

NOTES

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

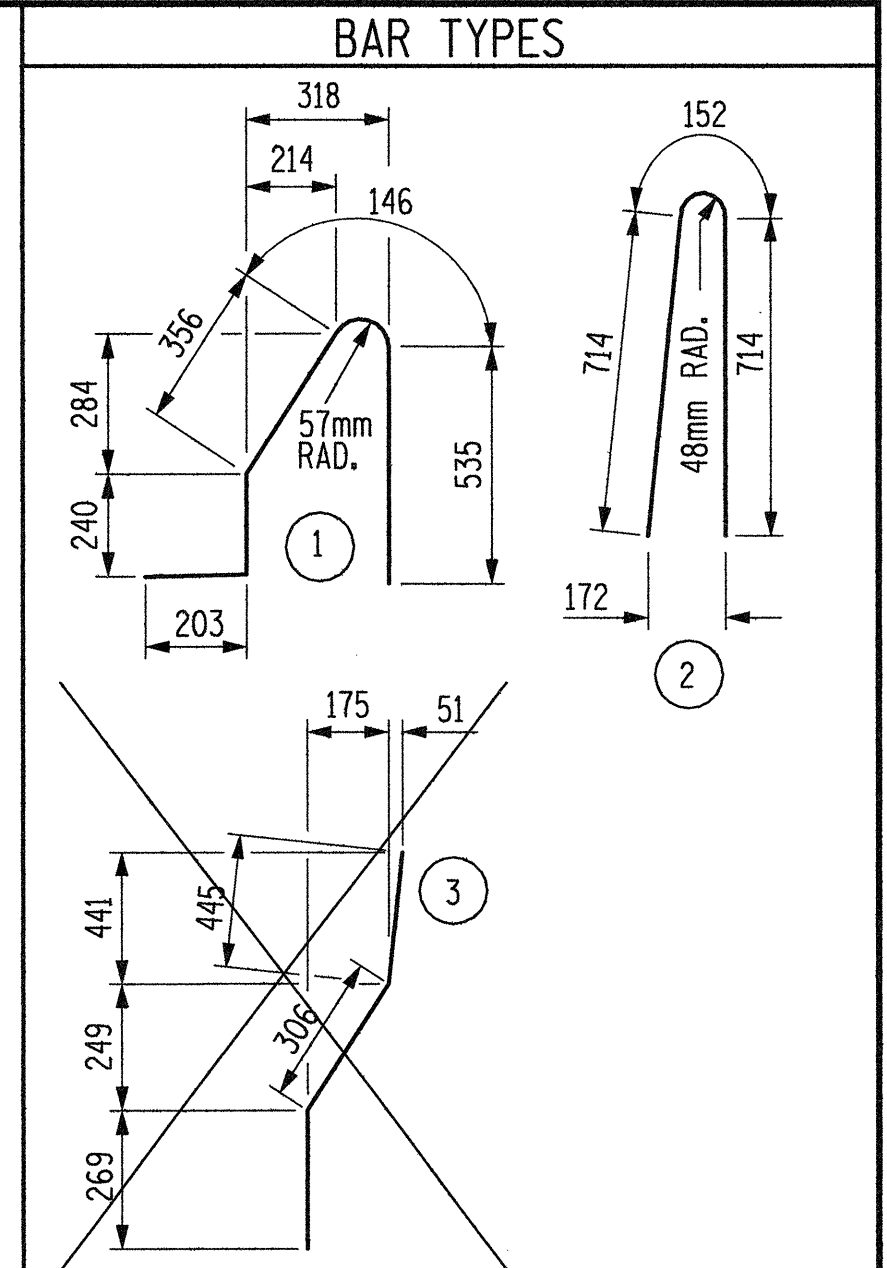
WHEN COMPRESSION JOINT SEAL OR EVAZOTE JOINT SEAL IS REQUIRED, THE JOINT IN THE DECK SHALL BE SAWED PRIOR TO THE CASTING OF BARRIER RAIL.

ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

THE #16 S3 AND #16 S4 BARS SHALL BE INSTALLED, USING AN ADHESIVE ANCHORING SYSTEM, AFTER SAWING THE JOINT. FOR ADHESIVELY ANCHORED ANCHOR BOLTS OR BOWELS, SEE SPECIAL PROVISIONS. THE YIELD LOAD FOR THE #16 S3 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. 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 6.1m IN LENGTH AND NO CONTRACTION JOINTS ARE REQUIRED FOR THOSE SEGMENTS LESS THAN 3.5m IN LENGTH.

