



THE LOCATION

Philadelphia Northeast Water Pollution Control Plant

THE CHALLENGE

Construct new \$30M Gravity Thickener Facilities consisting of 4-each 80-ft diameter concrete tanks, pumping station, odor control facility, underground valve vault, 4" to 36" ductile iron process pipelines, fiberglass piping and fans, along with 43 new pumps and associated piping, **all while maintaining little to no disruption to the existing plant and process.**

OUR RESPONSE

Thomas P. Carney, Inc. successfully scheduled and performed plant shutdowns in order to provide tie-ins to existing pipelines while not disrupting flow to the existing 500 million gallon per day plant. **TPC** also self-performed the construction of several large concrete buildings and 4 large 80-ft diameter tanks.

THE DETAILS

Over the course of the 3-year project, *TPC self-performed the excavation, concrete, yard piping, interior piping, pumping, dewatering, and finish carpentry.* This very complicated and technical project included tasks such as:

- Shoring and shielding for building excavation and underground pipelines using systems such as trench boxes, soldier beam and lagging and slide rail systems.
- Miles of underground yard piping including 4" to 36" ductile iron pipelines, 24" fusion welded HDPE pipeline, Schedule 80 PVC sodium hypochlorite piping, welded steel glycol piping, storm drainage pipelines, water piping and fiberglass odor control air piping.
- Form, reinforce and pour over 10,000 yards of concrete in order to complete the construction of: 1-Gravity Thickener building, 4-concrete tanks, 1-underground pumping station, and 1-underground valve vault and 1-odor control facility.
- Install 4-each 80-ft diameter clarifier system inside of concrete tanks.
- Install 4-each 80-ft diameter aluminum flat covers and trusses over top of concrete tanks.
- Install miles of interior piping, pumps, valves and instruments
- Coordinate plant shutdowns to tie new piping into existing pipelines without disruption to existing operations.
- Install fiberglass odor control piping, fans, media and dome covers in order to construct a fully operational odor control system.
- Drain existing wet wells and tanks in order to complete the replacement of 10 full pump sets which include a total of 23 new pumps, piping, valves, annular seals, pressure gauges and seal water systems.
- Make modifications to existing plant SCADA System in order to have all equipment run through fully designed power and controls
- Provide full coordination of GC, Mechanical, Plumbing and Electrical activities and schedules.

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