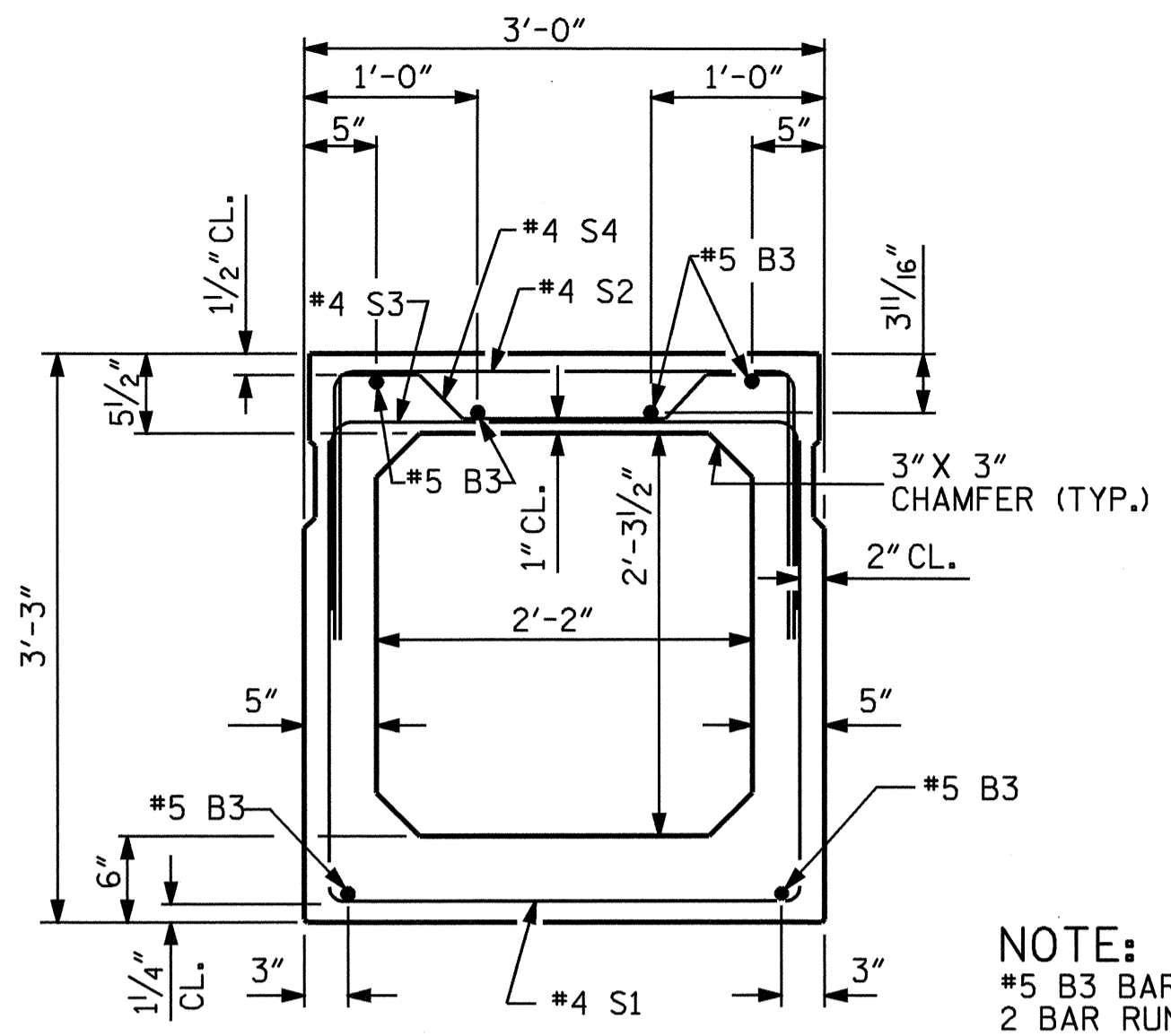
