

NOTES

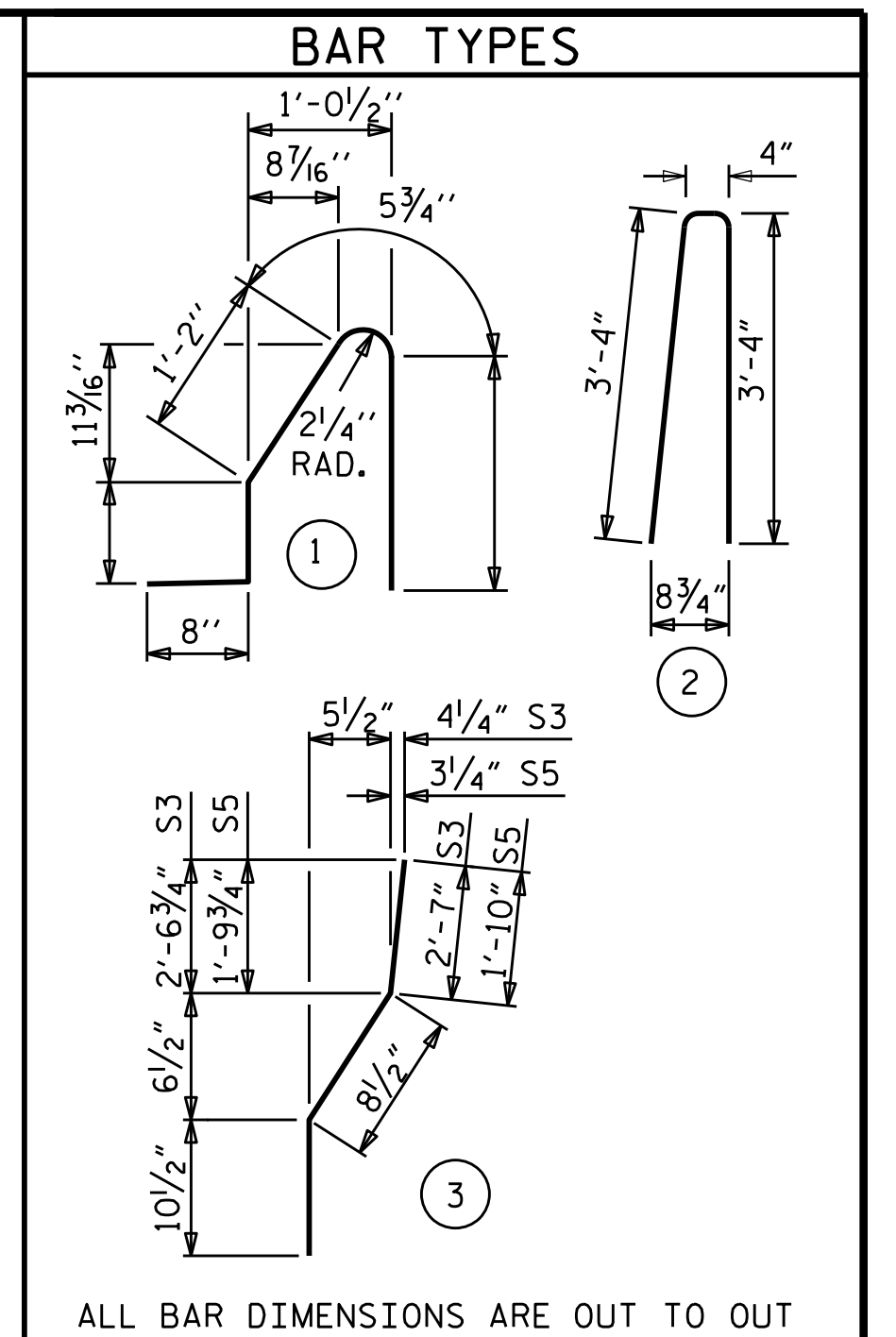
THE BARRIER RAIL IN EACH SPAN SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN THAT SPAN HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

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 #5 S3, S4, S5 AND S6 BARS SHALL BE INSTALLED, USING AN ADHESIVE ANCHORING SYSTEM, AFTER SAWING THE JOINT. THE YIELD LOAD FOR THE #5 S3, S4, S5 AND S6 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.