THE #16 S1 AND #16 S2 BARS MAY BE SHIFTED SLIGHTLY AS NECESSARY IN ORDER TO MAINTAIN A 50mm CLEARANCE TO THE 13mm EXPANSION JOINT MATERIAL IN THE RAIL.

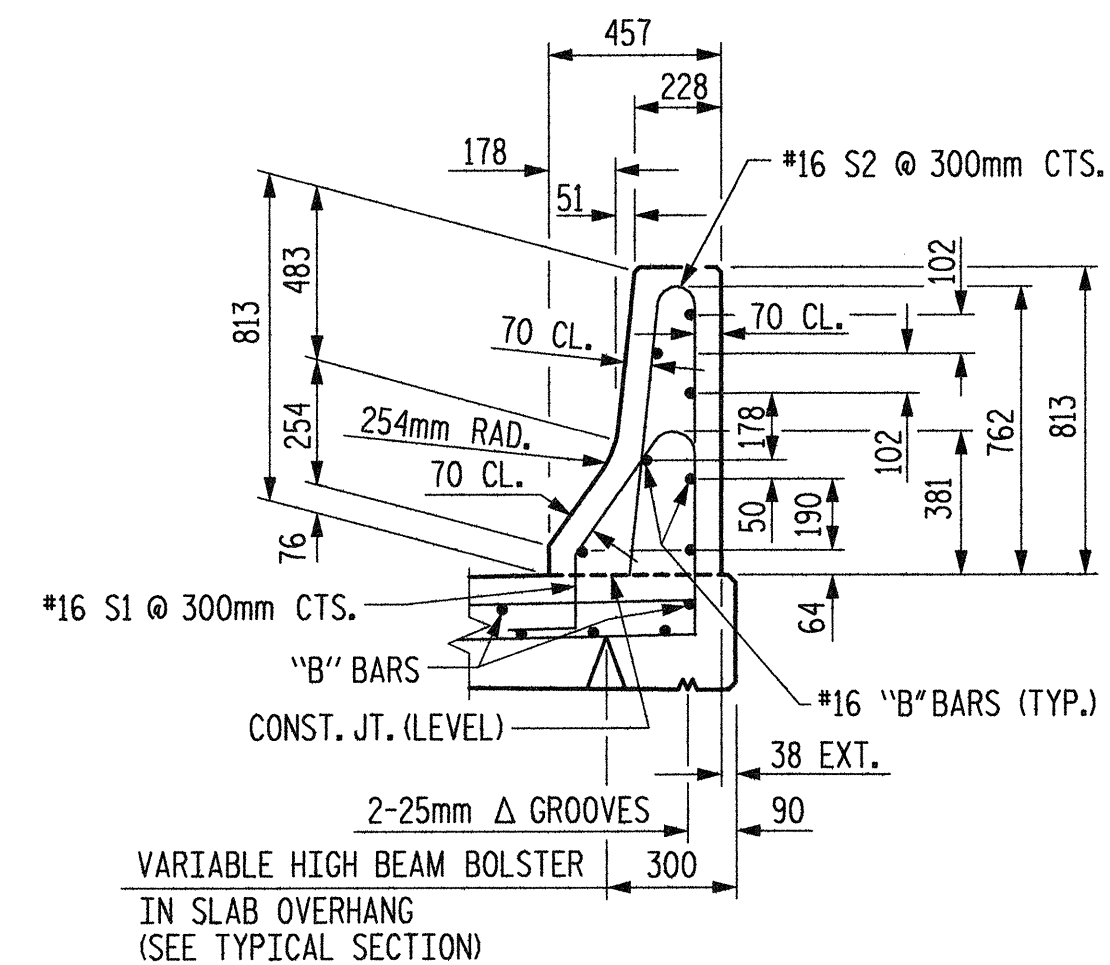


ALL BAR DIMENSIONS ARE OUT TO OUT.

