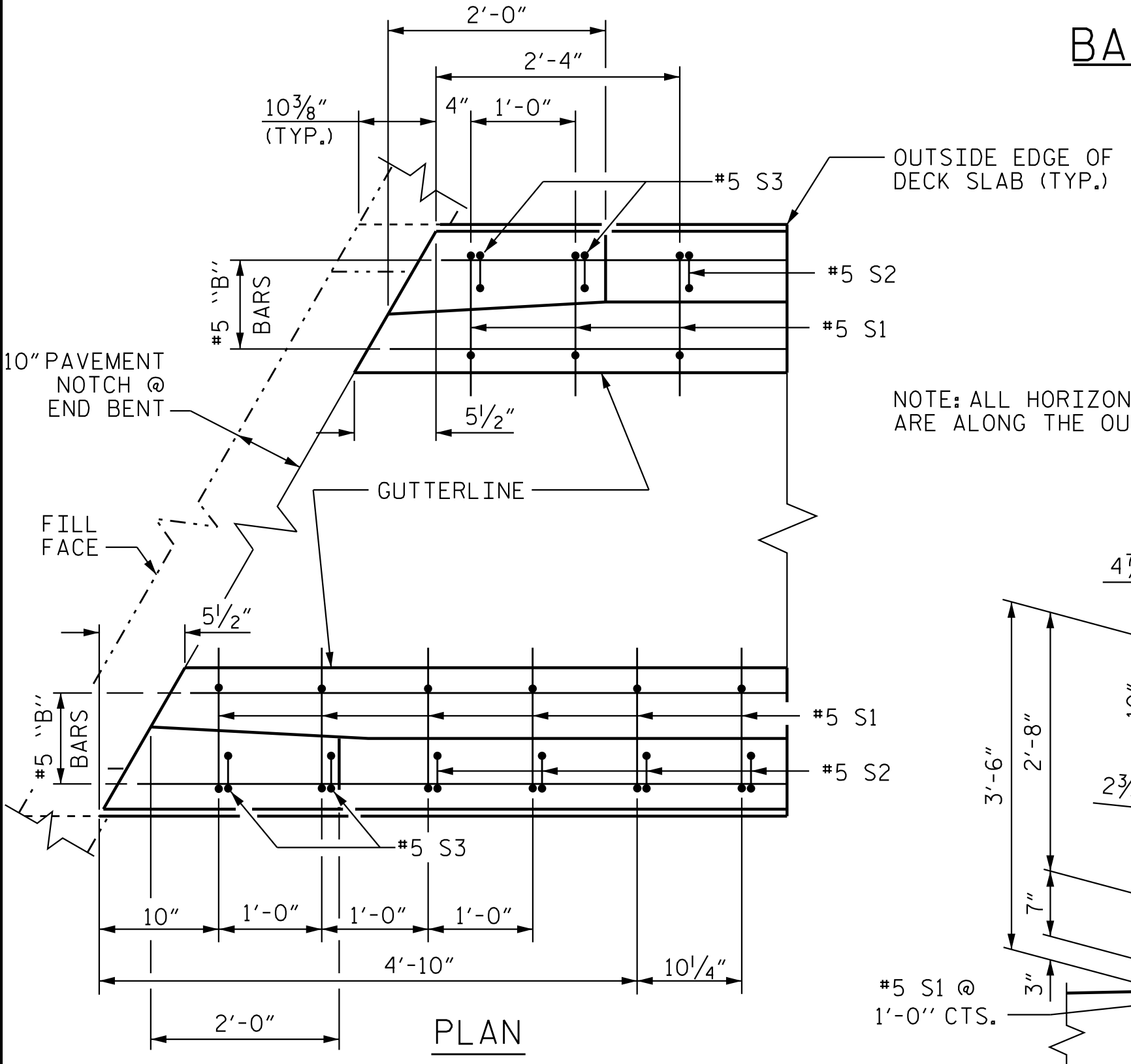
