COCONUT CREEK

REQUEST FOR QUALIFICATIONS

General Professional Engineering Services

RFQ No. 11-19-14-10
November 19, 2014

REISS ENGINEERING

CITY OF COCONUT CREEK

FINANCE AND ADMINISTRATIVE SERVICES
PURCHASING DIVISION
4800 WEST COPANS ROAD
COCONUT CREEK, FLORIDA 33063

ADDENDUM NO. 1

November 6, 2014

RFQ No.: 11-19-14-10
RFQ Name: General Professional Engineering Services
Due Date/Time: Wednesday, November 19, 2014 at 10:00 a.m. EST

Our records indicate that your firm is in receipt of proposal documents for General Professional Engineering Services. The following information is being transmitted to address questions to the RFQ and make changes to the specifications. This Addendum is hereby made part of the specifications and shall be included with all contract documents.

1. **REPLACE PAGE:** 2 with 2(a)
   Note: Words underlined and **bold** are additions, words ~~marked through~~ are deletions

2. **Questions and Answers** (1 through 16)

This addendum acknowledgment sheet must be submitted electronically with your proposal through the eBid System by the due date and time indicated above. Failure to return this sheet may disqualify Proposer.

Proposer's Signature James R. Murin, Jr., P.E. — Date 11/19/2014

Reiss Engineering, Inc.
Company Name

1451 W. Cypress Creek Rd., Ste. 300, Ft. Lauderdale, FL 33309
Company Address

(786)416-0427
Phone Number

(954)337-2835
Fax Number

LORIE MESSER, CTCM
Purchasing Analyst
lmesser@coconutcreek.net

CITY OF COCONUT CREEK

FINANCE AND ADMINISTRATIVE SERVICES
PURCHASING DIVISION
4800 WEST COPANS ROAD
COCONUT CREEK, FLORIDA 33063

ADDENDUM NO. 2

November 17, 2014

RFQ No.: 11-19-14-10
RFQ Name: General Professional Engineering Services
Due Date/Time: Wednesday, November 19, 2014 at 10:00 a.m. EST

Our records indicate that your firm is in receipt of proposal documents for General Professional Engineering Services. The following information is being transmitted to address vendor questions. This Addendum is hereby made part of the contract document and shall be included with your proposal.

1. **REPLACE PAGE:** 9 with 9(a)
   Note: Words underlined and **bold** are additions, words ~~marked through~~ are deletions

This addendum acknowledgment sheet must be submitted electronically with your proposal through the eBid System by the due date and time indicated above. Failure to return this sheet may disqualify Proposer.

Proposer's Signature James R. Murin, Jr., P.E. — Date 11/19/2014

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Purchasing Analyst
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REISS ENGINEERING

November 19, 2014

City of Coconut Creek
Lorie Messer, Purchasing Analyst
4800 West Copans Road
Coconut Creek, Florida 33063

RE: General Professional Engineering Services (RFQ No. 11-19-14-10)

Dear Ms. Messer and Selection Committee Members:

Recognized as the "Butterfly Capital of the World," the City of Coconut Creek is "Best in Class" at upholding the City's green image and sustainability through community involvement and leadership. The City continues to demonstrate that it is "A Future City with a Personal Touch" by supporting projects such as the Main Street Downtown Development Project, as well as development and management of the Parks, Greenways and Fitness and Recreational Areas throughout the City that provide "Fun with a Hometown Feel" for its citizens. This contract is the backbone to ensuring these facilities and developments can be achieved through essential utility provisions. This contract is a critical function to the City's plans to design and construct infrastructure to provide for current and future growth so that Coconut Creek continues to be one of the "Best Places to Live" according to Money Magazine, Movoto and NerdWallet, and where an "Environment for all who Work, Live, and Visit," is preserved.

Reiss Engineering, Inc. (Reiss) understands that the City of Coconut Creek has a number of utility related projects to continue and improve the service to City residents and businesses. With financial limitations, increasing regulatory restrictions, and a high level of service required, the City must ensure that it receives maximum value from the firms hired under its Professional Engineering Services Contract. Reiss Engineering Inc. appreciates the opportunity to present its qualifications to the City of Coconut Creek for the enclosed Request for Qualifications (RFQ) for the General Professional Engineering Services RFQ No. 11-19-14-10.

As an established Florida civil and environmental engineering firm with a successful history of providing professional services to clients similar to the City of Coconut Creek, Reiss is ideally suited to serve the City under this contract for the following reasons:

- **Leadership You Can Trust to Deliver.** Mr. Lance Littrell, P.E., (Client Services Manager) and Mr. Matthew Grewe, E.I., (Project Manager) have managed the successful completion of hydraulic modeling, pipelines and pump station projects throughout Florida similar to the engineering services proposed by the City. Both Mr. Littrell and Mr. Grewe have extensive experience leading master plans and utility design projects throughout the State of Florida that match the services defined by the City of Coconut Creek in this RFQ.
- **Global Expertise with Personalized Service.** For over 15 years, Reiss Engineering has been dedicated to meeting the needs and goals of our clients. We pride ourselves on the ability to work closely with our clients to provide the personal touch of a "local" engineering firm, and the technical capacity and expertise of a "global" engineering firm.
- **Industry Leading Hydraulic Modeling and Planning Services.** Mr. Edward Talton, P.E. and the Reiss hydraulic modeling team have unmatched modeling and regional water, wastewater, and reclaimed water system master planning experience. Our unique experience in Florida includes utilizing hydraulic models and I/I testing to assess distribution/collection system operational issues, water quality concerns, and design of unidirectional flushing programs to address water age and disinfection byproduct formation.
- **Full-Service Engineering Firm.** From planning to construction, Reiss Engineering has the proven professional experience and technical expertise to successfully and cost-effectively provide the specific Civil Engineering services required to complete the projects anticipated for this contract, including utilities, municipal facilities design, storm drainage, GIS services, master planning, and site development review.

Reiss Engineering, Inc.
1451 W. Cypress Creek Rd., Ste. 300
Ft. Lauderdale, FL 33309

Tel: 786.416.0427
Fax: 954.337.2835
www.reisseng.com

- **Experienced Technical Team.** Reiss team has a long history of successful water, wastewater and reclaimed water assessment, planning, design and construction projects throughout Florida. Mr. Robert Reiss, Ph.D., P.E., Mr. Mark Worsham, P.E., and Mr. Ed Talton, Jr., P.E., have been providing utilities planning and engineering services for several decades throughout Florida. This in-depth and current related experience will be extremely beneficial to the City for continuing contract.

Reiss Engineering is ready to provide timely, high-quality work products and service to the City consistently throughout this contract. Our commitment is one of excellence, and one you can count on. Together, we will develop, plan, design and construct new utility infrastructure to deliver utilities to one of the "Best Places to Live."

We greatly appreciate your consideration of Reiss Engineering on this proposal and we look forward to the opportunity of working directly with the City of Coconut Creek under this contract. If you have any questions, please feel free to contact us at your convenience.

Sincerely,

REISS ENGINEERING, INC.

Lance Littrell, P.E.
Client Services Manager

Matthew Grewe, E.I.
Project Manager

James Murin, Jr., P.E.
Vice President

Reiss Engineering, Inc.
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www.reisseng.com

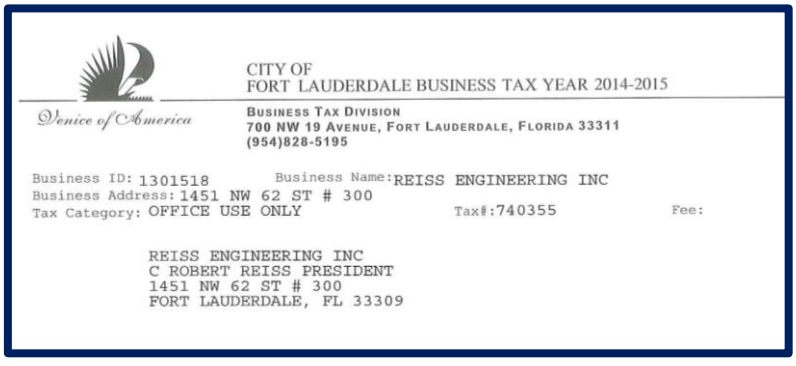
Office Location

A Office Location

1) Location Where Work will be Prepared

1451 W. Cypress Creek Road
Suite 300
Ft. Lauderdale, FL 33309
(786) 416-0427 Office
(954) 337-2835 Fax
Contact Person: Lance Littrell, P.E.
Email: lrlittrell@reisseng.com
Website: www.reisseng.com

Reiss Engineering, Inc. (Reiss) is comprised of a host of engineering staff providing general engineering services to multiple clients throughout Florida, many through continuing contracts such as this one for the City of Coconut Creek (City). Based on the services requested in this RFQ, it is clear that the City will benefit from having a contract with a firm capable of providing assistance quickly and effectively. In particular, Reiss has proved our responsiveness through current and ongoing work experience with such clients as the Seminole Tribe of Florida, Palm Beach County, the City of West Palm Beach, the Village of Islamorada, and the City of Port St. Lucie. Along with close attention to schedule, responsive and customized service is another key component to our core mission and values as a consulting engineering firm. With our long history of providing personalized and responsive service to customers throughout the state, Reiss is committed to continuing that responsiveness to the City under this contract. *To utilize our close proximity to the City, the bulk of the engineering services will be prepared out of our Ft. Lauderdale, Florida Office located on Cypress Creek Rd.* Supporting services will be shared between our Ft. Lauderdale, Florida Office and our Corporate Headquarters in Winter Springs, Florida.



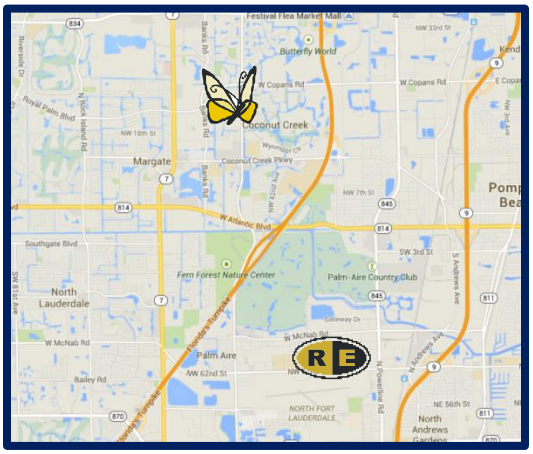
Venice of America

CITY OF
FORT LAUDERDALE BUSINESS TAX YEAR 2014-2015

BUSINESS TAX DIVISION
700 NW 19 AVENUE, FORT LAUDERDALE, FLORIDA 33311
(954)828-5195

Business ID: 1301518 Business Name: REISS ENGINEERING INC
Business Address: 1451 NW 62 ST # 300
Tax Category: OFFICE USE ONLY Tax#:740355 Fee:

REISS ENGINEERING INC
C ROBERT REISS PRESIDENT
1451 NW 62 ST # 300
FORT LAUDERDALE, FL 33309



2) Key Personnel in Local Office

The location of project team members can play a significant role in the ability of a firm to respond to project demands. With Reiss's branch office in Ft. Lauderdale, FL *less than 10 miles away from the City*, our Team will be able to respond quickly to any of the City's time critical needs. The names of key individuals in our local office who will be directly involved in the work under this contract are listed below and resumes for these individuals and additional suppot staff are provided in the next section.

PERSONNEL / ROLE	QUALIFICATIONS
Lance R. Littrell, P.E. *Client Services Manager*	▪ Master of Business Administration ▪ Bachelor of Science in Mechanical Engineering ▪ Professional Engineer in Florida (No. 65645) ▪ Pump Stations, Water and Wastewater Pipelines, Collection and Distribution Systems, Construction Management
Matthew S. Grewe, E.I. *Project Manager*	▪ Master of Science in Environmental Engineering ▪ Bachelor of Science in Environmental Science ▪ Over 6 Total Years of Experience (6 Years with Reiss) ▪ Hydraulic Modeling & Evaluations, Master Planning, Geographic Information Systems, Unidirectional Flushing

Organizational Profile

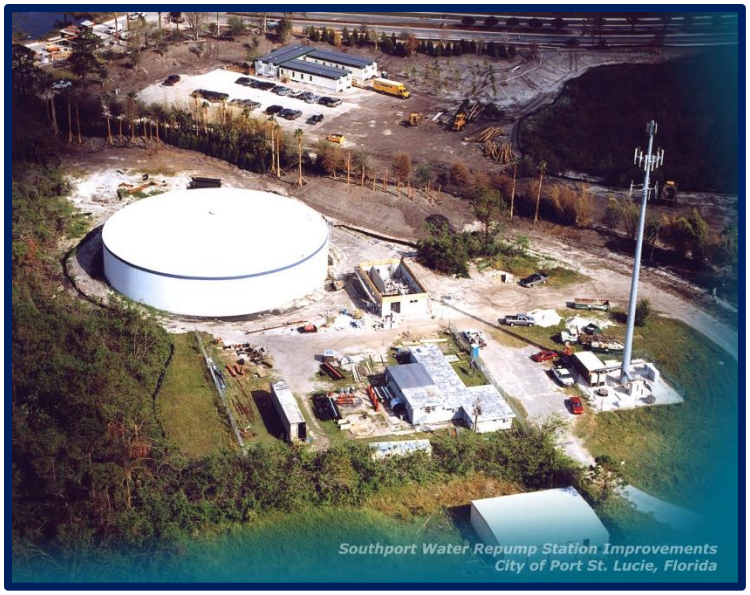
B Organizational Profile

1) Description of Respondent

The General Professional Engineering Services contract provides the City a contractual vehicle and a menu of engineering consultants to execute general engineering studies and various design projects for the City's Water, Wastewater, reclaimed water and stormwater utility.

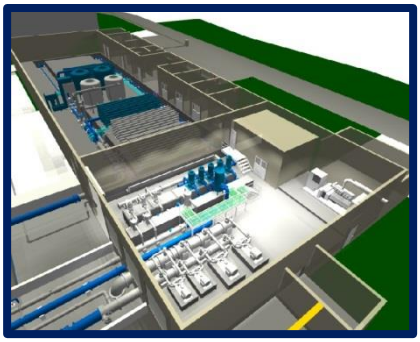
Reiss proposes to be the "Go-To" option in the City's menu of continuing consultants by providing a well-rounded and multi-faceted team that can **quickly** and **cost-effectively** execute projects the City may need to implement to meet its objectives. Specifically, Reiss has a well-rounded resume of project experience from utilities master planning and hydraulic modeling projects to construction inspection and management projects completed for its clients. Reiss provides a wide variety of services that require the type of technical resources, capabilities and efficiency that our clients desire.

As demonstrated in this submittal, the Reiss Team provides the expertise and experience required to successfully implement many of the types of projects included in the City's CIP in a responsive and cost-effective manner. More importantly, as a smaller firm with locally-focused leadership, Reiss can provide the City with a level of responsiveness and customized services that many larger firms with a national or global focus cannot deliver. We firmly believe that the value, service and capabilities Reiss will deliver to the City under this contract will quickly make our firm your "Go-To" Team for cost-effective and technically proficient day-to-day engineering services.



Reiss is recognized across Florida as an industry leader in hydraulic modeling services. With proven, recent experience as the formal hydraulic modeling and utility master planning firm for the City of Port St. Lucie, Seminole County, the City of Melbourne, and the City of St. Cloud, Reiss also provides ongoing hydraulic modeling expertise to Palm Beach County, Orange County, the Cities of Tampa, Casselberry, Clearwater, Ocoee, Sanford, and the South Seminole & North Orange County Wastewater Transmission Authority. Reiss brings a specialized portfolio of experience, and has successfully completed a wide range of projects which include tools and innovations specifically applicable to Coconut Creek in the following areas:

- Master Planning
- Water Treatment
- Wastewater Treatment
- Wastewater Collection
- Potable and Reclaimed Water Distribution
- Water Quality Modeling
- 24-Hour Extended Period Simulations and Advanced Hydraulic Modeling
- Flow-through Remote Storage and Repumping Design
- Geo-located Meters
- GIS-based Reuse Demand/Flow Allocations and Projections
- Infrastructure Needs Assessment



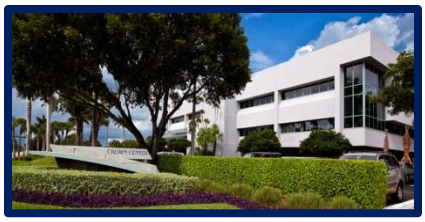
Hydraulic modeling and master planning services have been a staple of Reiss's services over our corporate history. The firm was founded in 1998 as a Potable Water Treatment Engineering Specialty Firm, based solely on the specialized water quality and treatment expertise of C. Robert Reiss, Ph.D., P.E. and acquired highly experienced master planning hydraulic modeling services shortly thereafter with Mr. Ed Talton, P.E. Dr. Reiss started the company and has continued to infuse the organization with the mission of providing quality, innovative, cost-effective, and personalized services that meet the needs of its clients.

Reiss provides professional water, wastewater, reclaimed water, master planning, hydraulic modeling, unidirectional flushing, conventional utility infrastructure design and construction engineering services that could be effectively utilized by the City to successfully meet your needs. Our firm's emphasis is on solutions via in-depth knowledge of advanced treatment processes, permitting and compliance assurance, community relations, water, wastewater, and reclaimed water design, process optimization, water quality, as well as transmission/ distribution system modeling, design and construction engineering services for water, wastewater, reclaimed water, and stormwater systems. As the City will see, Reiss's mission is visible in our efforts to deliver the components that are specific to our clients' needs and eliminates any inefficient overhead or now needed tasks that add unnecessary dollars to engineering product delivery.

Additionally, Reiss's operating philosophy is flexible, such that client needs, as well as market opportunities, can be addressed rapidly and successfully. With an impressive history of project successes, Reiss has been widely embraced by clients in need of the expertise, customer service, and attention to detail offered by the firm's staff. Reiss has an extensive portfolio of successfully completed projects across the State of Florida similar to the City of Coconut Creek, which can be seen by the sample of project descriptions provided in this proposal.

2) Size of Office

Based on the services requested in this RFQ, it is clear that the City will benefit from having a contract with a firm capable of providing assistance quickly and effectively. The location of project team members can play a significant role in the ability of a firm to respond to project demands. From Reiss Engineering's Ft. Lauderdale office, our Team will be able to respond quickly to any of the City's time critical needs and have the depth in experiences to address any of the City's utility projects.



Reiss Engineering leases 3,025 sq. ft. of office space in a facility located at 1451 W. Cypress Creek Road, Ft. Lauderdale, Florida. This will serve as our project office. We have 2 staff located at our project office, along with all of the tools and equipment necessary for the job, including computers with required software and peripherals, mobile and landline phones. Our project team and support staff commit to delivering responsive service to the City Staff under this contract.

Our 12,140 sq. ft. headquarters facility in Winter Springs, Florida houses over 40 staff members, and will provide the additional support required to deliver the best possible service to the City of Coconut Creek.

3) Key Personnel

The professionals that comprise our Project Team for this assignment will provide the City of Coconut Creek with an extraordinary blend of engineering experience and expertise, Florida project history, and personalized quality service. The Reiss Team has been specifically selected in response to the City's RFQ, and the challenging projects identified in the City's Capital Improvements Program, to form a highly qualified and experienced team applicable to meet the City's needs. Our Project Manager, Mr. Matthew Grewe and each of our Technical Leads take a personal interest in assisting the City staff in the successful completion of any needed civil engineering planning, design, permitting, or construction projects.

The Reiss Modeling, Planning & Studies task lead Edward Talton, Jr., P.E., is a leader in hydraulic modeling within the State of Florida and the industry. He has extensive experience in regional master planning, constructing and calibrating hydraulic models, and providing value engineering solutions to water quality challenges for over 23 years.

The Reiss Design task lead Mark Worsham, P.E., brings senior leadership and has 27 years of experience in the detailed design and construction of water and wastewater pump stations, and pipelines. His areas of focus include mechanical system designs, instrumentation/control system designs, and hydraulic analyses of pumping systems. Mr. Worsham also has extensive experience in performing constructability and value engineering reviews of water and wastewater projects, having been involved in many design-build assignments.

The Reiss Construction task lead Scott Hoxworth, P.E., has over 16 years of experience, which includes construction engineering inspections, oversight and permitting on numerous complex assignments in the water, wastewater, storm water, and reclaimed water fields. His experience encompasses construction management and engineering services for numerous major utility projects.

The following resumes highlight our key personnel, their background, experience, and areas of expertise.

POSITION
Project Engineer for Reiss Engineering, Inc., a consulting engineering firm specializing in advanced water treatment processes, facilities design, water/wastewater/reuse master planning and hydraulic modeling.

YEARS OF EXPERIENCE
13

EDUCATION
MBA, Business Administration,
University of Central Florida 2009

B.S., Mechanical Engineering,
Old Dominion University 2002

REGISTRATIONS AND CERTIFICATIONS
Professional Engineer:
Florida, No. 65645

Instructor for:
SEDA – South Eastern Desalting Association

FW&PCOA – Florida Water & Pollution Control Operators Association

Virginia Short School for Operators

Allen-Bradley PLC & Rockwell Automation Certification
Allen-Bradley Corporation

PROFESSIONAL AFFILIATIONS
- Florida Section AWWA,
- American Society of Mechanical Engineers,
- American Membrane Technology Association,
- South Eastern Desalting Association

PROFESSIONAL SUMMARY

Mr. Littrell has 13 years of experience concentrated in the mechanical arena of the environmental engineering field. Mr. Littrell's experience includes the design, project management, construction oversight and fabrication of Reverse Osmosis and Ultrafiltration water treatment plants for municipal utilities.

SELECTED PROJECT EXPERIENCE

30 MGD Rangeline Water Treatment Plant, Water Repump Station Phase I, Port St. Lucie, FL. Project Manager involved in the design, permitting, QA/QC review, bidding and construction inspection services for the initial phase of the water treatment plant. Rangeline WTP will be constructed in multiple phases in an effort to address this population growth and provide initial treated water capacity for the western area. Phase I will consist of an initial storage and repump facility which includes a 4.0 MG ground storage tank, high service pump building, providing emergency power/generator building, and construction of chemical storage and feed facilities to allow disinfectant addition. Also included within the design is the stormwater collection and treatment system. Engineering services for later phases of the Rangeline WTP project will involve the expansion of the treatment plant to 30 MGD including reverse osmosis treatment processes and high service pumping capacity.

Midport Water Repump Station, City of Port St. Lucie, FL. *Project Engineer* involved in the design, permitting, QA/QC review, bidding and construction inspection. The project included a new storage tank, added pumping capacity, tank mixing system, chemical feed systems, and upgraded controls systems to fill and monitor the storage and repump station.

Reverse Osmosis Water Treatment Plant Redundancy and Expansion Project, St. Lucie West Services District, FL. *Project Engineer* for analyzing and evaluating the existing treatment processes of a 3.4 MGD Water Treatment Plant to improve the redundancy of the facility, while allowing for expansion of the facility. The study evaluated raw and finished water quality, chemical feed systems, reverse osmosis skid, post-stabilization treatment, and clean-in-place system.

Replacement of WTP#1, City of St. Cloud, FL. *Project Engineer* for the MIEX pilot study. The pilot study was to assess organic removal in order to reduce DBP formation in the distribution system and comply with Stage 2 D/DBPR requirements. The pilot study served as the basis of the preliminary design of the WTP#1 that would use MIEX technology.

Surface Water Membrane Treatment Project, City of Bowling Green, OH. *Project Engineer* for project to perform pilot study of two Integrated Membrane Systems in parallel to gain OEPA approval for installation of 4.0 MGD of membrane treatment to improve finished water quality of existing 7.2 MGD conventional WTP.

Dissolved Oxygen Station and Concentrate Transfer Pump Design, City of Melbourne, FL. *Project Manager* for DO blower station design, concentrate transfer pump design including, general drawings, mechanical process drawings, civil drawings that include demolition plans, site plans, paving, grading, Stormwater facilities, electrical and instrumentation, permitting, bidding. REI has completed the design of new DO station and the upgrades to the concentrate transfer pumps. The City has requested REI provide support services during the construction phase of this project.

Water Quality Evaluation of a Reverse Osmosis Water Treatment Facility Expansion and Upgrade, City of Vero Beach, FL. *Project Engineer* for performing and evaluation of the raw water quality for the design and operation of the membrane, and established finished water quality goals to minimize re-equilibration effects in the distribution system. Further studies focused on the projected water quality of reverse osmosis (RO) permeate from different membrane manufacturers, the blending of RO permeate and lime softened water at various ratios, and the evaluation of alternatives to the existing post treatment process.

Big Cypress Pilot Study, Seminole Tribe, FL- *Project Engineer* for performing a reverse osmosis pilot study to evaluate the performance of different membranes to replace the nanofiltraton membranes at the

Big Cypress WTP. Performance evaluation was performed in terms of productivity sustainability and water quality in order to meet the DBP regulatory limits.

Seminole Tribe Immokalee Membrane Replacement Evaluation, FL. *Project Manager* for review and membrane verification services prior to the full-scale membrane replacement at the Immokalee Water Treatment Plant (WTP). Services performed included, a desktop evaluation of both membranes using the existing water quality data, an anti-scalent dosing review using the existing water quality data, preparation of a technical memorandum identifying findings.

Cranes Roost Pump Station and Forcemain Upgrades, City of Altamonte, FL. *Project Manager* for services including, preliminary design, hydraulic modeling, surveying, geotechnical, pump station, forcemain and reclaimed main design docs, final design docs, permitting, bidding and construction administration services for the addition of a fourth, redundant vertical turbine pump complete with variable frequency drive (VFD) as well as the addition of a permanent emergency generator and fuel storage tank at the pump station site. The project also included a new emergency discharge configuration, installation of a new stormwater pump station, installation of an additional 16-inch stormwater force main, design of a flow bypass or diversion device within the stormwater forcemain, design of approximately 1,000 linear feet of 16-inch reclaimed water distribution pipeline, stormwater pump station and discharge FM system modeling to verify the connection point and size of the proposed FM and provide additional hydraulic modeling support to meet the City's goals of flood protection as well as supplementing their reclaimed water distribution system and to ultimately provide reclaimed water to the City of Apopka and this project is part of a collaborative effort including Florida Department of Transportation (FDOT), Florida Department of Environmental Protection (FDEP), and the SJRWMD to meet this goal.

Rangeline Transmission Mains, City of Port St. Lucie, FL. *Project Manager* responsible for the design, permitting, QA/QC review and construction inspection services for 10 miles of water, wastewater and reclaimed water pipelines utilizing horizontal directional drilling, jack and bore trenchless technology along with traditional trench excavation installation. Permitting services for this project included approvals for County ROW, Railway crossing, wetland crossing, water and wastewater FDEP construction certification.

RO System Expansion, St. Lucie West, FL. *Project Manager* for the mechanical system design and construction management for the upgrade of a 2 MGD RO system. Improvements included the addition of cartridge filters and a new RO membrane skid.

Tuskawilla Point Pump Station Rehabilitation, SSNOCWTA, Seminole County, FL. *Project Engineer* responsible for evaluation, design of rehabilitation, and construction services administration of the existing wastewater pump station co-owned and operated by the South Seminole North Orange County Wastewater Transmission Authority and Seminole County. The project consisted of complete demo of all electrical components, cabinets and panels, as well as mechanical rehab of the piping, pump accessories, valves and wet wells.

Wastewater Collection and Treatment Expansion, City of Davenport, FL. *Project Manager* responsible for complete detailed design, permitting, construction administration and inspection of the septic tank retrofit project for the downtown Davenport region of the City. The project included a parallel design effort to complete the gravity collection, pump station and force main systems as well as the full treatment expansion of 0.375 MGD extended aeration treatment plant. Specific duties involved design study and review, client and sub-consultant management, permitting services and construction administration of the ~40,000 LF gravity collection system, ~7,000 LF force mains, seven pump/grinder stations and the wastewater treatment plant. Additional evaluation included financial analysis of alternatives to utilize County treatment plants in lieu of expanding City facilities.

NPDES Permit for Brackish Water RO, Tarpon Springs, FL. *Project Engineer* for the preliminary design and permitting of the City of Tarpon Springs reverse osmosis concentrate disposal. The 6.5 MGD membrane water treatment plant design calls for a reject flow of an estimated 2.5 MGD discharged downstream of the Progress Energy Florida's Anclote Power plant cooling water discharge canal. This engineering assignment included a support of the NPDES permit application and preliminary design of the outfall structures coordinated with the mixing/dilution ratio determined from the discharge canal hydraulic model.

Unidirectional Flushing Program Implementation, City of Melbourne, FL. *Project Engineer* for a unidirectional flushing program implementation project to address increased customer complaints. Project included management of the City UDF program implementation, RFP preparation, contractor selection, program policies development, field crew activities and efficiency management, scheduling, team communication, data collection, and other program management duties.

Rangeline Transmission Mains, City of Port St. Lucie, FL. *Project Manager* responsible for the design, permitting, QA/QC review and construction inspection services for 10 miles of water, wastewater and reclaimed water pipelines utilizing horizontal directional drilling, jack and bore trenchless technology along with traditional trench excavation installation. Permitting services for this project included approvals for County ROW, Railway crossing, wetland crossing, water and wastewater FDEP construction certification.

.5 MGD Hybrid Ultrafiltration and RO WTF, Spanish Lakes Community, City of Ft. Pierce, FL. *Project Manager* responsible for the progressive membrane system design of ultrafiltration paralleled by reverse osmosis. To support the design, QA/QC management, construction oversight and creation of technical manuals. This project used a proven technology in RO and combined with a newer ultrafiltration technology to produce low cost, compliant product water while reducing post treatment process and equipment.

1.7 MGD Expansion and 6.0 MGD Retrofit, Town of Jupiter, FL. *Project Manager* responsible for system design, QA/QC management, construction oversight and creation of technical manuals.

POSITION
Project Engineer of Reiss Engineering, Inc., a consulting engineering firm specializing in advanced water treatment processes, facilities design, water/wastewater/reuse master planning and hydraulic modeling.

YEARS OF EXPERIENCE
6

EDUCATION
M.S., Environmental Engineering, University of Central Florida, 2013

B.S., Environmental Science, Ashland University, 2007

FDOT's Maintenance of Traffic Intermediate Course, June 10th, 2010

PROFESSIONAL AFFILIATIONS
- American Water Works Association (AWWA)

PROFESSIONAL SUMMARY

Mr. Grewe has over 6 years of experience in wastewater process design, hydraulic modeling, pilot studies, report writing, data management and master planning for a variety of municipal and government projects in water treatment.

SELECTED PROJECT EXPERIENCE

Strategic Auto – Flusher Water Program Phase II, St. Petersburg, FL. *Project Engineer* Updated and evaluated the progress of the Strategic Auto-Flusher Water Conservation Project Program Action Plan to improve delivered water quality to customers and reduce flushing water volumes by utilizing a hydraulic/water quality model to optimize water distribution operations, maintenance and flushing activities. This phase included a pilot unidirectional flushing program with improved water quality.

