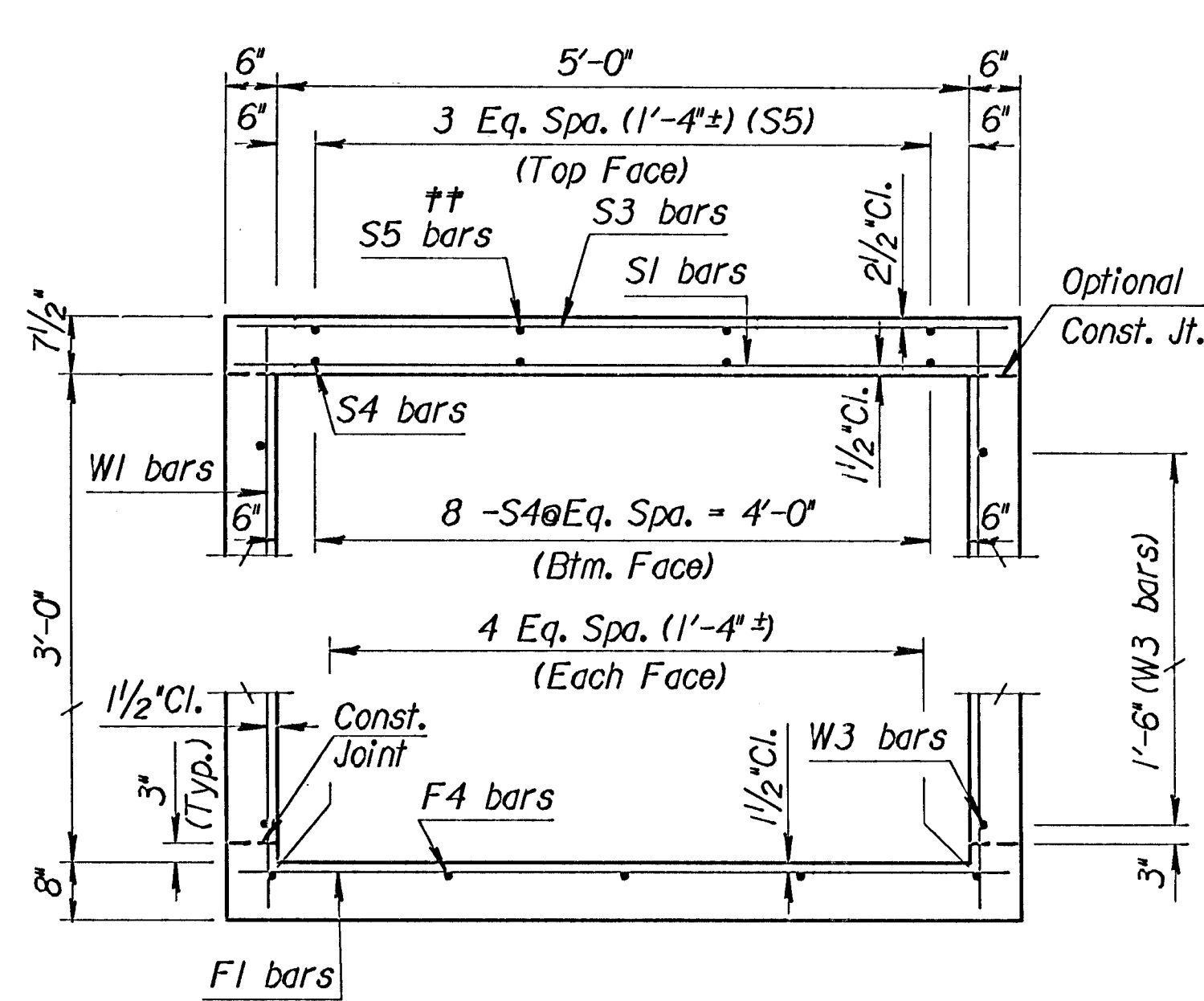