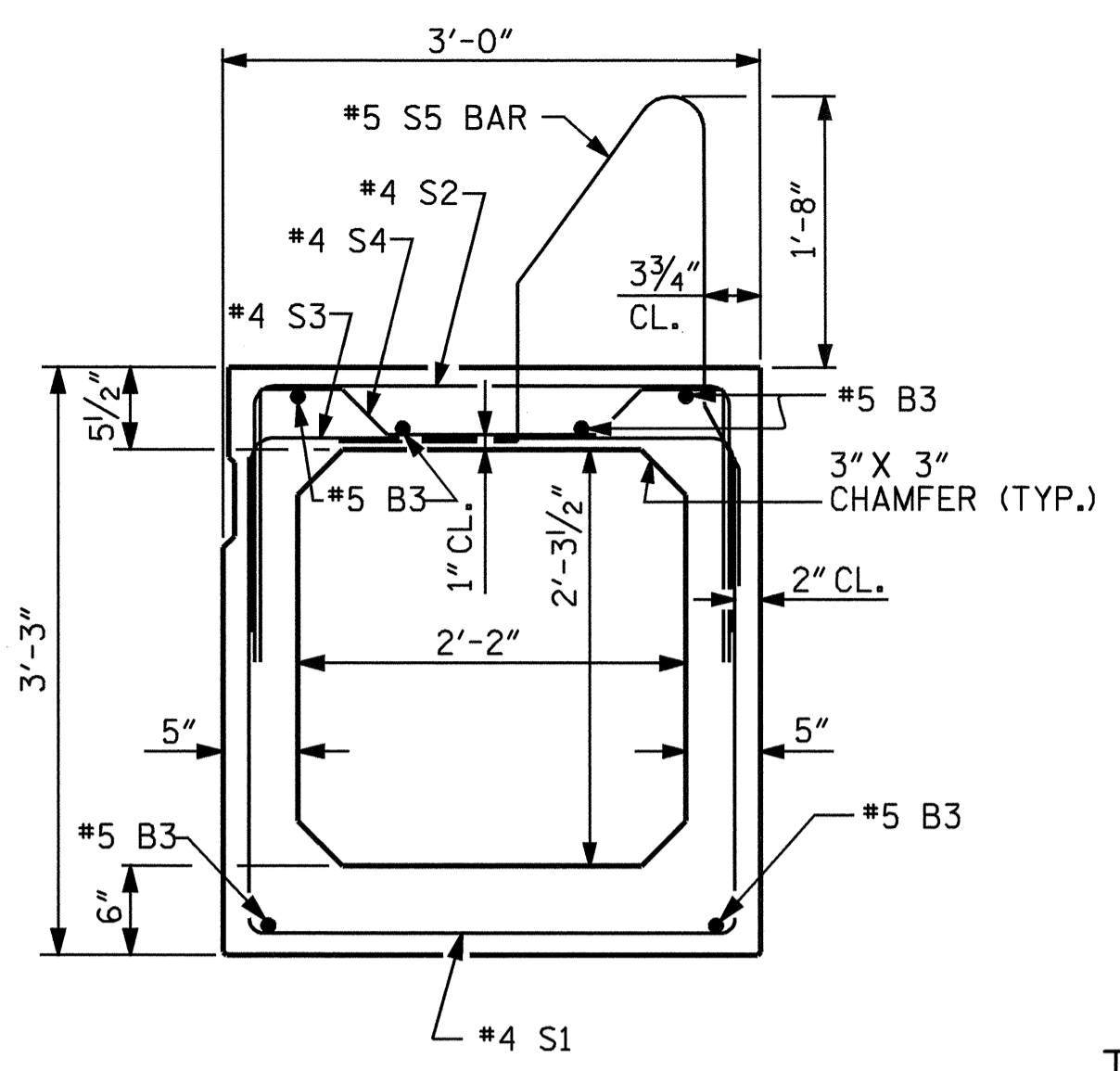


