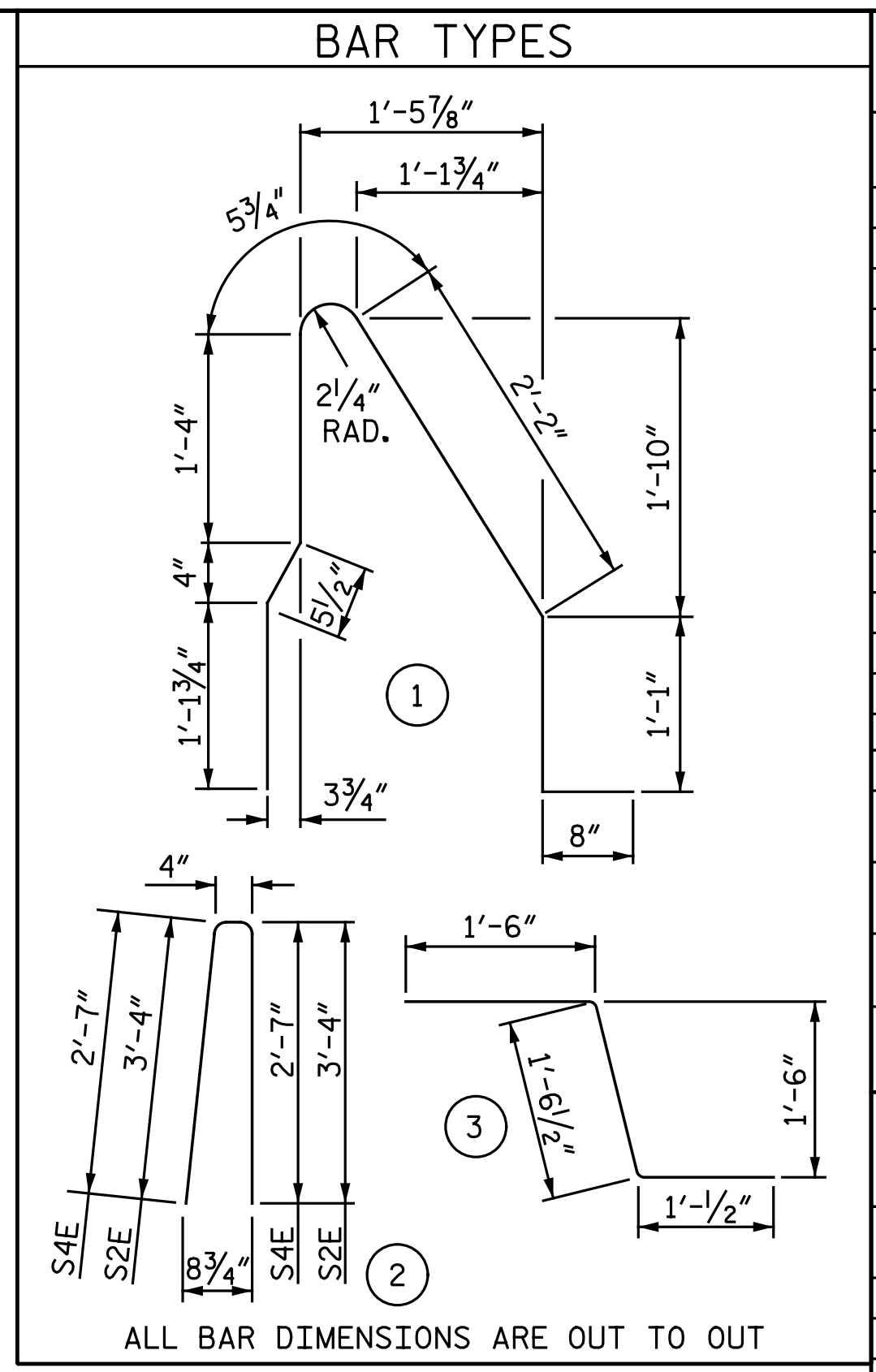


CONCRETE BARRIER RAIL WITH MOMENT SLAB

* NOTCH NOT PRESENT IN AREA ABOVE END BENT BACKWALL

NOTES:
 FOR CONCRETE BARRIER RAIL WITH MOMENT SLAB, SEE CONCRETE BARRIER RAIL WITH MOMENT SLAB PROVISION.
 CONCRETE BARRIER RAIL WITH MOMENT SLAB SHALL BE A MINIMUM OF 15' IN LENGTH.
 EXPANSION JOINTS SHALL BE PLACED IN THE BARRIER RAIL AND MOMENT SLAB AS SHOWN ON "CONCRETE BARRIER RAIL WITH MOMENT SLAB", SHEETS 1 OF 3 AND 2 OF 3.
 GROOVED CONTRACTION JOINTS, 1/2" IN DEPTH, SHALL BE TOOLED IN ALL EXPOSED SURFACES OF THE BARRIER RAIL AND IN ACCORDANCE WITH ARTICLE 825-10(B) OF THE STANDARD SPECIFICATIONS. A CONTRACTION JOINT SHALL BE LOCATED AT EACH THIRD POINT BETWEEN BARRIER RAIL EXPANSION JOINTS. ONLY ONE CONTRACTION JOINT IS REQUIRED AT MID-POINT OF BARRIER RAIL SEGMENTS LESS THAN 20' IN LENGTH.
 THE BARRIER RAIL SHALL NOT BE CAST UNTIL THE MOMENT SLAB HAS ATTAINED AN AGE OF THREE CURING DAYS OR A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI. IN ADDITION, NO FILL MATERIAL, ASPHALT, OR CONSTRUCTION EQUIPMENT IS ALLOWED ON THE MOMENT SLAB PRIOR TO SATISFYING THE MINIMUM CONCRETE CURING AND STRENGTH REQUIREMENTS.
 ALL REINFORCING STEEL IN THE BARRIER RAIL SHALL BE EPOXY COATED.
 IF EXISTING OR FUTURE OBSTRUCTIONS SUCH AS FOUNDATIONS, BARRIERS, PIPES, INLETS OR UTILITIES WILL INTERFERE WITH CONCRETE BARRIER RAIL WITH MOMENT SLAB OR CONCRETE FACING FOR RETAINING WALL WILL BE THICKER THAN 8", CONCRETE BARRIER RAIL WITH MOMENT SLAB DETAILS SHALL BE REVISED AND SUBMITTED FOR APPROVAL.
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A BLOCK OUT IN THE MOMENT SLAB TO ACCOMMODATE INSTALLATION OF THE EXPANSION JOINT ASSEMBLY. SEE "BLOCK OUT" DETAIL FOR GENERAL REQUIREMENTS.

