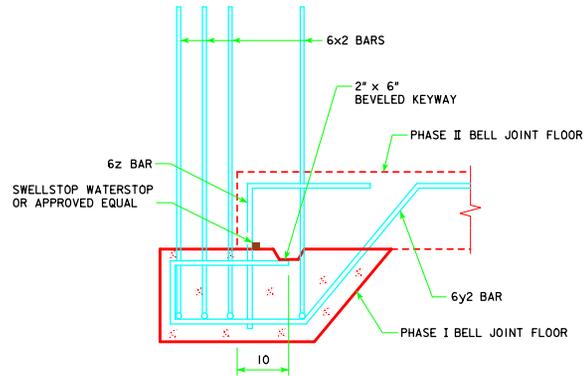
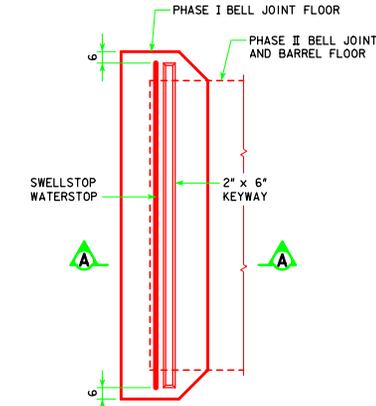


ENGLISH DESIGNED/TWINGULVERTS.DGN - TWCBL 3-12 - THIS SHEET ISSUED 04-12.



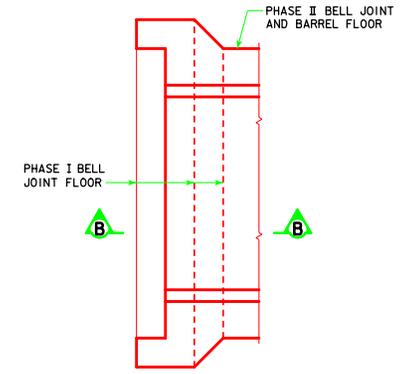
SECTION A-A
BELL JOINT AT FLOOR

COST FOR WATERSTOP CONSIDERED INCIDENTAL TO THE PROJECT.



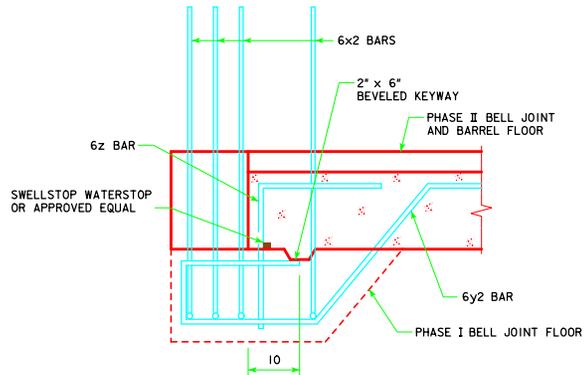
PLAN VIEW - PHASE I

(SHOWING PHASE I OF FLOOR BELL JOINT CONSTRUCTION)



PLAN VIEW - PHASE II

(SHOWING PHASE II OF FLOOR BELL JOINT AND BARREL FLOOR CONSTRUCTION)



SECTION B-B
BELL JOINT AT FLOOR

COST FOR WATERSTOP CONSIDERED INCIDENTAL TO THE PROJECT.

NOTES:

1. THE DETAILS SHOWN ON THIS SHEET ARE AN OPTION FOR THE CONTRACTOR TO CONSTRUCT THE FLOOR OF THE BELL JOINT WITH A PERMISSIBLE CONSTRUCTION JOINT AS SHOWN.
2. REINFORCING STEEL WILL BE PLACED PRIOR TO PLACING THE PHASE I CONCRETE.
3. THE COST OF THE WATERSTOP IS CONSIDERED INCIDENTAL TO THE PROJECT.
4. A 2" x 6" BEVELED KEYWAY WILL BE FORMED TO THE DISTANCE SHOWN AND LOCATION NOTED BEFORE PLACING THE CONCRETE.
5. FOR DETAILS AND DIMENSIONS OF THE BELL JOINT REFER TO THE BELL JOINT STANDARD SHEETS.

LATEST REVISION DATE <i>Thomas E. M. Donnell</i> APPROVED BY BRIDGE ENGINEER	Iowa Department of Transportation Highway Division
	STANDARD DESIGN TWIN REINFORCED CONCRETE BOX CULVERTS APRIL, 2012
	CULVERT BELL JOINTS TWCBJ 3-12 ALL SPANS