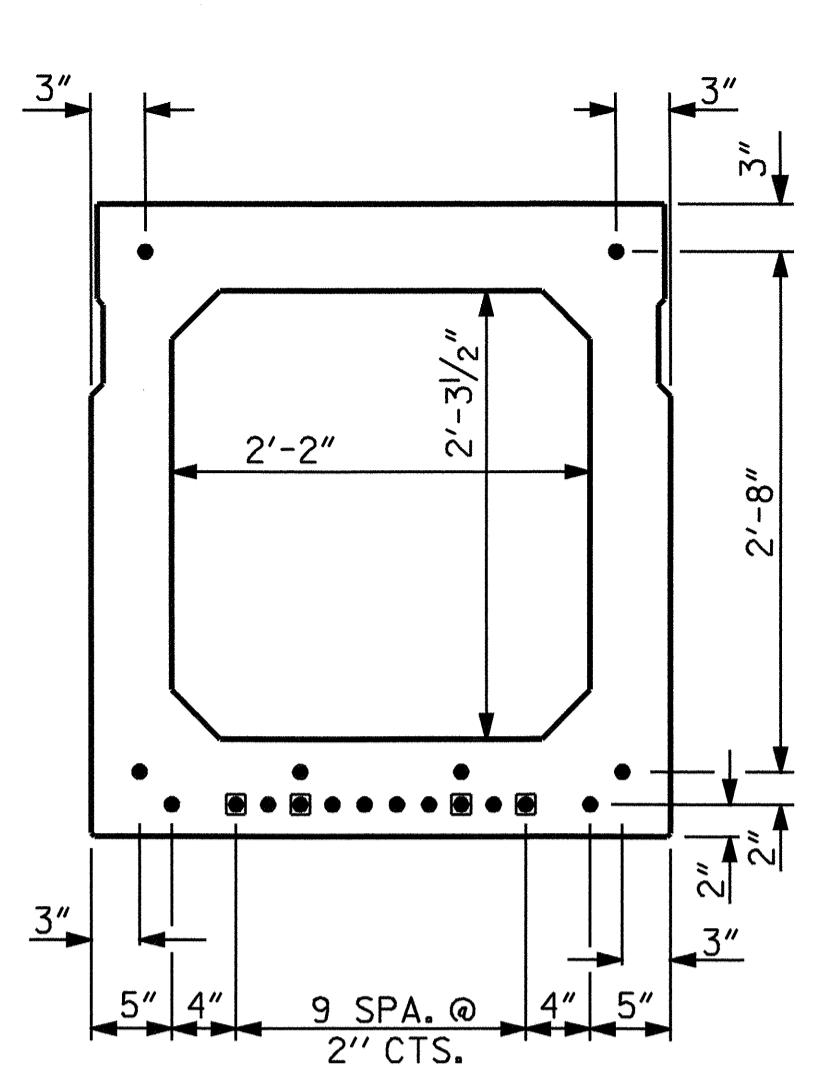
END ELEVATION
SHOWING PLACEMENT OF #5 & #4 "A" BARS AND LOCATION OF DOWEL HOLES.
(INTERIOR BOX BEAM SECTION SHOWN-EXTERIOR SECTION SIMILAR EXCEPT SHEAR KEY LOCATION. STRAND LAYOUT NOT SHOWN.)



