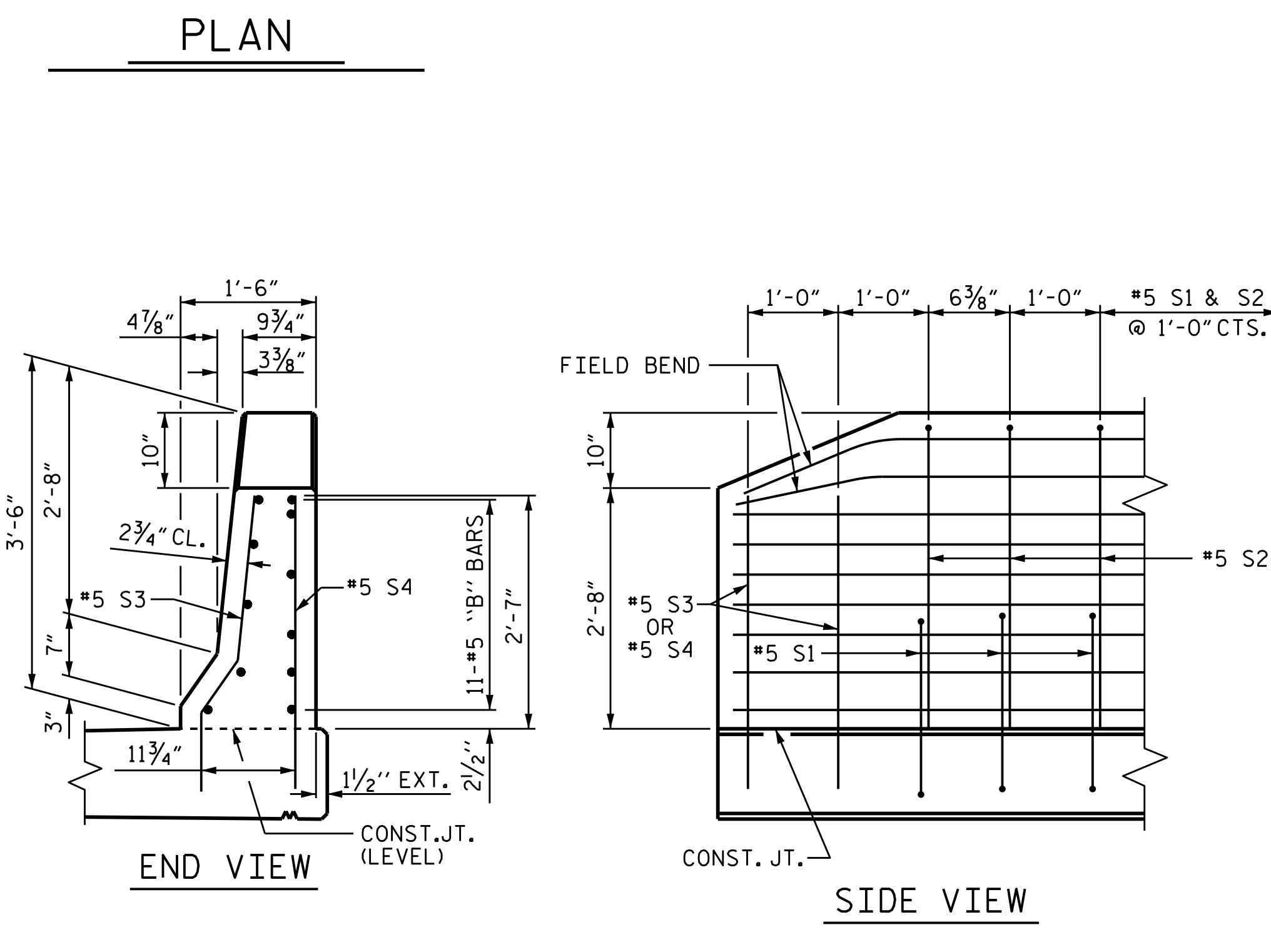
