

**NOTES**

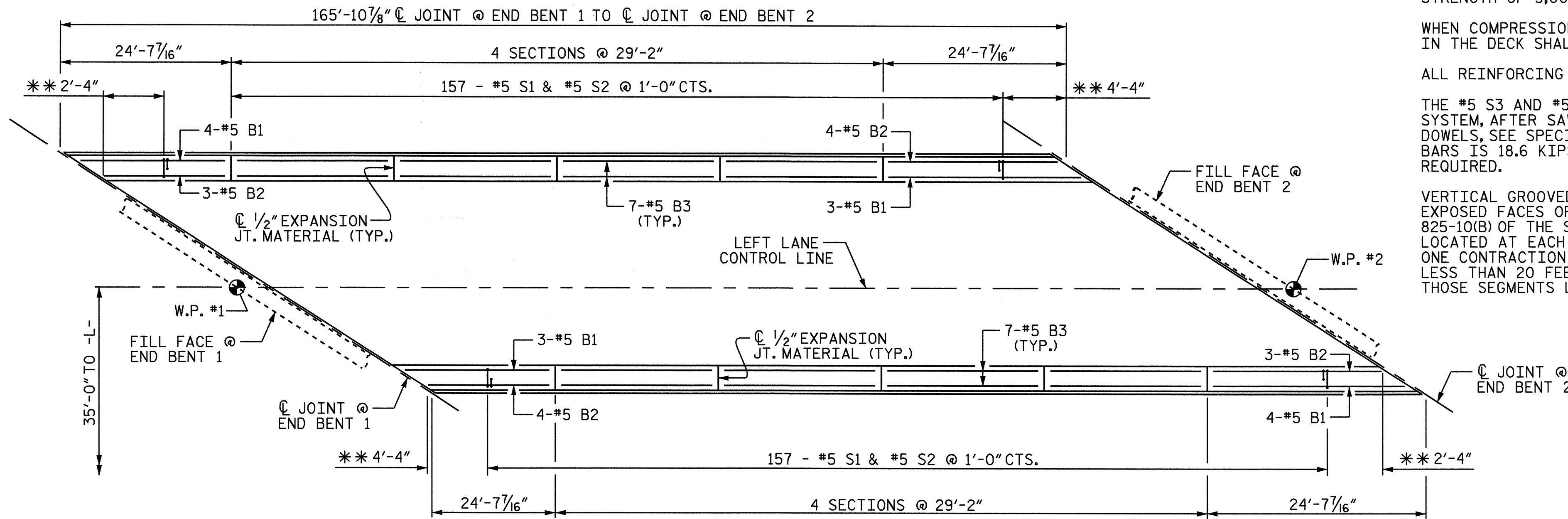
THE BARRIER RAIL IN EACH SPAN SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN THAT SPAN HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

