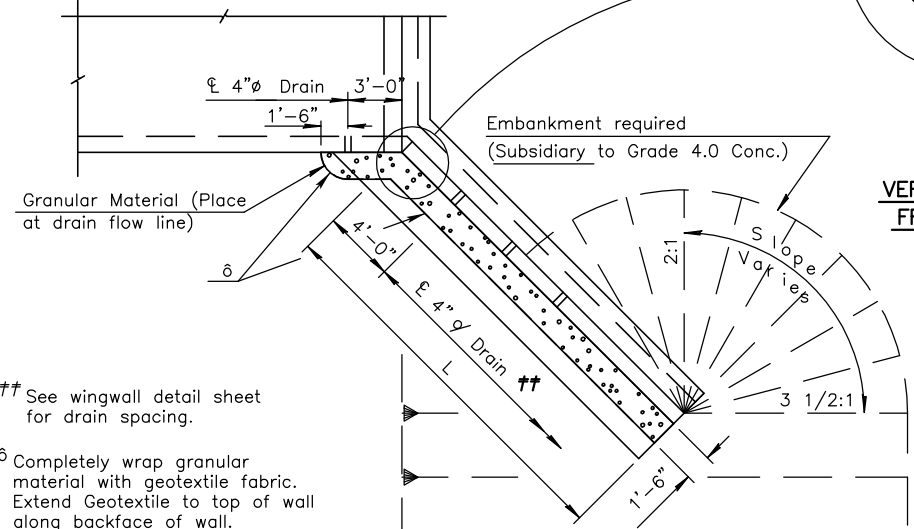
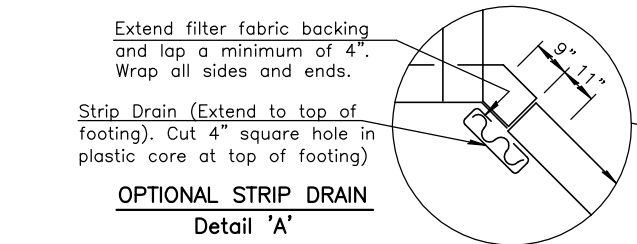
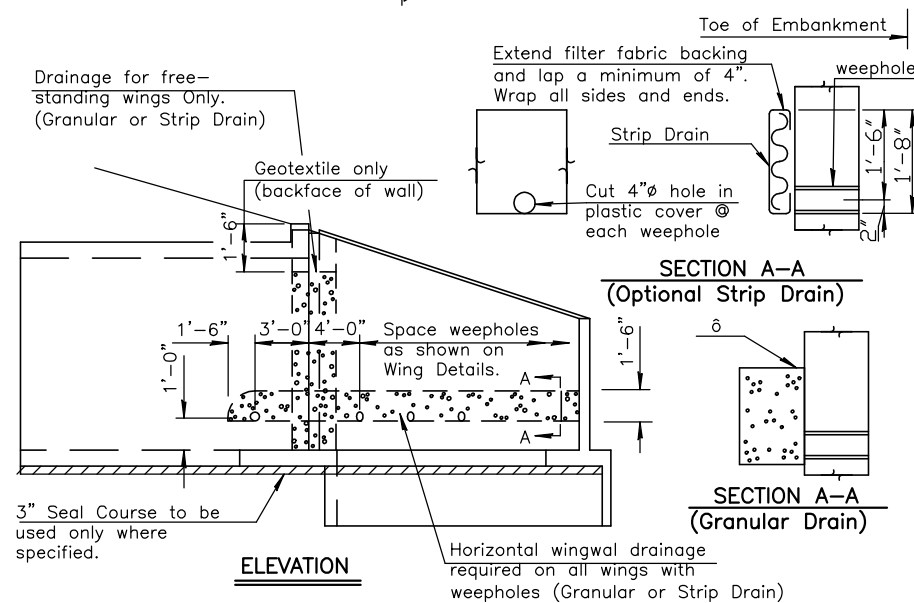