INTERIOR BOX BEAM SECTION
(STRAND LAYOUT NOT SHOWN)



EXTERIOR BOX BEAM SECTION
(STRAND LAYOUT NOT SHOWN)



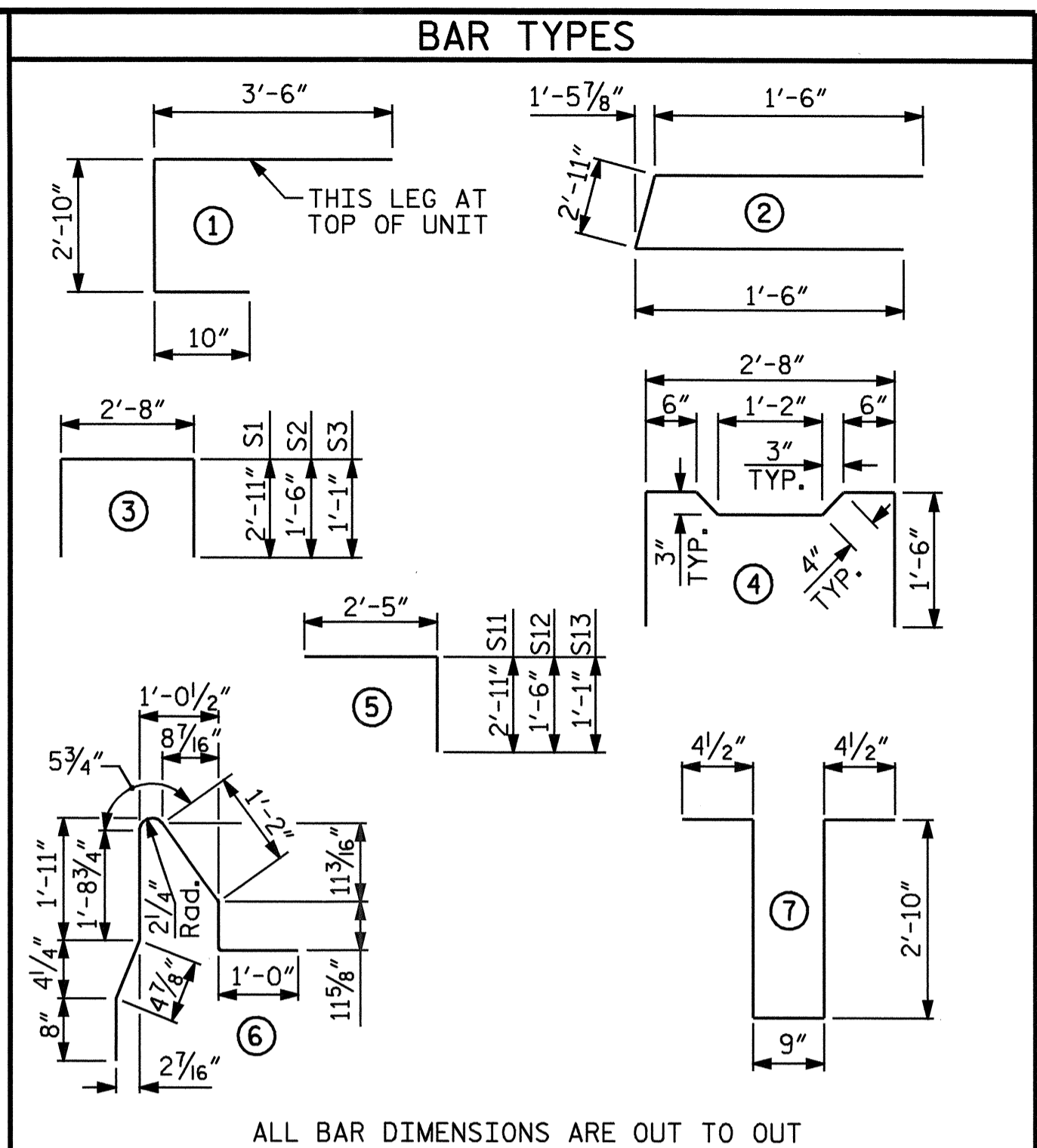
TYPICAL STRAND LOCATION
(18 STRANDS REQUIRED)
(INTERIOR BOX BEAM SECTION SHOWN-EXTERIOR SECTION SIMILAR EXCEPT SHEAR KEY LOCATION)