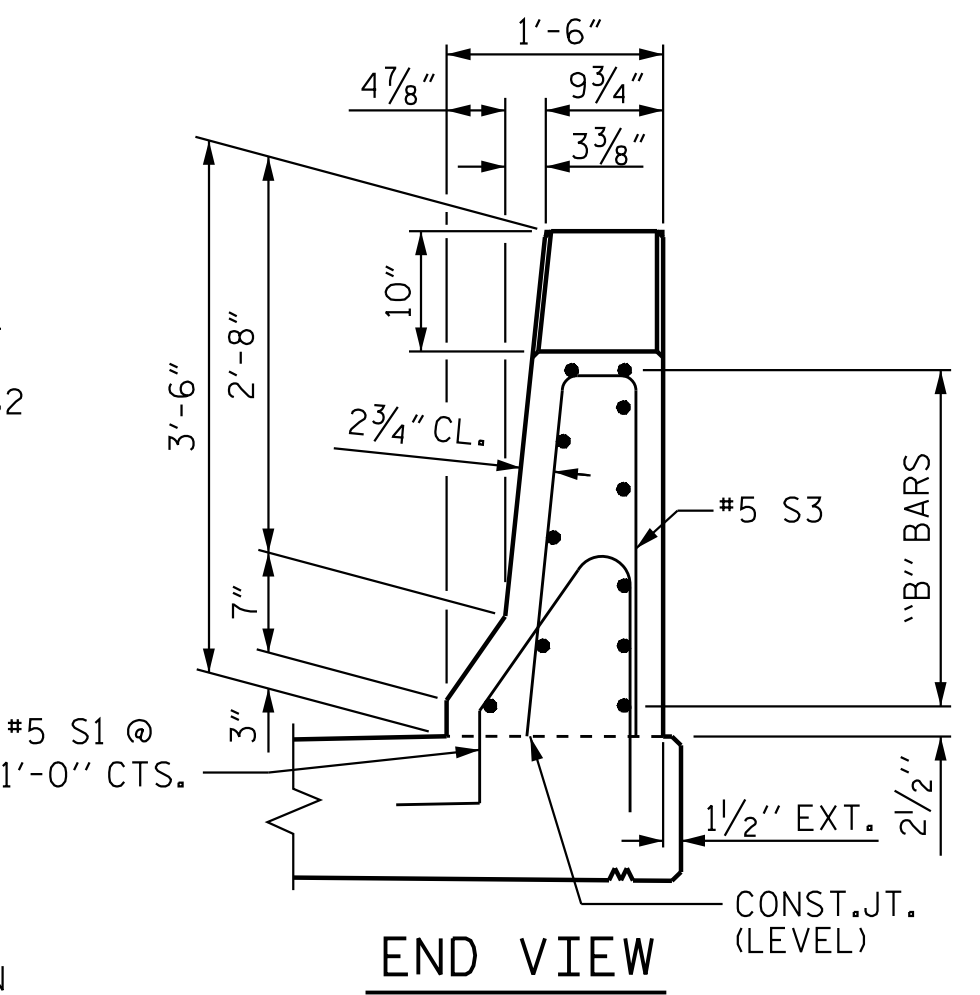


