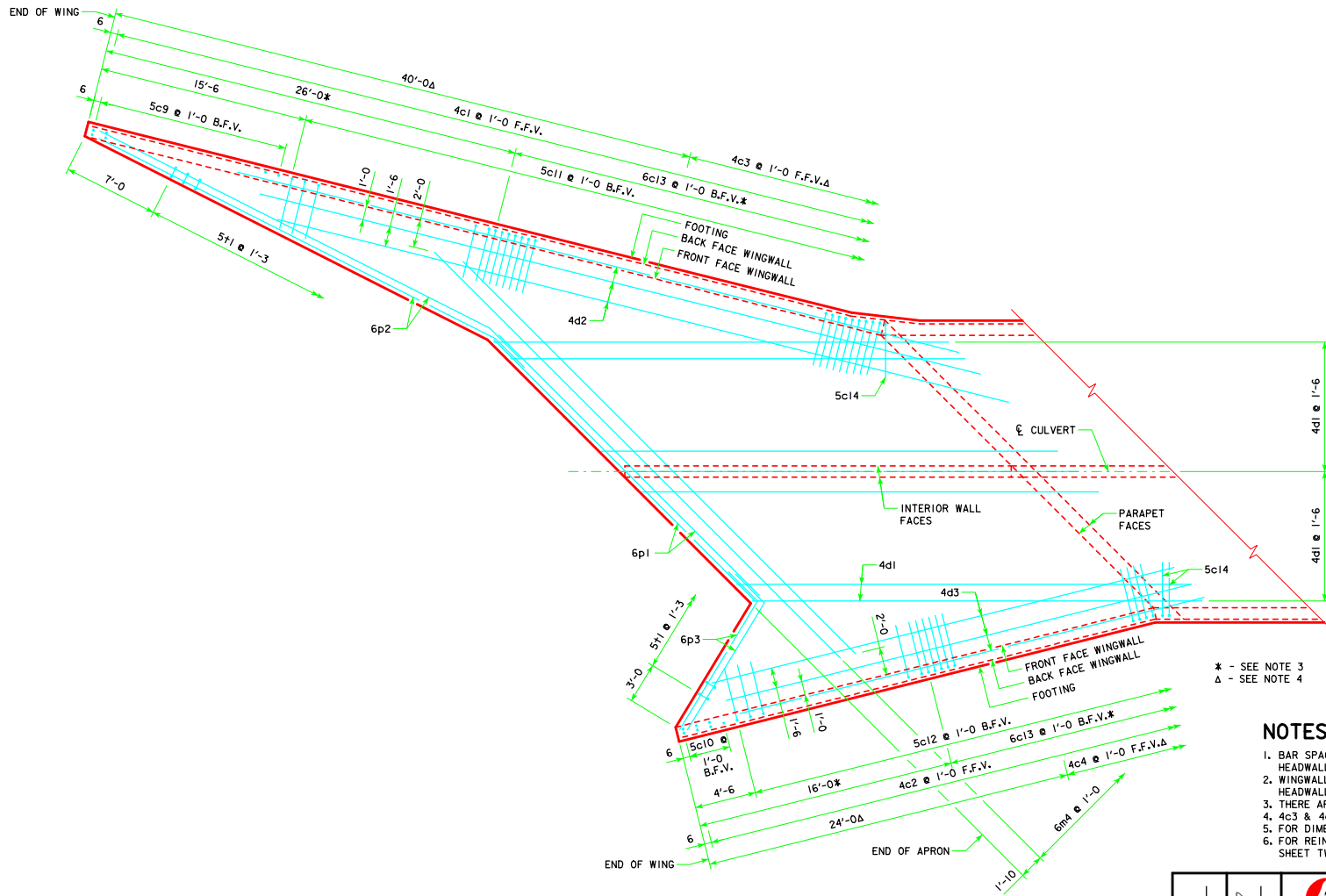


ENGLISH BEDSIGNEDTWINCULVERTS.DGN - TWH 45-4-12 - THIS SHEET ISSUED 04-12




PLAN VIEW - BOTTOM OF APRON REINFORCING BARS

* - SEE NOTE 3
 Δ - SEE NOTE 4

NOTES:

1. BAR SPACINGS AND POSITIONS SHOWN ARE SIMILAR FOR ALL SIZES OF HEADWALLS IN THIS STANDARD.
2. WINGWALL BARS CONSISTENTLY REFERENCED FROM END OF WING FOR ALL HEADWALLS.
3. THERE ARE NO 6c13 BARS IN THE 4' & 5' HEIGHT HEADWALLS.
4. 4c3 & 4c4 BARS USED ONLY IN THE 9', 10', 11' & 12' HEIGHT HEADWALLS.
5. FOR DIMENSION TABLE SEE SHEET TWH 45-2-12.
6. FOR REINFORCING IN CURTAIN WALL SEE CURTAIN WALL DETAILS ON SHEET TWH 45-5-12.

LATEST REVISION DATE <i>Thomas E. M. Dwyer</i> APPROVED BY BRIDGE ENGINEER	 Iowa Department of Transportation Highway Division
	STANDARD DESIGN TWIN REINFORCED CONCRETE BOX CULVERTS APRIL, 2012
	FLARED WING HEADWALLS 45° SKEW