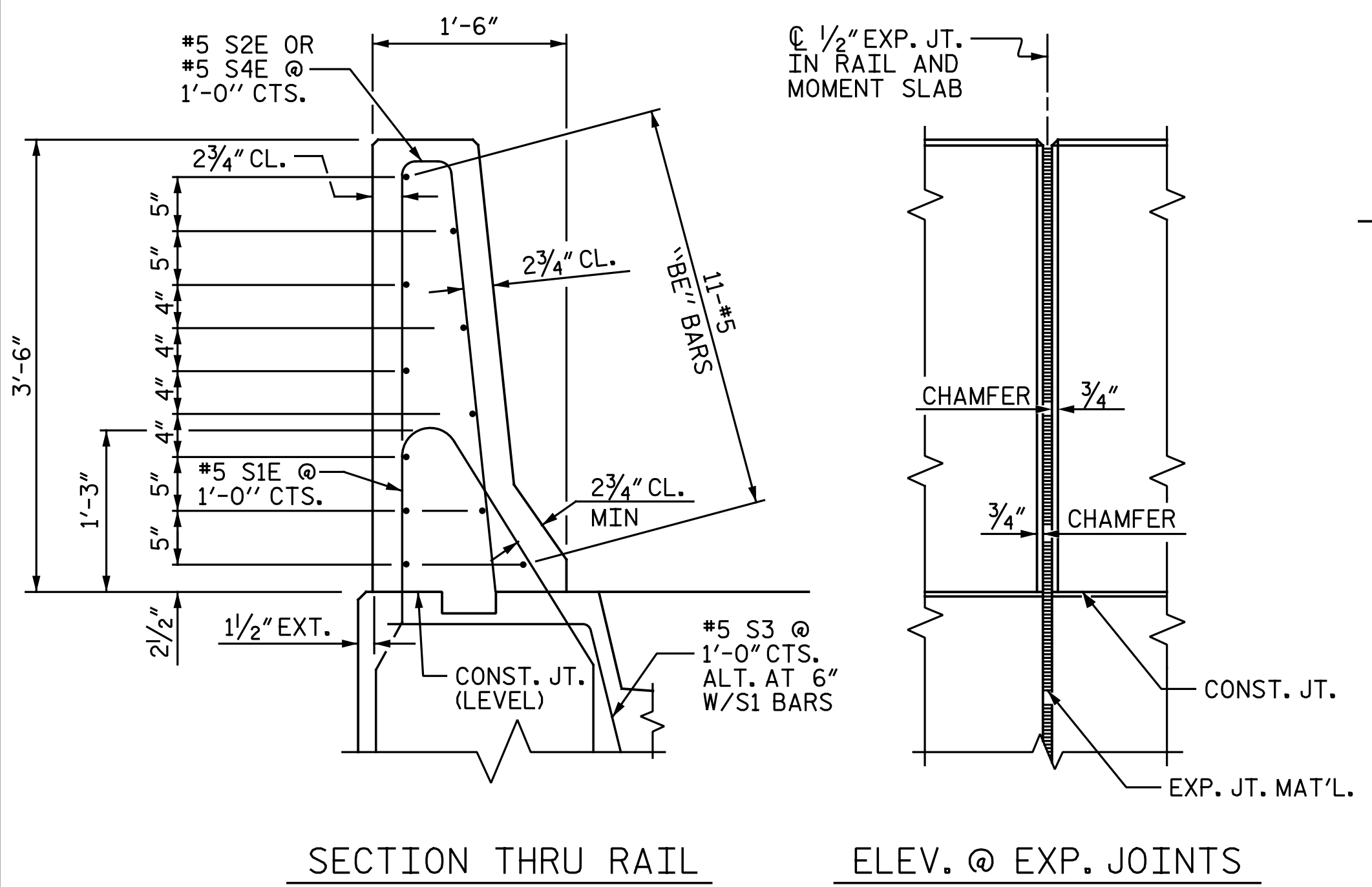


**BILL OF MATERIAL
END BENT 1**

CONC. BARRIER RAIL WITH MOMENT SLAB					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	28	#4	STR	14'-3"	267
B2	140	#4	STR	26'-7"	2,486
B3E	121	#5	STR	26'-7"	3,355
G1	297	#5	STR	4'-4"	1,342
G2	297	#4	STR	4'-4"	860
S1E	297	#5	1	7'-3"	2,246
S2E	295	#5	2	7'-0"	2,154
S3	286	#5	3	4'-1"	1,218
S4E	2	#5	2	5'-6"	11
REINFORCING STEEL				LBS.	6,173
EPOXY COATED REINFORCING STEEL				LBS.	7,766
CLASS AA CONCRETE BARRIER RAIL				C.Y.	41.0
CLASS A CONCRETE MOMENT SLAB				C.Y.	89.9
CONCRETE BARRIER RAIL WITH MOMENT SLAB				LIN. FT.	297.0

