

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85282	2017	44	96

Note:
S3 bars omitted unless grade box or slab thickness is greater than or equal to 12".

Note:
F3 bars omitted unless floor thickness is greater than or equal to 12".

†† Omit S5 bars when S3 bars are omitted and omit the bottom layer of F4 bars when F3 bars are omitted.

GENERAL NOTES

DESIGN SPECIFICATION: AASHTO LRFD Spec., 2007 Ed., 2009 Int.

DESIGN LOADING: HL9.3

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. Bevel all exposed edges with a $\frac{3}{4}$ " 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 bridge length shall not be paid for directly but shall be subsidiary to Grade 4.0 Concrete. Excavation for RCB bridges shall be paid for as Class III Excavation.

SEAL COURSE: The Engineer may require a seal course. The seal course shall be unreinforced Concrete (Commercial Grade) with 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.

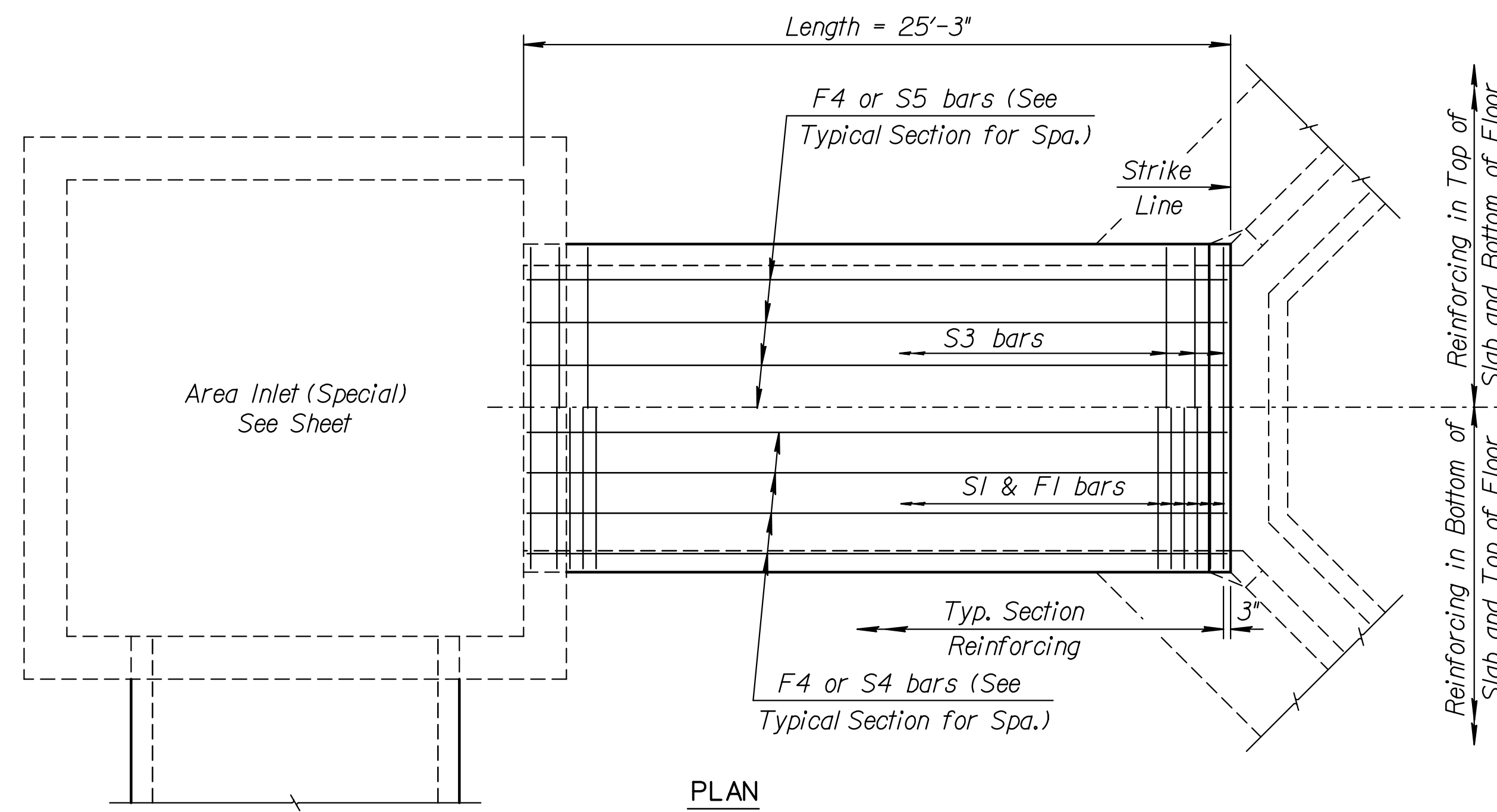
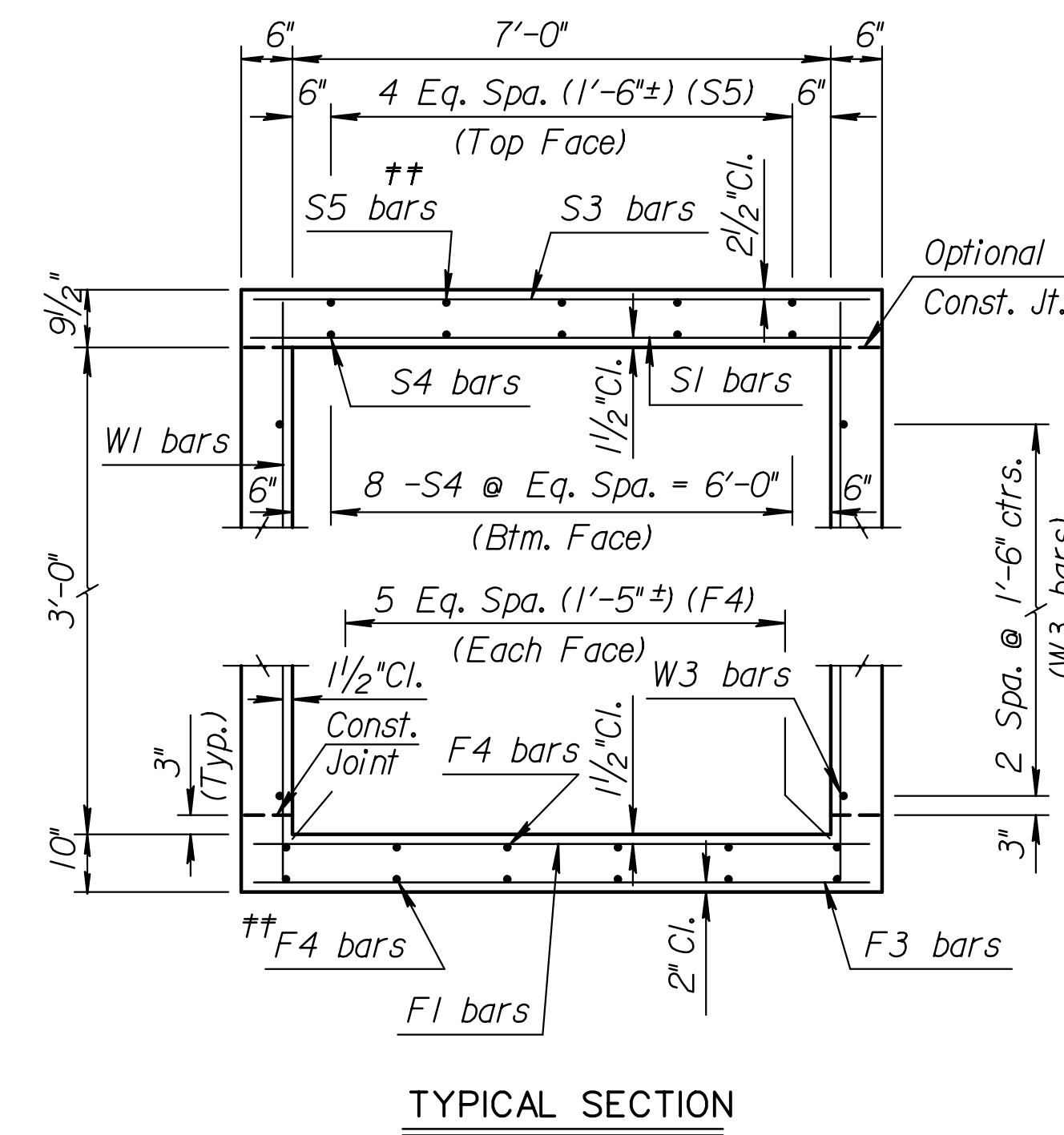
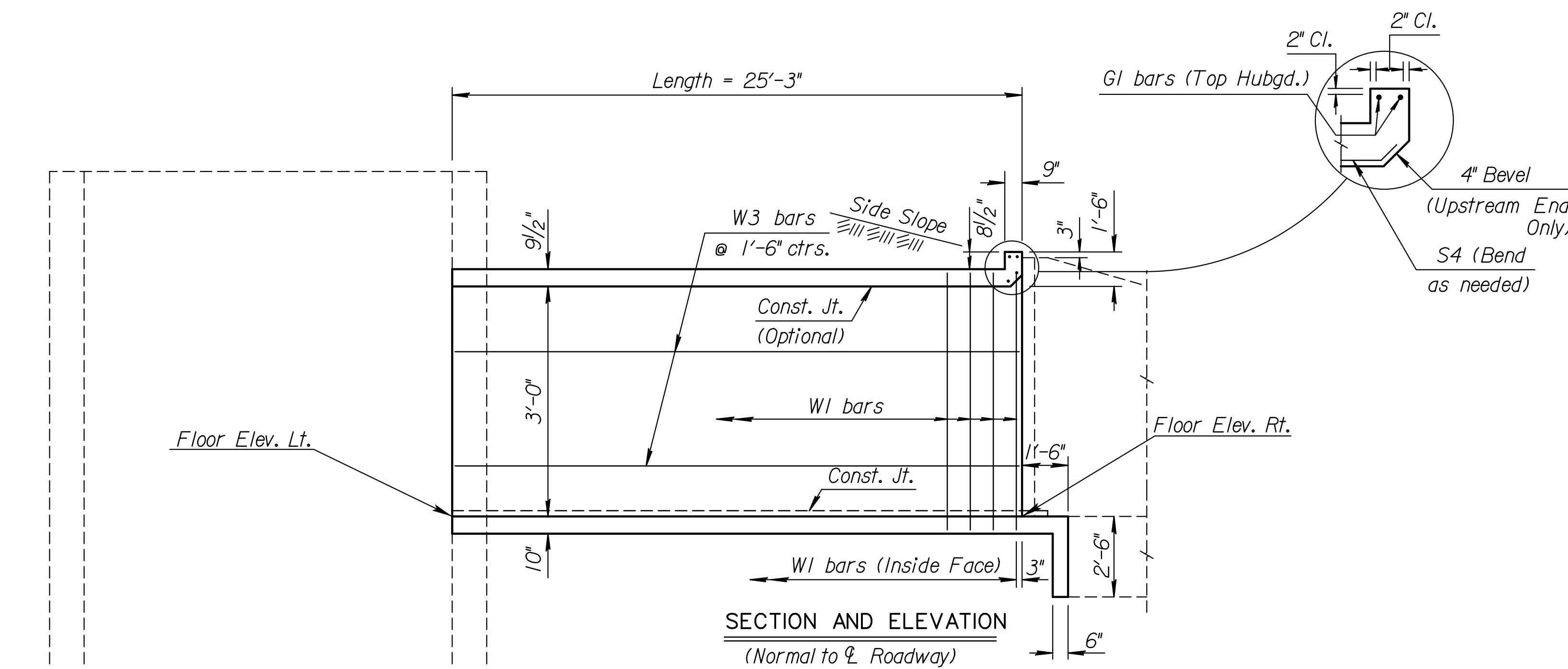
FOUNDATION STABILIZATION: The Foundation Stabilization quantity has been calculated to the limits shown on the "RCB Auxiliary Details" sheet. The depth may be increased by the Engineer. The Contractor may underrun Foundation Stabilization under the barrel if founded on firm material and with the Engineer's approval. Use Foundation Stabilization on all wingwalls unless founded on rock or granular material.

