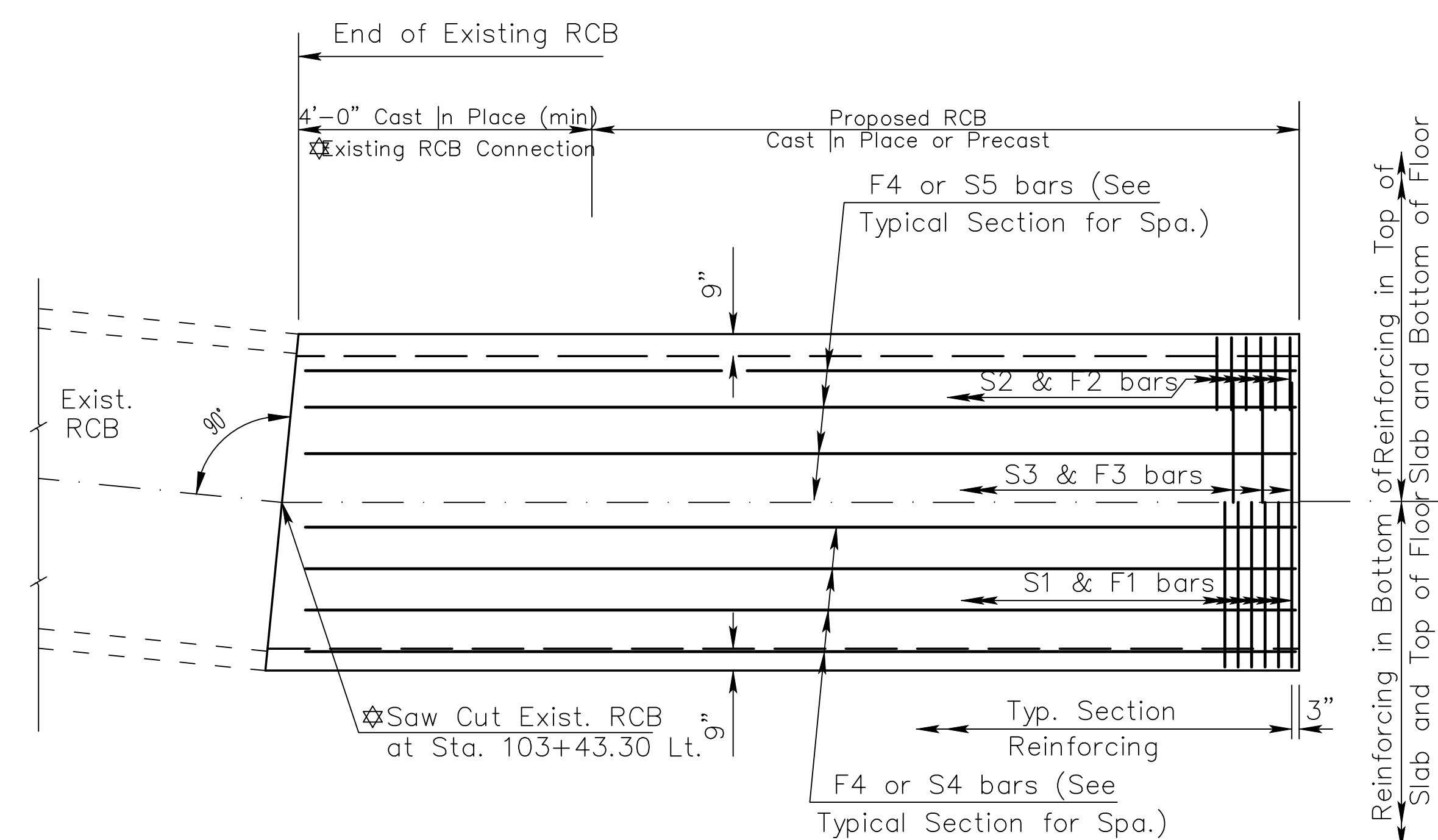


SECTION AND ELEVATION

Note: Contractor has the option to use cast-in-place or precast construction at this location.