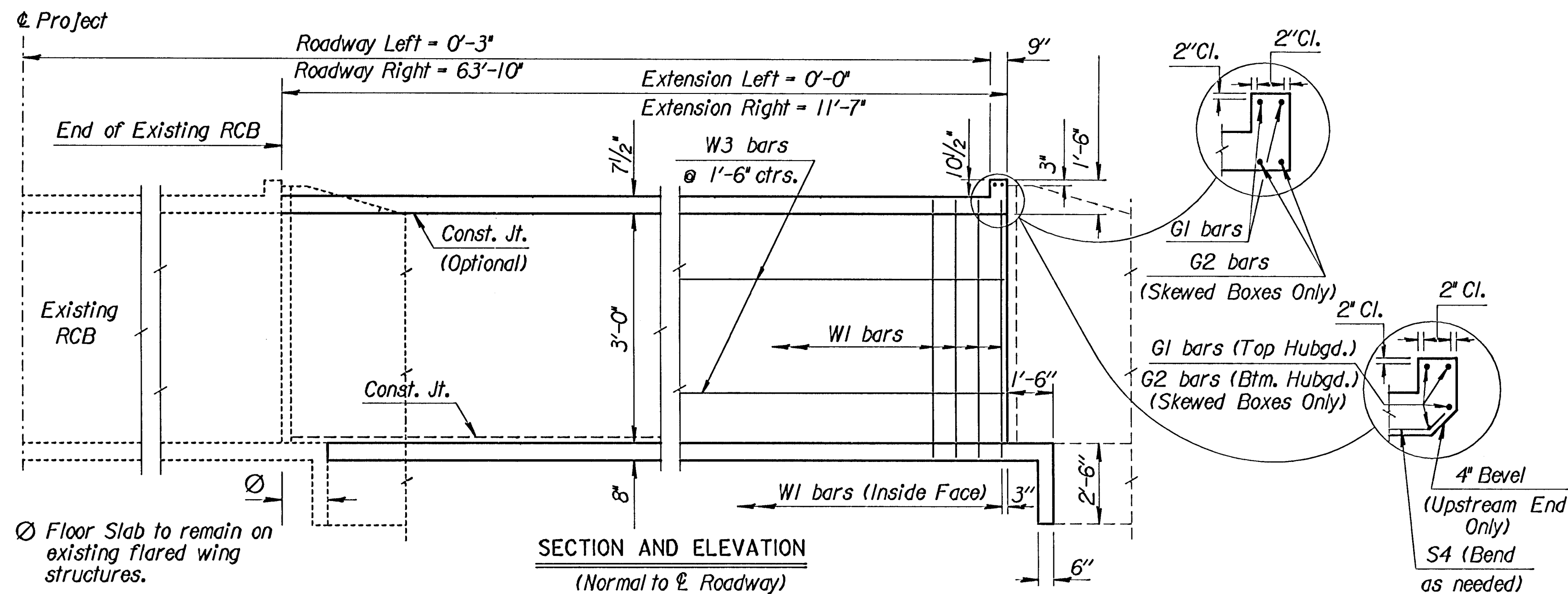