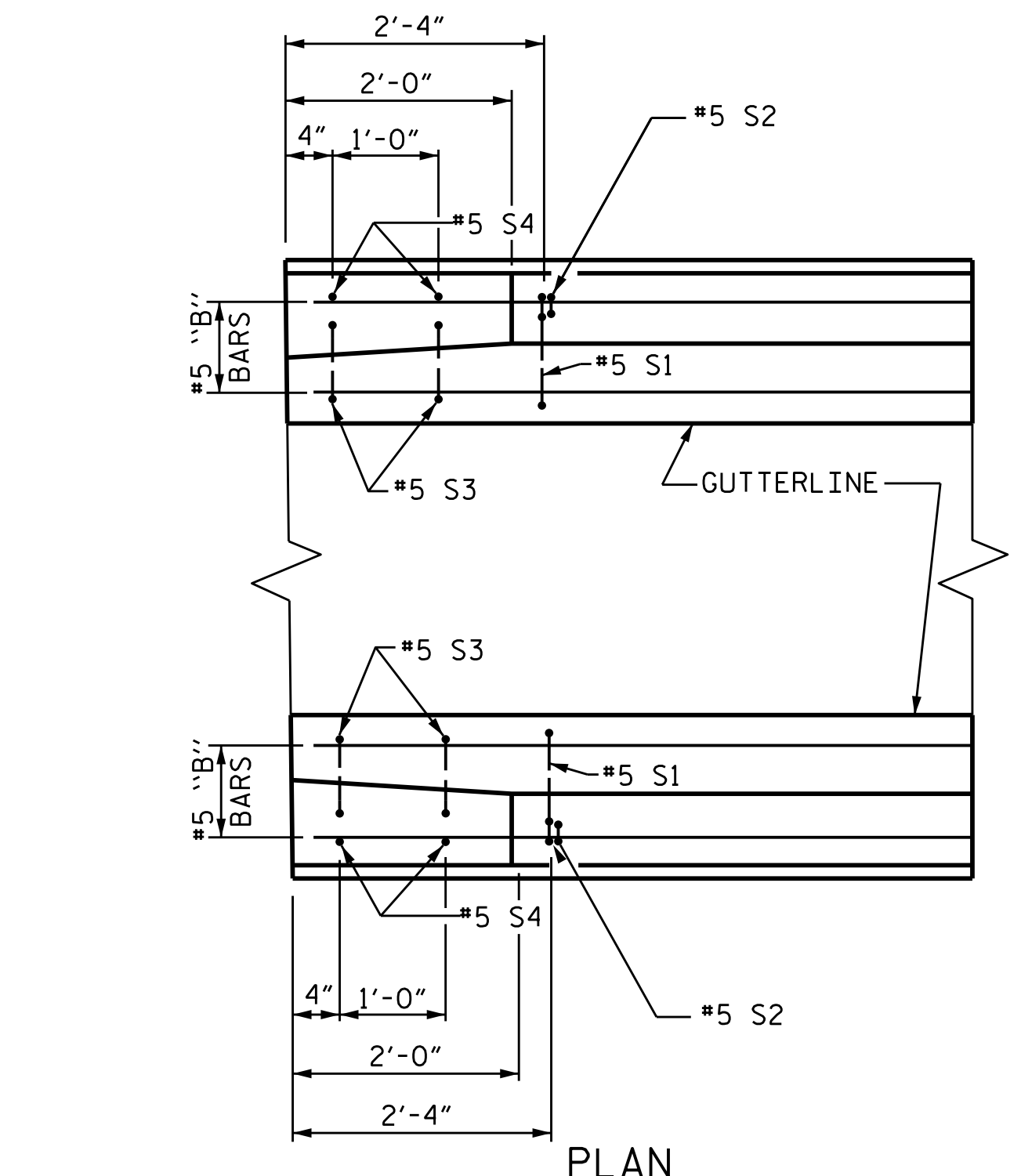


