

increase uniformly as the system fills. The vertical pump station wet well was fabricated from Weholite RSC250 profile wall polyethylene pipe and delivered to the project turn-key. Speed of installation was a critical element of this project and the pump station was set and backfilled in just one day.

,WD3LSH further supported the project by leveraging its successful history of polyethylene fabrication, welding and design experience. Combined with the versatility and strength of the Weholite system, ,WD3LSH designed and fabricated a number of custom elements to improve the system's functionality.

Large scale Wehopanel polyethylene bulkheads were fabricated to support the structure's hydrostatic and soil loads without concrete or soil reinforcement. To ensure that the system's 100-year design life was maintained, the bulkheads were reinforced with structural steel fully encapsulated within the Wehopanel polyethylene profile. The inlet bay included an inflow energy dissipator to minimize the potential for re-suspension of settleable solids. As a secondary water quality measure, discharge from the inlet bay was improved by incorporating an 18-inch perforated High Density Polyethylene riser wrapped in geotextile filter fabric. Access was provided by 30-inch Weholite risers with 16-foot Fibre Reinforced Plastic ladders mounted to the riser and the vessel interior.

In addition to the Weholite polyethylene pump station and vessel, Infra Pipe provided a Control and Filtration Skid system designed to provide constant pressure and flow of recycled water to the project's irrigation system. The Weholite prefabricated pump station utilizes a submersible level transmitter to monitor the water surface elevation and storage within the vessel. Two mercury float switches provide redundant back up of the level transmitter. Pumping is accomplished through a variable frequency drive submersible pump and pressure tank designed to achieve constant pressure and flow. An actuated ball valve provides electronic flow control. System controls and operations are accomplished through an automated Human Machine Interface (HMI) control panel system with Programmable Logic Control (PLC). Recycled water is passed through a 100-micron filter prior to discharge to the irrigation system. When rainwater levels are low, a backflow preventer ensures that city make up water can be utilized.

In summary, Infra Pipe supported the New Los Angeles Federal Courthouse design LEED project by providing a comprehensive value engineered solution to meet the project's rainwater harvest needs within the available time frame. Infra Pipe worked with G.B. Cooke, Inc. to develop a value engineering alternative to the 106,000 gallon multi-barrel tank system originally specified. Infra Pipe's Weholite 11-foot diameter structural wall polyethylene vessel was chosen for its ability to minimize the system's footprint to a single barrel vessel while providing a water tight system with 100-Year design life.

Straight from the Project Partner:

"Infra Pipe provided tremendous value to this project by developing the right solution and delivering a superior quality system. Their support and service of our project has been exceptional." Brad Cooke - Project Manager/Owner, G.B. Cooke, Inc.