

PLAN OF BARRIER RAIL

NOTES

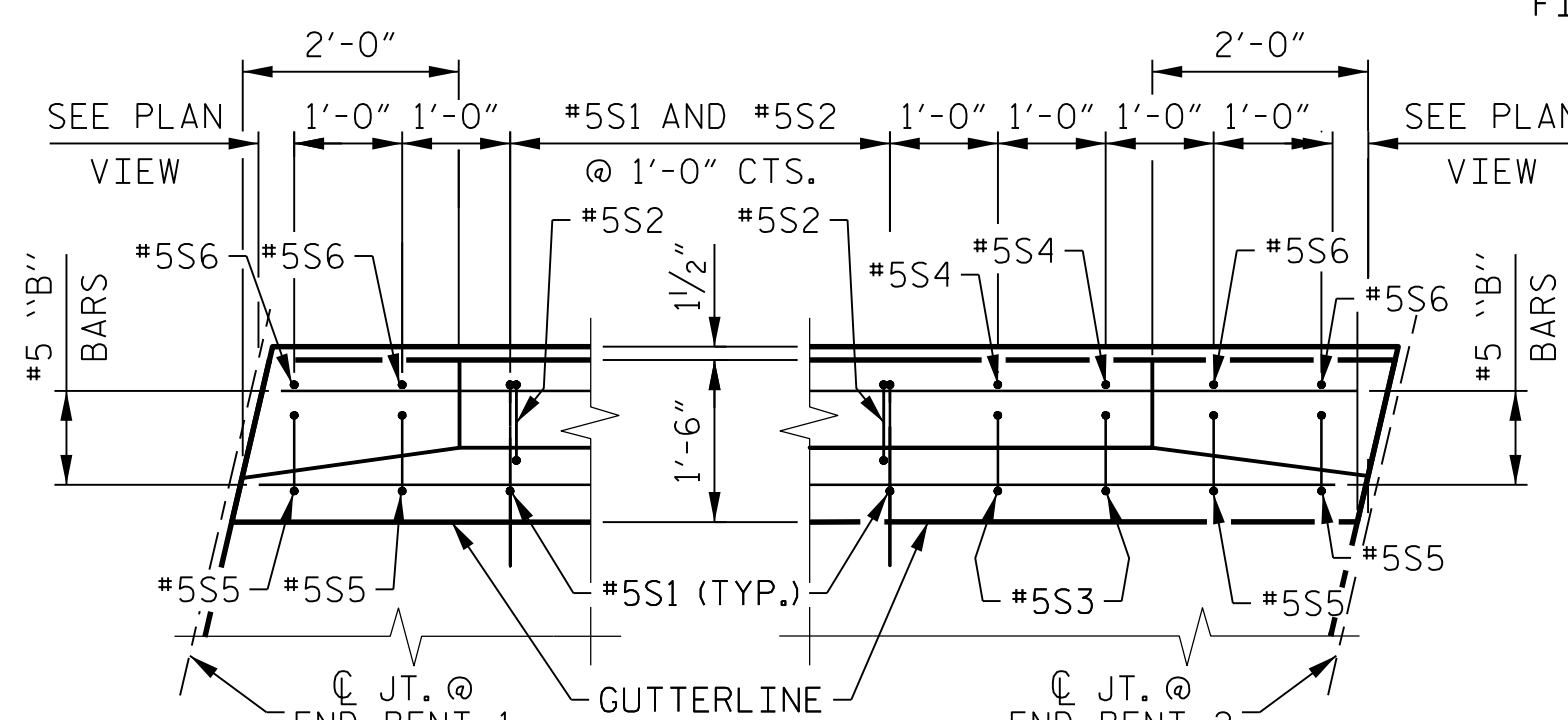
THE BARRIER RAIL IN EACH SPAN SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN THAT SPAN HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

WHEN FOAM JOINT SEAL IS REQUIRED, THE JOINT IN THE DECK SHALL BE SAWS PRIOR TO THE CASTING OF BARRIER RAIL.

ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

THE #5S3, #5S4, #5S5 AND #5S6 BARS SHALL BE INSTALLED, USING AN ADHESIVE ANCHORING SYSTEM, AFTER SAWING THE JOINT. THE YIELD LOAD FOR THE #5S3, #5S4, #5S5 AND #5S6 BARS IS 18.6 KIPS. FIELD TESTING FOR THE ADHESIVE BONDING SYSTEM IS NOT REQUIRED.

