

BILL OF MATERIAL FOR CONCRETE BARRIER RAIL ONLY BAR NO. SIZE TYPE LENGTH WEIGHT 260 #5 1 1,333 4'-11" **₩** S1 5'-2'' 260 #5 2 1,401 12 #5 3 *S3 3'-4'' 42 *****S4 12 *****5 STR 3'-2'' 40

*B1 | 28 | #5 | STR | 12'-11" | *B2 | 56 | #5 | STR | 22'-4" | 1,304 *B3 28 #5 STR 13'-6" 394 * EPOXY COATED

4,891 LBS.

27.5 CU. YDS.

_ COUNTY

REINFORCING STEEL CLASS AA CONCRETE CONCRETE BARRIER RAIL 274.92 LIN. FT.

PROJECT NO. B-3310

BUNCOMBE

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.

NOTES

THE BARRIER RAIL IN A CONTINUOUS UNIT SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN THAT UNIT HAS BEEN CAST AND HAS REACHED A MINIMUM

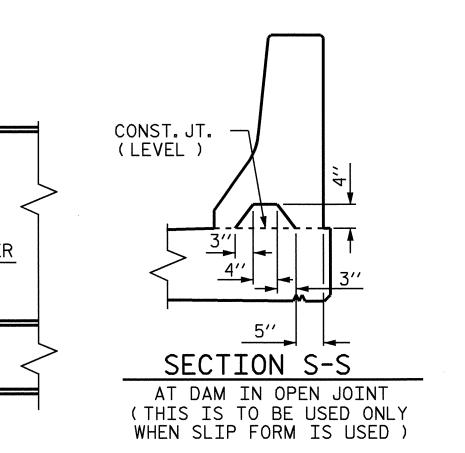
WHEN COMPRESSION JOINT SEAL OR EVAZOTE JOINT SEAL IS REQUIRED, THE JOINT

IN THE DECK SHALL BE SAWED PRIOR TO THE CASTING OF BARRIER RAIL.

COMPRESSIVE STRENGTH OF 3,000 PSI.

__#5 S2 @ 1′-0′′ CTS. 23/4"CL. 23/4"CL. #5 S1 @ 1'-0" CTS. ─ ¾" CHAMFER 2 "B" BARS `_#5 ``B'' BARS (TYP.) CONST. JT. $1\frac{1}{2}$ " EXT. (LEVEL) 3 1/2" 2- 1"△ GROOVES BEAM BOLSTER IN SLAB OVERHANG

SECTION THRU RAIL



STATION: 19+80.00 -L-STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
RALEIGH STANDARD

CONCRETE BARRIER RAIL

REVISIONS					SHEET NO.
BY:	DATE:	NO.	BY:	DATE:	S-14
		3			TOTAL SHEETS
		4			32

STD. NO. CBR1

(NOTE: OMIT EXP.JT.MAT'L. WHEN SLIP FORM IS USED.) CHAMFER € JOINT @ END BENT — CHAMFER #5 S1 -- GUTTERLINE ---CONST. JT #5 S3-─#5 S3 ELEVATION AT EXPANSION JOINTS #5 ''B" BARS BARRIER RAIL DETAILS 1'-0'' 1'-0'' _#5 S2 $1\frac{1}{2}$ EXT. 3/4" CHAMFER 4'-4'' - CONST.JT. (LEVEL) PLAN END VIEW

136′-37/8″

130-#5 S1 & #5 S2 @ 1'-0"CTS.

−7-#5 B2---

- © ½"EXP. JT. MAT'L (TYP.) — ____

22'-9"

69′-3½6″

22'-9"

-7-#5 B2−

SPAN B

7-#5 B3

(2 BAR RUNS)-

23'-91/2"

22'-9"

W.P. #2 →

68'-3"

22'-9"

↓ Û ½″EXP. JT. MAT'L (TYP.) →

7-#5 B1

(2 BAR RUNS)—

RAIL (TYP.)

2'-4"

22'-9"

LW.P. #3

· (L JT. @ END BENT 2

SEE "END OF RAIL DETAILS" FOR

REINFORCEMENT @ END OF BARRIER

-FILL FACE @ END BENT 2

68'-01/8"

22'-9"

└7-#5 B2-

130-#5 S1 & #5 S2 @ 1'-0"CTS.

138'-7¹/₈"

PLAN

DIMENSIONS FOR BARRIER RAIL SECTIONS

ARE TAKEN ALONG THE OUTSIDE FACE OF

BARRIER RAIL ALONG ARC.

#5 S2 ——

22'-9"

22'-9"

BENT 1 CONTROL LINE —

22'-61/8"

7-#5 B1

SPAN A

22'-9"

69'-3¹/16"

___7-#5 B2-

(2 BAR RUNS)

2'-4"

€ JT. @ END BENT 1-

· 7-#5 B3

(2 BAR RUNS)

FILL FACE @

END BENT 1

W.P. #1

23′-9⁵⁄8″

DATE: 7-03 DATE: 11-03 ASSEMBLED BY : A.R.CHESSON CHECKED BY : S.H.SOCKWELL DRAWN BY: ARB 5/87 REV. 8/16/99 REV. 10/17/00 REV. 5/7/03 RWW/LES RWW/LES RWW/JTE END OF RAIL DETAILS

FOR ADHESIVE ANCHORING AT SAWED JOINTS