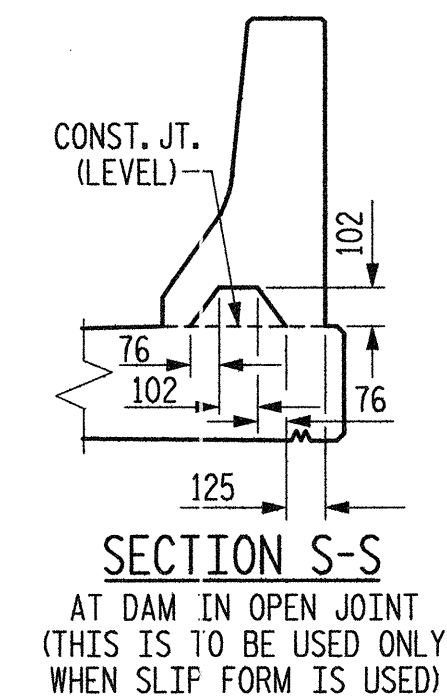
BILL OF MATERIAL

FOR CONCRETE BARRIER RAIL ONLY

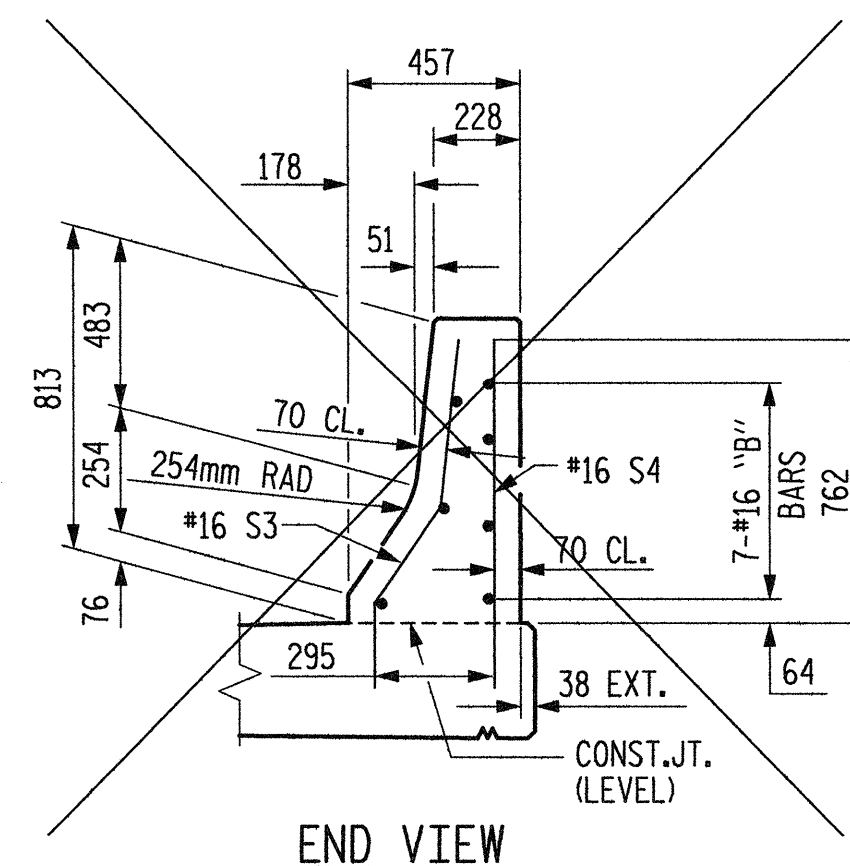
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* S1	1878	16	1	1480	4314
* S2	1878	16	2	1580	4605
* B1	7	16	STR	7760	84
* B2	84	16	STR	7700	1004
* B3	7	16	STR	6940	75
* B4	14	16	STR	7580	165
* B5	70	16	STR	7400	804
* B6	14	16	STR	7320	159
* B7	28	16	STR	7660	333
* B8	140	16	STR	7640	1660
* B9	28	16	STR	7460	324
* B10	98	16	STR	8240	1253
* B11	7	16	STR	8200	89
* B12	7	16	STR	7740	84
* EPOXY COATED REINFORCING STEEL					14953 kg
CLASS AA CONCRETE					141.1 CU. METER
CONCRETE BARRIER RAIL					562.980 METERS