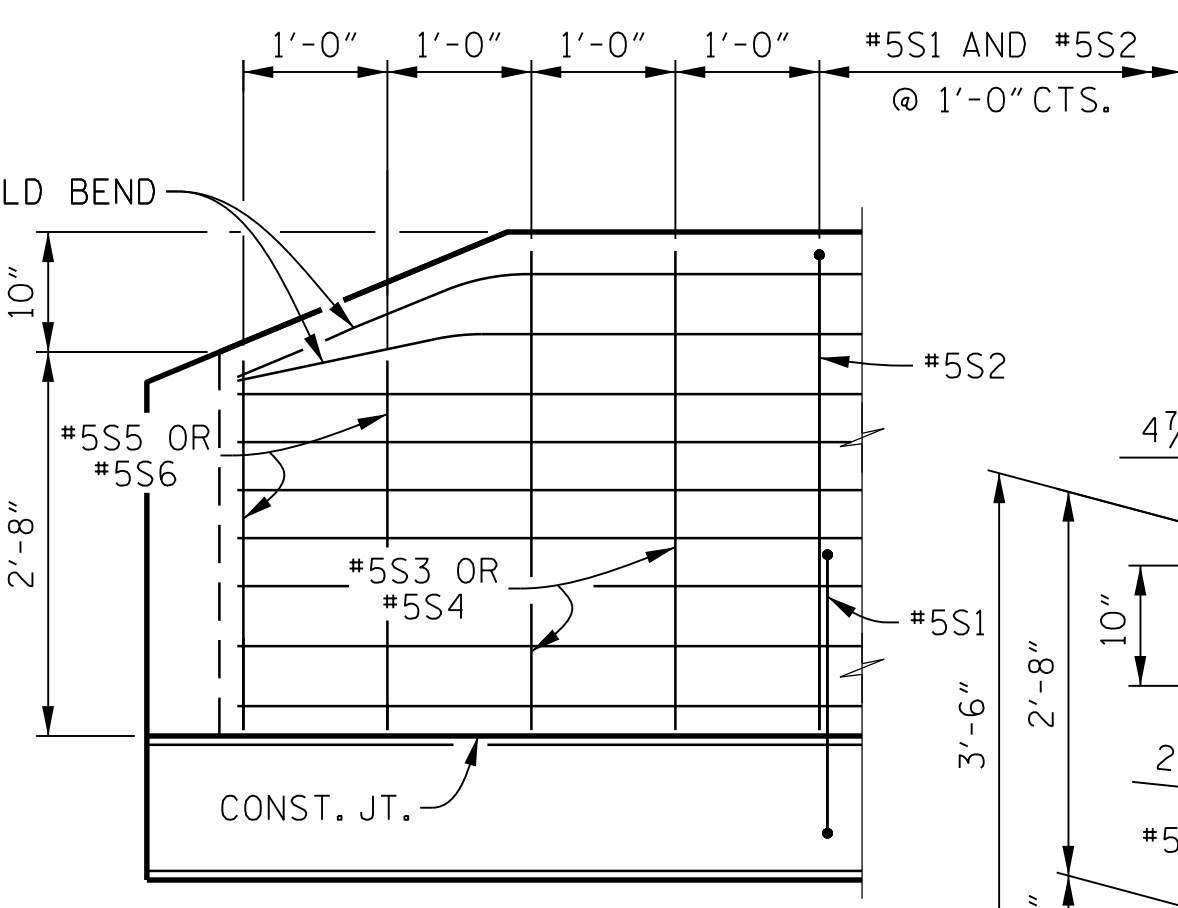
GROOVED CONTRACTION JOINTS, 1/2" IN DEPTH, SHALL BE TOOLED IN ALL EXPOSED FACES OF THE BARRIER RAIL AND IN ACCORDANCE WITH ARTICLE 825-10(B) OF THE STANDARD SPECIFICATIONS. THE CONTRACTION JOINT SHALL BE LOCATED AT EACH THIRD POINT BETWEEN BARRIER RAIL EXPANSION JOINTS. ONLY ONE CONTRACTION JOINT IS 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.



