

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0190-01	2005	38	96

GENERAL NOTES

UNIT STRESSES: Grade 4.0 Concrete; $f_c = 4,000$ p.s.i.
Reinforcing Steel; $f_y = 60,000$ p.s.i.

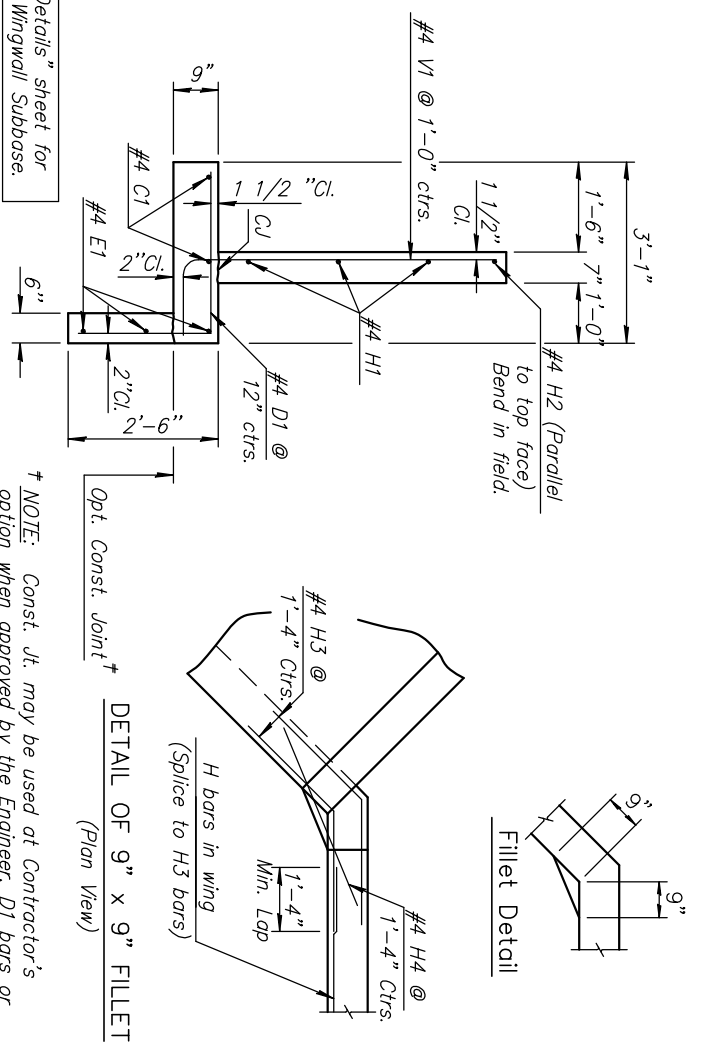
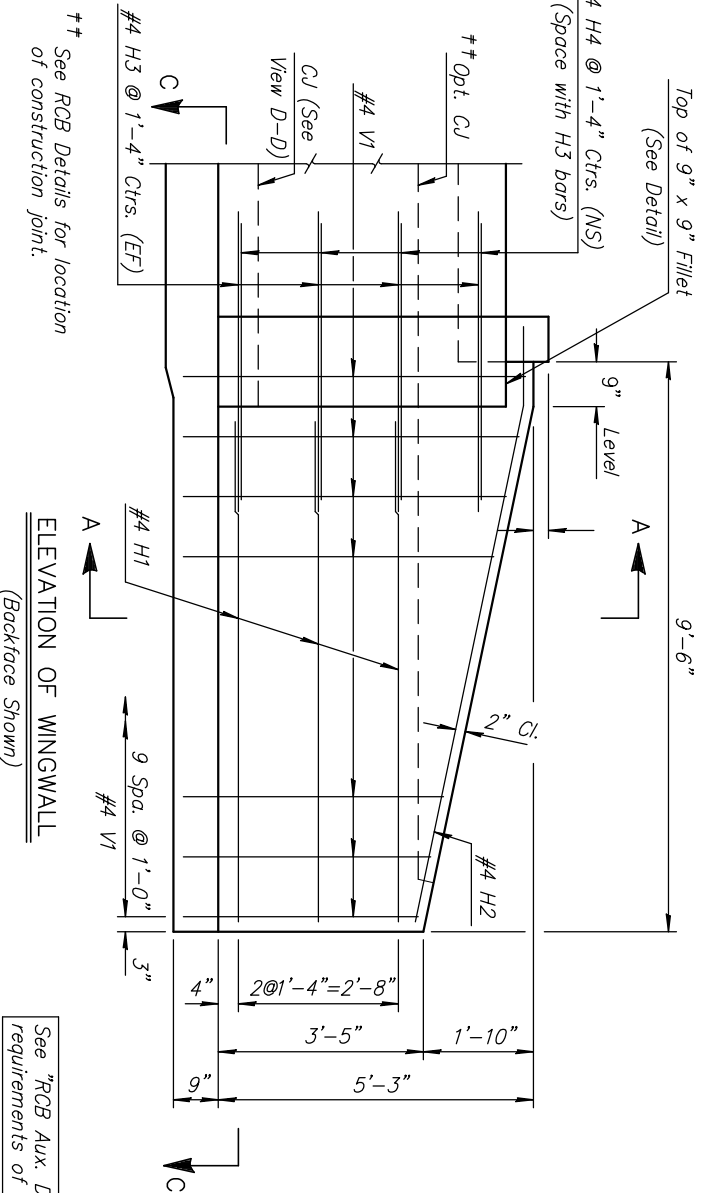
CONCRETE: Grade 4.0 Concrete shall be used throughout. Bevel all exposed edges with a 3/4 inch triangular moulding.