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

ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

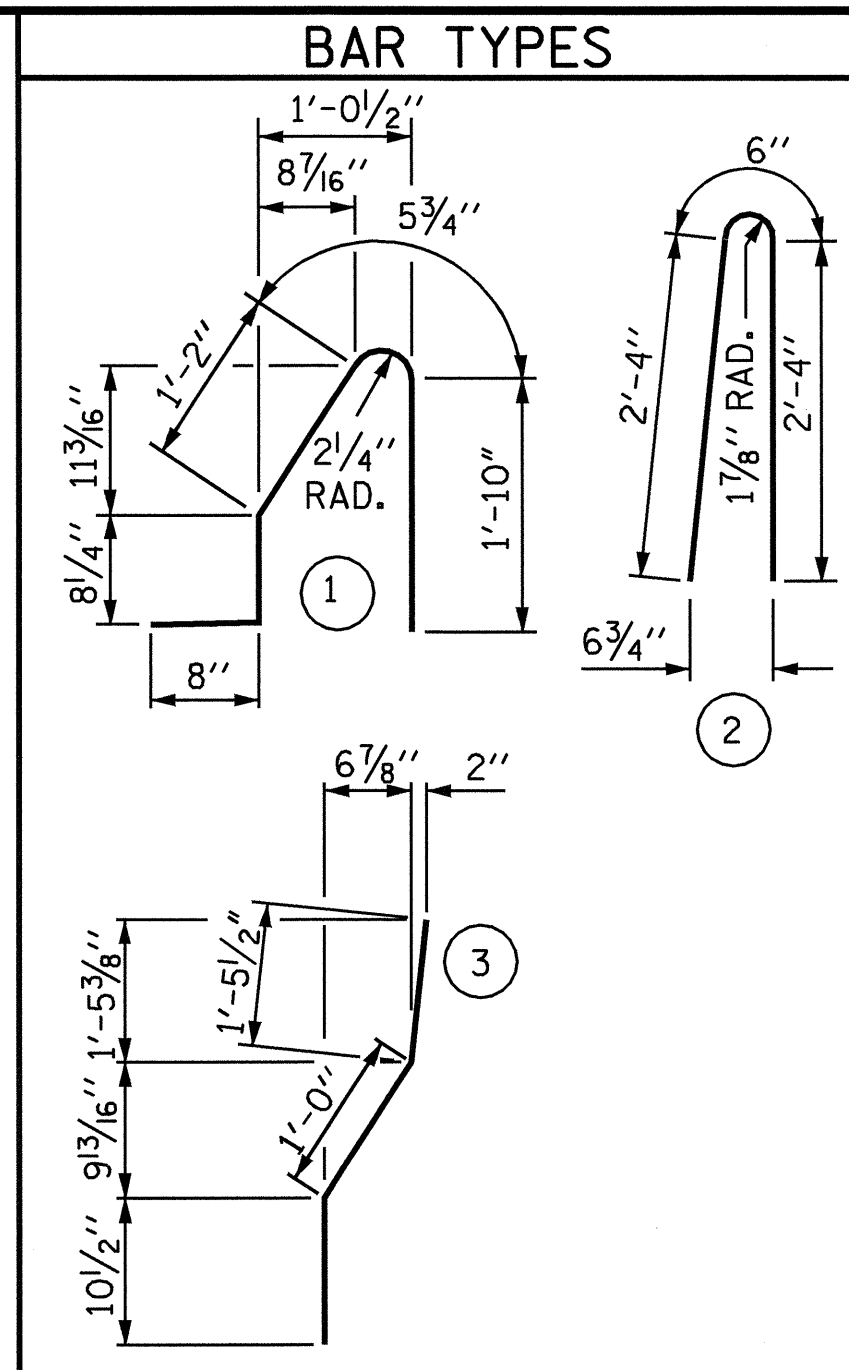
THE #5 S3 AND #5 S4 BARS SHALL BE INSTALLED, USING AN ADHESIVE ANCHORING SYSTEM, AFTER SAWING THE JOINT, FOR ADHESIVELY ANCHORED ANCHOR BOLTS OR DOWELS, SEE SPECIAL PROVISIONS. THE YIELD LOAD FOR THE #5 S3 AND #5 S4 BARS IS 18.6 KIPS. FIELD TESTING FOR THE ADHESIVE BONDING SYSTEM IS NOT REQUIRED.

VERTICAL 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.



**SPAN A**

\*\* SEE 'END OF RAIL DETAILS' FOR ADDITIONAL REINFORCING BARS.