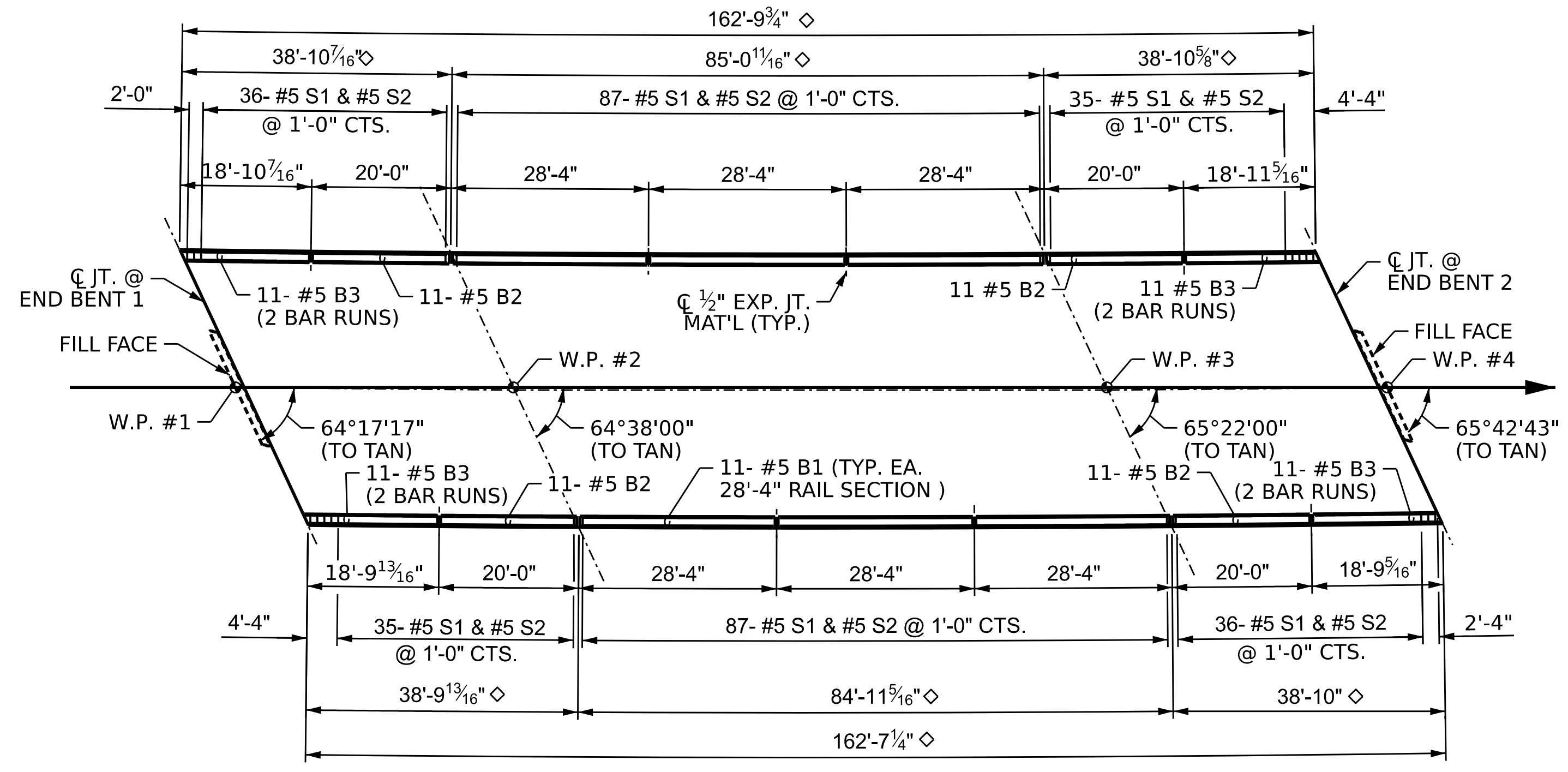


ALL BAR DIMENSIONS ARE OUT TO OUT

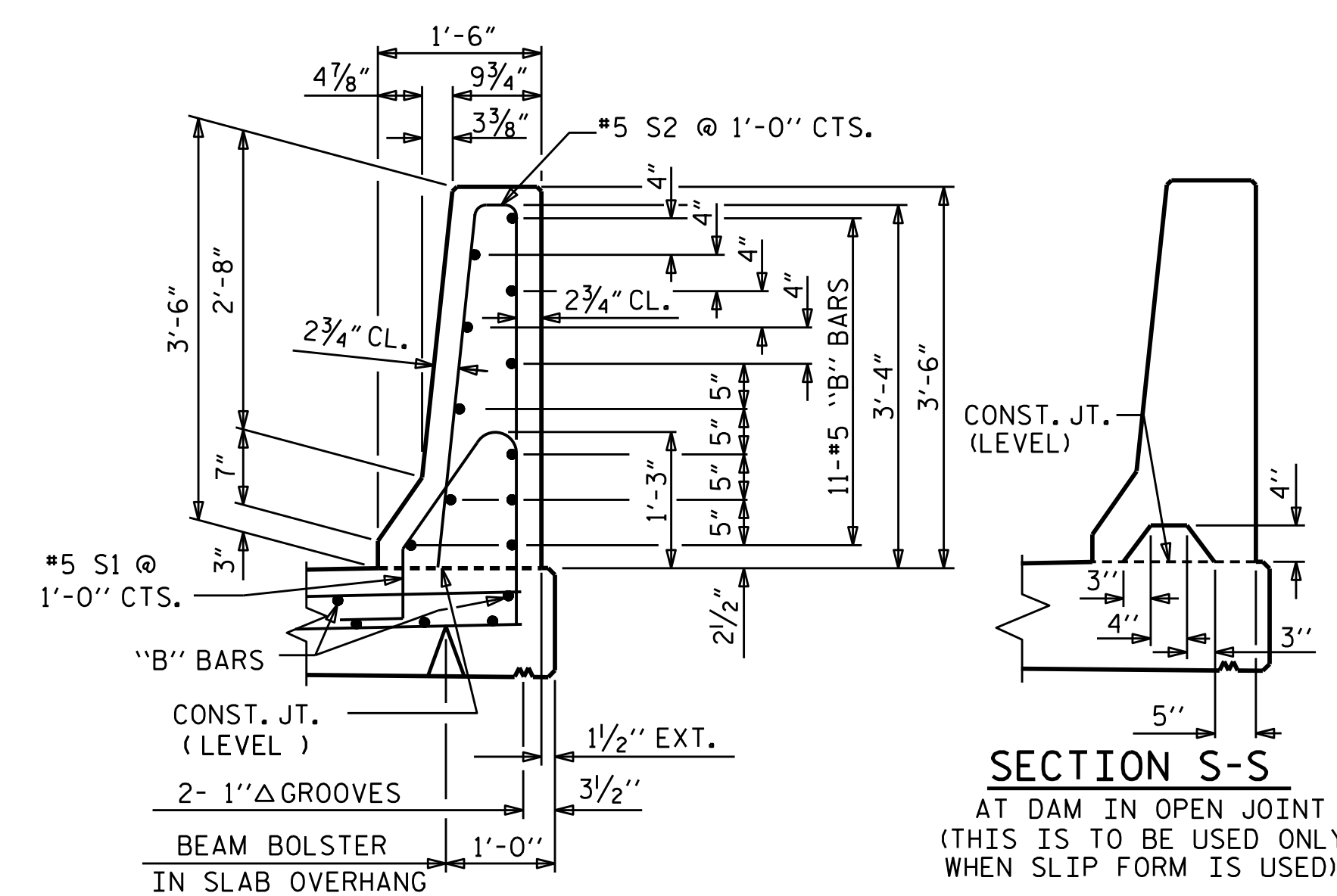
BILL OF MATERIAL

FOR CONCRETE BARRIER RAIL ONLY

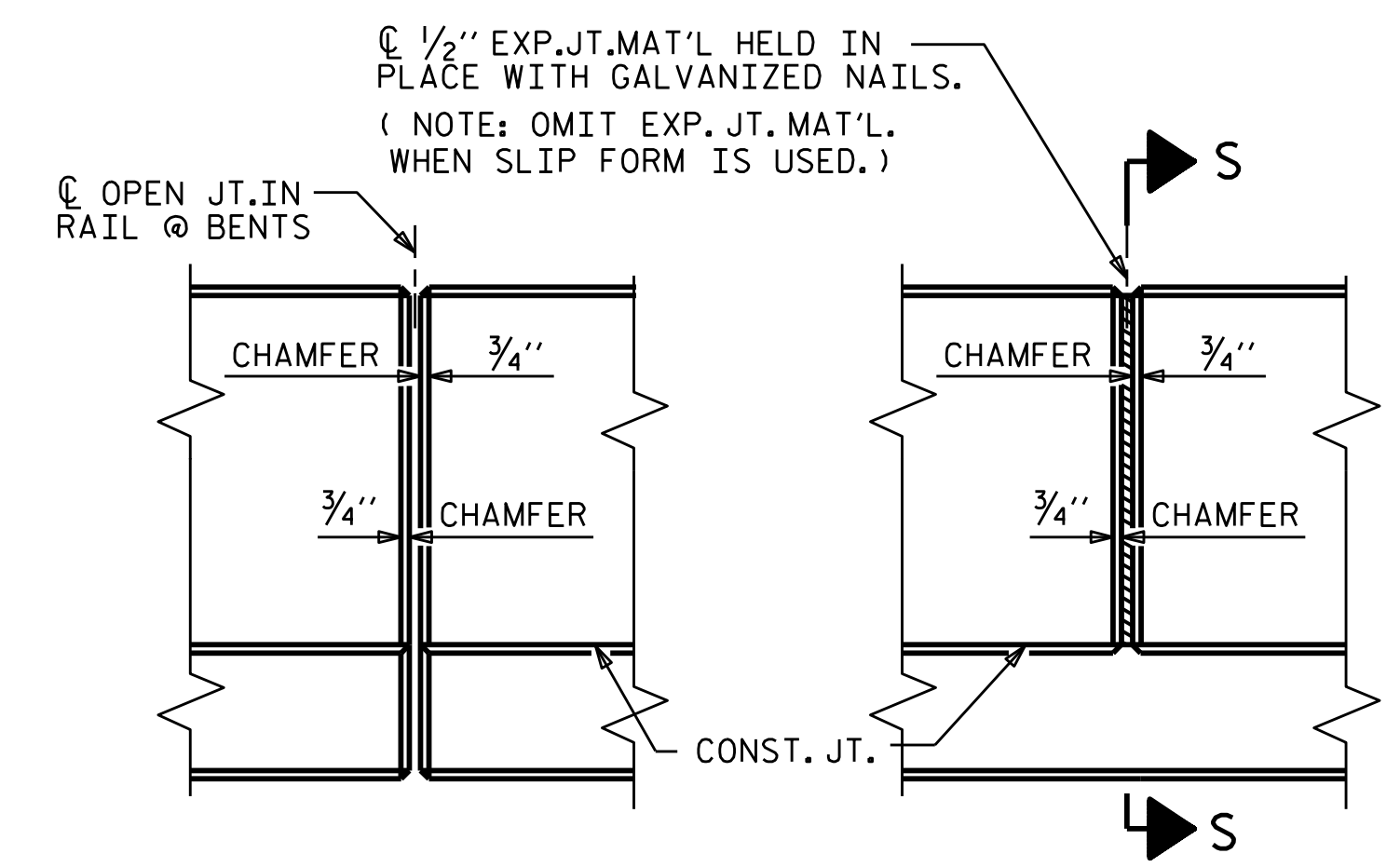
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* S1	316	#5	1	4'-8"	1538
* S2	316	#5	2	7'-0"	2307
* S3	4	#5	3	4'-2"	17
* S4	4	#5	STR	4'-0"	17
* S5	8	#5	3	3'-5"	29
* S6	8	#5	STR	3'-3"	27
* B1	66	#5	STR	27'-10"	1916
* B2	44	#5	STR	19'-7"	899
* B3	88	#5	STR	11'-1"	1017
* EPOXY COATED REINFORCING STEEL					7767 LBS.
CLASS AA CONCRETE					44.2 CU. YDS.
CONCRETE BARRIER RAIL					325.42 LIN. FT.



