

NOTES

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

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

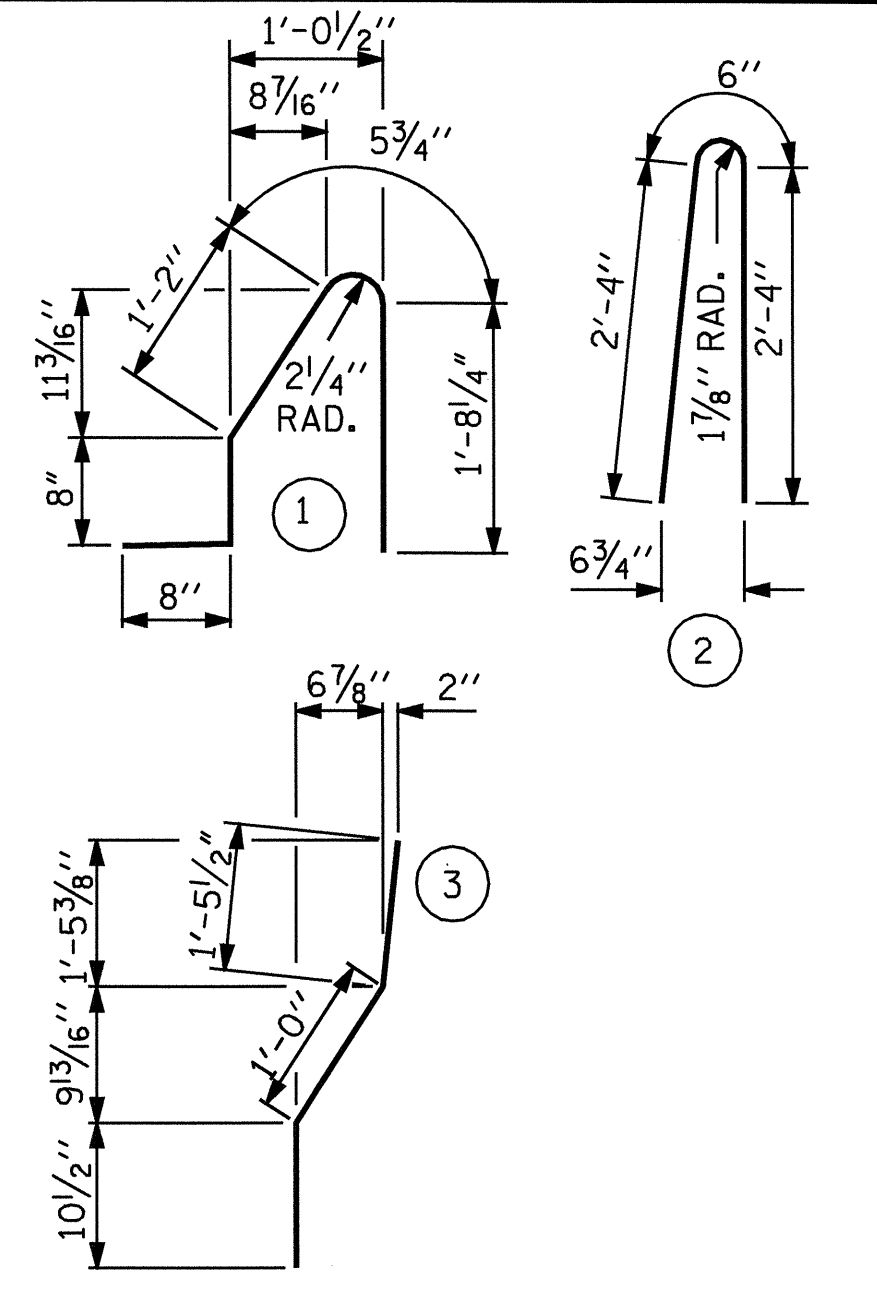
ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

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.

#5 S1 AND #5 S2 MAY BE SHIFTED SLIGHTLY AS NECESSARY TO MAINTAIN 2" COVER AT 1/2" EXPANSION JOINTS IN RAIL.

