Felipe S. Contreras, PE, CME, CFM

Associate, Senior Project Manager

Mr. Contreras is a dedicated and highly skilled Civil Engineer with over 24 years of experience in integrated water resources management, specializing in the design and construction management of drinking water treatment and distribution systems, wastewater treatment and collection systems. He has a proven track record in leading successful water projects, managing teams, and ensuring regualtory compliance with industry standards. Mr. Contreras has proven expertise in utility efficient operation and advanced hydraulic modeling. He is an experienced Municipal and Utilities Engineer with a successful track record of direct interaction with municipal clients. Mr. Contreras is proficient in preparing comprehensive engineering designs, budgets, plans, specifications, schedules, and procurement of grants. His expertise also includes adept handling of development application reviews and securing Federal, State, and local permits for a diverse range of projects. His support extends to strategic planning, project management, and client relationship management, allowing for a cohesive and efficient operation across the entire water practice.

Project Manager, Process and Operation Improvements at Pequannock Water Treatment Plant (PWTP), City of Newark, Union County, New Jersey. 2024 - Ongoing. Mr. Contreras is currently leading the plant startup, SCADA instrumentation implementation, and closeout to the project.

Project Manager and Lead Design Engineer, Process and Operation Improvements at Pequannock Water Treatment Plant (PWTP), City of Newark, Union County, New Jersey. 2019 - 2024. Mr. Contreras led the design and development the plans, specifications, permitting and NJIB funding for the WTP improvements, as the project manager and contract administration. The project includes the evaluation and optimization of treatment process including the coagulation, filter media and underdrain replacement, replacement of backwash, reuse pumps and all control valves for the filters. The project also includes a filter media pilot study and plant wide SCADA system integration.

Senior Technical Advisor, D'Angelis Water Treatment Plant Upgrades, Millis, Massachusetts. 2022. Mr. Contreras led design and served as the senior technical advisor for the project. Millis was recently found to be impacted by PFAS at levels above the newly published 20 ng/L Massachusetts Maximum Contaminant Level (MCL) for per- and poly-fluoroalkyl substances (PFAS) assisting Millis with cost estimation and capital planning for PFAS treatment. This has included conceptual design for both interim and long-term treatment and preparation of a Grant Application for Millis to fund piloting and treatment design.

Senior Technical Reviewer, Senior Technical Reviewer, Folly Hill Disinfection Station, Town of Danvers, Massachusetts, 2022. Mr. Contreras served as Senior Technical Reviewer for the design of a disinfection station to increase chlorine residual. Designed the chlorine station to minimize cost and maximize safety at this remote site. Obtained MassDEP permits (BRPWS29) for the design which includes a skid-mounted pelletized calcium hypochlorite system in a prefabricated building to treat up to 4MGD and require only 2-3 operator visits per week.

Education

MSc, Hydraulic Resources, University of Los Andes, 2000

BS, Civil Engineering. University of Los Andes, 1999

Registration

Professional Engineer: New Jersey, Pennsylvania, and Massachusetts

Certifications

Certified Municipal Engineer: New Jersey

Certified Floodplain Manager: US

Honors/Awards

City of Newark Consultant Engineer of the Year - 2023

Professional Affiliations and Training

American Society of Civil Engineers (ASCE), National Society of Professional Engineers (NSPE), New Jersey Society of Civil Engineers (NJSCE), Association of State Floodplain Managers (ASFPM), New Jersey Association for Flood Plain Management (NJAFM), American Water Works Association (AWWA), Water Environmental Federation (WEF).

Software Languages

Hydraulic Modeling (Epanet, WaterCad, SewerCad)

GIS, AutoCAD, ArcView, VBA, Visual Basic

Linguistic Languages

Fluent in English and Spanish

Design Engineer, Mercer County Correctional Center, Corrosion Control Treatment Design, Mercer County, New Jersey. 2020. Mr. Contreras led the design and permitting for the WTP upgrades to include non-zinc orthophosphate and caustic soda for pH adjustment. The plant capacity is 1.4 MGD and uses a 3 well field in the upper Potomac-Raritan-Magothy (UPRM) aquifer.

Project Manager and Design Engineer, Chlorine Contact Time Tracer Study at Pequannock Water Treatment Plant (PWTP), City of Newark, Union County, New Jersey. 2019 - 2022. Mr. Contreras led the study for the determination of a new Standard Operational Procedure to calculate disinfection inactivation for the PWTP. The study includes a tracer study implementation from the plant to the first customer and monitoring station.

Project Manager, Wastewater Treatment Plant and Sewer Rehabilitation, Long Hill Township, Morris County, New Jersey. 2019 - 2024. Mr. Contreras led the design and development the plans, specifications, permitting and funding for the WWTP improvements and sewer system rehabilitation. The project includes the installation of new phosphorus removal system, new influent pumps, new return pumps, new disc filters and upgrades to the ultraviolet disinfection building.

Project Manager and Lead Design Engineer, Madison Chatham Joint Meeting, Wastewater Treatment Plant Upgrades, Morris County, New Jersey. 2018 - 2021. Mr. Contreras led the design and development the plans, specifications, permitting and funding for the WWTP improvements; project included the replacement of the screen, new mixing equipment at the oxidation tank, new effluent filtering building, new belt filter press, and raw water pumps.

Project Manager and Design Engineer, Little Egg Harbor Municipal Utilities Authority, Holy Lake WTP Upgrades, Chlorine Contact Tank, Little Egg Harbor, New Jersey. 2018. Mr. Contreras designed and developed construction plans, specifications, and permitting for the Water Treatment Plant at Well No. 6 upgrade project. The project will allow 5 minutes Chlorine Contact Time at this facility by adding a 5,500 underground tank and associated piping and appurtenances.

Project Manager and Design Engineer, Little Egg Harbor Municipal Utilities Authority, Water Distribution Hydraulic Model, Little Egg Harbor, New Jersey. 2 Years. Mr. Contreras designed, developed, and implemented a complete hydraulic model to determine the best location for water quality sampling. The model is also used to determine emergency operation of the system and to study the demand patterns in the summer months. The hydraulic model has been used in several opportunities thereafter.

Project Manager and Design Engineer, Little Egg Harbor Municipal Utilities Authority, Above Ground Infrastructure Condition Assessment and Capital Improvement Plan, Little Egg Harbor, New Jersey. 1 Year. Mr. Contreras coordinated, inspected, and developed a full infrastructure assessment for all Water Treatment Plants (Five), pump stations (twelve), and ground tanks, standpipes, and elevated tanks (five). Prepared a final report with all the findings, cost estimates and a 10-year capital improvement plan.