QUANTITIES: The quantities shown in the Culvert Summary include apron and/or soil saver quantities when they are required by the plans. Payment for additional quantities that result from including a seal course and/or a floating apron, as a change in the original plans, shall be made at the unit price bid for the various items involved.

GRANULAR BACKFILL (WINGWALLS):

See the "Auxiliary Details" sheet.

STRIKE LINE: Construct the wingwalls and that portion of the RCB outside the Strike Line level. Construct the wingwall footings with the culvert floor. See the wingwall detail sheets.



CULVERT SUMMARY												Concrete			Reinf. Steel (Gr. 60)		
Floor Elev. Lt.	Floor Elev. Rt.	Crown Gr. Elev.	Design Fill Ht.	Skew	Left Wings	Right Wings	Scour Apron	Soil Saver	Barrel (Cu.Yds.)	Wings (Cu.Yds.)	Total (Cu.Yds.)	Barrel (Lbs.)	Wings (Lbs.)	Total (Lbs.)			
1324.40	1324.50	N/A	2	0	NONE	FLARED	YES	NO	15.11	5.20	20.31	1796	422	2218			

BAR SCHEDULE																													
F1				F4				S1				S4																	
Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length						
6	6"	51	7'-8"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4	6"	24'-11"	6	6"	51	7'-8"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
W1				W3				G1																					
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4	9"	68	4'-4"	N/A	N/A	N/A	N/A	4	6"	24'-11"	N/A	N/A	N/A	N/A	5	2"	7'-8"	N/A	N/A	N/A	N/A

Minimum Splice Lengths	
#4	1'-5"
#5	1'-9"
#6	2'-1"

SUMMARY OF QUANTITIES	
Concrete (Grade 4.0)	20.3 C.Y.
Concrete (Grade 4.0(AE))	--- C.Y.
Bridge Backwall Protection System	--- S.Y.
Reinforcing Steel (Gr. 60)	2220 Lbs.
Reinforcing Steel (Gr. 60)(Epoxy Coated)	--- Lbs.
Class III Excavation	--- C.Y.
Foundation Stabilization	7 C.Y.
Concrete for Seal Course (Set)	1 C.Y.

NO.	DATE	REVISIONS	BY	APP'D
KANSAS DEPARTMENT OF TRANSPORTATION				
SINGLE 7 ft x 3 ft RCB				
Proj. No. 472-85282		CITY OF WICHITA		
DESIGNED	10-20-10	APP'D	Terry L. Fleck	
DESIGN CK.	DETAIL CK.	QUANTITIES	TRACED	TRACE CK.
		QUAN. CK.		

Plotted By: will
 File: U:\Wichita-Civil\2015\15956\000\Trans\Bridges\RCB\Proj\Sheet\SM44_Tx3_BarrRel.dgn
 Plot Date: 24-JUL-2017 08:20