTH	-----	30 LBS. PER CU. FT. (MINIMUM)

MATERIAL AND WORKMANSHIP:

EXCEPT AS MAY OTHERWISE BE SPECIFIED ON PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2006 "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" OF THE N.C. DEPARTMENT OF TRANSPORTATION.

STEEL SHEET PILING FOR PERMANENT OR TEMPORARY APPLICATIONS SHALL BE HOT ROLLED.

CONCRETE:

UNLESS OTHERWISE REQUIRED ON PLANS, CLASS A CONCRETE SHALL BE USED FOR ALL PORTIONS OF ALL STRUCTURES WITH THE EXCEPTION THAT: CLASS AA CONCRETE SHALL BE USED IN BRIDGE SUPERSTRUCTURES, ABUTMENT BACKWALLS, AND APPROACH SLABS; AND CLASS B CONCRETE SHALL BE USED FOR SLOPE PROTECTION AND RIP RAP.

CONCRETE CHAMFERS:

UNLESS OTHERWISE NOTED ON THE PLANS, ALL EXPOSED CORNERS ON STRUCTURES SHALL BE CHAMFERED 3/4" WITH THE FOLLOWING EXCEPTIONS: TOP CORNERS OF CURBS MAY BE ROUNDED TO 1-1/2" RADIUS WHICH IS BUILT INTO CURB FORMS; CORNERS OF TRANSVERSE FLOOR EXPANSION JOINTS SHALL BE ROUNDED WITH A 1/4" FINISHING TOOL UNLESS OTHERWISE REQUIRED ON PLANS; AND CORNERS OF EXPANSION JOINTS IN THE ROADWAY FACES AND TOPS OF CURBS AND SIDEWALKS SHALL BE ROUNDED TO A 1/4" RADIUS WITH A FINISHING STONE OR TOOL UNLESS OTHERWISE REQUIRED ON PLANS.

DOWELS:

DOWELS WHEN INDICATED ON PLANS AS FOR CULVERT EXTENSIONS, SHALL BE EMBEDDED AT LEAST 12" INTO THE OLD CONCRETE AND GROUTED INTO PLACE WITH 1:2 CEMENT MORTAR.

ALLOWANCE FOR DEAD LOAD DEFLECTION, SETTLEMENT, ETC. IN CASTING SUPERSTRUCTURES:

BRIDGES SHALL BE BUILT ON THE GRADE OR VERTICAL CURVE SHOWN ON PLANS. SLABS, CURBS AND PARAPETS SHALL CONFORM TO THE GRADE OR CURVE.
 ALL DIMENSIONS WHICH ARE GIVEN IN SECTION AND ARE AFFECTED BY DEAD LOAD DEFLECTIONS ARE DIMENSIONS AT CENTER LINE OF BEARING UNLESS OTHERWISE NOTED ON PLANS. IN SETTING FORMS FOR STEEL BEAM BRIDGES AND PRESTRESSED CONCRETE GIRDER BRIDGES, ADJUSTMENTS SHALL BE MADE DUE TO THE DEAD LOAD DEFLECTIONS FOR THE ELEVATIONS SHOWN. WHERE BLOCKS ARE SHOWN OVER BEAMS FOR BUILDING UP TO THE SLAB, THE VERTICAL DIMENSIONS OF THE BLOCKS SHALL BE ADJUSTED BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTIONS, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER. WHERE BOTTOM OF SLAB IS IN LINE WITH BOTTOM OF TOP FLANGES, DEPTH OF SLAB BETWEEN BEARINGS SHALL BE ADJUSTED TO COMPENSATE FOR DEAD LOAD DEFLECTION, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER.
 IN SETTING FALSEWORK AND FORMS FOR REINFORCED CONCRETE SPANS, AN ALLOWANCE SHALL BE MADE FOR DEAD LOAD DEFLECTIONS, SETTLEMENT OF FALSEWORK, AND PERMANENT CAMBER WHICH SHALL BE PROVIDED FOR IN ADDITION TO THE ELEVATIONS SHOWN. AFTER REMOVAL OF THE FALSEWORK, THE FINISHED STRUCTURES SHALL CONFORM TO THE PROFILE AND ELEVATIONS SHOWN ON THE PLANS AND CONSTRUCTION ELEVATIONS FURNISHED BY THE ENGINEER.
 DETAILED DRAWINGS FOR FALSEWORK OR FORMS FOR BRIDGE SUPERSTRUCTURE AND ANY STRUCTURE OR PARTS OF A STRUCTURE AS NOTED ON THE PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE CONSTRUCTION OF THE FALSEWORK OR FORMS IS STARTED.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE DEFORMED. DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO CENTERS OF BARS UNLESS OTHERWISE INDICATED IN THE PLANS. DIMENSIONS ON BAR DETAILS ARE TO CENTERS OF BARS OR ARE OUT TO OUT AS INDICATED ON PLANS.
 WIRE BAR SUPPORTS SHALL BE PROVIDED FOR REINFORCING STEEL WHERE INDICATED ON THE PLANS. WHEN BAR SUPPORT PIECES ARE PLACED IN CONTINUOUS LINES, THEY SHALL BE SO PLACED THAT THE ENDS OF THE SUPPORTING WIRES SHALL BE LAPPED TO LOCK LEGS ON ADJOINING PIECES.