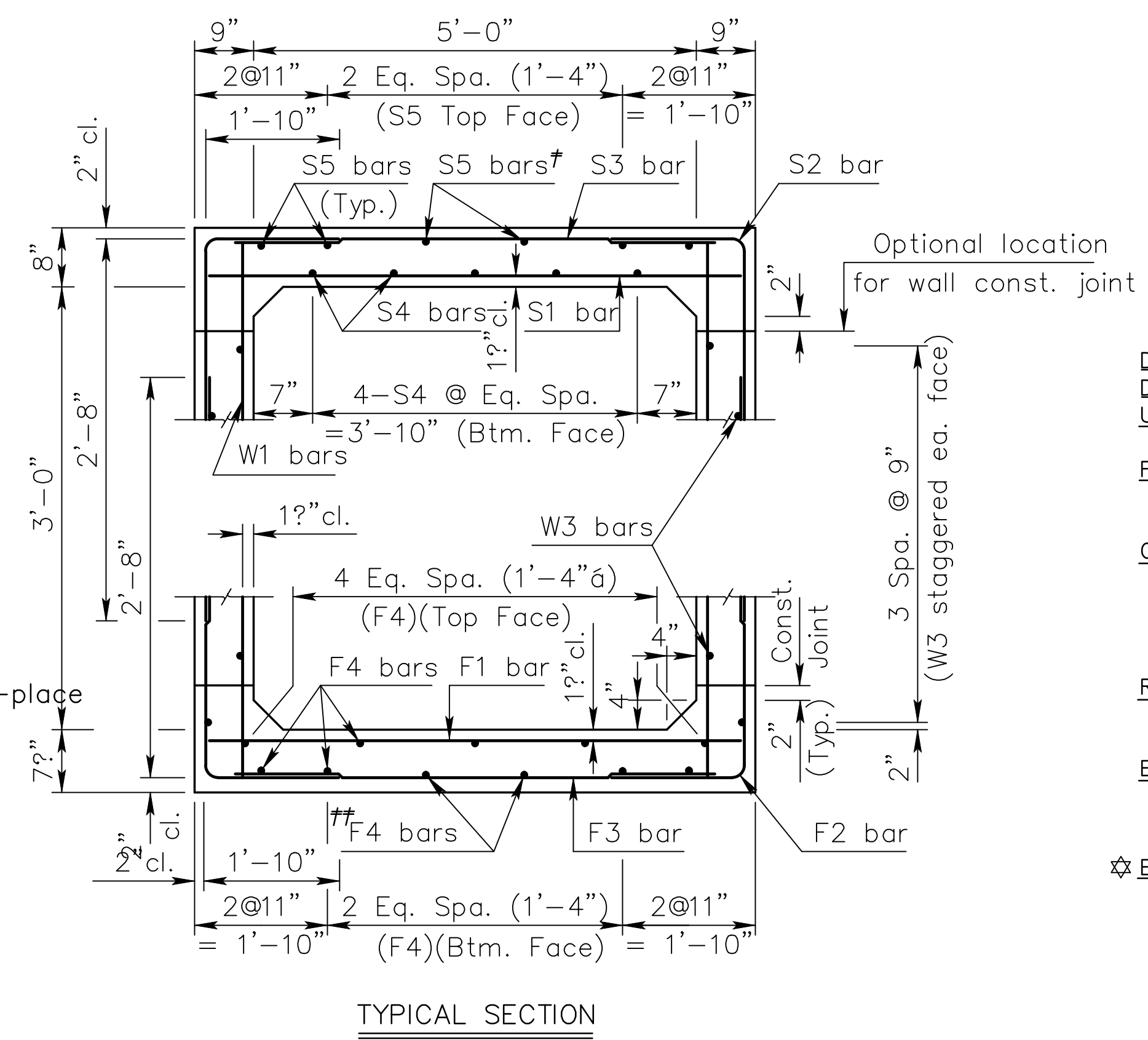


PLAN

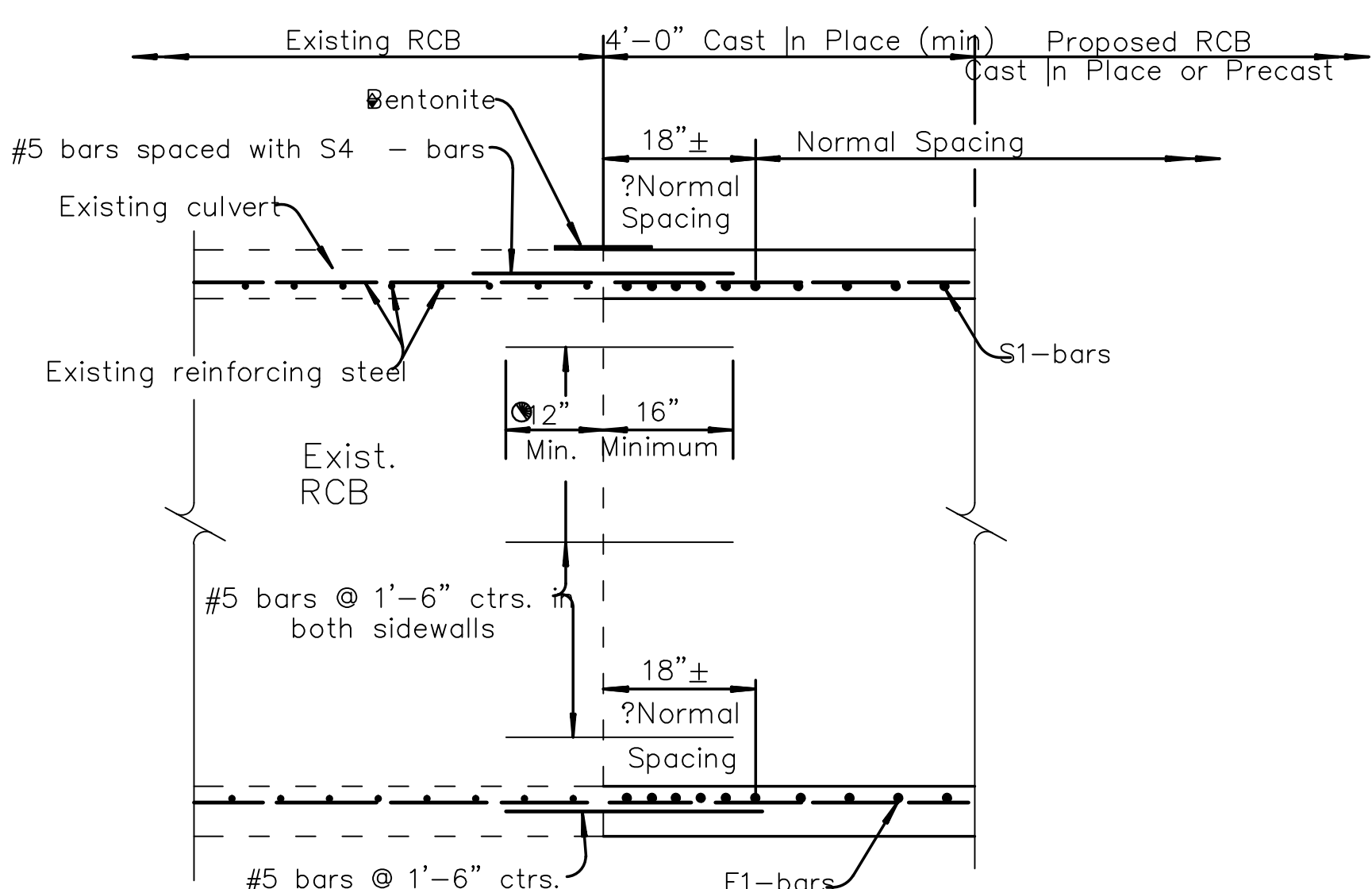
‡ To Be Determined by Contractor's Method
 Δ Epoxy Coated Bars
 * See Bending Diagram

CULVERT SUMMARY													RFR RATING FACTORS	
Floor Elev.	Crown Gr. Elev.	Design Fill Ht.	Skew	Wings	Scour Apron	Soil Saver	Concrete			Reinf. Steel (Gr. 60)			HL-93 Loading	
							Barrel (Cu. Yds.)	Wings (Cu. Yds.)	Total (Cu. Yds.)	Barrel (Lbs.)	Wings (Lbs.)	Total (Lbs.)	Inventory	Operating
N/A	N/A	2	0	N/A	No	No	N/A	N/A	N/A	N/A	N/A	N/A	2.29	2.97