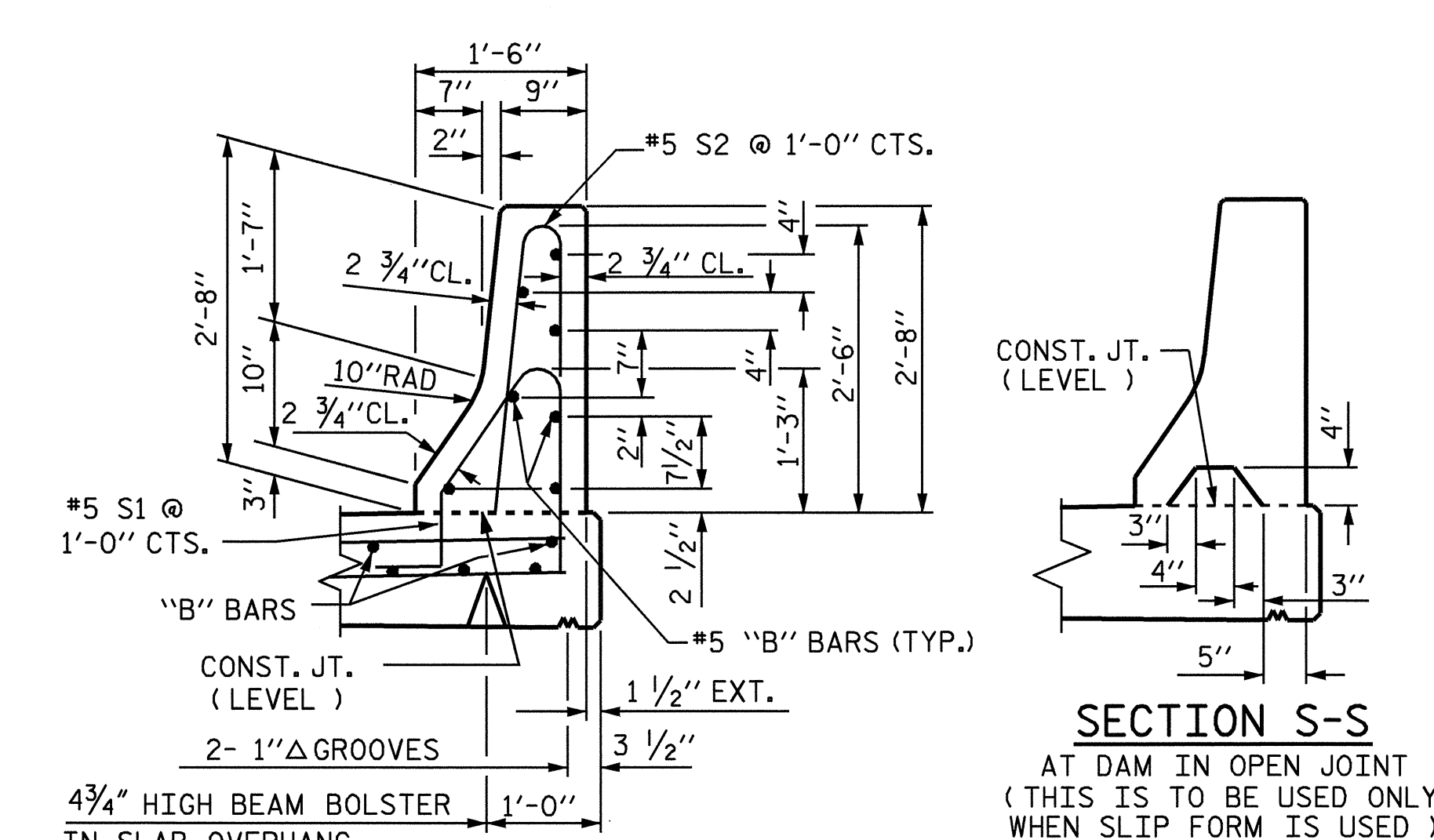


ALL BAR DIMENSIONS ARE OUT TO OUT

**BILL OF MATERIAL**

FOR CONCRETE BARRIER RAIL ONLY

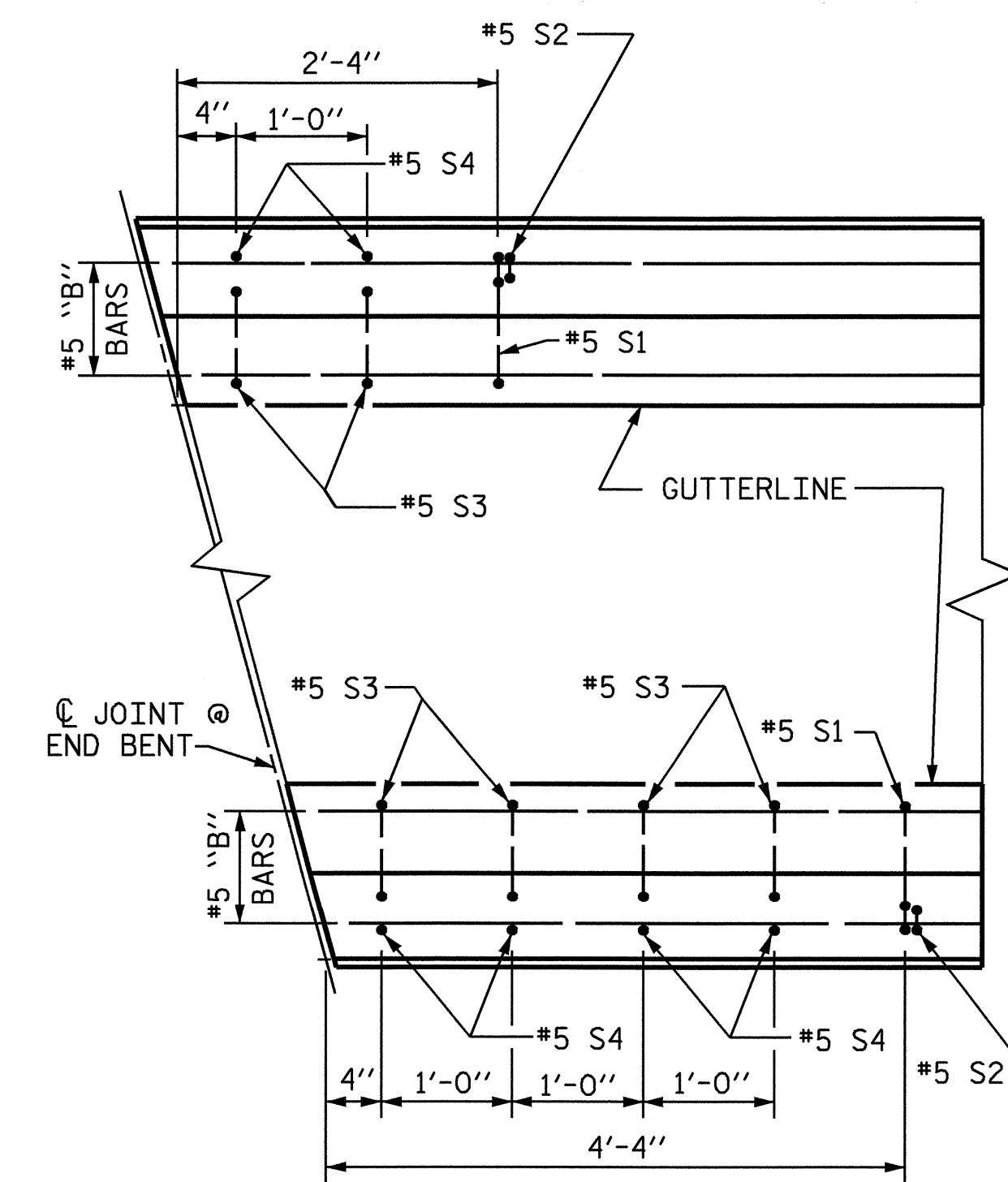
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* B1	14	#5	STR	24'-2"	353
* B2	14	#5	STR	21'-8"	316
* B3	56	#5	STR	28'-8"	1674
* S1	314	#5	1	4'-10"	1583
* S2	314	#5	2	5'-2"	1692
* S3	12	#5	3	3'-4"	42
* S4	12	#5	STR	3'-2"	40
* EPOXY COATED REINFORCING STEEL					5700 LBS.
CLASS AA CONCRETE					33.2 CU. YDS.
CONCRETE BARRIER RAIL					331.81 LIN. FT.