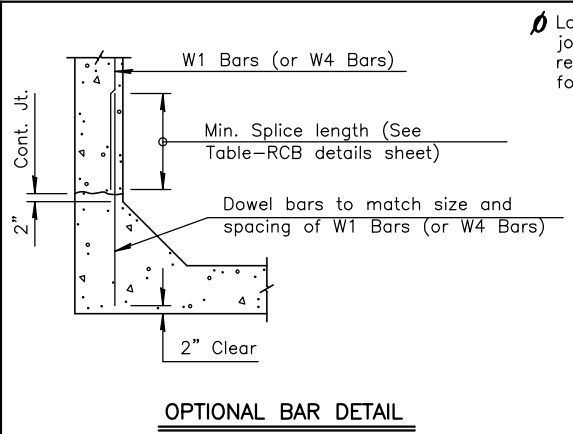
**SECTION THRU WINGWALL**



**WINGWALL PLAN**

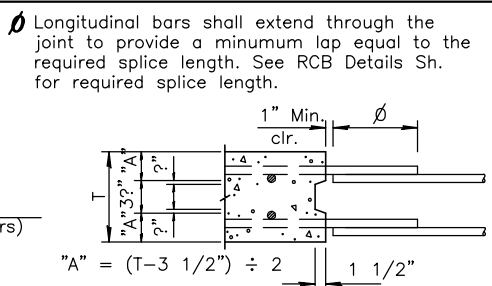


**ELEVATION**



**OPTIONAL BAR DETAIL**

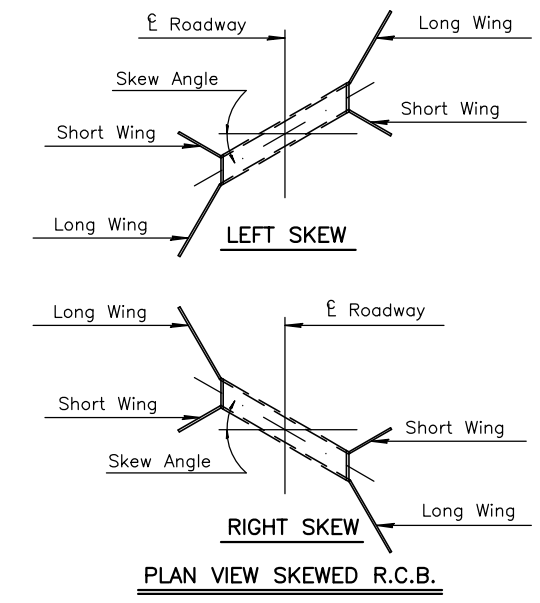
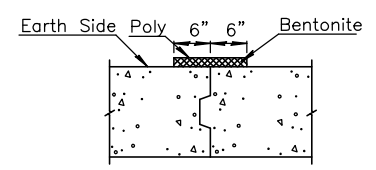
The Contractor shall have the option of using Dowel Bars to match vertical wall bars as shown, however no allowance will be made for additional steel required for bar laps.



**VERTICAL CONSTRUCTION JOINTS**

NOTE: Vertical construction joints shall be perpendicular to the longitudinal axis of the RCB and shall be placed at any location as needed for construction and as approved by the Engineer.

NOTE: Horizontal construction joints shall be a roughened finish.



**PLAN VIEW SKEWED R.C.B.**

**GENERAL NOTES**

- Wingwall Drainage:**
- All wingwalls with weepholes shall have horizontal wingwall drainage as shown. Free-standing wingwalls shall also have the vertical wingwall drainage. Strip drains may be used in lieu of aggregate. See KDOT Specifications for "Abutment Strip Drains" for strip drain requirements.
  - Construction and materials for wingwall drainage, including weepholes, geotextile fabric, granular material, and strip drain shall be subsidiary to the bid item, "Grade 4.0 Concrete". Granular material for wingwall drainage shall conform to the requirements of UD-1. Weepholes may be a formed opening or corrugated polyethylene tubing.

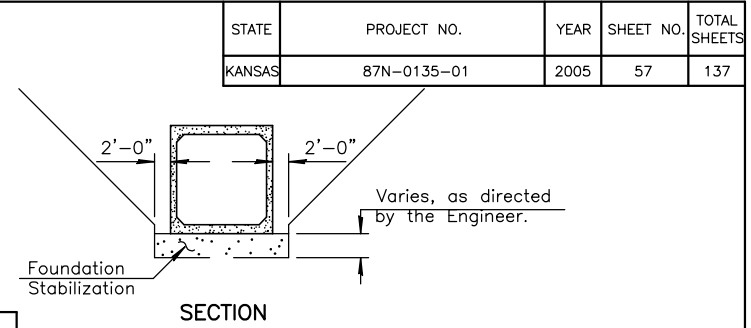
- Wingwall Subbase:**
- Wingwall subbase shall be constructed at all wingwall footings to assure the assumed coefficient of friction between the concrete footing and the foundation, with the following exceptions:
    - Wingwall subbase will not be required for footings on RCB's 6 feet or less in height unless otherwise determined by the Engineer.
    - The subbase will also not be required for footings founded on rock or clean, granular material as determined by the Engineer.
  - Subbase shall consist of 4" compacted granular material consisting of commercial grade clean sand or UD-1 material. All excavation, material and labor necessary to construct the wingwall subbase shall be subsidiary to "Grade 4.0 Concrete".

- Seal Course:**
- Seal Course consisting of 3" min. of Commercial Grade Concrete shall be constructed to the limits directed by the Engineer. No reinforcing in the floor of the slab or wall footing shall be placed until the Seal Course has gained sufficient strength to permit working upon it without injury.

