

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 SAWED PRIOR TO THE CASTING OF VERTICAL CONCRETE BARRIER RAIL.

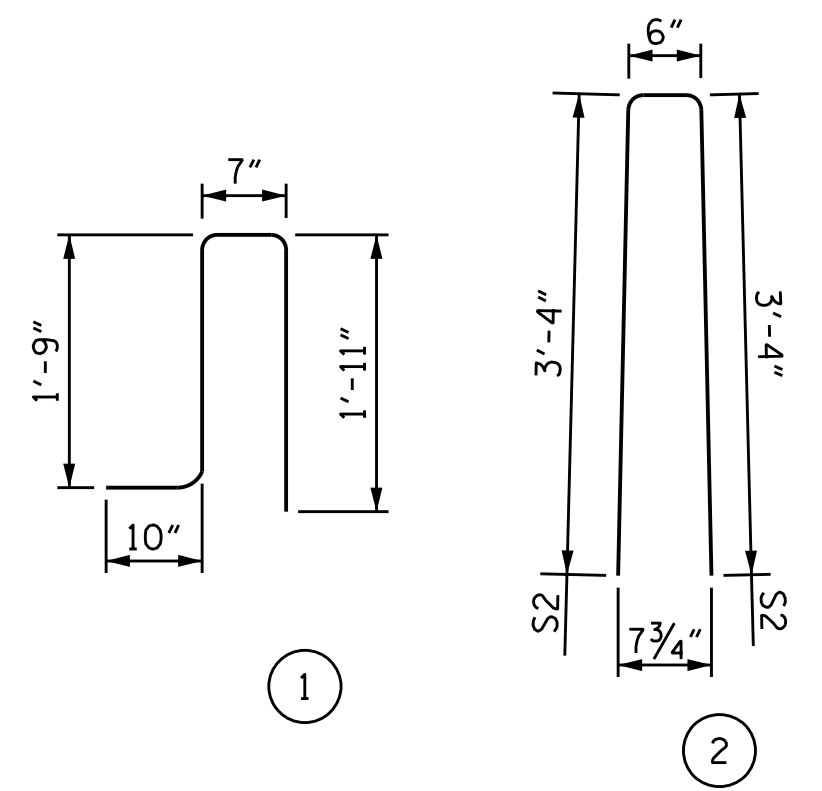
ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

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

VERTICAL CONCRETE BARRIER RAIL IS SUFFICIENT TO HANDLE THE FUTURE CHAIN LINK FENCE.

