

**PLAN OF CONCRETE BARRIER RAIL**

**NOTES**

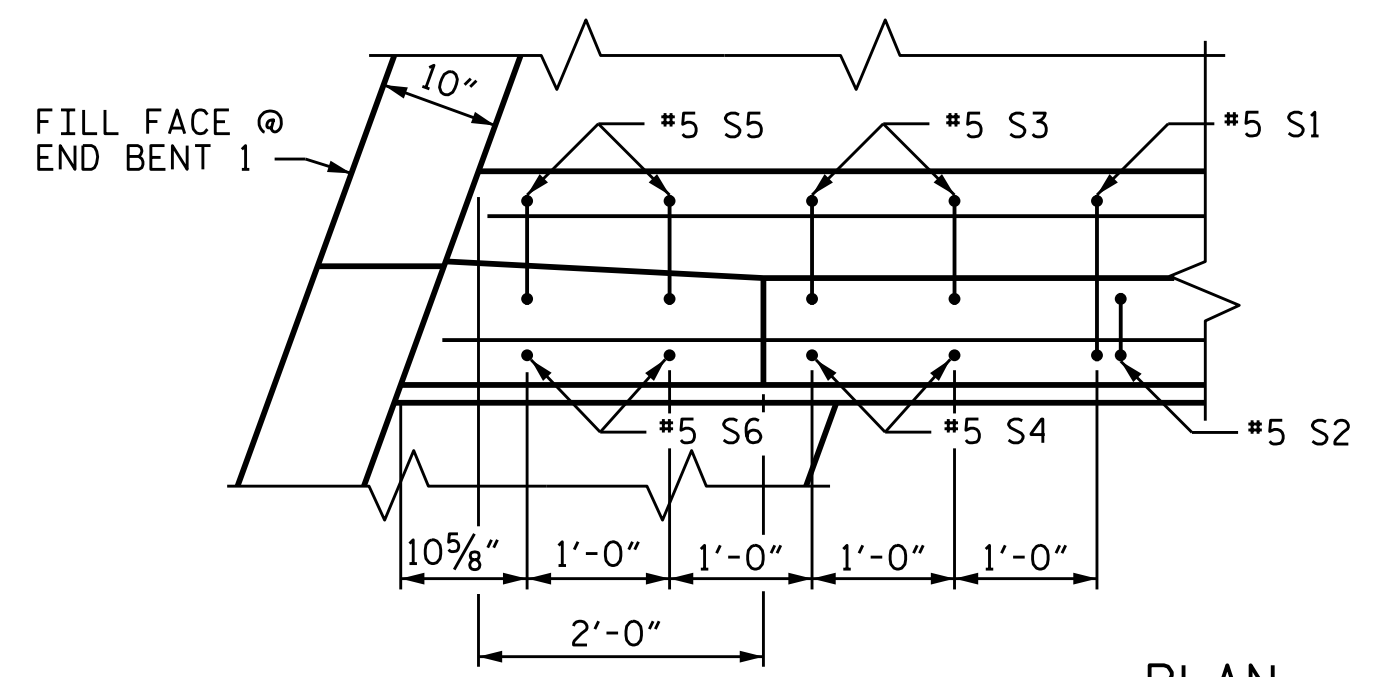
THE BARRIER RAIL IN A CONTINUOUS UNIT SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN THAT UNIT HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

THE JOINT BETWEEN BRIDGE DECK AND APPROACH SLAB SHALL BE SAWED PRIOR TO THE CASTING OF BARRIER RAIL.