Water Quality Modeling & Optimization, Orange County Utilities, FL. Upgraded OCU's hydraulic model with water quality modeling capabilities, field calibrated, and used the model to optimize water age, disinfectant residuals and DBPs. Performed quality and capacity modeling to support design of new 17 mgd ground water treatment facility. Developed GIS-Model Integration Plan to support conversion to distribution level water quality modeling.

Unidirectional Flushing Program Design and Implementation, Seminole County, FL. *Project Manager* for a unidirectional flushing program for Seminole County's 11 service areas. The project was focused to address the County's water quality issues including Stage 2/DBP requirements. This Project included management of the County's UDF program implementation, flushing contractor, program policies development, field crew activities and efficiency management, scheduling, team communication, data collection, and other program management duties. Responsibilities include program management planning, zone prioritization, public notification planning, hydraulic analyses, sequences design and map updates and report development.

Unidirectional Flushing Program Implementation, City of Melbourne, FL. *Project Engineer* for a unidirectional flushing program implementation project to address increased customer complaints. Project included management of the City UDF program implementation, RFP preparation, contractor selection, program policies development, field crew activities and efficiency management, scheduling, team communication, data collection, and other program management duties. Responsibilities include program management planning, zone prioritization, public notification planning, hydraulic analyses, sequences design and map updates and report development.

Water Quality Master Plan Update and Capital Improvement Plan, City of Casselberry, FL. *Project Engineer* Completed a water quality update to the City's utilities water master plan to evaluate the utilities water quality issues, water supply plans, and schedule capital improvement projects for the next 20 years. GIS and hydraulic modeling were used locate future development needs and cost effectively size infrastructure.

Unidirectional Flushing Pilot Program Design, City of St. Petersburg, FL. *Project Engineer* for a unidirectional flushing program for the southern region of the City's water distribution service area to address water quality. The Project included a pilot design of a UDF program for a small area of the City and coordination of flushing activities. The area of design included a 20-inch water main, which was flushed successfully. Responsibilities included project management, UDF design criteria development, UDF design and customized flushing reports developed using MS Access.

Cypress Lake Potable Water Transmission, Optimization, and Interconnection Conceptual Design, Water Cooperative of Central FL. *Project Engineer* developed a 36 MGD conceptual design for transmission and optimization of the Cypress Lake supply water in concert with existing potable water sources to facilitate the efficient and cost-effective transfer and transmission of potable water among 5 major Central Florida Utilities.

City Wide Potable Water System Evaluation, City of Clearwater, FL. *Project Engineer* for an evaluation of the City's need for elevated tanks and water treatment

plants operations. The City's water storage was optimized to reduce water age and improve water quality throughout the distribution system. The project included EPS scenario development and hydraulic modeling. Responsibilities included project management, presentation of results and report development

Water, Wastewater and Reuse Master Plan, Port St. Lucie, FL. *Project Engineer* for completing an update to the City's utilities master plan to evaluate the utilities growth over the next 15 years. GIS and hydraulic modeling were used locate future development needs and cost effectively

Unidirectional Flushing Program Design, City of Casselberry, FL. *Project Engineer* for a unidirectional flushing program to address increased customer complaints and regulatory requirements. Project included design a UDF program of the entire City which included conducting piping material review, zone development and program development for implementation. Responsibilities include project management, zone criteria development, UDF zone developments.

Water System Master Plan Update Project, City of Melbourne, FL. *Project Engineer* for a water delivery master plan to address an expanding service area, evaluate CIP, and assess the capacity and reliability of key existing infrastructure. Master Plan components consist of potable water storage and delivery, high service pumping and transmission/ distribution piping for the entire City limits. Responsibilities include water distribution system hydraulic model update and development, alternative development and evaluations, extended period simulations, fire flow evaluations, water quality analysis, asset condition and risk assessment, regulatory assessments, funding analysis and report development.

Water Master Plan, City of Tampa, FL. *Project Engineer* for Potable Water Master Plan including comprehensive strategy for maintenance of existing infrastructure, and assessment of new facilities to meet expansion and facility-replacement needs. Project services include hydraulic model updates, existing and future system alternatives development and evaluation, asset risk matrix development, bond report, and model calibration.

Unidirectional Flushing Program Design, City of Sanford, FL. *Project Engineer* for a unidirectional flushing program and IDSE planning to address increased customer complaints and regulatory requirements. Project included design of a UDF program of the entire City of over 250 miles of pipes which included conducting piping material review, pilot testing, zone development and program development for implementation. Responsibilities include project management, zone criteria development, UDF zone developments and report development.

Red Water Mitigation Strategy Project – Morningside Water Quality Improvement Assessment, City of Clearwater, FL. *Project Engineer* for utilizing the cities current GIS piping to coordinate and assist in the construction of a distribution and transmission hydraulic model integrated with geographical information systems (GIS) that has the ability to be updated periodically as well as simulate and predict water quality throughout the system. Responsibilities included model calibration and the use of hydraulic modeling expertise to solve pipe connectivity and integration issues between GIS and the hydraulic modeling software.

Wastewater Collection Master Plan, City of Melbourne, FL. *Project Engineer* for the Wastewater Collection and Transmission Master Plan including preparation of a detailed Master Plan report summarizing the various reviews, site visits, field efforts and technical evaluations of the system. This included a hydraulic model and a capital improvements program (CIP) that includes specific projects and an implementation schedule necessary for the City to expand, repair, replace and maintain the wastewater collection system and economically meet the City's level of service.

Inflow and Infiltration Action Plan, City of Altamonte Springs, FL. *Project Manager* for the City's I&I action plan to address high lift station run times and lift station and plant capacity during major rain events. A desktop data analysis was completed to provide evidence to the Florida Department of Environmental Protection (FDEP), that due to I&I, the City's WWTP was reaching it permitted capacity. The project involved: smoke testing field work, development of smoke testing data entry customized forms using the Data Point application for Android based tablets, manhole flow monitoring, and Closed Circuit Television (CCTV) monitoring.

South Seminole & North Orange County Wastewater Transmission Master Plan, FL. *Project Manager/Engineer* Updated and calibrated the Authority's hydraulic model which consists of 32 lift stations manifolded together and transferring PHF of approximately 35 mgd of wastewater through large diameter forcemain. The Authority is made up of five (5) Central Florida Communities. The master plan included looked prioritizing the systems assets and developing a capital/R&R schedule.

Lift Station and Force Main Master Plan Update and Capital Improvement Plan, City of Casselberry, FL. Project Engineer for completing an update to the City's utilities wastewater master plan to evaluate the utilities lift station and force main issues and schedule capital improvement projects for the next 20 years. GIS and hydraulic modeling were used locate future development needs and cost effectively size infrastructure.

Reclaimed Water Hydraulic Model Calibration, City of Clearwater, FL. *Project Manager* for a reclaimed water model development and calibration to ensure reliability of key existing infrastructure and provide an effective master planning tool for the City. Calibration components consist of verifying existing hydraulic model structure including system demands, reuse storage and delivery, high service pumping and transmission/ distribution piping for the entire City reuse service limits. Calibration utilizes extended period (24-hour) and steady state simulations. A calibration plan was developed to ensure specific data was collected throughout the system using field data collection, SCADA and pressure recorders. Responsibilities include project management and quality control reviews.

POSITION

President and Founder of Reiss Engineering, Inc., a consulting engineering firm specializing in advanced water treatment processes, facilities design, water/wastewater/reuse master planning and hydraulic modeling.

YEARS OF EXPERIENCE

22

EDUCATION

Ph.D., Environmental Engineering,
University of Central Florida
M.S.E., Environmental Engineering,
University of Central Florida
B.S.E., Environmental Engineering,
University of Central Florida, Cum Laude
B.S.E., Civil Engineering,
University of Central Florida

REGISTRATIONS AND CERTIFICATIONS

Professional Engineer:
Florida, No. 53794
California, No. 6199
Georgia, No. 27673
Indiana, No. 10200295
Ohio, No. E-64124
North Carolina, No. 027544
South Carolina, No. 19765
Virginia, No. 0402 026729
Bahamas, No. 10033

PROFESSIONAL AFFILIATIONS

- American Water Works Assoc.
  - National Membrane Processes Committee Member (1997-2003)
- American Membrane Technology Assoc.
  - First Vice President (2006 - 2007)
  - Second Vice President (2004-2006)
  - Member of Board of Directors (2001-2010)
  - Concentrate Committee Member (2001-2007)
  - Editor of Newsletter (2002-2010)
  - Program Committee Chair (2003-2004)
- American Society of Civil Engineers
- Bahamas Society of Engineers
  - President (2009-2011)
- Caribbean Water and Wastewater Assoc.
- Southeast Desalting Assoc.
- Industry Advisory Board - University of Central Florida, Department of Civil and Environmental Engineering (2006 - 2008)
- International Community Board - UCF

PROFESSIONAL SUMMARY

Dr. Reiss has been involved with advanced water and wastewater treatment systems including membrane technologies for the past 22 years. His experience includes detailed design, process engineering, and technical review of membrane treatment systems including seawater, groundwater, and fresh surface water systems. This experience includes microfiltration, ultrafiltration, nanofiltration, and reverse osmosis technologies. In addition, he has similar experience with conventional coagulation systems, media filtration, and other advanced treatment technologies.

Dr. Reiss has worked extensively with fouling mitigation of membrane processes. He has participated in work evaluating advanced pretreatment processes to mitigate NF/RO fouling, for surface water, groundwater, and seawater treatment.

In addition, Dr. Reiss has been involved in coagulation and softening optimization studies, *Giardia*, *Cryptosporidium*, and virus inactivation and removal studies, ozone/biofiltration studies, Safe Drinking Water Act compliance, Surface Water Treatment Rule compliance, and other regulatory compliance studies.

SELECTED PROJECT EXPERIENCE

Brackish Reverse Osmosis (RO) Water Treatment Plant #2, Clearwater, FL. *Principal-in-Charge* for the design of the City's new 6.25 MGD RO WTP #2, approx..$30M construction cost. The objectives of the project are to conserve water, produce high water quality from brackish and fresh ground water, and design a state-of-the-art RO facility. The design of the plant incorporates two treatment trains. The brackish groundwater blended with the concentrate from the City's RO WTP #1 is treated via RO to reduce the salt concentration and the 5.25 MGD of permeate is then ozonated to oxidize the sulfides. The freshwater is oxidized with chlorine and then filtered to remove the iron and is then blended with the ozonated permeate. As the freshwater has a relatively hard hardness and alkalinity, the blending of the freshwater and permeate resulting in stable water after minimum post-treatment. Treatment of the concentrate from RO WTP#1 was an innovative approach to conserve water.

Water Treatment Plant Design, Hollywood, FL. Performed process engineering and design QA/QC for new nanofiltration water treatment plant for Seminole Tribe of Florida.

Water Treatment Plant Design, Brighton, FL. Performed process engineering and design QA/QC for new 0.8 MGD integrated membrane system water treatment plant for Seminole Tribe of Florida.

System 3 Membrane Water Treatment Plant, Delray Beach, FL. Project Engineer for design of 8 mgd membrane softening WTP for Palm Beach County Water Utilities Department.

Disinfection By-Products Formation and Control Study, St. Petersburg, FL. Field and bench-scale assessment of THM and HAA formation and control for 60 MGD lime softening WTP for compliance with Stage 1 and 2 of the D/DBPR.

Lime Softening Process Control Implementation, St. Petersburg, FL. Developed calibrated model of 65 MGD aeration-lime softening-post stabilization WTP, in terms of water quality and stability parameters (LSI and CCPP). In addition to predictive model, developed real-time monitoring of LSI and CCPP, integrated into Wonderware and trained operational staff. Project was in response to new source water supplies of differing quality being introduced to WTP.

Blue Hills SWRO Water Treatment Plant, New Providence, Bahamas. Principal-In-Charge of project to provide process design, detailed design and technical advice for equipment selection and installation for Consolidated Water Co. which was awarded a 20-year design/build/operate contract for a 7 MGD SWRO facility. The assignment included design of a calcite contact system to raise hardness to meet potable water needs. Acidity was controlled using pH adjustment with caustic soda; carbon dioxide will be added to increase alkalinity and maintain a slightly positive Langlier Index. In addition, review was provided during construction and during start-up and initial operation in early 2006.

Distribution System Water Stability Study, Melbourne, FL. Project Manager for water quality investigation to determine root cause of excessive number of red water complaints from customers. Included sampling and testing of 26 locations throughout distribution system, investigation of chloramination

practices, nitrification, alkalinity demand, and LSI/CCPP levels in distribution system. Study determined presence of nitrification and decreases in LSI spatially through system.

Surface Water Treatment System Upgrade – Pilot Study, Evansville, IN. Served as Principal-In-Charge and QA/QC officer of project to perform preliminary engineering and pilot testing of membrane filtration to increase filtration capacity of 66 MGD conventional surface water treatment plant treating Ohio River, through retrofit of shallow-bed filter cells.

Reverse Osmosis Pilot Study and Concentrate Management Review, Toho Water Authority, FL. Technical review of pilot study plan of study and concentrate management options for development of Harmony reverse osmosis WTP.

Seawater Desalination and MBR Wastewater Treatment Feasibility Study, TX. Project Principal and QA/QC officer for evaluation of water and wastewater system options for coastal resort development.

Reverse Osmosis WTP Value Engineering, Florida City, FL. Value Engineering team member reviewing 60% design of 6 MGD brackish groundwater RO WTP for Florida Keys Aquaduct Authority.

Initial Distribution System Evaluation Plan, Melbourne, FL. Client manager and QA/QC officer for development of Stage 2 Disinfectant/Disinfection By-products Rule IDSE for submittal to USEPA.

Unidirectional Flushing Plan, Melbourne FL. Client manager and QA/QC officer for development of a unidirectional flushing plan to support maintenance of potable water distribution system water quality and minimize customer complaints. Project was initiated in response to significant increase in customer complaints, primarily related to red water.

NPDES Permitting for Reverse Osmosis WTP, Tarpon Springs, FL. Permitting liaison and technical reviewer for NPDES permitting effort for new RO WTP.

Surface Water Membrane Treatment Project, Bowling Green, OH. Serving as Principal-In-Charge of project to pilot, permit, and ultimately design 4.0 MGD ultrafiltration-nanofiltration expansion of existing 7.2 MGD conventional WTP.

Trihalomethane Compliance Project, Seminole County, FL. Project Principal and QA/QC officer for evaluation of engineering and process alternatives to address TTHM compliance issues including evaluation of valving, water age, disinfection processes, well water quality, and treatment alternatives in Northeast System.

Alum Sludge Removal and Volume Minimization, Winter Park, FL. Project Principal and QA/QC officer for engineering evaluation of alum sludge removal and volume minimization options for stormwater pretreatment pond, resulting in selection and procurement of floating dredge system.

Membrane WTP Litigation – Technical Expert, KS. Technical expert for case involving process and operational performance issues in a membrane drinking water treatment plant in Kansas.

Groundwater Reverse Osmosis Pilot Study, West Jefferson, OH. Project Principal for pilot study of RO treatment of high hardness groundwater to support new WTP design.

Reverse Osmosis WTP Expansion, St. Lucie West, FL. QA/QC officer for design of 3.4 MGD expansion of low pressure RO WTP.

Reverse Osmosis NPDES Concentrate Permitting, Melbourne, FL. Principal-In-Charge and QA/QC officer for engineering/ permitting of discharge of concentrate from 4.9 MGD groundwater RO WTP to Eau Gallie River. Project includes 3-dimensional modeling of river for determination of mixing zones for radionuclides as well as performance of a Toxicity Identification Evaluation to determine cause of non MSIIT toxicity.

James E. Anderson RO Pilot Evaluation and Concentrate Disposal Assessment, City of Port St. Lucie, FL. Water System Engineering Service Project involved conducting an RO Pilot Evaluation of multiple alternative membranes to determine fouling potential, acceptability of alternative membranes, compliance with water quality goals and other criteria to ensure the adequacy of the proposed facility. Concentrate Disposal Preliminary Assessment was conducted to assess the City's ability to obtain a surface water discharge permit for concentrate disposal.

Prineville 6.0 MGD LPRO Expansion, Port St. Lucie, FL. Provided management and technical expertise associated with 6.0 MGD LPRO construction contract for expansion of treatment facility.

Nanofiltration Pilot Study, Hallandale Beach, FL. Provided process engineering expertise for development of pilot protocol, pilot initiation, and data interpretation to support full-scale design.

Chloramination Instrumentation Study, Tampa Bay Water, FL. Conducted comparative analysis and demonstration testing of chloramination instrumentation for on-line analysis of water supplied to member governments.

Surface Water Reverse Osmosis Feasibility Analysis, City of Tampa, FL. Conducted feasibility and cost assessment of reverse osmosis for treatment of 20 MGD of water from Sulfur Springs.

Hillsborough River Integrated Membrane System Pilot Treating, Tampa, FL. Executed 1-year membrane pilot treating plan for treatment of highly organic (TOC - 20 mg/L) river water using nanofiltration with advanced pretreatment processes including MF, UF, and CSF.

Alternative Methods for Dewatering Alum Sludge, Washington, D.C. Feasibility report assessing methods for dewatering and disposing of alum sludge from 360 MGD WTP.

Alternative Surface Water Supply Study, US Sugar, FL. Desktop evaluation of water treatment alternatives to satisfy a deficiency in quality and quantity at existing alum WTP including membrane treatment alternative.

Surface Water Membrane Pilot Study, Melbourne, FL. Executed USEPA- funded research study of nanofiltration for disinfection by-product precursor removal from surface waters inc. Lake Washington.

POSITION

Vice President and Engineering Manager for Reiss Engineering, Inc., a consulting engineering firm specializing in advanced water treatment processes, facilities design, water/wastewater/ reuse master planning, hydraulic modeling and regulatory compliance.

YEARS OF EXPERIENCE

22

EDUCATION

M.S.E., Environmental Eng., 2000
University of Michigan

B.S., Civil Engineering, 1992
Virginia Tech

REGISTRATIONS AND CERTIFICATIONS

Professional Engineer:
Michigan No. 42646
Florida No. 64103

PROFESSIONAL AFFILIATIONS

- American Water Works Association
  - FSAWWA Research Comm.
- Water Environment Federation
- American Membrane Technology Association

PROFESSIONAL SUMMARY

Mr. Murin has over 22 years of experience in potable water and wastewater treatment, with a primary focus on process design, testing, and troubleshooting. Projects include clients from municipal, industrial, and governmental sectors. His focus has been to provide specialized process knowledge and support to detailed design staff, as well as regulatory and environmental engineering consultation. He has served as Project Manager on numerous projects ranging from small-scale technical reviews to larger multi-discipline studies. Under previous affiliation, Mr. Murin also served as a Group Leader for a firm's water and wastewater process engineering department for over three years.

He has served as Project Manager and Project Engineer on varying drinking water, wastewater, and permit-negotiation projects. Mr. Murin's experience includes performance of biological and physical/chemical treatability studies, drinking water and wastewater process conceptual designs, membrane treatment testing and preliminary design, pollutant source detection studies, arsenic removal studies and process design, and wastewater treatment process evaluations.

Mr. Murin has significant experience in the implementation of Whole Effluent Toxicity testing programs, and the development of toxicity identification and reduction studies. He has served as a technical specialist in the area of pH control, aquatic chemistry, and scaling/corrosion control, and has assisted mechanical and civil engineering designers with guidance on numerous chemical feed system concepts and design criteria. He has also performed and managed various projects associated with Industrial Pretreatment Program development, implementation, and compliance from both the municipal and industrial perspectives.

SELECTED PROJECT EXPERIENCE

Surface Water CUP Permit Legal Defense Assistance, Seminole County, FL. Project Manager for REI's support of Seminole County's defense of SJRWMD CUP for surface water withdrawal from the St. Johns River. Provided expert witness testimony under deposition, as well as rebuttal witness testimony during formal hearing process. Led technical support of legal team with respect to demand projections, conservation, planning, as well as assessment of prosecution witness testimony relative to defense.

Capital Improvement Plan (CIP) Assessment, Seminole County, FL. Project Engineer for review of County's CIP program, primary interface with client, evaluation included field visits to County facilities, staff interviews, and other investigations to prioritize all CIP water, wastewater and reclaimed water projects, prepared report listing prioritization and economic analysis by year and project type.

Capital Improvement Plan (CIP) Revision Assistance, Seminole County, FL. Provided assistance to County's Environmental Services engineering staff on the revision of the Department's CIP list, in preparation for financial analysis and budgeting process.

Water Supply Facilities Work Plan, Seminole County, FL. Project Manager for preparation of Water Supply Facilities Work Plan document, and supporting documentation, for compliance with Wekiva Protection Act, as well as for future compliance with Chapter 163, F.S. Supporting document included presentation of demand projection protocols, reuse planning and offset estimation, and proposed CIP projects identified to meet the water supply needs of the County's service areas.

Consumptive Use Permit Renewal Process, Seminole County, FL. Project Engineer for interface with County staff and SJRWMD representatives during the negotiations associated with the County's CUP renewal process. Served as technical expert in developing documentation and delivering presentations on the role of reuse and offsets in the calculation of future potable water demands, as well as the development of the County's potable water Conservation Plan.

Wastewater Master Plan, Seminole County, FL. Project Manager for development of wastewater collection, transmission, treatment and disposal 25-year master plan for County, included numerous modeling, treatment evaluation, and CIP planning tasks, coordinated staff efforts, led client interfacing, provided technical input and leadership.

Reclaimed Water Ordinance Review, Seminole County, FL. Project Manager for review of proposed changes to County's reclaimed water ordinance, coordinated staff efforts, provided technical input, developed final deliverables (technical memorandum), primary interface with client, evaluation included comparison of proposed ordinance with several established ordinances from other Florida municipalities, review of ordinance language with respect to specific Seminole County issues, recommended final ordinance language.

Wetlands Elimination Plan, Seminole County, FL. Project Manager for development of wetlands elimination plan for County treatment facility as part of the County's wastewater master plan, coordinated staff efforts, provided technical input, developed final deliverables (report and presentation), primary interface with client, evaluation included assessment of effluent reuse and disposal capacity under several scenarios, including wetlands elimination, provided guidance to County staff on current capacities, future disposal needs, and recommended overall strategy for wetlands utilization and potential elimination.

Effluent Disposal Plan, Seminole County, FL. Project Manager for development of effluent disposal and utilization plan for County treatment facilities as part of the County's wastewater master plan, coordinated staff efforts, provided technical input, developed final deliverables (report and presentation), primary interface with client, evaluation included assessment of effluent reuse and disposal capacity for two County-owned, interconnected collection and treatment systems, under several scenarios, assessed reclaimed system requirements to meet potential future flows and disposal requirements, provided recommendations regarding construction of storage and reuse system expansion needs over planning period.

Facility Improvement and Expansion Plan, Seminole County, FL. Project Manager for development of facility improvement plan for two County treatment facilities as part of the County's wastewater master plan, performed field visits, coordinated staff efforts, provided technical input, developed final deliverables (report and presentation), primary interface with client and other County consulting firms, evaluation included assessment of several process mechanical improvement alternatives, economic comparisons, expansion and re-rating alternatives, and planning of CIP projects over 25 year planning period.

Biosolids Handling Plan, Seminole County, FL. Project Manager for development of biosolids handling plan for two County treatment facilities as part of the County's wastewater master plan, performed field visits, coordinated staff efforts, provided technical input, developed final deliverables (report and presentation), primary interface with client, evaluation included assessment of several dewatering process alternatives, economic comparisons, final disposal options, and technical guidance during field pilot testing by vendor.

Comprehensive Water Supply Plan, Polk County, FL. QA/QC reviewer for formal water supply plan, and associated documents, prepared in conjunction with Polk County Utilities and the 17 City-owned utilities within the County.

Surface Water Treatment Facility Improvement Study, Manatee County, FL. Project Manager for evaluation of process treatment alternatives to improve the performance of an existing surface water relative to taste and odor control, turbidity compliance, removal of dissolved algal by-products, and protection from Cryptosporidium pass-through. 10-month study included evaluations of several process options including microfiltration, reverse osmosis, ozone, MIEX, and improvements to the existing conventional process.

Groundwater Reverse Osmosis Pilot Study, Manatee County, FL. Project Manager for 3-month pilot study of reverse osmosis system for the treatment of groundwater for potable use via a new facility. Led the development of project plan and study implementation, as well as troubleshooting of process issues associated with unusual water quality at the site. Developed report summarizing pilot study results, proposed design criteria, and assisted in the development of basis of design information for the full-scale facility.

Water Treatment Facility Conceptual Design, Manatee County, FL. Project Manager for evaluation of process treatment alternatives to provide drinking water at several potential source water sites within the County, provided review of raw water quality, developed treatment criteria for differing water quality parameters at each site, provided conceptual design criteria and budgetary costs for membrane treatment technologies, as well as ion exchange, provided input on final site recommendation for further testing and investigation.

Reverse Osmosis Desalination Feasibility Study, New Providence Development Company, Bahamas. Project Engineer and primary QA/QC reviewer for comprehensive treatment facility condition assessment, and evaluation of reverse osmosis for treatment of highly saline source water. Provided technical guidance to team, and developed detailed cost-effectiveness evaluation for membrane and other process options.

Potable Water Conservation Plan, Seminole County, FL. Project Manager for development of formal Conservation Plan utilized for CUP compliance, and for implementation of expanded conservation strategies identified. Project included detailed evaluation of existing residential irrigation audit program success, and identified implementation strategy to maximize benefits and cost-effectiveness.

SRF Facilities Plan Development, Melbourne, FL. Project Manager for the development of a formal Facilities Plan, prepared to pursue SRF funding for multiple wastewater projects. Coordinated efforts with FDEP SRF program staff, developed project alternatives with client, prepared necessary documentation and resolutions in support of City's efforts, and led the preparation of the formal Facilities Plan for subsequent application for construction funding.

Development and Utilities Cost Estimate, Port St. George Development, Bahamas. Project Manager for assessment of project costs associated with marina-based development in the Bahamas, including water and wastewater treatment facilities, wastewater collection and water distribution infrastructure, and disposal facilities.

POSITION
Project Manager for Reiss Engineering, Inc., a consulting engineering firm specializing in advanced water treatment processes, facilities design, water/wastewater/reuse master planning and hydraulic modeling.

YEARS OF EXPERIENCE
29

EDUCATION
B.S., Civil Engineering
Virginia Tech 1985

B.S., Agricultural Engineering
Virginia Tech 1983

REGISTRATIONS AND CERTIFICATIONS
Professional Engineer:
Virginia No. 20574
Florida No. 63729

PROFESSIONAL AFFILIATIONS
- American Water Works Association (AWWA)
- American Membrane Technology Association (AMTA)

PROFESSIONAL SUMMARY

Mr. Worsham has 29 years of experience in the design and construction of water and wastewater projects, and in project management for clients from municipal, industrial, and governmental sectors. His areas of focus in the water/wastewater field have included mechanical designs, distribution system analyses, permitting, troubleshooting and preparation of studies and reports.

Mr. Worsham's experience encompasses oversight of mechanical system designs, review of electrical and control system design, project and construction management for water system projects; hydraulic and water quality modeling for distribution system analyses; oversight and assistance with groundwater withdrawal and other permit applications; feasibility and rate studies and Preliminary Engineering Reports.

Mr. Worsham's expertise also lies in the design of well systems, water treatment systems, pumping systems, chemical feed systems and storage/distribution systems. He has performed engineering relating to the operation of over 130 separate water supply systems and several wastewater systems including pump replacement design, treatment system modification and design, and distribution system program management as well as regulatory compliance of the systems.

SELECTED PROJECT EXPERIENCE

Markham Reclaim Storage/Repump Station, Seminole County, FL. *Project Manager* for the mechanical system design and overall design coordination for a 10 MGD reclaimed water pumping facility with a 3 million gallon storage tank.

Midport Water Repump Station Improvements, City of Port St. Lucie, FL. *Project Manager* for the mechanical system design and design team coordination for upgrading a 10 MGD water pumping facility including a new 2 million gallon storage tank.

NE Water Repump Station, City of St. Cloud, FL. *Project Engineer* for the mechanical system design and design team coordination for a 8 MGD water pumping facility.

Infrastructure Asset Evaluation of the Mims Public Water System, Brevard County, FL. *Project Manager* for the assessment of the Mims Water Treatment Plant (WTP) and associated distribution system facilities existing infrastructure integrity and condition for identification of repair and replacement costs which will be necessary over the next 10 years. Services included project administration, data collection and review, field investigations, asset evaluations.

WRF Aeration System Upgrade, City of Casselberry, FL. *Project Engineer* for engineering services including preliminary design, final design, permitting and construction services including, shop drawings response to RFIs, and completion notification to FDEP for the design of an aeration system upgrade to increase the efficiency of its aeration system to handle the varying flows experienced by the City's WRF.

Country Club WTP Treatment Improvements Design, Seminole County, FL. *Project Engineer* for the preliminary, final design and permitting of the approximately $15 million dollar treatment expansion to Seminole County's 6.7 MGD WTP utilizing ozone treatment and granular activated carbon for removal of TOC and compliance with EPA's Stage II Disinfection By-products Rule. The design also included expanding the current site to accommodate complete construction of the new plant while maintaining the existing treatment capacity and capabilities. The final design included all new high service pumping facilities, ground storage tanks, stormwater, electrical service, emergency power, instrumentation and controls, as well as demolition of the existing facilities. Particularly unique to this project was the permitting resulting from the wetland encroachment, mitigation and tree removal.

Country Club Water Treatment Plant Services During Construction, Seminole County, FL. *Project Engineer* for the planning, design and services during construction to support the County's mission of ensuring compliance with the future DBP rules. Reiss Engineering completed the design of the improvements to the CC WTP, and was selected by the County as Construction Manager At Risk (CMAR) to perform the construction of the improvements, including providing support services during construction of the

improvements to the CC WTP that are required for compliance with the future DBP rules, and completing the construction in accordance with the associated FDEP permits and the Contract Documents, and for REI, the Engineer of Record, to sign and seal record drawings. Services include, observation of construction, submittal of permit certifications, preparation of record drawings, and review of field change orders.

Southeast Regional WTP Treatment Improvements Design, Seminole County, FL. *Project Engineer* for the preliminary, final design and permitting of the approximately $23 million dollar treatment expansion to Seminole County's 19.4 MGD WTP utilizing ozone treatment and granular activated carbon for removal of TOC and compliance with EPA's Stage II Disinfection By-products Rule. The design included retrofitting existing buildings with new ozone equipment as well as complete replacement of the gas chlorine system with sodium hypochlorite chemical system. Additional treatment was achieved through a split-stream GAC design to remove TOC. Other improvements included renovation and expansion to the WTP's electrical system, emergency power generation, instrumentation and controls, stormwater improvements, and ground storage tank renovations.