BAR TYPES



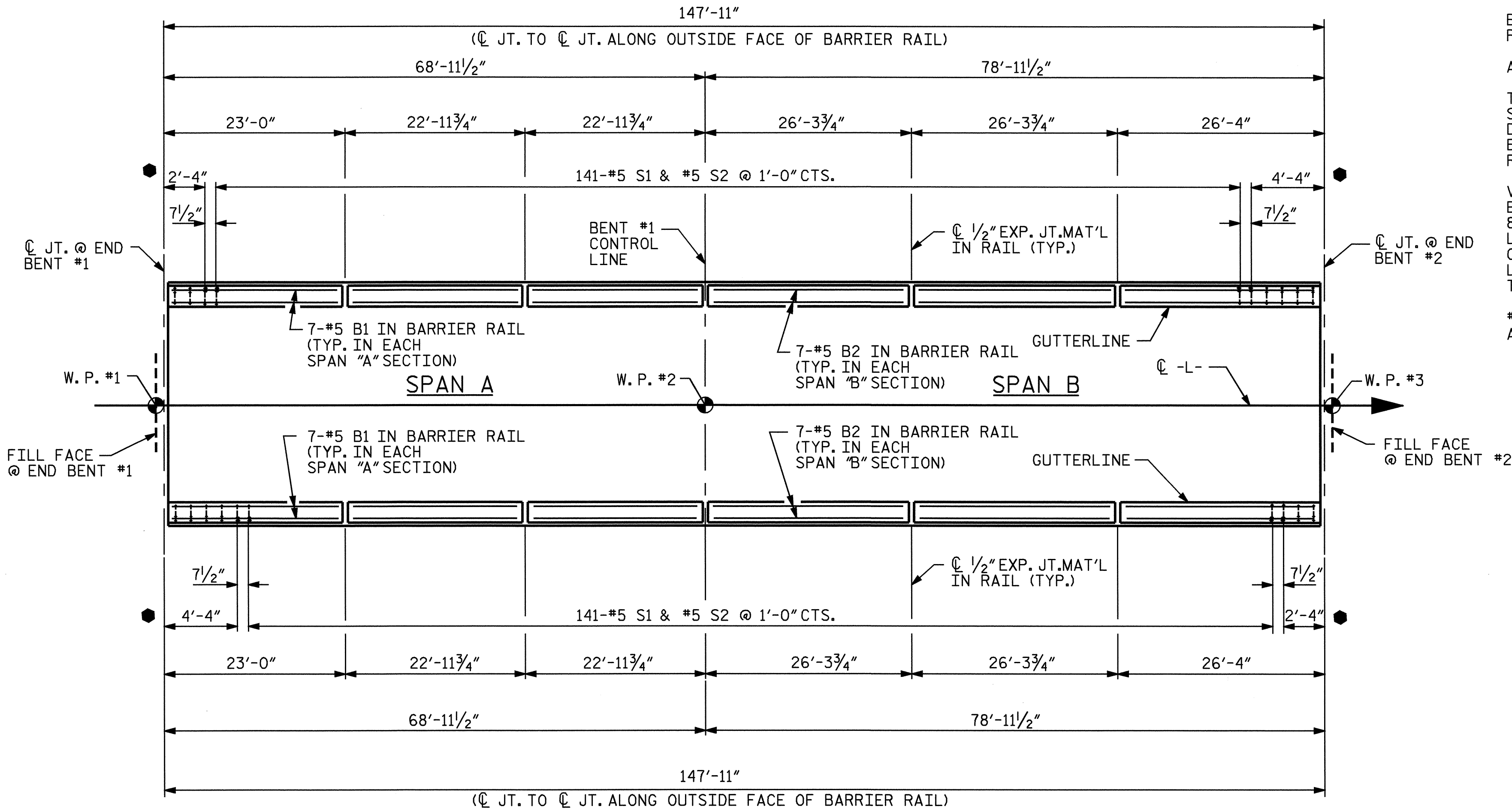
ALL BAR DIMENSIONS ARE OUT TO OUT

BILL OF MATERIAL

FOR CONCRETE BARRIER RAIL ONLY

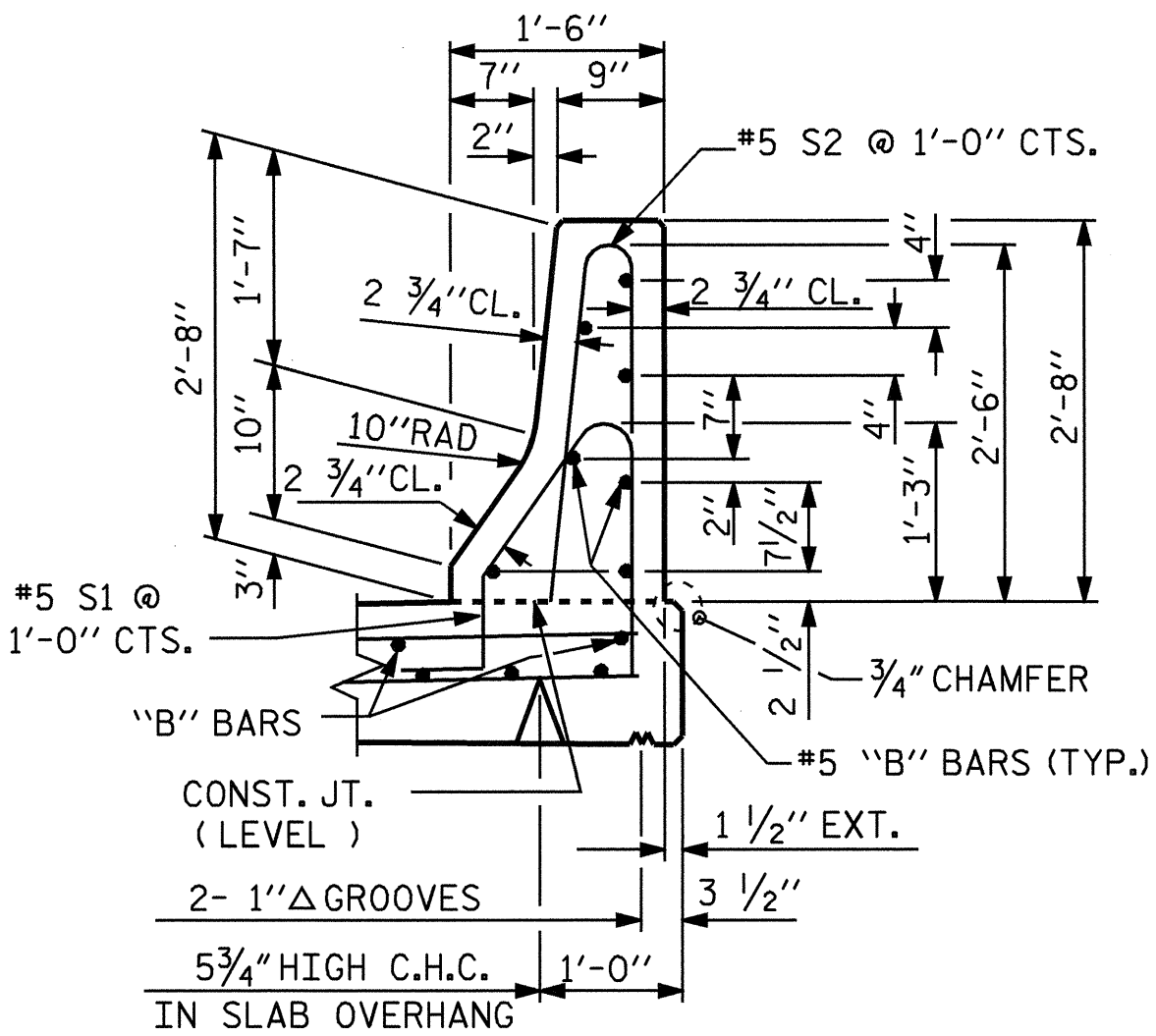
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* S1	286	#5	1	4'-8"	1392
* S2	286	#5	2	5'-2"	1541
* S3	12	#5	3	3'-4"	42
* S4	12	#5	STR	3'-2"	40
* B1	42	#5	STR	22'-7"	989
* B2	42	#5	STR	25'-11"	1135

* EPOXY COATED REINFORCING STEEL 5139 LBS.
 CLASS AA CONCRETE 29.6 CU. YDS.
 CONCRETE BARRIER RAIL 295.83 LIN. FT.