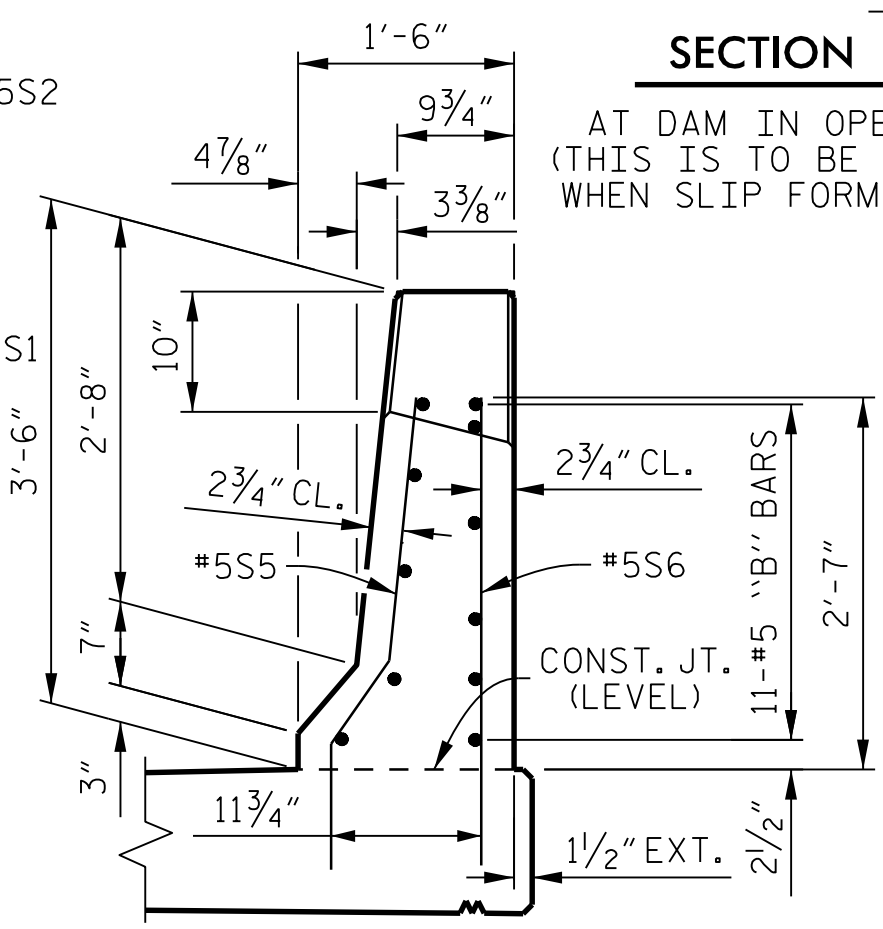
PLAN @ END BENT 1
LEFT SIDE SHOWN, RIGHT SIDE SIMILAR TO END BENT 2

PLAN @ END BENT 2
LEFT SIDE SHOWN, RIGHT