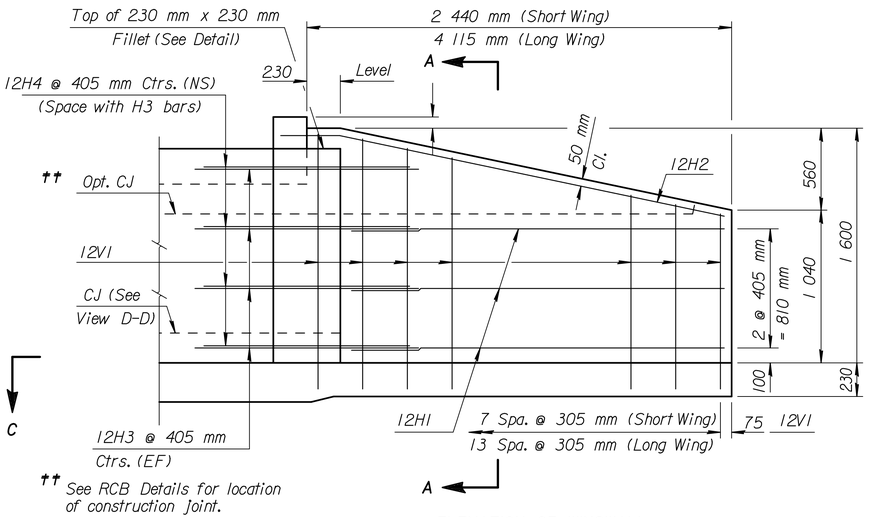
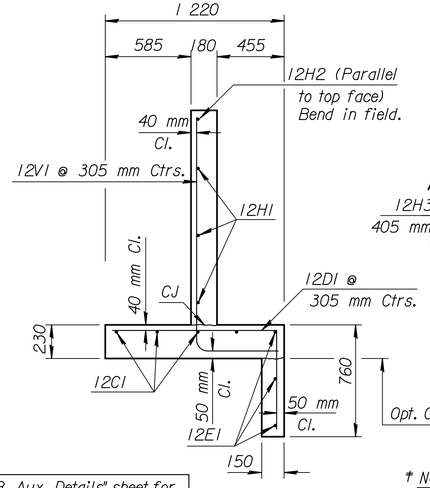
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	54-87 K-6657-01	2002	427	1122



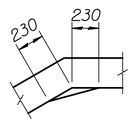
ELEVATION OF WINGWALL

(Backface Shown)

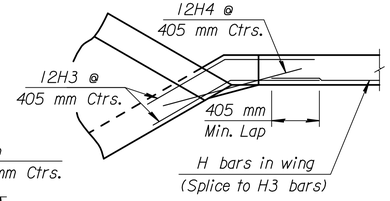


See "RCB Aux. Details" sheet for requirements of Wingwall Subbase.

SECTION A-A



Fillet Detail



DETAIL OF 230 mm x 230 mm FILLET

(Plan View)

GENERAL NOTES

UNIT STRESSES: Class AAA Concrete; f'c = 28 MPa
Reinforcing Steel; fy = 420 MPa

CONCRETE: Class AAA Concrete shall be used throughout. Bevel all exposed edges with a 20 mm triangular moulding.

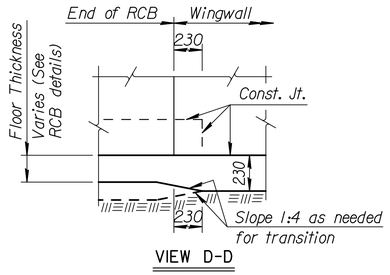
REINFORCING: All reinforcing shall conform to ASTM A615M-96, Grade 420. Welded Wire Fabric shall conform to ASTM A185M. All dimensions relative to reinforcing steel shall be to center-line of bar unless otherwise noted.

QUANTITIES: Wingwall Quantities include all quantities outside the neat lines of the box, excluding the hubguard.

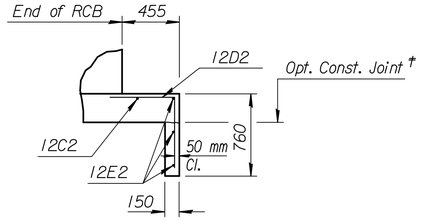
APRON: A 125 mm concrete slab shall be constructed between the downstream wings in locations subject to scour only when specified on the plans or by the Engineer. Wire Reinforcing mesh shall be electrically welded and shall be composed of 150x150-MW10xMW10 welded wire fabric and shall be classified as kilograms of reinforcing.

FOUNDATION AND BACKFILL MATERIAL: Soils Judged as high plasticity clays, fat clays, expansive clays, or organic clays are unsuitable for foundation and/or backfill material for wingwalls and will not be used. Where these conditions exist, Foundation Stabilization and/or Granular Backfill (Wingwalls) shall be used as determined by the Engineer. See "RCB Auxiliary Details" sheet for additional details.

† NOTE: Const. Jt. may be used at Contractor's option when approved by the Engineer. DI bars or mesh may be spliced thus: Minimum overlap shall be 380 mm. No increase in quantities or cost shall be allowed when Contractor elects this option.

