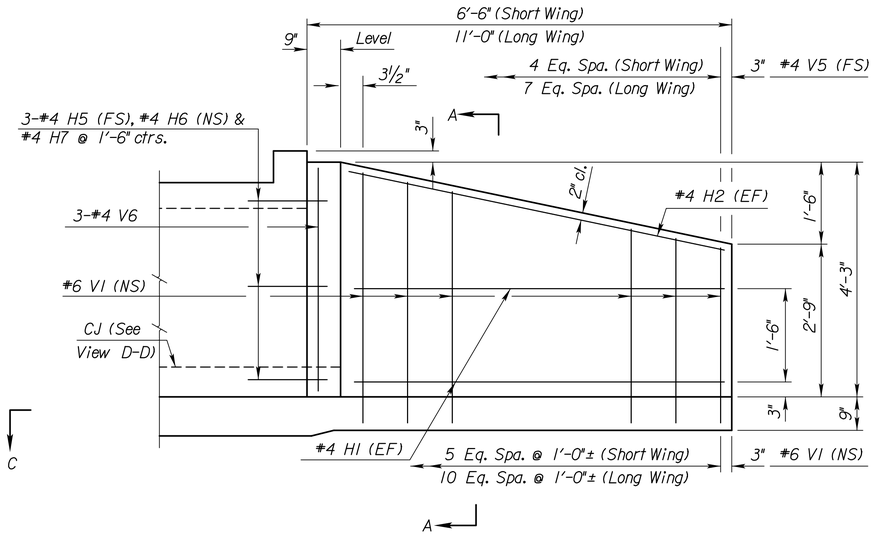
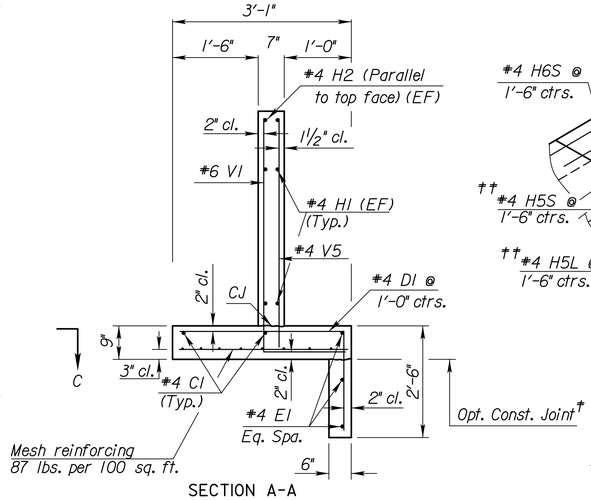
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85066	2014	91	388

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; fy = 60,000 p.s.i.
CONCRETE: Grade 4.0 Concrete shall be used throughout. Bevel all exposed edges with a ¾" triangular moulding.
REINFORCING: All reinforcing shall conform to ASTM A615, Grade 60. Welded Wire Fabric shall conform to ASTM A185. All dimensions relative to reinforcing steel shall be to center-line of bar unless otherwise noted. Wire Reinforcing mesh shall be electrically welded and shall be composed of 6 x 6- W6 x W6 welded wire fabric and shall be classified as pounds of reinforcing and included in the total quantity for the bid item Reinforcing Steel (Gr. 60)
QUANTITIES: Wingwall Quantities include all quantities outside the neat lines of the box, excluding the hubguard.
APRON: A 5" concrete slab shall be constructed between the down-stream wings in locations subject to scour only when specified on the plans or by the Engineer.
BACKFILL MATERIAL: Use Granular Backfill material meeting the requirements of SB-1, SB-2, SCA-2, SCA-3 or SCA-5. Backfill all wings to limits shown on the "RCB Auxiliary Sheet".
FILTER FABRIC: Separate in-situ material from granular backfill with approved filter fabric complying with Section 1710. Filter Fabric is subsidiary to "Granular Backfill".
FOUNDATION STABILIZATION: Use Foundation Stabilization on all wingwalls unless founded on rock or granular material.