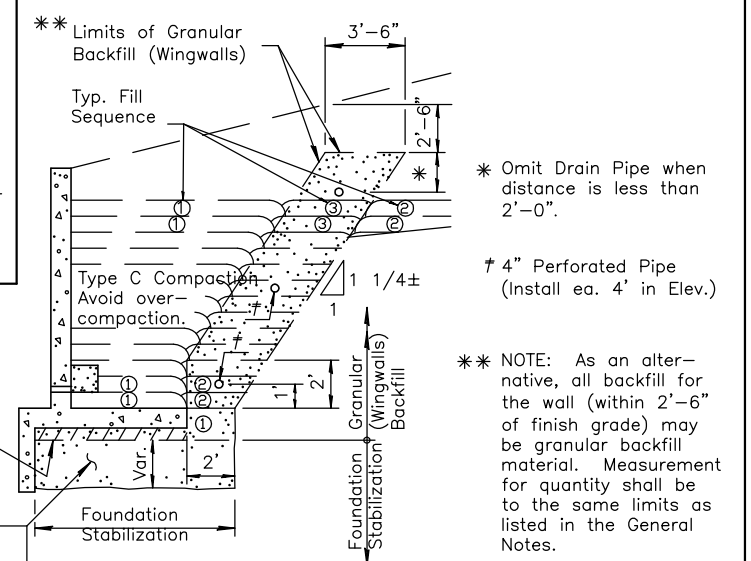
**GENERAL NOTES**

- Foundation Stabilization:**
- Foundation stabilization shall be required under the box, wingwalls and aprons in accordance with the dimensions shown in the details. Foundation stabilization shall consist of 6" thickness of crushed rock conforming to ASTM C-33, Gradation No. 67, and shall meet the requirements for Portland Cement Concrete Pavement Course Aggregate, Section 406.2 of the City of Wichita Standard Specifications. Foundation stabilization shall be subsidiary to "Grade 31 Concrete (AE)" and shall include all necessary excavation.

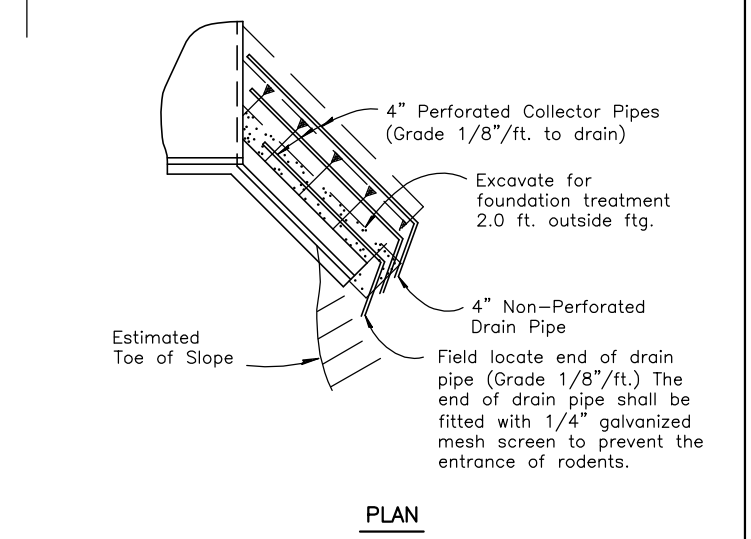
- Granular Backfill (Wingwalls):**
- Granular backfill (wingwalls) shall be required behind new wingwalls in accordance with the dimensions shown in the details. Granular backfill (wingwalls) shall conform to KDOT designation UD-1 or BD-1 or to the City of Wichita's designation for Crushed Rock for Underdrain. Granular backfill (wingwalls) shall be subsidiary to "Grade 31 Concrete (AE)" and shall include all necessary excavation, drainage pipe and rodent screens.



**SECTION**



**SECTION**



**PLAN**

**GRANULAR BACKFILL AND FOUNDATION STABILIZATION**

NO.	DATE	REVISIONS	BY	APP'D
6	10/19/04	Concrete - Class to Grade	RAM	KFH
5	12/29/03	Geotextile to top of wall	RAM	KFH
4	5/15/02	Removed Wing Height Stipulation	RAM	KFH
3	3-28-97	Wrap granular drains	RAM	KFH
2	9-20-96	Strip drain & bentonite at joint	RAM	KFH

KANSAS DEPARTMENT OF TRANSPORTATION			
RCB AUXILIARY DETAILS			
BR020			
FHWA APPROVAL	2-1-2005	APP'D	Anthony A. Alroaire
DESIGNED	B.A.H.	DETAILED	B.A.H.
QUANTITIES	TRACED	DESIGN CK.	DETAIL CK.