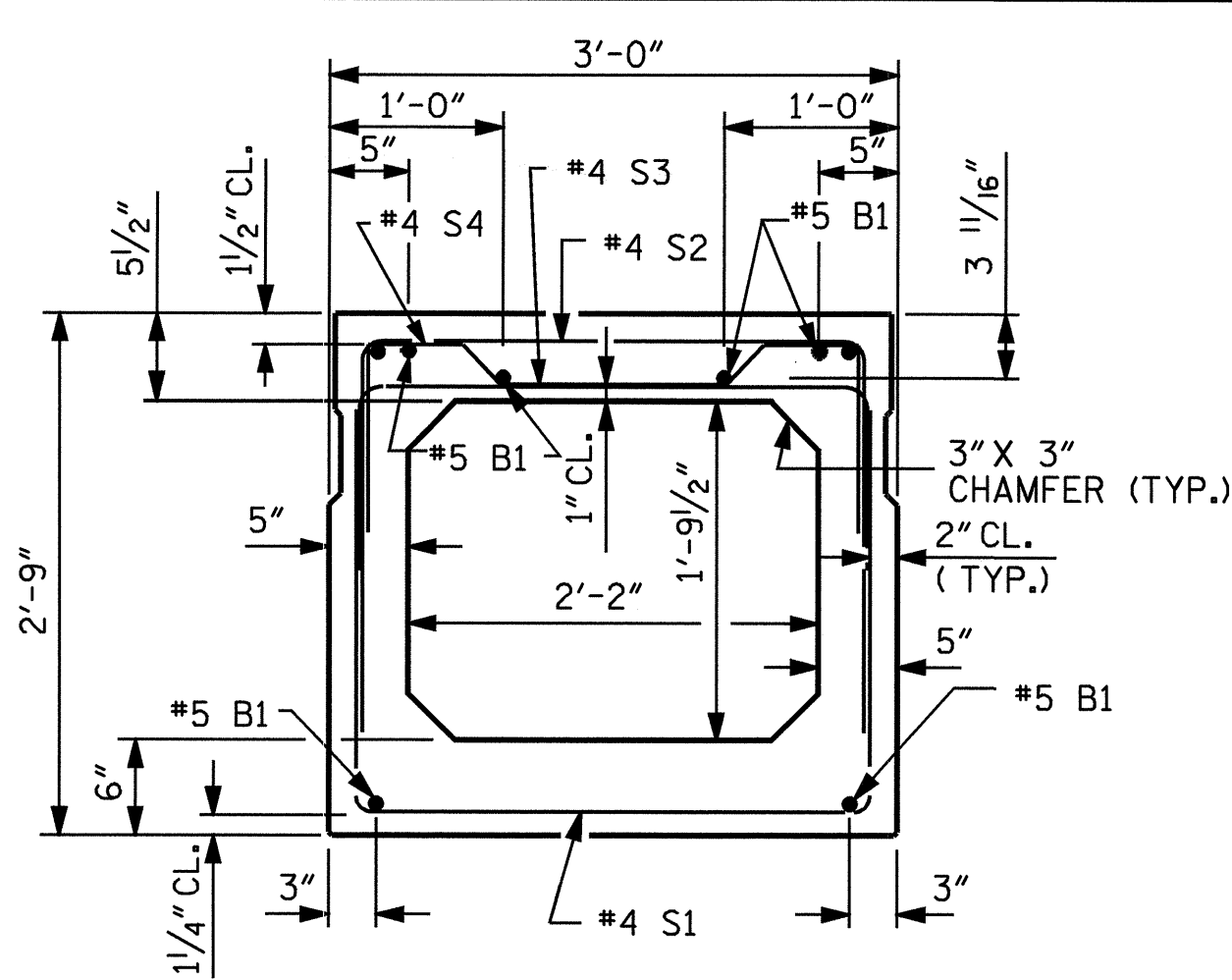


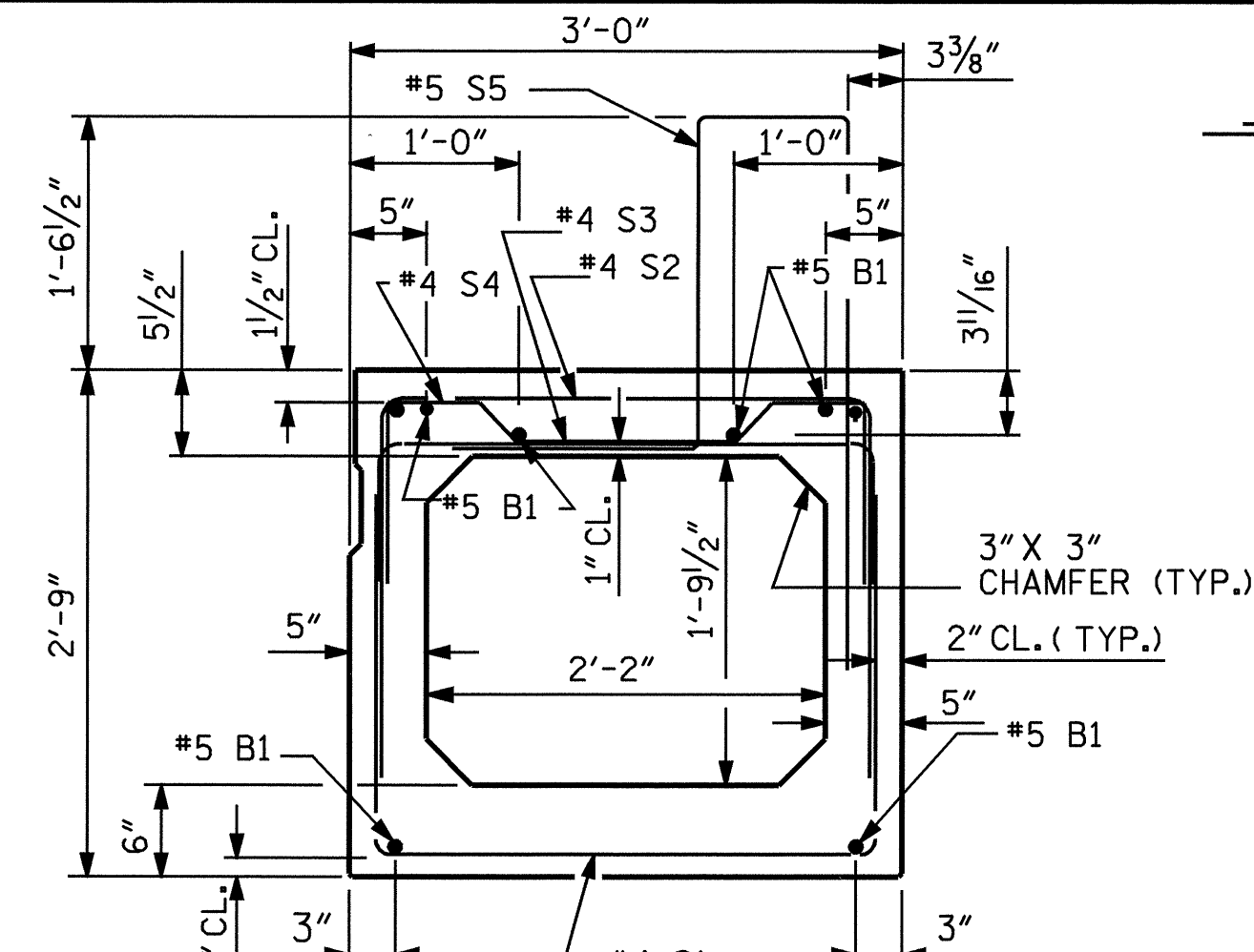
**END ELEVATION**

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.)