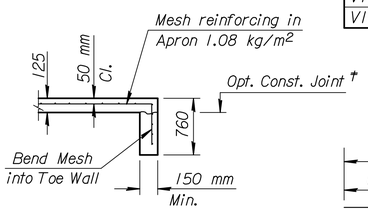


VIEW D-D



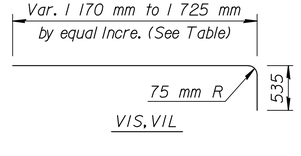
SECTION E-E

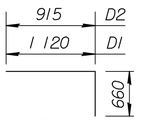
NOTE:
EF = Each Face
NS = Near Side
FS = Far Side
CJ = Const. Joint



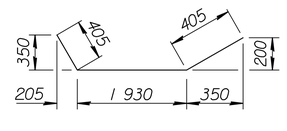
SECTION B-B

Bar	Incrmts.
VIS	75
VIL	45

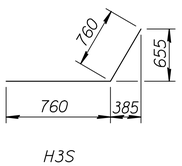




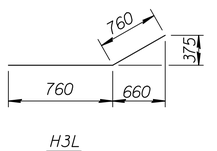
D1, D2



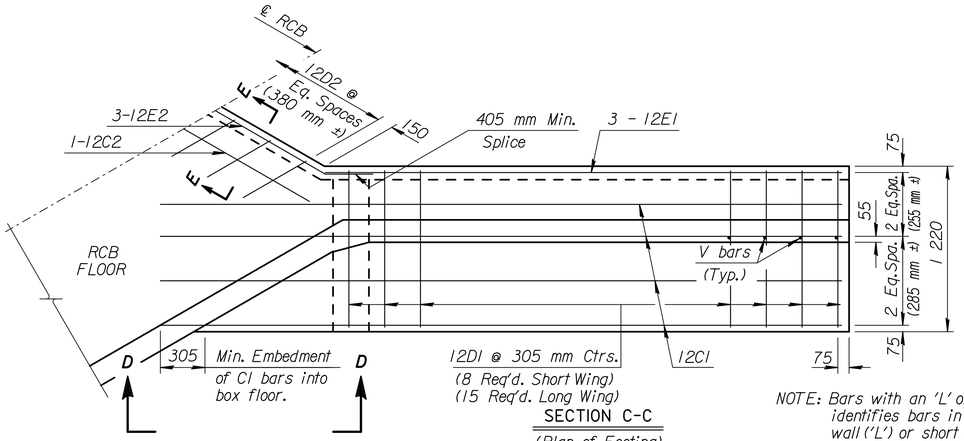
E2



H3S

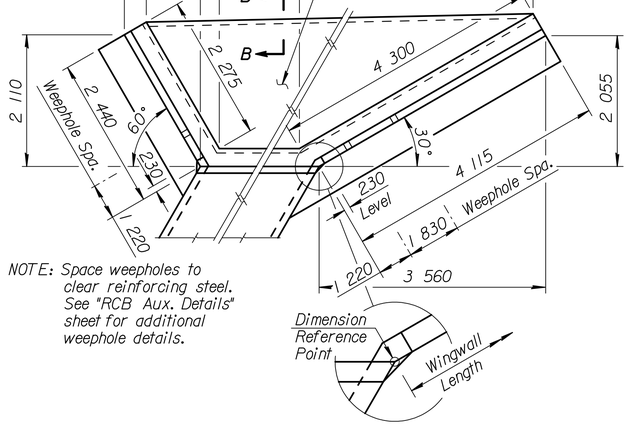


H3L



SECTION C-C

(Plan of Footing)



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

WING DIMENSIONS FOR 30° SKEWED BOX

(1:3.5 Embankment Slope)

NOTE: Bars with an 'L' or 'S' designation identifies bars in the long wing-wall ('L') or short wingwall ('S'); ie. 12H2L, 12H2S, etc.

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

✱ See Bending Diagram

30° Skew	Mark	12C1S	12C1L	12D1	12E1S	12E1L	12C2	12D2	12E2	12V1S	12V1L	12H1S	12H1L	12H2S	12H2L	12H3S	12H3L	12H4S	12H4L
	Number	4	4	23✱	3	3	1	5 ✱	3✱	8	14	3	3	1	1	8✱	8✱	4	4
	Length	2 995	5 260	1 780	2 210	4 265	2 710	1 575	2 740	✱	✱	2 085	3 760	2 690	4 345	1 520	1 520	840	1 065

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

WINGWALL QUANTITIES
(One End Only)

Class AAA Concrete:		
Wingwalls	4.50	m³
Apron	1.74	m³
Soil Saver		m³
Reinforcing Steel	211.3	kg
Welded Wire Fabric	14.1	kg

BENDING DIAGRAM

(All dimensions are out to out of bars.)

RECORD DRAWING

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

Sta. 4+146.000

FLARED WINGWALLS
1.22 m RISE (30° SKEW)

BR

FHWA APPROVAL	6-5-91	APP'D	KENNETH F. HURST
DESIGNED	DETAILED	QUANTITIES	TRACED
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK.

ORIG. FROM BR.NO.	PROJ.	CO.
DESIGN	DATE	CHECK DATE
DETAIL	DATE	DATE
QUANTITIES	DATE	DATE
TRACING	DATE	DATE
RETRACED	DATE	DATE

Plotted By: ras Scale 1:1000
I:\1997\97362\As-Builts\dgn's\Vol 2\Sh 427-KDOT_Std-4146.dgn Last Rev: 8-29-07 By: gdr