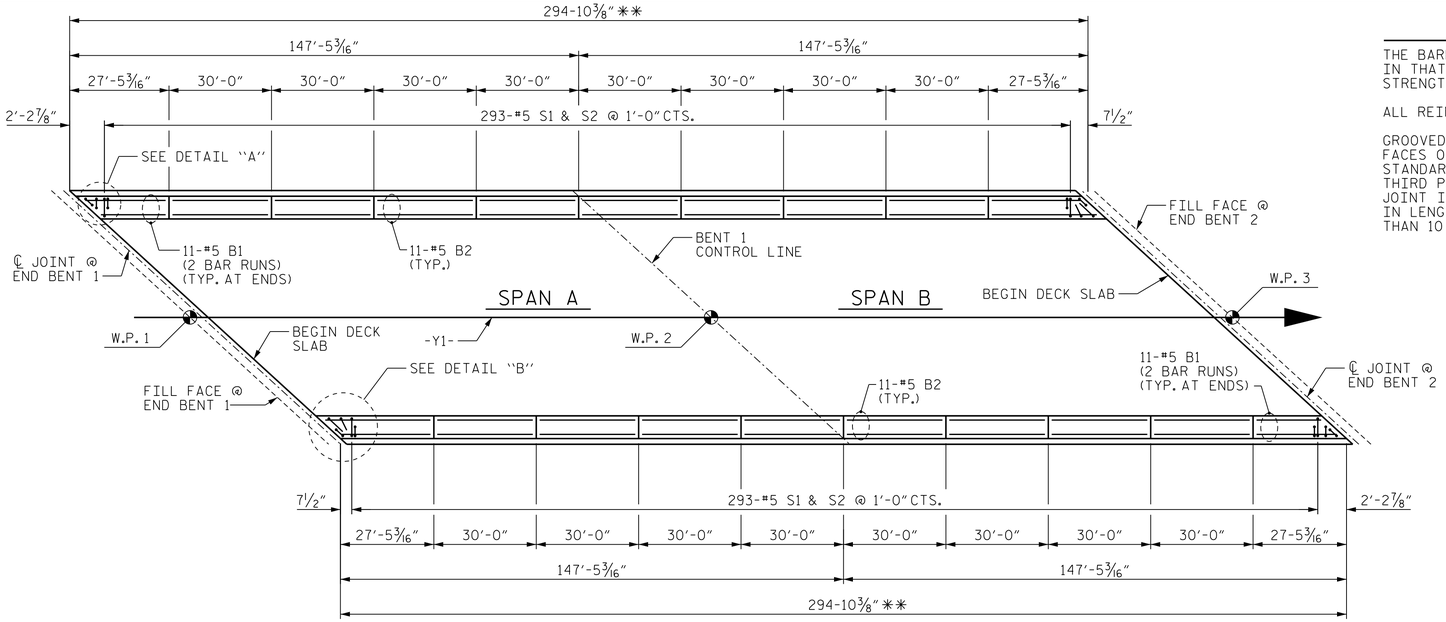
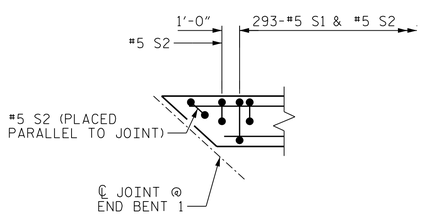
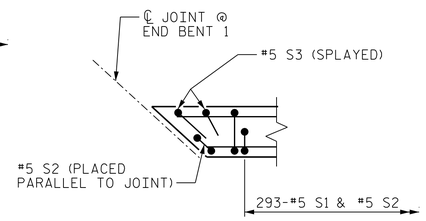


PLAN OF BARRIER RAIL



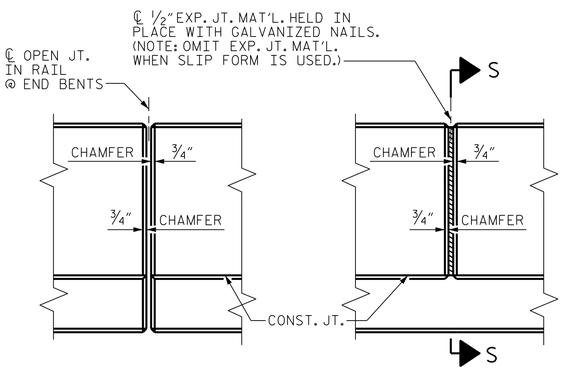
DETAIL "A"

END BENT 2 SIMILAR BY ROTATION

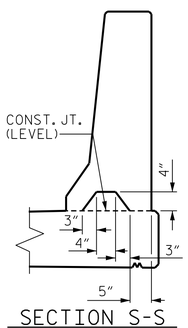


DETAIL "B"

END BENT 2 SIMILAR BY ROTATION



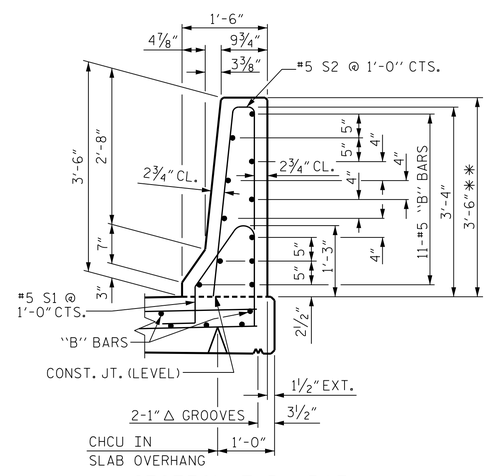
ELEVATION AT EXPANSION JOINTS



SECTION S-S

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

BARRIER RAIL DETAILS



SECTION THRU RAIL

NOTES

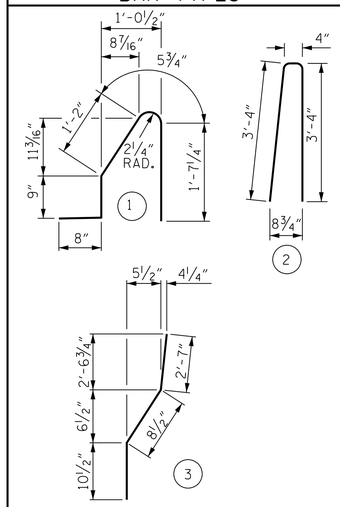
THE BARRIER RAIL IN EACH SPAN SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN THAT SPAN HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

GROOVED CONTRACTION JOINTS, ½" 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.

** SEE SPECIAL PROVISIONS FOR APPLICATION OF BRIDGE COATING.

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL

FOR CONCRETE BARRIER RAIL ONLY

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* B1	88	#5	STR	15'-3"	1400
* B2	176	#5	STR	29'-7"	5431
* S1	586	#5	1	4'-8"	2852
* S2	592	#5	2	7'-0"	4322
* S3	4	#5	3	4'-2"	17

* EPOXY COATED REINFORCING STEEL	14,022 LBS.
CLASS AA CONCRETE	80.1 CU. YDS.
CONCRETE BARRIER RAIL	
SUPERSTRUCTURE	589.73 LIN. FT.
⊛ APPROACH SLABS	43.28 LIN. FT.
TOTAL	633.01 LIN. FT.

⊛ FOR EPOXY COATED REINFORCING STEEL AND CLASS AA CONCRETE IN THE BARRIER RAIL ON THE APPROACH SLABS, SEE "BRIDGE APPROACH SLAB DETAILS" SHEET.

PROJECT NO. W-5107

JOHNSTON COUNTY

STATION: 33+45.98 -L-

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD

CONCRETE BARRIER RAIL

NORTH CAROLINA PROFESSIONAL SEAL 027799 ENGINEER ALLYSON K. ORR

11/26/2014

ASSEMBLED BY: J.S. ISRAELNAIM	DATE: 03/13
CHECKED BY : A.K. ORR	DATE: 10/14
DESIGN ENGINEER OF RECORD: A.K. ORR	DATE: 11/14
DRAWN BY : ARB 5/87	REV. 10/1/11 MAA/GM
CHECKED BY : SJD 9/87	REV. 7/12 MAA/GM
	REV. 6/13 MAA/GM

MI ENGINEERING
1011 SCHAUB DRIVE, SUITE 100
RALEIGH, NC 27606
(919) 851-6606
FIRM PE NUMBER : P-0671

REVISIONS							
NO.	BY:	DATE:	NO.	BY:	DATE:	SHEET NO.	
1			3			S-20	
2			4			TOTAL SHEETS	70

STD. NO. CBR1

11/25/2014
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