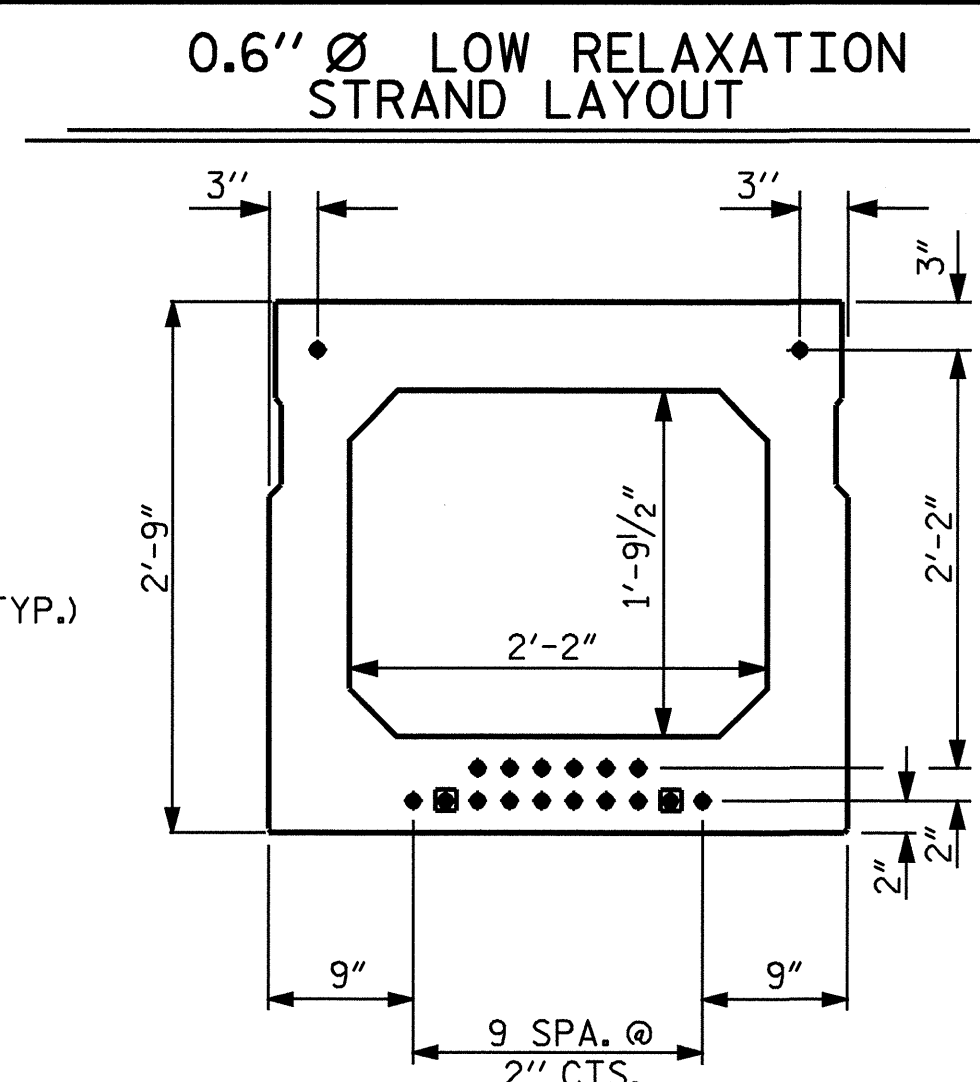
**INTERIOR BOX BEAM SECTION**

(STRAND LAYOUT NOT SHOWN)



**EXTERIOR BOX BEAM SECTION**

(STRAND LAYOUT NOT SHOWN)