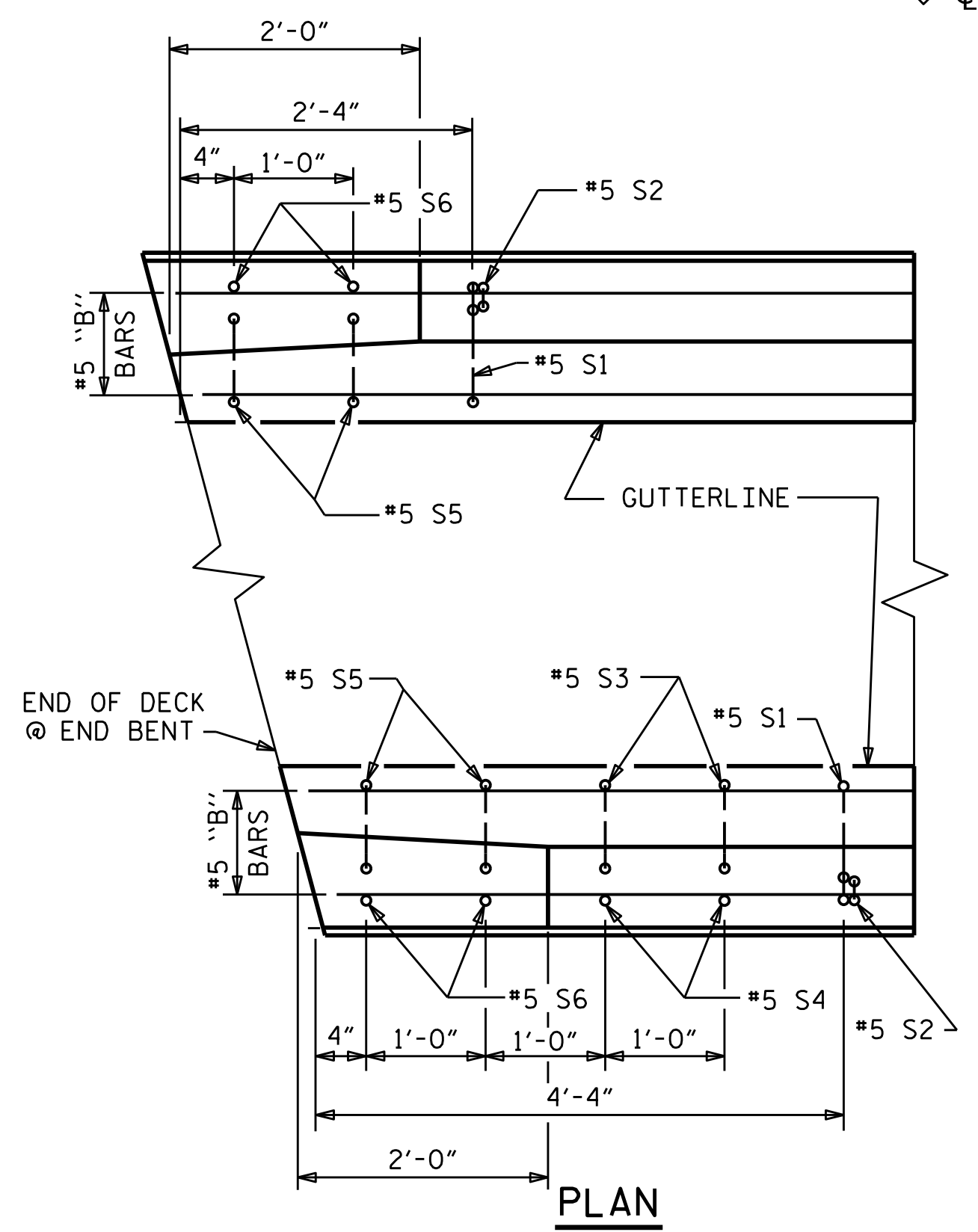
PLAN
ALL DIMENSIONS ARE ARC LENGTHS ALONG OUTSIDE EDGE OF DECK,
∅ C.J.T. TO C.J.T. ALONG OUTSIDE EDGE OF SUPERSTRUCTURE