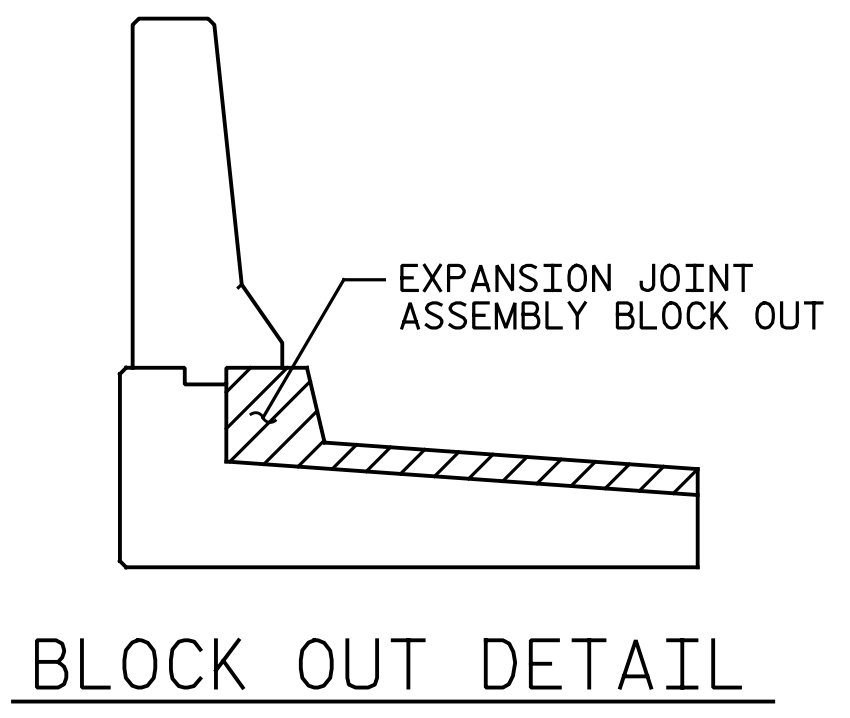
**BILL OF MATERIAL
END BENT 2**

CONC. BARRIER RAIL WITH MOMENT SLAB					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	14	#4	STR	27'-4"	256
B2	70	#4	STR	27'-0"	1,263
B3E	11	#5	STR	27'-4"	314
B4E	55	#5	STR	27'-0"	1,549
G1	168	#5	STR	4'-4"	759
G2	168	#4	STR	4'-4"	486
S1E	168	#5	1	7'-3"	1,270
S2E	168	#5	2	7'-0"	1,227
S3	162	#5	3	4'-1"	690
REINFORCING STEEL				LBS.	3,454
EPOXY COATED REINFORCING STEEL				LBS.	4,360
CLASS AA CONCRETE BARRIER RAIL				C.Y.	22.8
CLASS A CONCRETE MOMENT SLAB				C.Y.	49.9
CONCRETE BARRIER RAIL WITH MOMENT SLAB				LIN. FT.	164.8

