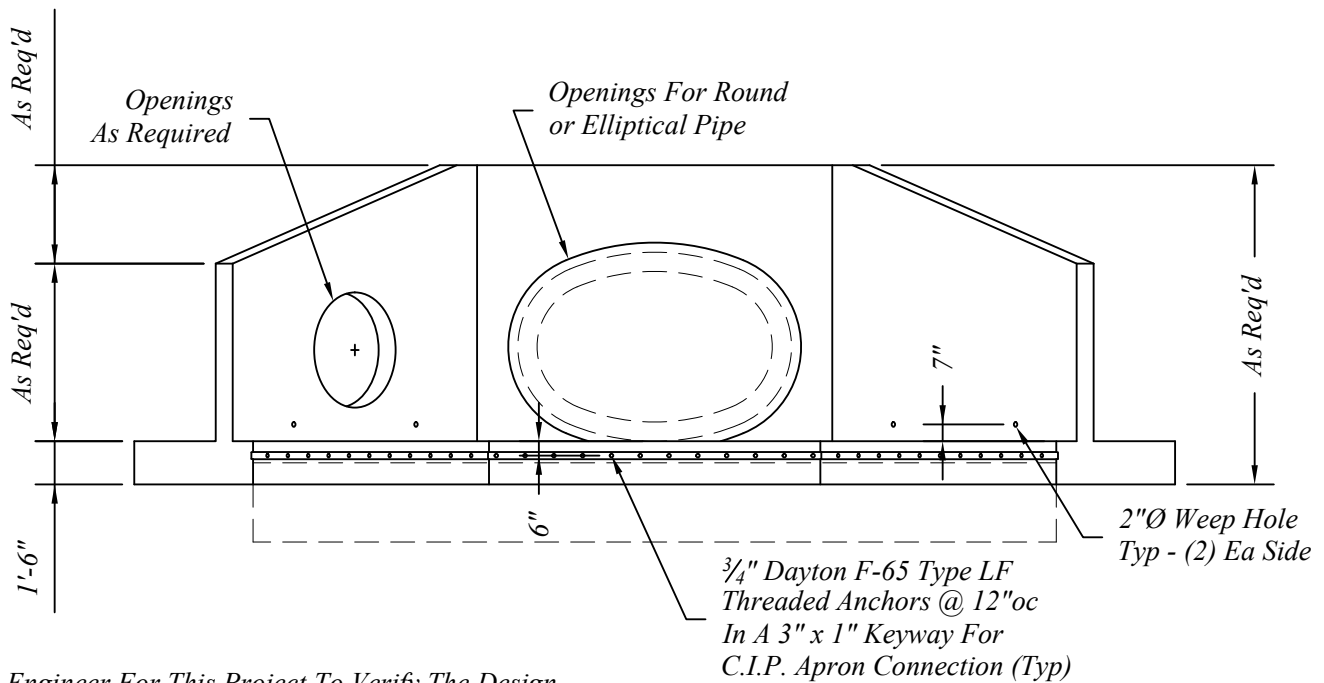
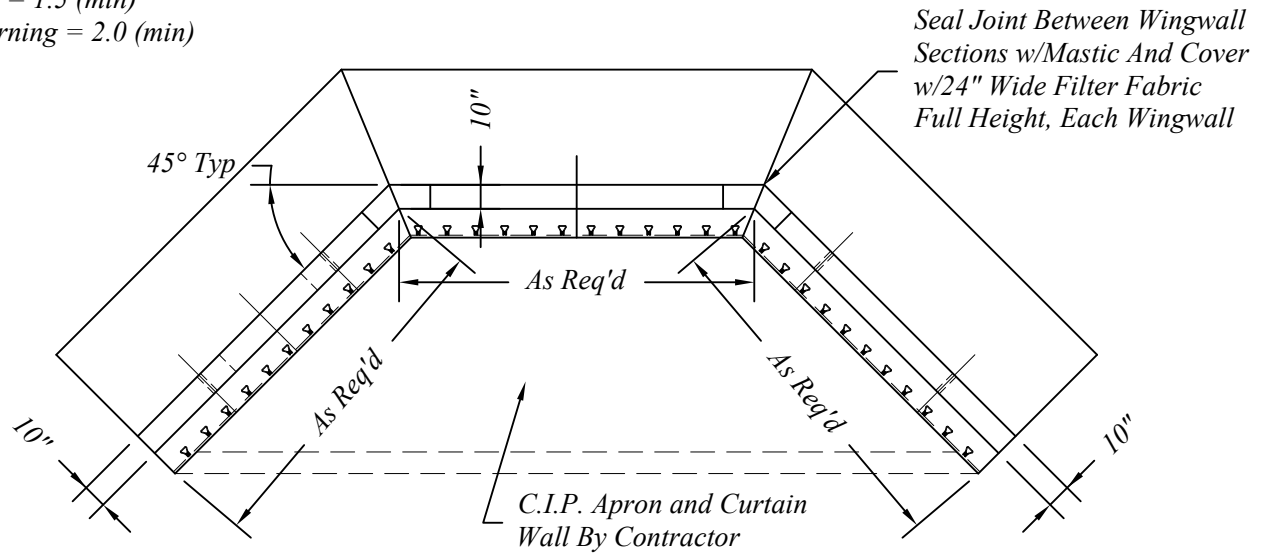


Design Assumptions:

1. Soil Friction Angle = 30°, Unit Weight = 120pcf
2. Max Allowable Soil Bearing = 3000psf
3. Bar Cover = 1½" U.N.O.
4.  $f'_c$  @ 28 Days = 5000psi (min)
5. Reinforcement = ASTM A-615, Grade 60
6. Materials & Manufacturing In Accordance With ASTM C-913 Specifications.
7. Safety Factors:  
Sliding = 1.5 (min)  
Overturning = 2.0 (min)



The Engineer For This Project To Verify The Design Assumptions Are Adequate For This Specific Site.



401 Kelton St Bay City, MI 48706		Precast Concrete Headwall / Wingwalls			
5281 Lansing Rd Charlotte, MI 48813	2701 Chicago Dr SW Wyoming, MI 49519				
4950 White Lake Rd Clarkston, MI 48346	3756 Centennial Rd Sylvania, OH 43560	Date 11 May 16	Revised	Rev. No.	Drawn By BmG
				Scale NTS	01.14