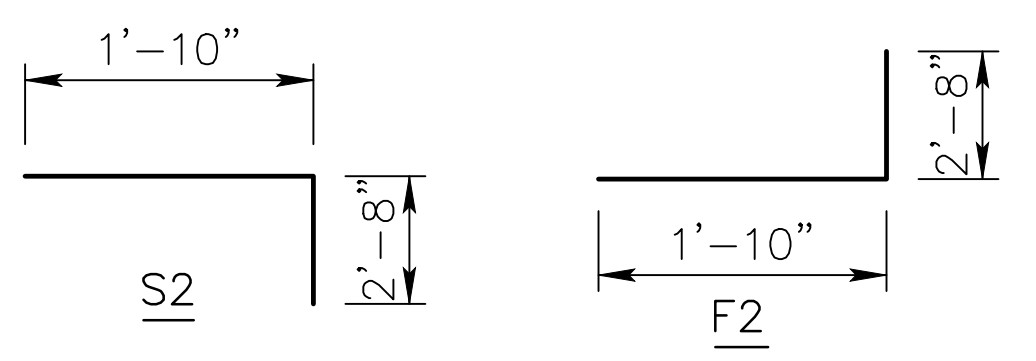
BAR SCHEDULE																							
Δ F1				Δ F2 *				Δ F3				Δ F4				Δ S1							
Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	No.	Length	Size	Spa.	No.	Length					
4	5"	‡	‡	4	9"	‡	‡	N/A	N/A	N/A	N/A	4	‡	‡	4	5"	‡	‡					
Δ S2 *				Δ S3				Δ S4				Δ S5				Δ W1				Δ W3			
Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	No.	Length	Size	No.	Length	Size	Spa.	No.	Length	Size	No.	Length	Size	No.	Length
4	9"	‡	‡	N/A	N/A	N/A	N/A	5	‡	‡	4	‡	‡	4	10"	‡	‡	4	‡	‡	4	‡	‡



TYPICAL SECTION



EXISTING RCB CONNECTION



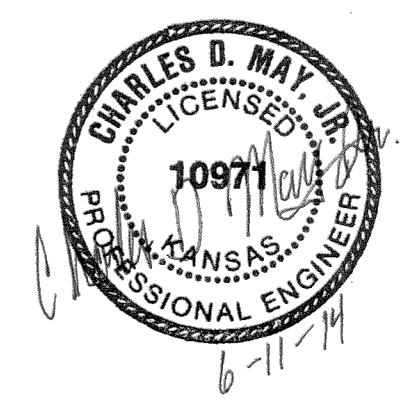
BENDING DIAGRAM
 All Dimensions are out to out of bars.

Minimum Splice Lengths	
#4	1'-4"
#5	1'-8"

± Omit when S3 bar is omitted
 ±± Omit when F3 bars are omitted.

GENERAL NOTES

- DESIGN SPECIFICATION: AASHTO LRFD Spec., 2007 Ed., 2009 Int.
- DESIGN LOADING: HL93
- UNIT STRESSES: Grade 4.0 Concrete $f'c = 4,000$ p.s.i.
Reinforcing Steel $f_y = 60,000$ p.s.i.
- FILL HEIGHT: Unless otherwise noted, the Design Fill Height is measured from the riding surface at the culvert and includes the surfacing.
- CONCRETE: Use concrete conforming to Grade 4.0 Concrete per KDOT Standard Specifications. Bevel all exposed edges with a 1" triangular molding. Where Grade 4.0(AE) is specified, place this concrete in the top slab above the Construction Joint.
- REINFORCING: Use reinforcing steel conforming to ASTM A615, Grade 60. All dimensions relative to reinforcing steel are to the centerline of the bar unless otherwise noted.
- EXCAVATION: Excavation for culverts less than proposed length shall not be paid for directly but shall be Subsidiary to RCB (5'x3').
- EXISTING RCB CONNECTION: All materials and labor required for this work shall be Subsidiary to the bid item RCB (5'x3'). Saw cut and remove existing RCB culvert as necessary to construct the proposed RCB culvert. Dimensions of the existing RCB shall be checked in the field prior to starting the new construction. All existing concrete surfaces adjacent to new concrete shall be thoroughly cleaned by brushing, and soaked with water immediately prior to placing the new concrete.
- The joint between the existing rcb culvert and the proposed rcb culvert shall be protected by a bentonite-based system as shown. The bentonite shall be placed on the exterior walls and top of slab and shall conform to KDOT's requirements for the special provision "bridge backwall protection system".
- The minimum embedment shall be in accordance with the grout or epoxy manufacturer's recommendations to achieve 125% of the tensile strength of the reinforcement or 12" whichever is greater.



CITY OF WICHITA

Sta. 103+43 to Sta. 106+61
 SINGLE 5 ft x 3 ft RCB

BR 1.5.3 F Sedgwick Co.

Schwab Eaton
 8615 W. Frazier Lane, Suite 2
 Wichita, KS 67212
 Phone: 316-722-4472

DESIGNED: JUM	DRAWN: SRS	SCALE:	SHEET NO.:
CHECKED:	DATE: 02/14	No Scale	27