Southeast Regional WTP Services during Construction, Seminole County, FL. *Project Engineer* for the construction of a $23 million dollar treatment expansion to Seminole County's 19.4 MGD WTP utilizing ozone treatment and granular activated carbon for removal of TOC and compliance with EPA's Stage II Disinfection By-products Rule. Construction services provided include shop drawing review and supervision of performance testing and final approval of the installation.

Regional Water Treatment Facility at Yankee Lake - Construction Management Services, Seminole County, FL. *Construction Manager* for the construction of a 10MGD (expandable to 25 MGD) water treatment facility which withdraws water from the St. John's River and treats it to public access reclaimed water standards for the purposes of augmenting the County's reuse system during peak demand periods. The project involved construction of a raw water pump station, and intake structure located on a canal off of the St. Johns River; dredging as required to support the construction of the intake structure, installation of a boat dock at the raw water pump station and intake structure site, construction of an access road (at-grade) that extends from a paved road on the existing wastewater plant site to the raw water pump station, installation of underground piping from the raw water pump station to the treatment facility site, installation of a pig launch and retrieval station, installation of buried conduits for electric power and fiber optic cable, construction of treatment facilities including Krüger Actiflo® equipment, chlorine contact basins, sludge gravity thickeners, sludge dewatering equipment, a belt filter press, and a polymer feed system. Services included project management, project administration, QA/QC support, construction phase services including, substantial and final completion certifications, punch list, project close-out.

Reclaimed Water Distribution System Operations Protocol, City of Clearwater, FL. *Project Engineer* for a reclaimed water distribution system operations protocol to maximize the available reclaim water while minimizing valving and high service pump operations to improve energy efficiency. Protocol components consist of verifying operations, developing and simulating viable operations alternatives for the dry (peak) and wet (low) seasons, documenting selected alternatives, and providing training prior to implementing the selected operations. Protocol development utilizes extended period (24-hour) and steady state simulations.

Brackish Reverse Osmosis Water Treatment Plant #2 Design and Construction Administration Services, City of Clearwater, FL. *Engineer of Record* for the remote well facility design portion of the new City's 6.25 MGD RO WTP #2. The objectives of the project are to conserve water, produce high water quality from brackish and fresh ground water, and design a state-of-the-art RO facility. The design of the plant incorporates two treatment trains. The brackish groundwater blended with the concentrate from the City's RO WTP #1 is treated via RO to reduce the salt concentration and the 5.25 MGD of permeate is then ozonated to oxidize the sulfides. The freshwater is oxidized with chlorine and then filtered to remove the iron and is then blended with the ozonated permeate. As the freshwater has a relatively hard hardness and alkalinity, the blending of the freshwater and permeate resulting in stable water after minimum post-treatment. Treatment of the concentrate from RO WTP#1 was an innovative approach to conserve water.

Brackish Reverse Osmosis Water Treatment Plant #2 Construction Administration Services, City of Clearwater, FL. *Project Engineer* for construction administration services to complete the construction of the water treatment plant, remote well facilities, and raw water transmission main projects in accordance with the associated FDEP permits and the construction Contract Documents, and for REI, the Engineer of Record, and associated sub-disciplines to certify the construction to FDEP and sign and seal Record Drawings.

Greenwood Lakes WRF Improvements, Seminole County, FL. *Project Engineer* for expansion of a 3.5 MGD wastewater reclamation facility including design, permitting, bidding, and construction for the rehabilitation of the existing water reclamation facilities, and for construction of new facilities necessary to achieve the permitted capacity of 3.5 MGD, including the conversion of an existing off-line package treatment train into an equalization tank, anoxic tank, and sludge digestion facilities, addition of supplemental diffused aeration to the existing Carrousel, replacement of aging traveling bridge filters with deep bed filtration units, construction of an on-site pump station for increased internal recycle, as well as numerous upgrades.

Rangeline RO Water Treatment Plant, Phase 1, City of Port St. Lucie, FL. *Project Engineer* for the mechanical system design and design team coordination for the storage and re-pump phase of a 10 MGD RO water treatment facility, expandable to 30 MGD.

Fort Walton Beach WWTP Expansion, City of Fort Walton Beach, FL. *Project Engineer* for the mechanical system overview for expansion of a 3 MGD extended aeration wastewater treatment facility.

Live Oak WWTP Expansion, City of Live Oak, FL. *Project Engineer* for the mechanical system overview for expansion of a 2.5 MGD extended aeration wastewater treatment facility.

POSITION
Project Manager for Reiss Engineering, Inc., a consulting engineering firm specializing in advanced water treatment processes, facilities design, water/wastewater/reuse master planning and hydraulic modeling.

YEARS OF EXPERIENCE
36

EDUCATION
B.S. Chemical Engineering
Case Western Reserve University, Cleveland, OH 1977

REGISTRATIONS
- Professional Engineer, Florida No. 33688, 1983
- Professional Engineer, California No. C55038, 1996
- Professional Engineer, Georgia No. PE030660, 2005

PROFESSIONAL AFFILIATIONS
- Water Environment Federation
- Florida Water Environment Association
- American Academy of Environmental Engineers

PROFESSIONAL SUMMARY

Mr. Kunihiro specializes in civil engineering projects from Reiss Engineering's Winter Springs, Florida office. He has served as a professional engineer in the areas of municipal wastewater and water treatment facilities. As a project manager, his extensive expertise consists of liquid treatment, disinfection, sludge handling, hydraulics, equipment evaluation/ selection, cost estimating, plans and specifications, and reviewing contract documents and shop drawings. Additional technical experience includes the design of reuse/effluent disposal systems, facility troubleshooting and problem solving, operator training and operations and maintenance (O&M) manual preparation.

SELECTED PROJECT EXPERIENCE

Grand Bahama Utility Company Chesapeake WWTP Process Evaluation and Condition Assessment, Grand Bahama, Bahamas. *Project engineer* responsible for evaluation of the performance, operation and maintenance (O&M) practices, and equipment capabilities of an existing 1.2-MGD AADF capacity wastewater treatment plant (WWTP); recommendations for odor control, equipment redundancy, process optimization, energy conservation, and recordkeeping; operator training; and audits of plant operations, daily logs, and other reports. The facilities included two main lift stations pumping directly to the WWTP, influent screening, two extended aeration tanks, a clarifier, disk filter, chlorine contact and effluent storage tank, and two injection wells.

Parkway Water Reclamation Facility Upgrades, Tohopekaliga Water Authority, Kissimmee, FL. *Project manager* responsible for preliminary design, design, permitting, bidding, and construction administration for upgrades to Toho Water Authority's existing 1.5-mgd Parkway WRF. The upgrades included replacing the influent screen and grit remover equipment, refurbishing aerobic digester tanks, replacing aeration system in the aerobic digesters, replacing electrical gear, providing a SCADA network with remote communication, and replacing two small generators with one generator sized to meet higher power demands from planned reclaimed water improvements. The WRF stores and supplies reclaimed water for public access reuse in the service area. Team worked together with TWA's Construction Manager at Risk to implement this project

South Water Reclamation Facility Phase V Improvements, Orange County, FL. *Project engineer* responsible for preliminary design services to expand treatment capacity from 43 to 56-mgd AADF capacity including new screens, additional influent pumps, new grit removal equipment, conversion of southeast process to step-feed, additional clarifier, new disk filters, additional chlorine contact chambers, and bulk sodium hypochlorite storage and feed system. Preliminary design services included a comparison of bulk sodium hypochlorite solution and the existing gas chlorination system for 56-mgd AADF capacity.

South Bermuda Water Reclamation Facility Central Electrical Building, Tohopekaliga Water Authority, Kissimmee, FL. *Project manager* for the design of a new central electrical building to consolidate individual services at Toho Water Authority's South Bermuda WRF. The electrical building will house two 1750 kW generators and ancillary electrical equipment with space for a third generator. Fuel storage will be outside the building in above ground vaulted containment-type tanks. The consolidation of power is expected to lower O&M costs by having centralized emergency power and redundancy in generators.

Polk County NWR WWTF Rehabilitation–Polk County, FL. *QA/QC officer* for the design, permitting, bidding and construction services on the rehabilitation improvements for Polk County's Northwest Regional Wastewater Treatment Facility Upgrades.

Polk County NWRUSA ASR System Design, Polk County, FL. *QA/QC officer* for design, permitting, bidding and construction services for the Polk County NWRUSA ASR System to increase the NWR WWTF's effluent disposal and reuse capacity from 1.5 MGD to 3.0 MGD by installing an aquifer storage and recovery (ASR) system. Performed project administration tasks including assisting to develop a scope and budget as well as attending regulatory meetings with PCU.

Parkway Water Reclamation Facility Improvements, Tohopekaliga Water Authority, Kissimmee, FL. *Project manager* responsible for evaluation of alternatives for Toho Water Authority (TWA) that would allow 2.5-mgd of wastewater to be diverted for treatment offsite, or to be treated onsite in an expanded Parkway WRF. Also responsible for permitting, design, and construction administration for clarifier repairs in joint effort with TWA's Construction Manager at Risk. The WRF currently produces reclaimed water, and was expecting to receive up to 2-mgd of reclaimed water from another utility.

Eastern Water Reclamation Facility Phase V Improvements, Orange County, FL. Project manager responsible for preliminary design services to expand treatment capacity from 19 to 24-mgd AADF capacity including a new preliminary treatment structure, supplemental diffused aeration, blower building, secondary clarifier, new disk filters, new chlorine contact chambers, two effluent pumping stations, reject and reject-return pumping stations, bulk sodium hypochlorite storage and feed system, guard station, and site/civil improvements. Preliminary design services included an evaluation of wastewater disinfection technologies including, bulk sodium hypochlorite solution, onsite generation of sodium hypochlorite, and ultraviolet disinfection for 24- and 40-mgd AADF capacities.

Apopka Water Reclamation Facility, City of Apopka, FL. *Project manager* responsible for design, permitting, and bidding of expansion of the city's existing WRF from 4.5 to 8-mgd AADF capacity, including preliminary treatment, equalization, biological nutrient removal, secondary clarification, return activated and waste activated pump stations, tertiary filtration, sodium hypochlorite storage and feed for disinfection, effluent pump station, on-site plant lift stations, aerobic digestion, and solar sludge drying. Team members evaluated the use of membrane bioreactors and UV disinfection, as well as advanced treatment methods to create Class AA biosolids.

Parkway Water Reclamation Facility Reclaimed Water Improvements, Tohopekaliga Water Authority, Kissimmee, FL. *Project manager* responsible for preliminary design, design, permitting, bidding, and construction services for a bulk sodium hypochlorite storage and feed system to replace gas chlorination, a 7.5-million gallon ground storage tank, transfer pump station, automatic strainers, high service pumps, stormwater treatment systems, other site improvements, and communication and control through SCADA at Toho Water Authority's Parkway WRF. The ground storage tank incorporated a roof design that captured rainfall to increase reclaimed water supply and reduce the volume of stormwater treatment facilities, and piping and space were planned for two additional ground storage tanks. The WRF stores and supplies reclaimed water for public access reuse in the service area.

Rotonda Water Reclamation Facility (WRF) Expansion, Charlotte County, FL. *Project engineer* responsible for preliminary design, design, bidding, and construction administration for expansion and treatment upgrade from 0.625-mgd conventional activated sludge to 2.0-mgd membrane bioreactor (MBR) WRF with anoxic-aerobic process basins. This project includes fine screens in a new preliminary treatment structure, flow equalization, anoxic and aerobic process basins, blowers, pumps, mixers, fine bubble aeration, MBR tanks, bulk sodium hypochlorite disinfection with storage/feed facilities, effluent pump stations, lined reject pond, biosolids storage, truck loading facility, and piping and site improvements. The advanced secondary treatment facility produces public access quality reclaimed water suitable for irrigating golf courses and landscaping. The ground storage tank used for reclaimed water storage was designed with provisions to tie in to a future Aquifer Storage and Recovery (ASR) system to feed reclaimed water to future ASR injection well pumps and receive water back from future ASR wells.

Burnt Store Water Reclamation Facility (WRF) Expansion, Charlotte County, FL. *Project engineer* responsible for preliminary design and design of process basins, membrane process, and associated blowers and pumps for expansion and treatment upgrade from 0.25-mgd conventional activated sludge to 2.5-mgd membrane bioreactor (MBR) WRF with anoxic-aerobic process basins. The project design incorporated existing facilities into an expanded facility, including fine screens in a new preliminary treatment structure, flow equalization, anoxic and aerobic process basins, blowers, pumps, mixers, fine bubble aeration, MBR tanks, bulk sodium hypochlorite disinfection with storage/feed facilities, effluent pump stations, lined reject ponds, biosolids storage, truck loading facility, and piping and site improvements. This facility produces public access quality reclaimed water suitable for irrigating golf courses and landscaping. Project was stopped at 90 percent design due to reduced demand for wastewater treatment.

Harmony Water Treatment and Water Reclamation Design-Build, Harmony, FL. *Project manager* responsible for preliminary study, preliminary design, permitting, and design of expansion and treatment upgrade from 0.13-mgd conventional activated sludge water reclamation facility (WRF) to 0.31-mgd membrane bioreactor (MBR) WRF with anoxic-aerobic process basins. This design-build project was being done in conjunction with Encore Construction as part of an integrated water and wastewater capacity expansion for Toho Water Authority. The WRF design included fine screens, flow equalization, anoxic and aerobic process volumes, membrane cassettes, hypochlorite disinfection, and biosolids storage to be installed within the existing concrete treatment structure. The advanced secondary treatment facility was designed to produce public access quality reclaimed water suitable for irrigating lawns, medians, and golf courses. The project was stopped during bidding due to reduced demand for wastewater treatment. Completion Date:

Sandhill Road Water Reclamation Facility (WRF) Phase 3 Expansion, Kissimmee, FL *Project engineer* as a subconsultant responsible for quality assurance, and coordinating supporting disciplines with civil and mechanical work by the prime consultant. This project was a 1.1-mgd expansion of an existing 4.86-mgd AADF advanced secondary facility producing public access quality reclaimed water with new process basin, modifications to preliminary treatment, UV disinfection, hypochlorite storage/feed for residual chlorine in reclaimed water, and replacement of filters, effluent pump station, biosolids storage tank and operations building impacted by roadway construction.

POSITION
Senior Project Manager for Reiss Engineering, Inc., a consulting engineering firm specializing in advanced water treatment processes, facilities design, water/wastewater/reuse master planning and hydraulic modeling.

YEARS OF EXPERIENCE
14

EDUCATION
M.S., Environmental Engineering
Worcester Polytechnic Institute (2001)

B.S., Civil/Environmental Engineering
Worcester Polytechnic Institute (2000)

REGISTRATIONS AND CERTIFICATIONS
Professional Engineer
Florida No. 66379

LEED® Accredited Professional

NASSCO PACP/MACP/LACP
Certification No. 06-12441

PROFESSIONAL AFFILIATIONS
American Water Works Association (AWWA)

PROFESSIONAL SUMMARY

Mr. Ceriana is a Project Manager in the Winter Springs, Florida office of Reiss Engineering. He brings an extensive knowledge of water, wastewater and reclaimed utility projects including lift station, distribution, collection, infiltration/inflow and treatment process design. His expertise is comprised of project management responsibilities that include maintaining projects under budget and on schedule, and assigning resources to projects. His background consist of utility system planning, permitting processes, use of CAD and GIS systems, resident project representation, and the use of hydraulic modeling software for planning and design purposes. Additionally Mr. Ceriana is LEED® AP and NAASCO certified.

SELECTED PROJECT EXPERIENCE

South Seminole North Orange County Wastewater Transmission Authority (SSNOCWTA), Orlando FL. *Project Manager* for South Seminole North Orange County Wastewater Transmission Authority (SSNOCWTA) composed of several local municipalities and counties that form the member entities to regionalize their wastewater treatment and transmission. SSNOCWTA system is consisted of 32 pumps stations (design capacity of 47 MGD) and major transmission mains (16 to 42-inch dia) to meet member entities needs in relationship to transmission of wastewater to a regional wastewater treatment plant. Project Management responsibilities, include design, permitting and construction administration services, surveying, utility locates and subsurface utility investigations, management of continuing contractors, capital improvement plan management, vendor/contractor proposals & contract procurement, asset rehabilitation and replacement, provided emergency responses services (loss of power, pump station overflows, and pipeline incidents), operation and maintenance (O&M) support, inflow and infiltration program implementation, facilities maintenance tracking and management, Board meeting participation, extension of staff, and updates to the master plan and Capital Improvements Plan (CIP) budget.

Dean Road FM Relocation, SSNOCWTA, Seminole and Orange Counties, FL. *Project Manager* of the Dean Road Widening Utility Relocation project by Seminole County DPW. The widening of Dean Road impacts the existing 42-inch PVC force main owned by the SSNOCWTA. The project consisted of a Preliminary Design Report (PDR) to evaluate the potential impacts to the existing 42-inch PVC force main. The PDR identified potential conflicts between the proposed storm water piping and 42-inch force main and recommend the relocation of two ARV vaults to a road verge so as to minimize traffic loads over the top of the vaults and allow for future operation and maintenance.

Force Main Investigation, Analysis and Testing, SSNOCWTA, Seminole and Orange Counties, FL *Project Manager* for the corrosion testing of the Authority's force main network via nondestructive ultrasonic testing and evaluation. Responsibilities included coordination with surveying consultant, location of testing locations, analysis and interpretation of results, showed that the force main network did not undergo additional corrosion since the last testing evaluation.

Preliminary Design Reports – Hollywood WM and Brighton Well, Seminole Tribe of Florida *Project Manager* responsible for the development of two Preliminary Engineering Reports submitted as part of a funding package on behalf of the Seminole Tribe to obtain funding. Each report provided a historical background, identified the need for the project, proposed and compared alternatives, ascertained environmental concerns, and selected / recommended an alternative with design basis and costs. The two reports addressed the need of (1) a new potable water source for a treatment plant plagued by poor quality and quantity of water; and (2) a water main extension within a distribution system in order to improve water quality, system reliability and customer satisfaction.

Lift Station 106 Rehabilitation, Polk County, FL. *Project Manager* for services including, preliminary and final design docs and permitting services for the rehabilitation of LS106, a triplex master station, which consisted of new submersible pumps (2,500-gpm), odor control, hatches, VFDs, generator, electric, controls and

instrumentation. The project also included elimination of the existing valve vault and design of new discharge piping, with isolation valves and emergency pump out. Pump selection was made to accommodate present ADF/PHF and 2030 PHF projections.

Lift Station #19 Upgrades, City of Crystal River, FL. *Project Manager* for services including preliminary design report (PDR), hydraulic modeling, surveying, lift station design documents, final contract documents, permitting, and bidding services for the upgrade of LS pumps with variable frequency drives (VFD); addition of flow meter, permanent emergency generator, odor control, prefabricated building, and site improvements including security fencing and driveway access. The upgrades were based on the findings within the PDR that found an increase to flows due to an expanding service area.

Citrus Springs Force Main, Citrus County, FL. *Project Manager* for the preliminary design report (PDR), hydraulic modeling, surveying, final contract documents and permitting services. The PDR evaluated the decommissioning of a small WWTP and interconnection with County wastewater system. PDR evaluated three piping alternatives and future connections/flows, costs, pipe sizing, constructability, and phasing for each alternative. Final design included new master lift station, pump and piping upgrades to two (2) existing lift stations and over 28,000-LF of 8-inch force main.

WWTF Permit Renewal, City of Inverness, FL. *Project Manager* for the renewal of the City's wastewater treatment facility (WWTF) Operating Permit. Duties included Form 1 and 2A completion and coordination with City staff / FDEP. Permit Application was approved with only one Request for Additional Information (RAI) issued.

Reclaimed Water Analysis, City of Crystal River, FL. *Project Engineer* involved with the development of the City's *Feasibility Study of Alternatives for Reclaimed Water Reuse* report. Report examined available disposal options for the City's reclaimed water versus current spray field disposal. Primary duties included examining three disposal alternatives including costs, constructability, and required permitting.

Summerport Water Main Replacement, Orange County, FL. *Project Manager* for the installation of approximately 1,300 linear feet of 24-inch diameter water main. Project includes connecting to an existing 24-inch water main, located at the Winter Garden Vineland Road. Project includes demolition and removal of the existing 24-inch water main. The project includes preliminary design, final design, public involvement, bidding, and construction administration services.

Water Treatment Plant Upgrades, City of Crystal River, FL. *Project Engineer* for services including Preliminary Design Report (PDR), sub-consultant coordination, preliminary design, final design, contract documents, permitting, bidding and construction administration. PDR identified three (3) major areas of required upgrades: electrical, chemical feed system and interconnection with Citrus County. Design included improvement to all three areas, including automated interconnection with County and improved controls within WTP to monitor pumping and chemical feed system.

Elevated Water Tank Improvements, City of Lake Mary, FL. *Project Manager* for the rehabilitation of the City's elevated water tank. Duties included review of Tank Inspection Report (by other) and development of technical specifications based on report findings, bidding assistance and construction administration services including inspection visits.

Water Use Permit Renewal, City of Crystal River, FL. *Project Manager* for the renewal of the City's Water Use Permit (WUP). Duties included coordination meetings with Water Management at the District offices, drafting of a water conservation plan, completion of all necessary application forms, including supporting documentation and assembling/submitting application. City was issued a 20-year permit.

Water Use Permit Renewal, City of Inverness, FL. *Project Manager* for the renewal of the City's Water Use Permit (WUP). Duties included coordination meetings with SWFWMD at District offices, completion of all necessary application forms, sub-consultant coordination for the hydro-geological model and response to one Request for Additional Information (RAI). City was issued a 10-year permit.

Water Main Extensions Citrus Springs / Pine Ridge, Citrus County, FL. *Project Manager* for as-needed water line extensions within the residential development of Citrus Springs and Pine Ridge. Duties involved coordination with County and on-call Contractor, design of required pipeline lengths (over 20,000 LF combined) and size (between 4" and 16"), FDEP and County permitting and construction administration services.

Wastewater Hydraulic Modeling, City of Inverness, FL. *Project Manager* for development, construction and calibration of a dynamic hydraulic wastewater model. Services included coordination with surveyor to obtain as-built data, analysis of current system infrastructure, identification of deficiencies, and evaluation of capacities within the system. Modeling was coupled with a limited physical assessment of manholes and lift stations using Manhole Assessment Certification Program (MACP) to rate defects. Based on the results from the modeling and field assessment, a detailed report of findings was created and recommendations made for collection system improvements.

Water Hydraulic Modeling, Citrus County, FL. *Project Manager* for development, construction and calibration of the County's water distribution system. Responsibilities included calibration (comprising of hydrant flush testing), and analysis of existing and future systems (flow, pressures, pipe scenarios). Based on model analysis and runs, a Capital Improvement Program was developed in order to address areas of deficiency within the system. The model was maintained to perform concurrency analyses for the County.

WTP Plant Upgrades, City of Palatka, FL. *Project Engineer* and *Resident Project Representative (RPR)* for upgrades to the City's WTP to a 6 MGD ultrafiltration plant with aeration, odor control; chemical feed, settling/flocculation, secondary filtration and high service pump upgrades. Duties included overview of pilot plant operation during project commencement and day-to-day resident project representation including construction meeting coordination, pay requisitions, and shop drawing review.

POSITION

Vice President of Reiss Engineering, Inc., a consulting engineering firm specializing in advanced water treatment processes, facilities design, water/wastewater/reuse master planning and hydraulic modeling.

YEARS OF EXPERIENCE

25

EDUCATION

M.S.E., Environmental Engineering, University of Florida

B.S.E., Environmental Engineering, University of Florida

Hydraulic Surge Modeling Training, University of Kentucky

Supervisory Skills - EAF

Skillpath Seminars

- Business and Technical Writing
- Effective Communication

REGISTRATIONS AND CERTIFICATIONS

Professional Engineer:
Florida, No. 47023
Filter Surveillance Workshop – AWWA

PROFESSIONAL AFFILIATIONS

- American Water Works Association

PROFESSIONAL SUMMARY

Mr. Talton has been involved with water, wastewater and reuse project development and design, advanced water treatment (membranes), facilities planning, hydraulic modeling, pipeline/ pump station design, leachate management and permitting for the past 25 years. His experience includes ground and surface water supply development and treatability, reverse osmosis (RO) facility design, water, wastewater and reuse master planning, implementation support work including CIP and mapping updates, WTP site acquisition, operational optimizations, hydraulic modeling and development review.

Mr. Talton's expertise in master planning and hydraulic/water quality modeling runs deep having completed major master plans, water quality modeling/calibration to mitigate nitrification, distribution operations optimazations, wastewater model calibrations, and risk based asset prioritization. Mr. Talton's publications include December 2011 Florida Water Resource Journal article on a water quality application to help utilities better utilize available SCADA, quality and modeling outputs.

Mr. Talton has completed a comprehensive reuse master plan and wastewater force main hydraulic model (1,500 miles of pipe and over 900 pump stations) for Miami-Dade Water and Sewer Authority, and master planning and hydraulic modeling services for Orange County Utilities, Seminole County, Brevard County, and Cities of Tampa, Lakeland, St. Petersburg, Port St. Lucie, St. Cloud, West Palm Beach, Orange City and Ocoee.

Mr. Talton was project manager for a 3.4 MGD RO expansion in Florida and completed a treatability study using an integrated membrane system to provide turbidity removal and membrane softening in Northwest Ohio. Mr. Talton has also assisted with pilot operations and permitting for more than 10 membrane projects including seawater desalination.

Design experience includes sodium hypochlorite disinfection conversions, over 80,000 feet of 24- to 48-inch water transmission pipe, wastewater pump stations and a 20,000-foot neighborhood water system retrofit for Orange County, Florida.

Preliminary design experience includes municipal and industrial water and wastewater treatment facilities including microfiltration and nanofiltration water treatment systems, and powdered activated carbon activated sludge leachate treatment facility, and wastewater capacity re-rates.

SELECTED PROJECT EXPERIENCE

City of Tampa Master Plan and Bond Report, Tampa, FL. Performed capacity and R&R capital project identification and prioritization for City of Tampa's $800,000,000 6-year CIP. Managed and quality controlled evaluation of the suitability of current impact fees and rates and determine if adjustments to these rates are necessary. Prepared Bond Report to support major bond financing to implement the City's Capital Plan.

Cypress Lake Potable Water Transmission, Optimization, and Interconnection Conceptual Design, Water Cooperative of Central FL. *Project Manager* developed a 36 MGD conceptual design for transmission and optimization of the Cypress Lake supply water in concert with existing potable water sources to facilitate the efficient and cost-effective transfer and transmission of potable water among 5 major Central Florida Utilities.

Strategic Auto – Flusher Water Program Phase II, St. Petersburg, FL. *Project Engineer* Updated and evaluated the progress of the Strategic Auto-Flusher Water Conservation Project Program Action Plan to improve delivered water quality to customers and reduce flushing water volumes by utilizing a hydraulic/water quality model to optimize water distribution operations, maintenance and flushing activities. This phase included a pilot unidirectional flushing program with improved water quality.

Water Quality Modeling & Optimization, Orange County Utilities, FL. Upgraded OCU's hydraulic model with water quality modeling capabilities, field calibrated, and used the model to optimize water age, disinfectant residuals and DBPs. Performed quality and capacity modeling to support design of new 17 mgd ground water treatment facility. Developed GIS-Model Integration Plan to support conversion to distribution level water quality modeling.

Water, Wastewater and Reuse Master Plan, St. Cloud, FL. Completed an update to the City's utilities master plan to triple the size of the utility over the next 15 years. GIS and hydraulic modeling were used locate future development needs and cost effectively size infrastructure.

Water , Wastewater and Reclaimed Water Master Plan - City of Port St. Lucie, FL. *Project Manager* for a water delivery, wastewater collection and reuse utilities master plan to address an expanding service area, evaluate CIP, and assess the capacity and reliability of key existing infrastructure. Master Plan components consisted of potable water storage and delivery, wastewater collection, reuse storage and delivery, high service pumping and transmission/ distribution piping for the City.

Northeast Water Pump Station – City of St. Cloud, FL. *Project Engineer* to perform hydraulic analysis and preliminary engineering to size and configure a key water pumping station for the City. Engineering included flow projections, hydraulic modeling and water quality modeling to size and configure operation of the station.

Interbay Water Pump Station - City of Tampa, FL. *Project Engineer* to perform hydraulic analysis and preliminary engineering to size and configure a water pumping station serving South Tampa. Engineering included flow projections and hydraulic modeling to size and develop operating protocol for the station.

Water/Wastewater Master Plan Update & Revenue Sufficiency, St. Cloud, FL. Completed update to address City CIP projects and several large DRIs modified phasing plans. Water, Wastewater, and Non-Potable Water Master Plan for existing and projected flows/demands, updated the hydraulic model, and used this tool to evaluate the suitability of current impact fees and rates and determine if adjustments to these rates are necessary.

Reuse Master Plan, Seminole County, FL. Completed a reuse master plan having web-based output applications. Future reuse demands were identified and served using GIS and hydraulic modeling to cost effectively expand the system.

Western Wastewater Plan, Ocoee, FL. Developed a master plan to support implementation of a major wastewater transmission main to support future growth and minimize reliance on one trunk main.

Ocoee Wastewater Facility Plan Update, City of Ocoee, FL. *Project Manager* for preparation of Wastewater Facilities Plan document, and supporting documentation, for compliance with Wekiva Protection Act, as well as future F.S. compliance. Supporting document included presentation of flow projection protocols, reuse planning and offset estimation, and proposed 5 year and 10 year CIP projects to meet City needs.

South Seminole & North Orange County Wastewater Transmission Master Plan, FL. *Project Manager/Engineer* Updated and calibrated hydraulic model for 35 mgd waste-water forcemain system serving major Central Florida Cities. Completed master plan prioritizing system capital/R&R needs .

Hydraulic Model Update and Calibration, City of Tampa, FL. Completed assessment and upgrade of the City's 2,000 pipe water transmission hydraulic model which included performing structural updates, demand allocation and manpower planning. Provided the City a Strategic Plan to keep the hydraulic model up-to-date. Successfully calibrated a peak hour demand of 140 MGD during four (4) 24-hour periods.

Hydraulic Modifications for Water Quality Improvement at Mellonville, City of Sanford, FL. Quality control and technical input for a pumping station design to improve hydraulic conditions of an elevated tank. Design included hydraulic modeling, pump selection, and specifications development.

Northwest Service Area Reuse Master Plan and Implementation Strategy, Seminole County, FL. Completed a reuse master plan for the Northwest Service Area. Calculated reuse demands using GIS, assigning existing customers to the County's GIS map and database. Hydraulic model and implementation schedule and phasing were prepared.

Miami-Dade Steady-State Wastewater Force Main Hydraulic Model, Dade County FL. Completed comprehensive steady-state hydraulic model of Miami-Dade Water & Sewer Authority force main system including over 1,500 miles of force main and 900 pump stations.