DEBONDING LEGEND

- FULLY BONDED STRANDS
- ◐ STRANDS DEBONDED FOR 4'-0" FROM END OF GIRDER

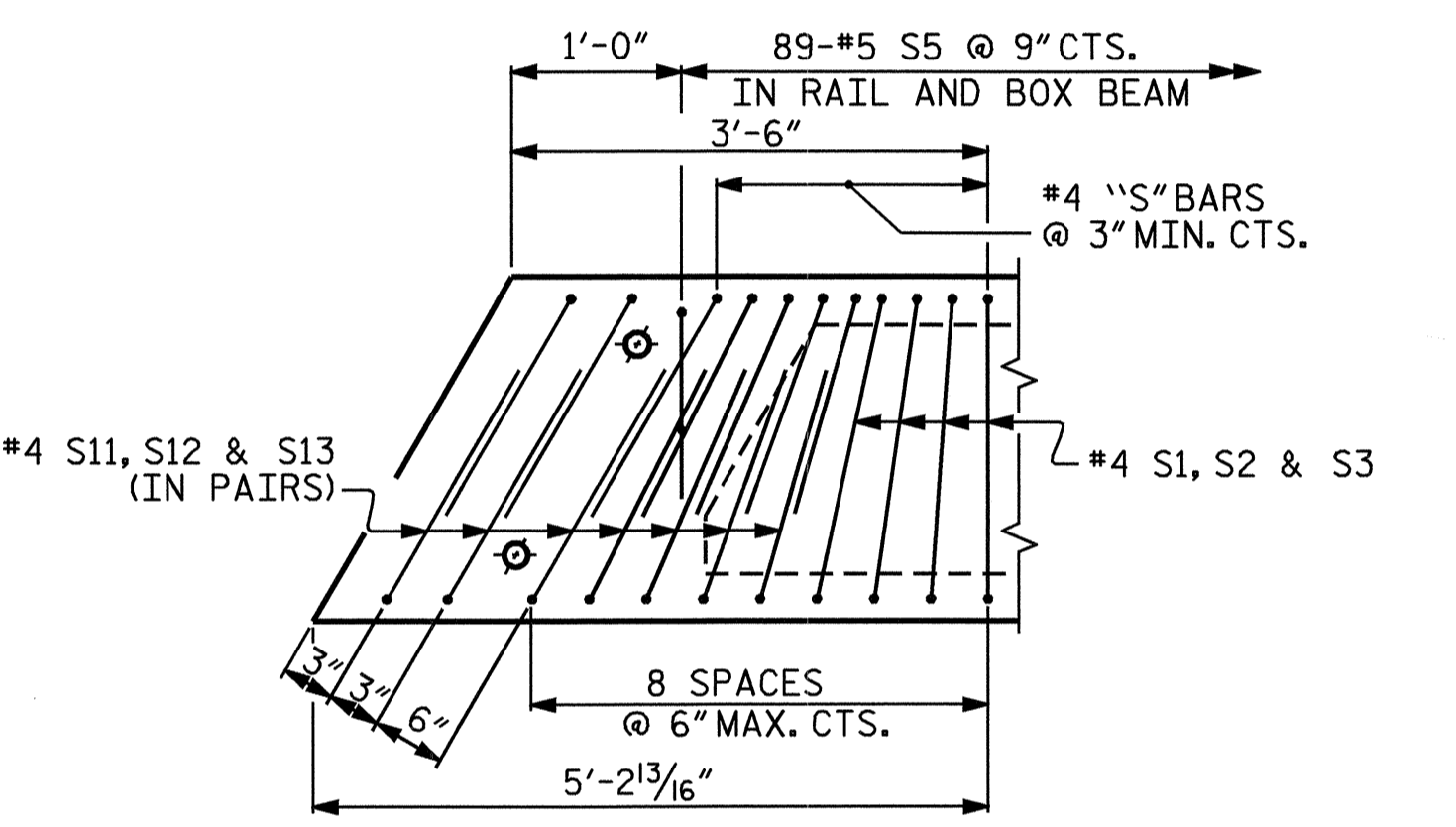
0.6" Ø LOW RELAXATION STRAND LAYOUT

GRADE 270 STRANDS	
AREA (SQUARE INCHES)	0.217
ULTIMATE STRENGTH (LBS. PER STRAND)	58,600
APPLIED PRESTRESS (LBS. PER STRAND)	43,950