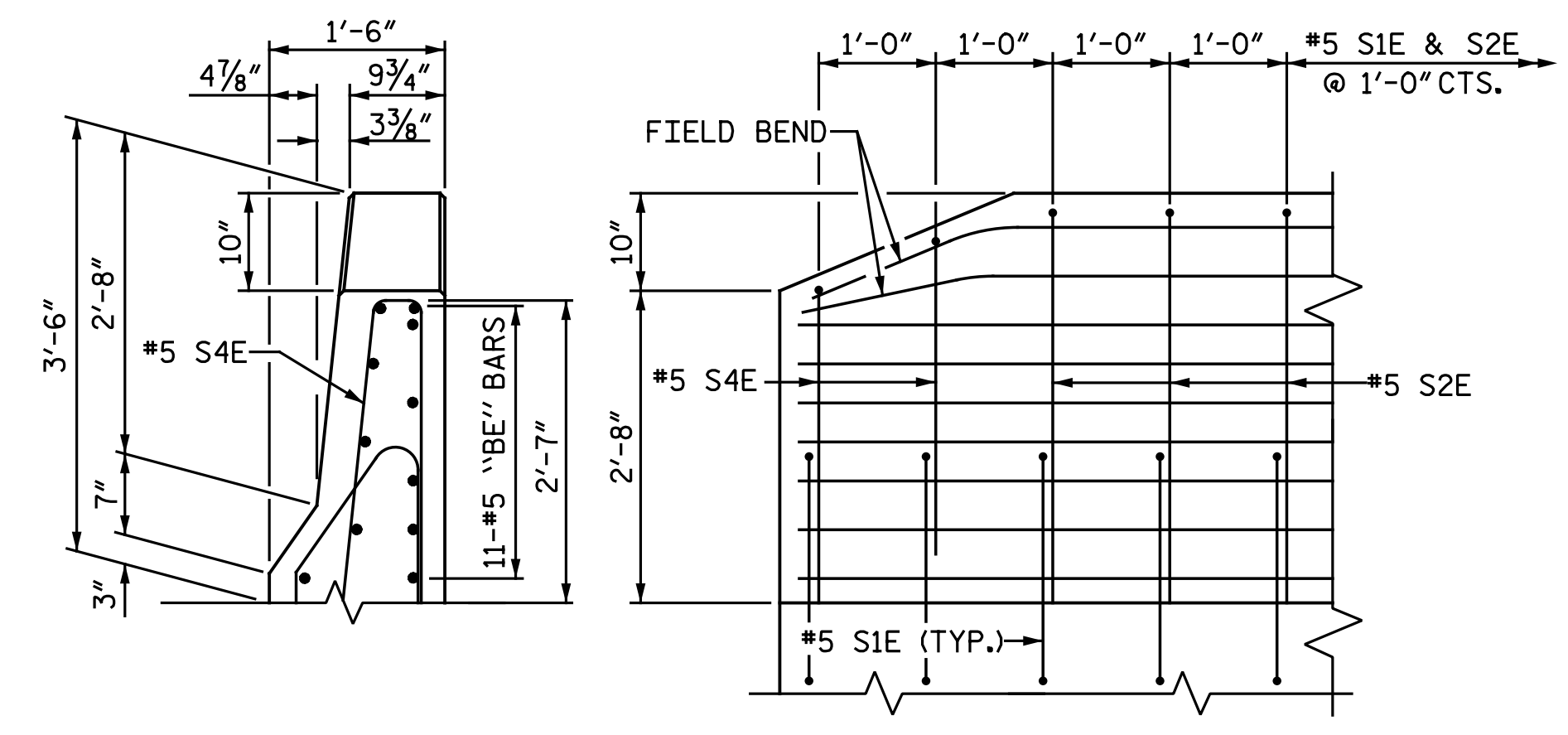


SECTION THRU RAIL
BARRIER RAIL DETAILS

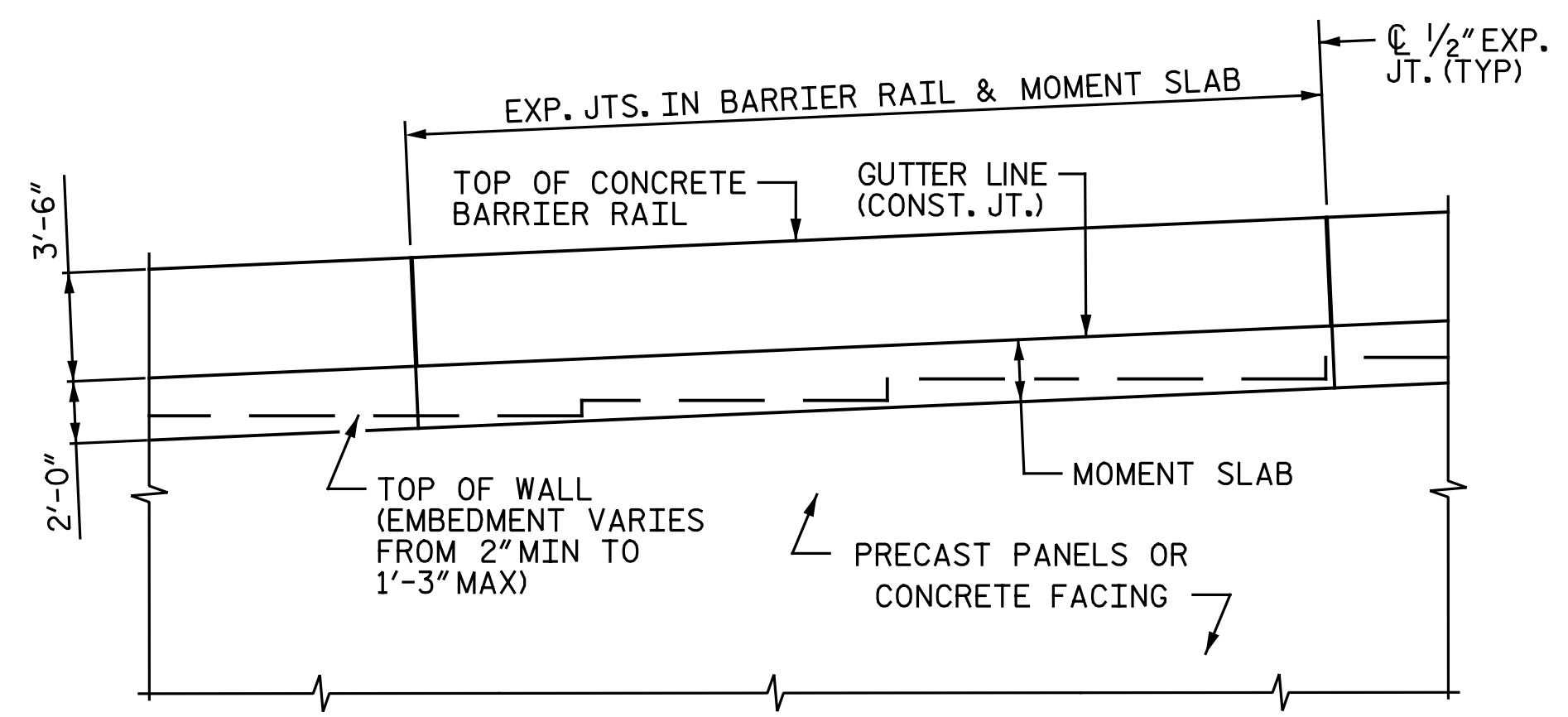
ELEV. @ EXP. JOINTS



BLOCK OUT DETAIL



END VIEW
SIDE VIEW
END OF RAIL DETAILS



CONCRETE BARRIER RAIL WITH MOMENT SLAB - PARTIAL ELEVATION

CONCRETE BARRIER RAIL WITH MOMENT SLAB
 PAY LENGTH = 461.8 LIN FT

PROJECT NO. U-2524D
 GUILFORD COUNTY
 STATION: 495+22.00 -LREV-
 SHEET 3 OF 3

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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7/18/2016

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

CONCRETE BARRIER RAIL WITH MOMENT SLAB

RIGHT LANES

REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

SHEET NO. S4-35			
TOTAL SHEETS 35			

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DRAWN BY: N. B. SPEAKS DATE: 3-25-16
 CHECKED BY: B. J. BELL DATE: 3-29-16