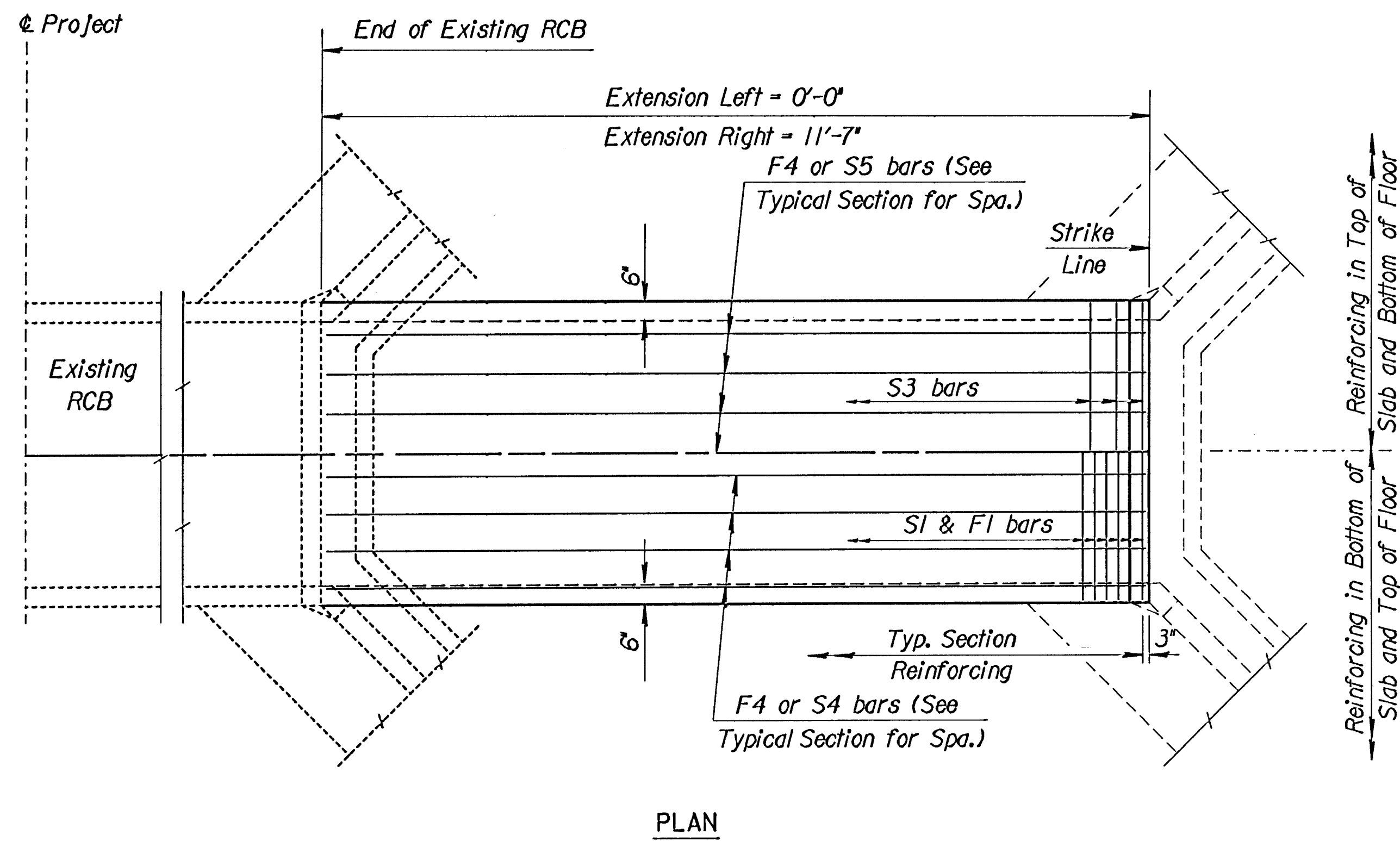
DESIGN	CHECK	DATE	DESIGN	CHECK	DATE
DESIGN	DESIGN	DATE	DESIGN	DESIGN	DATE
QUANTITIES	QUANTITIES	DATE	QUANTITIES	QUANTITIES	DATE
REVISIONS	REVISIONS	DATE	REVISIONS	REVISIONS	DATE