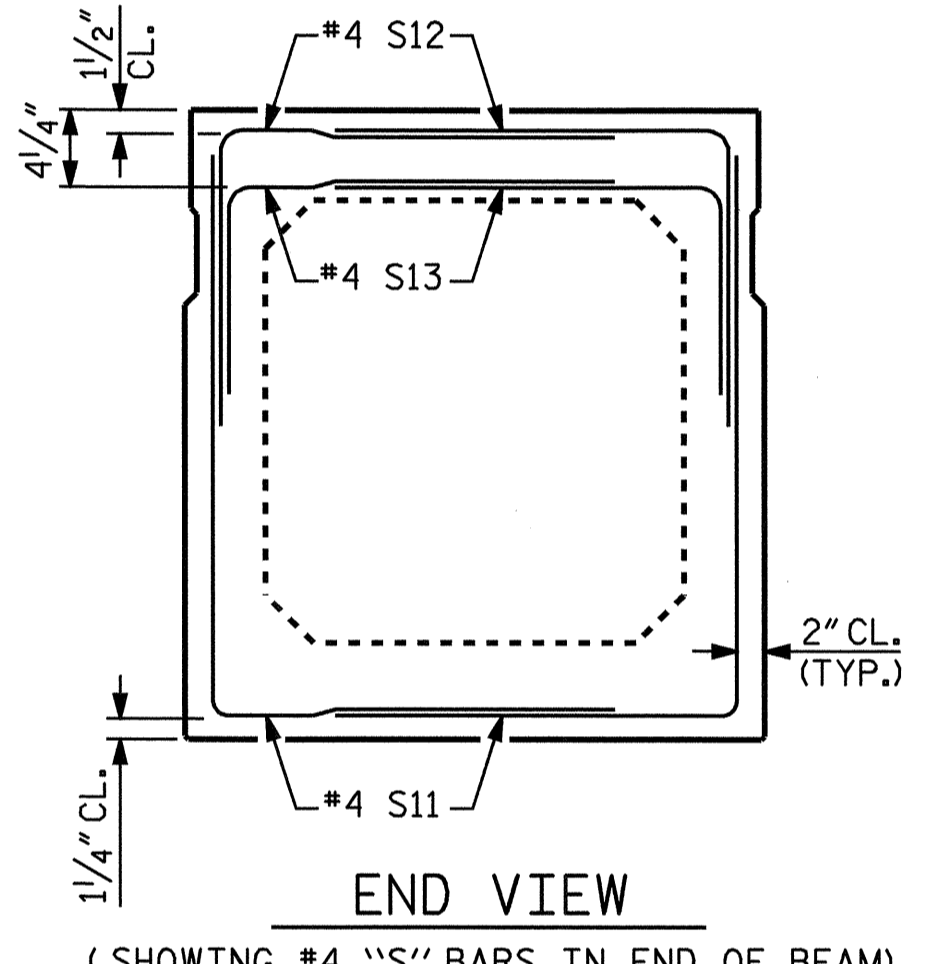


BILL OF MATERIAL FOR ONE BOX BEAM SECTION

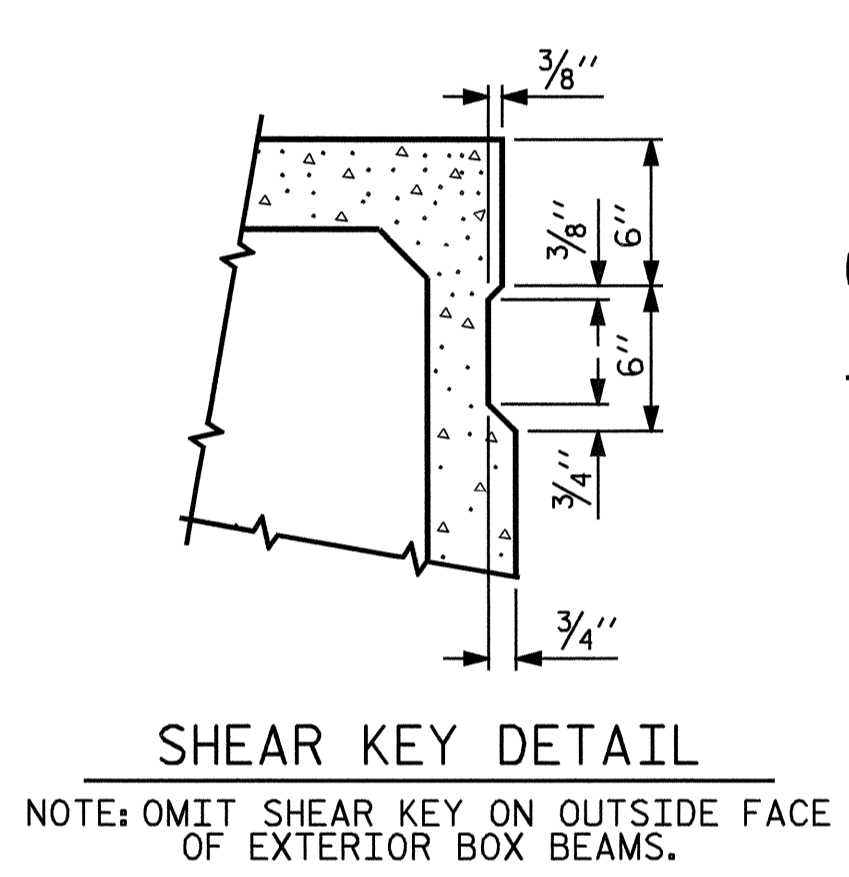
BAR	SPAN B			EXTERIOR UNIT		INTERIOR UNIT	
	NUMBER	SIZE	TYPE	LENGTH	WEIGHT	LENGTH	WEIGHT
A1	10	#5	1	7'-2"	75	7'-2"	75
A2	38	#4	2	5'-11"	150	5'-11"	150
B3	12	#5	STR	35'-8"	446	35'-8"	446
K1	12	#4	7	7'-2"	57	7'-2"	57
K2	8	#4	STR	3'-0"	16	3'-0"	16
S1	47	#4	3	8'-6"	267	8'-6"	267
S2	47	#4	3	5'-8"	178	5'-8"	178
S3	85	#4	3	4'-10"	274	4'-10"	274
S4	38	#4	4	5'-10"	148	5'-10"	148
S11	28	#4	5	5'-4"	100	5'-4"	100
S12	28	#4	5	3'-11"	73	3'-11"	73
S13	28	#4	5	3'-6"	65	3'-6"	65
* S5	89	#5	6	6'-5"	596	--	--
REINFORCING STEEL				1849 LBS.		1849 LBS.	
* EPOXY COATED REINF. STEEL				596 LBS.		--	
5000 P.S.I. CONCRETE				14.1 CU. YDS.		14.1 CU. YDS.	
0.6" Ø L.R. STRANDS				No. 18		No. 18	