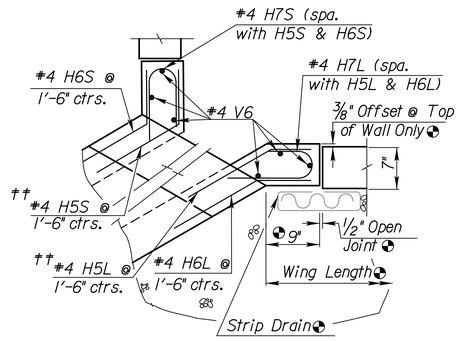
ELEVATION OF WINGWALL
(Backface Shown)



SECTION A-A

See "RCB Aux. Details" sheet for additional requirements.

Typical both wings



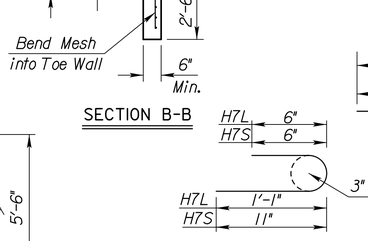
WINGWALL JOINT DETAIL
(Plan View)

† NOTE: Const. Jt. may be used at Contractor's option when approved by the Engineer. D1 bars or mesh may be spliced thus: ⌐ Minimum overlap shall be 1'-3". No increase in quantities or cost shall be allowed when Contractor elects this option.

VIEW D-D

SECTION E-E

NOTE:
EF = Each Face
NS = Near Side
FS = Far Side
CJ = Const. Joint



SECTION B-B

Bar	Incrmts.
V1S	3⅜"
V1L	1¹¹⁄₁₆"
V5S	4¼"
V5L	2⁷⁄₁₆"

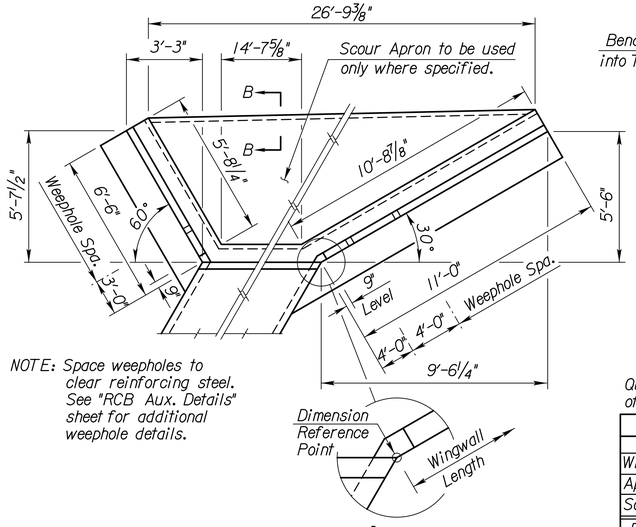
Var. 3'-2" to 4'-7" by equal increments (See Table)

V5S, V5L

Var. 3'-2" to 4'-7" by equal increments (See Table)