Wastewater Hydraulic Model, Ocoee, FL. Constructed a detailed hydraulic model of the wastewater collection system. Customers were geocoded to accurately locate flows. Model was used to size future improvements and allocate costs to potential developers.

SCRWS Reuse Master Plan, Brevard County, FL. Comprehensive reuse master plan which included reuse demand estimation, backup effluent disposal, and service area permitting.

Southwest Pump Station/Force Main Analysis, Seminole County, FL. Completed a hydraulic model and analysis a 12-, 15-, and 30-pump station manifold system in combination.

Reclaimed Water Distribution Analysis, Indian River County, FL. Completed hydraulic analysis of the proposed reclaimed water distribution system.

Volusian Water Alliance Strategic Water Supply Plan, Volusia County, FL. Development of a strategic water supply plan for a consortium of public utilities encompassing Volusia County, Florida. The plan was part of the St. Johns River Water Management District's Water 2020 Plan. The Plan included cost and constraint optimization of current and alternative water supplies, including interconnections to meet future water supply needs.

Orange County Utilities Horizons West Master Plan, Orange County, FL. Completed a regional master plan for a planned city in western Orange County. The master plan included water supply and wastewater treatment planning and alternatives analysis as well as incorporation into the CONSERV II reuse system and full urban reuse.

Water/Wastewater/Reuse Master Plan, Seminole County, FL. Completed a water, wastewater and reclaimed water master facilities plan for Seminole County using an innovative approach combining spreadsheet, computer-aided design, hydraulic model, cost analysis and project phasing coalition to create an automated, updateable planning tool. Direct update of the County's CIP was included in the plan.

POSITION
Project Engineer for Reiss Engineering, Inc., a consulting engineering firm specializing in advanced water treatment processes, facilities design, water/wastewater/reuse master planning and hydraulic modeling.

YEARS OF EXPERIENCE
14

EDUCATION
M.S.E., Environmental Engineering, University of Central Florida, 2003

B.S.E., Environmental Engineering, University of Central Florida, 2001

B.S., Mathematics, Bethune-Cookman College, 2000

Business and Technical Writing
Skillpath Seminars

Water/Sewer/Storm Strategic Modeling
Bentley System Seminars

Effective Communication & Public Speaking
Dale Carnegie 12 Week Course

Sales Advantage
Dale Carnegie 8 Week Course

Leadership
Dale Carnegie 6 Week Course

PROFESSIONAL AFFILIATIONS
- Society of Women Engineers
- Board of Trustee (2011-Present)
- Florida Engineering Foundation Representative (2011-Present)
- American Water Works Association
- Florida Section UDF Trainer (2010-Present)
- American Membrane Technology Association - Assistant Newsletter Editor (2005-2009)
- National Society of Black Engineers
- Tau Beta Pi National Engineering Honor Society

PROFESSIONAL SUMMARY

Ms. Mazana is a Project Engineer with over 14 years of experience concentrated in environmental engineering and environmental studies. Her experience includes unidirectional flushing program development, hydraulic and water quality modeling, design, potable water audits, pilot studies, report development, data management and master planning for a variety of municipal and government projects in water treatment.

SELECTED PROJECT EXPERIENCE

North Booster Pump Station Pipeline Design, City of Melbourne, FL. Project Manager for a re-pump station pipeline design to improve filling and hydraulic operations. Designs included hydraulic impacts evaluation, 60 and 90 percent reviews, specifications, permitting with State, County, and City departments, and bidding services. The project included X feet of piping including crossing X feet ditches, a new flow control valve to fill, and positioning new water hydrants.

Water Master Plan, City of St. Cloud, FL. Project Manager for a water master plan to address an expanding service area, evaluate CIP, and assess the capacity and reliability of key existing infrastructure. Master plan components consist of asset condition assessment, water main and facilities criticality assessment, existing and future potable water capacity evaluation, and capital projects development and prioritization for the entire City limits. Responsibilities include water system hydraulic model update, alternative development and evaluations, extended period simulations, operations optimization and report development.

Cypress Lake Planning Preparation, City of St. Cloud, FL. Project Engineer for a hydraulic model update project which include structure update, demand allocation, and scenario management which include programming operational settings. Responsibilities include project management, water system hydraulic model update, and operations programming.

Elevated Water Storage Tank Removal FDEP Response, City of Melbourne, FL. Project Manager for Florida Department of Environmental Protection (FDEP) response development to show Florida Administrative Code (FAC) compliance. Tasks include utilizing the City's existing potable water distribution system hydraulic model to evaluate scenarios and perform necessary calculations to ensure that the distribution system remains in compliance with Rule 62-555.320(15) and development of a technical response to FDEP. Responsibilities include water quality model development, modeling extended period (24-hour) and steady state simulations, distribution system storage evaluations and project management.

Reclaimed Water Distribution System Operations Protocol, Clearwater, FL. Project Manager for a reclaimed water distribution system operations protocol to maximize the available reclaim water while minimizing valving and high service pump operations to improve energy efficiency. Protocol components consist of verifying operations, developing and simulating viable operations alternatives for the dry (peak) and wet (low) seasons, documenting selected alternatives, and providing training prior to implementing the selected operations. Protocol development utilizes extended period (24-hour) and steady state simulations. Responsibilities include project management and quality control reviews.

Potable Water Distribution System Interconnect Optimization, Clearwater, FL. Project Manager for water distribution system interconnect optimization project which addressed an interconnect usage need analysis to minimize associated fees and optimize system operations and storage requirement impacts associated with removal of various County interconnect sites. Responsibilities include water system hydraulic modeling, alternative development and evaluations, extended period simulations, operations optimization and report development.

Technical Services for Hydraulic Modeling and Pipe Bursting-Construction Oversight, City of Sanford, FL. Client Manager for construction oversight project including updates to the hydraulic model with the upgraded pipes, as well as providing documentation of the distribution system water quality improvements which resulted from the selected pipe replacement projects. This project involved using the updated model to ensure the recommended

improvements resulted in water quality improvement and to maximize treatment chemicals, water, and energy savings through the City's flushing program. Scope also included performing project administration services for the project and development of a pipe bursting water quality sampling protocol that include the locations and samples to be collected before (pre) and after (post) pipe bursting. Project includes construction oversight on pipe bursting to ensure that installations are representation of the hydraulic modeling connections and sizing. This sub-task includes one REI staff in the field for up to 6 hours per month for up to 15 months.

Water Age Simulation Workshop, City of Melbourne, FL. Project Manager for a water age simulation workshop for City operation managers to conduct interactive operations planning using extended period (24-hour) hydraulic modeling simulations. Responsibilities include project management, hydraulic model update, alternatives development, and conduct modeling workshop.

PRMG-VIWAPA Water Distribution Capital Improvements Prioritization, U.S. Virgin Islands. Project Manager for prioritization of St. Croix, St. Thomas, and St. John water distribution system capital improvements plan to address reliability of key existing infrastructure, asset inventory, and non-revenue water. Project components consist of financial planning, project justification, asset condition assessment, and capital projects development and prioritization for the three U.S. Virgin Islands. Responsibilities include project management, site visits, desktop evaluations, and report development.

Water Quality Investigation and Response Plan, City of Melbourne, FL. Project Manager for a water distribution system investigation to identify the best action to reduce water quality complaints. Investigation components include complaint and water quality data collection and review, sample plan development and implementation, desktop alternative evaluation and report construction.

Water Treatment Plant No. 2 Reverse Osmosis Expansion Design Project, Clearwater, FL. Project Engineer for a brackish water reverse osmosis water treatment plant expansion design. The project includes membrane selection via pilot studies which evaluated types of membrane elements on brackish and concentrate water sources. Process treatment selection which included reverse osmosis, ozone, iron filtration, and disinfection process component design. Well field design which evaluated utilizing multiple well sites while evaluating the cost effective raw water transmission routing using hydraulic modeling and value engineering. Responsibilities include project coordination, design calculation review, hydraulic modeling, specifications, technical writing and quality control reviews.

Disinfection By-Product Compliance Quality Modeling, City of Sanford, FL. Client Manager for a water quality modeling project to verify the distribution system hydraulics, update kinetic coefficients to simulate disinfection by-product and chlorine residuals from the entry point to the extends of the distribution system, and conduct system-wide water quality blending evaluation for regulatory compliance. The project was SRF funded and included conducting water quality blending analysis, field investigations, sample analysis, hydraulic modeling, pipe replacement and looping projects selection, and engineering evaluations. Responsibilities include water quality model development, water quality modeling evaluations and client management.

Reclaimed Water Hydraulic Model Development, Clearwater, FL. Project Manager for a reclaimed water model development and calibration to ensure reliability of key existing infrastructure and provide an effective master planning tool for the City. Calibration components consist of verifying existing hydraulic model structure including system demands, reuse storage and delivery, high service pumping and transmission/ distribution piping for the entire City reuse service limits. Calibration utilizes extended period (24-hour) and steady state simulations. A calibration plan was developed to ensure specific data was collected throughout the system using field data collection, SCADA and pressure recorders. Responsibilities include project management and quality control reviews.

Technical Review Services, City of Sanford, FL. Project Manager for a technical review services project to review past hydraulic modeling, Auxiliary WTP Water Compliance Study projects and document water quality enhancement related recommendations. Throughout the historical projects, REI used the City's calibrated hydraulic and water quality model to ensure the recommended improvements resulted in enhanced water quality using the most technically and economically feasible approach. Responsibilities include technical memorandum development and quality control reviews.

Auxiliary Water Treatment Plant Process Design, City of Sanford, FL. Project Engineer for an ozonation and granular activated carbon design process review. The project included assisting in the review of design drawings to ensure acceptable sizes, capacities, retention times, loading rates, and associated performance-related criteria. Responsibilities include technical writing and quality control reviews.

Hydraulic Modifications for Water Quality Improvement at Mellonville, City of Sanford, FL. Project Manager for a pumping station design to improve hydraulic conditions of an elevated tank. Designs included permitting services, hydraulic update documents, SCADA integration, and limited construction services. Responsibilities include pump selection, specification details development and quality control reviews.

Unidirectional Flushing Program Implementation, City of Melbourne, FL. Project Engineer for a unidirectional flushing program implementation project to address increased customer complaints. Project included management of the City UDF program implementation, RFP preparation, contractor selection, program policies development, field crew activities and efficiency management, scheduling, team communication, data collection, and other program management duties. Responsibilities include program management planning, zone prioritization, public notification planning, hydraulic analyses, sequences design and map updates and report development.

POSITION
Construction Manager for Reiss Engineering, Inc., a consulting engineering firm specializing in advanced water treatment processes, facilities design, water/wastewater/reuse master planning and hydraulic modeling.

YEARS OF EXPERIENCE
16

EDUCATION
M.S. Environmental Engineering
University of Central Florida, 2004

B.S. Environmental Engineering
University of Central Florida,1996

REGISTRATION AND CERTIFICATIONS
Professional Engineer:
Florida No. 58643

PROFESSIONAL AFFILIATIONS
- Water Environment Federation

PROFESSIONAL SUMMARY

Mr. Hoxworth has 16 years of experience in the water, wastewater, and reclaimed water fields. His experience encompasses the design, construction, start-up, and operation of water and wastewater treatment facilities; water, wastewater, and reclaimed water pipelines; stormwater systems; and lift/pump stations. He also has expertise in pilot-scale membrane water treatment systems and pilot-scale and full-scale groundwater remediation systems, solid waste with landfill closure design, construction oversight and permitting.

SELECTED PROJECT EXPERIENCE

Regional Water Treatment Facility at Yankee Lake - Construction Management Services, Seminole County, FL. *Construction Engineer* for construction inspection services for the construction of Seminole County's Regional Water Treatment Facility at Yankee Lake. construction of a 10MGD (expandable to 25 MGD) water treatment facility. The project involved construction of a raw water pump station, and intake structure; dredging as required to support the construction of the intake structure, installation of a boat dock at the raw water pump station and intake structure site, construction of an access road (at-grade) that extends from a paved road on the existing wastewater plant site to the raw water pump station, installation of underground piping from the raw water pump station to the treatment facility site, installation of a pig launch and retrieval station, installation of buried conduits for electric power and fiber optic cable, construction of treatment facilities including Krüger Actiflo® equipment, chlorine contact basins, sludge gravity thickeners, sludge dewatering equipment, a belt filter press, and a polymer feed system. Services included project management, project administration, QA/QC support, construction phase services including, substantial and final completion certifications, punch list, project close-out.

Midport Re-pump Station Improvements, City of Port St. Lucie, FL. *Project Engineer* for performing permitting, final design and construction administration services for improvements to the water storage and re-pump facilities. These improvements consist of replacing one (1) and adding two (2) other new horizontal split case pumps (with a total of three pumps), adding four variable frequency drives, new HVAC, diesel generator, new 2.0 MG ground storage tank, small chemical building for ammonia and chlorine addition, closing in the MCC room with a block wall in the pump building, updating the existing MCC and SCADA, stormwater design, and associated yard piping, valves and appurtenances.

Greenwood Lakes WRF Improvements, Seminole County, FL. *Construction Engineer* for the design, permitting, bidding, and construction services for the rehabilitation of the existing water reclamation facilities, and for construction of new facilities necessary to achieve the permitted capacity of 3.0 MGD, including the conversion of an existing off-line package treatment train into an equalization tank, anoxic tank, and sludge digestion facilities, addition of supplemental diffused aeration to the existing Carrousel, replacement of aging traveling bridge filters with deep bed filtration units, construction of an on-site pump station for increased internal recycle, as well as numerous upgrades.

Major Water Treatment Plant Upgrades, Country Club WTP Construction, Seminole County, FL. *Construction Engineer* providing support services during the construction of major upgrades to Seminole County's Country Club Water Treatment Plant, including an onsite well, ozone treatment system, granular activated carbon filtration system, sodium hypochlorite and fluoride feed system, onsite wastewater pump station, and high service pump station.

Brackish Reverse Osmosis Water Treatment Plant #2 Construction Administration Services, City of Clearwater, FL. *Project Engineer* for construction administration services to complete the construction of the water treatment plant, remote well facilities, and raw water transmission main projects in accordance with the associated FDEP permits and the construction Contract Documents, and for REI, the Engineer of Record, and associated sub-disciplines to certify the construction to FDEP and sign and seal Record Drawings.

Dissolved Oxygen Station and Concentrate Transfer Pump Design, City of Melbourne, FL. *Design Engineer* for DO blower station design, concentrate transfer pump design including, general drawings, mechanical process drawings, civil drawings that include demolition plans, site plans, paving, grading, stormwater facilities, electrical and instrumentation, permitting, bidding. REI has completed the design of new DO station and the upgrades to the concentrate transfer pumps. The City has requested REI provide support services during the construction phase of this project.

Town Pond Modifications, City of Clearwater, FL. *Project Manager* for services including design, permitting, bidding, and construction engineering inspection (CEI) services for the redesign and construction of the Town Pond stormwater system modifications. Project consisted of increasing the size of the current Town Pond within the boundaries of the existing Prospect Lake Park property to add littoral shelf area and water quality treatment volume, as well as constructing a satellite stormwater pond on undeveloped City-owned property in the Town Pond watershed to facilitate treatment of the remainder of untreated stormwater run-off. Permitting services included incorporating the City Annex detention pond treatment capacity to reduce the size and costs associated with the modifications necessary to meet SWFWMD permit regulations.

Town Pond Alum Treatment Evaluation Report, City of Clearwater, FL. *Project Manager* for the evaluation and alternatives analysis of an operating stormwater alum treatment system. Project addressed aspects of the treatment system performance, permit compliance, and sludge removal.

Mead Gardens Alum Sludge Removal, City of Winter Park, FL. *Project Engineer* for a study to evaluate options for removing alum sludge from a small stormwater nutrient removal system. Due to the critical nature of maintaining aesthetics in a public park, the options for sludge removal needed to maintain extremely low visibility from visitors as a priority.

Stormwater Improvements, City of Winter Park, FL. *Project Engineer* performing the alternatives analysis, permitting, and design activities for various stormwater BMP projects for the City of Winter Park.

Ponkan Road Retention Pond Drainage Investigation, Orange County, FL. *Project Engineer* for the analysis of the existing stormwater management system performance and hydrological modeling with ICPR, redesign of dry retention ponds, and recommendation of a maintenance program. Prepared drainage investigation report and retrofit construction costs.

Lake Ola Sediment Removal, Orange County, FL. *Project Engineer* for the design of a stormwater outfall retrofit to alleviate maintenance / sedimentation problems. Prepared permitting documents and construction plans.

Londonderry Subdivision Drainage Improvements, Orange County, FL. *Project Engineer* for stormwater modeling analysis and design of stormwater system retrofit to address recurrent street flooding. Prepared permitting documents.

Plymouth-Sorrento Road and Kelly Park Road Drainage Investigation, Orange County, FL. *Project Engineer* performing stormwater modeling analysis and conceptual design of stormwater system retrofit to address drainage and erosion problems along the existing roadway. Prepared drainage investigation reports.

Lake Waunatta Water Quality Retrofits, Orange County, FL. *Project Engineer* for the design of two (2) water control structure retrofits to improve lake water quality. Prepared permitting, construction, and bidding documents.

Carolyn Drive Improvements, City of Oviedo, FL. *Project Engineer* for a road paving project. Performed ERP permitting for stormwater collection system.

Tampa Bay Water Desalination Plant Design Retrofit ERP Assistance, Apollo Beach, FL. *Project Engineer* providing ERP permitting assistance to address FDEP compliance order for an existing stormwater management system.

Lake Olivia Management Plan, Orange County, FL. *Project Engineer* performing hydrological and water quality modeling for lake and surrounding watershed. Prepared a lake management plan to address deteriorated condition of lake based on results of modeling and field investigation. Included design of potential stormwater retrofit projects, including wet detention ponds, constructed wetlands, and sediment traps.

CCAFS Landfill Closure Design, Cape Canaveral Air Force Station, FL. *Project Engineer* for performing on-site construction oversight of $ 1.1 million landfill cap construction, geomembrane liner installation, stormwater management system, and gas-venting system installation. Included preparation of closure certification documentation, as-built drawings, and environmental resource permit compliance documentation. Coordinated with contractor and Air Force to ensure certification goals were met successfully.

Rangeline Transmission Mains, City of Port St. Lucie, FL. *Project Engineer* for construction inspection services for 10 miles of water, wastewater and reclaimed water pipelines.

Iron Bridge Wetlands Pumping Station Expansion, City of Orlando, FL. *Project Engineer* for conceptual engineering design services for the Wetlands Pumping Station Expansion. Project included pipeline testing to determine if there are limitations to increasing operating pressures and transient pressures above the current conditions.

Orange County Master Pump Station Improvements, Orange County, FL. *Construction Engineer* for the preliminary, final design, permitting and construction for improvements to three (3) dual wet-well master pump stations for Orange County. The design included mechanical, electrical and instrumentation upgrades necessary for the addition of two (2) pumps at each station. The design also included modifications to the existing control building and odor control system piping.

Major Water Treatment Plant Upgrades, Southeast Regional WTP Construction, Seminole County, FL. *Construction Engineer* providing support services during the construction of major upgrades to Seminole County's Southeast Regional Water Treatment Plant, including an ozone treatment system addition, granular activated carbon filtration system, sodium hypochlorite feed system, transfer pump station, and high service pump station modifications.

POSITION
Project Engineer of Reiss Engineering, Inc., a consulting engineering firm specializing in advanced water treatment processes, facilities design, water/wastewater/reuse master planning and hydraulic modeling.

YEARS OF EXPERIENCE
6

EDUCATION
B.S.E., Civil Engineering,
University of Central Florida, 2008

REGISTRATIONS AND CERTIFICATIONS
Professional Engineer:
Florida, No. 75588

PROFESSIONAL AFFILIATIONS
- Florida Engineering Society

PROFESSIONAL SUMMARY

Mr. White has 6 years of experience in consulting and water resources. He has experience in the areas of hydraulic analyses, pump station design, preliminary engineering studies, process engineering, stormwater system design, preliminary design reports, and construction administration & inspection.

SELECTED PROJECT EXPERIENCE

Water Treatment Plant Major Upgrades, Southeast Regional Water Plant, Seminole County, FL. *Project Engineer* for major upgrades to the Southeast Regional Water Treatment Plant. Prepared preliminary design report detailing proposed improvements for submittal to FDEP. Prepared plans, calculations, specifications, and cost estimates for plant upgrades, which include: ozone treatment system addition, granular activated carbon filtration system, sodium hypochlorite feed system, transfer pump station, and high service pump station modifications. Engineer of record service tasks included review and approval of submittals, response to RFIs, issuing field orders, review and approval of work change proposals, onsite construction inspection and coordination with contractor to achieve design intent during construction.

WTP Major Upgrades, Country Club WTP, Seminole County, FL. *Project Engineer* for major upgrades to the Country Club WTP. Preparation of design documents including plans, calculations, specifications, and cost estimates for plant upgrades which include: an onsite well, ozone treatment system, granular activated carbon filtration system, sodium hypochlorite and fluoride feed system, onsite wastewater pump station, and high service pump station. Engineer of record services tasks included review and approval of submittals, response to RFIs, issuing field orders, review and approval of work change proposals, onsite construction inspection and coordination with contractor to achieve design intent during construction.

The Reserve at Alafaya - Master Utility Plan, Orlando, FL. *Project Engineer* for the design of potable water, reclaimed water, and multiple lift stations and force mains. This project was permitted through Orange County Utilities.

Lynwood Water Treatment Plant Preliminary Design, Seminole County, FL. *Project Engineer* providing preliminary design services to support the County's mission of ensuring compliance with the future DBP rules and improving the drinking water quality. Services included providing, water quality and treatment requirements, proposed upgrades and modifications, a construction cost Estimate, schematic diagram, proposed building floor layout drawings, controls SCADA schematic block diagram, site plans, process, civil and electrical (Proposed Building Floor Layout Drawings, Preliminary Site Plan with Stormwater Report, and a PDR report.

Water Treatment Plant # 2 Expansion - Design, Permitting, and Bidding Services, City of Clearwater, FL. *Project Engineer* for performing preliminary design and cost estimates for conceptual post reverse osmosis ozone treatment process alternative. Performed preliminary design for transfer and deep injection well pump stations.

Cranes Roost Pump Station and Force main Upgrades, City of Altamonte, FL. *Project Engineer* for services including, preliminary design, hydraulic modeling, pump station, force main and reclaimed main design docs, final design docs, permitting, bidding and construction administration services for the replacement of an existing stormwater pump station serving Crane's Roost. The new pump station included four (4) new variable frequency drive stormwater pumps designed to supplement the reclaimed water supply to the City as well as an provide an emergency stormwater discharge to the Little Wekiva River. The project also included the design of a remote flow control station to split flow between the reclaimed water facility and the Little Wekiva River. Approximately 1,000 feet of 16-inch stormwater force main was designed along State Road 436. The additional reclaimed water will ultimately provide reclaimed water to the City of Apopka. This project is part of a collaborative effort including Florida Department of Transportation (FDOT), Florida Department of Environmental Protection (FDEP), and the SJRWMD to meet this goal.

U.S. Postal Service Carrier Annexes, Oviedo and Ocoee, FL. Provided drainage, water, and wastewater with lift station design for carrier annex buildings at two separate locations. Work included offsite gravity and forcemain wastewater systems and roadway improvements. Performed construction management services through completion of project.

Orange County Master Pump Station Improvements, Orange County, FL. *Project Manager* for the preliminary, final design, permitting and construction for improvements to five (5) duplex pump stations for Orange County. The design included a preliminary design report for two of the pump stations and final design of all five. Construction documents included mechanical, electrical and instrumentation upgrades necessary for the rehabilitation of each pump station.

West Sunrise Power Plant Heavy Fuel Oil Pump Station & Pipeline, Grand Bahama Power Company, Freeport Bahamas Performed pump station and pipeline design of a #6 heavy fuel oil transmission system. Responsibilities included hydraulic modeling, positive displacement pump selection, and plan preparation. Also prepared specification in accordance with American Petroleum Institute (API) standards.

Prineville Membrane Replacement Pilot Study, City of Port St. Lucie, FL. *Project Engineer for the design and construction of a new concentrate discharge pipeline at the Prineville Water Treatment Facility. The design included an above and below ground stainless steel pipeline designed to replace a temporary solvent welded PVC pipeline installed by the City.*

Mayfair Development - Mass Grading and Master Drainage, City of Lake Wales, FL. Provided master drainage design, and master water, wastewater, and reclaimed water system design for a 350-acre mixed used development. Master utility design included a master sanitary lift station, four satellite sanitary lift stations, and approximately 1000 feet of offsite water and forcemain design. Drainage design included wet and dry stormwater ponds, dry pond underdrain and recovery design, under closed basin criteria.

Winter Park Community Center, City of Winter Park, FL. Performed grading, drainage, water, and wastewater design for a 3-acre community center site that included the building and parking areas. Stormwater system included pond underdrain design and recovery analysis. This project was to replace the former community center building at the same location.

Vascular Specialists of Central Florida, Orlando, FL. Performed grading, drainage, water, and wastewater design for a one-acre project site that included the building and parking areas. This project involved redevelopment of a former commercial area near downtown Orlando. Instead of a surface water stormwater pond, the design was for an underground chamber system.

Dissolved Oxygen Station and Concentrate Transfer Pump Design, City of Melbourne, FL. *Project Engineer* for DO blower station design, concentrate transfer pump design including, general drawings, mechanical process drawings, civil drawings that include demolition plans, site plans, paving, grading, sstormwater facilities, electrical and instrumentation, permitting, bidding. REI has completed the design of new DO station and the upgrades to the concentrate transfer pumps. Construction support services will also be provided.

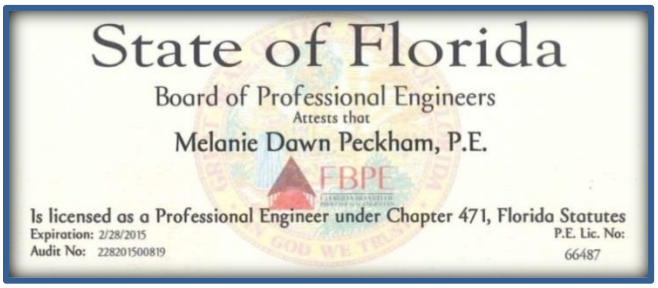
Water Master Plan, City of St. Cloud, FL. Project Engineer for a water master plan to address an expanding service area, evaluate CIP, and assess the capacity and reliability of key existing infrastructure. Master plan components consist of asset condition assessment, water main and facilities criticality assessment, existing and future potable water capacity evaluation, and capital projects development and prioritization for the entire City limits. Responsibilities include water system hydraulic model update, alternative development and evaluations, extended period simulations, operations optimization and report development.

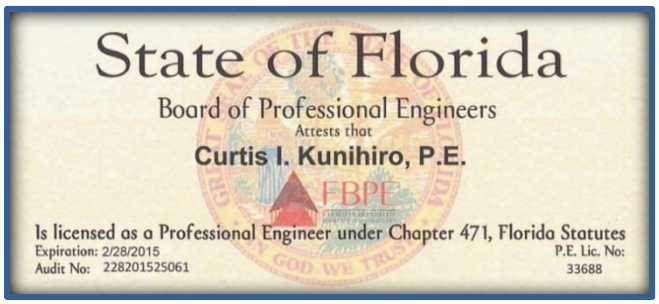
Eagle Creek, Orange County, FL. Provided master drainage design, and master water, wastewater, and reclaimed water system design for a 1230-acre mixed use development that includes 2300 single family units, 550 multi-family units, a golf course, and 200,000 square feet of commercial/school use. Master utility design included five sanitary lift stations, including one master station. Drainage design included roadway stormwater system calculations. This project had previously been through two prior planning and engineering consultants during the initial phases of design and construction.

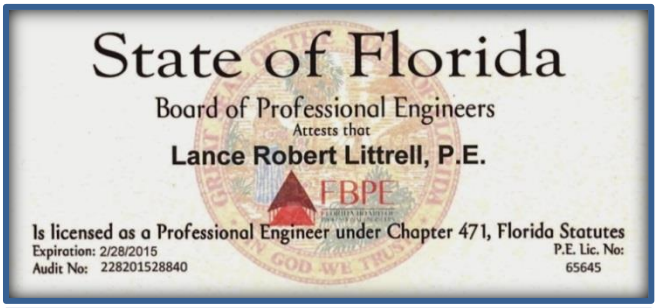
4) Professional Licenses and Certifications

Reiss Engineering, Inc.