SIDE SIMILAR TO END BENT 1

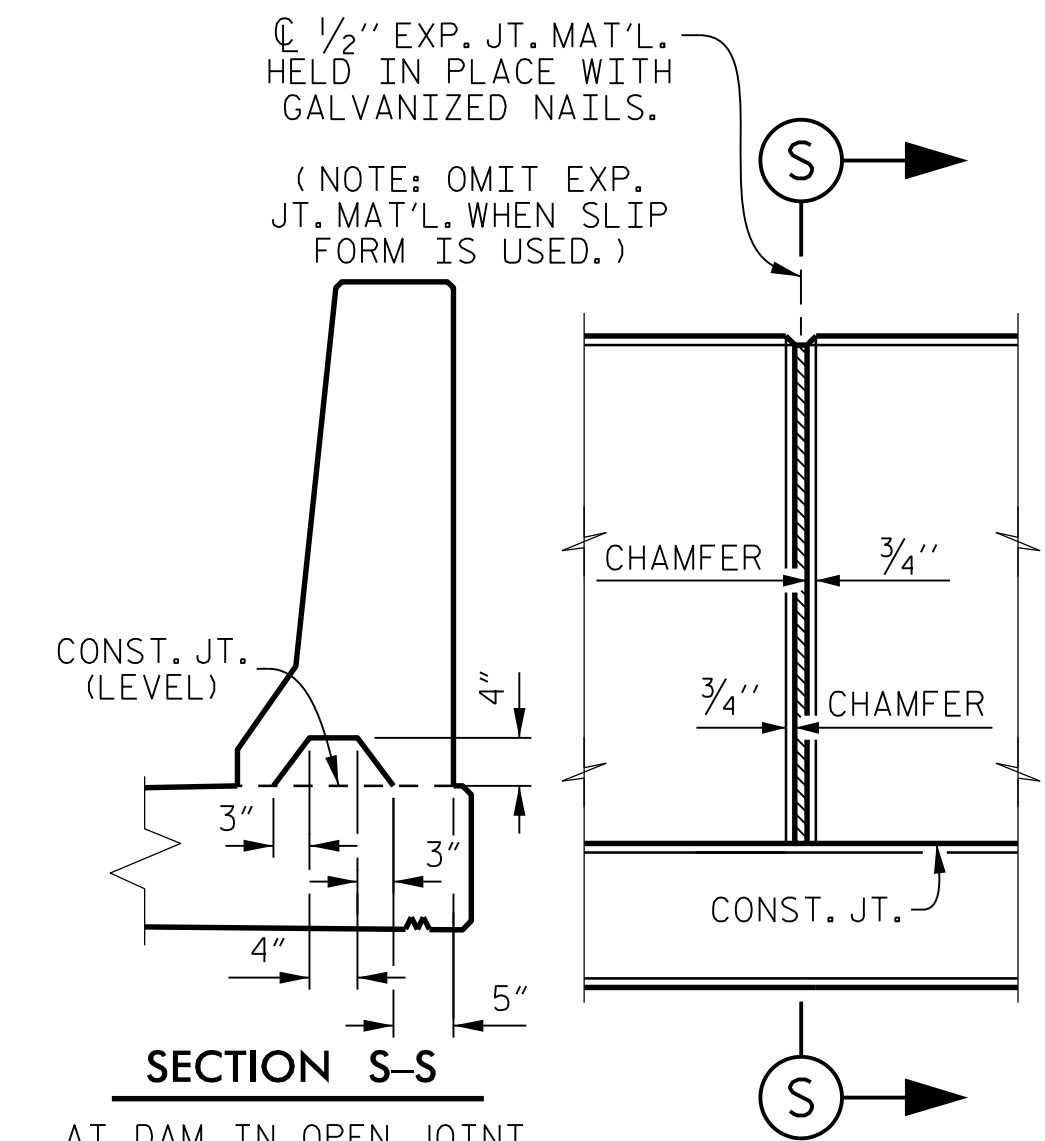
END OF RAIL DETAILS
FOR SAWS JOINTS



ELEVATION VIEW

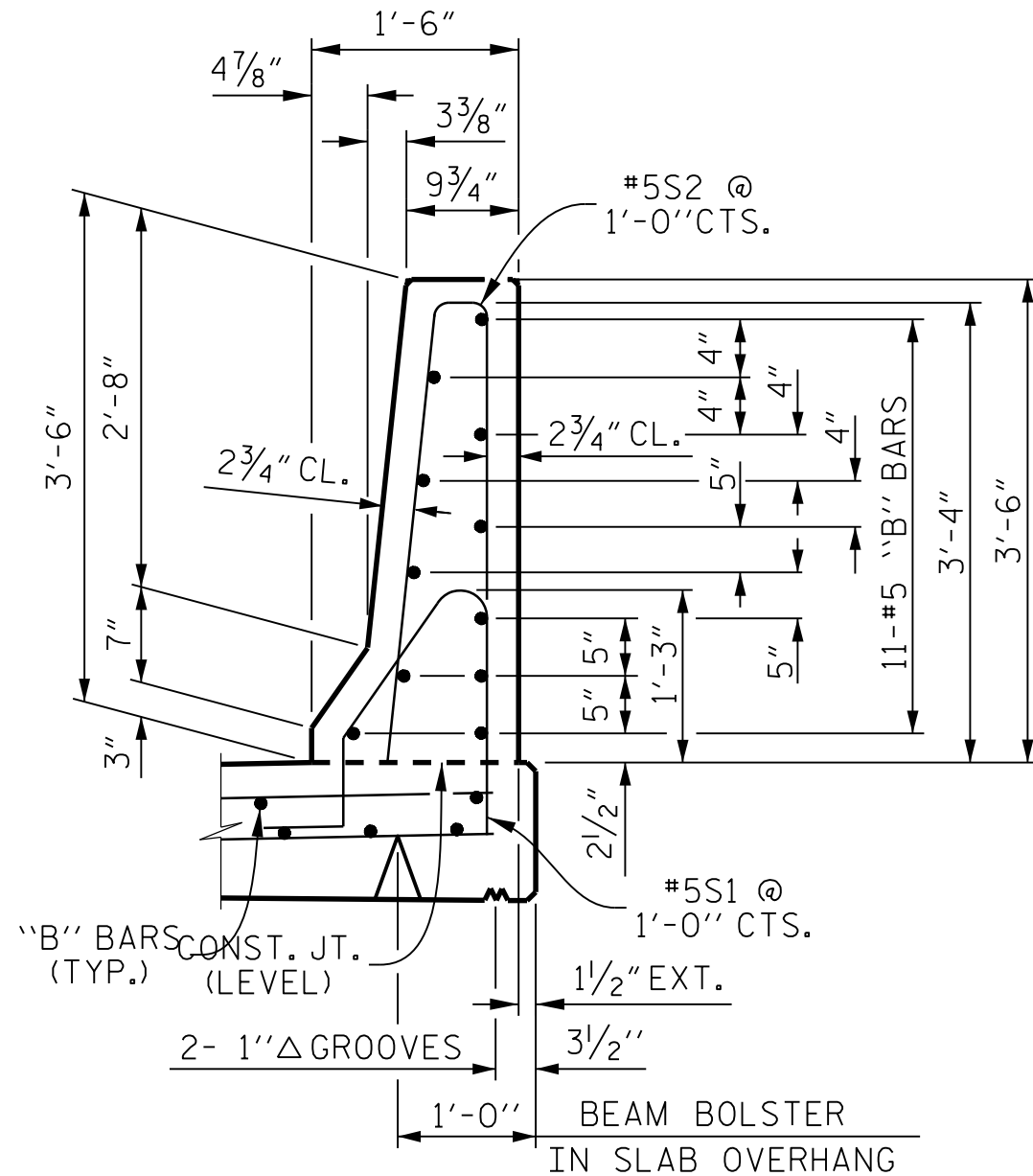