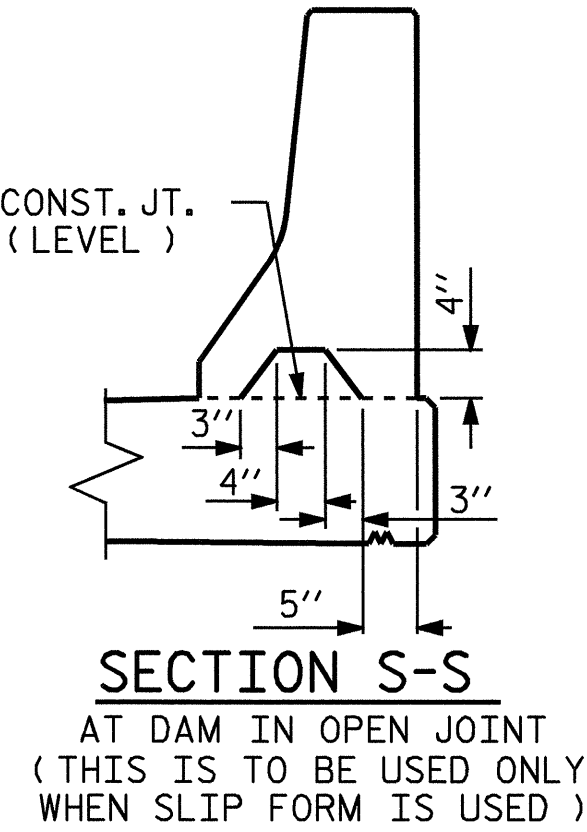


PLAN

SEE "END OF RAIL DETAILS" FOR ADDITIONAL REINFORCING

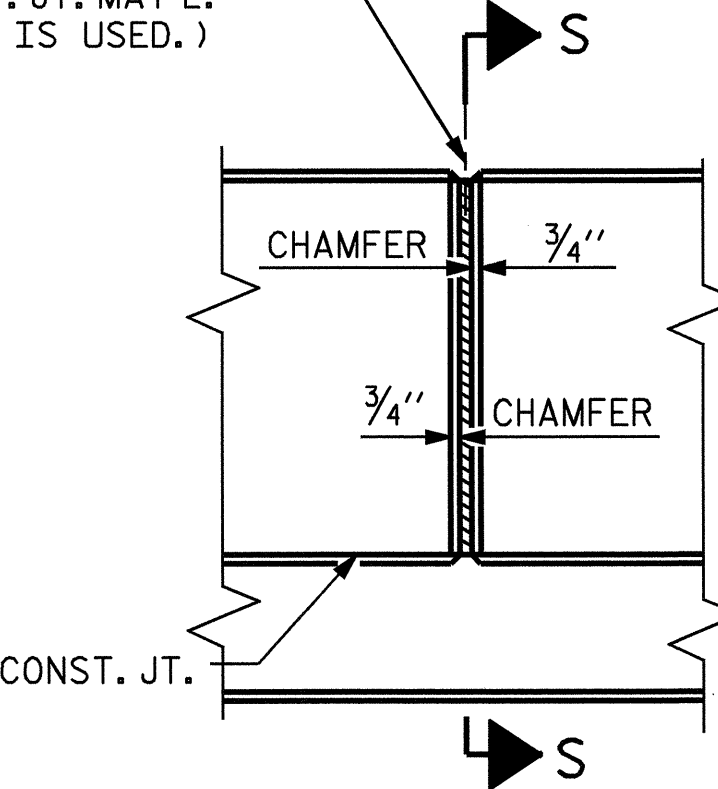


SECTION THRU RAIL

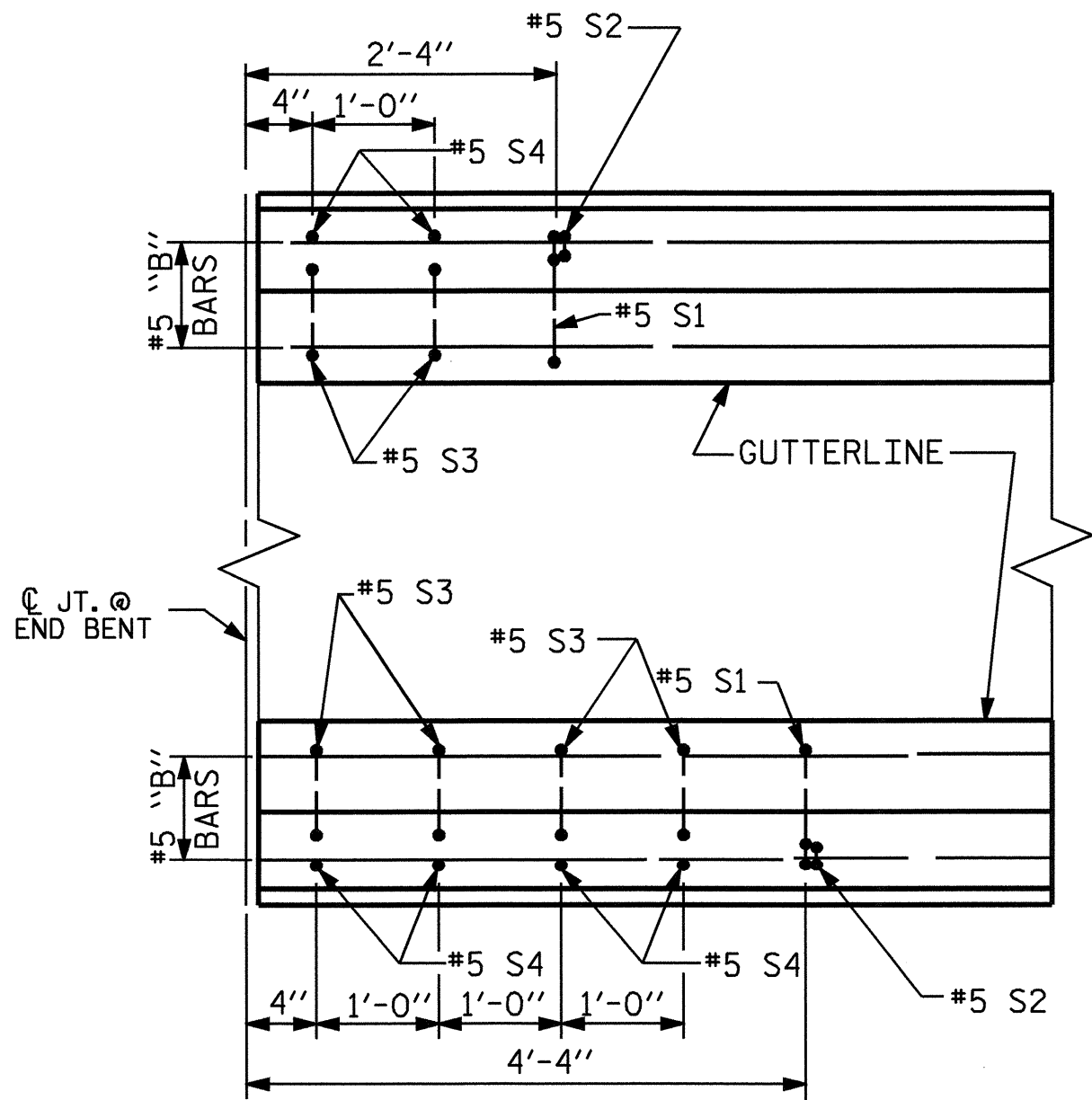


SECTION S-S
 AT DAM IN OPEN JOINT
 (THIS IS TO BE USED ONLY WHEN SLIP FORM IS USED)