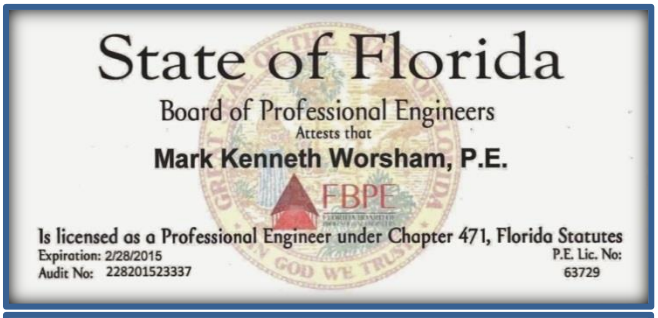

State of Florida
Board of Professional Engineers
Attests that
Reiss Engineering, Inc.
is authorized under the provisions of Section 471.023, Florida Statutes, to offer engineering services to the public through a Professional Engineer, duly licensed under Chapter 471, Florida Statutes.
Expiration: 2/28/2015
Audit No: 228201504384
Certificate of Authorization
CA Lic. No: 8181

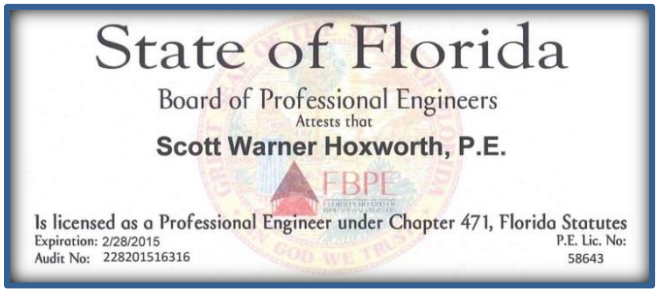

State of Florida
Board of Professional Engineers
Attests that
Melanie Dawn Peckham, P.E.
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2015
Audit No: 228201500819
P.E. Lic. No: 66487

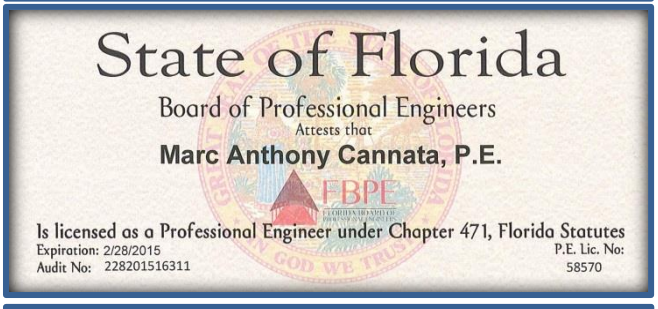

State of Florida
Board of Professional Engineers
Attests that
Curtis I. Kunihiro, P.E.
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2015
Audit No: 228201525061
P.E. Lic. No: 33688

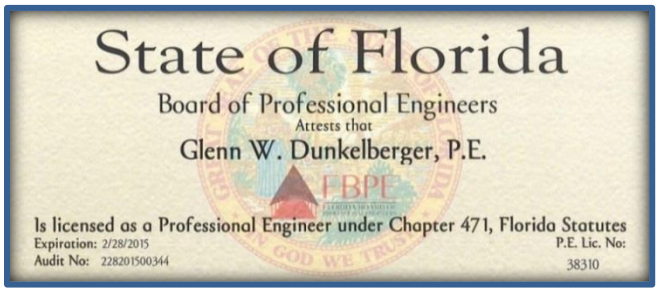

State of Florida
Board of Professional Engineers
Attests that
Lance Robert Littrell, P.E.
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2015
Audit No: 228201528840
P.E. Lic. No: 65645

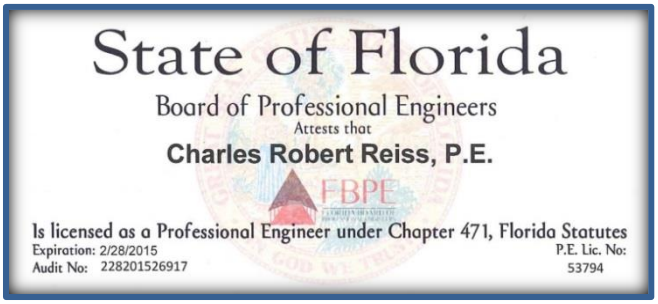

State of Florida
Board of Professional Engineers
Attests that
Kathleen Newell Gierok, P.E.
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2015
Audit No: 228201526953
P.E. Lic. No: 54020

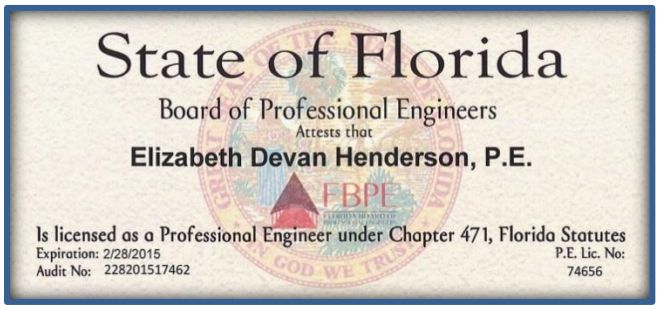

State of Florida
Board of Professional Engineers
Attests that
Mark Kenneth Worsham, P.E.
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2015
Audit No: 228201523337
P.E. Lic. No: 63729


State of Florida
Board of Professional Engineers
Attests that
Scott Warner Hoxworth, P.E.
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2015
Audit No: 228201516316
P.E. Lic. No: 58643

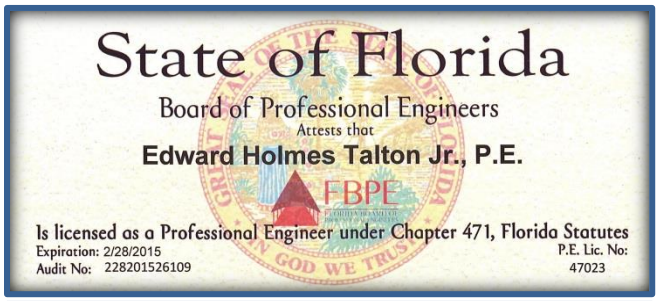

State of Florida
Board of Professional Engineers
Attests that
Marc Anthony Cannata, P.E.
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2015
Audit No: 228201516311
P.E. Lic. No: 58570

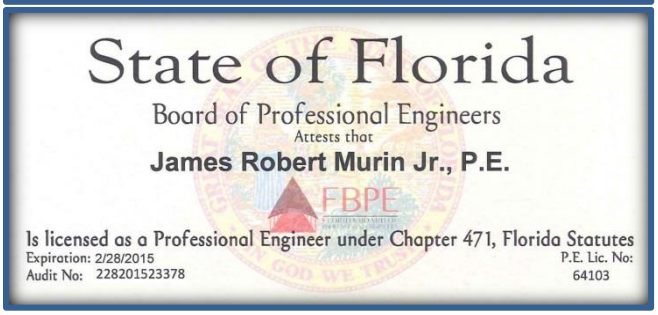

State of Florida
Board of Professional Engineers
Attests that
Glenn W. Dunkelberger, P.E.
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2015
Audit No: 228201500344
P.E. Lic. No: 38310


State of Florida
Board of Professional Engineers
Attests that
Charles Robert Reiss, P.E.
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2015
Audit No: 228201526917
P.E. Lic. No: 53794

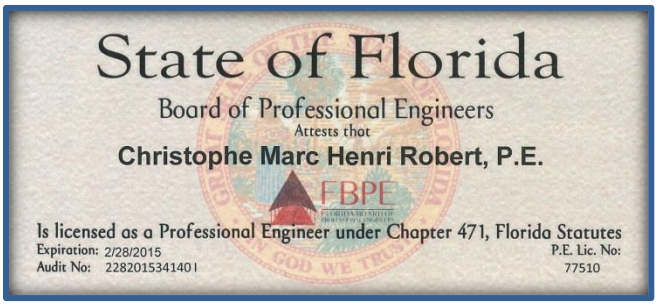

State of Florida
Board of Professional Engineers
Attests that
Elizabeth Devan Henderson, P.E.
FBPE
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2015
Audit No: 228201517462
P.E. Lic. No:
74656

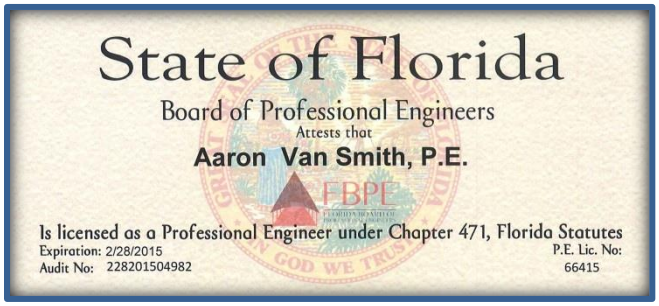

State of Florida
Board of Professional Engineers
Attests that
Brent R. White, P.E.
FBPE
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2015
Audit No: 228201509023 I
P.E. Lic. No:
75588


State of Florida
Board of Professional Engineers
Attests that
Edward Holmes Talton Jr., P.E.
FBPE
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2015
Audit No: 228201526109
P.E. Lic. No:
47023


State of Florida
Board of Professional Engineers
Attests that
James Robert Murin Jr., P.E.
FBPE
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2015
Audit No: 228201523378
P.E. Lic. No:
64103


State of Florida
Board of Professional Engineers
Attests that
Weston Troy Haggen, P.E.
FBPE
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2015
Audit No: 228201534426 I
P.E. Lic. No:
77777


State of Florida
Board of Professional Engineers
Attests that
Christophe Marc Henri Robert, P.E.
FBPE
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2015
Audit No: 2282015341401
P.E. Lic. No:
77510


State of Florida
Board of Professional Engineers
Attests that
Aaron Van Smith, P.E.
FBPE
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2015
Audit No: 228201504982
P.E. Lic. No:
66415

5) Organization Information

Reiss Engineering, Inc. is a registered Corporation in the State of Florida established on December 14, 1998. Reiss was founded under the name Reiss Environmental, Inc. In 2008, Reiss changed its name to Reiss Engineering, Inc. to better distinguish itself as the full-service water, wastewater and reclaimed water engineering firm its clients rely on, and have continued to rely on, for over 15 years now.

State of Florida
Department of State

I certify from the records of this office that REISS ENGINEERING, INC. is a corporation organized under the laws of the State of Florida, filed on December 14, 1998.

The document number of this corporation is P98000104249.

I further certify that said corporation has paid all fees due this office through December 31, 2014, that its most recent annual report/uniform business report was filed on February 19, 2014, and its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Nineteenth day of February, 2014

Secretary of State

Authentication ID: CC6047400498

To authenticate this certificate,visit the following site,enter this ID, and then follow the instructions displayed.

https://efile.sunbiz.org/certauthver.html

6) Principals of Firm and Core Values

C. Robert Reiss, Ph.D., P.E.
President

James R. Murin, Jr, P.E.
Vice President

Marc A. Cannata, P.E.
Vice President

Reiss takes great pride in our historical emphasis on state-of-the-art expertise and responsive customer service. Key to the foundation of our success is the Reiss team of professionals, who are industry leaders in their respective areas of expertise. Additionally, Reiss Engineering's operating philosophy is flexible, such that client needs, as well as market opportunities, can be addressed rapidly and successfully. Reiss Engineering has the technical depth and capability of a large national engineering firm, while retaining the "small company" virtues of attentive customer service and responsiveness. With an impressive history of project successes, Reiss has been widely embraced by communities in need of the expertise, customer service, and attention to detail offered by the firm's staff.

7) Person In Charge

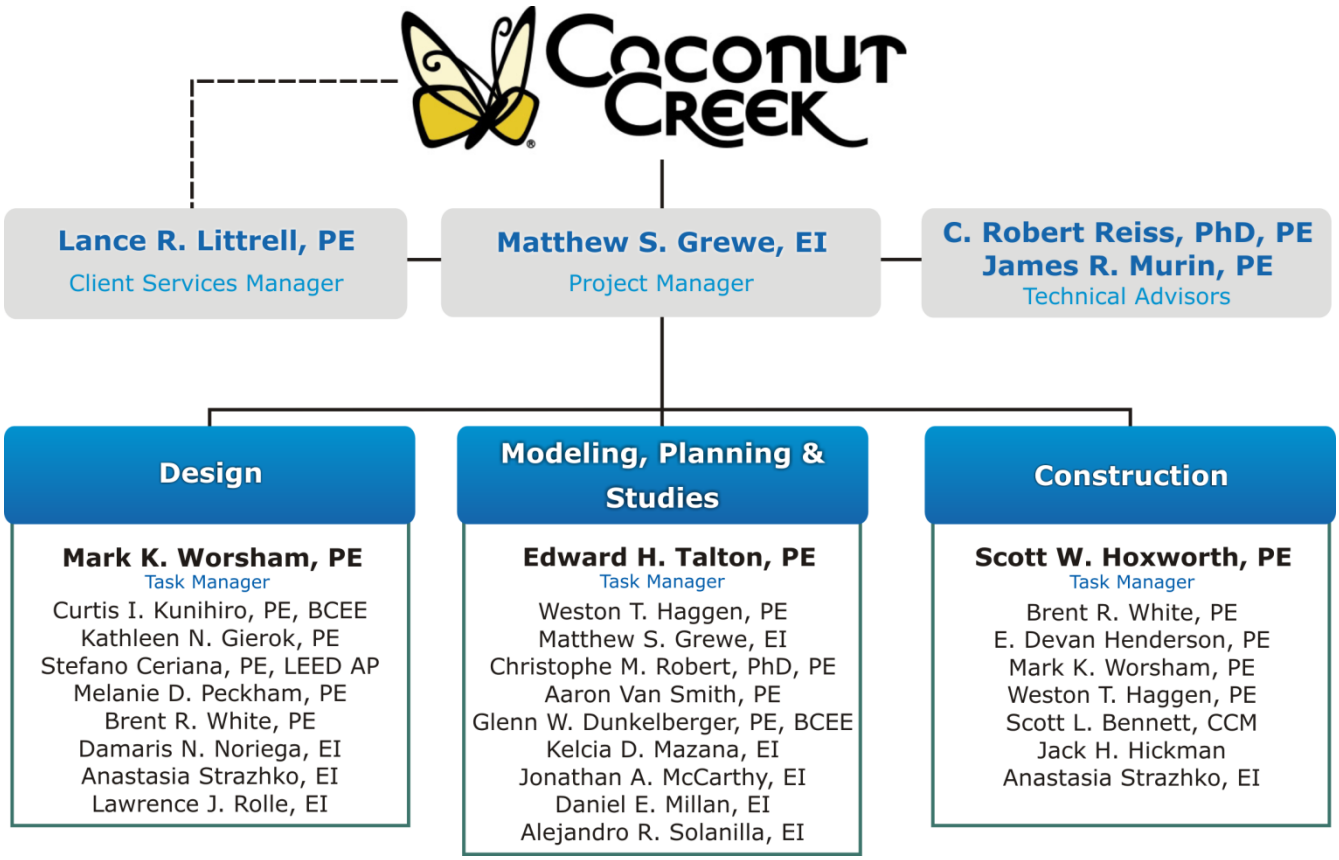
Lance R. Littrell, P.E.

Client Services Manager

Mr. Littrell has over 13 years of experience in leading water and wastewater contracts for municipalities in Central and South Florida. While serving as the Contract Lead, he has overseen numerous projects from brief hydraulic modeling tasks through multimillion dollar designs. Mr. Littrell currently serves as the Client Services Manager for the City of Ft. Lauderdale and the Seminole Tribe of Florida. In addition, his experience extends to multiple pump stations and pipelines throughout Florida.

8) Organizational Chart

Reiss Engineering has assembled a capable, effective and efficient team to meet the City of Coconut Creek's needs for the General Professional Engineering Services contract. The Team's focus is consistent with the City's Request for Proposals and supported by our team's combined professional experience. Our in-house staff provide the City with a highly experienced and technically proficient team who will develop cost effective and reliable solutions for each task under this contract. Our team also provides the City with an open-minded teaming partner, quality and responsive service, and local representation. An Organizational Chart has been included to illustrate our proposed Team.



Firm Qualifications

C Firm Qualifications

The Reiss Team is comprised of familiar leadership and capable technical experts the City can trust to deliver on the projects under this contract. The professionals on our team have been providing quality and innovative services to our clients for over 15 years. The Reiss Team proposed for this contract is not only dedicated to providing quality services that meet your needs, but will provide the City with an extraordinary blend of engineering expertise, and personalized service. Our Client Services Manager, Mr. Lance Littrell, P.E., Project Manager, Mr. Matthew Grewe, E.I., and each of our Project Engineers bring the engineering focus to your projects whether it be the Hilton Road Pump Station Upgrades or Water Quality and Flow Modeling Exercises. This Team Leadership is primed and ready to assist the City staff in the successful completion of the necessary planning, design, or construction project the City may require to ensure continuous service to its utility customers.

1) Size of Firm

Reiss's Ft. Lauderdale Project Office has 2 staff, along with all of the tools and engineering expertise necessary for the contract. Together with our other offices located strategically throughout Florida, Reiss has a staff of over 40 members, available to provide the engineering services assigned by the City under this contract.

2) Range of Activities

From its inception, Reiss Engineering was founded to provide environmental engineering and water–supply services to municipal utilities departments. Today, Reiss provides full service civil and environmental planning, design and construction services, such as:

- Construction Engineering Inspection
- Construction Management
- Community Relations Support
- Operations and Maintenance Optimization
- Water Supply Planning
- Cost Estimating
- Preliminary and Final Design
- Site Plan and Development Review
- Advanced Water Treatment Process Testing and Design
- Membrane Treatment and Desalination
- Feasibility Assessments
- Pilot Studies
- Stormwater Drainage Improvements and Management
- Water/Wastewater/Reuse Treatment Design
- Water and Wastewater Plant Facility Improvements
- Regulatory Compliance/Permitting
- Water Quality, Chemistry and Treatment
- Master Planning
- Hydraulic Modeling/GIS Conversion
- Utility Engineering Services
- Water, Wastewater and Reclaimed Water Utility System Design

3) Strength & Stability

Reiss Engineering, Inc. has the strength and stability to meet the needs of this contract and provide the high level of services the City would require for a professional consultant under the RFQ No. 11-19-14-10 General Professional Engineering Services. Please find enclosed a letter from our current bank, Fifth-Third Bank, referencing our financial standing.

FIFTH THIRD BANK

November 14, 2014

City of Coconut Creek
Purchasing Division
4800 West Copans Road
Coconut Creek, Fl 33063

RE: General Professional Engineering Services RFQ No. 11-19-14-10

To Whom It May Concern:

This letter serves to confirm that Reiss Engineering, Inc. and Charles Robert Reiss are customers in good financial standing at Fifth Third Bank. The customer has maintained their banking relationship at Fifth Third Bank since 2012 and all loan and deposit accounts have been handled in an exemplary manner.

If further information is needed on this premier and valued customer of Fifth Third Bank, please contact me, as I am their Relationship Manager at Fifth Third Bank.

Rebecca E. Reynolds
Vice-President
407-999-3129 phone
Rebecca.Reynolds@53.com

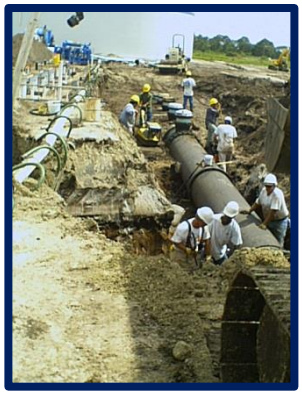
Sincerely,

Rebecca E. Reynolds

Rebecca E. Reynolds
Vice-President
Commercial Banking Division
Fifth Third Bank

4) Experience

Reiss Engineering, Inc. (Reiss), from its inception in 1998, prides itself on being a client-service oriented firm specializing in water supply, treatment and reclamation. Based solely on providing general civil and environmental engineering services for local governments like the City of Coconut Creek, Reiss has built a statewide client base by providing an unmatched quality of service. Reiss began as a potable water treatment engineering specialty firm, and now offers particular expertise in strategic planning, capacity expansions, water conservation, service extensions, energy efficiency, chemical optimization and infrastructure rehabilitation for the water, wastewater, reclaimed water, and stormwater industry. **Over the past 16 years, Reiss has grown into a full-service civil and environmental engineering firm, providing clients throughout Florida and abroad the specific services that are requested in the City's RFQ for General Professional Engineering Services.** From water to wastewater transmission and process studies to detailed design and implementation, alternative water supply evaluations to master planning and GIS applications, Reiss has established itself as a technical leader in civil and environmental engineering in Florida.



Based on the nature and importance of the services requested in this RFQ, it is clear that the City will benefit from having a contract with a firm capable of providing assistance quickly and effectively. The location of project team members can play a significant role in the ability of a firm to respond to project demands.

The **Office-In-Charge** will be Reiss' Ft. Lauderdale Office, less than 10 miles from City Limits. Our Team will be able to respond quickly to any of the City's time critical needs. ***Mr. Lance Littrell, P.E. (Client Services Manager) and Mr. Matthew Grewe, E.I. (Project Manager) are the professional personnel assigned to the Ft. Lauderdale office.***

In addition to these staff, we have hand-picked and hired employees whose background, experience, and interest match our focus and company direction. Reiss' focus and experience on utility infrastructure issues affecting Florida municipalities is directly applicable to the City of Coconut Creek's goals and objectives for this continuing contract. Our **Client Services Manager, Mr. Lance Littrell, P.E.** will be a contact for the City while our **Project Manager, Mr. Matthew Grewe, E.I.** will be the primary contact for the City and will be responsible for day-to-day continuous management of the Team. Mr. Grewe leads the Reiss Team with a wide range of project management experience for civil engineering projects for numerous Florida municipalities, specifically applicable to the scope of services outlined in this RFQ. Resumes for Mr. Littrell and Mr. Grewe can be found starting on page 9.

The Reiss Team is ideally suited to provide the consulting engineering services required by the City of Coconut Creek under this contract. We have reviewed the City's website, 2014 Fiscal Year Budget and Capital Improvement Projects (CIP), and the list of services requested in Attachment A of the RFQ. We understand the City plans to rehabilitate sewer mains, manholes, lift stations, retrofit water meter connections, expand the reclaimed water system to incorporate a bulk water user base, replace utility pipelines, and ensure that the City's stormwater system functions properly throughout the City's service area. These services are typical of the services we have been providing to all of our continuing utilities services clients over the last five to seven years as illustrated in the table on the following page. Our team is capable of meeting the City's expectations for the full range of services that may be required for Utilities Infrastructure Projects.

In addition to offering a full spectrum of civil and environmental engineering services, including permitting, preliminary engineering and final design for such utility projects as water lines, force mains, water storage and re-pump facilities, chemical systems upgrades, expansions and improvements, Reiss has developed a unique reputation in Florida and nation-wide for expertise in water quality engineering for treatment and distribution system hydraulic and water quality modeling. This blend of expertise will allow the Reiss Team to provide personalized service to the City in all areas of utility infrastructure, no matter the complexity of the assignment.

Reiss has significant experience in the technical areas requested in the City of Coconut Creek's RFP for Consulting Engineering Services for Utilities Infrastructure Projects, including:

- ✓ **Master Planning and Hydraulic Modeling.** As one of the industry leaders in utility master planning and real-time dynamic hydraulic modeling, Reiss can provide the City with the ability to examine the impact each proposed project may have on the entire utility system, or explore and identify design options prior to the initiation of final design. These services will benefit the City and allow staff to use our hydraulic modeling expertise to assist in reviewing operations of the current distribution systems to ensure energy is optimized and used efficiently, water quality parameters are maintained, locate closed valves, size pumps and mains, and to ensure surge is minimalized. Our modeling services can also provide the City with its own Unidirectional Flushing (UDF) program and design. These types of modeling services and other hydraulic and treatment strategies can be used to comply with the Stage 2 Disinfection/Disinfection By-Product Rule. For transmission and collection systems, they can be used to reduce infiltration and inflow into the wastewater collection system and to ensure proper sizing of pumps, wetwells and force mains.

- **Potable, Reclaimed and Wastewater Pipe Network; and Gravity Sewer System Design.** Reiss has provided utility pipe network infrastructure planning, design, and construction management services to clients similar to the City of Coconut Creek for many years. Recent projects include gravity sewer collection system design and construction administration for the City of Davenport, as well as force main designs, water transmission mains, gravity systems, and various water/reuse distribution and wastewater transmission system improvements for municipalities across Florida. Reiss is highly capable of providing these traditional civil engineering services to the City, with staff experienced in pipeline projects ranging from hundreds of feet to 10 miles in length, utilizing open-trench and trenchless technologies such as horizontal directional drilling, jack and boring, pipe bursting and slip lining for existing and new utilities. We are currently the pump stations and pipelines Engineer of Record and emergency first responder for the South Seminole & North Orange County Wastewater Transmission Authority (SSNOCWTA).

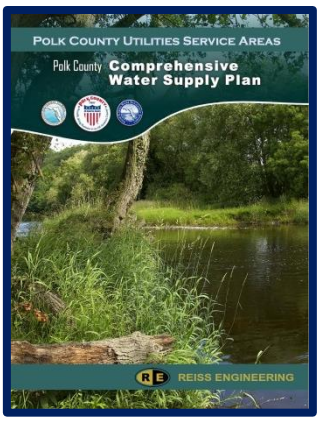
- **Lift Stations and Pump Station Design and Rehabilitation.** In time, every lift station and pumping station will require upgrades, modifications or replacement to maintain its long term operation. Reiss has provided similar engineering services at numerous facilities across Florida, including detailed assessments of the operations and efficiency of existing pump stations. Reiss has recently provided engineering services to replace existing aging lift station infrastructure, including the Jardain Lift Station Replacement for the City of Port St. Lucie and various lift station replacement and rehabilitation projects for SSNOCWTA and Orange County under similar continuing services contracts.

- **Potable Water Treatment.** While our experience of water treatment process and facility design may not seem applicable for this contract, this expertise brings the wealth of knowledge useful for the consecutive water systems such as the City's Distribution. Water treatment process and facility design, testing, construction, and permitting are the core of Reiss' consulting capabilities. Reiss's water treatment expertise and experience has become a significant differentiator from other firms. With the experience of executing a wide range of basic services, as well as high-profile projects across Florida and nationwide, Reiss is a tremendous resource for the City of Coconut Creek's use in all water treatment and distribution related projects including system replacements and disinfection by-product formation. Additionally, these services will be paramount to preparing chemical system upgrades to the Hilton Road Storage and Re-pump facility, for not only planning but also through design and construction startup of the facility improvements.

✓ **Construction Engineering Inspection.** Reiss has a strong history of providing clients with a full suite of construction inspection services ranging from full-time resident project representative to engineering certification of construction permits. This customized service based on our clients' needs has been helpful in delivering successful construction management and inspection services for their critical assignments. Construction management and engineering inspection assignments such as Seminole County's $45-million Yankee Lake Surface Water project shows Reiss Engineering's capabilities for critical and high-profile projects while, other projects including SSNOCWTA's $226,000 Lakes of Aloma Pump Station Upgrades identifies our agility to meet the full range of construction management and inspection projects.

South Seminole & North Orange County Wastewater Transmission Authority

✓ **Permitting.** Reiss brings a long history of providing support for water and wastewater permit applications, renewals, and compliance consulting to Florida municipalities. As the permitting engineer for several recent pipelines, pump stations, chemical system upgrades, wastewater and water treatment facilities, Reiss is well-versed in the current permitting requirements for utility-improvement projects. Our experience in reclaimed water extensions offers a wealth of knowledge and creative ideas to extend existing utilities within the service area while minimizing costs to the City. With strong relationships developed with the local regulatory staff through years of permitting efforts, the Reiss Team offers the City a high level of reliability in the area of permitting for this contract.



✓ **Alternative Water Supply.** Reiss has a current and relevant history of experience as it relates to potable water supply planning and design. While the City may not directly be seeking alternative water supplies, Coconut Creek's participation in Broward County's pursuit for securing water supply may be necessary. Recently, Reiss successfully developed a County-wide Water Supply Plan for Polk County, in which the process of exploring supplemental water supplies was extremely beneficial for the 17 Polk County municipalities and 6 individual County service areas. ***An alternative water supply project from this Plan includes the permitting, design and construction of the reported world's deepest aquifer storage and recovery (ASR) well. Reiss is currently leading the design and permitting and construction of this ASR well system.*** This expertise can become valuable to the City in supporting Broward County in pursuit of cost-effective alternative water supplies.

✓ **Stormwater Management.** Reiss's diverse team has the project experience and resource capabilities to provide the City with cost-effective solutions to stormwater and drainage challenges. With a history of projects including stormwater designs for roadways, commercial developments, subdivisions, and utility infrastructure sites, the Reiss team of experts is well-qualified to assist on most stormwater management projects. Some highlights of our team's stormwater management experience include:

- Town Pond Stormwater Modifications: City of Clearwater, FL
- Greenwood Lakes WWRF Stormwater Assessment & Improvements: Seminole County, FL
- North Clearwater Beach Stormwater Ponds Feasibility Study: City of Clearwater, FL
- Alum Sludge Dewatering Project: City of Winter Park, FL
- Elizabeth & Alexander Stormwater Inspection Services: City of Winter Park, FL

✓ **Assist in the Public Involvement Support.**

With our focus on project success, we understand that the public's perception is a significant portion of delivering these assignments. As such, Reiss Engineering engages the public on each of our projects to ensure that the people most affected by the project understand the goals, objectives and benefits relating to their property. Reiss Engineering understands your desires to achieve your mission and stands ready to support your staff in public involvement and other programs where manpower for reimbursement and public education is needed. As an example or public involvement and support, we recently completed a UDF program for Seminole County that had zero complaints. This was achieved by utilizing mail flyers, the County's website, temporary road signs and when required, a simple knock on the door to notify customer of the program's activities. These are the small but important actions that will be required to ensure that the customers are notified and understand how the City is continuing to proactively improve service and infrastructure under this contract.

Hydrant Flushing Public Notification Sign for the City of St. Petersburg Unidirectional Flushing Program

As an established civil and environmental engineering firm, Reiss has been involved in the planning, design, and construction of projects very similar to those needed by the City of Coconut Creek. Our firm currently holds continuing contracts with many municipalities and agencies that benefit from our specialized technical expertise, and our ability to provide conventional design and construction services. The ***General Professional Engineering Services Contracts*** table on the next page provides a representative listing of Reiss Engineering's recent continuing services assignments for some of our other public utility clients that are similar to the requirements and scope for this contract.

