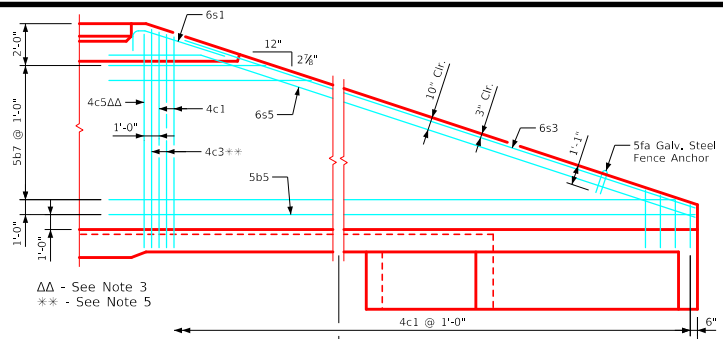
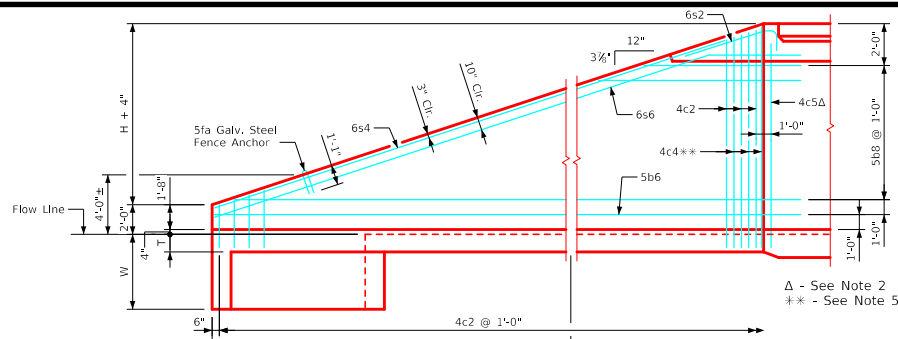


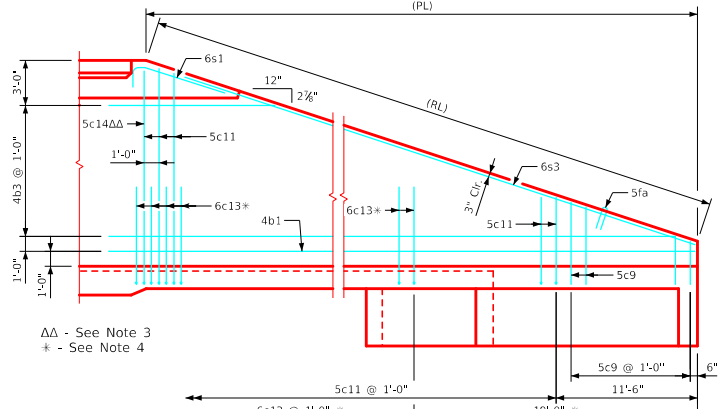
ENGLISHRFDDESIGNEDWINGCULVERTSWH.DGN - TWFH 30-5-21 - THIS SHEET ISSUED 02-2021.



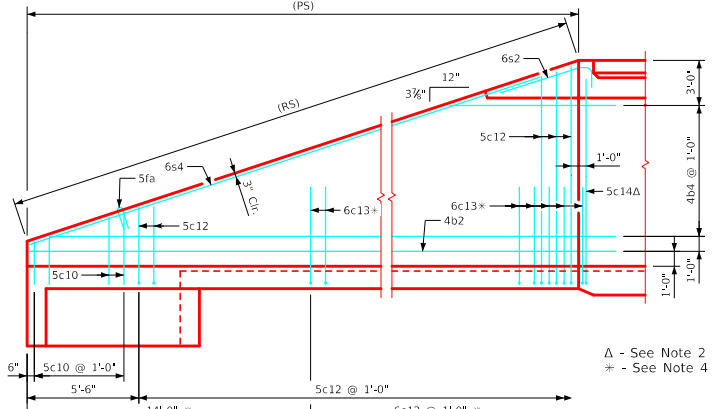
Typical View - Front Face Long Wingwall Reinforcing (PL)



Typical View - Front Face Short Wingwall Reinforcing (PS)

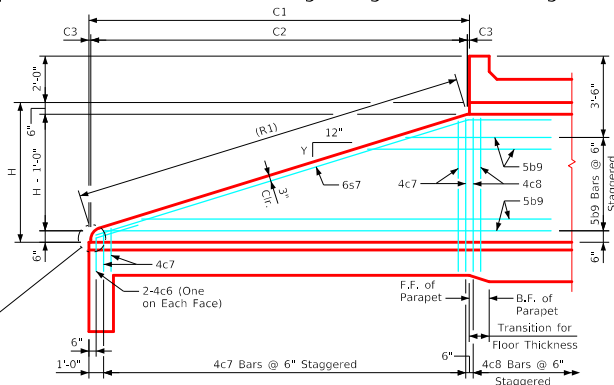


Typical View - Back Face Long Wingwall Reinforcing (RL)



Typical View - Back Face Short Wingwall Reinforcing (RS)

Culvert Height (H)	Slope (Y) Inches
4'	3 1/2
5'	4 1/2
6'	4 1/2
7'	4 1/2
8'	4 1/2
9'	4 3/4
10'	4 3/4
11'	4 1/2
12'	4 1/2



Typical View - Interior Wall

- Notes:
1. Bar spacings and positions shown are similar for all sizes of headwalls in this standard.
 2. Two 4c5 & two 5c14 bars for 8', 9', 10', 11' & 12' height headwalls. One 4c5 & one 5c14 bar for 4', 5', 6' & 7' height headwalls.
 3. Two 4c5 & two 5c14 for 4', 5', 6', 10', 11' & 12' height headwalls. One 4c5 & one 5c14 bar for 7', 8' & 9' height headwalls.
 4. Not applicable for 4' & 5' height headwalls.
 5. Not applicable for 4' thru 8' height headwalls.
 6. For dimension table, see sheet TWFH 30-2-21.
 7. Top of wall slope may be rounded in some instances.

LATEST REVISION DATE	APPROVED BY BRIDGE ENGINEER		
		Standard Design - Twin Reinforced Concrete Box Culverts Flared Wing Headwalls February, 2021	
		Wingwall Details 30° Skew	TWFH 30-5-21