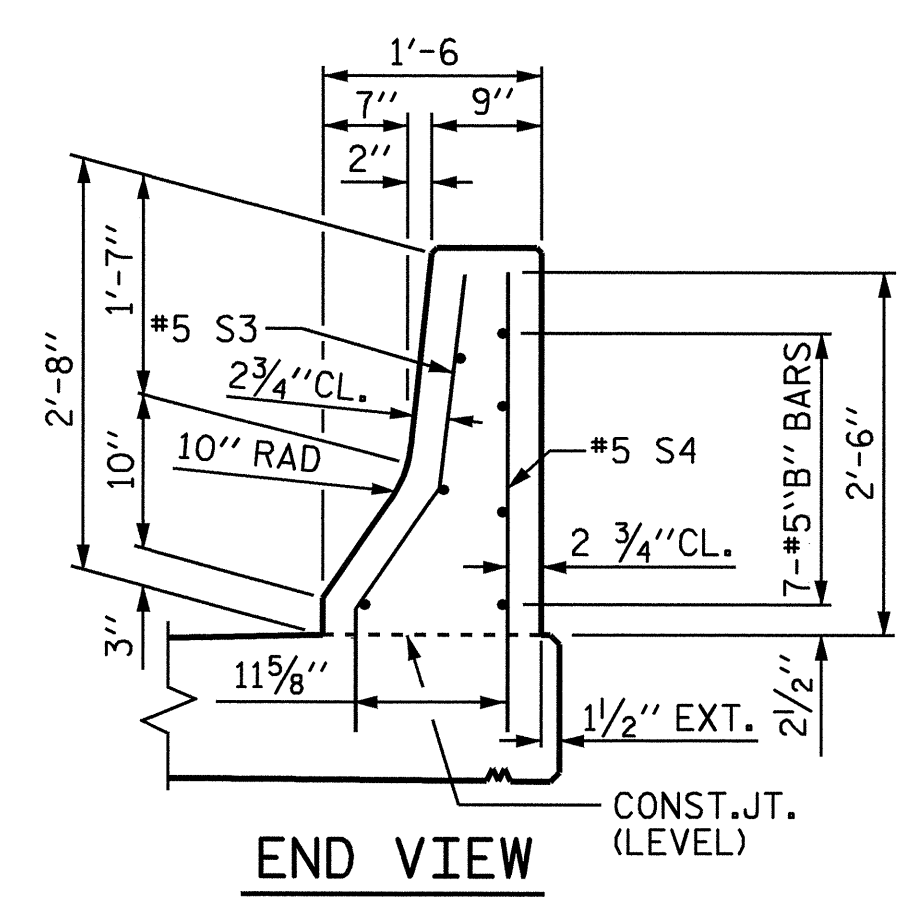
**SECTION THRU RAIL**

**SECTION S-S**

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

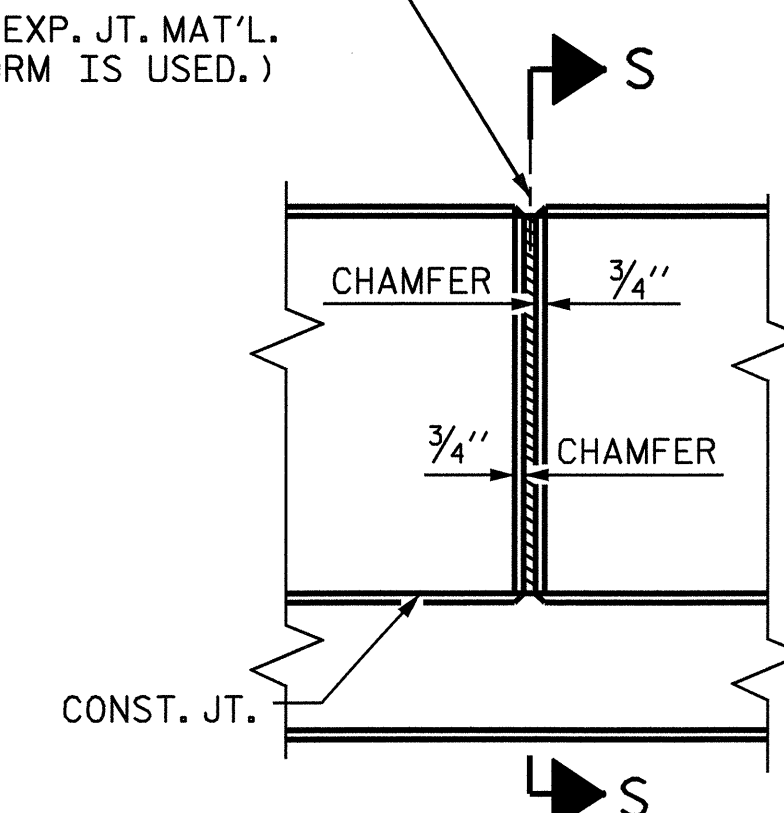


**PLAN**



**END VIEW**

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**

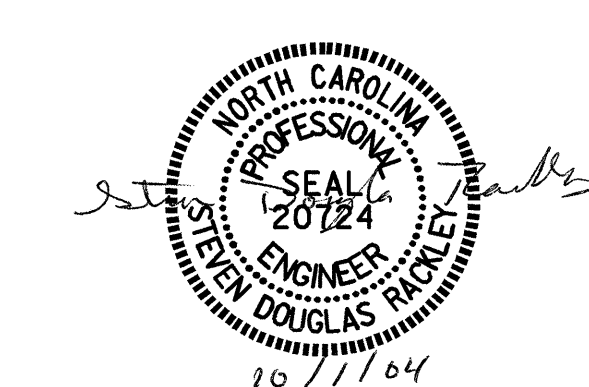
**BARRIER RAIL DETAILS**

**END OF RAIL DETAILS**

FOR ADHESIVE ANCHORING AT SAWED JOINTS

PROJECT NO. R-2911D  
ROWAN COUNTY  
STATION: 231+17.87 -L-  
14+25.15 -Y8-

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



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

TOTAL SHEETS 120

ASSEMBLED BY : M.K. BEARD DATE : 5/18/04  
CHECKED BY : J.P. ADAMS DATE : 05/26/04  
DRAWN BY : ARB 5/87 REV. 8/16/99 RWW/LJS  
CHECKED BY : SJD 9/87 REV. 10/17/00 RWW/LJS  
REV. 5/7/03R RWW/JTE