GENERAL UTILITY ENGINEERING SERVICES CONTRACTS

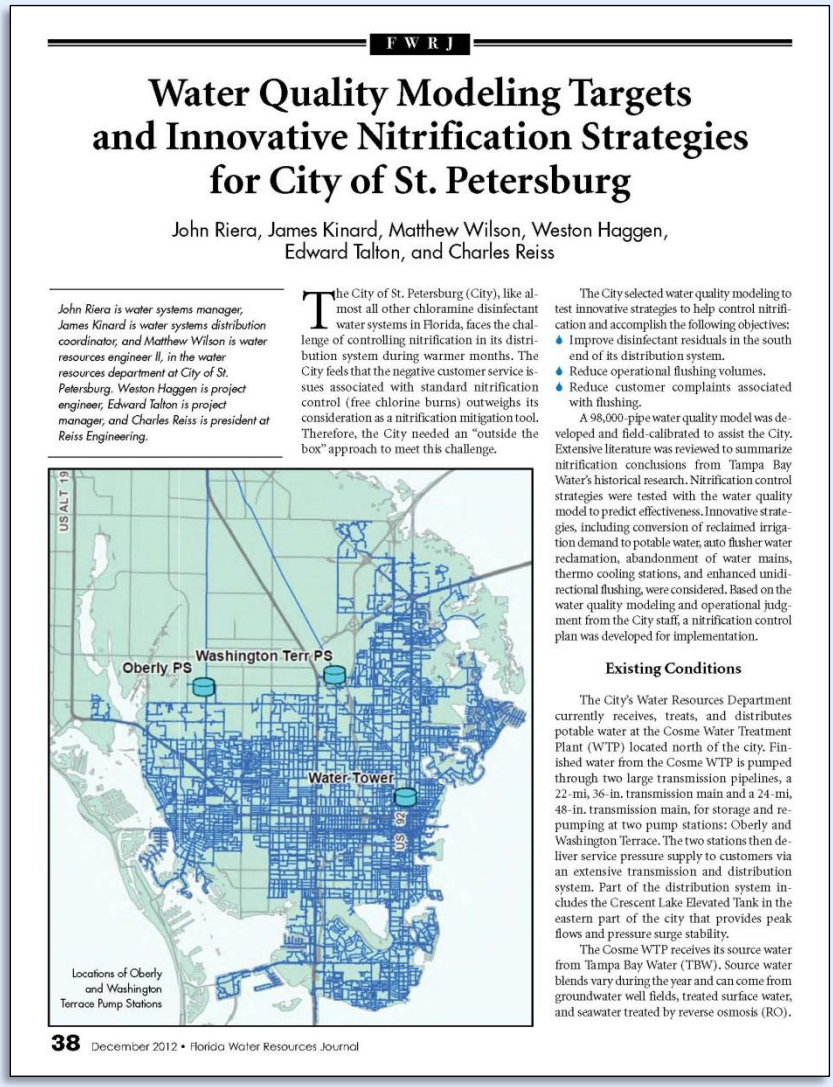
Contract Name and Owner	Examples of Projects Performed Under Contract
General Professional Engineering Services, South Seminole & North Orange County Wastewater Transmission Authority	▪ Aloma Avenue Force Main Improvements ▪ Dean Road Utility Relocation ▪ Tuskawilla Point Pump Station Improvements ▪ Marigold Pump Station Improvements ▪ Lakes of Aloma Pump Station Improvements
Engineer of Record Services Agreement, City of Clearwater, FL	▪ Hydraulic Modeling Services ▪ North Clearwater Beach Stormwater Ponds Feasibility Study ▪ Reclaimed Water Distribution System Operations Protocol ▪ Potable Water Distribution System Supply Reduction Impact Analysis
Continuing Professional Water and Sewer Utility Engineering Services, City of Casselberry, FL	▪ Water Quality Master Plan ▪ Hydraulic Modeling Services ▪ Unidirectional Flushing Design ▪ Forest Brook Force Main Replacement ▪ WTP and WRF Control System Upgrades Design ▪ Elm Drive Lift Station Replacement ▪ Seminola Pump Station Basin Study
Continuing Utility Consulting Engineering Services, Orange County Utilities, FL	▪ Hydraulic Modeling Services ▪ Presidents Drive Pump Station #3177 Improvements ▪ Orange Avenue Pump Station #3190 Improvements ▪ Hiawassee Road Pump Station #3038 Improvements ▪ Westwood Boulevard 24-inch Water Main ▪ Summerlake Park Boulevard 30-inch Force Main ▪ University Boulevard 12-inch Force Main ▪ Package 7 & 8 Pump Stations Rehabilitation
Continuing Contract for Professional Water and Wastewater Hydraulic Modeling and Permitting Consulting Services, City of Melbourne, FL	▪ Distribution Area Evaluation for the Distribution Area Hydraulic Modeling and Water System Evaluation Project ▪ Engineering Services Associated with the DB Lee WRF Gravity Interceptor Feasibility Study ▪ North Booster Pump Station Pipeline Design
Engineering and Consulting Services, Brevard County, FL	▪ Comprehensive Analysis and Testing of Process Parameters ▪ Mims Water Treatment Plant Process Strategy and Design ▪ Mims Water Treatment Plant Facility and Treatment Improvements
Water and Wastewater Professional Engineering Services, Florida Governmental Utility Authority	▪ Capacity Analysis Report Update for the Golden Gate WWTP ▪ Minor Revisions to Operating Permit for Golden Gate WWTP and Lehigh Acres WWTP ▪ North Fort Myers Utility System; Engineering Services Related to Lake Fairways Operating Permit Renewal

5) Honors, Awards & Recognition

Reiss is proud of the work we do together with our clients. Frequently, projects are recognized by various professional associations and publications for their successes. Below is a sample of awards our projects or firm has recently won, along with published articles highlighting our projects.

Published Articles

Florida Water Resources Journal



F W R J

Water Quality Modeling Targets and Innovative Nitrification Strategies for City of St. Petersburg

John Riera, James Kinard, Matthew Wilson, Weston Haggen, Edward Talton, and Charles Reiss

John Riera is water systems manager, James Kinard is water systems distribution coordinator, and Matthew Wilson is water resources engineer II, in the water resources department at City of St. Petersburg. Weston Haggen is project engineer, Edward Talton is project manager, and Charles Reiss is president at Reiss Engineering.

The City of St. Petersburg (City), like almost all other chloramine disinfectant water systems in Florida, faces the challenge of controlling nitrification in its distribution system during warmer months. The City feels that the negative customer service issues associated with standard nitrification control (free chlorine burns) outweighs its consideration as a nitrification mitigation tool. Therefore, the City needed an "outside the box" approach to meet this challenge.

The City selected water quality modeling to test innovative strategies to help control nitrification and accomplish the following objectives:

- Improve disinfectant residuals in the south end of its distribution system.
- Reduce operational flushing volumes.
- Reduce customer complaints associated with flushing.

A 98,000-pipe water quality model was developed and field-calibrated to assist the City. Extensive literature was reviewed to summarize nitrification conclusions from Tampa Bay Water's historical research. Nitrification control strategies were tested with the water quality model to predict effectiveness. Innovative strategies, including conversion of reclaimed irrigation demand to potable water, auto flusher water reclamation, abandonment of water mains, thermo cooling stations, and enhanced unidirectional flushing, were considered. Based on the water quality modeling and operational judgment from the City staff, a nitrification control plan was developed for implementation.

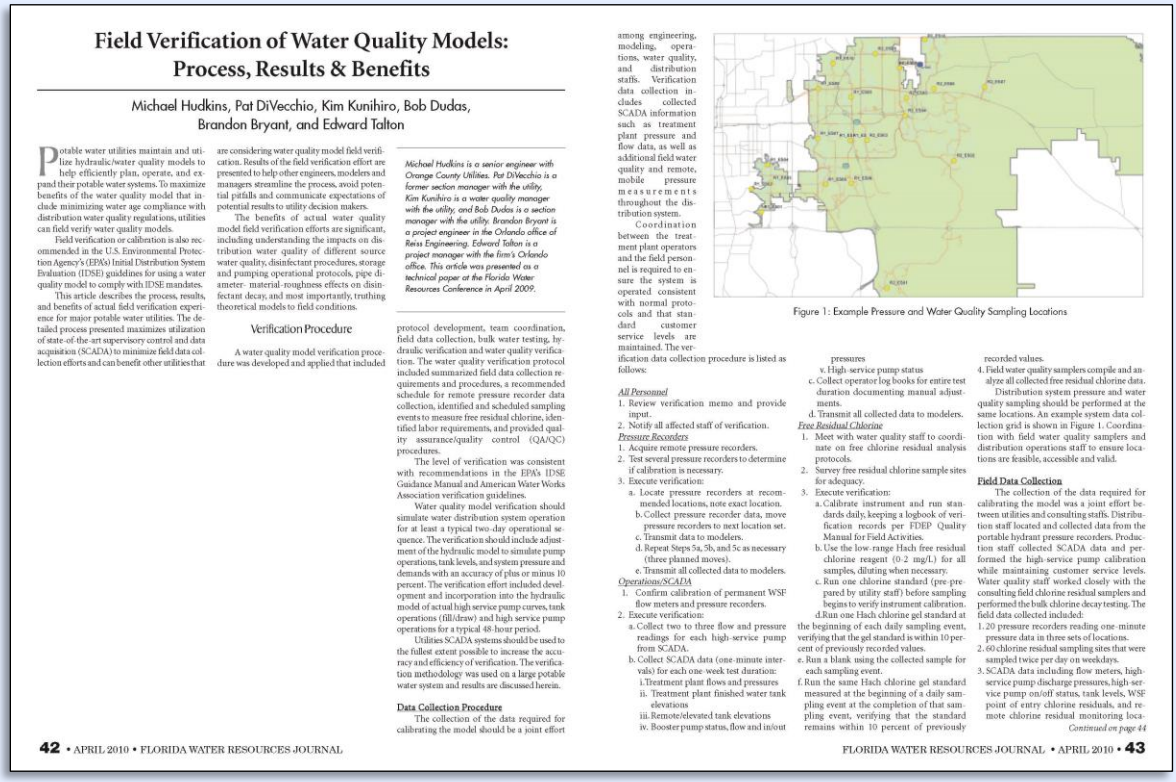
Existing Conditions

The City's Water Resources Department currently receives, treats, and distributes potable water at the Cosme Water Treatment Plant (WTP) located north of the city. Finished water from the Cosme WTP is pumped through two large transmission pipelines, a 22-mi, 36-in. transmission main and a 24-mi, 48-in. transmission main, for storage and repumping at two pump stations: Oberly and Washington Terrace. The two stations then deliver service pressure supply to customers via an extensive transmission and distribution system. Part of the distribution system includes the Crescent Lake Elevated Tank in the eastern part of the city that provides peak flows and pressure surge stability.

The Cosme WTP receives its source water from Tampa Bay Water (TBW). Source water blends vary during the year and can come from groundwater well fields, treated surface water, and seawater treated by reverse osmosis (RO).

38 December 2012 • Florida Water Resources Journal

City of St. Petersburg



Field Verification of Water Quality Models: Process, Results & Benefits

Michael Hudkins, Pat DiVecchio, Kim Kunihiro, Bob Dudas, Brandon Bryant, and Edward Talton

Potable water utilities maintain and utilize hydraulic/water quality models to help efficiently plan, operate, and expand their potable water systems. To maximize benefits of the water quality model that include minimizing water age compliance with distribution water quality regulations, utilities can field verify water quality models.

Field verification or calibration is also recommended in the U.S. Environmental Protection Agency's (EPA's) Initial Distribution System Evaluation (IDSE) guidelines for using a water quality model to comply with IDSE mandates.

This article describes the process, results, and benefits of actual field verification experience for major potable water utilities. The detailed process presented maximizes utilization of state-of-the-art supervisory control and data acquisition (SCADA) to minimize field data collection efforts and can benefit other utilities that are considering water quality model field verification. Results of the field verification effort are presented to help other engineers, modelers and managers streamline the process, avoid potential pitfalls and communicate expectations of potential results to utility decision makers.

The benefits of actual water quality model field verification efforts are significant, including understanding the impacts on distribution water quality of different source water quality, disinfectant procedures, storage and pumping operational protocols, pipe diameter- material-roughness effects on disinfectant decay, and most importantly, truthing theoretical models to field conditions.

Michael Hudkins is a senior engineer with Orange County Utilities. Pat DiVecchio is a former section manager with the utility. Kim Kunihiro is a water quality manager with the utility, and Bob Dudas is a section manager with the utility. Brandon Bryant is a project engineer in the Orlando office of Reiss Engineering. Edward Talton is a project manager with the firm's Orlando office. This article was presented as a technical paper at the Florida Water Resources Conference in April 2009.

Verification Procedure

A water quality model verification procedure was developed and applied that included protocol development, team coordination, field data collection, bulk water testing, hydraulic verification and water quality verification. The water quality verification protocol included summarized field data collection requirements and procedures, a recommended schedule for remote pressure recorder data collection, identified and scheduled sampling events to measure free residual chlorine, identified labor requirements, and provided quality assurance/quality control (QA/QC) procedures.

The level of verification was consistent with recommendations in the EPA's IDSE Guidance Manual and American Water Works Association verification guidelines.

Water quality model verification should simulate water distribution system operation for at least a typical two-day operational sequence. The verification should include adjustment of the hydraulic model to simulate pump operations, tank levels, and system pressure and demands with an accuracy of plus or minus 10 percent. The verification effort included development and incorporation into the hydraulic model of actual high service pump curves, tank operations (fill/draw) and high service pump operations for a typical 48-hour period.

Utilities SCADA systems should be used to the fullest extent possible to increase the accuracy and efficiency of verification. The verification methodology was used on a large potable water system and results are discussed herein.

Data Collection Procedure

The collection of the data required for calibrating the model should be a joint effort among engineering, modeling, operations, water quality, and distribution staffs. Verification data collection includes collected SCADA information such as treatment plant pressure and flow data, as well as additional field water quality and remote, mobile pressure measurements throughout the distribution system.

Coordination between the treatment plant operators and the field personnel is required to ensure the system is operated consistent with normal protocols and that standard customer service levels are maintained. The verification data collection procedure is listed as follows:

Figure 1: Example Pressure and Water Quality Sampling Locations

All Personnel

1. Review verification memo and provide input.
2. Notify all affected staff of verification.

Pressure Recorders

1. Acquire remote pressure recorders.
2. Test several pressure recorders to determine if calibration is necessary.
3. Execute verification:
   a. Locate pressure recorders at recommended locations, note exact location.
   b. Collect pressure recorder data, move pressure recorders to next location set.
   c. Transmit data to modelers.
   d. Repeat Steps 5a, 5b, and 5c as necessary (three planned moves).
   e. Transmit all collected data to modelers.

Operations/SCADA

1. Confirm calibration of permanent WSF flow meters and pressure recorders.
2. Execute verification:
   a. Collect two to three flow and pressure readings for each high-service pump from SCADA.
   b. Collect SCADA data (one-minute intervals) for each one-week test duration:
      i. Treatment plant flows and pressures
      ii. Treatment plant finished water tank elevations
      iii. Remote/elevated tank elevations
      iv. Booster pump status, flow and in/out pressures
      v. High-service pump status
   c. Collect operator log books for entire test duration documenting manual adjustments.
   d. Transmit all collected data to modelers.

Free Residual Chlorine

1. Meet with water quality staff to coordinate on free chlorine residual analysis protocols.
2. Survey free residual chlorine sample sites for adequacy.
3. Execute verification:
   a. Calibrate instrument and run standards daily, keeping a logbook of verification records per FDEP Quality Manual for Field Activities.
   b. Use the low-range Hach free residual chlorine reagent (0-2 mg/L) for all samples, diluting when necessary.
   c. Run one chlorine standard (pre-prepared by utility staff) before sampling begins to verify instrument calibration.
   d. Run one Hach chlorine gel standard at the beginning of each daily sampling event, verifying that the gel standard is within 10 percent of previously recorded values.
   e. Run a blank using the collected sample for each sampling event.
   f. Run the same Hach chlorine gel standard measured at the beginning of a daily sampling event at the completion of that sampling event, verifying that the standard remains within 10 percent of previously recorded values.
4. Field water quality samplers compile and analyze all collected free residual chlorine data.

Distribution system pressure and water quality sampling should be performed at the same locations. An example system data collection grid is shown in Figure 1. Coordination with field water quality samplers and distribution operations staff to ensure locations are feasible, accessible and valid.

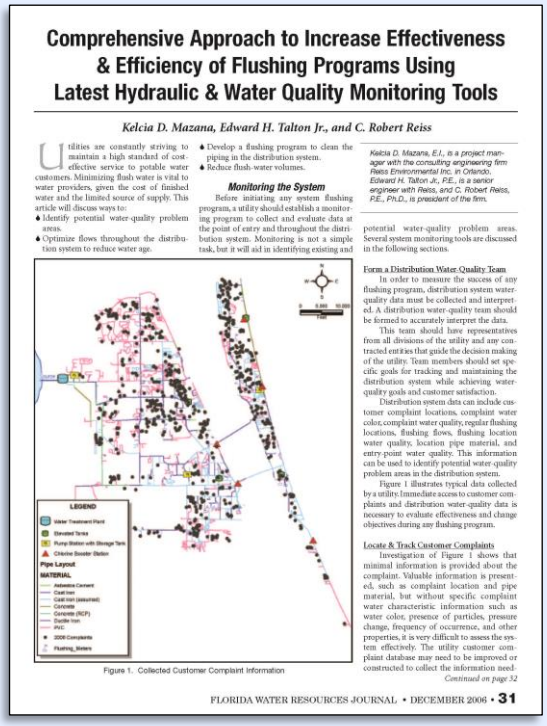
Field Data Collection

The collection of the data required for calibrating the model was a joint effort between utilities and consulting staffs. Distribution staff located and collected data from the portable hydrant pressure recorders. Production staff collected SCADA data and performed the high-service pump calibration while maintaining customer service levels. Water quality staff worked closely with the consulting field chlorine residual samplers and performed the bulk chlorine decay testing. The field data collected included:

1. 20 pressure recorders reading one-minute pressure data in three sets of locations.
2. 60 chlorine residual sampling sites that were sampled twice per day on weekdays.
3. SCADA data including flow meters, high-service pump discharge pressures, high-service pump on/off status, tank levels, WSF point of entry chlorine residuals, and remote chlorine residual monitoring loca-

Continued on page 44

Orange County Utilities



Comprehensive Approach to Increase Effectiveness & Efficiency of Flushing Programs Using Latest Hydraulic & Water Quality Monitoring Tools

Kelcia D. Mazana, Edward H. Talton Jr., and C. Robert Reiss

Utilities are constantly striving to maintain a high standard of cost-effective service to potable water customers. Minimizing flush water is vital to water providers, given the cost of finished water and the limited source of supply. This article will discuss ways to:

- Identify potential water-quality problem areas.
- Optimize flows throughout the distribution system to reduce water age.
- Develop a flushing program to clean the piping in the distribution system.
- Reduce flush-water volumes.

Kelcia D. Mazana, E.I., is a project manager with the consulting engineering firm Reiss Environmental Inc. in Orlando. Edward H. Talton Jr., P.E., is a senior engineer with Reiss, and C. Robert Reiss, P.E., Ph.D., is president of the firm.

Monitoring the System

Before initiating any system flushing program, a utility should establish a monitoring program to collect and evaluate data at the point of entry and throughout the distribution system. Monitoring is not a simple task, but it will aid in identifying existing and potential water-quality problem areas. Several system monitoring tools are discussed in the following sections.

Figure 1. Collected Customer Complaint Information

Form a Distribution Water-Quality Team

In order to measure the success of any flushing program, distribution system water-quality data must be collected and interpreted. A distribution water-quality team should be formed to accurately interpret the data.

This team should have representatives from all divisions of the utility and any contracted entities that guide the decision making of the utility. Team members should set specific goals for tracking and maintaining the distribution system while achieving water-quality goals and customer satisfaction.

Distribution system data can include customer complaint locations, complaint water color, complaint water quality, regular flushing locations, flushing flows, flushing location water quality, location pipe material, and entry-point water quality. This information can be used to identify potential water-quality problem areas in the distribution system.

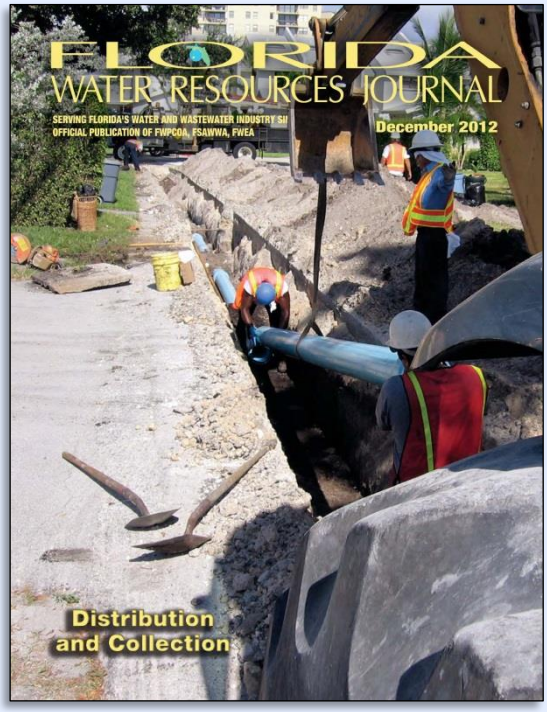
Figure 1 illustrates typical data collected by a utility. Immediate access to customer complaints and distribution water-quality data is necessary to evaluate effectiveness and change objectives during any flushing program.

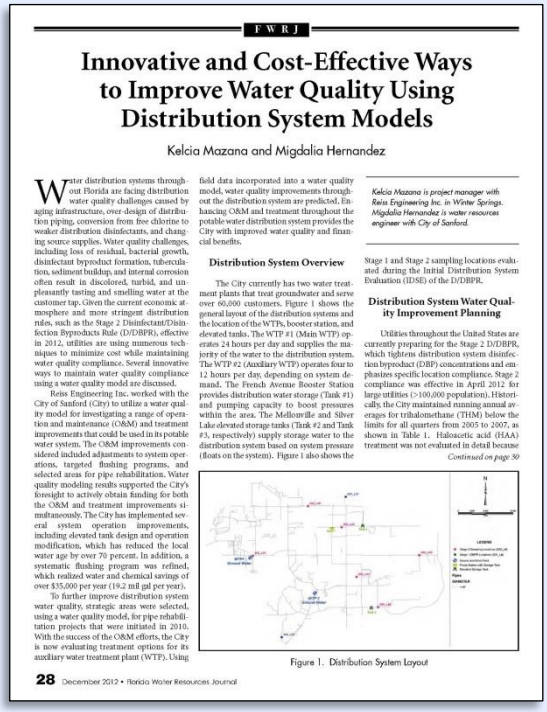
Locate & Track Customer Complaints

Investigation of Figure 1 shows that minimal information is provided about the complaint. Valuable information is presented, such as complaint location and pipe material, but without specific complaint water characteristic information such as water color, presence of particles, pressure change, frequency of occurrence, and other properties, it is very difficult to assess the system effectively. The utility customer complaint database may need to be improved or constructed to collect the information need-

Continued on page 32

City of Melbourne





FWRJ

Innovative and Cost-Effective Ways to Improve Water Quality Using Distribution System Models

Kelcia Mazana and Migdalia Hernandez

Water distribution systems throughout Florida are facing distribution water quality challenges caused by aging infrastructure, over-design of distribution piping, conversion from free chlorine to weaker distribution disinfectants, and changing source supplies. Water quality challenges, including loss of residual, bacterial growth, disinfectant byproduct formation, tuberculation, sediment buildup, and internal corrosion often result in discolored, turbid, and unpleasantly tasting and smelling water at the customer tap. Given the current economic atmosphere and more stringent distribution rules, such as the Stage 2 Disinfectant/Disinfection Byproducts Rule (D/DBPR), effective in 2012, utilities are using numerous techniques to minimize cost while maintaining water quality compliance. Several innovative ways to maintain water quality compliance using a water quality model are discussed.

Reiss Engineering Inc. worked with the City of Sanford (City) to utilize a water quality model for investigating a range of operation and maintenance (O&M) and treatment improvements that could be used in its potable water system. The O&M improvements considered included adjustments to system operations, targeted flushing programs, and selected areas for pipe rehabilitation. Water quality modeling results supported the City's foresight to actively obtain funding for both the O&M and treatment improvements simultaneously. The City has implemented several system operation improvements, including elevated tank design and operation modification, which has reduced the local water age by over 70 percent. In addition, a systematic flushing program was refined, which realized water and chemical savings of over $35,000 per year (19.2 mil gal per year).

To further improve distribution system water quality, strategic areas were selected, using a water quality model, for pipe rehabilitation projects that were initiated in 2010. With the success of the O&M efforts, the City is now evaluating treatment options for its auxiliary water treatment plant (WTP). Using field data incorporated into a water quality model, water quality improvements throughout the distribution system are predicted. Enhancing O&M and treatment throughout the potable water distribution system provides the City with improved water quality and financial benefits.

Kelcia Mazana is project manager with Reiss Engineering Inc. in Winter Springs. Migdalia Hernandez is water resources engineer with City of Sanford.

Distribution System Overview

The City currently has two water treatment plants that treat groundwater and serve over 60,000 customers. Figure 1 shows the general layout of the distribution systems and the location of the WTPs, booster station, and elevated tanks. The WTP #1 (Main WTP) operates 24 hours per day and supplies the majority of the water to the distribution system. The WTP #2 (Auxiliary WTP) operates four to 12 hours per day, depending on system demand. The French Avenue Booster Station provides distribution water storage (Tank #1) and pumping capacity to boost pressures within the area. The Mellonville and Silver Lake elevated storage tanks (Tank #2 and Tank #3, respectively) supply storage water to the distribution system based on system pressure (floats on the system). Figure 1 also shows the Stage 1 and Stage 2 sampling locations evaluated during the Initial Distribution System Evaluation (IDSE) of the D/DBPR.

Distribution System Water Quality Improvement Planning

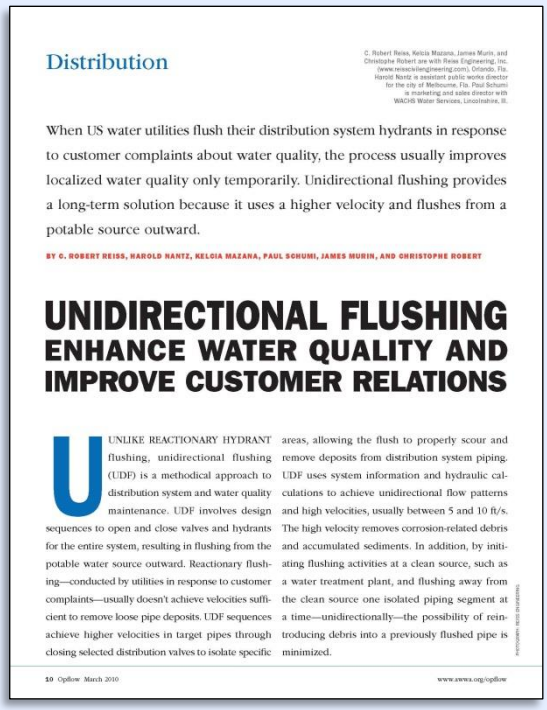
Utilities throughout the United States are currently preparing for the Stage 2 D/DBPR, which tightens distribution system disinfection byproduct (DBP) concentrations and emphasizes specific location compliance. Stage 2 compliance was effective in April 2012 for large utilities (>100,000 population). Historically, the City maintained running annual averages for trihalomethane (THM) below the limits for all quarters from 2005 to 2007, as shown in Table 1. Haloacetic acid (HAA) treatment was not evaluated in detail because

Continued on page 30

Figure 1. Distribution System Layout

City of Sanford - Cover Article

American Water Works Association Opflow *(National publication)*



Distribution

C. Robert Reiss, Kelcia Mazana, James Murin, and Christophe Robert are with Reiss Engineering, Inc. (www.reissengineering.com), Orlando, Fla. Harold Nantz is assistant public works director for the city of Melbourne, Fla. Paul Schumi is marketing and sales director with WACHS Water Services, Lincolnshire, Ill.

When US water utilities flush their distribution system hydrants in response to customer complaints about water quality, the process usually improves localized water quality only temporarily. Unidirectional flushing provides a long-term solution because it uses a higher velocity and flushes from a potable source outward.

BY C. ROBERT REISS, HAROLD NANTZ, KELCIA MAZANA, PAUL SCHUMI, JAMES MURIN, AND CHRISTOPHE ROBERT

UNIDIRECTIONAL FLUSHING ENHANCE WATER QUALITY AND IMPROVE CUSTOMER RELATIONS

UNLIKE REACTIONARY HYDRANT flushing, unidirectional flushing (UDF) is a methodical approach to distribution system and water quality maintenance. UDF involves design sequences to open and close valves and hydrants for the entire system, resulting in flushing from the potable water source outward. Reactionary flushing—conducted by utilities in response to customer complaints—usually doesn't achieve velocities sufficient to remove loose pipe deposits. UDF sequences achieve higher velocities in target pipes through closing selected distribution valves to isolate specific areas, allowing the flush to properly scour and remove deposits from distribution system piping. UDF uses system information and hydraulic calculations to achieve unidirectional flow patterns and high velocities, usually between 5 and 10 ft/s. The high velocity removes corrosion-related debris and accumulated sediments. In addition, by initiating flushing activities at a clean source, such as a water treatment plant, and flushing away from the clean source one isolated piping segment at a time—unidirectionally—the possibility of reintroducing debris into a previously flushed pipe is minimized.

City of Melbourne - Cover Article

Awards & Recognition

2014 Central Florida eWeek Outstanding Engineering Project of the Year

for the Water Cooperative of Central Florida (STOPR)
Cypress Lake Transmission Project

2014 Earle B. Phelps Award

for Seminole County's Greenwood Lakes WRF

2013 FSAWWA Best Paper Award

for the City of Sanford

6) Past Performance with Clients

The Reiss Team understands that the various assignments under this contract will have individual, but interrelated schedules and budgets and staff priorities. To promote success, our Team employs a philosophy of extensive communication with City personnel to fully understand and realize the scope and expectations for each assignment. Reiss has a long history of successful projects primarily due to our ability to integrate goals and objectives of various client departments and levels, including management engineering, and operations. Our references will attest to our approach that promotes solicitation of input from all stakeholders, and eliminates the “ivory tower” delivery method that some firms utilize.

In the following pages, we have included letters of recommendation from several of our clients that serve as a testament to Reiss’ strong history of proving high quality engineering services to our clients that are delivered on time and on budget.

CITY OF CLEARWATER

POST OFFICE BOX 4748, CLEARWATER, FLORIDA 33758-4748
MUNICIPAL SERVICES BUILDING, 100 SOUTH MYRTLE AVENUE, SUITE 220, CLEARWATER, FLORIDA 33756
TELEPHONE (727) 562-4750 FAX (727) 562-4755

ENGINEERING DEPARTMENT

July 16, 2014

RE: Letter of Recommendation

To Whom It May Concern:

On behalf of the City of Clearwater Engineering Department, I write this letter with the highest recommendations for Reiss Engineering, Inc. regarding the effective quality engineering support provided on our Reservoir No. 2 Brackish Water Treatment Plant Expansion Miscellaneous Engineering and Construction Services project.

While working on this project, Reiss Engineering has maintained responsibility for engineer of record, technical design, and construction services for four (4) Water Treatment Plant No. 2 projects listed below.

- Remote Well Facilities Expansion
- Raw Water Transmission Main US19 Crossing
- Raw Water Transmission Main Expansion
- Reverse Osmosis Water Treatment Plant Expansion

In addition to the reverse osmosis, ozone, raw water wells, and pipeline designs, some unique components of the project included working on a small site and minimizing odor to a neighboring apartment complex, incorporating additional storage and chemical facilities on site, Convault fuel tank design, emergency generator, deep well concentrate disposal, and assessing impacts to the distribution system using hydraulic model simulations. Reiss Engineering continues to meet the schedule commitments and maintain open and effective communication on this project. Overall, their team is built of experienced, trusted, and dedicated employees and I would not hesitate to hire them again for a future project.

If you have any questions or need any additional information, please feel free to contact me at (727) 562-4608.

Sincerely,

Robert S. Fahey, P.E.
Utilities Engineering Manager

City of Melbourne

900 E. Strawbridge Avenue • Melbourne, Fl 32901 • (321) 727-2900 • Fax (321) 953-6207

August 25, 2014

RE: Letter of Recommendation

To Whom It May Concern:

On behalf of the City of Melbourne, I am pleased to write this letter of recommendation for Reiss Engineering, Inc. (REI) regarding the quality engineering support that they have provided on the following projects:

- Wastewater Collection/Transmission Master Plan
- Water System Master Plan Update
- RO Concentrate Discharge Permitting

The REI team consists of experienced and dedicated employees that are capable of performing quality technical tasks for a variety of services. They are always responsive and take great pride in their work while maintaining an appropriate schedule. They are capable of completing complex tasks while providing leadership and direction. Overall, the team is great to work with and meshes well with City Staff in a true 'team" effort. The City continues to utilize their services on both a continuing consulting and project-specific basis. If you have any questions, please do not hesitate to contact me at (321) 608-5000.