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 centerline of bar unless otherwise noted.

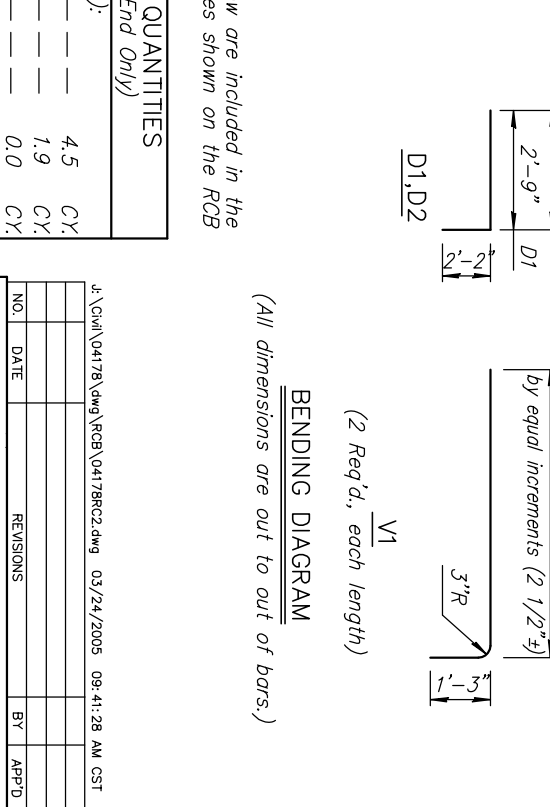
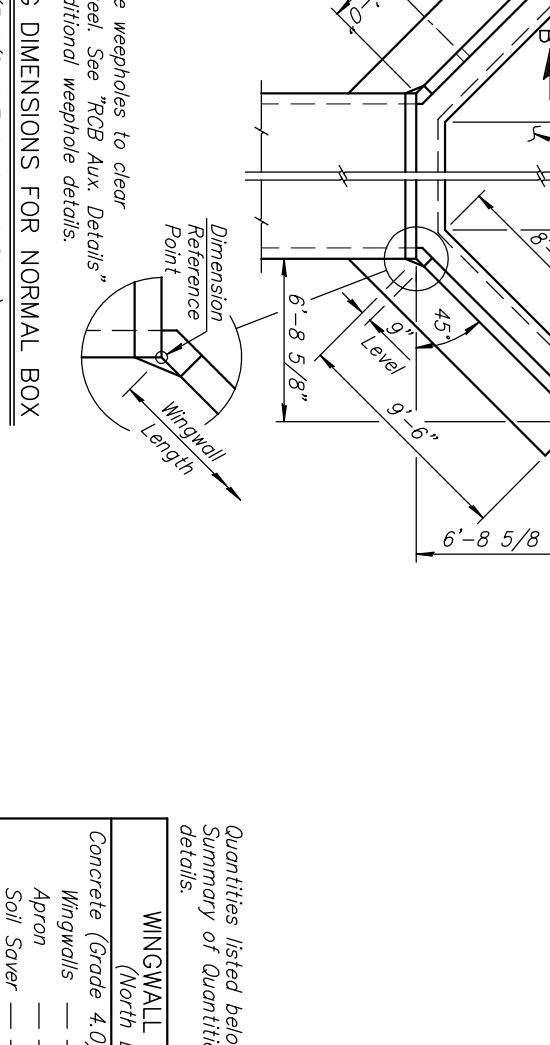
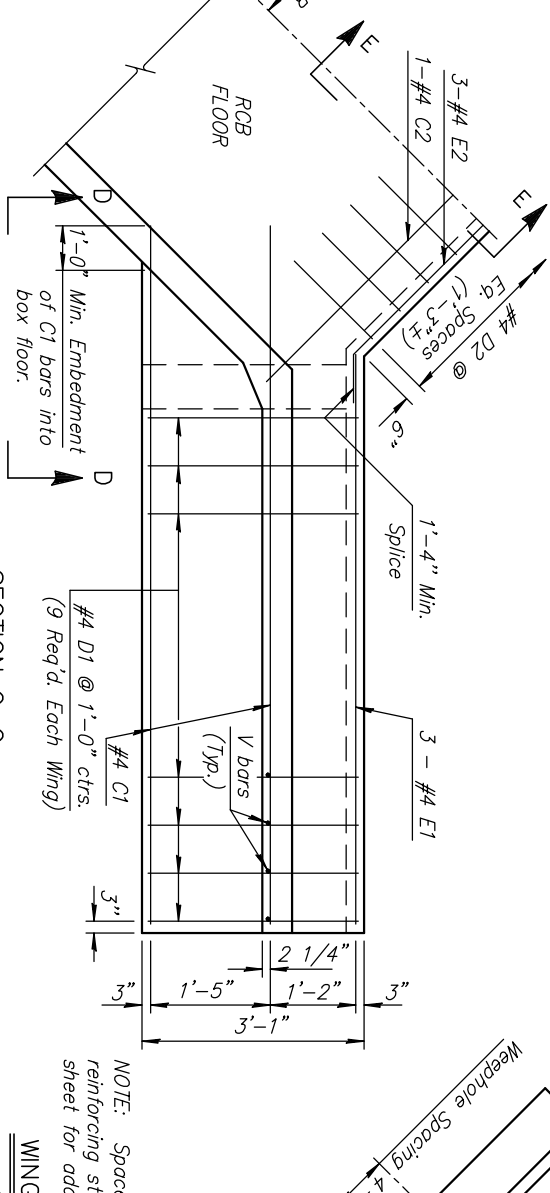
