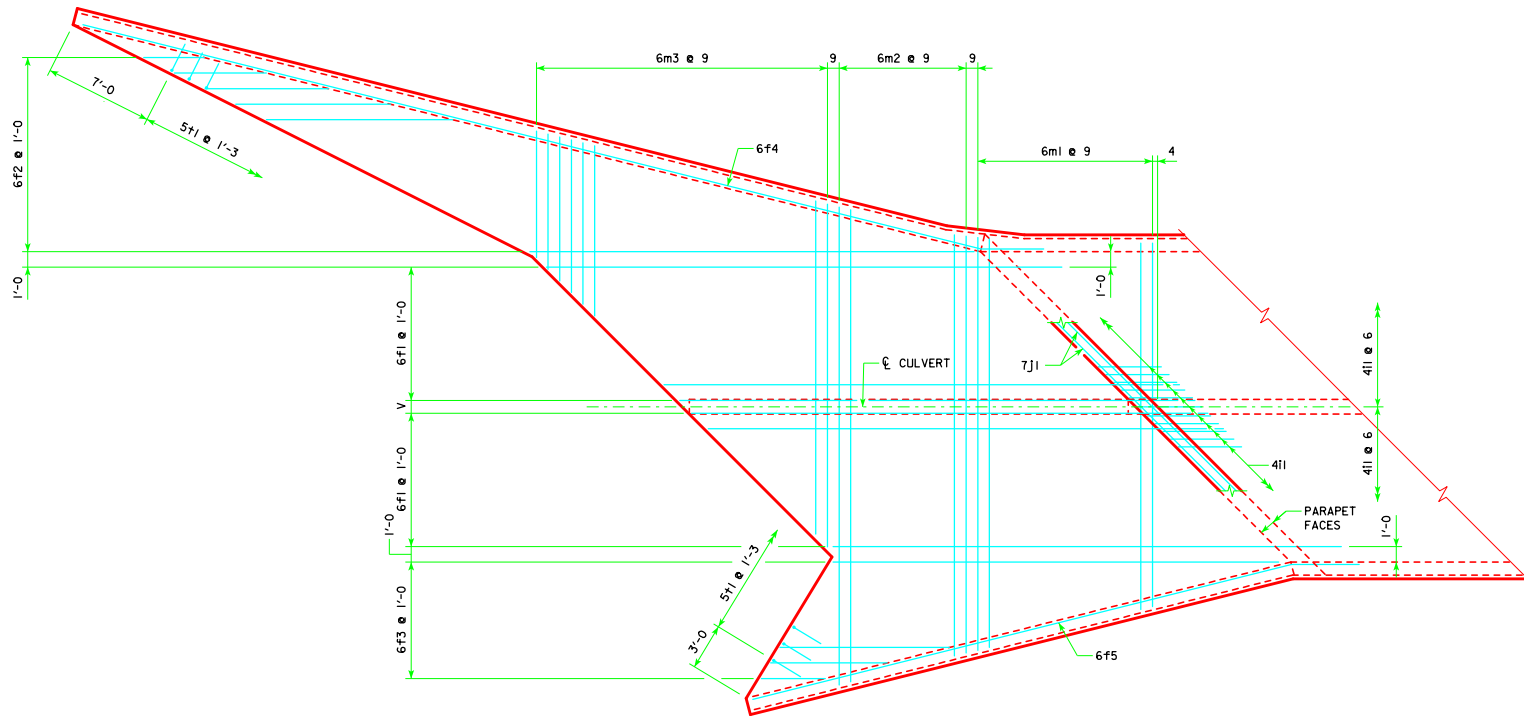



ENGLISH DESIGNED TWIN CULVERTS.DGN - TWH 45-3-12 - THIS SHEET ISSUED 04-12.



PLAN VIEW - TOP OF APRON REINFORCING BARS

**NOTES:**

1. BAR SPACINGS AND POSITIONS SHOWN ARE SIMILAR FOR ALL SIZES OF HEADWALLS IN THIS STANDARD.
2. TOP TRANSVERSE FLOOR BARS ARE REFERENCED APPROXIMATELY 4" FROM THE BACK OF THE PARAPET FOR ALL HEADWALLS.
3. FOR DIMENSION TABLE SEE SHEET TWH 45-2-12.
4. FOR REINFORCING IN CURTAIN WALL SEE CURTAIN WALL DETAILS ON SHEET TWH 45-5-12.

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