



**Projects:**

- West Side CSO Ankeny Diversion Start-up Phase 1
- West Side CSO Riverside Diversion Start-up
- West Side CSO System Start-up Phase 2
- West Side CSO Ankeny Diversion Start-up Phase 2

**Firms Role:** General Contractor

**Location:** Portland, Oregon

**Project Owner:**

City of Portland  
Bureau of Environmental Services

**Start Date:** August 2006

**Completion Date:** November 2007

**Description of Work:**

JWF was the contractor selected to perform a group of four projects related to the start-up of Portland's West Side CSO, a 14-foot diameter, 3-1/2 mile long tunnel that captures sewage and storm water on the west side of the Willamette River. The projects included the West Side CSO Ankeny Diversion Start-up Phase 1 and Phase 2, the West Side CSO Riverside Diversion Start-up, and the West Side CSO System Start-up Phase 2. The Ankeny Diversion projects called for access the existing Ankeny diversion structure and installation of a temporary by-pass pumping system to redirect flows to the new West Side CSO tunnel. While flows were being redirected, JWF cut-out and removed the existing 78-inch x 84-inch Front Avenue sewer pipe inside of the diversion structure. The Riverside Diversion Startup work included construction of a cast-in place weir within an existing manhole, completing two 48-inch manholes, and utilization of a bubble monitor with appurtenances.