Sincerely,

Harold C. Nantz

Harold C. Nantz, P.E.
Assistant Public Works & Utilities Director

CITY OF PORT ST. LUCIE
UTILITY SYSTEMS DEPARTMENT
900 SE Ogden Lane
Port St. Lucie, FL 34983
(772) 873-6400 - TDD Accessible
(772) 873-6405 - Fax
Jesus A. Merejo, Director

July 16, 2014

Reiss Engineering, Inc.
Planning Design Construction
1016 Spring Villas Pt.
Winter Springs, Florida 32708

RE: Letter of Recommendation

To Whom It May Concern:

On behalf of the City of Port St. Lucie Utility Systems Department, I write this letter with the highest of recommendation for Reiss Engineering, Inc. (Reiss) regarding the quality engineering support that they have provided for us for over 10 years. We have worked with Reiss' staff on several projects in the past find them to be responsive, innovative, reliable, and professional. They have proven themselves knowledgeable in all aspects of utilities we have completed together.

The Reiss team takes great care in the work they do while staying on task and within the schedule. They have shown the ability to perform complex tasks while providing leadership and direction. In addition Reiss' team consists of experienced, dedicated, and loyal employees that are capable of performing quality technical tasks for a variety of services.

My staff and I have been pleased with the quality, responsiveness, and value we continue to receive from the Reiss staff. We look forward to continue working with Reiss in the future as the City of Port St. Lucie continues to grow.

Sincerely,

Brad E. Macek
Assistant Director

BEM/mbm

copy: Jesus A. Merejo, Director

MAILING ADDRESS
CITY OF SANFORD
POST OFFICE BOX 1788
SANFORD, FLORIDA 32772-1788

•

PHYSICAL ADDRESS
CITY HALL
300 NORTH PARK AVENUE
SANFORD, FLORIDA 32771-1244

•

TELEPHONE
407.688.5100

FACSIMILE
407.688.5114

WEBSITE
WWW.SANFORDFL.GOV

•

•

UTILITY DEPARTMENT

City of Sanford Utilities Department
300 North Park Avenue
Sanford, Florida 32771

March 12, 2014

Re: Letter of Recommendation
To Whom It May Concern:

On behalf of the City of Sanford Utilities Department, I write this letter with the highest of recommendation for Reiss Engineering, Inc. (Reiss) regarding the quality engineering support that they have provided since 2007. Reiss' staff is responsive, innovative, reliable, professional, and I have found them to be extremely knowledgeable in the aspects of utility projects we have completed together.

Reiss' innovative techniques and technologies were instrumental to the development and calibration of the City's potable water hydraulic model which provided foresight to the City regarding potable water treatment improvements and distribution system infrastructure to ensure compliance to the current and future state and federal requirements. They also assisted the City in justifying federal grant and state revolving funds of approximately $20 million dollars which funded key projects for the City.

Reiss' realistic and effective solutions facilitated minimizing cost and maximizing the return on investment in our projects such as: the strategic pipe replacement selection and certified engineering inspection services; pipeline maintenance unidirectional flushing program computer aided design; potable water distribution system compliance planning; and Auxiliary Water Treatment Plant upgrade design technical reviews.

My staff and I have been pleased with the quality, responsiveness, and value we continue to receive from the Reiss staff. We look forward to continue working with Reiss in the future as the City of Sanford continues to grow. If you have any questions or require any additional information, please feel free to contact me at 407-688-5106.

Sincerely,

Paul Moore

Paul Moore, P.E.
Utility Director

SEMINOLE TRIBE OF FLORIDA

ANTHONY OSCEOLA
Public Works Director

3107 North State Road 7
Hollywood, FL 33021

Phone: (866) 625-5376

Fax: (954) 989-1172

Email: publicworks@semtribe.com

July 15, 2014

RE: Letter of Recommendation

To Whom It May Concern:

On behalf of the Seminole Tribe of Florida, I write this letter with the highest of recommendation for Reiss Engineering, Inc. (Reiss) regarding the effective quality engineering support that they have on the following projects:

- Big Cypress Water Treatment Plant improvements.
- Brighton and Immokalee Facility improvements.
- Immokalee Capacity Evaluation
- Big Cypress Water Treatment Plant Chemical improvements.

The Reiss team consists of experienced, dedicated, and loyal employees that are capable of performing quality technical tasks for a variety of services. They are always responsive and take great pride in their work while maintaining an appropriate schedule. They are capable of completing complex tasks while providing leadership and direction. Care was taken to provide a reasonable budget and maintain effective designs. Overall the team was great to work with and there would be no hesitation in using them for future projects.

Sincerely,

Anthony Osceola
Director of Public Works
866-625-5376

SOUTH SEMINOLE & NORTH ORANGE COUNTY WASTEWATER TRANSMISSION AUTHORITY

410 Lake Howell Road Maitland, FL 32751-5907

August 13, 2014

RE: Letter of Recommendation

To Whom It May Concern:

It gives me great pleasure to write this "Letter of Recommendation" for Reiss Engineering Inc. (REI). Since 2009, REI has been a trusted partner for the South Seminole & North Orange County Wastewater Transmission Authority (SSNOCWTA). REI has continually met schedule and budget commitments, while delivering the quality results they have promised. Some of the various wastewater engineering services REI has provided to SSNOCWTA include:

- Design, engineering, and construction inspection services for force main repairs and replacements. Pump station repairs, maintenance, and rehabilitations;
- Engineering services as requested regarding general system conditions, operation, and maintenance, including semi-annual pump station functional tests;
- Engineering services as required for pump station upgrades and improvements;
- Hydraulic modeling;
- Master Plan updates and the design and implementation of a CIP program;
- Preparation of grants and permits to construct and maintain sections of the transmission system;
- Engineering services as required during emergencies, including, but not limited to, loss of power, pump station overflows, outside contractor impacts, and infrastructure issues.

REI is a quality service provider that has a team \ common sense approach to resolving issues. We have enjoyed working with their personnel and continue to be impressed with their enthusiasm and expertise. We look forward to continually work with REI on future projects.

Sincerely,

Ed Gil de Rubio
Executive Director
(407) 628-0153

Reiss Engineering Projects Completed or Ongoing Over Last Five (5) Years

Name of Project	Owner	Total Contract Value	Contracted Date of Completion	Percent Completion to Date	Project ID
Stormwater Certification	Ameri-Clean Pumping, Inc.	2,500.00	11/20/09	100%	104001
SLWSD ROWTF Redundancy & Expansion Project	Baskerville Donovan	23,530.00	10/31/12	100%	125001
Water Quality Evaluation	Baskerville Donovan	35,000.00	10/31/12	100%	125002
ROWTF Conceptual Engineering	Baskerville Donovan	20,950.00	12/31/12	100%	125003
St Lucie West RO WTP Expansion and Retrofit	Baskerville Donovan	68,900.00	04/30/13	100%	125004
SLWSD Distribution System Corrosion Evaluation	Baskerville Donovan	21,500.00	05/31/13	100%	125005
SLWSD Redundancy and Expansion Project Phase 3 (CEI Services)	Baskerville Donovan	36,410.00	03/11/14	100%	125006
Distribution Water Quality Modeling (B&V #133010.0340)	Black & Veatch	335,940.00	08/31/10	100%	0904
Water Quality Technical Review	Brevard County	13,480.00	07/15/12	100%	126001
Treatment Alternative Evaluation	Brevard County	34,500.00	09/30/12	100%	126002
Infrastructure Asset Evaluation of the Mims Public Water System	Brevard County	56,110.00	04/30/13	100%	126004
Comprehensive Analysis & Testing of Process Parameters	Brevard County	22,500.00	12/26/12	100%	126003
Mims WTP Facility and Treatment Improvements	Brevard County	24,860.00	09/25/13	100%	126006
Mims Water Treatment Plant Chemical Feed System Improvements	Brevard County	99,463.00	10/14/14	100%	126007
Well Facility Replacements	Brevard County	162,665.00	01/01/15	11%	126008
Feasibility Study for RWRF	City of Altamonte Springs	7,850.00	01/31/12	100%	8902
Altamonte-Sanlando Reclaimed Water Trans Main Eng Support	City of Altamonte Springs	15,000.00	04/30/12	100%	8903
Sanitary Sewer Inflow & Infiltration Manager	City of Altamonte Springs	79,742.00	09/30/12	100%	8901
Potable and Reclaimed Water Systems Master Plan and Hydraulic Model Update	City of Altamonte Springs	163,840.00	02/12/13	100%	8904

Name of Project	Owner	Total Contract Value	Contracted Date of Completion	Percent Completion to Date	Project ID
ST Johns River Water Management District Cooperative Funding Application and Con	City of Altamonte Springs	18,220.00	03/28/14	100%	8908
Crane's Roost Reuse Storage and Retrieval - System Valve Automation & Instrument	City of Altamonte Springs	13,614.00	06/03/13	100%	8906
Cranes Roost Pump Station and Force Main Upgrades	City of Altamonte Springs	220,457.00	02/22/15	92%	8907
I&I Field Work Implementation Plan Program Management	City of Altamonte Springs	152,295.00	12/31/14	77%	8909
Little Wekiva River Force Main Replacement Design/Build	City of Altamonte Springs	311,738.00	04/20/15	18%	8910
Integrated Membrane System WTP Addition	City of Bowling Green	1,038,200.00	04/30/11	100%	3504
EPA UDSE Report Prep	City of Bowling Green	7,500.00	11/30/09	100%	3505
Operations Assistance	City of Bowling Green	51,710.00	01/31/13	100%	3506
New Raw Water Intake Facilities	City of Bowling Green	232,800.00	11/01/15	50%	3508
Computer Hydraulic Model Services	City of Casselberry	58,800.00	05/31/10	100%	9901
Water Quaility Master Plan & Capital Improvement Plan Update	City of Casselberry	134,000.00	03/31/12	100%	9904
Unidirectional Flushing Program_Design	City of Casselberry	63,700.00	05/12/11	100%	9903
GAC Pilot Testing	City of Casselberry	36,750.00	01/31/13	100%	9905
Wastewater Transmission Master Plan	City of Casselberry	37,480.00	12/31/12	100%	9907
Seminola Pump Station Basin Study	City of Casselberry	7,500.00	06/30/13	100%	9910
Reclaim Water Future Demand Modeling	City of Casselberry	17,390.00	03/31/14	100%	9912
Elm Drive Lift Station Relocation	City of Casselberry	32,959.00	09/16/14	100%	9914
Hydropneumatic Tank Design	City of Casselberry	19,888.00	08/01/13	100%	9908
GAC Treatment Addition Design Services	City of Casselberry	233,220.00	10/31/13	100%	9909
WRF Aeration System Upgrade	City of Casselberry	56,342.00		84%	9906

Name of Project	Owner	Total Contract Value	Contracted Date of Completion	Percent Completion to Date	Project ID
WTP and WRF Control System Upgrades Design	City of Casselberry	55,115.04	12/19/14	79%	9911
Forest Brook Force Main Replacement	City of Casselberry	88,372.00	06/01/15	36%	9913
Post Design Services for WRF Aeration System Upgrade	City of Casselberry	39,270.00	03/28/15	22%	9906A
Seminola Force Main Replacement	City of Casselberry	104,372.00	05/15/15	43%	9915
Town Pond Stormwater Study	City of Clearwater	46,500.00	10/31/10	100%	102002
Morningside Water Qualiry and Modeling	City of Clearwater	89,000.00	03/31/10	100%	102001
Morningside UDF Program	City of Clearwater	42,400.00	05/31/12	100%	102004
Town Pond Chemical Process Assessment	City of Clearwater	67,400.00	12/31/10	100%	102003
Citywide Potable Water System Evaluation	City of Clearwater	75,300.00	02/28/11	100%	102005
RO WTP #2 PO# ST107146	City of Clearwater	3,771,509.34	06/01/13	100%	102006
Reclaimed Water Hydraulic Model Development	City of Clearwater	49,400.00	05/14/12	100%	102007
Potable Water Distribution System Interconnect Evaluation	City of Clearwater	28,300.00	02/28/13	100%	102010
Reclaimed Water Distribution System Operations Protocol	City of Clearwater	98,900.00	03/11/13	100%	102011
Edgewater Area Water Quality Improvement Modeling	City of Clearwater	13,065.00	08/07/13	100%	102013
Potable Water Distribution System Supply Reduction Impact Analysis	City of Clearwater	40,800.00	01/31/14	100%	102014
Town Pond Modifications	City of Clearwater	294,569.00		83%	102008
CEI RO @ WTP 1-4 Contracts	City of Clearwater	2,476,009.00	12/31/14	83%	102012
WWTP Permit Renewal	City of Davenport	2,450.00	11/30/10	100%	103003
RaceTrac	City of Davenport	2,450.00	03/31/10	100%	103002
Development Review for Race Trac Gas Station	City of Davenport	2,450.00	12/31/11	100%	103005

Name of Project	Owner	Total Contract Value	Contracted Date of Completion	Percent Completion to Date	Project ID
Collection and Treatment	City of Davenport	786,920.00	05/03/11	100%	103001
Pre-Construction and Construction Engineering Services	City of Haines City	271,450.00	07/08/15	53%	117003
Eval & Final Design - Existing ATAD System at Northside WTP	City of Lakeland	4,210.00	08/31/10	100%	116001
Maitland Community Park WM Extension	City of Maitland	4,596.50	04/30/13	100%	130001
Concentrate Discharge Permit RAI Response - Phase 2	City of Melbourne	1,002,370.00	06/01/12	100%	5402
Water Syst Master Plan Update	City of Melbourne	289,400.00	01/31/10	100%	5410
SRF Application Phase II	City of Melbourne	45,000.00	06/30/10	100%	5413
Grant St. WWTF Permit Renewal	City of Melbourne	48,500.00	03/31/10	100%	5415
Renew DB Lee Operating Permit	City of Melbourne	39,000.00	06/30/10	100%	5416
Lift Station 6 I&I Reduction	City of Melbourne	97,450.00	06/01/12	100%	5417
Beaches Water Quality Investigation	City of Melbourne	24,910.00	04/30/12	100%	5418
Water Age Simulation Workshop	City of Melbourne	13,900.00	09/30/12	100%	5420
Elevated Water Storage Tank Removal FDEP Response	City of Melbourne	5,430.00	11/30/12	100%	5422
DO Station and Conc. Transfer Pump Design	City of Melbourne	80,900.00	12/31/13	100%	5421
Distribution Area Hydraulic Modeling & Water System Evaluation	City of Melbourne	21,200.00	07/16/13	100%	5423
DB Lee WRF Gravity Interceptor Feasibility Study	City of Melbourne	28,265.00	11/30/13	100%	5424
Distribution System Optimization Workshop	City of Melbourne	38,800.00	01/15/14	100%	5425
Water Treatment Plant Residual Study	City of Melbourne	17,000.00	02/28/14	100%	5426
Hydraulic Modeling As-Needed Services	City of Melbourne	35,000.00	12/04/14	100%	5429
Manatee Monitoring and Boat Traffic Monitoring for Discharge Permit	City of Melbourne	27,875.00	11/30/14	100%	5436

Name of Project	Owner	Total Contract Value	Contracted Date of Completion	Percent Completion to Date	Project ID
Hydraulic Modeling As Needed Services	City of Melbourne	35,000.00	10/17/15	100%	5438
North Booster Pump Station Pipeline Design	City of Melbourne	78,340.00	08/12/14	100%	5430
Water Treatment Plant Residual Alternative Evaluation	City of Melbourne	31,500.00	06/17/14	100%	5432
Permit Renewal for RO Potable Water Byproduct Disposal Discharge Permit	City of Melbourne	50,800.00	09/08/14	100%	5433
Chlorine Residual Concentration Desktop Evaluation and Action Plan	City of Melbourne	36,830.00	08/08/14	100%	5434
Potable Water By-Product Disposal Discharge Permit Compliance	City of Melbourne	539,950.00	05/01/15	61%	5419
Water Treatment Plant Chemical Storage Tank Replacement Design	City of Melbourne	89,000.00	01/31/15	91%	5428
DO Station and Concentrate Transfer Pumps Construction Engineering Services	City of Melbourne	79,632.00	06/30/15	68%	5427
WTP Residual Beneficial Reuse Bid Spec	City of Melbourne	7,000.00	11/24/14	50%	5435
Cross Connection Control Program Manual Update	City of Melbourne	98,960.00	04/20/15	2%	5437
Reuse Hydraulic Modeling - Prairie Lakes/Westwood	City of Ocoee	19,300.00	12/31/09	100%	6737
Reclaim HSP #4	City of Ocoee	24,600.00	11/30/10	100%	6740
City of Ocoee Engineering Services - Water/WW/Reclaimed Water System Reviews	City of Ocoee	11,363.02	02/01/14	100%	6707
Lake Butler Professional Campus	City of Ocoee	5,000.00	12/31/09	100%	6721
Marshall Farms Business Center	City of Ocoee	5,000.00	12/31/09	100%	6724
Glad Tidings	City of Ocoee	5,000.00	05/31/10	100%	6753
STAG Fuding Request	City of Ocoee	5,000.00	06/30/10	100%	6741
EPA Groundwater Rule	City of Ocoee	9,100.00	09/30/10	100%	6742
Reclaim Service Map	City of Ocoee	5,700.00	01/31/10	100%	6743
Wastewater Facility Plan	City of Ocoee	27,000.00	08/31/10	100%	6744

Name of Project	Owner	Total Contract Value	Contracted Date of Completion	Percent Completion to Date	Project ID
Stor Kwik	City of Ocoee	5,000.00	11/30/10	100%	6746
Central Sweeping	City of Ocoee	5,000.00	04/30/10	100%	6747
Sunspots	City of Ocoee	5,000.00	04/30/10	100%	6748
Reuse Feasibility Update	City of Ocoee	9,970.00	04/30/10	100%	6751
RT - Ocoee	City of Ocoee	5,000.00	05/31/10	100%	6750
Whitaker Towing	City of Ocoee	5,000.00	07/31/10	100%	6749
Update SL #22 Hydraulic Preliminary Design Report	City of Ocoee	2,700.00	10/31/10	100%	6754
WW Permit Appliction RAI Support	City of Ocoee	7,800.00	09/30/10	100%	6755
Classic Smiles	City of Ocoee	5,000.00	11/30/10	100%	6756
Western Force Main	City of Ocoee	11,900.00	06/30/11	100%	6757
Misc Engineering Services	City of Ocoee	10,000.00	09/30/11	100%	6759
Lift Station #3	City of Ocoee	5,300.00	05/31/11	100%	6758
SR 50	City of Ocoee	10,000.00	05/31/11	100%	6752
FDEP 4 Log Monitoring Requirements	City of Ocoee	3,800.00	07/31/12	100%	6761
Ocoee North Reclaimed Water Expansion Plan	City of Ocoee	6,900.00	01/31/12	100%	6763
Ocoee Wholesale Reclaimed Water Service Area Feasibility Study	City of Ocoee	7,700.00	04/12/12	100%	6764
Inflow and Infiltration	City of Ocoee	45,190.00	09/30/12	100%	6765
FDEP Flushing SOP & Logbook	City of Ocoee	7,500.00	11/09/12	100%	6766
Miscellaneous Engineering Services	City of Ocoee	3,802.50	02/01/14	100%	6769
LS 10 Replacement Hydraulic Engineering	City of Ocoee	6,535.00	12/13/13	100%	6771
Southwest Ocoee Service Area Water and Sewer Utilities	City of Ocoee	8,300.00	11/30/13	100%	6770

Name of Project	Owner	Total Contract Value	Contracted Date of Completion	Percent Completion to Date	Project ID
LS 10 Rehab Master Planning and Permiting	City of Ocoee	3,535.00	10/10/14	100%	6777
Downtown Ocoee Sewer Plan	City of Ocoee	21,500.00	05/18/14	100%	6772
2013 Reclaimed Feasibility Plan Update	City of Ocoee	6,600.00	03/03/14	100%	6773
Developmental Review	City of Ocoee	8,500.00	06/30/14	100%	6775
Lake Wood Master LS Hydraulic Engineering	City of Ocoee	13,875.00	01/30/15	0%	6778
Consumer Court LS Replacement Hydraulic Engineering	City of Ocoee	11,465.00	02/28/15	0%	6779
Update Current Ten Year Master Plan	City of Orange City	7,400.00	09/30/10	100%	8801
Engineering Services	City of Orange City	2,950.00	02/15/11	100%	8802
CIP Plan Update	City of Orange City	5,500.00	12/31/12	100%	8803
Fire Hydrant Feasibility Evaluation	City of Orange City	5,400.00	01/31/13	100%	8804
Potable Water Hydraulic and Fire Flow Evaluation	City of Orange City	21,400.00	03/02/13	100%	8805
Retreat Presentation for City of Port St Lucie	City of Port St. Lucie	1,795.00	08/31/10	100%	5512
Northport Service Area WW Model Calibration	City of Port St. Lucie	15,400.00	03/31/10	100%	5510
Prineville Membrane Replacement Pilot	City of Port St. Lucie	54,850.00	03/15/11	100%	5511
Update Master W, WW & Reclaimed Water	City of Port St. Lucie	19,510.00	4/30/2012	100%	5513
Bid Specification and Evaluation	City of Port St. Lucie	21,200.00	10/31/12	100%	5514
Concentrate Pipe Replacement	City of Port St. Lucie	15,710.00	03/31/13	100%	5515
Pilot Anti-Scale Chemical Delivery System	City of Port St. Lucie	27,490.00	12/19/13	100%	5516
Potable Water Distribution Quality Improvements	City of Sanford	86,200.00	08/05/11	100%	6610
Granular Activated Carbon Selection and Evaluation	City of Sanford	10,000.00	03/31/10	100%	6611
Sanford Water Quality Pipe Bursting Model	City of Sanford	2,499.00	09/30/10	100%	6612

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Disinfection By-Products Compliance Study	City of Sanford	88,000.00	05/31/11	100%	6613
Pipe Replacement Support	City of Sanford	89,500.00	08/31/11	100%	6614
Technical Review Services	City of Sanford	2,499.00	08/31/11	100%	6616
Hydraulic Modeling for Aux Plant	City of Sanford	27,900.00	08/31/12	100%	6615
Feasibility Analysis of NF Treatment at Aux WTP	City of Sanford	8,400.00	04/10/12	100%	6617
Tech Services for Hydraulic Modeling and Pipe Bursting	City of Sanford	44,800.00	05/31/12	100%	6618
ASR Well Alternative Feed Line	City of Sanford	7,410.00	05/18/13	100%	6620
Pipe Bursting Hydraulic Modeling	City of Sanford	237,615.00	03/31/14	100%	6619
Distribution System Water Quality Action Plan	City of Sanford	39,670.00	06/30/14	100%	6621
Supplemental Permitting for Water Treatment Plant No.1	City of St. Cloud	10,000.00	10/31/12	100%	4619
Potable Water Master Plan Update	City of St. Cloud	51,400.00	12/31/13	100%	4620
Cypress Lake Planning Preparation	City of St. Cloud	13,600.00	02/28/13	100%	4622
Water Treatment Process Assistance	City of St. Cloud	3,000.00	10/31/13	100%	4623-P
Wastewater and Non-Potable Water Master Plan	City of St. Cloud	73,800.00	05/30/13	100%	4621
Northeast Water Repump Station Optimization	City of St. Cloud	5,800.00	06/16/14	100%	4624
St. Pete Southside Water Conservation & Quality Optimization	City of St. Petersburg	10,362.00	11/30/09	100%	0304
Pasadena FM Hydraulic and Surge Analysis	City of St. Petersburg	22,157.00	03/31/13	100%	0305
Interbay CEI Services	City of Tampa	98,600.00	01/31/10	100%	0809
Potable Water Master Plan	City of Tampa	270,460.00	07/18/12	100%	0810
General Services Agreement - 2011 Water System Eng Report	City of Tampa	7,925.00	02/28/11	100%	0811
2011 Report on Water System Update	City of Tampa	5,000.00	08/31/11	100%	0812

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NPDES Permit Expert Witness	City of Tarpon Springs	24,500.00	09/30/10	100%	7303
Mourning Dove WTP Rehabilitation Evaluations	City Of Titusville	43,530.00	08/01/13	100%	131001
Specification, Bidding and Construction Services	City Of Titusville	54,530.00	09/30/14	100%	131002
Mourning Dove WSF Filter Rehabilitation	City Of Titusville	7,341.00	12/31/14	0%	131003
4-Log Virus Treatment	City of Vero Beach	7,000.00	05/31/13	100%	129001
Membrane Replacement Project	City of Vero Beach	72,200.00	06/01/14	100%	129002
RO WTF Expansion	City of Vero Beach	369,550.00	05/15/15	4%	129003
Potable Water Audit	City of Winter Haven	49,901.00	12/31/11	100%	121001
2012 Public Supply Annual Report	City of Winter Haven	4,480.00	04/01/13	100%	121002
Wastewater Management Guidance Manual	Cummins Inc.	45,000.00	10/31/11	100%	122001
Permit Renewal	Cummins Inc.	2,000.00	11/30/11	100%	122002
Aggreko	Emera	52,000.00	06/30/11	100%	119002
New Power Plant	Emera	75,000.00	12/31/11	100%	119001
Environmental Impact Assessment	Emera	22,161.50	12/31/11	100%	119003
Golden Gate Utility System	FGUA	10,464.00	06/30/11	100%	9401
Golden Gate & Lehigh Acres WWTP - Minor Permit Revisions	FGUA	4,242.00	12/31/11	100%	9402
Lindrick WTP Chloramine Conversion	FGUA	19,068.00	01/31/12	100%	9403
Lake Fairways WWTP Permit Renewal	FGUA	38,700.00	10/10/12	100%	9404
Lehigh WTP No.1 Filter Rehab	FGUA	7,707.00	08/31/12	100%	9405
Freese & Nichols Brown Co. WTP	Freese & Nichols, Inc.	10,000.00	10/31/09	100%	105001
Strategic Auto-Flusher Water Conservation Project	George F. Young, Inc.	90,327.00	02/28/11	100%	118001

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Pasadena Surge tank Design	George F. Young, Inc.	24,921.00	06/30/13	100%	118003
Pasadena Surge Tank Design Additional Services	George F. Young, Inc.	4,000.00	07/31/13	100%	118004
Cosme WTP Bypass Demonstration Test	Greeley & Hanson	65,230.00	11/30/12	100%	2302-P
COSME WTP Optimization	Greeley & Hanson	23,889.00	04/15/14	100%	2303-P
Regional WRF Alternative Evaluation/Feasibility Study	HDR Engineering, Inc.	80,895.00	01/31/11	100%	114001
Aeration System Improvements	HDR Engineering, Inc.	4,980.00	02/29/12	100%	114002
IBD QESC Project	Islands By Design	30,000.00	02/22/10	100%	9703-P
Consulting Services for Arawak Cay	Islands By Design	49,800.00	06/30/10	100%	9704
Los Alamitos Power Plant Water Quality Sampling	Malcolm Pirnie	7,500.00	02/28/10	100%	9601
InfoWater Model Development Training	Matthews Consulting, Inc	2,177.17	09/10/13	100%	132001
Reclaimed Water RRWP Facilities Hydraulic Analysis	Matthews Consulting, Inc	19,340.00	10/01/14	100%	132002
North Port RO WTP	McKim & Creed	224,000.00	12/31/10	100%	1408
Manatee County Surface WTP Improvements	McKim & Creed	28,000.00	12/31/09	100%	1409
Hydraulic Modeling Services	Orange County	52,000.29	11/30/10	100%	110001
Hydraulic Models Flow & Demand Update	Orange County	112,572.36	01/31/11	100%	110002
Reedy Creek WW Hydraulic Evaluation	Orange County	78,786.56	02/28/11	100%	110003
EWRF Preliminary Treatment Odor Control Concept Design	Orange County	34,460.00	08/31/12	100%	110008
Hydraulic and Water Quality Model Update	Orange County	153,817.00	01/24/13	100%	110009
SWRF_Influent Pump Station Pumps and Motors Replacement	Orange County	20,715.09	08/31/13	100%	110015
Master Pump Station Design, Permitting, Bidding & Const.	Orange County	140,177.34	01/10/14	100%	110006
Orange Avenue Pump Station #3190 Improvements	Orange County	50,004.21	10/19/14	100%	110021

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Hypochlorite Storage Improvements	Orange County	199,178.73	12/31/13	100%	110004
WQ Application Design and Implementation	Orange County	111,778.37	12/31/12	100%	110010
SWRF-Blower Air Filtration Enclosures	Orange County	30,123.02	01/22/14	100%	110012
SWRF-Preliminary Treatment Structure Odor Control System	Orange County	97,061.54	08/17/14	100%	110013
SWRF-Polymer Tanks Replacement	Orange County	34,808.88	06/06/14	100%	110014
Westwood Blvd 24-inch Water Main	Orange County	150,677.48	09/19/14	100%	110011
EWRF Generator Building Conversion	Orange County	41,239.70	10/19/12	100%	110016
Alafaya-University Wastewater Force Main Design	Orange County	77,257.56	09/01/14	100%	110007
Summerlake Park Blvd 30 Inch Force Main Project	Orange County	171,590.77	09/26/14	100%	110017
Electrical Panel and Controls Condition Assessment for Stormwater Pump Stations	Orange County	22,150.18	08/03/14	100%	110027
East Service Area Repump Facility	Orange County	745,879.95	01/25/16	84%	110005
Pump Station R/R Package 7 Improvements	Orange County	210,689.45	01/09/16	70%	110019
Pump Station R/R Package 8 Improvements	Orange County	162,560.61	06/16/16	25%	110020
NWRF Clarifier Improvements	Orange County	18,307.77	12/05/14	41%	110023
SWRF Sodium Hypochlorite Storage and Feed Systems	Orange County	264,895.84	04/06/17	17%	110022
Engineering Quality Control	Orange County	217,507.68	04/15/16	64%	110024
SWRF FOG Receiving Station	Orange County	180,548.92	05/28/16	32%	110025
Reclaimed Water Model Development	Orange County	133,974.00	04/03/15	48%	110026
Improvements to the Vistana Water Supply Facility	Orange County	256,236.19	10/01/16	13%	110029
Storey Park Utilities (aka Innovation Place) Project	Orange County	999,876.63	09/10/17	17%	110030