PLAN



END OF RAIL DETAILS

FOR ADHESIVE ANCHORING AT SAWED JOINTS

NOTES

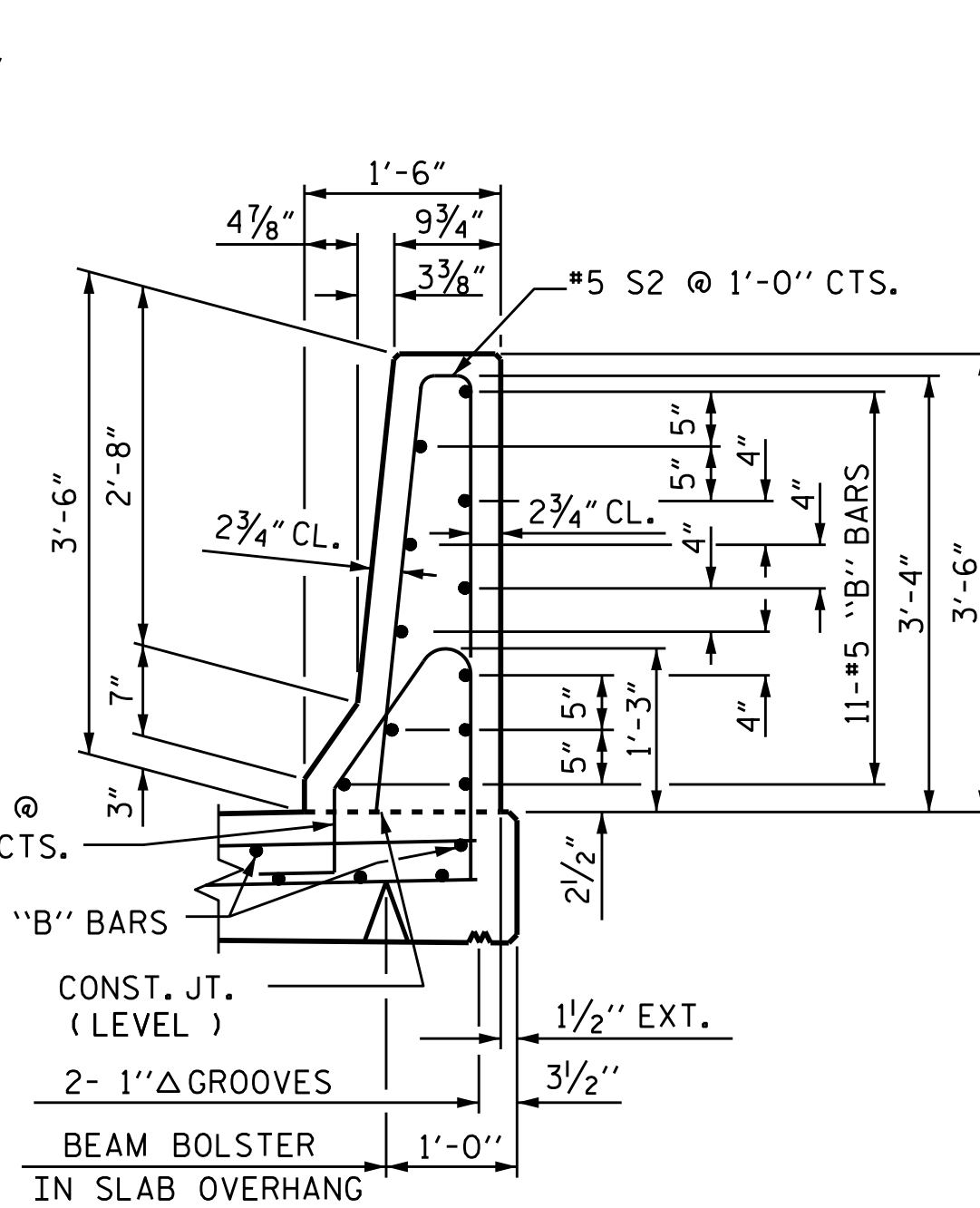
THE BARRIER RAIL IN EACH SPAN SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN THAT SPAN HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