END VIEW



SECTION S-S

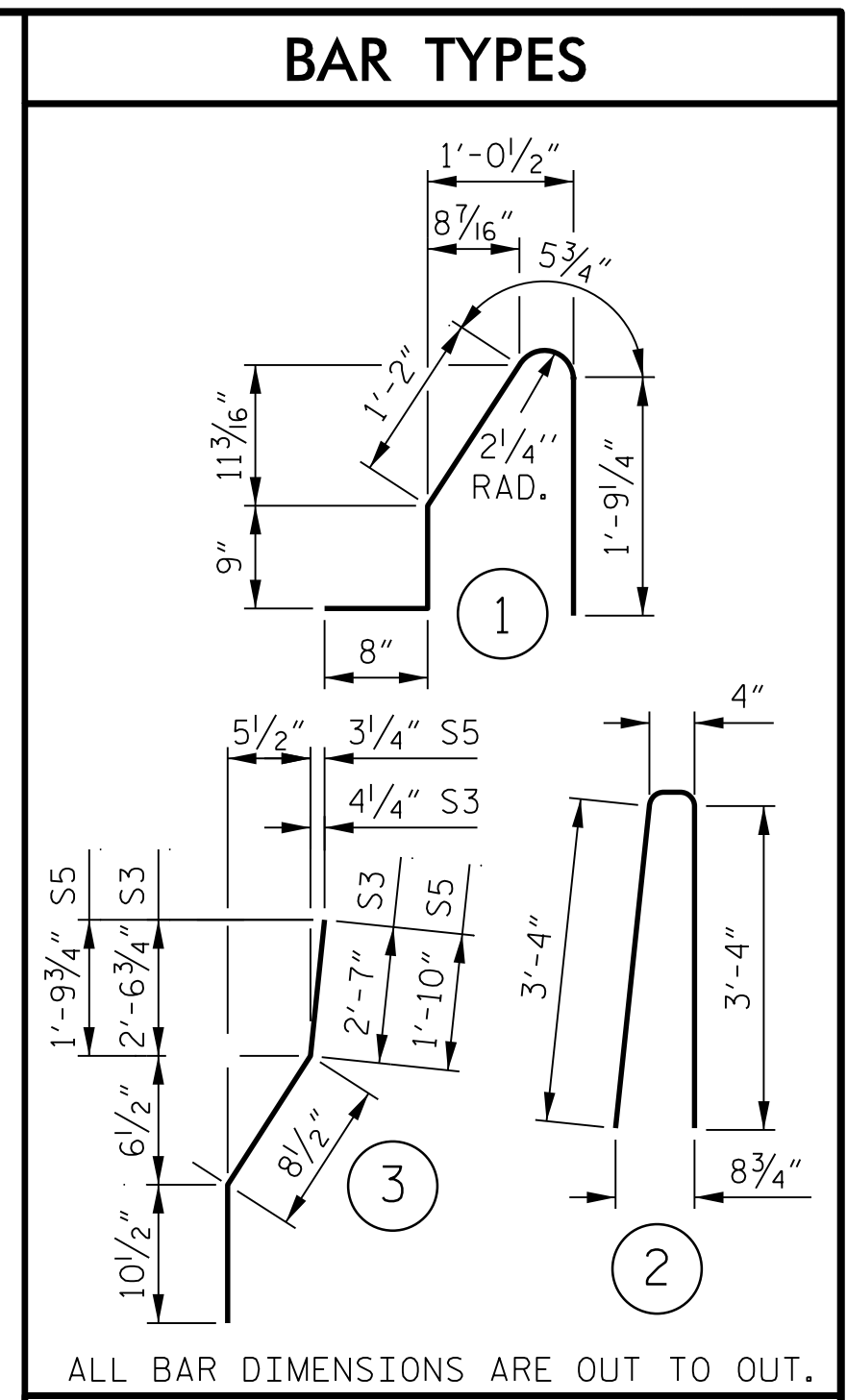
AT DAM IN OPEN JOINT (THIS IS TO BE USED ONLY WHEN SLIP FORM IS USED)