BARRIER RAIL PLAN

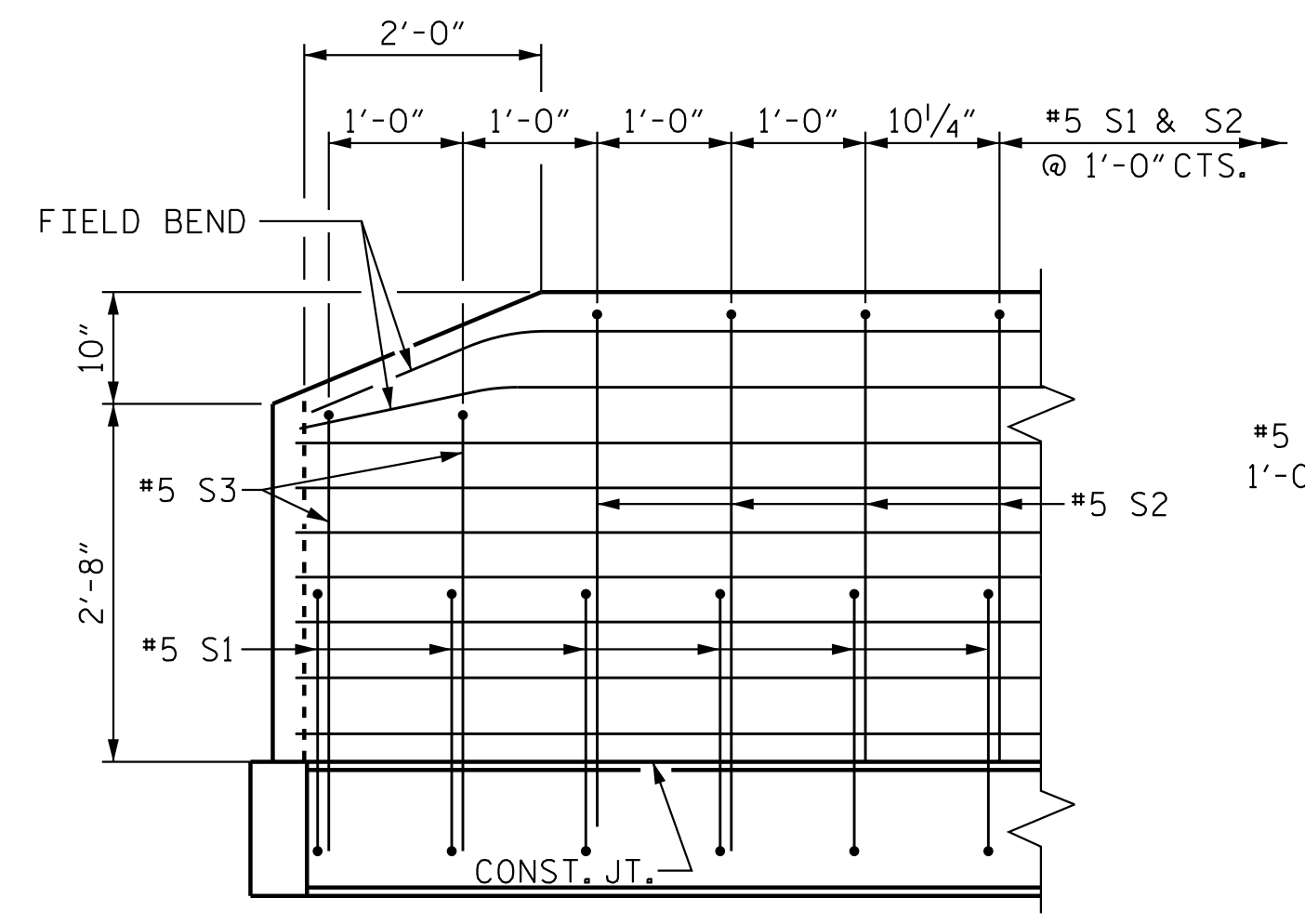


DETAIL @ END BENT
END BENT 1 SHOWN END BENT 2 TYP. BY ROTATION

