PLAN

END OF RAIL DETAILS

SECTION THRU RAIL

-#16 S2 @ 300mm CTS. 70 CL. CONST. JT. -(LEVEL) 70 CL. #16 S1 @ ____ 300mm CTS. "B"BARS `~#16 ``B"BARS (TYP.) CONST. JT. 125 **38 EXT.** (LEVEL) SECTION S-S 2-25mm Δ GROOVES AT DAM IN OPEN JOINT (THIS IS TO BE USED ONLY WHEN SLIP FORM IS USED) BEAM BOLSTER IN SLAB OVERHANG (SEE SHEET RN BL-4 FOR SIZE)

© 13mm EXP.JT.MAT'L HELD IN— PLACE WITH GALVANIZED NAILS. (NOTE: OMIT EXP.JT.MAT'L. WHEN SLIP FORM IS USED.) © OPEN JT.IN_ RAIL @ BENTS **CHAMFER CHAMFER** CHAMFER CHAMFER

NOTES

THE BARRIER RAIL IN EACH 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 DOWELS, 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

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.

318 214 146 57mm RAD. 015 1						
EX 13 203 15 EX 15 EX						
152						
48mm RAD. ————————————————————————————————————						
172						
(2)						
ALL BAR DIMENSIONS ARE OUT TO OUT BILL OF MATERIAL						
FOR CONCRETE BARRIER RAIL ONLY						
BAR NO. SIZE TYPE LENGTH WEIGHT						
S WEIGHT						
* S1 346 #16 1 1420 763						
* \$2 866 * 16 2 1580 2124						
* S3 520 #16 1 1420 1146						

BAR TYPES

BILL OF MATERIAL						
FOR CONCRETE BARRIER RAIL ONLY						
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	
* S1	346	#16	1	1420	763	
* S2	866	#16	2	1580	2124	
* S3	520	#16	1	1420	1146	
★ B1	56	#16	STR	8640	751	
★ B2	56	#16	STR	4860	422	
* B3	56	#16	STR	4460	388	
★ B4	112	#16	STR	7740	1345	
					·	
		<u> </u>	<u></u>			
* EPOXY COATED						
REINFORCING STEEL					6939 kg	

CLASS AA CONCRETE 65.3 CU. METER

CONCRETE BARRIER RAIL 260.194 METERS

R-2552C PROJECT NO. **JOHNSTON** COUNTY STATION: 110+37.000 -L2RT- POC

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

STANDARD

CONCRETE BARRIER RAIL (RIGHT LANE)

STD. No. CBR1SM SHEET NO. REVISIONS DATE: 5-245 BY: DATE: BY: TOTAL SHEETS

ELEVATION AT EXPANSION JOINTS

BARRIER RAIL DETAILS

ASSEMBLED BY : W. B. ALLEN DATE: 10/04 CHECKED BY: R.C. LARSON DATE: 11/04 REV. 8/16/99 REV. 10/17/00 REV. 5/7/03R DRAWN BY: ARB 5/87 RWW/LES RWW/JTE CHECKED BY: SJD 9/87

PLANS PREPARED BY: +MULKEY
ENGINEERS & CONSULTANTS PD Box 33127 Raleigh, N.C. 27636 (919) 851-1912 (919) 851-1918 (FAX) WWW.MULKEYINC.COM

THIS STANDARD DRAWING REVIEWED & ADOPTED FOR USE AT THE REFERENCED LOCATION BY THE UNDERSIGNED:

REFERENCE NO. BR-20