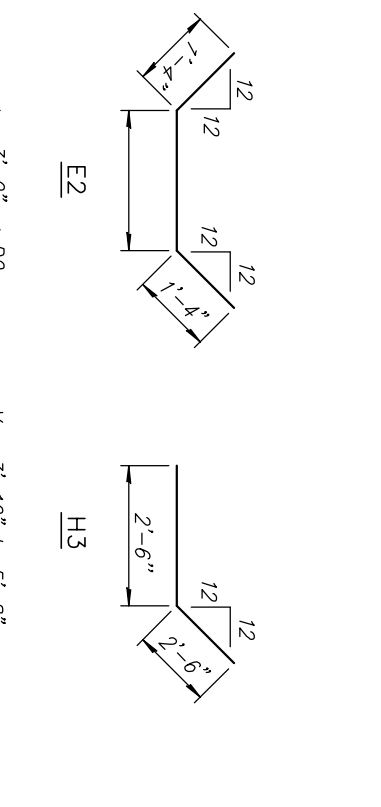
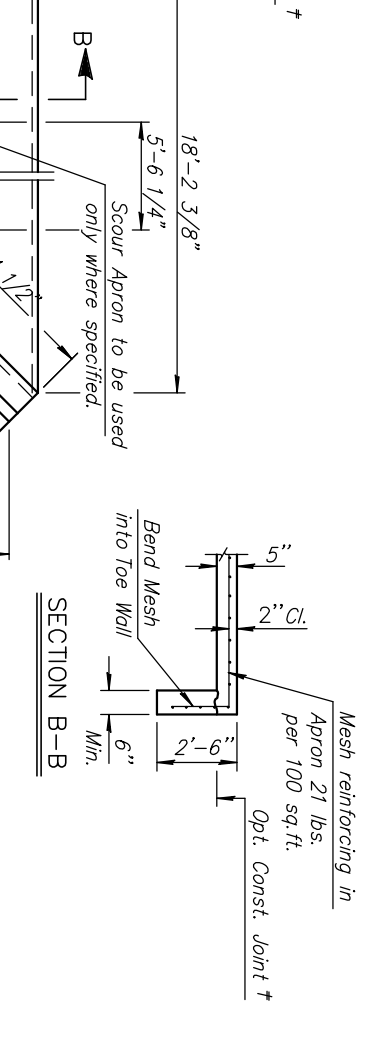
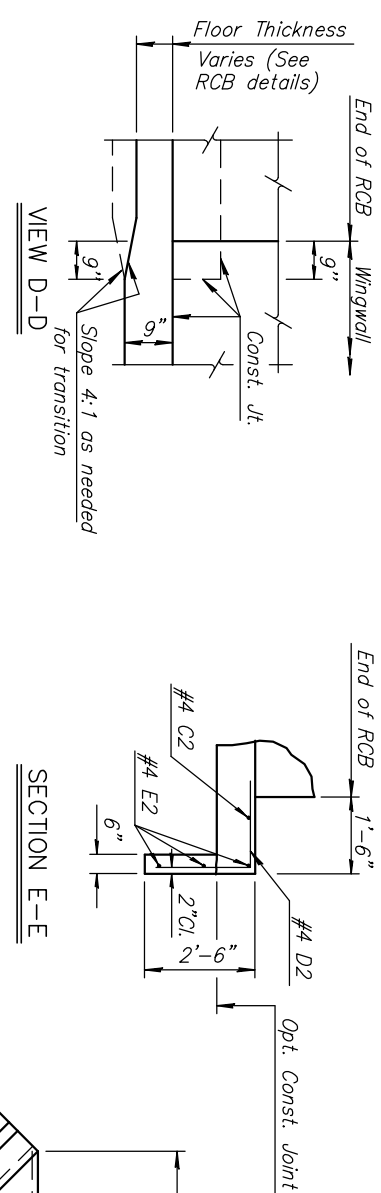
QUANTITIES: Wingwall Quantities include all quantities outside the neat lines of the box, excluding the hubguard.