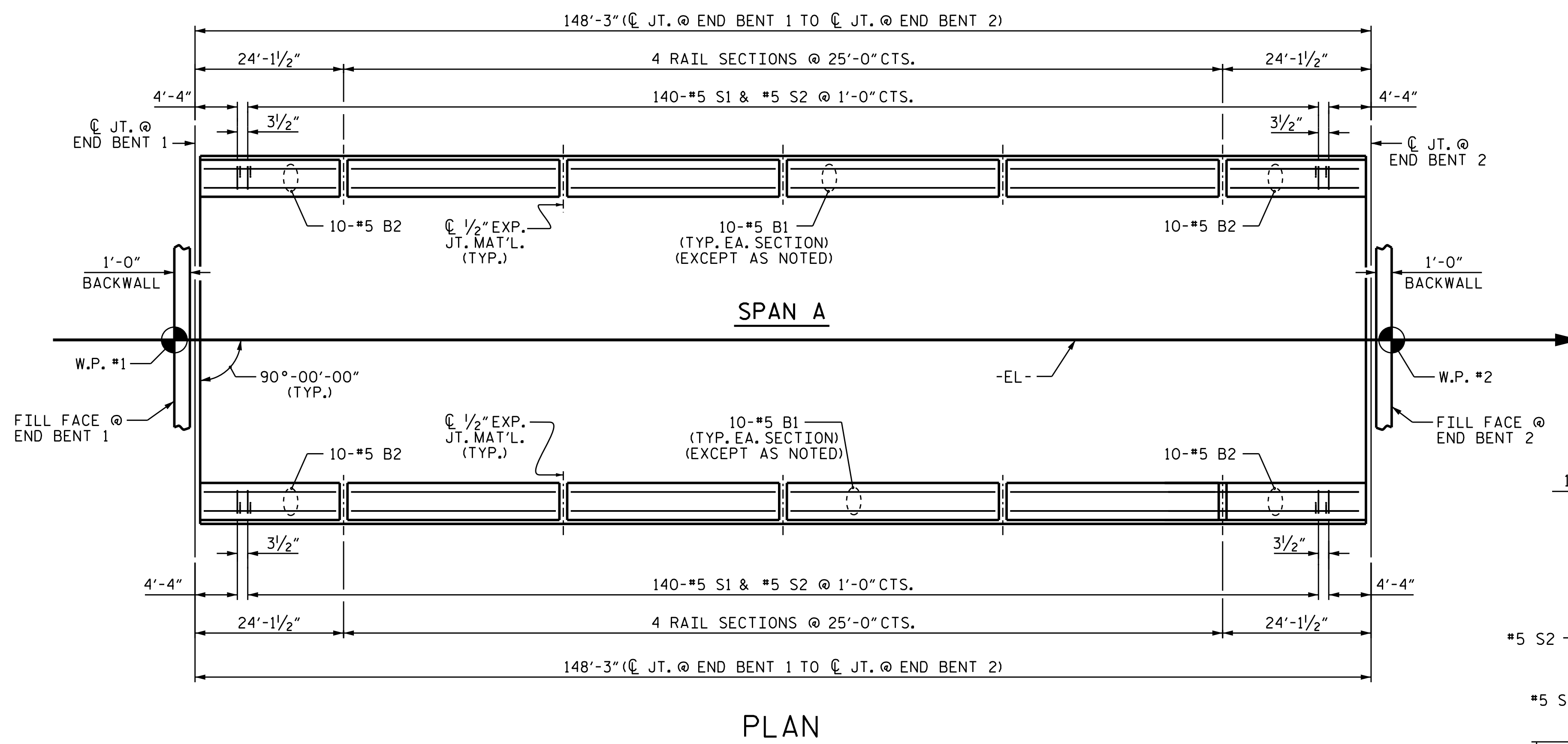
BAR TYPES



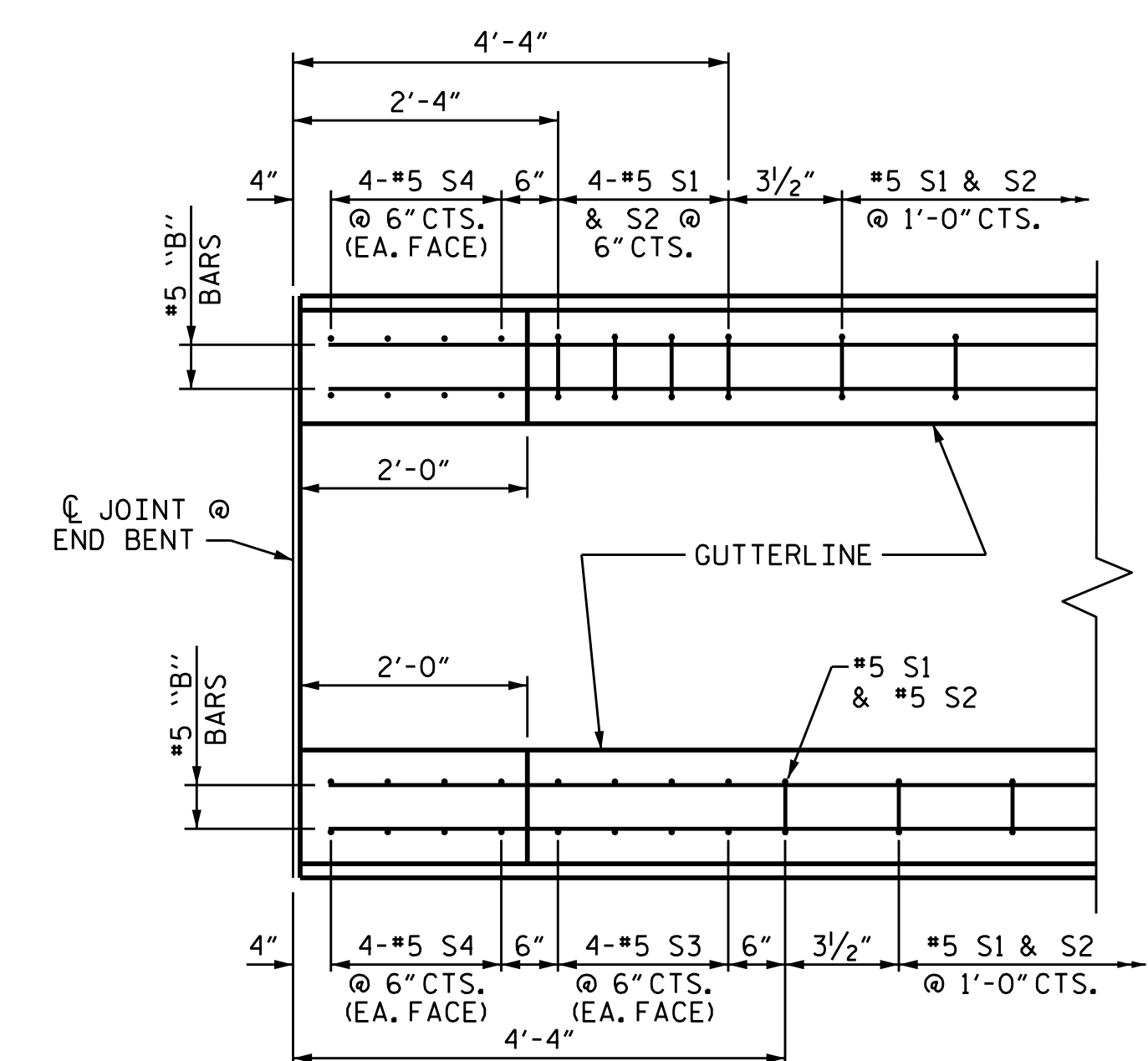
ALL BAR DIMENSIONS ARE OUT TO OUT

BILL OF MATERIAL

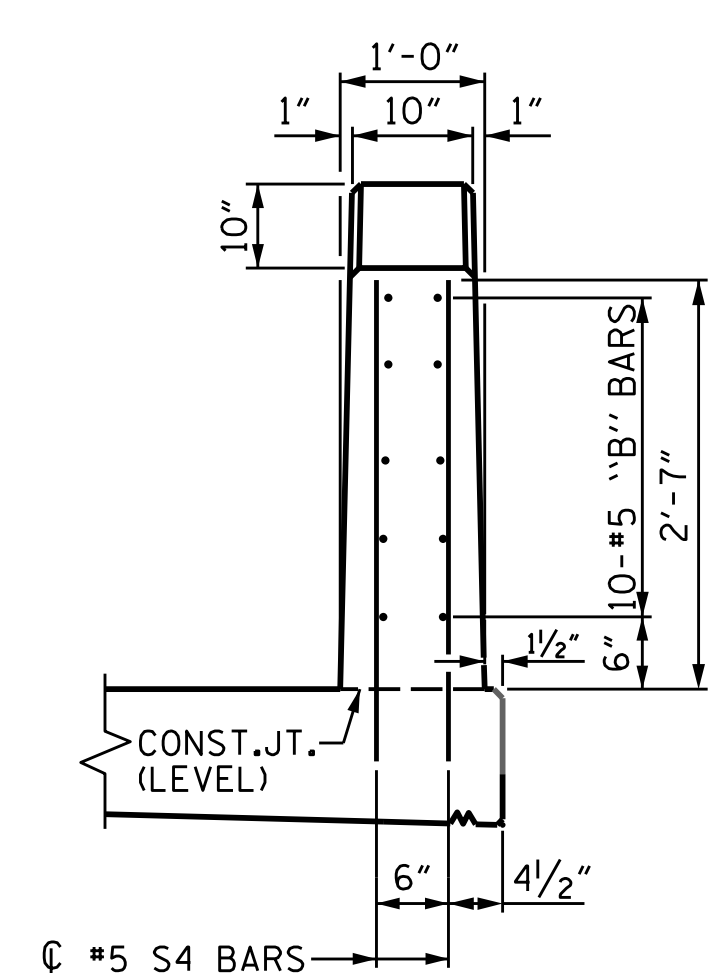
FOR VERTICAL CONCRETE BARRIER RAIL ONLY					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* B1	80	#5	STR	24'-7"	2051
* B2	40	#5	STR	23'-8"	987
* S1	288	#5	1	5'-1"	1527
* S2	288	#5	2	7'-2"	2153
* S3	16	#5	STR	4'-0"	67
* S4	32	#5	STR	3'-6"	117
* EPOXY COATED REINFORCING STEEL					6902 LBS.
CLASS AA CONCRETE					35.2 CU. YDS.
VERTICAL CONCRETE BARRIER RAIL					296.5 LIN. FT.



