

**Atlantic Beach Florida Wastewater Treatment Plant TMDL Compliance,  
New Sludge & Odor Control Improvements  
Atlantic Beach, Florida**

**Contract Amount:** \$7,049,200.00  
**Final Amount:** \$7,589,233.00  
**Contract Time:** 562days  
**Year Started:** May 2011  
**Year Completed:** December 2012

**Owner reference:**  
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**Description of Project:**

WPC performed construction improvements to the city of Atlantic Beach's Wastewater Treatment Plant #1. The location of said plant is 1100 Sandpiper Lane Atlantic Beach, FL 32233. WPC also phased out Atlantic Beach Wastewater Treatment Plant #2, formerly located at 739 Renault Dr. Wastewater Treatment Plant #1 (WWTP#1) was an existing 3.0 MGD Domestic Wastewater Treatment Plant that received upgrades to provide 4-stage biological nitrogen removal and re-rating to 3.5 MGD capacity. The Wastewater Treatment Plant #2 (WWTP#2) was an existing 1.9 MGD Sequencing Batch Reactor Plant.

The work WPC provided the City of Atlantic Beach generally consisted of furnishing all labor, materials and equipment necessary to complete the work as per the Contract Documents. The existing Influent Structure required two (2) new static wedge-wire screens including screenings and chutes. Pipe and valve changes were made as per project plans and a connection was made from the existing screen structure to the 18" force main from the WWTP#2 site.



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Modifications were made to the existing aeration basins, including pipe and valve modifications. A

new Influent Flow Splitter Box was installed as well as new Walls/Baffles. Modifications were made to existing walkways as well as the construction of new walkways. WPC provided the means for the demolition and removal of the existing Aeration System Piping and Equipment. New Aeration System Piping, Equipment and Appurtenances were installed along with new mixing equipment as well as new electrical and instrumentation equipment and associated materials.

Pipe and valve modifications were performed for the existing influent and effluent structures of the existing secondary clarifiers. Modifications were performed to the Chlorine Contact Chamber per Contract Documents. New Effluent Disc Filters were installed including all necessary electrical and instrumentation associated with them. The Blower Building was left in place, however, new single-stage Turbine Blowers and associated electrical needs were installed as well as Blower Piping and Isolation Valve as per the plans.



The original Chlorine/Sulfur Dioxide Storage/Feed Building was left standing though WPC did perform a number of upgrades including: the installation of new Sulfur Dioxide Gas Ton-Cylinder Vacuum Regulators, new Flow-Paced Chlorinators and new Flow-Paced Vacuum Sulfonators and Vacuum Induction Mixer.

WPC also constructed a new Reuse Water Pumping Station as well as providing all necessary pipe, fittings, valves, pumps, a pneumatic storage

tank and all associated electrical and instrumentation. The new pumping station was then connected to the existing yard irrigation system and wash down system. The yard piping system was also updated by replacing the existing ductile iron air piping with new stainless steel air piping. The Return Activated Sludge (RAS) piping was rerouted per design plans and a new RAS flow meter was installed.

Modifications to the existing SCADA system programming were performed including all necessary electrical and instrumentation materials needed to interface the existing SCADA system with the new blower control and instrumentation system.

11. New Pumping Station at the Existing Buccaneer WWTP (WWTP#W): Furnish all labor, materials and equipment necessary to install the new triplex wastewater pumping station, including pipe, valves, fittings, concrete work, demolition, electrical and instrumentation.

12. Existing Buccaneer WWTP (WWTP#2) Phase-out: Furnish all labor, materials and equipment necessary to perform the demolition and phase out of the existing Buccaneer WWTP (WWTP#2).

A new Sludge Dewatering Building was built complete with all site work which consisted of paving, building amenities and miscellaneous piping and accessories as specified. A new Sludge Dewatering Centrifuge complete with all valves and



pipng was installed as well as the control panel and all related accoutrements.

Further, new Polymer Feed Equipment was installed including the control panel, piping and all necessary accessories and appurtenances. Additionally, two new Sludge Feed Pumps were constructed with sludge grinders, control panels, piping and all accessories. A new Odor Control unit was put in with all fans, treatment vessel(s), control panel, media and accessories. Finally, modifications were made to the existing Aerobic Digester which included the demolition and removal of the existing air piping and diffusers, new stainless steel air piping, valves and diffusers, two (2) new Sludge Transfer Pumps and a new Decanter with the accompanying Control panel and appurtenant work items.

**Explanation of any time extensions and/or changes in contract amount:**

The change orders which occurred during this project were constructive to added needed scope to the job. There were no error or omission change orders for this job.