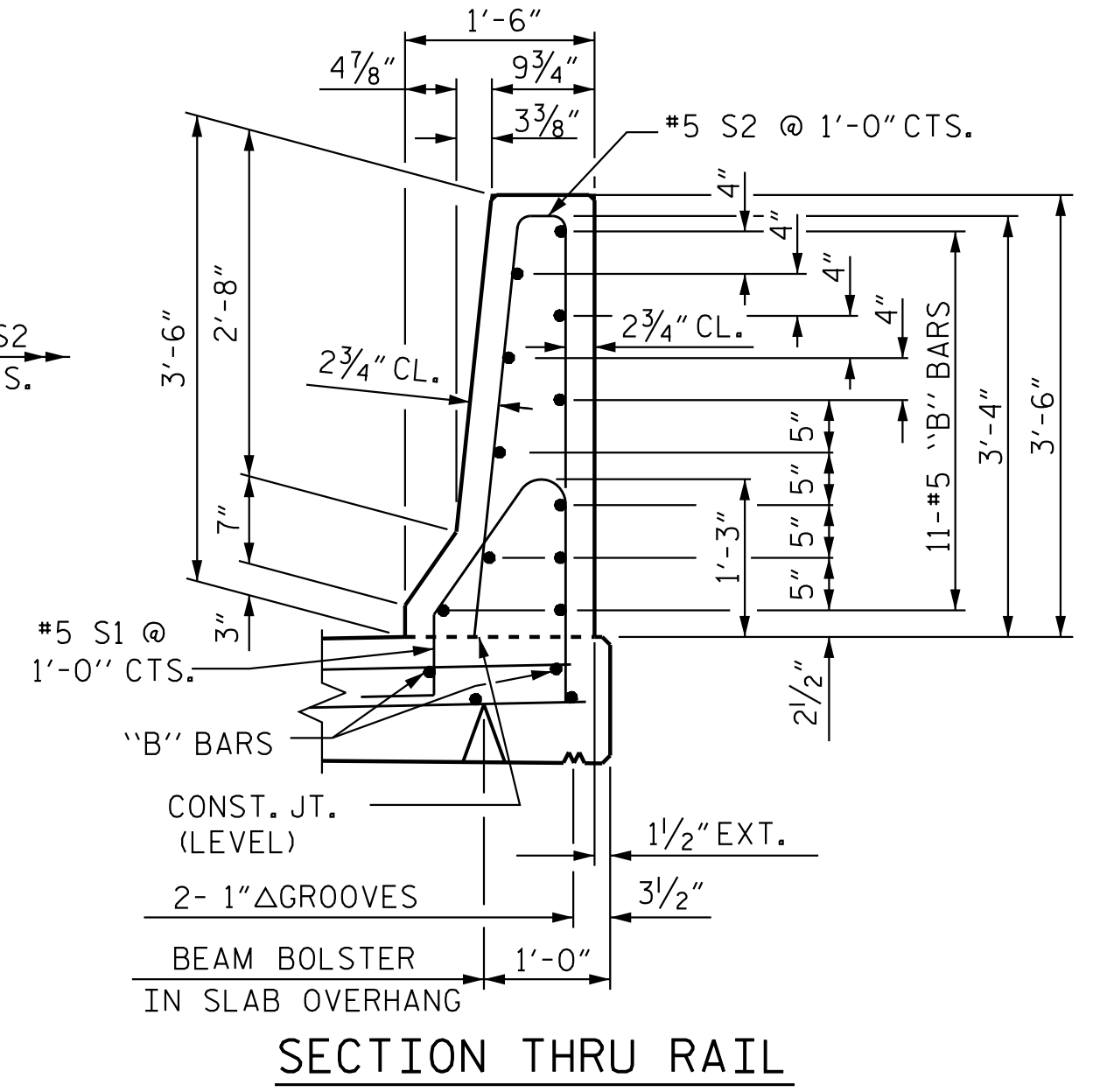
NOTE: ALL HORIZONTAL DIMENSIONS SHOWN ARE ALONG THE OUTSIDE EDGE OF DECK SLAB.



END VIEW

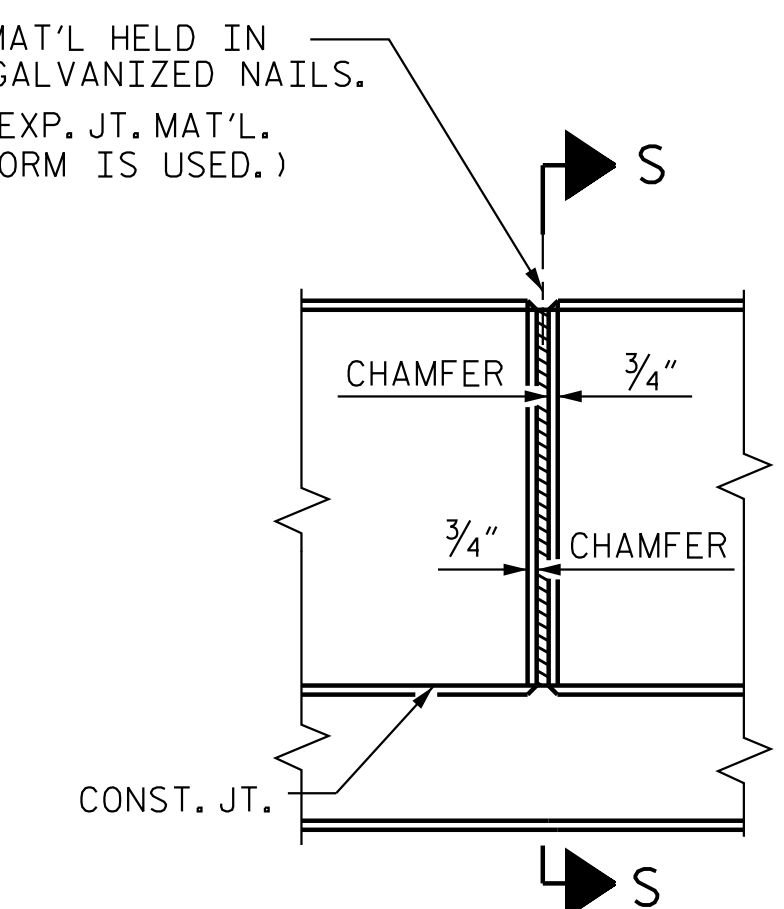


SIDE VIEW



SECTION THRU RAIL

ELEVATION AT EXPANSION JOINTS BARRIER RAIL DETAILS



1/2" EXP. JT. MAT'L HELD IN PLACE WITH GALVANIZED NAILS.
(NOTE: OMIT EXP. JT. MAT'L WHEN SLIP FORM IS USED.)

NOTES

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

ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

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.

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

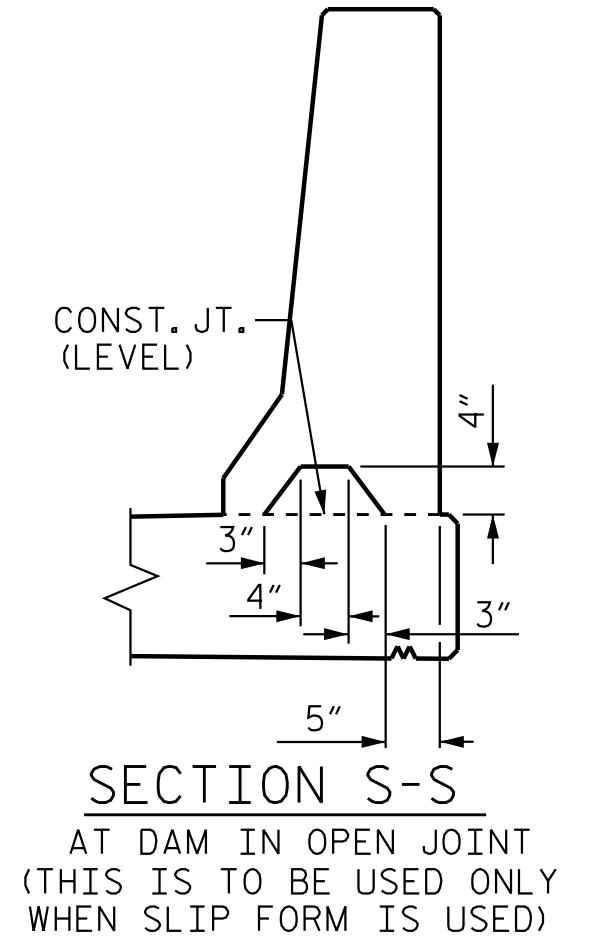
BAR TYPES

ALL BAR DIMENSIONS ARE OUT TO OUT

BILL OF MATERIAL

FOR CONCRETE BARRIER RAIL ONLY

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* B1	12	#5	STR	8'-8"	108
* B2	10	#5	STR	8'-4"	87
* B3	110	#5	STR	29'-6"	3385
* B4	12	#5	STR	11'-5"	143
* B5	10	#5	STR	11'-9"	123
* B6	22	#5	STR	24'-6"	562
* S1	392	#5	1	4'-8"	1908
* S2	384	#5	2	7'-0"	2804
* S3	8	#5	2	5'-6"	46
* EPOXY COATED REINFORCING STEEL					9,166 LBS.
CLASS AA CONCRETE					53.2 CU. YDS.
CONCRETE BARRIER RAIL					392.0 LIN. FT.



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

PROJECT NO. R-2707D
CLEVELAND COUNTY
STATION: 19+82.46 -Y1-



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

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-19
1			3			TOTAL SHEETS 32
2			4			

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

6/22/2023 11:41:34 AM jHagenbush
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ASSEMBLED BY : J. E. HAGENBUSH DATE : 01/23/18
CHECKED BY : N. D'ALUIO DATE : 01/30/18
DRAWN BY : ARB 5/87
CHECKED BY : SJD 9/87
REV. 7/12 MAA/GM
REV. 6/13 MAA/GM
REV. 12/17 MAA/GM
DESIGN ENGINEER OF RECORD: J. KELVINGTON DATE : 06/22/23