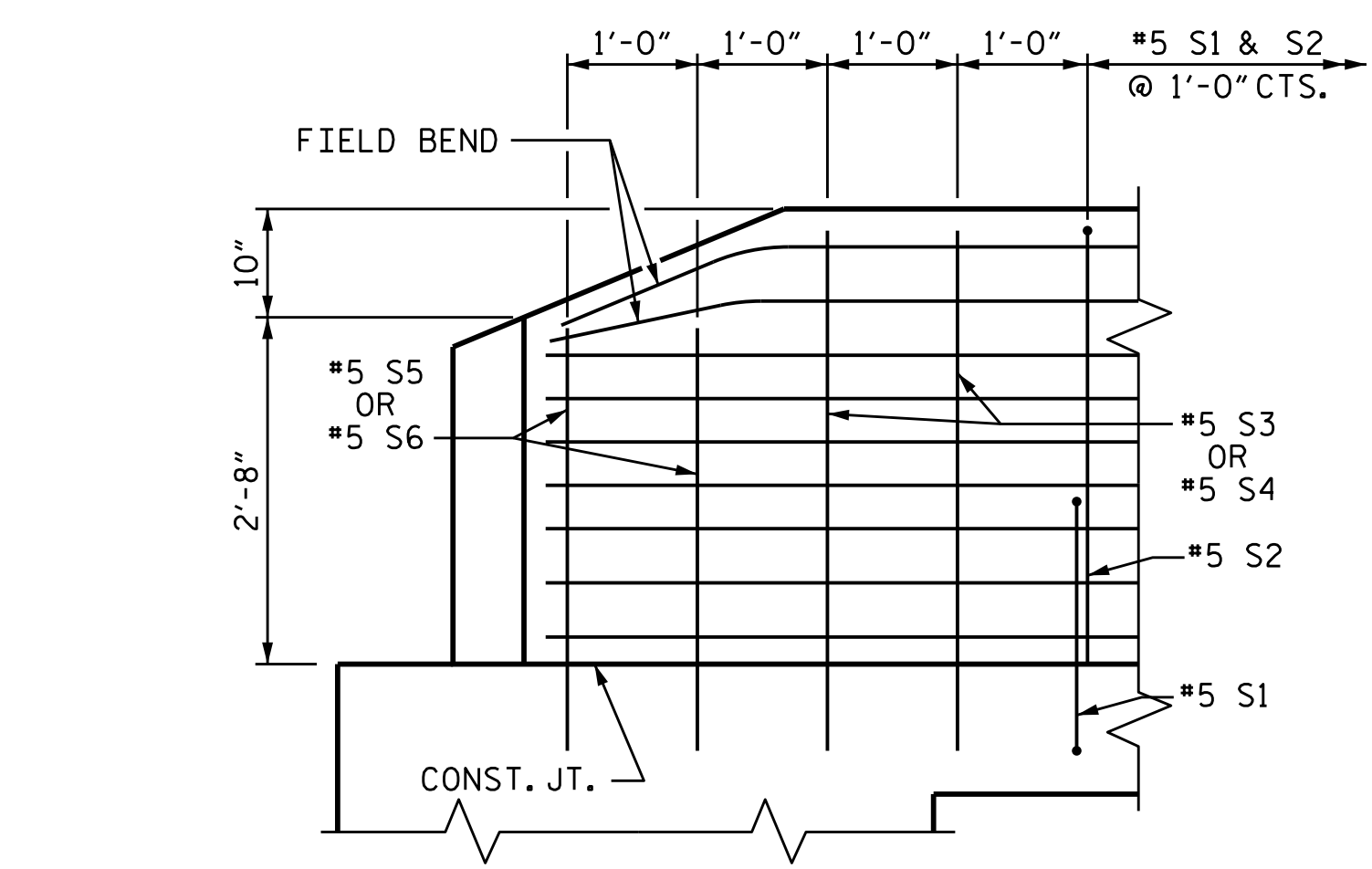
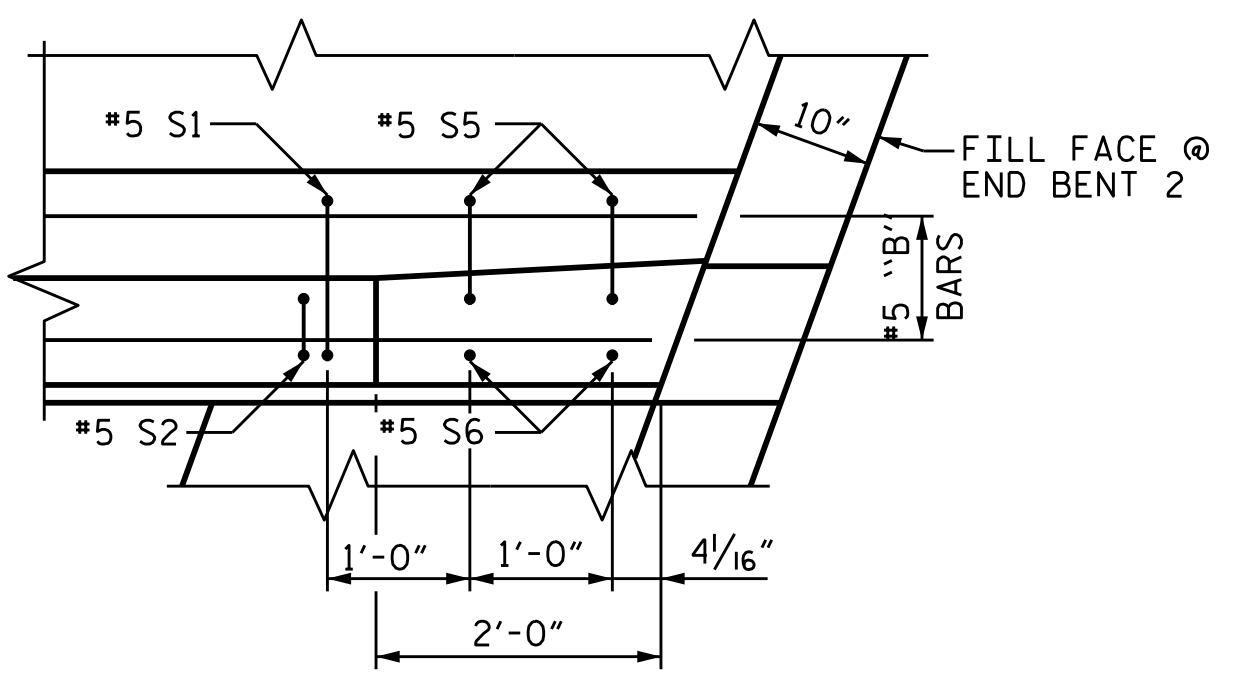
ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

