



JENSEN PRECAST CUSTOM TWO PIECE RISER CREATES BYPASS SYSTEM FOR SACRAMENTO PUMP STATION

During daily peak flows, 17,000 gallons per minute of raw sewage courses through the Arden Pump Station in Sacramento, California. Needing to clean and upgrade the wet well and replace corroding sluice gates, metal floors, and gratings, the Sacramento County Sanitation District commissioned a bypass pumping station to divert the flows around the wet well.

Jensen Precast custom designed a massive two piece riser section to create a bypass station with a capacity of 19,000 gallons per minute in conjunction with a cast in place base by contractor W.M. Lyles Co.

PROJECT OWNER

Sacramento Regional County Sanitation District

ENGINEER

Carollo Engineering

CONTRACTOR

W.M. Lyles Co.

PRODUCTS

Precast Concrete Traffic Loading Utility Vaults
10'W x 14'L x 7'H and 10'W x 14'L x 6.25'H
Cover Slab, Grade Rings, Cast Iron Covers



CHALLENGE

Contractor W.M. Lyles Co. needed a fast solution for a bypass around the Arden Pump Station. A geotechnical report on the site detailed seismic conditions dictating thicker walls and additional reinforcement. A cast in place base needed a 17'H riser section to accommodate a 36" pipe for inflow and four 18" pipes for outflow. Specifications included 12" thick walls and an HDPE lining with pipe sleeves cast in.

SOLUTION

"The contractor had limited time to open the excavation and shut down the flow," says Tim Pellegrini, Jensen Precast Estimating Manager. "Precast concrete enabled them to get it installed quickly. We had a full submittal package to them in two weeks. Given the complexity of this one, I'd say the lead time was easily cut in half. We delivered two risers weighing 83,000 lbs. and 73,000 lbs., along with the cover slab to cap the structure when the work on the pump station is done and the bypass is capped and buried."

RESULTS

- The temporary bypass station makes it possible to proceed with the rehabilitation of the Arden Pump Station Wet Well.
- Facilities such as the Arden Pump Station Wet Well provide a critical link in the wastewater infrastructure of a community.
- Maintenance of these collection systems mitigates the possibility of a catastrophic failure and protects the environment.



"This was a redesign on the fly. The Jensen Precast field guys were great to work with. The form shop did a great job in meeting the schedule. Everyone was good to work with through and through."

Mark Schmitz, Project Engineer, W.M. Lyles Co.