APRON: A 5" concrete slab shall be constructed between the 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 6 x 6 - W1.4 x W1.4 welded wire fabric and shall be classified as pounds 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. D1 bars or mesh may be spliced thus: \rightarrow Minimum overlap shall be 1'-3". No increase in quantities or cost shall be allowed when Contractor elects this option.



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

WINGWALL QUANTITIES (North End Only)	
Concrete (Grade 4.0):	
Wingwalls	4.5 CY.
Apron	1.9 CY.
Soil Saver	0.0 CY.
Reinforcing Steel	361 Lbs.
Welded Wire Fabric	25 Lbs.

(All dimensions are out to out of bars.)

BENDING DIAGRAM
(2 Req'd, each length)

V1
3"R

H3

WING DIMENSIONS FOR NORMAL BOX
(3 1/2 : 1 Embankment Slope)

Dimension Reference Point

Wingwall Length

SECTION C-C

1'-4" Min. Embedment of C1 bars into box floor.

9 Req'd. Each Wing

SECTION A-A

Opt. Const. Joint †

Mesh reinforcing in Apron 21 lbs. per 100 sq. ft.

Opt. Const. Joint †

SECTION E-E

Opt. Const. Joint †

SECTION D-D

Const. Jt.

Slope 4:1 as needed for transition

SECTION B-B

Bend Mesh into Toe Wall

Min. 6"

SECTION A-A

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

SECTION C-C

Splice

1'-4" Min.

SECTION D-D

End of RCB

Wingwall

9"

9"

Floor Thickness Varies (See RCB details)

SECTION E-E

End of RCB

1'-6"

3 - #4 E1

V bars (Typ.)

#4 C1

3"

2 1/4"

1'-5"

1'-2"

3"

3'-1"

SECTION A-A

Opt. Const. Joint †

18'-2 3/8"

5'-6 1/4"

Scour Apron to be used only where specified.

8'-11 1/2"

45°

9" Level

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