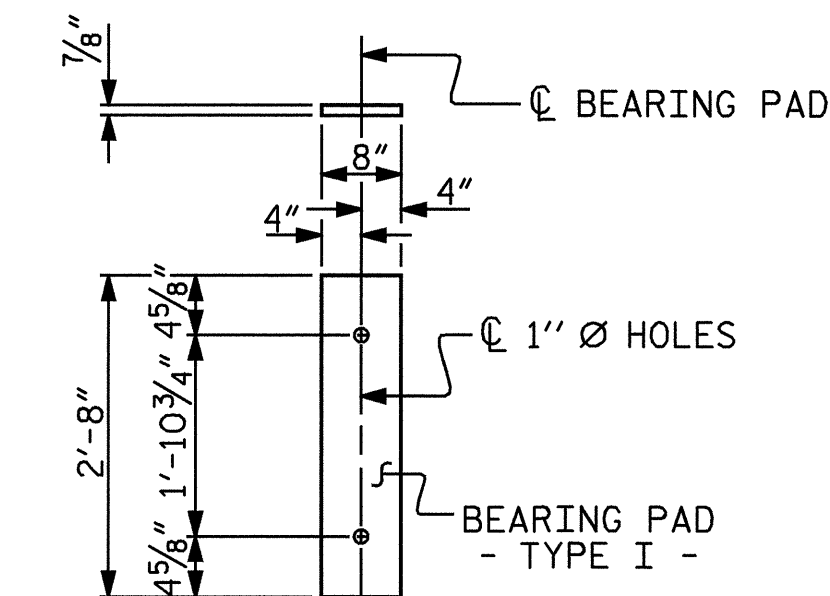


**TYPICAL STRAND LOCATION**

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

**DEBONDING LEGEND**

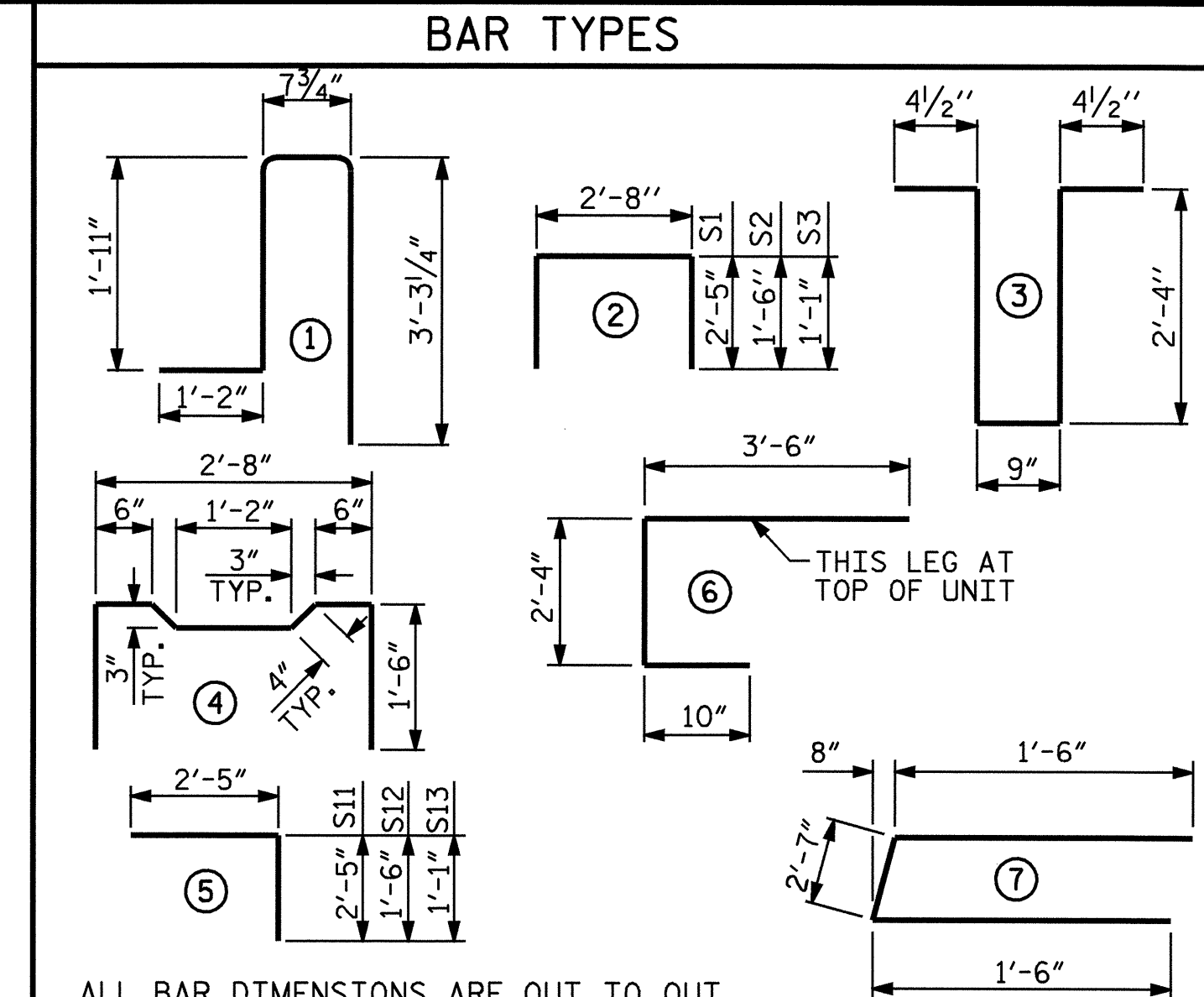
BOND SHOULD BE BROKEN AT THESE STRANDS AT A DISTANCE OF 2'-0" FROM THE END OF BOX BEAM. SEE STANDARD SPECIFICATION ARTICLE 1078-7.



**FIXED END**  
(TYPE I - 26 REQ'D)

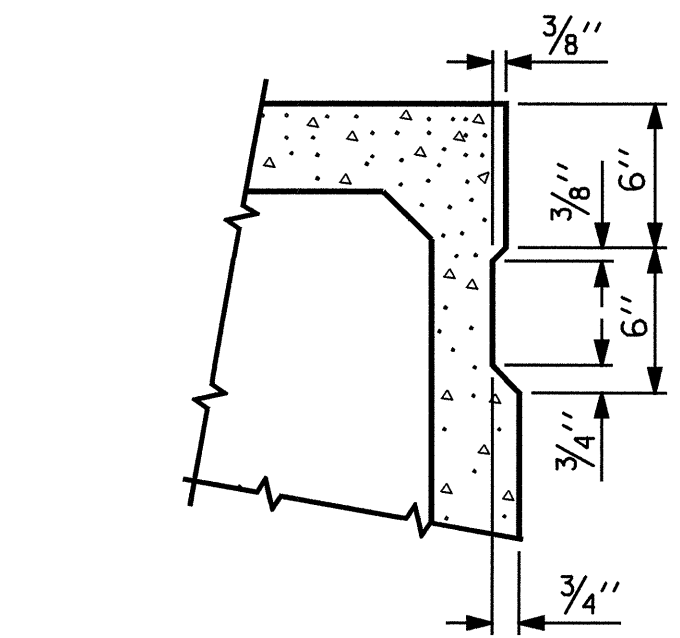
**ELASTOMERIC BEARING DETAILS**

ELASTOMER SHALL BE 60 DUROMETER HARDNESS.



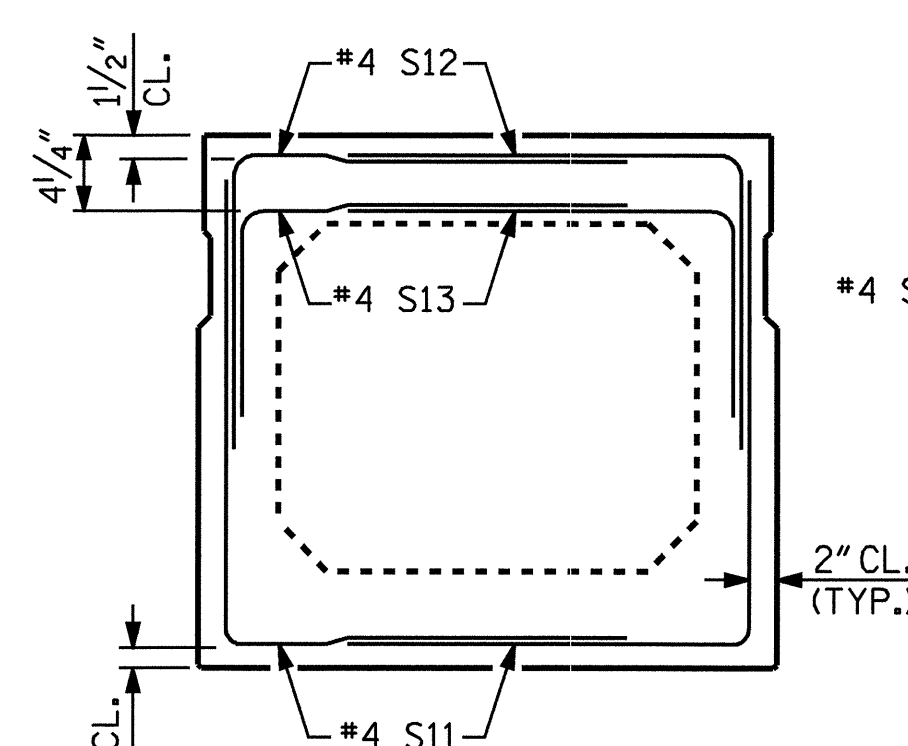
**BILL OF MATERIAL FOR ONE BOX BEAM SECTION**  
(SPAN A)

BAR	NO	SIZE	TYPE	EXTERIOR UNIT		INTERIOR UNIT	
				LENGTH	WEIGHT	LENGTH	WEIGHT
A1	10	5	6	6'-8"	70	6'-8"	70
A2	34	4	7	5'-7"	127	5'-7"	127
B1	12	5	STR	40'-4"	505	40'-4"	505
K1	12	4	3	6'-2"	49	6'-2"	49
K2	8	4	STR	2'-8"	14	2'-8"	14
S1	58	4	2	7'-6"	291	7'-6"	291
S2	58	4	2	5'-8"	220	5'-8"	220
S3	105	4	2	4'-10"	339	4'-10"	339
S4	47	4	4	5'-10"	183	5'-10"	183
*S5	78	5	1	7'-1"	576		
S11	20	4	5	4'-10"	65	4'-10"	65
S12	20	4	5	3'-11"	52	3'-11"	52
S13	20	4	5	3'-6"	47	3'-6"	47
REINFORCING STEEL				LBs.	1,962		1,962
* EPOXY COATED REINFORCING STEEL				LBs.	576		0
6000 P.S.I. CONCRETE				C.Y.	14.0		14.0
0.6" Ø L.R. STRANDS				No.	18		18



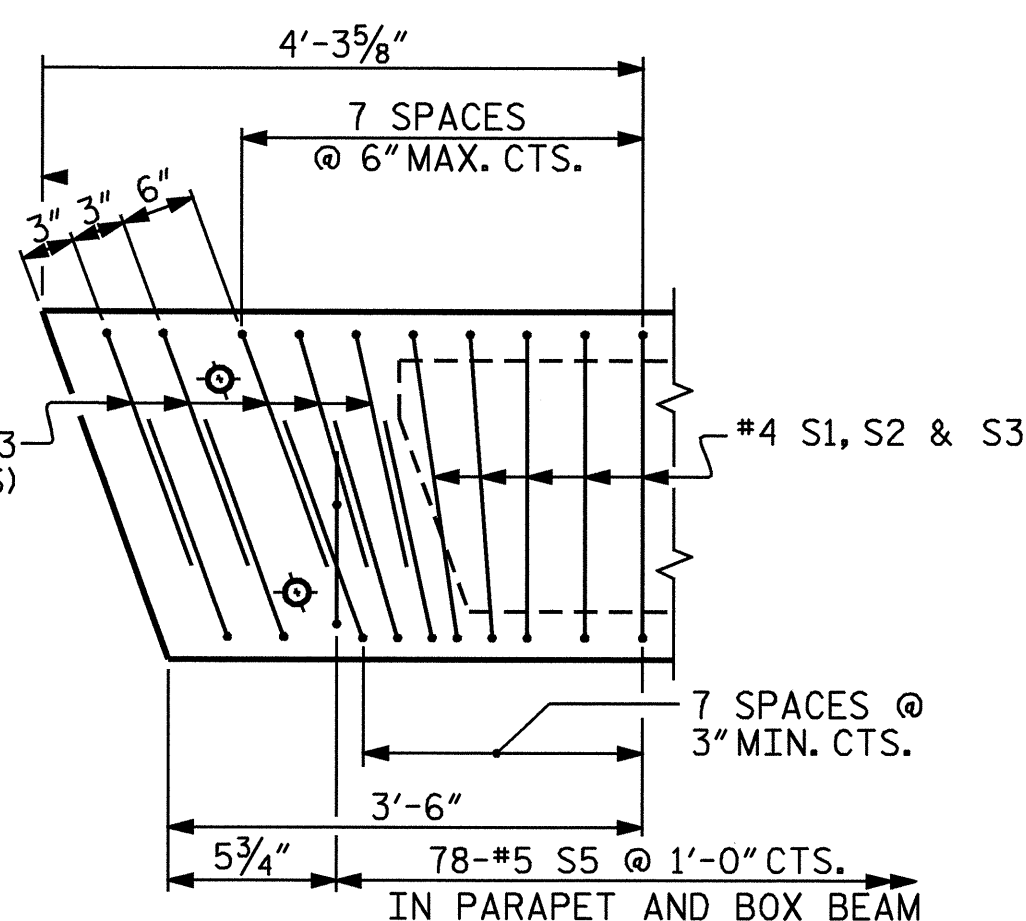
**SHEAR KEY DETAIL**

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



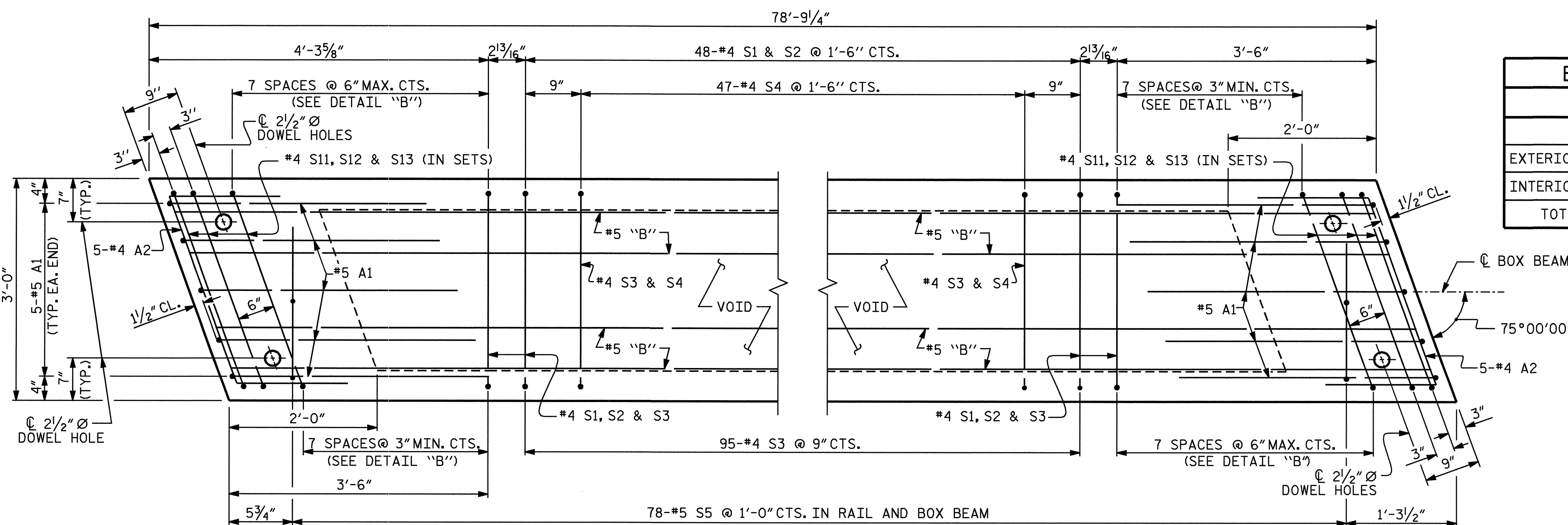
**END VIEW**

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



**DETAIL "B"**

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



**PLAN OF BOX BEAM**

EXTERIOR UNIT SHOWN, INTERIOR UNIT SIMILAR EXCEPT OMIT #5 S5 BARS FOR LOCATION OF DIAPHRAGMS, SEE PLAN OF SPANS. FOR REINFORCING STEEL IN DIAPHRAGMS, SEE DIAPHRAGM DETAILS.

**BOX BEAMS REQUIRED**  
(SPAN A)

	NUMBER	LENGTH	TOTAL LENGTH
EXTERIOR B.B.	2	78'-9 1/4"	157'-6 1/2"
INTERIOR B.B.	11	78'-9 1/4"	866'-5 3/4"
TOTAL	13	78'-9 1/4"	1024'-0 1/4"

**GRADE 270 STRANDS**

	0.6" Ø L.R.
AREA ( SQUARE INCHES )	0.217
ULTIMATE STRENGTH ( LBS. PER STRAND )	58,600
APPLIED PRESTRESS ( LBS. PER STRAND )	43,950

PROJECT NO. **B-4039**  
BURKE COUNTY  
STATION: **14+12.00 -L-**

SHEET 5 OF 8  
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH  
STANDARD  
**3'-0" X 2'-9"**  
PRESTRESSED CONCRETE  
BOX BEAM UNIT  
(SPAN A)



REVISIONS

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

DRAWN BY: **J. G. KHARVA** DATE: **06/10/02**  
CHECKED BY: **V. NGUYEN** DATE: **01/12/06**