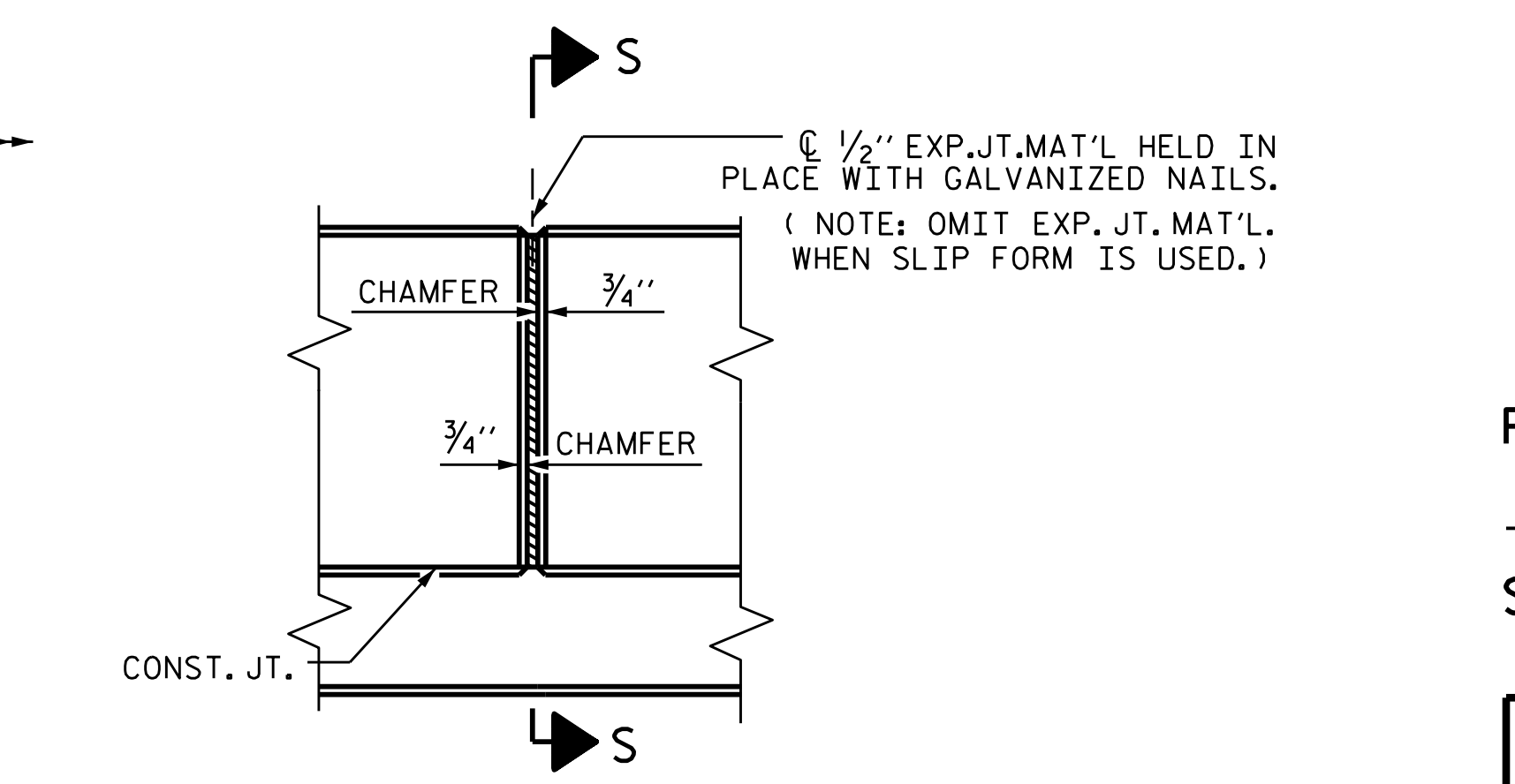
GROOVED CONTRACTION JOINTS, 1/2" IN DEPTH, SHALL BE TOOLED IN ALL EXPOSED FACES OF THE BARRIER RAIL AND IN ACCORDANCE WITH ARTICLE 825-10(B) OF THE STANDARD SPECIFICATIONS. THE CONTRACTION JOINT SHALL BE LOCATED AT EACH THIRD POINT BETWEEN BARRIER RAIL EXPANSION JOINTS. ONLY ONE CONTRACTION JOINT IS REQUIRED AT MIDPOINT OF BARRIER RAIL SEGMENTS LESS THAN 20 FEET IN LENGTH AND NO CONTRACTION JOINTS ARE REQUIRED FOR THOSE SEGMENTS LESS THAN 10 FEET IN LENGTH.

#5 S1 AND #5 S2 BARS MAY BE SHIFTED SLIGHTLY IN ORDER TO MAINTAIN A 2" MINIMUM CLEARANCE TO THE 1/2" EXPANSION JOINT MATERIAL IN RAIL.

THE #5 S3 AND #5 S4 BARS SHALL BE INSTALLED, USING AN ADHESIVE ANCHORING SYSTEM, AFTER SAWING THE JOINT. THE YIELD LOAD FOR THE #5 S3 AND #5 S4 BARS IS 18.6 KIPS. FIELD TESTING FOR THE ADHESIVE BONDING SYSTEM IS NOT REQUIRED.