STRUCTURAL STEEL:

AT THE CONTRACTOR'S OPTION, HE MAY SUBSTITUTE 7/8" Ø SHEAR STUDS FOR THE 3/4" Ø STUDS SPECIFIED ON THE PLANS. THIS SUBSTITUTION SHALL BE MADE AT THE RATE OF 3 - 7/8" Ø STUDS FOR 4 - 3/4" Ø STUDS, AND STUD SPACING CHANGES SHALL BE MADE AS NECESSARY TO PROVIDE THE SAME EQUIVALENT NUMBER OF 7/8" Ø STUDS ALONG THE BEAM AS SHOWN FOR 3/4" Ø STUDS BASED ON THE RATIO OF 3 - 7/8" Ø STUDS FOR 4 - 3/4" Ø STUDS. STUDS OF THE LENGTH SPECIFIED ON THE PLANS MUST BE PROVIDED. THE MAXIMUM SPACING SHALL BE 2'-0".
 EXCEPT AT THE INTERIOR SUPPORTS OF CONTINUOUS BEAMS WHERE THE COVER PLATE IS IN CONTACT WITH BEARING PLATE, THE CONTRACTOR MAY, AT HIS OPTION, SUBSTITUTE FOR THE COVER PLATES DESIGNATED ON THE PLANS COVER PLATES OF THE EQUIVALENT AREA PROVIDED THESE PLATES ARE AT LEAST 5/16" IN THICKNESS AND DO NOT EXCEED A WIDTH EQUAL TO THE FLANGE WIDTH LESS 2" OR A THICKNESS EQUAL TO 2 TIMES THE FLANGE THICKNESS. THE SIZE OF FILLET WELDS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ANSI/AASHTO/AWS "BRIDGE WELDING CODE". ELECTROSLAG WELDING WILL NOT BE PERMITTED.
 WITH THE SOLE EXCEPTION OF EDGES AT SURFACES WHICH BEAR ON OTHER SURFACES, ALL SHARP EDGES AND ENDS OF SHAPES AND PLATES SHALL BE SLIGHTLY ROUNDED BY SUITABLE MEANS TO A RADIUS OF APPROXIMATELY 1/16 INCH OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE PRIOR TO PAINTING, GALVANIZING, OR METALLIZING.

HANDRAILS AND POSTS:

METAL STANDARDS AND FACES OF THE CONCRETE END POSTS FOR THE METAL RAIL SHALL BE SET NORMAL TO THE GRADE OF THE CURB, UNLESS OTHERWISE SHOWN ON PLANS. THE METAL RAIL AND TOPS OF CONCRETE POSTS USED WITH THE ALUMINUM RAIL SHALL BE BUILT PARALLEL TO THE GRADE OF THE CURB.
 METAL HANDRAILS SHALL BE IN ACCORDANCE WITH THE PLANS. RAILS SHALL BE AS MANUFACTURED FOR BRIDGE RAILING. CASTINGS SHALL BE OF A UNIFORM APPEARANCE. FINIS AND OTHER DEFORMATIONS RESULTING FROM CASTING OR OTHERWISE SHALL BE REMOVED IN A MANNER SO THAT A UNIFORM COLORING OF THE COMPLETED CASTING SHALL BE OBTAINED. CASTINGS WITH DISCOLORATIONS OR OF NON-UNIFORM COLORING WILL NOT BE ACCEPTED. CERTIFIED MILL REPORTS ARE REQUIRED FOR METAL RAILS AND POSTS.

SPECIAL NOTES:

GENERALLY, IN CASE OF DISCREPANCY, THIS STANDARD SHEET OF NOTES SHALL GOVERN OVER THE SPECIFICATIONS, BUT THE REMAINDER OF THE PLANS SHALL GOVERN OVER NOTES HEREON, AND SPECIAL PROVISIONS SHALL GOVERN OVER ALL. SEE SPECIFICATIONS ARTICLE 105-4.

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