



FLORIDA, USA

CASE STUDY

OWNER PROJECT MANAGEMENT (OPM) FOR WASTEWATER PROJECT



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Project Overview

Our client owns a pharmaceutical site in Florida and the wastewater from this facility was changed to discharge to a city forced main instead of the existing gravity main. Installation of the new forced line was requested by the city to manage the increased discharge of wastewater from a pharmaceutical manufacturing site in Florida, USA. CAI was the principal consultant for the overall project management effort and represented the Owner during negotiations with the city (impact fee agreement). This included management of **operational readiness** activities at all phases of the project; conceptual, capital request, design, permits, construction, test, closeout and turn over to the city. As part of the scope, segregation of sanitary and process wastewater from the existing facility and installation of three new lift stations were needed to fulfill both City and Owner requirements. CAI supported all steps of Installation/ Operation Verification (IOV) while leading the overall project management effort as well.



CLIENT:

CONFIDENTIAL

LOCATION:

FLORIDA, USA

TIME FRAME:

2 YEARS

CONTRACT SIZE:

\$ 4.7 MM TIC

The execution of this wastewater project took approximately two years from the conceptual phase to completion. Specific challenges included:

- Complete utilities retrofits were needed while also maintaining current facilities operations,
- Construction of underground lift stations required engineering for dewatering due to water table conditions in Florida
- One mile of 10" underground pipe was installed outside client property, requiring significant coordination with different agencies to complete the rights-of-way and access easements.
- Coordination of predesign and preconstruction meetings between the city, county, and client to assure compliance with the approved impact fee agreement.



Objective

CAI's assignment for this project was to assign an Owner's Project Manager (OPM) to supply **operational readiness** services from conceptual design through the turnover phase of the wastewater project and to provide consulting services for others ongoing projects at the Client's manufacturing site. The OPM objective was to lead the Client and other teams through design, permitting, construction, testing, commissioning, and operational readiness of the project, while tracking and maintaining scope, schedule, quality, and budget to complete on-time capitalization and turnover of this project.

Project goals included segregation of process wastewater from sanitary wastewater in the existing pharmaceutical facility and changing effluent wastewater to discharge to a municipally owned force main instead of the existing gravity main. Two instrumentation stations were installed, one for Client reference and one for city monitoring. One of these instrumentation stations was installed in the right-of-way allowing the facility to automate the city monitoring process.

Three new lift stations were installed, and one of the three new lift stations was designed with a new main 10" forced line to discharge to a municipally owned forced main. Total sanitary and process wastewater flow of 142,000 GPD was estimated by the engineering firm based on current processes and future expansion based on the knowledge of the Client facility team.

This project needed to be completed as a fast-track project and delivered on time to follow the new manufacturing process wastewater flow and City requirements. An execution plan that would get the engineering, materials, and equipment delivered on time to avoid negative impacts to the execution of construction, and to minimize downtime during a scheduled manufacturing shutdown was developed and maintained by the project management team.

Once the new forced main line was fully operational, the existing gravity main was decommissioned as a part this project.

Services Provided

CAI's Program & Project Management (PPM) team supplied the following services:

- Managed and coordinated interface between the city, Client, Design, and Construction Teams
- Led the development, approval, and execution of impact fee agreement between the Client and the City
- Developed Requests for Proposals (RFP's) and the led bid/award process for engineering and construction services
- Coordinated execution of utility location assessments
- Completed access easement agreement and obtain approval from Client and City
- Managed all permit applications:
 - City Utility
 - St. Johns River Water Management District (SJRWMD) Environmental Resource Exemption request
 - Volusia County Right-of-Way
 - Florida Department of Environmental Protection (FDEP) Sewer Collection System
 - National Pollutant Discharge Elimination System (NPDES) Construction Stormwater
- Supervised the project schedule development and maintenance
- Established baselines and WBSs for tracking budgets, progress, and earned value
- Managed and tracked the progress of Turn Over Packages (TOPs)
- Coordinated the completion of CMMS entry, PMs, SOPs, etc. with the Client
- Coordinated the day-to-day construction activities with Client operations
- Established and implemented project's safety program
- Managed budgets and scope changes
- Managed execution of Mechanical Completion, along with Turnover of Care and Custody
- Completed execution of commissioning and IOVs to ensure on-time operational readiness
- Completed financial reconciliation for closeout and capitalization of project



Value Delivered

This project was a major step toward obtaining compliance with city requirements to run the current manufacturing facility while planning for future expansion. The turnover of this project met city and Client expectations for manufacturing deadlines. The city and the Client maintained a positive working relationship during and after the execution of this project.

The project was successfully completed within the original budget, even though the schedule was extended approximately two weeks due to early design and permit issues. Despite these issues, the project team met the target completion date for operational readiness.

In conclusion, the project was successfully completed and turned over to the city. Due to the success of this project, CAI was requested to supply PPM services for others large active projects being undertaken by the Client.