THE #5 S3, S4, S5 AND S6 BARS SHALL BE INSTALLED, USING AN ADHESIVE ANCHORING SYSTEM, AFTER SAWING THE JOINT. THE YIELD LOAD FOR THE #5 S3, S4, S5 AND S6 BARS IS 18.6 KIPS. FIELD TESTING FOR THE ADHESIVE BONDING SYSTEM IS NOT REQUIRED.

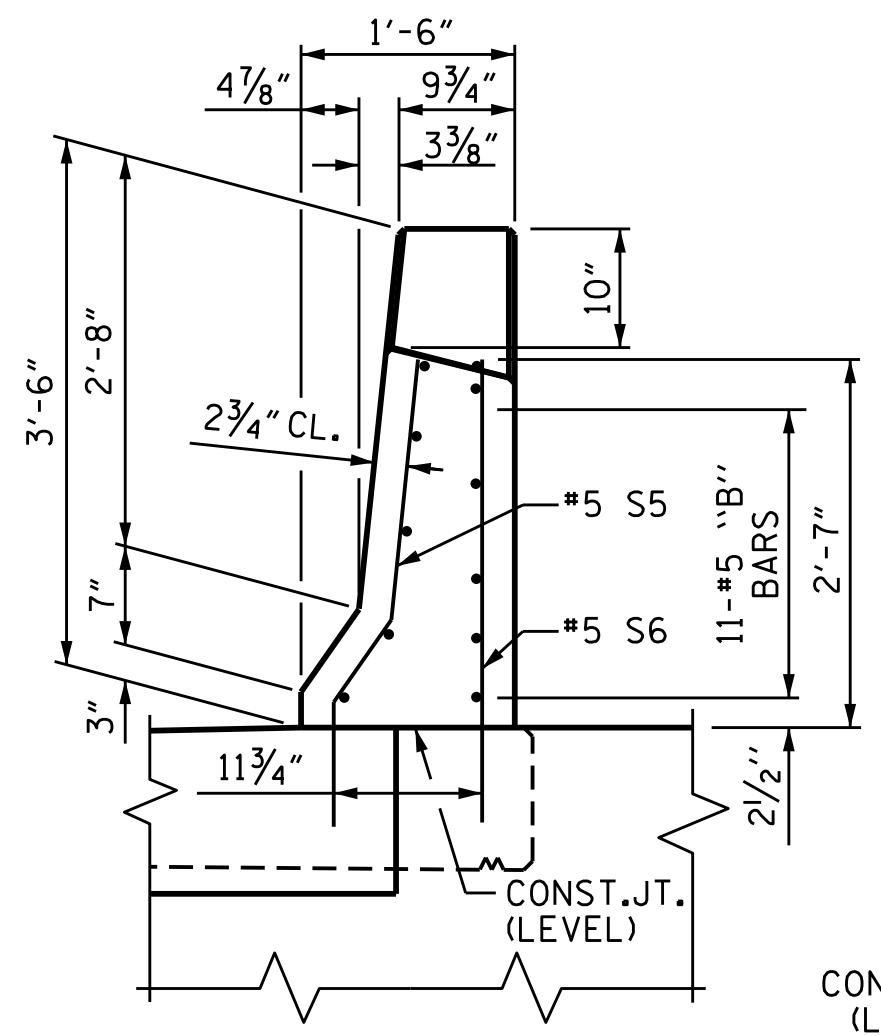
GROOVED CONTRACTION JOINTS, 1/2" IN DEPTH, SHALL BE TOOLED IN ALL EXPOSED FACES OF THE BARRIER RAIL AND IN ACCORDANCE WITH ARTICLE 825-10(B) OF THE STANDARD SPECIFICATIONS. THE CONTRACTION JOINT SHALL BE LOCATED AT EACH THIRD POINT BETWEEN BARRIER RAIL EXPANSION JOINTS. ONLY ONE CONTRACTION JOINT IS 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.