SECTION THRU RAIL

ELEVATION AT EXPANSION JOINTS

BARRIER RAIL DETAILS



ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL
FOR CONCRETE BARRIER RAIL ONLY

BAR No.	SIZE	TYPE	LENGTH	WEIGHT	
*B1	22	#5	STR	13'- 4"	306
*B2	44	#5	STR	22'- 5"	1029
*B3	22	#5	STR	12'- 11"	296
*B4	22	#5	STR	15'- 4"	352
*B5	44	#5	STR	25'- 11"	1189
*B6	22	#5	STR	14'- 7"	335
*B7	22	#5	STR	11'- 7"	266
*B8	22	#5	STR	13'- 6"	342
*B9	22	#5	STR	14'- 11"	337
*B10	22	#5	STR	12'- 3"	281
*S1	364	#5	1	4'-10"	1835
*S2	364	#5	2	7'- 0"	2658
*S3	4	#5	3	4'- 2"	17
*S4	4	#5	STR	4'- 0"	17
*S5	8	#5	3	3'- 5"	29
*S6	8	#5	STR	3'- 3"	27
*EPOXY COATED REINFORCING STEEL				9,289 LBS.	
CLASS "AA" CONCRETE			52.1 CU. YDS.		
CONCRETE BARRIER RAIL				382.4 LIN. FT.	

SPLICE LENGTH

BAR	SIZE	LENGTH
B1, B3, B4, B6, B7, B8, B9, B10	#5	3'-5"

PROJECT NO. **I-4729A**
POLK COUNTY
STATION: **21+44.22 -RP_F-**

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD
CONCRETE BARRIER RAIL

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL
029979
8/11/2017

ASSEMBLED BY : CLAREY/DETMERS DATE : 7-17
CHECKED BY : D. PRETORIUS DATE : 7-17

DRAWN BY : ARB 5/87 REV. 10/1/11 MAA/GM
CHECKED BY : SJD 9/87 REV. 7/12 MAA/GM
DATE: 8/1/2017 REV. 6/13 MAA/GM

DRAWN BY : M. CLAREY / T. DETMERS DATE : 7-17
CHECKED BY : D. PRETORIUS DATE : 7-17
DESIGN ENGINEER : D. PRETORIUS DATE : 7-17

PLANS PREPARED BY :
PARSONS
5540 Centerville Drive, Suite 217
Raleigh, NC 27606-3386
NC LICENSE No. F-0246
FOR NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

REVISIONS

No.	BY:	DATE:	No.	BY:	DATE:
1			3		
2			4		

SHEET No. **S2-17**
TOTAL SHEETS **31**