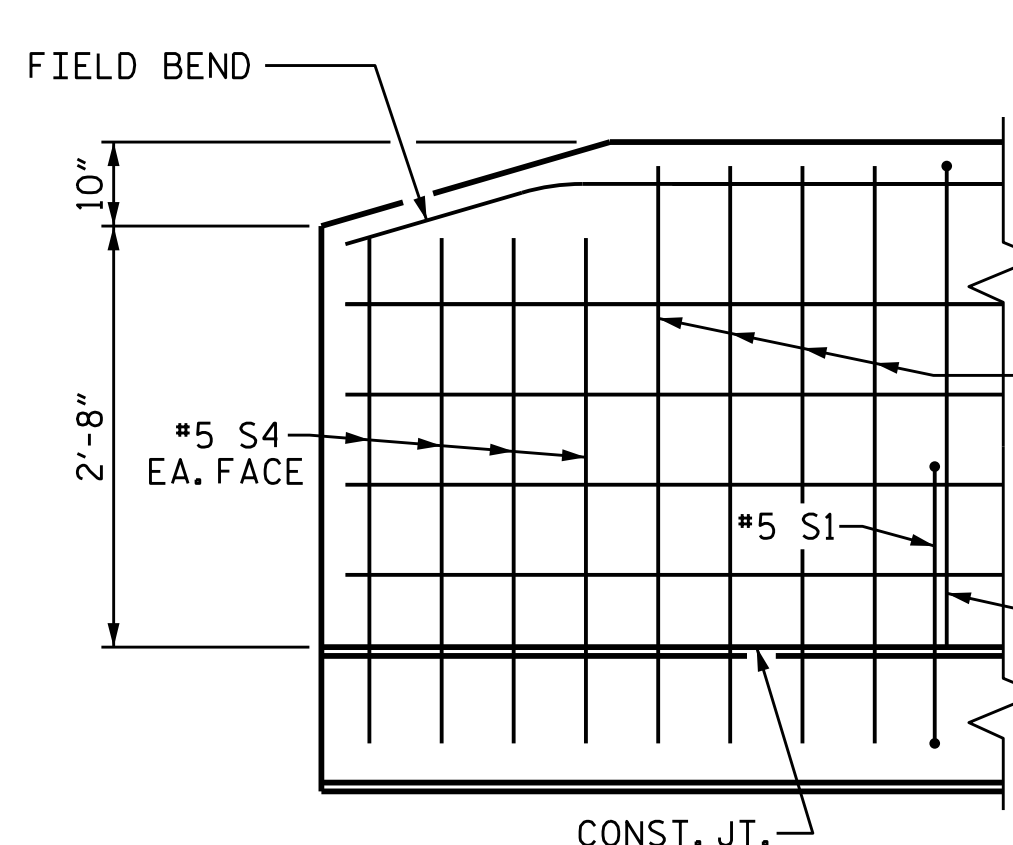
PLAN



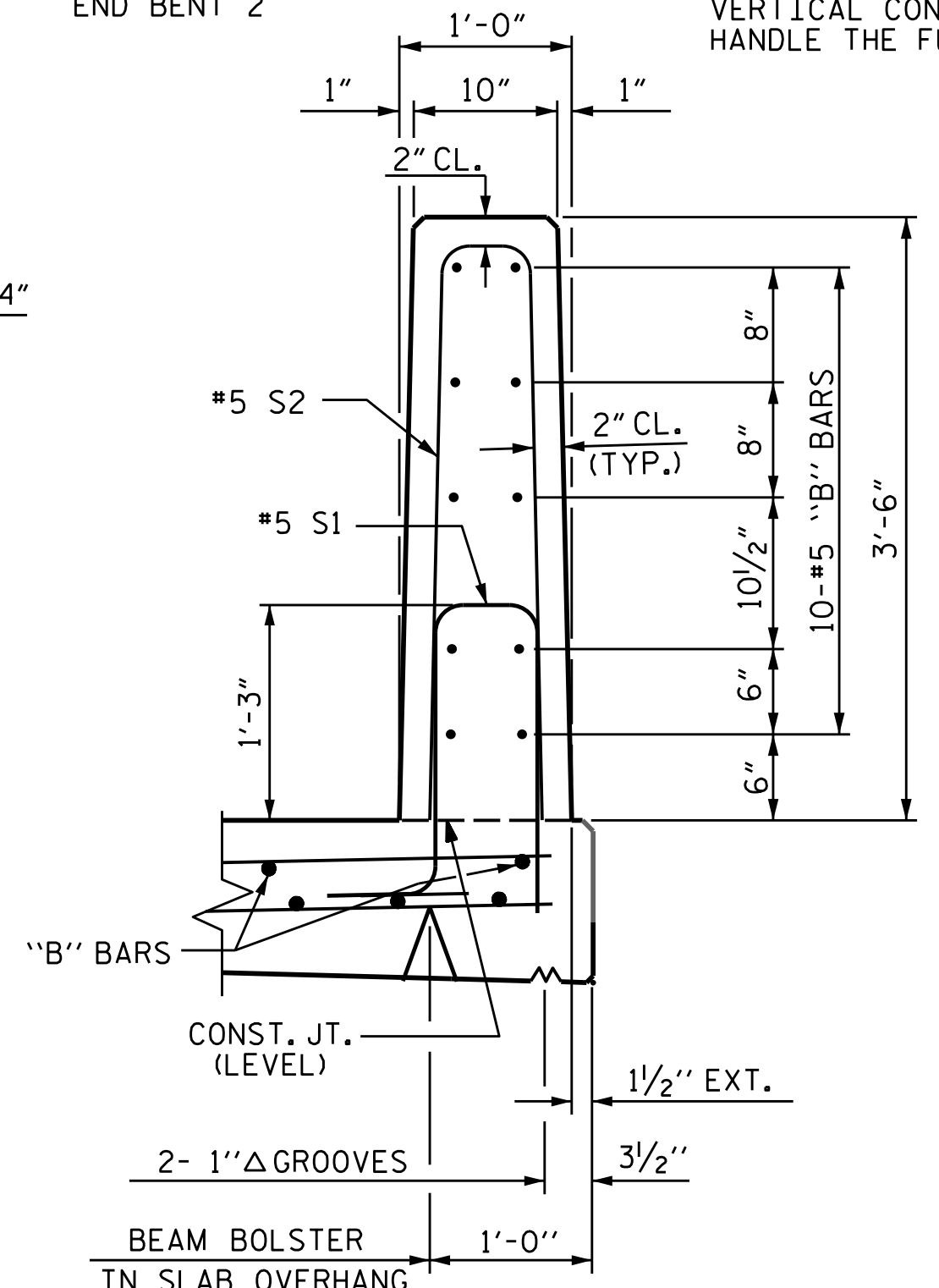
PLAN



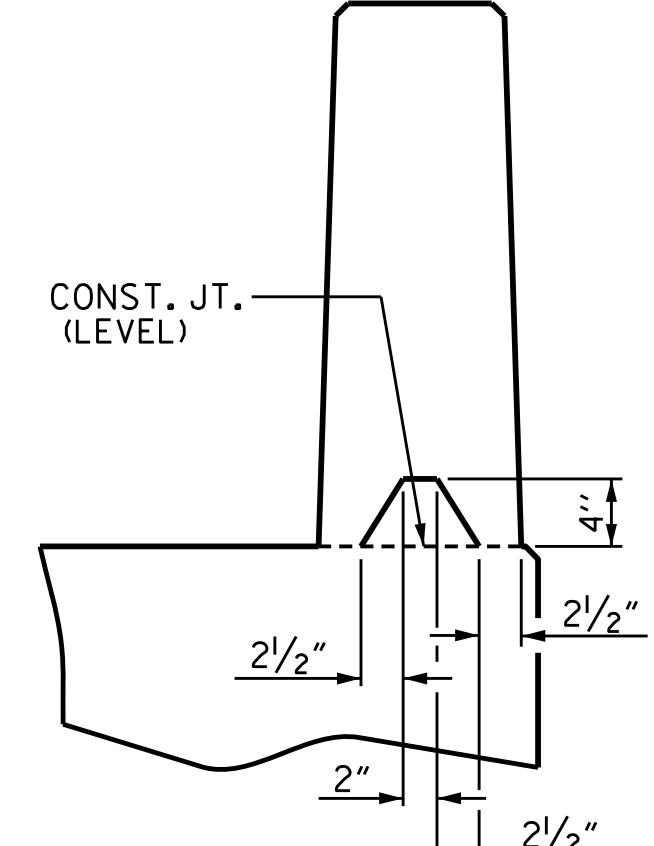
END VIEW



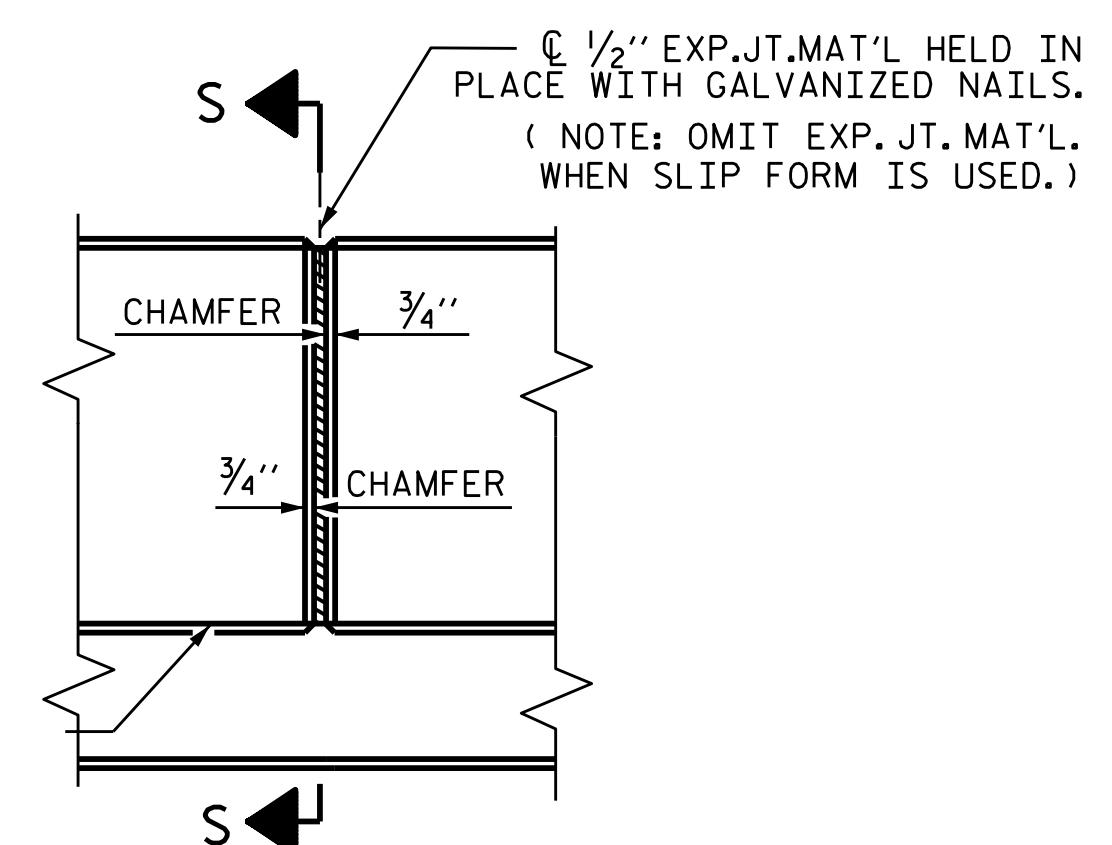
SIDE VIEW



SECTION THRU RAIL



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



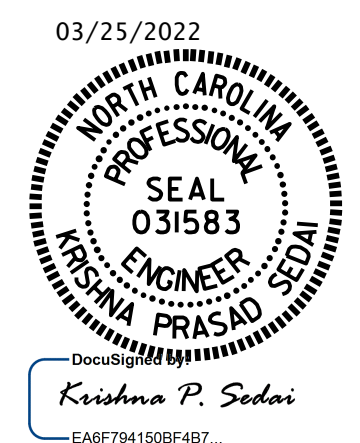
ELEVATION AT EXPANSION JOINTS

BARRIER RAIL DETAILS

DRAWN BY : M. G. SHAIKH DATE : 02/2021
 CHECKED BY : A. SORSENGINH DATE : 05/2021
 DESIGN ENGINEER OF RECORD: A. SORSENGINH DATE : 05/2021

3/25/2022
 I:\Structures\Final Plans OBD\401.029.B5772.SMU.BR.S14.790066.dgn
 ksedai

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED



PROJECT NO. B-5772
 ROWAN COUNTY
 STATION: 20+91.04 -EL-

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
VERTICAL CONCRETE BARRIER RAIL					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

SHEET NO. S-14
TOTAL SHEETS 25

STD. NO. CBR2 (SHT 1)