

**PLAN OF BARRIER RAIL**

\*\* SEE "END OF RAIL DETAILS" FOR ADDITIONAL REINFORCEMENT

**NOTES**

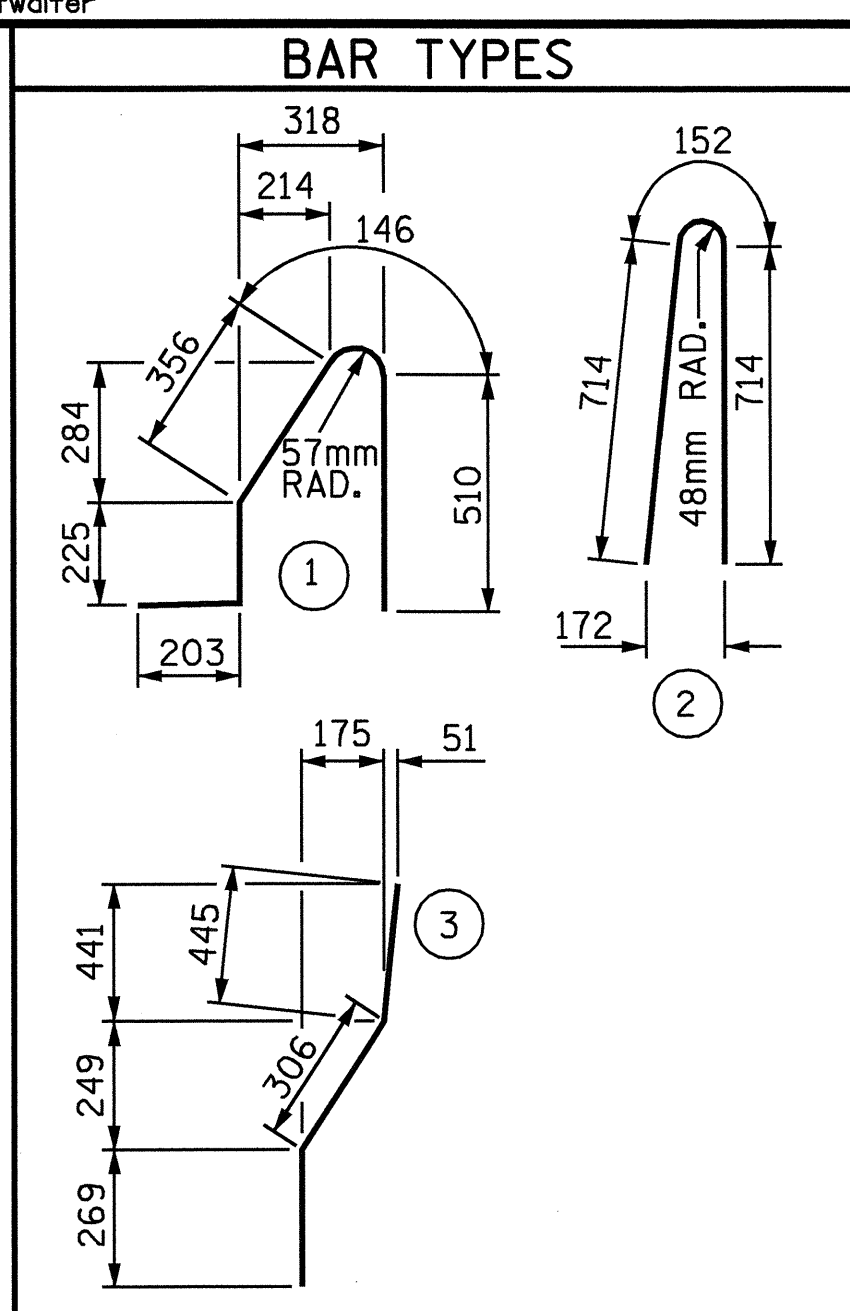
THE BARRIER RAIL IN A CONTINUOUS UNIT SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 20.7 MPa.

WHEN 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 #16 S3 AND #16 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 #16S3 AND #16 S4 BARS IS 82.7 KN. FIELD TESTING FOR THE ADHESIVE BONDING SYSTEM IS NOT REQUIRED.

VERTICAL GROOVED CONTRACTION JOINTS, 12mm 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. A JOINT SHALL BE LOCATED AT EACH THIRD POINT BETWEEN BARRIER RAIL EXPANSION JOINTS. ONLY ONE JOINT IS REQUIRED AT MIDPOINT OF BARRIER RAIL SEGMENTS LESS THAN 6.1m IN LENGTH AND NO JOINTS ARE REQUIRED FOR THOSE SEGMENTS LESS THAN 3.5m IN LENGTH.