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FHWA REGION NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS		19	10	46

Note:
S3 bars omitted unless grade box or slab thickness is greater than or equal to 12".
** Omit S5 bars when S3 bars are omitted. See Standard No. 80 for additional details.



Note: Use only cast-in-place construction at this location.

CULVERT SUMMARY														
	Flow Line Elev.	Crown Gr. Elev.	Design Fill Ht.	Skew	Wings	Scour Apron	Soil Saver	Granular Backfill	Concrete			Reinf. Steel (Gr. 60)		
									Barrel (Cu.Yds.)	Wings (Cu.Yds.)	Total (Cu.Yds.)	Barrel (Lbs.)	Wings (Lbs.)	Total (Lbs.)
Ext.Lt.	1354.95	1361.95	2	0	STRAIGHT	YES	NO	NO		2.31	2.31		145.23	145.23
Ext.Rt.	1354.95				STRAIGHT				3.48	2.31	5.79	444.66	145.23	589.89

BAR SCHEDULE																							
F1				F4				S1				S3				S4				S5			
Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length
Ext.Lt.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ext.Rt.	5"	11	5'-8"	-	-	-	-	-	-	-	-	4	5	2'-8"	5	5	3'	5'-8"	-	-	-	-	-
K1				K2				W1				W3				G1				G2			
Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length
Ext.Lt.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ext.Rt.	-	-	-	*	-	-	-	*	4	9"	32	4'-0"	-	-	-	4	4	11'-3"	-	-	-	-	-

Minimum Splice Lengths	
#4	1'-4"
#5	1'-8"
#6	2'-0"

SUMMARY OF QUANTITIES		
Class AAA Concrete	8.1	C.Y.
Class AAA Concrete (AE)	0.0	C.Y.
Reinforcing Steel (Gr. 60)	740	Lbs.
Reinforcing Steel (Epoxy Coated)	0	Lbs.
Class III Excavation		C.Y.
Foundation Stabilization (Set)	1	C.Y.
Concrete for Seal Course (Set)	1	C.Y.
Granular Backfill (Wingwalls) (Set)	1	C.Y.

GENERAL NOTES

LOADING: HS20-44 AASHTO Specifications, 1983 Edition.
UNIT STRESSES: Class AAA 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 shall include the surfacing.
CONCRETE: Class AAA Concrete shall be used throughout. Bevel all exposed edges with a 1/4 inch triangular moulding. Where Class AAA Concrete (AE) is specified, it shall be placed in the top slab above the Construction Joint.
REINFORCING: All reinforcing shall conform to ASTM A615, Grade 60. All dimensions relative to reinforcing steel shall be to centerline of bar unless otherwise noted.
EXCAVATION: Excavation for culverts less than bridge length shall not be paid for directly but shall be subsidiary to Class AAA Concrete. Excavation for RCB Bridges shall be paid for as Class III Excavation.
SEAL COURSE: A Seal Course may be required by the Engineer. The Seal Course shall be unreinforced Concrete (Commercial Grade) to a minimum depth of 3 inches or as determined by the Engineer. Concrete for the seal course shall be paid for at the unit price set for Concrete for Seal Course.
FOUNDATION STABILIZATION: Foundation Stabilization may be required as directed by the Engineer. The depth of Foundation Stabilization shall be determined by the Engineer. Foundation Stabilization shall be paid for at the determined Unit Price set for Foundation Stabilization. See Auxiliary Details.
QUANTITIES: The quantities shown in the Culvert Summary include apron and/or soil saver quantities when their construction is required by the plans. Payment for additional quantities that result from including seal course and/or floating apron, as a change in original plans, shall be made at the Unit Price bid for the various items involved.
GRANULAR BACKFILL (WINGWALLS): Special backfill procedures may be required at the direction of the Engineer. See Auxiliary Details Sheet.
STRIKE LINE: Wingwalls and that portion of the RCB outside the Strike Line shall be constructed level. Footing for wingwalls shall be constructed with the culvert floor. See wingwall detail sheet.

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION
S+4. 251+50.42
SINGLE 5' x 3' RCB
11'-7" EXT. RT.
BR 1.05.03 SEDGWICK CO.
FHWA APPROVAL 6-5-91 APP'D KENNETH F. HURST
DESIGNED TRAC'D
DETAIL CK. QUANTITIES TRAC'D
QUAN. CK. TRAC'D CK.