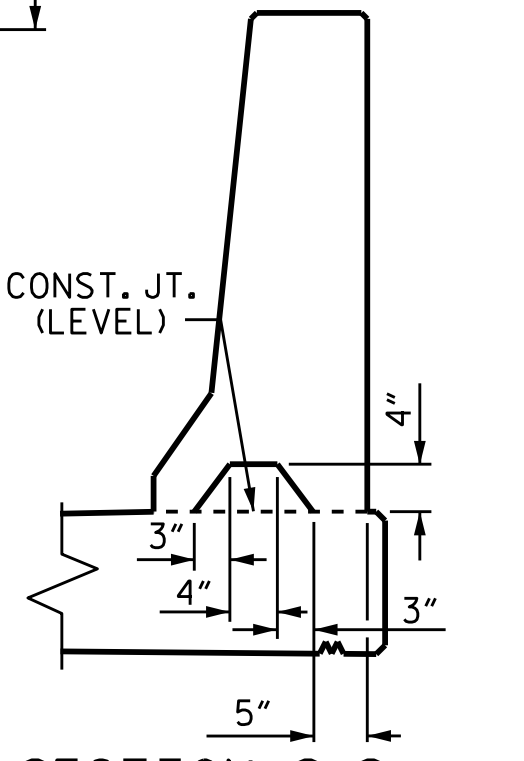
**PLAN**



**SIDE VIEW**

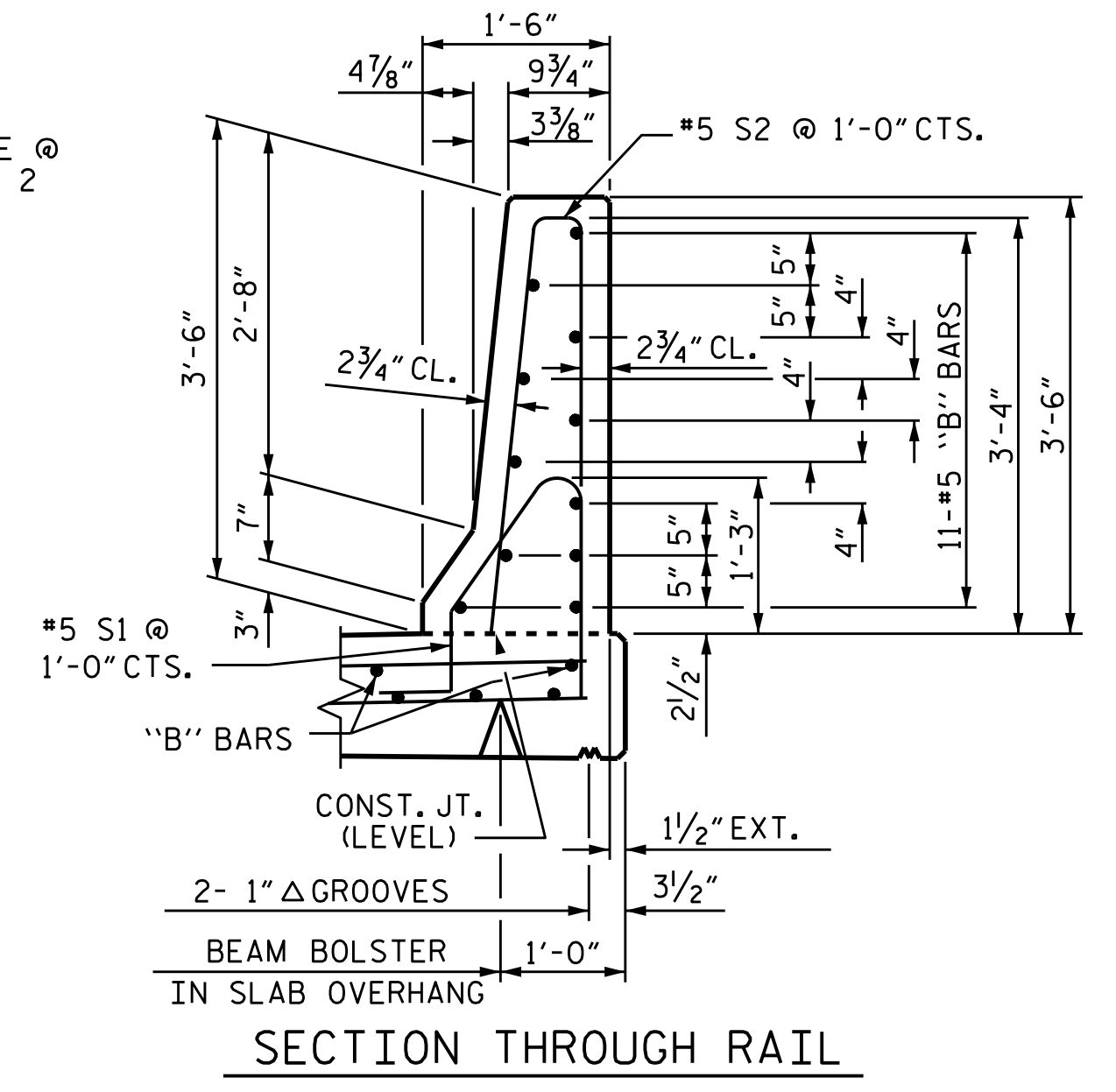


**END VIEW**



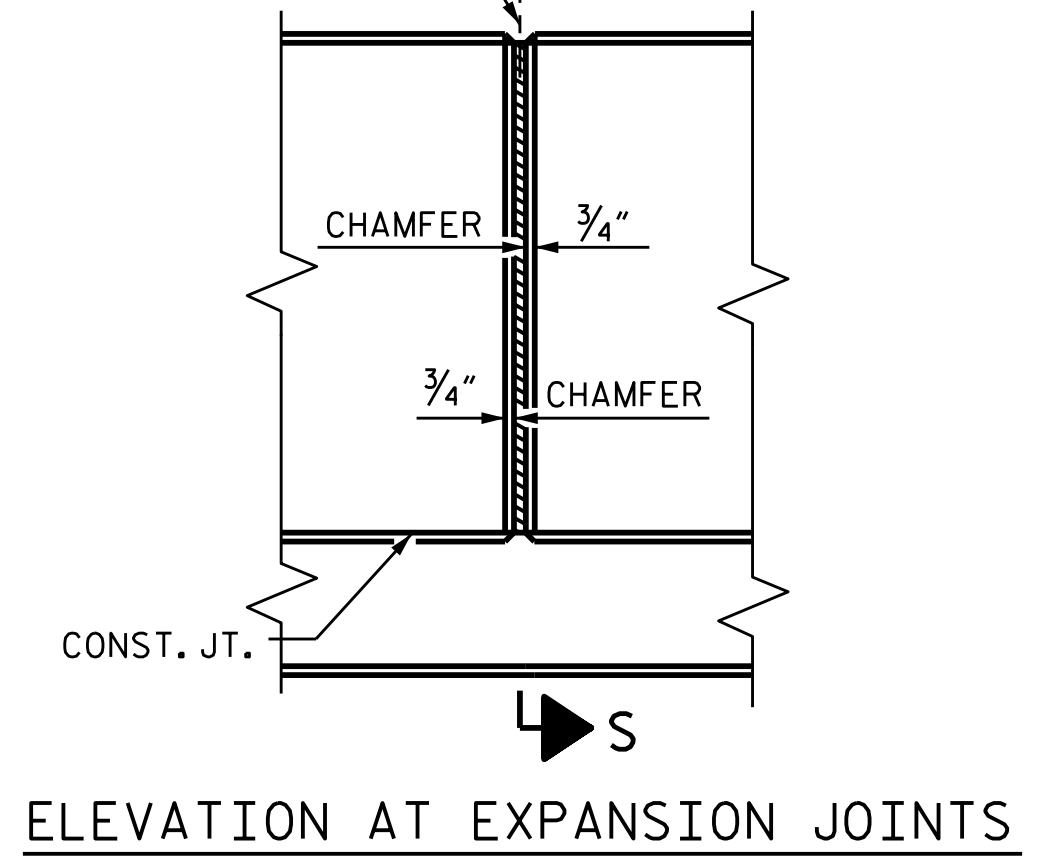
**SECTION S-S**  
AT DAM IN OPEN JOINT  
(THIS IS TO BE USED ONLY  
WHEN SLIP FORM IS USED)

**BARRIER RAIL DETAILS**

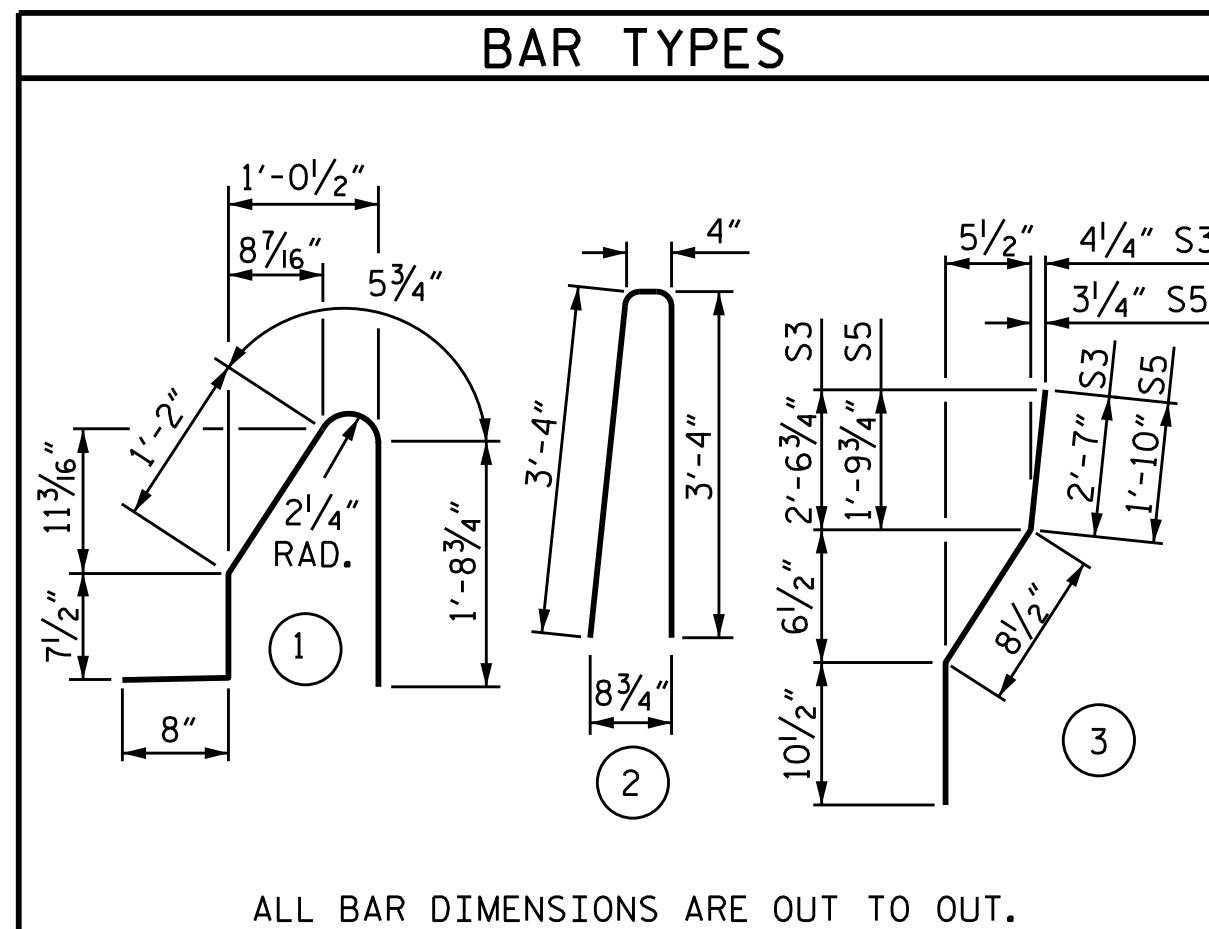


**SECTION THROUGH RAIL**

@ 1/2" EXP. JT. MAT'L HELD IN PLACE WITH GALVANIZED NAILS.  
(NOTE: OMIT EXP. JT. MAT'L. WHEN SLIP FORM IS USED.)



**ELEVATION AT EXPANSION JOINTS**



**BAR TYPES**

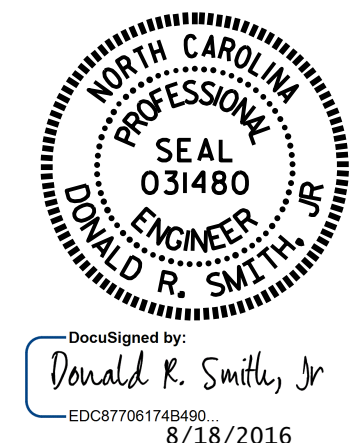
BILL OF MATERIAL						
FOR CONCRETE BARRIER RAIL ONLY						
BAR NO.	NO.	SIZE	TYPE	LENGTH	WEIGHT	
* B1	22	#5	STR	16'-2"	371	
* B2	22	#5	STR	29'-2"	679	
* B3	11	#5	STR	19'-7"	225	
* B4	22	#5	STR	11'-2"	256	
* S1	122	#5	1	4'-8"	594	
* S2	122	#5	2	7'-0"	891	
* S3	2	#5	3	4'-2"	9	
* S4	2	#5	STR.	4'-0"	8	
* S5	4	#5	3	3'-5"	14	
* S6	4	#5	STR.	3'-3"	14	
* EPOXY COATED REINFORCING STEEL					LBS.	3,061
CLASS AA CONCRETE					C.Y.	17.5
CONCRETE BARRIER RAIL					LIN. FT.	128.22

ALL BAR DIMENSIONS ARE OUT TO OUT.

PROJECT NO. U-3340  
CABARRUS COUNTY  
 STATION: 68+25.60 -L-

SHEET 1 OF 2

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



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S2-22
1			3			TOTAL SHEETS 37
2			4			

ASSEMBLED BY : K. D. LAYNE	DATE : 1/20/16
CHECKED BY : J. D. HAWK	DATE : 12/18/15
DRAWN BY : ARB 5/87	REV. 10/1/11 MAA/GM
CHECKED BY : SJD 9/87	REV. 7/12 MAA/GM
	REV. 6/13 MAA/GM