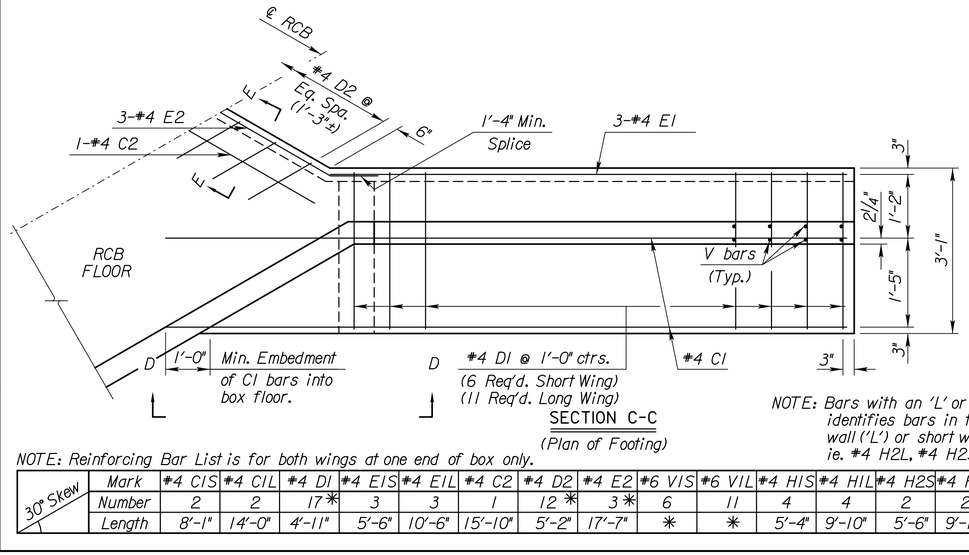
V1S, V1L

1'-3"



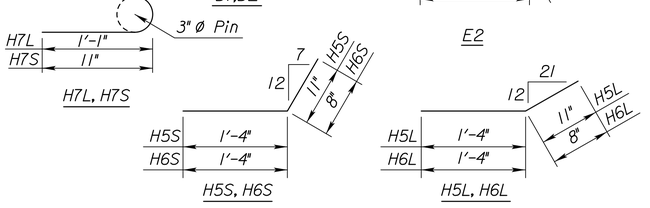
NOTE: Space weepholes to clear reinforcing steel. See "RCB Aux. Details" sheet for additional weephole details.

WING DIMENSIONS FOR 30° SKEWED BOX
(3½:1 Embankment Slope)



SECTION C-C
(Plan of Footing)

NOTE: Bars with an 'L' or 'S' designation identifies bars in the long wing-wall ('L') or short wingwall ('S'); ie. #4 H2L, #4 H2S, etc.



BENDING DIAGRAM
(All dimensions are out to out of bars.)
†† Bend in Field

Quantities listed below are included in the Summary of Quantities shown on the RCB details.

WINGWALL QUANTITIES (One End Only)				
	Foundation Stabilization		Concrete (Gr. 4.0)	
Wingwalls	1.66	(C.Y.)	4.57	(C.Y.)
Apron	1.72	(C.Y.)	2.64	(C.Y.)
Soil Saver	0.00	(C.Y.)	0.00	(C.Y.)
Reinforcing Steel (Gr. 60)			470	Lbs.
Welded Wire Fabric (Wings)			49	Lbs.
Welded Wire Fabric (Apron)			151	Lbs.
Granular Backfill (Wingwalls)			9.40	C.Y.
Filter Fabric (subsidiary)			18.14	S.Y.

NOTE: Reinforcing Bar List is for both wings at one end of box only.

*See Bending Diagram

30° Skew	Mark	#4 C1S	#4 C1L	#4 D1	#4 E1S	#4 E1L	#4 C2	#4 D2	#4 E2	#6 V1S	#6 V1L	#4 H1S	#4 H1L	#4 H2S	#4 H2L	#4 H5S	#4 H5L	#4 H6S	#4 H6L	#4 H7S	#4 H7L	#4 V5S	#4 V5L	#4 V6
	Number	2	2	17*	3	3	1	12*	3*	6	11	4	4	2	2	3*	3*	3*	3*	3*	3*	5	8	6
	Length	8'-1"	14'-0"	4'-11"	5'-6"	10'-6"	15'-10"	5'-2"	17'-7"	*	*	5'-4"	9'-10"	5'-6"	9'-11"	2'-3"	2'-3"	2'-0"	2'-0"	1'-6"	1'-8"	*	*	4'-0"

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

KANSAS DEPARTMENT OF TRANSPORTATION
Serial No.(559) Sta. 465+50.00
FLARED WINGWALLS
3 ft Rise (30°SKEW)
BR 10.30.03 Sedgwick Co.

FHWA APPROVAL		10-20-10 APP'D	Terry L. Fleck
DESIGNED	DETAILED	QUANTITIES	CADD
DESIGN CK.	DETAIL CK.	QUAN. CK.	CADD CK.

Plot Location:
Plotted By: msn
File: I:\2009\09052\Office Check 03-2012\Bridge\RCBU09521-BR-2-6x3x36(Wing).dgn
Plot Date: 12/30/2013