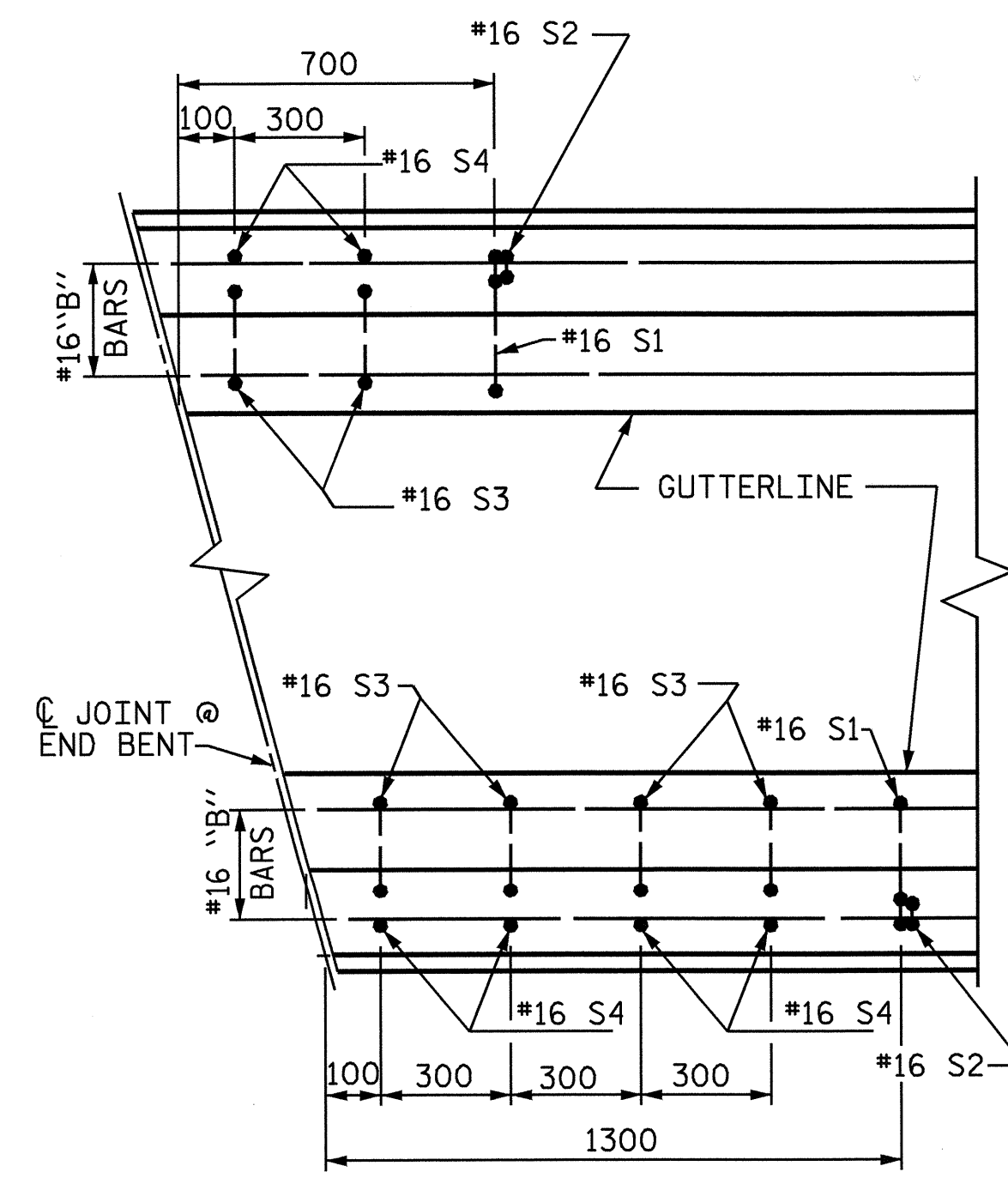


ALL BAR DIMENSIONS ARE OUT TO OUT

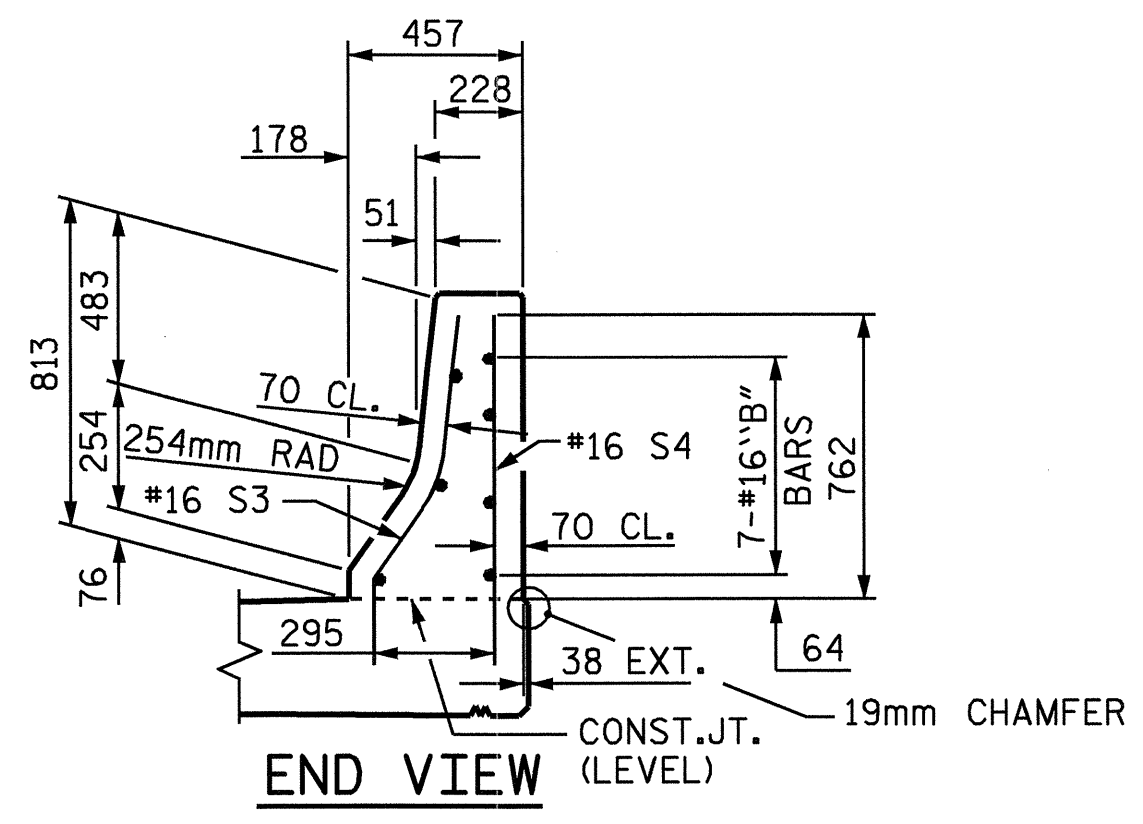
**BILL OF MATERIAL**

FOR CONCRETE BARRIER RAIL ONLY

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* B1	56	#16	STR	4840	421
* B2	98	#16	STR	8420	1281
* S1	498	#16	1	1440	1113
* S2	498	#16	2	1580	1221
* S3	12	#16	3	1020	19
* S4	12	#16	STR	960	18
* EPOXY COATED REINFORCING STEEL					4073 kg
CLASS AA CONCRETE					38.5 CU. METER
CONCRETE BARRIER RAIL					153.438 METERS