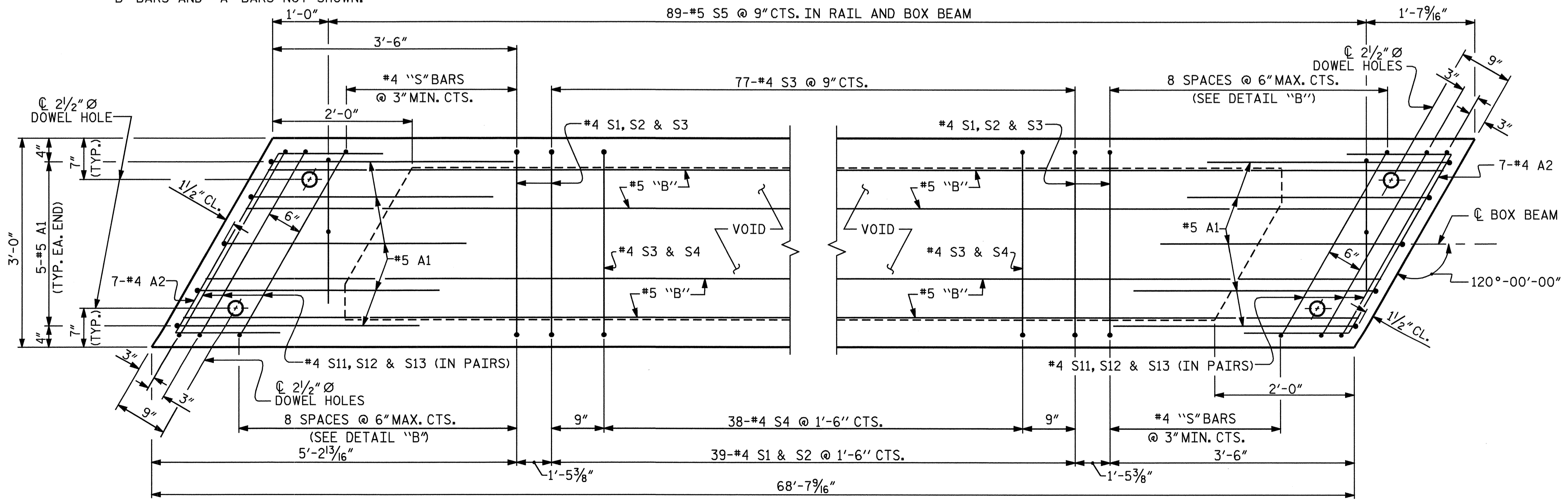
DETAIL "B"
EXTERIOR UNIT SHOWN, INTERIOR UNIT SIMILAR EXCEPT OMIT #5 S5 BARS. "B" BARS AND "A" BARS NOT SHOWN.



END VIEW
(SHOWING #4 "S" BARS IN END OF BEAM)



SHEAR KEY DETAIL
NOTE: OMIT SHEAR KEY ON OUTSIDE FACE OF EXTERIOR BOX BEAMS.



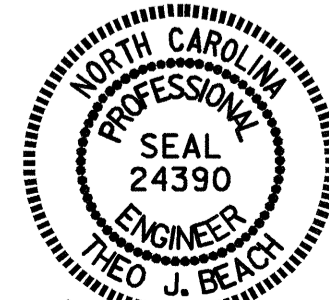
PLAN OF BOX BEAM

EXTERIOR UNIT SHOWN, INTERIOR UNIT SIMILAR EXCEPT OMIT #5 S5 BARS. FOR LOCATION OF DIAPHRAGMS AND VOIDS, SEE "DIAPHRAGM AND VOID LAYOUT", SHEET 7 OF 7. FOR REINFORCING STEEL IN DIAPHRAGMS, SEE DIAPHRAGM DETAILS.

SPAN B BOX BEAMS REQUIRE 5,000 PSI CONCRETE

PROJECT NO. B-4007
ALLEGHANY COUNTY
STATION: 17+03.50 -L-

SHEET 5 OF 7



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
3'-0" X 3'-3"
PRESTRESSED CONCRETE
BOX BEAM UNIT
SPAN B

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-8	
1			3			TOTAL SHEETS 23	
2			4				

ASSEMBLED BY : N. PIERCE DATE : 4/05
CHECKED BY : MIKE BRITT DATE : 7/05