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South Water Reclamation Facility Pump Station Exp and Upgrades	Orange County	428,426.22	11/30/15	0%	110031
St. Cloud Treatment Operations Assistance	Osceola Engineering	20,000.00	12/31/10	100%	100002
Initial Distribution System Evaluation Report	Osceola Engineering	13,200.00	12/31/09	100%	100003
St. Cloud Wastewater and Reuse As-Needed Services	Osceola Engineering	16,225.00	10/31/10	100%	100004
Water Treatment Plant #1 and #2 Renovations	Osceola Engineering	597,920.00	03/24/11	100%	100001
Southport Park Wastewater Treatment Facility	Osceola Engineering	32,600.00	11/30/12	100%	100006
NE Booster Pump Change Order	Osceola Engineering	16,241.05	11/30/10	100%	100007
St. Cloud Hydraulic Model Update Potable Water System	Osceola Engineering	19,350.00	09/30/11	100%	100008
St. Cloud WTP No.1 Improvements	Osceola Engineering	145,598.00	08/31/13	100%	100009
Supplemental Water Supply Plan Continued Planning & Coordination - CSA 07-88-02	Polk County	218,021.00	09/30/12	100%	8502
Master Consulting Agreement	Polk County		12/31/12	100%	8500B
NWRUSA 80 MG Reservoir	Polk County	47,132.20	07/31/10	100%	8503
NWRUSA WWTF Rehabilitation	Polk County	45,233.33	08/31/10	100%	8504
Reclaimed Water ASR Feasibility Study	Polk County	29,740.00	02/28/11	100%	8505
NWRUSA WUP Permit Renewal	Polk County	45,906.00	10/31/12	100%	8509
SWFWMD Cooperative Funding Scope of Services	Polk County	14,000.00	06/30/12	100%	8510
NWWWTF Improvements	Polk County	245,358.97	05/30/14	100%	8506-C
NWRUSA ASR System Design	Polk County	937,470.88	01/13/17	69%	8508
LS#106 Rehabilitation	Polk County	191,393.00	10/01/15	26%	8512
Encina Desalination Pilot Operations	Poseidon Resources Corp	691,517.00	10/31/12	100%	0111 - P
Florida Seawater Desalination Market Analysis	Poseidon Resources Corp	35,000.00	08/31/11	100%	0113

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Water Quality Sampling at Potential FL Seawater Desal Site	Poseidon Resources Corp	98,000.00	01/31/13	100%	0114
Virgin Islands Water and Power Authority Water Distribution Capital Improvements	Public Resources Management Group, Inc.	25,000.00	11/21/12	100%	8302
City of Tampa Legacy Scope and Fee	Public Resources Management Group, Inc.	8,640.00	04/30/14	100%	8303
San Pasqual RO Demo	RBF Consulting	157,500.00	04/30/10	100%	6502
Reedy Creek submittal to FDEP	Reedy Creek Improvement District	19,500.00	06/30/10	100%	112001
Reclaimed Water System Analysis & Update	Reedy Creek Improvement District	47,417.00	02/29/12	100%	112002
Proposed Reclaimed Water High Service Pump Hydraulic Modeling	Reedy Creek Improvement District	4,000.00	12/14/12	100%	112003-P
Hydraulic Model Verification	Reedy Creek Improvement District	7,469.00	12/01/13	100%	112006
Buena Vista Drive Reclaimed Water Hydraulic Modeling	Reedy Creek Improvement District	5,594.00	12/01/13	100%	112007
Potable Hydraulic Modeling for Future Facilities	Reedy Creek Improvement District	3,289.50	12/01/13	100%	112008
Reclaimed Hydraulic Modeling	Reedy Creek Improvement District	2,079.50	12/01/13	100%	112009
RCID Reclaimed Water Systems Improvements 2013	Reedy Creek Improvement District	81,502.00	04/30/14	100%	112005
Wastewater Hydraulic Modeling for Future Orange County Flow	Reedy Creek Improvement District	6,850.00	11/30/14	0%	112010
Airport Industrial Park - Review drawings for Grinder Pump Station	Reiss Engineering Ltd.	1,600.00	02/28/10	100%	108001
Water & Sewerage - Elizabeth Harbour Study	Reiss Engineering Ltd.	19,900.00	05/17/10	100%	109001
Quarterly Population Reporting	Seminole County	8,000.00	12/31/12	100%	1226
Seminole County Greenwood Lakes	Seminole County	1,199,370.52	05/31/11	100%	1227
As Needed Services 2008	Seminole County	60,347.60	07/31/09	100%	1228
Country Club PDR	Seminole County	379,155.29	06/30/12	100%	1286
Jamestown Phase 2 Design and CEI	Seminole County	111,745.01	01/31/10	100%	1231

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As-Needed Services 2009	Seminole County	61,626.65	12/31/10	100%	1236
Reclaimed Water Master Plan Update	Seminole County	70,271.30	01/31/11	100%	1237
WW Effluent Disposal Plan Update	Seminole County	27,284.15	09/30/10	100%	1238
Yankee Lake Water Treatment Facility	Seminole County	1,638,303.00	11/30/11	100%	1235
Interim Master Plan Updates - Quarterly Est of Population	Seminole County	8,590.72	08/31/10	100%	1239
Greenwood Lakes WRF Services During Construction	Seminole County	659,806.07	09/26/12	100%	1240
IDSE Report Preparation	Seminole County	12,781.14	05/31/10	100%	1241
Water Conservation Program Assistance FY 2010	Seminole County	39,276.64	09/30/10	100%	1242
Jamestown Phase II	Seminole County	3,916.84	07/31/10	100%	1243
Reclaimed Water Tri-Party Agreement Implementation Plan	Seminole County	57,179.64	10/31/10	100%	1244
RWS Pressure Reduction Evaluation	Seminole County	22,494.10	09/30/10	100%	1245
Major Upgrades Water Quality Investigation SER	Seminole County	394,483.18	04/30/11	100%	1275
Country Club Well Design	Seminole County	229,128.90	04/30/12	100%	1278
Review Markham Design; Coordination with CMR; Site Evaluations	Seminole County	92,307.27	12/01/12	100%	1276
SER PDR	Seminole County	396,629.27	07/31/11	100%	1280
SER Pilot	Seminole County	683,612.16	05/31/11	100%	1279
Survey, Ecology and Site Boundary	Seminole County	113,496.68	01/31/11	100%	1277
As Needed Services 2011	Seminole County	49,684.60	09/30/11	100%	1246
Quarterly Population Estimation	Seminole County	8,590.72	08/31/11	100%	1247
HSP Improvements	Seminole County	96,558.30	08/31/12	100%	1282
Water Conservation Program Assistance 2011	Seminole County	39,505.40	08/31/11	100%	1248

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NE Water Quality Modeling, Sampling & Testing	Seminole County	275,935.92	12/21/11	100%	1283
SER WTP Ozone Final Design	Seminole County	2,146,162.29	01/31/13	100%	1284
Country Club Pilot Testing	Seminole County	245,342.68	04/30/12	100%	1285
Country Club WTP Design	Seminole County	1,546,016.07	11/30/12	100%	1287
Markham WTP Bromate Assistance	Seminole County	12,350.42	05/31/12	100%	1290
SE Service Area Unidirectional Flushing Program Design	Seminole County	383,647.95	02/28/13	100%	1249
Seminole County Environmental Services Department	Seminole County	14,437.84	04/30/13	100%	1251
Lynwood Well	Seminole County	177,211.54	12/01/10	100%	1281
SER EOR Service During Construction	Seminole County	1,056,037.98	04/30/14	100%	1289
Lynwood WTP PDR	Seminole County	182,416.47	06/19/13	100%	1292
Lynwood WTP Design	Seminole County	475,882.56	11/30/13	100%	1293
Country Club WTP Services During Construction	Seminole County	1,076,309.10	06/28/14	100%	1291
NESA UDF Project	Seminole County	162,884.65	09/30/13	100%	1252
Greenwood Lakes Power Easement Master Pump Station NESA WW Systems Imp.	Seminole County	95,611.62	06/16/14	100%	1296
Lynwood WTP Major Upgrades SDC	Seminole County	510,297.52	05/22/15	59%	1294
Greenwood Lake WRF R&R	Seminole County	167,404.82	03/30/15	47%	1295
NWSA UDF Program Management	Seminole County	246,795.76	12/31/14	28%	1253
Yankee Lake Plant Concentrate Management Conceptual Evaluation	Seminole County	59,381.75	03/31/15	10%	1297
Indian Health Services Funding Applications	Seminole Tribe of Florida	60,000.00	07/31/14	100%	128008
Big Cypress Water Treatment Plant Improvements	Seminole Tribe of Florida	192,568.25	10/31/14	100%	128003

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Brighton Water Treatment Plant Improvements - PO#10-8517-1	Seminole Tribe of Florida	123,547.00	10/31/14	100%	128004
Immokalee Water Treatment Plant Improvements PO#10-8519-1	Seminole Tribe of Florida	67,779.50	10/31/14	100%	128005
Big Cypress Temporary Sulfuric Acid Design	Seminole Tribe of Florida	17,250.00	08/31/14	100%	128010
Big Cypress Raw Water Well Hydraulic Analysis	Seminole Tribe of Florida	16,480.00	08/23/14	100%	128009
Brighton Temporary Sulfuric Acid Design	Seminole Tribe of Florida	7,000.00	10/30/14	100%	128011
Immokalee WTP Chemical Improvements Services During Construction	Seminole Tribe of Florida	130,950.00	04/20/15	0%	128013
Brighton Chemical Improvements Services During Construction	Seminole Tribe of Florida	133,850.00	04/20/15	0%	128014
Hollywood Reservation Water System Master Plan Review	Seminole Tribe of Florida	19,650.00	11/27/14	97%	128015
Big Cypress WTP Pilot Testing	Seminole Tribe of Florida	18,365.00	01/31/15	0%	128016
Wastewater Pump Station Hydraulic Modeling	South Seminole North Orange County	69,700.00	05/31/10	100%	106002
Facility Evaluation Criteria and CIP Update	South Seminole North Orange County	15,000.00	10/31/13	100%	106006
SR436/Red Bug Lake Road Flyover	South Seminole North Orange County	258,705.70	10/08/13	100%	106003
Force Main Investigation, Analysis and Testing Phase Services	South Seminole North Orange County	42,160.00	11/30/12	100%	106004
Wastewater Pump Station & Transmission System Capacity Assessment & Improvement	South Seminole North Orange County	47,800.00	12/31/13	100%	106005
Emergency Response for Citrus and Tangerine	South Seminole North Orange County	11,500.00		93%	106012
Interlachen Force Main Relocation and Coordination	South Seminole North Orange County	1,900.00		97%	106013
Generator Installation for Deer Run, Lake of Aloma & WIlla Springs Lift Station	South Seminole North Orange County	44,985.00	01/30/15	88%	106007
Five Points and Consumer PS Improvements	South Seminole North Orange County	76,280.00	12/10/15	0%	106015
Eagle Circle Force Main Replacement	South Seminole North Orange County	179,152.00	01/30/15	67%	106008
Sagittarius Pump Station Design and Construction	South Seminole North Orange County	16,975.00	02/27/15	36%	106009

Name of Project	Owner	Total Contract Value	Contracted Date of Completion	Percent Completion to Date	Project ID
Force Main Testing, Analysis and Testing Phase Services	South Seminole North Orange County	54,730.00	11/30/14	7%	106011
Interlachen Force Main Replacement	South Seminole North Orange County	120,660.00	05/30/15	0%	106014
Aloma Ave. and Dean Rd. Gravity Main Improvements	South Seminole North Orange County	41,740.00	02/28/15	0%	106016
NPDES Renewal Permit Application for TBW Desal Facility	Tampa Bay Water	30,500.00	03/21/12	100%	123001
Ammonia Options Study	Tampa Bay Water	108,526.00	08/31/14	100%	123002
Little Wekiva River Force Main Replacement Design Build	TB Landmark Construction	30,086.00	01/20/14	100%	133001
Hydraulic Model Training	Toho Water Authority	9,500.00	06/30/13	100%	6303
Cypress Lake Potable Water Transmission Optimization and Interconnect Project	Toho Water Authority	1,161,477.40	08/31/14	100%	6302
Poinciana Revisions to the Phase I Water Wheeling Plan	Toho Water Authority	9,000.00	12/31/13	100%	6304
Lift Station Design & Permitting	Victory Baptist Church	10,950.00	06/30/11	100%	120001
Breezewood Water Treatment Plant Improvements	Volusia County	38,800.00	02/28/10	100%	7404
Glen Abbey WTP	Volusia County	87,750.00	09/30/11	100%	7405
Rehabilitation of WW Lift Stations SE #12 and SW #23	Volusia County	30,100.00	12/31/13	100%	7406
Oviedo Odor Control Design Build	Wharton-Smith	33,200.00	05/31/13	100%	127001
North Tampa Water Improvements	Wharton-Smith	98,660.00	12/15/13	100%	127002

Federal Standard Form 330

ARCHITECT – ENGINEER QUALIFICATIONS

PART I – CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATION *(City and State)*

General Professional Engineering Services (Coconut Creek, Florida)

2. PUBLIC NOTICE DATE	3. SOLICITATION OR PROJECT NUMBER
10/19/2014	RFQ NO. 11-19-14-10

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE

Lance R. Littrell, P.E. / Client Services Manager

5. NAME OF FIRM

Reiss Engineering, Inc.

6. TELPHONE NUMBER	7. FAX NUMBER	8. E-MAIL ADDRESS
(786) 416-0427	(954) 337-2835	lrlittrell@reisseng.com

C. PROPOSED TEAM

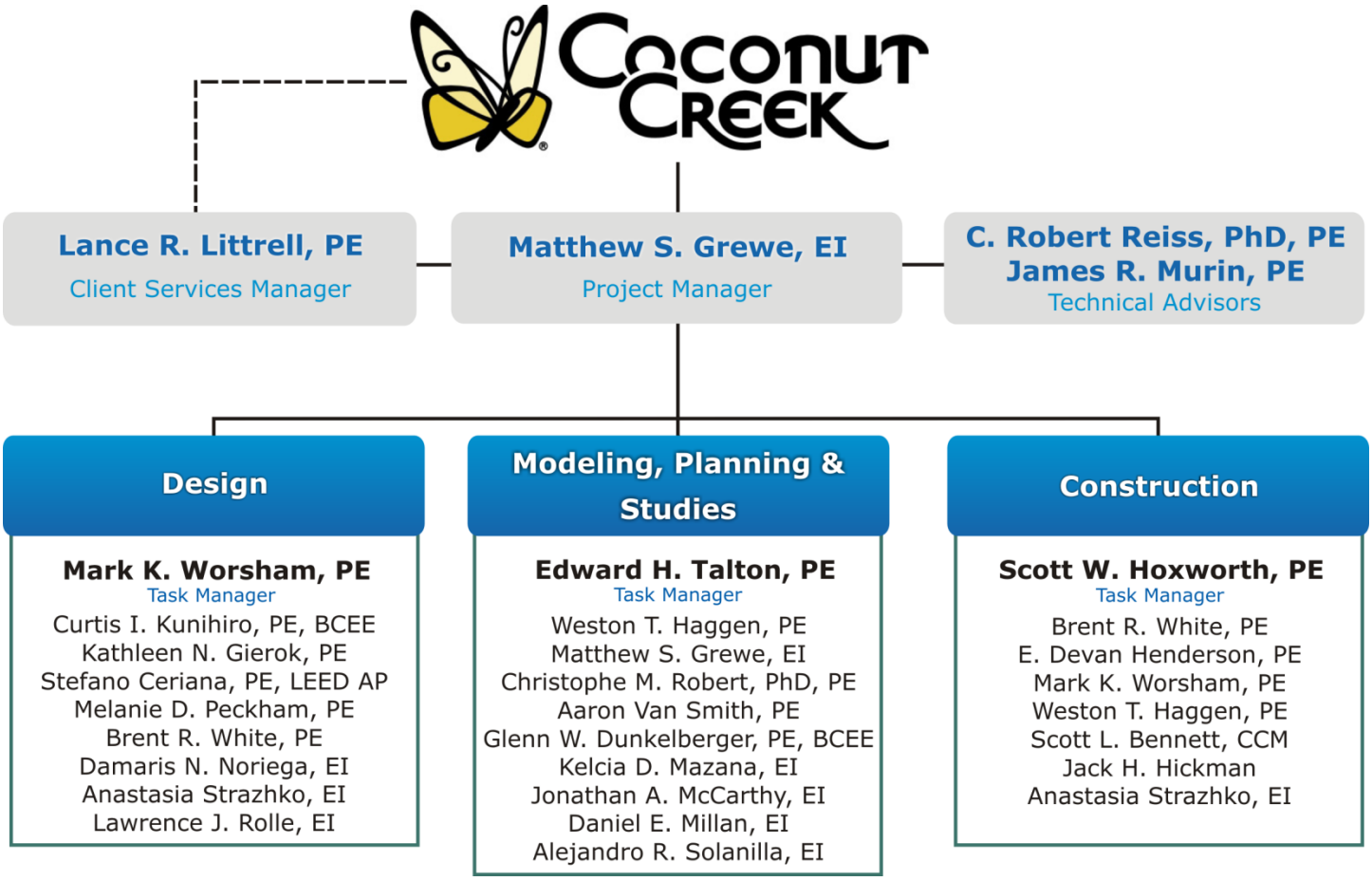
(Complete this section for the prime contractor and all key subcontractors.)

	(Check) PRIME	(Check) J-V PARTNER	(Check) SUBCON-TRACTOR	9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
a.	X			**Reiss Engineering, Inc.** [X] CHECK IF BRANCH OFFICE	1451 W. Cypress Creek Rd., Ste. 300 Ft. Lauderdale, FL 33309	Planning, Design, and Construction Administration Engineering Services
b.				[ ] CHECK IF BRANCH OFFICE		
c.				[ ] CHECK IF BRANCH OFFICE		
d.				[ ] CHECK IF BRANCH OFFICE		
e.				[ ] CHECK IF BRANCH OFFICE		
f.				[ ] CHECK IF BRANCH OFFICE		
g.				[ ] CHECK IF BRANCH OFFICE		
h.				[ ] CHECK IF BRANCH OFFICE		

D. ORGANIZATIONAL CHART OF PROPOSED TEAM ☑ *(Attached)*

AUTHORIZED FOR LOCAL REPRODUCTION

ORAGANIZATIONAL CHART



E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS OF EXPERIENCE a. TOTAL	b. WITH CURRENT FIRM
Lance R. Littrell, P.E.	Client Services Manager	13	9

15. FIRM NAME AND LOCATION (City and State)

Reiss Engineering, Inc. (Ft. Lauderdale, FL)

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.S. Mechanical Engineering **M.B.A. Business Administration**	**Professional Engineer (Florida No. 65645)**

18. OTHER PROFESSIONAL QUALIFICATIONS ***(Publications, Organizations, Training, Awards, etc.)***

Mr. Littrell has 13 years of experience concentrated in the mechanical arena of the environmental engineering field. In addition to Contract Management, Mr. Littrell's experience includes the design, project management, construction oversight and fabrication of Reverse Osmosis and Ultrafiltration water treatment plants for municipal utilities.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED: PROFESSIONAL SERVICES	(2) YEAR COMPLETED: CONSTRUCTION *(If applicable)*
30 MGD Rangeline Water Treatment Plant, Water Repump Station Phase I *(Port St. Lucie, FL)*	2006	2009

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Manager involved in the design, permitting, QA/QC review, bidding and construction inspection services for the initial phase of the water treatment plant. Rangeline WTP will be constructed in multiple phases in an effort to address this population growth and provide initial treated water capacity for the western area. Phase I will consist of an initial storage and repump facility which includes a 4.0 MG ground storage tank, high service pump building, providing emergency power/generator building, and construction of chemical storage and feed facilities to allow disinfectant addition. Also included within the design is the stormwater collection and treatment system. Engineering services for later phases of the Rangeline WTP project will involve the expansion of the treatment plant to 30 MGD including reverse osmosis treatment processes and high service pumping capacity.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED: PROFESSIONAL SERVICES	(2) YEAR COMPLETED: CONSTRUCTION *(If applicable)*
Midport Water Repump Station (*Port St. Lucie, FL)*	2007	2009

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Engineer involved in the design, permitting, QA/QC review, bidding and construction inspection. The project included a new storage tank, added pumping capacity, tank mixing system, chemical feed systems, and upgraded controls systems to fill and monitor the storage and repump station.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED: PROFESSIONAL SERVICES	(2) YEAR COMPLETED: CONSTRUCTION *(If applicable)*
Seminole Tribe Immokalee Membrane Replacement Evaluation (*Immokalee, FL)*	2013	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Manager for review and membrane verification services prior to the full-scale membrane replacement at the Immokalee Water Treatment Plant (WTP). Services performed included, a desktop evaluation of both membranes using the existing water quality data, an anti-scalent dosing review using the existing water quality data, preparation of a technical memorandum identifying findings.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED: PROFESSIONAL SERVICES	(2) YEAR COMPLETED: CONSTRUCTION *(If applicable)*
WTP Treatment Plant Chemical System Improvements *(Brighton, FL)*	Ongoing	Ongoing

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Manager for 1.6 million gallons per day (MGD) Brighton Seminole Indian Reservation Water Treatment Plant (WTP) project involving the Replacement of the exisiting injection assembly with new chemical injectors, as well as new chemical control panel designed and incorporated into the WTP's exisitng control system to address some major safety and operational concerns associated with the chemical storage and injection systems. Bulk tanks, chemical transfer pumps, sulfuric injection piping, new secondary containment and chemical pavilion for exterior bulk storage areas were all designed. Reiss is currently in progress to begin Construction oversite for this project.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS OF EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Matthew S. Grewe, E.I.	Project Manager	6	6

15. FIRM NAME AND LOCATION (City and State)

Reiss Engineering, Inc. (Ft. Lauderdale, FL)

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
M.S. Environmental Engineering **B.S. Environmental Science**	**Engineer Intern (FL No. 1100018700)**

18. OTHER PROFESSIONAL QUALIFICATIONS ***(Publications, Organizations, Training, Awards, etc.)***

Mr. Grewe has over 6 years of experience in wastewater process design, hydraulic modeling, pilot studies, ground water supply development, risk based asset priortization, report writing, data management and water, wastewater and reclaimed water master planning for a variety of municipal and government projects in water treatment. Mr. Grewe's experience and capability in hydraulic/water quality modeling is engrained from having completed multiple water quality modeling/calibrations, assisting utilities throughout Florida in optimizing operations, as well as mitigating nitrification within potable water distribution systems. Mr Grewe is also an industry leader in Unidirectional Flushing (UDF), having completed design and implementation for 7 UDF programs, in the State of Florida. This expertise has allowed Mr. Grewe to learn how use the simulation of hydraulic modeling as a tool that can be applied into real world applications, such as; determining the optimial pressure settings for a distribuiton system, the operations and water quality of tank or how pump stations operate against one another.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Unidirectional Flushing Pilot Program Design ***(St. Petersburg, FL)***	2013	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Engineer for a unidirectional flushing program for the southern region of the City's water distribution service area to address water quality. The Project included a pilot design of a UDF program for a small area of the City and coordination of flushing activities. The area of design included a 20-inch water main, which was flushed successfully. Responsibilities included project management, UDF design criteria development, UDF design and customized flushing reports developed using MS Access.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Unidirectional Flushing Program Implementation ***(Melbourne, FL)***	2010	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Engineer for a unidirectional flushing program implementation project to address increased customer complaints. Responsibilities include program management planning, zone prioritization, public notification planning, hydraulic analyses, sequences design and map updates and report development.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Water Quality Master Plan Update and Capital Improvement Plan ***(Casselberry, FL)***	2012	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project manager responsible for preliminary design, design, permitting, bidding, and construction services for a bulk sodium hypochlorite storage and feed system to replace gas chlorination, a 7.5-million gallon ground storage tank, transfer pump station, automatic strainers, high service pumps, stormwater treatment systems, other site improvements, and communication and control through SCADA at Toho Water Authority's Parkway WRF.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Water, Wastewater and Reuse Master Plan ***(Port St. Lucie, FL)***	2012	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Engineer for completing an update to the City's utilities master plan to evaluate the utilities growth over the next 15 years. GIS and hydraulic modeling were used locate future development needs and cost effectively.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS OF EXPERIENCE a. TOTAL	b. WITH CURRENT FIRM
C. Robert Reiss, Ph.D., P.E.	Technical Advisor	22	16

15. FIRM NAME AND LOCATION (City and State)

Reiss Engineering, Inc. (Winter Springs, FL)

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Ph.D. Environmental Engineering **M.S.E. Environmental Engineering** **B.S.E. Environmental Engineering**	**Professional Engineer (Florida, No. 53794)**

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Dr. Reiss has been involved with advanced water and wastewater treatment systems including membrane technologies for the past 22 years. His experience includes detailed design, process engineering, and technical review of membrane treatment systems including seawater, groundwater, and fresh surface water systems. This experience includes microfiltration, ultrafiltration, nanofiltration, and reverse osmosis technologies. In addition, he has similar experience with conventional coagulation systems, media filtration, and other advanced treatment technologies. Dr. Reiss has worked extensively with fouling mitigation of membrane processes. He has participated in work evaluating advanced pretreatment processes to mitigate NF/RO fouling, for surface water, groundwater, and seawater treatment.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Brackish Reverse Osmosis (RO) WTP #2 *(City of Clearwater, FL)*	2012	Ongoing

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Principal-in-Charge for the design of the City's new 6.25 MGD RO WTP #2, approximately $30M construction cost. The objectives of the project are to conserve water, produce high water quality from brackish and fresh ground water, and design a state-of-the-art RO facility. The design of the plant incorporates two treatment trains. The brackish groundwater blended with the concentrate from the City's RO WTP #1 is treated via RO to reduce the salt concentration and the 5.25 MGD of permeate is then ozonated to oxidize the sulfides. The freshwater is oxidized with chlorine and then filtered to remove the iron and is then blended with the ozonated permeate. As the freshwater has a relatively hard hardness and alkalinity, the blending of the freshwater and permeate resulting in stable water after minimum post-treatment. Treatment of the concentrate from RO WTP#1 was an innovative approach to conserve water.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Tampa Bay Water Desal I Design Retrofit *(Tampa, FL)*	2006	2008

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Principal-In-Charge of permitting for design modifications of Tampa Bay Waters 25 MGD seawater reverse osmosis WTP, as part of American Water/Pridesa team. Changes include addition of coagulation, sedimentation and diatomaceous earth filtration.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Water Treatment Plant No. 2 Process Design And Review *(Sanford, FL)*	2012	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Principal-in-Charge for an ozonation and granular activated carbon design process review. The project included assisting in the review of design drawings to ensure acceptable sizes, capacities, retention times, loading rates, and associated performance-related criteria.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Seminole County Major WTP Upgrades *(Seminole County, FL)*	2014	2014

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Program Project Manager for the complete delivery of two $25M Water Treatment Plant Improvement and project including development testing design and construction of treatment upgrades for two of the county's major water treatment plants.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS OF EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
James R. Murin, Jr., P.E.	Technical Advisor	22	9

15. FIRM NAME AND LOCATION (City and State)

Reiss Engineering, Inc. (Winter Springs, FL)

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
M.S.E. Environmental Engineering **B.S. Civil Engineering**	**Professional Engineer (Florida, No. 64103)**

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Mr. Murin has over 22 years of experience in potable water and wastewater treatment, with a primary focus on process design, testing, and troubleshooting. Projects include clients from municipal, industrial, and governmental sectors. He has served as Project Manager on numerous projects ranging from small-scale technical reviews to larger multi-discipline studies.

Mr. Murin's experience includes performance of biological and physical/chemical treatability studies, drinking water and wastewater process conceptual designs, membrane treatment testing and preliminary design, pollutant source detection studies, arsenic removal studies and process design, and wastewater treatment process evaluations.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Comprehensive Water Supply Plan *(Polk County, FL)*	2009	Ongoing

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

QA/QC Reviewer for formal water supply plan, and associated documents, prepared in conjunction with Polk County Utilities and the 17 City-owned utilities within the County.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Greenwood Lakes WRF Improvements *(Seminole County, FL)*	2012	2012

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Principal-in-Charge: Provided mechanical system design and expansion of a 3.5 MGD wastewater reclamation facility. Process improvements included advanced nitrogen removal, installation of deep-bed filtration, and enhancement of aeration system and controls.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Wastewater Treatment Plant Expansion Design *(Live Oak, FL)*	2006	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Manager: In support of prime consulting firm in the design of expanded wastewater treatment facilities.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Wastewater Master Plan *(Seminole County, FL)*	2008	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Manager: Responsible for development of wastewater collection, transmission, treatment and disposal 25-year master plan for County, included numerous modeling, treatment evaluation, and CIP planning tasks.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS OF EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Edward H. Talton, Jr., P.E.	Hydraulic Modeling, Planning & Studies Task Manager	25	14

15. FIRM NAME AND LOCATION (City and State)

Reiss Engineering, Inc. (Winter Springs, FL)

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
M.S.E. Environmental Engineering	**Professional Engineer (Florida No. 47023)**
B.S.E. Environmental Engineering	

18. OTHER PROFESSIONAL QUALIFICATIONS ***(Publications, Organizations, Training, Awards, etc.)***

Mr. Talton has been involved with water, wastewater and reuse project development and design, advanced water treatment (membranes), facilities planning, hydraulic modeling, pipeline/ pump station design, leachate management and permitting for the past 25 years. His experience includes ground and surface water supply development and treatability, reverse osmosis (RO) facility design, water, wastewater and reuse master planning, implementation support work including CIP and mapping updates, WTP site acquisition, operational optimizations, hydraulic modeling and development review. Mr. Talton's expertise in master planning and hydraulic/water quality modeling runs deep having completed major master plans, water quality modeling/calibration to mitigate nitrification, distribution operations optimizations, wastewater model calibrations, and risk based asset prioritization. Mr. Talton has completed a comprehensive reuse master plan and wastewater force main hydraulic model (1,500 miles of pipe and over 900 pump stations) for Miami-Dade Water and Sewer Authority, and master planning and hydraulic modeling services for Orange County Utilities, Seminole County, Brevard County, and Cities of Tampa, Lakeland, St. Petersburg, Port St. Lucie, St. Cloud, West Palm Beach, Orange City and Ocoee. Preliminary design experience includes municipal and industrial water and wastewater treatment facilities including microfiltration and nanofiltration water treatment systems, and powdered activated carbon activated sludge leachate treatment facility, and wastewater capacity re-rates.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Unidirectional Flushing Pilot Program Design *(St. Petersburg, FL)*	2013	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Completed a unidirectional flushing program for the southern region of the City's water distribution service area to address water quality. The Project included a pilot design of a UDF program for a small area of the City and coordination of flushing activities. The area of design included a 20-inch water main, which was flushed successfully. Responsibilities included project management, UDF design criteria development, UDF design and customized flushing reports developed using MS Access.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Water Quality Modeling & Optimization *(Orange County, FL)*	Ongoing	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Upgraded OCU's hydraulic model with water quality modeling capabilities, field calibrated, and used the model to optimize water age, disinfectant residuals and DBPs. Performed quality and capacity modeling to support design of new 17 mgd ground water treatment facility. Developed GIS-Model Integration Plan to support conversion to distribution level water quality modeling.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Water, Wastewater and Reuse Master Plan *(Port St. Lucie, FL)*	2012	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Manager for a water delivery, wastewater collection and reuse utilities master plan to address an expanding service area, evaluate CIP, and assess the capacity and reliability of key existing infrastructure.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Inflow & