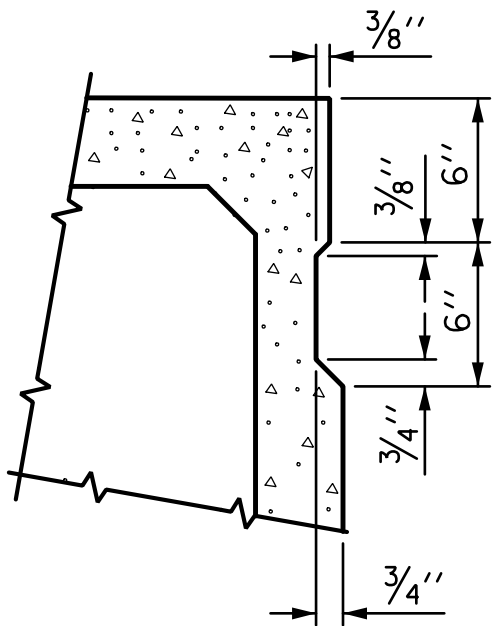


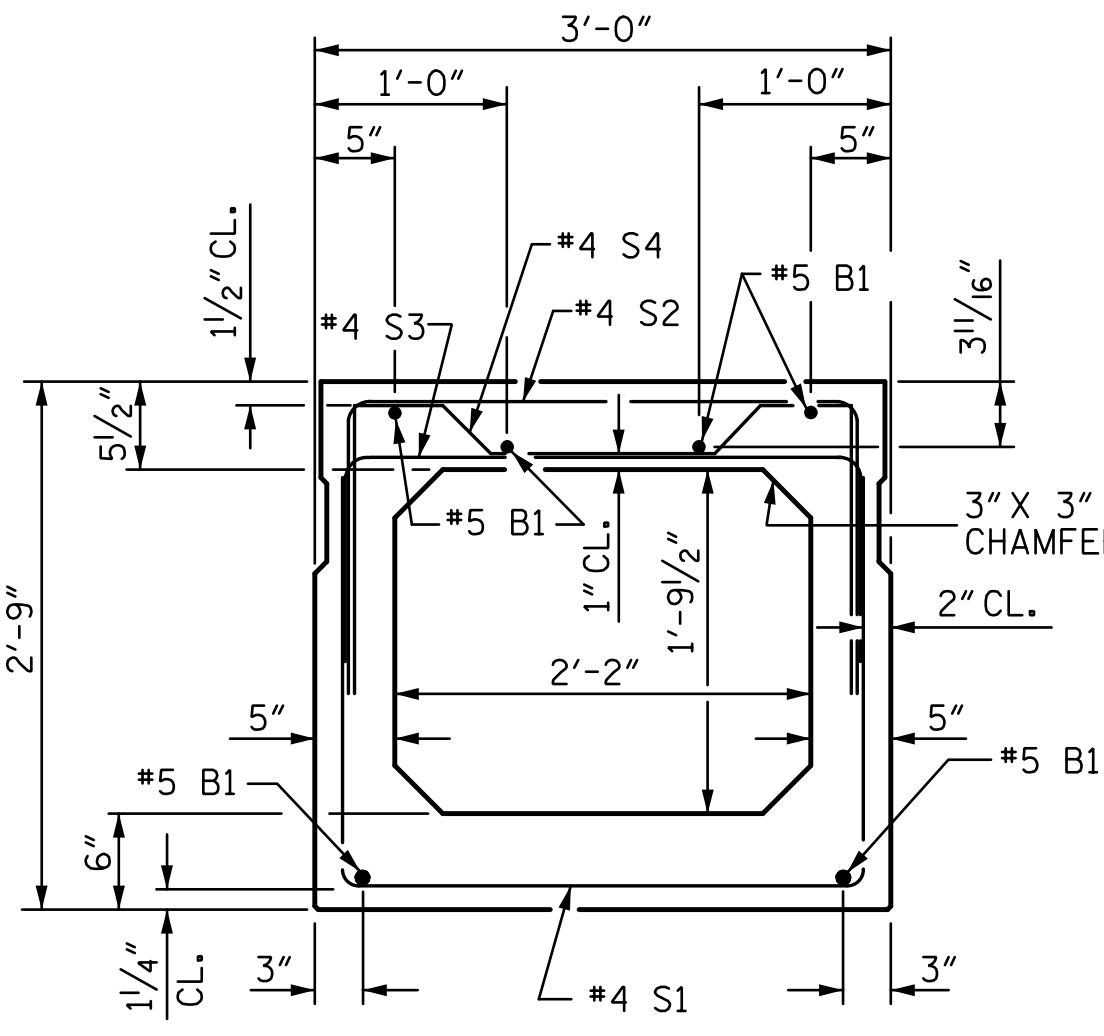
END ELEVATION

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.)



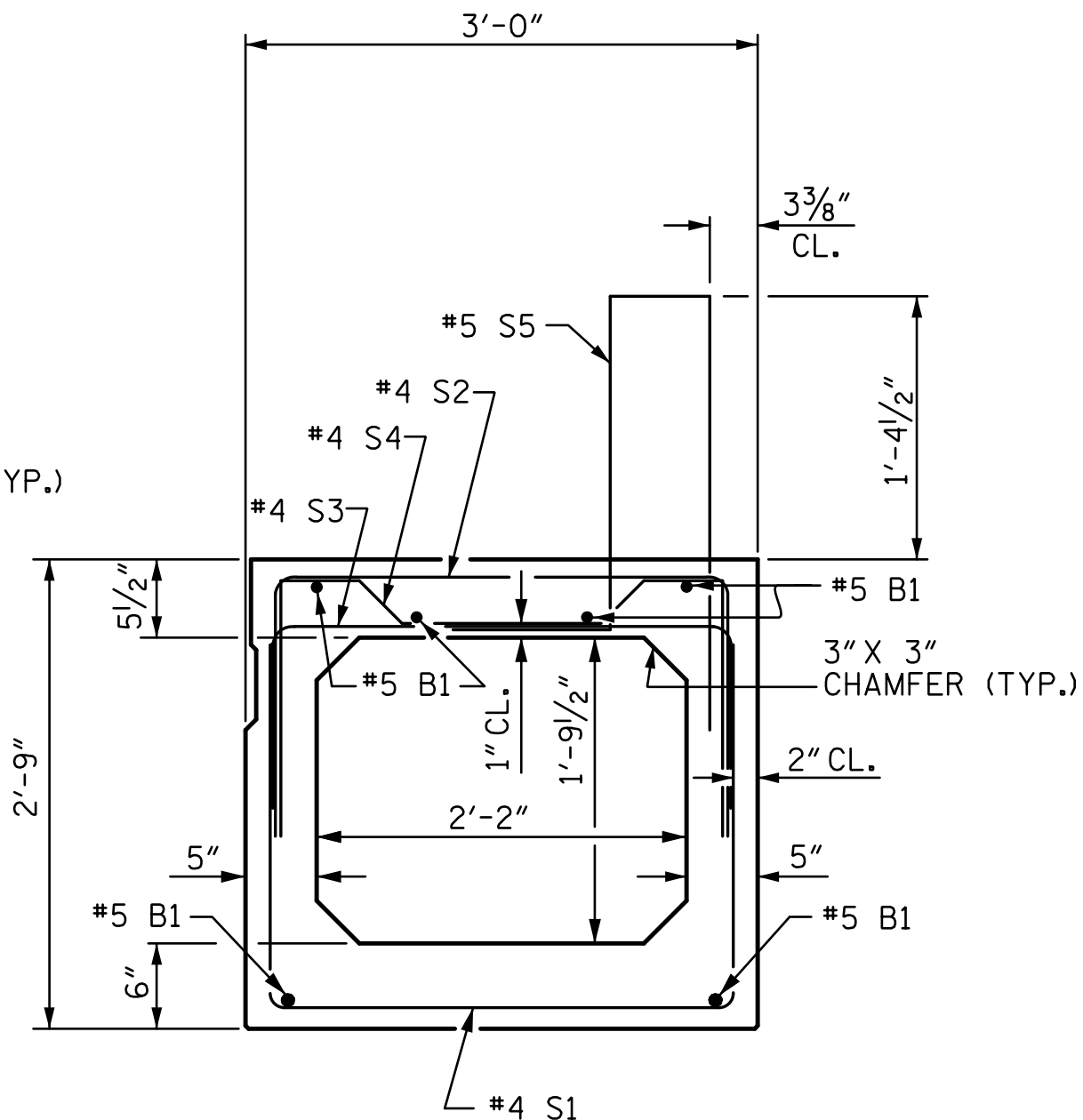
SHEAR KEY DETAIL

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



INTERIOR BOX BEAM SECTION

(STRAND LAYOUT NOT SHOWN)

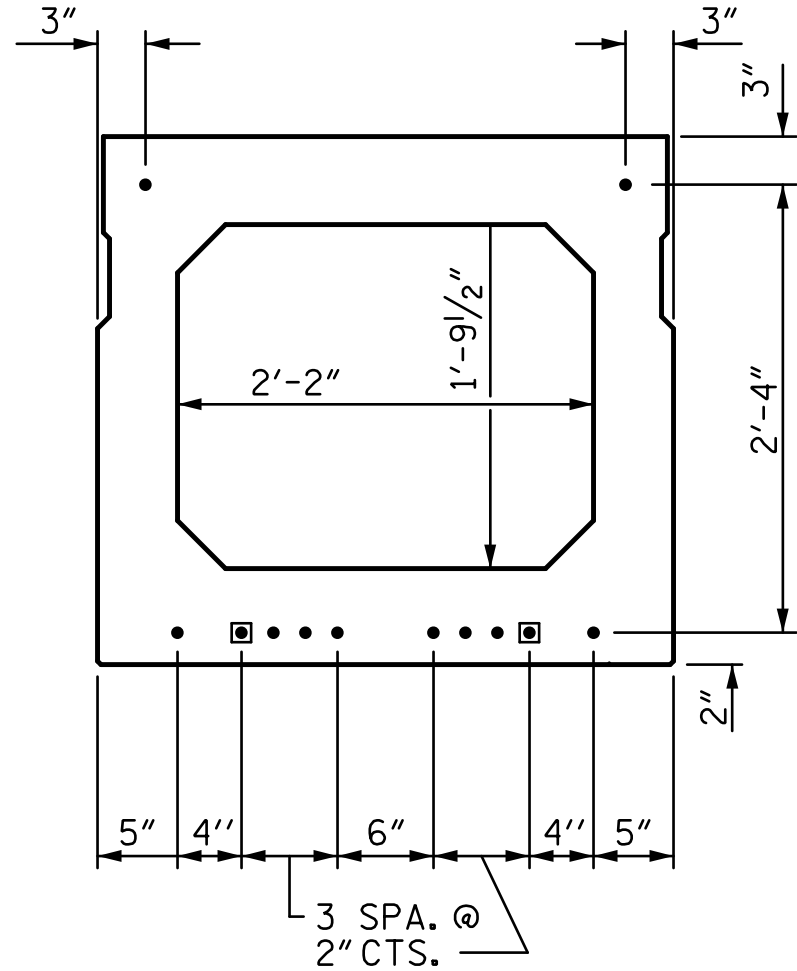


EXTERIOR BOX BEAM SECTION

(STRAND LAYOUT NOT SHOWN)

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

0.6" Ø LOW RELAXATION STRAND LAYOUT



TYPICAL STRAND LOCATION

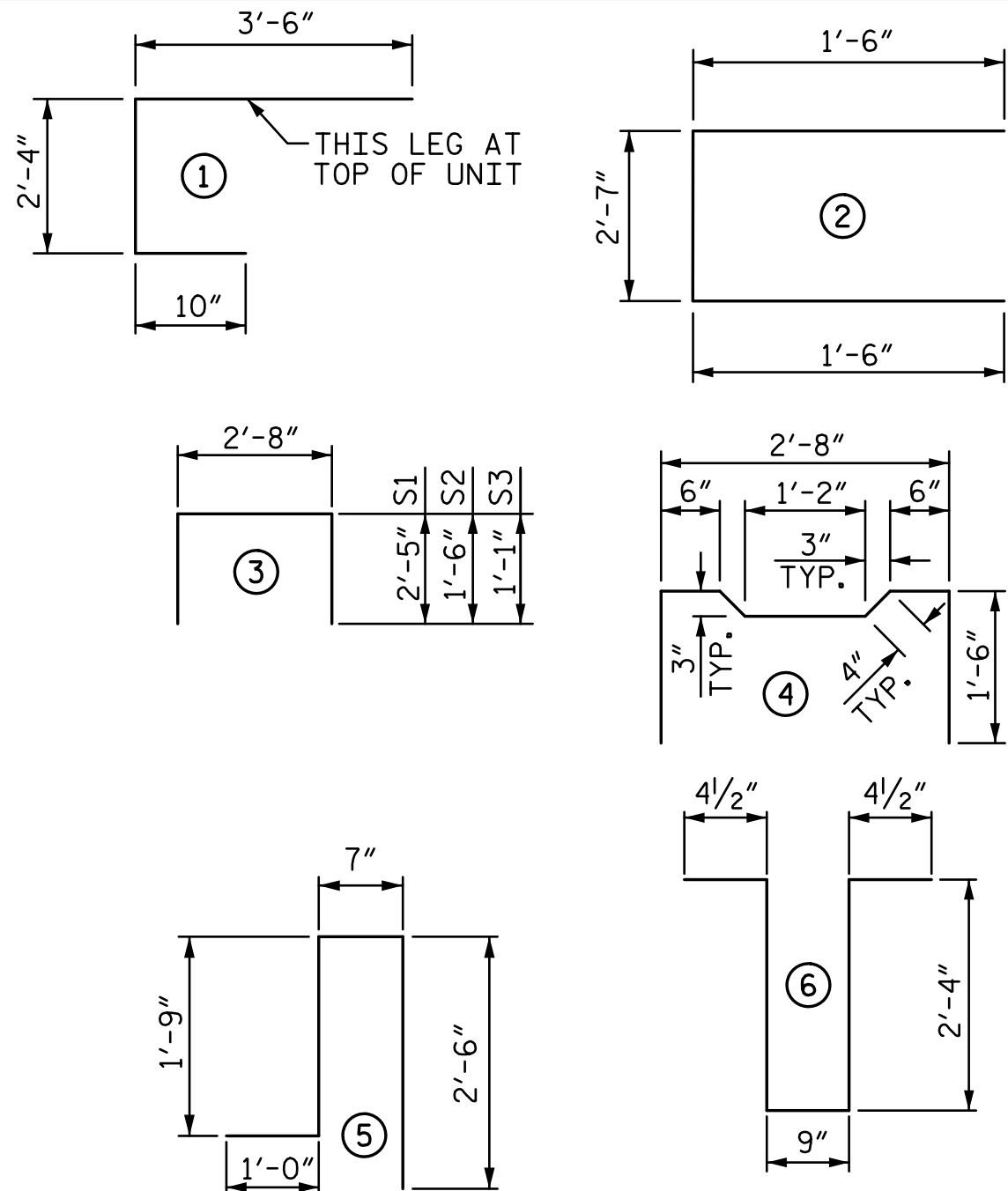
(12 STRANDS REQUIRED)

DEBONDING LEGEND

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

BOND SHALL BE BROKEN ON STRANDS AS SHOWN FOR THE SPECIFIED LENGTH FROM EACH END OF THE BOX BEAM. SEE STANDARD SPECIFICATIONS ARTICLE 1078-7.

BAR TYPES

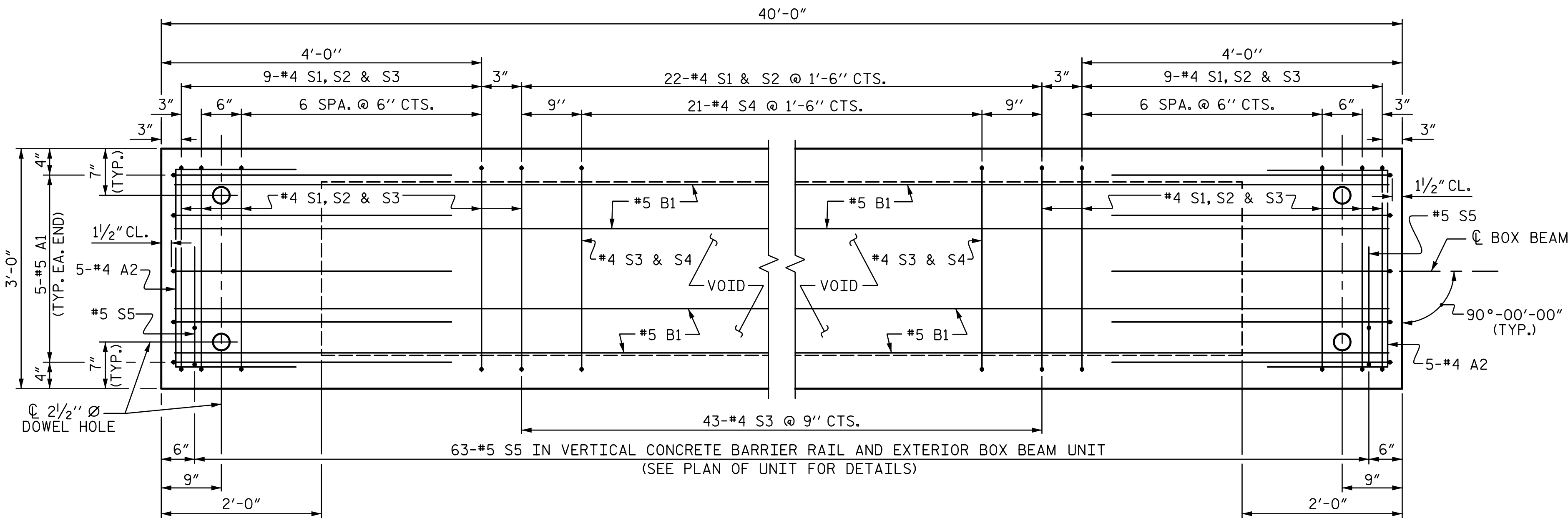


ALL BAR DIMENSIONS ARE OUT TO OUT

BILL OF MATERIAL FOR ONE BOX BEAM SECTION

BAR	NUMBER	SIZE	TYPE	EXTERIOR UNIT		INTERIOR UNIT	
				LENGTH	WEIGHT	LENGTH	WEIGHT
A1	10	#5	1	6'-8"	70	6'-8"	70
A2	16	#4	2	5'-7"	60	5'-7"	60
B1	12	#5	STR	20'-6"	257	20'-6"	257
K1	3	#4	6	6'-2"	12	6'-2"	12
K2	2	#4	STR	2'-7"	3	2'-7"	3
S1	40	#4	3	7'-6"	200	7'-6"	200
S2	40	#4	3	5'-8"	151	5'-8"	151
S3	61	#4	3	4'-10"	197	4'-10"	197
S4	21	#4	4	5'-10"	82	5'-10"	82
* S5	63	#5	5	5'-10"	383	--	--

REINFORCING STEEL	1032	LBS.	1032	LBS.
* EPOXY COATED REINF. STEEL	383	LBS.		
5500 P.S.I. CONCRETE	7.3	CU. YDS.	7.2	CU. YDS.
0.6" Ø L.R. STRANDS	No. 12		No. 12	



PLAN OF BOX BEAM

EXTERIOR UNIT SHOWN, INTERIOR UNIT SIMILAR EXCEPT OMIT #5 S5 BARS.

FOR LOCATION OF DIAPHRAGMS, SEE "PLAN OF UNIT".

FOR THREADED INSERTS, SEE "THREADED INSERT DETAIL".

FOR REINFORCING STEEL IN DIAPHRAGMS, SEE "DOUBLE DIAPHRAGM DETAILS".

PROJECT NO. DF18314.2075090

POLK COUNTY

STATION: 12+15.00 -L-

SHEET 3 OF 7



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

3'-0" X 2'-9"
PRESTRESSED CONCRETE
BOX BEAM UNIT SPAN A

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-9
2			4			TOTAL SHEETS 24

DRAWN BY :	T. R. LAWS	DATE :	02/2025
CHECKED BY :	V. SELLERS	DATE :	02/2025
DESIGN ENGINEER OF RECORD:	T. R. LAWS	DATE :	10/2025

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED