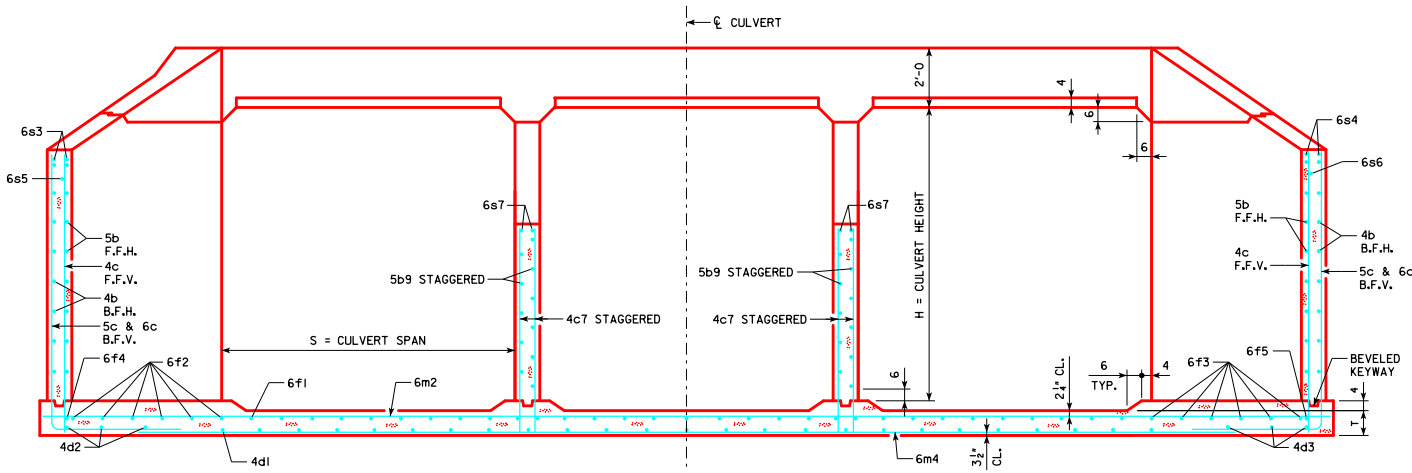
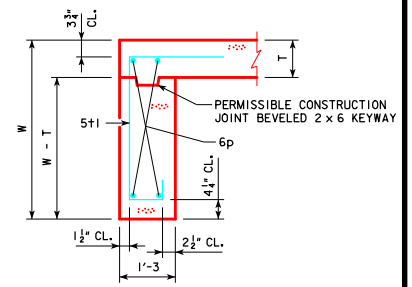


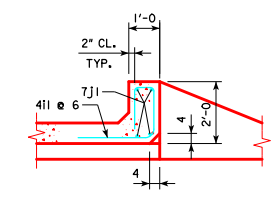
REVISED 12-2016; ADDED CURTAIN WALL CLASS 20 EXCAVATION DETAIL. ENGL/SH/BE/DESIGN/REPL/ECULVERTS.DGN - TRH 15-5-12 - THIS SHEET ISSUED 04-12.



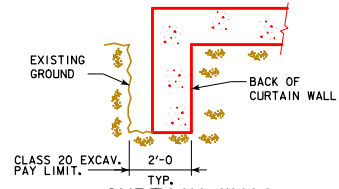
TYPICAL SECTION - NEAR CENTER OF APRON



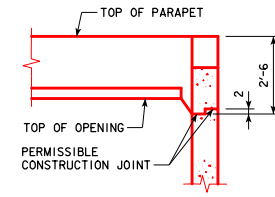
SECTION THRU CURTAIN WALL



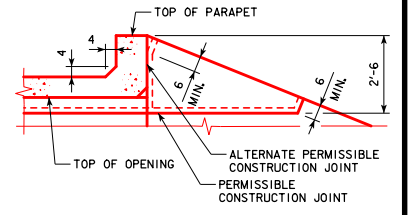
SECTION THRU PARAPET



CURTAIN WALL CLASS 20 EXCAVATION

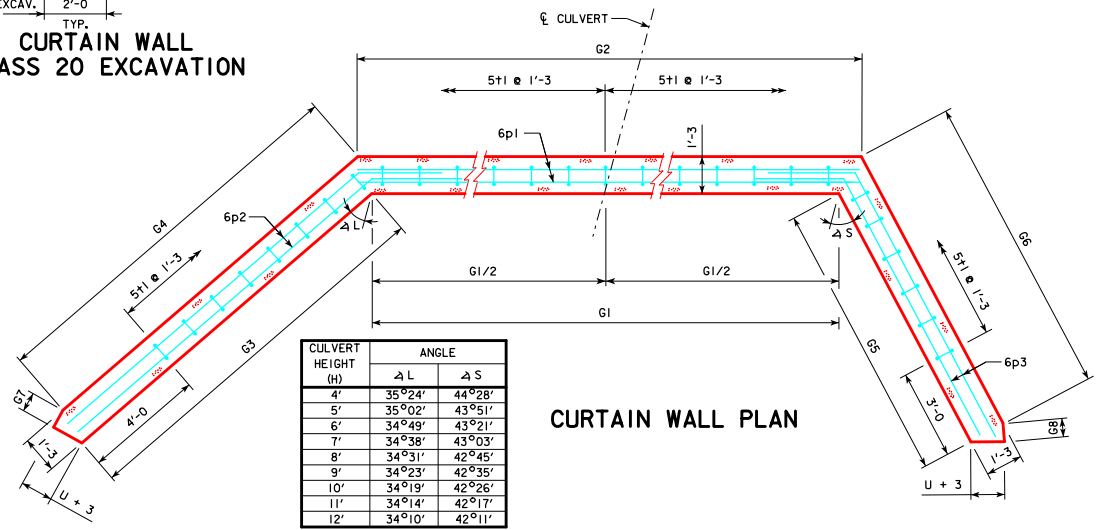


TOP OF WINGWALL DETAILS



NOTES:

- SEE SHEET TRRCB G1-12 FOR GENERAL INFORMATION, SPECIFICATIONS, AND DESIGN STRESSES.
- FOR DIMENSION TABLE SEE SHEET TRH 15-2-12.



CULVERT HEIGHT (H)	ANGLE	
	∠ L	∠ S
4'	35°24'	44°28'
5'	35°02'	43°51'
6'	34°49'	43°21'
7'	34°38'	43°03'
8'	34°31'	42°45'
9'	34°23'	42°35'
10'	34°19'	42°26'
11'	34°14'	42°17'
12'	34°10'	42°11'

CURTAIN WALL PLAN

LATEST REVISION DATE  
12-2016  
APPROVED BY BRIDGE ENGINEER  
*Thomas E. McQuill*

**Iowa Department of Transportation**  
Highway Division  
STANDARD DESIGN  
**TRIPLE REINFORCED CONCRETE BOX CULVERTS**  
APRIL, 2012  
**FLARED WING HEADWALLS**  
15° SKEW  
**TRH 15-5-12**