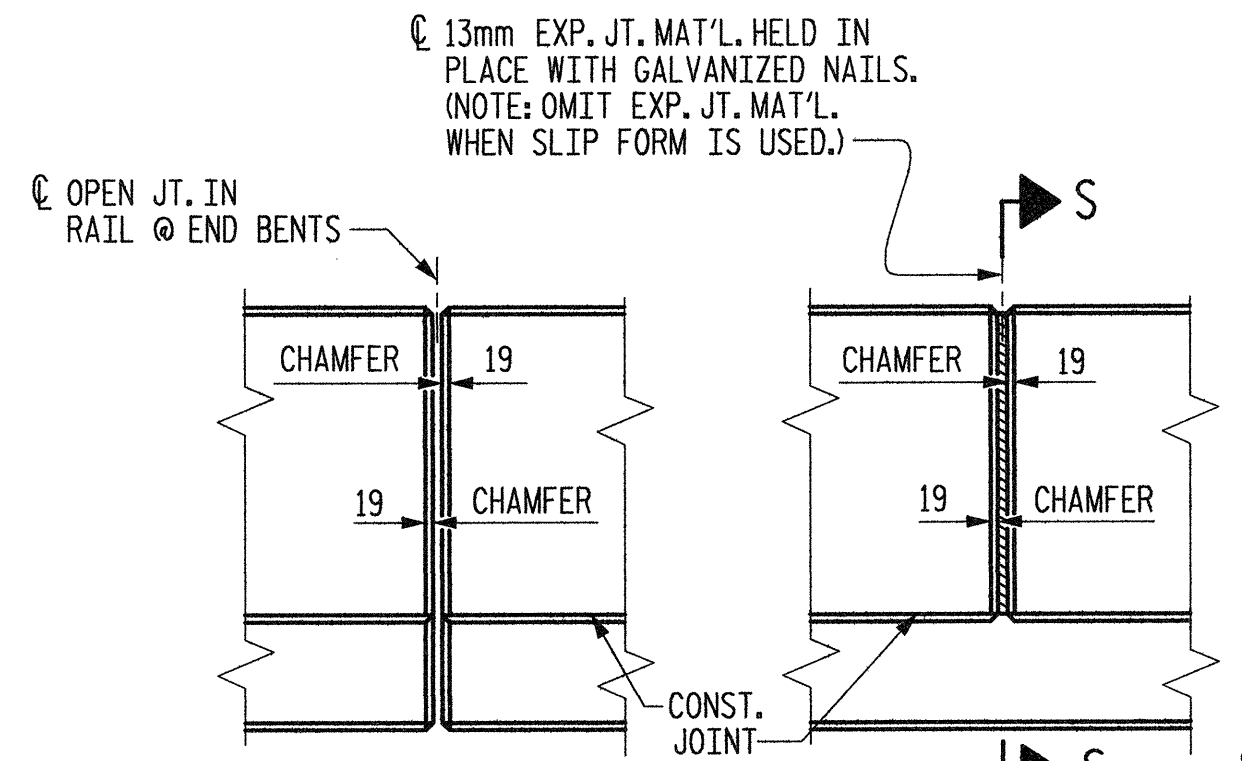
SECTION THRU RAIL



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



END VIEW



ELEVATION AT EXPANSION JOINTS
BARRIER RAIL DETAILS

PROJECT NO. R-2552AA
WAKE-JOHNSTON COUNTY
STATION: 28+31.359 -IY1-

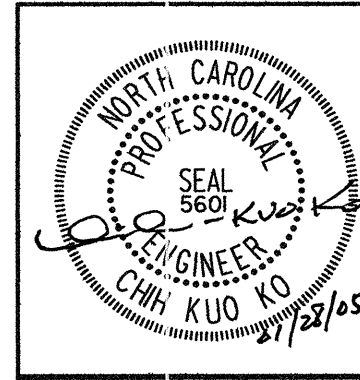
SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD
CONCRETE
BARRIER RAIL

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	5-114
1			3			TOTAL SHEETS
2			4			429

Plans prepared by:
KO & ASSOCIATES, P.C.
Consulting Engineers
1011 SCHAUH DR., SUITE #202
RALEIGH, N.C. 27606
For Division of Highways



DWG. NO. 31

STD. No. CBR1SM

ASSEMBLED BY : B.E. LANNING	DATE : JAN. 2005
CHECKED BY : J.C. KO / A.K. ORR	DATE : JAN. 2005
DRAWN BY : ARB 5/87	REV. 8/16/99 RWW/LES
CHECKED BY : SJD 9/87	REV. 10/17/00 RWW/LES
	REV. 5/7/03R RWW/JTE

END OF RAIL DETAILS
FOR ADHESIVE ANCHORING AT SAWED JOINTS

PLAN

PLOT: 01/27/2005 8:32:45 PM Ko & Associates, P.C.
 FILE NAME: r:\2552aa\slr2.dwg