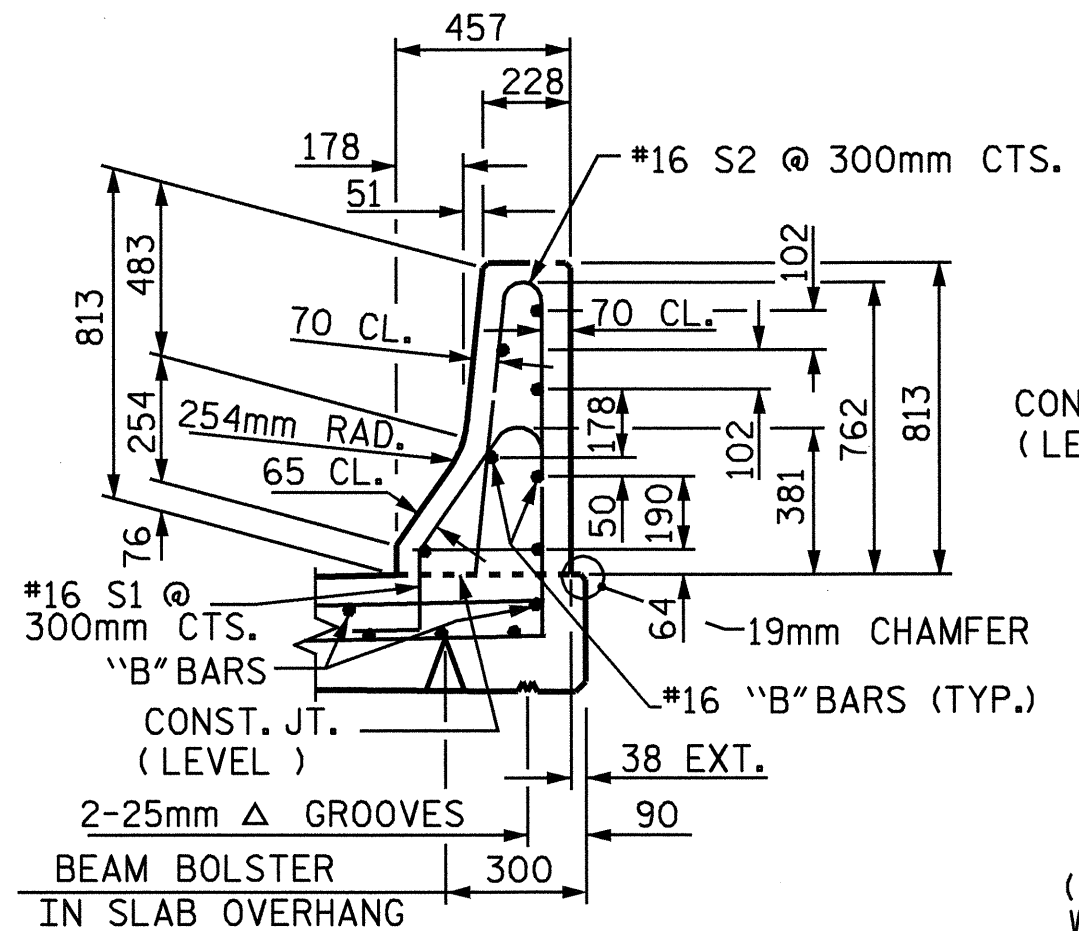
**PLAN**



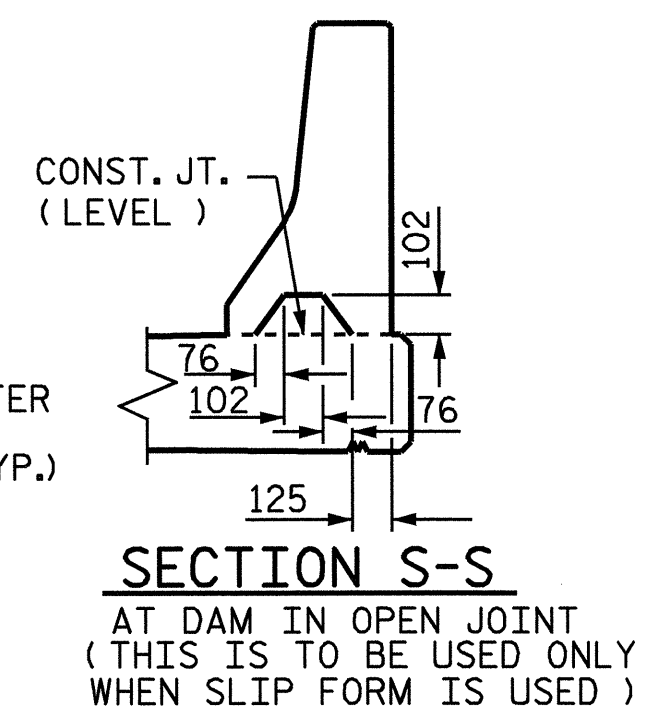
**END VIEW**

**END OF RAIL DETAILS**

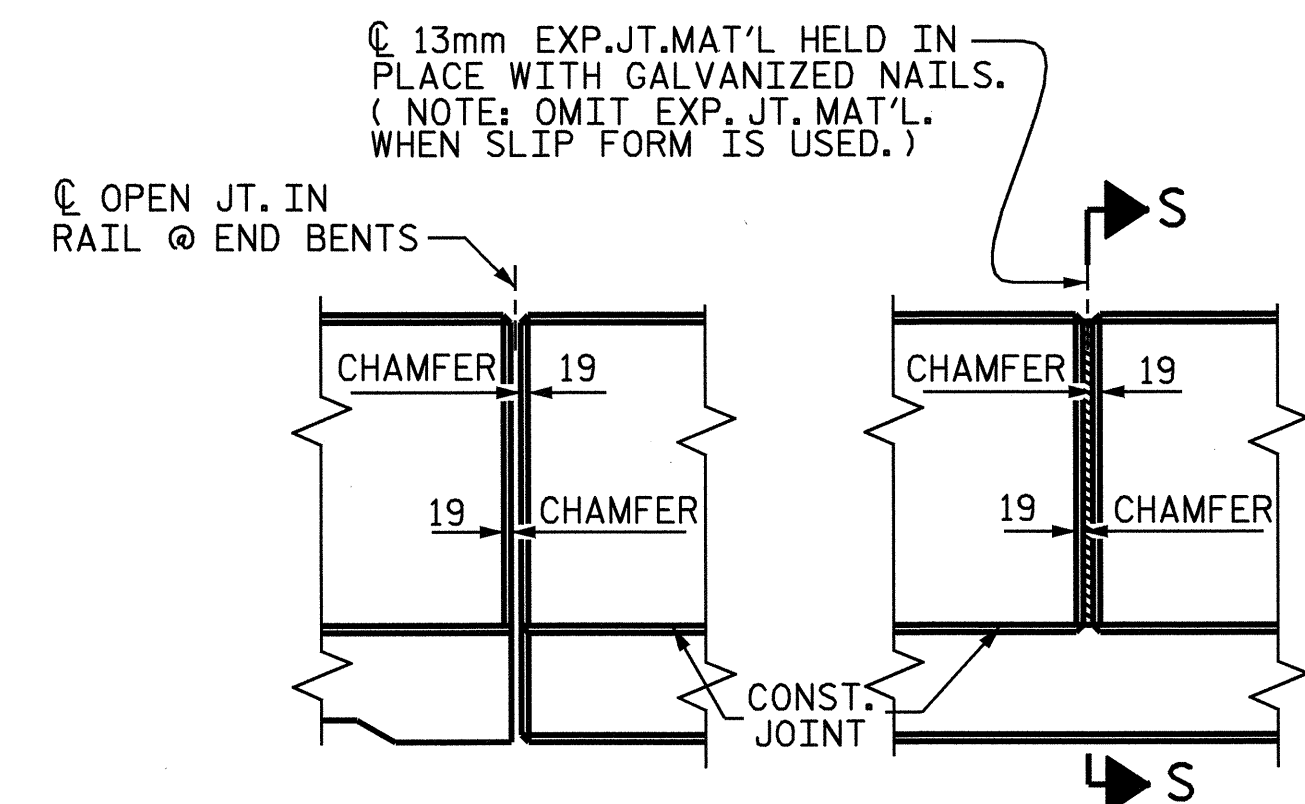
FOR ADHESIVE ANCHORING AT SAWED JOINTS



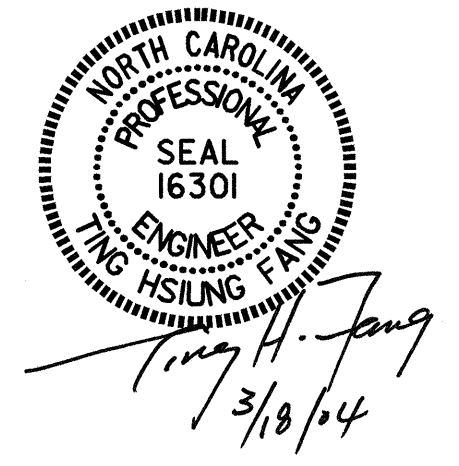
**SECTION THRU RAIL**



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



**ELEVATION AT EXPANSION JOINTS  
BARRIER RAIL DETAILS**



PROJECT NO. R-513BB  
ROBESON COUNTY  
STATION: 179+16.663 -L-

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
STANDARD  
CONCRETE  
BARRIER RAIL

ASSEMBLED BY : T.A. WALTER	DATE : 12/02/02
CHECKED BY : N.O. TRAN	DATE : 7/03
DRAWN BY : ARB 5/87	REV. 7/17/98 RWW/LES
CHECKED BY : SJD 9/87	REV. 8/16/99 RWW/LES
	REV. 10/17/00R RWW/LES

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			5-14
2			4			312