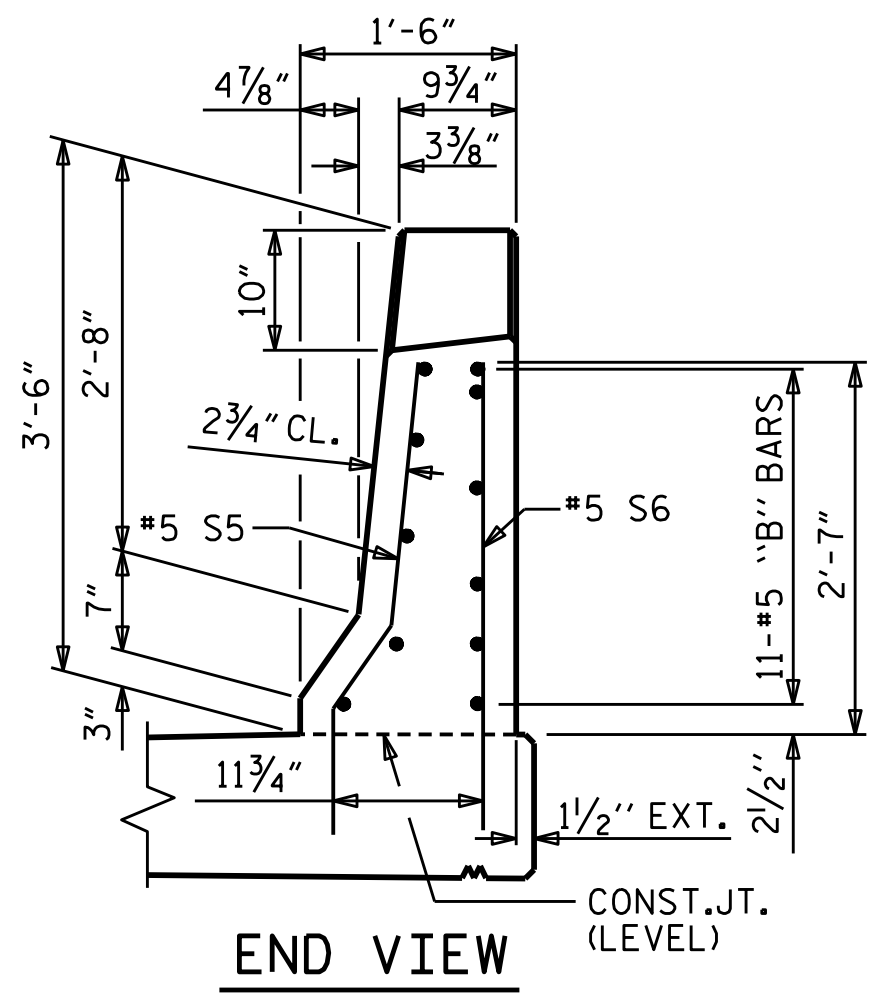
SECTION THRU RAIL



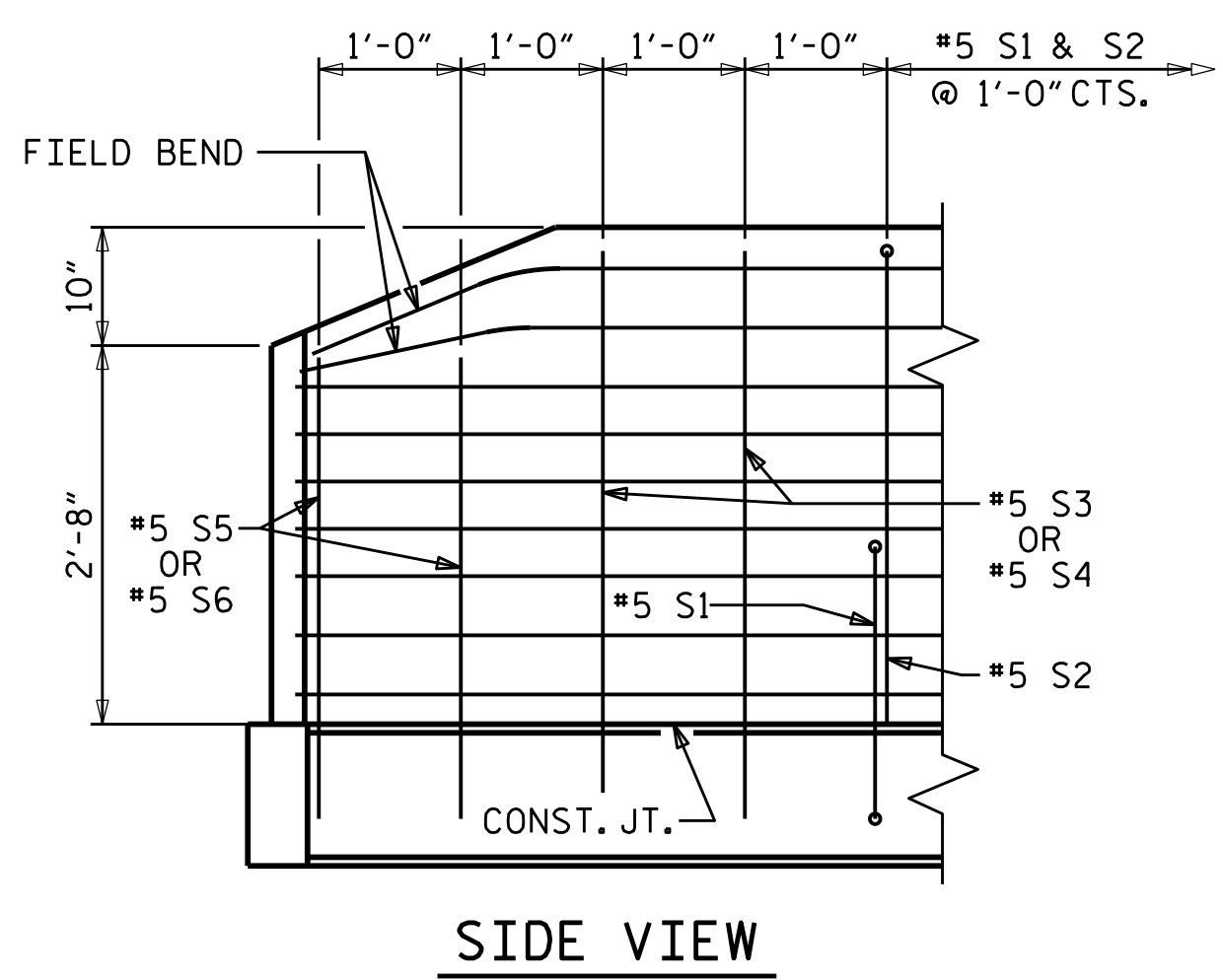
ELEVATION AT EXPANSION JOINTS
BARRIER RAIL DETAILS



PLAN



END VIEW

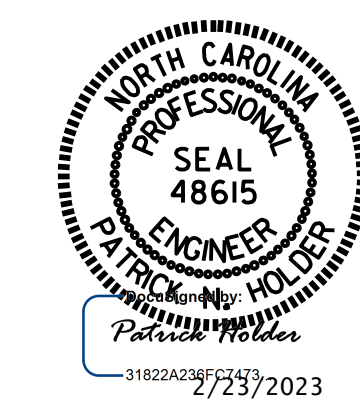


SIDE VIEW

END OF RAIL DETAILS
FOR ADHESIVE ANCHORING AT SAWS JOINTS

ASSEMBLED BY :	A. Y. WU	DATE :	10/22
CHECKED BY :	D. A. GLADDEN	DATE :	11/22
DRAWN BY :	ARB 5/87	MAA/GM	
CHECKED BY :	SJD 9/87	MAA/GM	
	REV. 7/12	MAA/THC	
	REV. 6/13		
	REV. 12/17		

VOLKERT
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NC License No. F-0765



DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

PROJECT NO. BR-0073
COLUMBUS COUNTY
STATION: 18+24.50 -L-

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
STANDARD CONCRETE BARRIER RAIL					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					SHEET NO. S-21
					TOTAL SHEETS 38