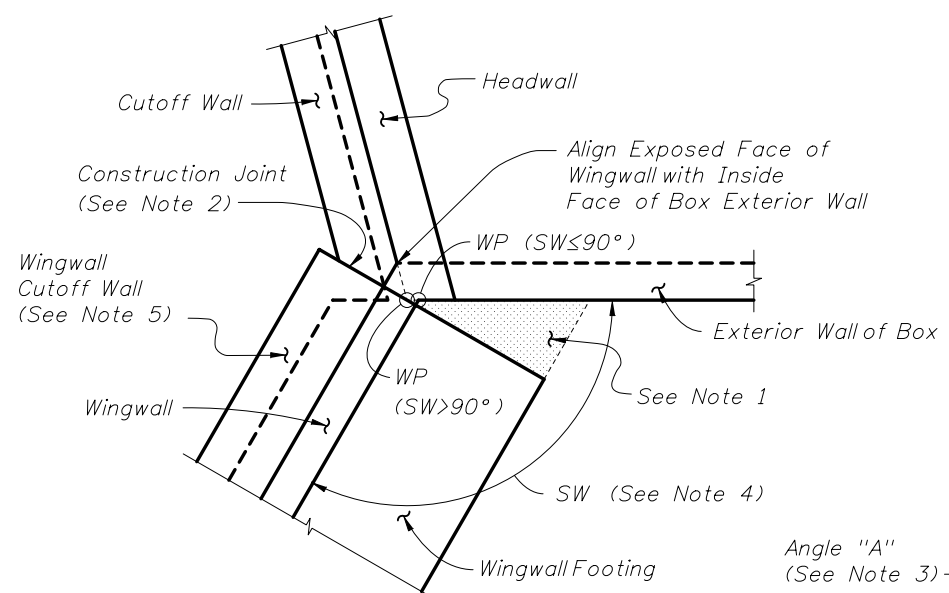
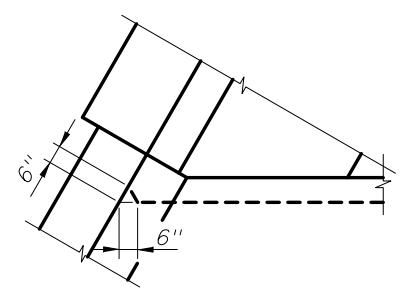


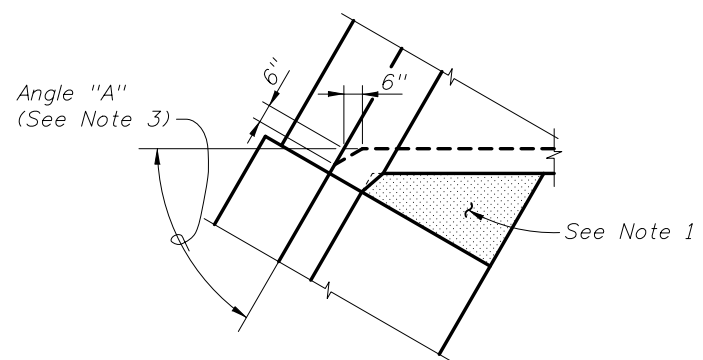
END ELEVATION
 (Showing Constant Height And Variable Height Wingwalls)



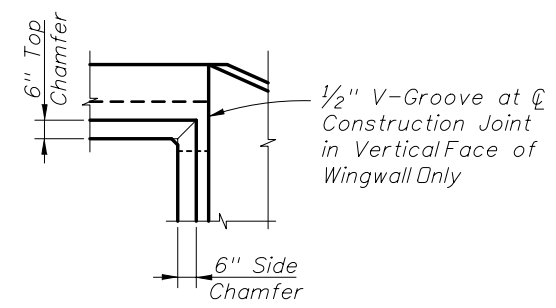
DETAIL C - PLAN VIEW
 WINGWALL TO BOX CONNECTION
 (Left Begin Corner Shown, Other Corners Similar)



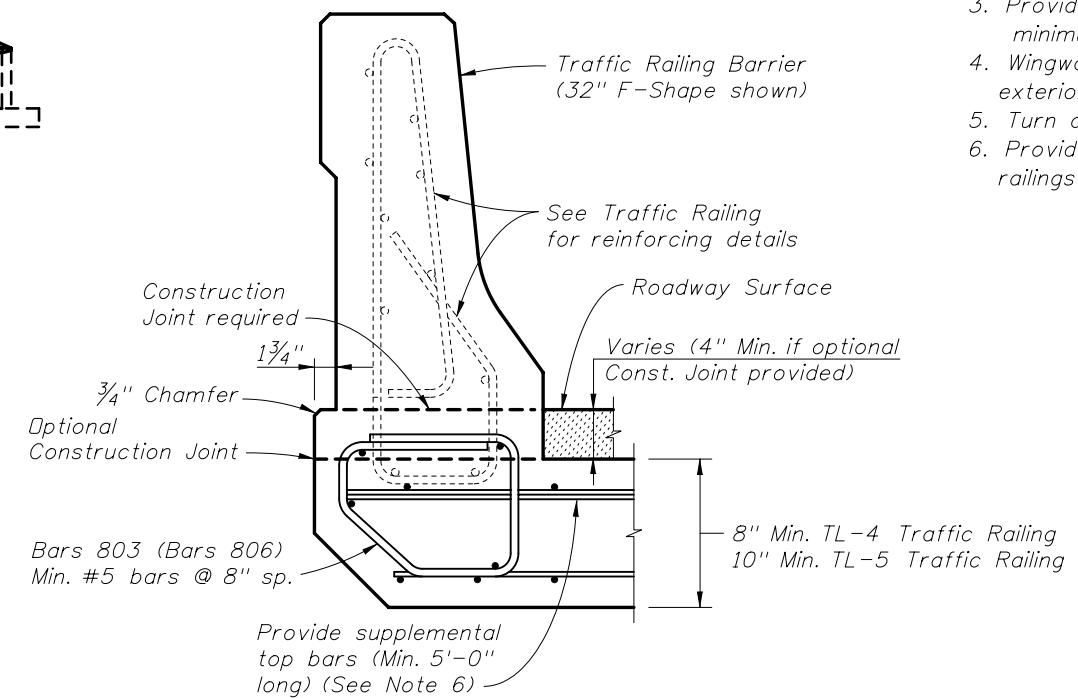
DETAIL D



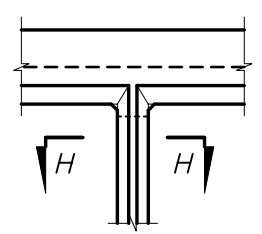
DETAIL E



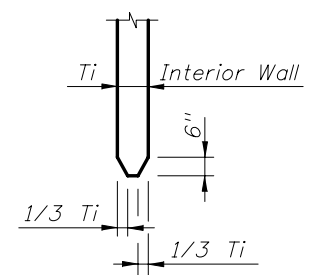
DETAIL F



DETAIL I
 TRAFFIC RAILING ATTACHMENT TO HEADWALL



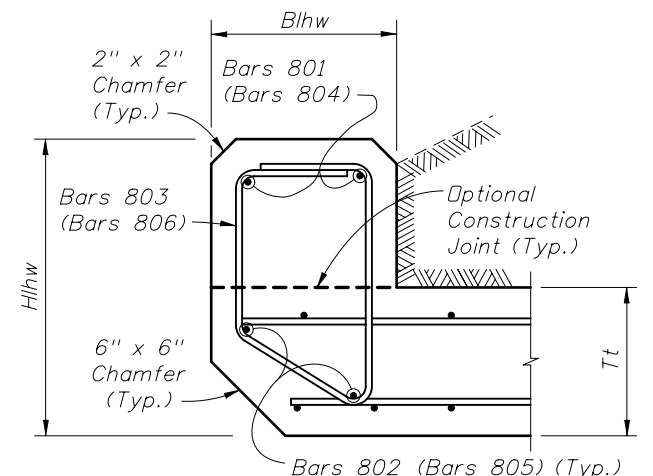
DETAIL G



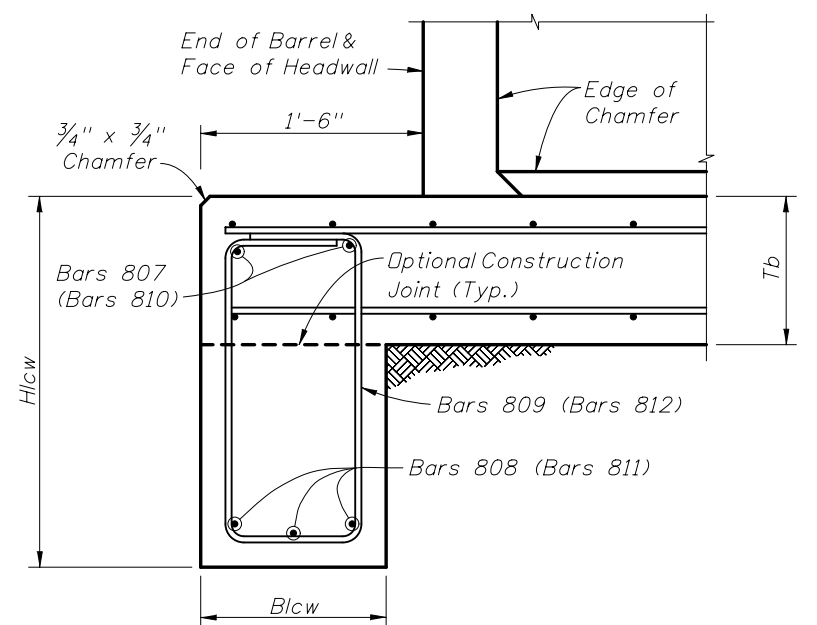
SECTION H-H

NOTES:

- For small angles, the Contractor may elect to fill the area between the box and the wingwall footing with unreinforced concrete. For wingwall skew angles less than 90 degrees, field bend wingwall reinforcement as necessary while maintaining cover. No additional payment will be made for this work.
- Location of Construction Joint determined by WP at theoretical intersection of:
 - Soil side face of Headwall and outside face of Box Exterior Wall, for SW ≤ 90°;
 - Outside face of Wingwall and outside face of Box Exterior Wall, for SW > 90°.
- Provide 6" chamfer when angle "A" is greater than 45°. Maintain minimum wall thickness. Field adjust reinforcing to maintain cover.
- Wingwall Skew Angles (SW) are measured from the adjacent box exterior wall to the wingwall.
- Turn or extend Wingwall Cutoff Wall as necessary to meet Box Cutoff Wall.
- Provide additional reinforcement in the top of the top slab below traffic railings to ensure a minimum area of 0.80 sq. in./ft. transverse reinforcing.



DETAIL J
 LEFT HEADWALL SECTION
 (Right Headwall similar)

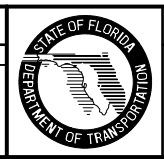


DETAIL K
 LEFT CUTOFF WALL SECTION
 (Right Cutoff Wall similar)

CROSS REFERENCE:
 See Sheet 3 for locations of Details D, E, J & K.
 See Sheet 4 for locations of Detail C.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
01/01/10	SJN	Added 1 1/4" offset to base of traffic railing in DETAIL I.			



2010 Interim Design Standard

CONCRETE BOX CULVERT DETAILS (LRFD)

Interim Date
 01/01/10
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 Index No.
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