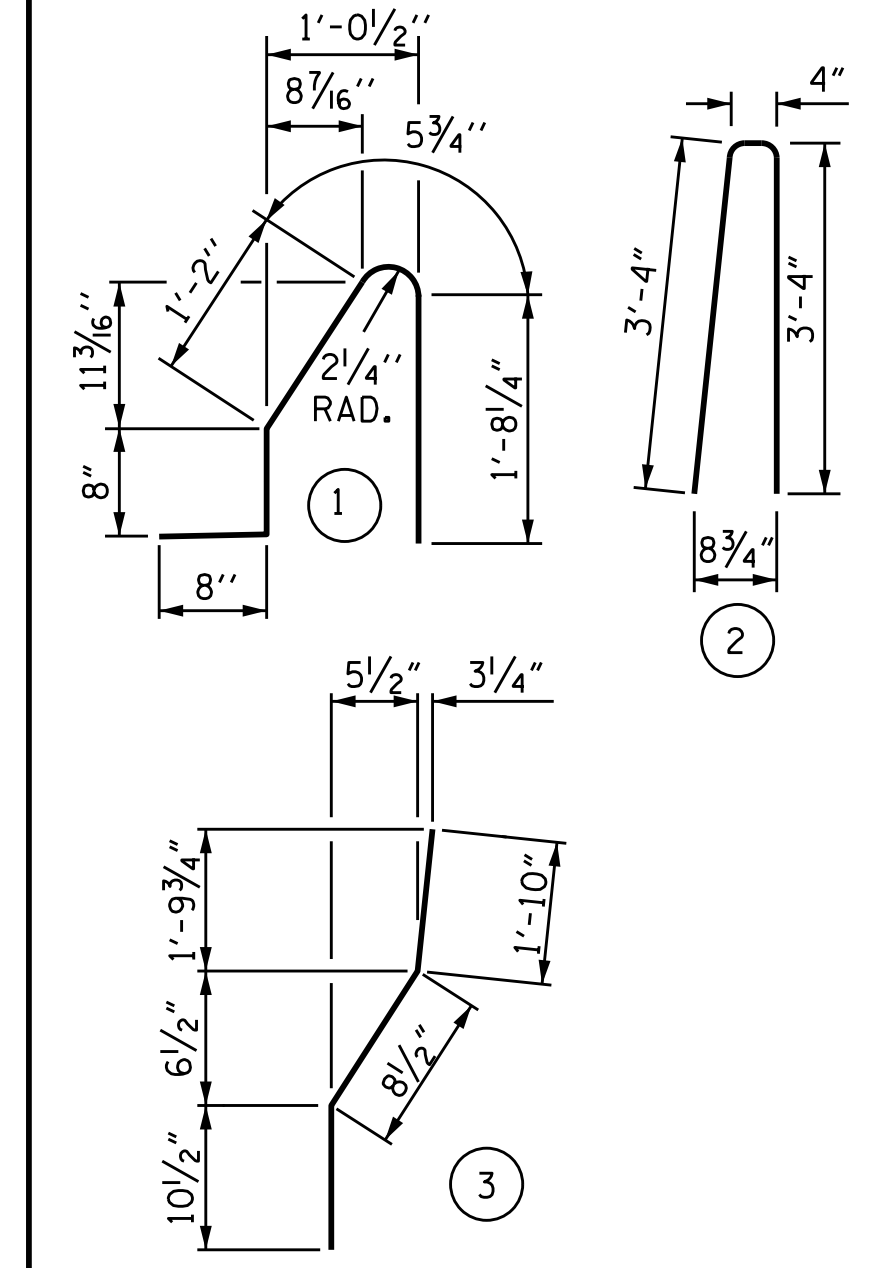


SECTION THRU RAIL



BARRIER RAIL DETAILS

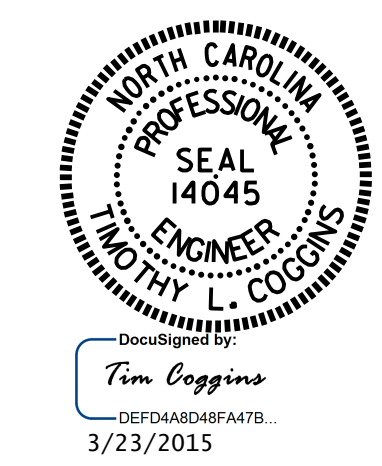
BAR TYPES



BILL OF MATERIAL

FOR CONCRETE BARRIER RAIL ONLY

BAR NO.	SIZE	TYPE	LENGTH	WEIGHT
* B1	22	#5 STR	12'-6"	287
* B2	132	#5 STR	24'-7"	3385
* B3	22	#5 STR	17'-4"	398
* S1	356	#5 1	4'-8"	1733
* S2	356	#5 2	7'-0"	2599
* S3	8	#5 3	3'-5"	29
* S4	8	#5 STR	3'-3"	27
* EPOXY COATED REINFORCING STEEL				8458 LBS.
CLASS AA CONCRETE				49.5 CU. YDS.
CONCRETE BARRIER RAIL				361.46 LIN. FT.



PROJECT NO. R-2514D  
 JONES & CRAVEN COUNTY  
 STATION: 28+29.35 -Y10-

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
 STANDARD  
 CONCRETE  
 BARRIER RAIL  
 (RIGHT LANE)

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S16-017	
1			3			TOTAL SHEETS 30	
2			4				

DRAWN BY: D. G. ELY DATE: 2/3/15  
 CHECKED BY: G. DICKEY DATE: 2/4/15  
 DESIGN ENGINEER OF RECORD: G. GOUCHEKI DATE: 02/2015

DRAWN BY: ARB 5/87 MAA/GM  
 CHECKED BY: SJD 9/87 REV. 10/1/11 MAA/GM  
 REV. 7/12 MAA/GM  
 REV. 6/13 MAA/GM