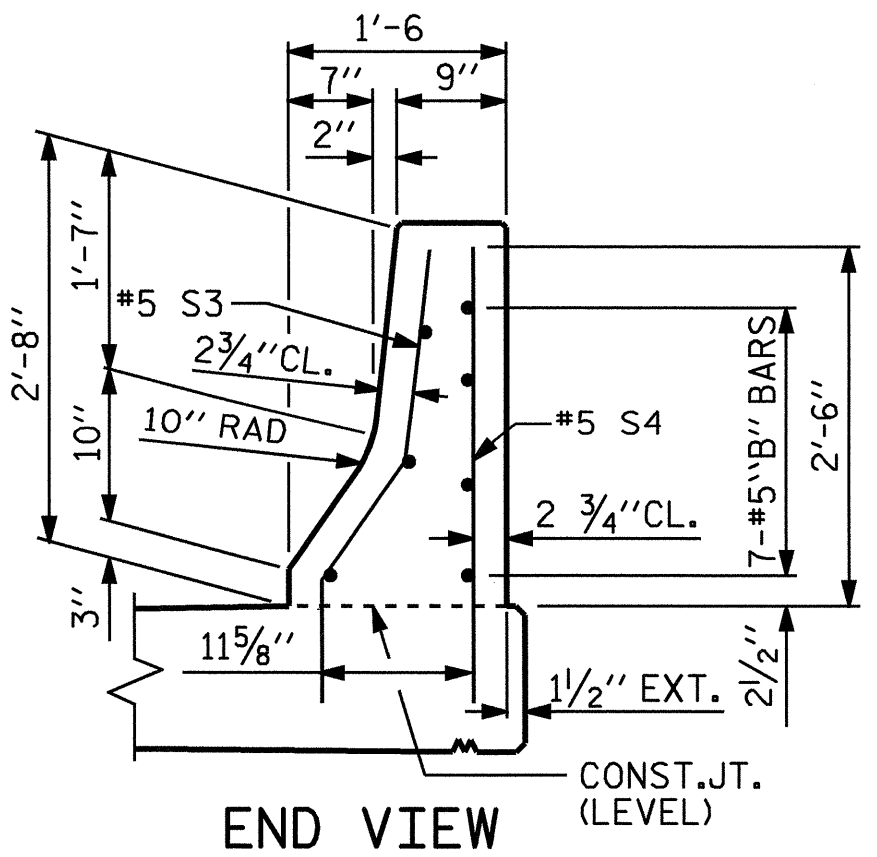
1/2" EXP. JT. MAT'L HELD IN PLACE WITH GALVANIZED NAILS.
 (NOTE: OMIT EXP. JT. MAT'L WHEN SLIP FORM IS USED.)



ELEVATION AT EXPANSION JOINTS
BARRIER RAIL DETAILS



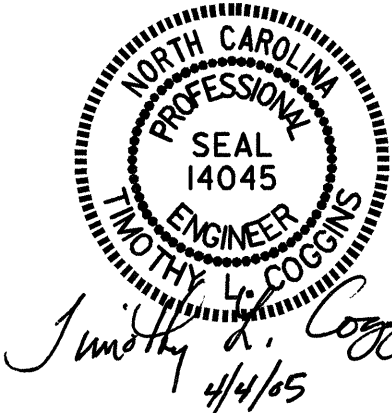
PLAN



END VIEW

END OF RAIL DETAILS
 FOR ADHESIVE ANCHORING AT SAWED JOINTS

ASSEMBLED BY : PEGGY ADKINS	DATE : 4-03
CHECKED BY : T. AVERETTE	DATE : 4-03
DRAWN BY : ARB	5/87
CHECKED BY : SJD	9/87
REV. 8/16/99	RWW/LES
REV. 10/17/00	RWW/LES
REV. 5/7/03R	RWW/JTE



PROJECT NO. B-3828
CLEVELAND COUNTY
 STATION: 14+65.00 -L-

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
STANDARD CONCRETE BARRIER RAIL					
OCTOBER			1987		
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					SHEET NO. S-13
					TOTAL SHEETS 30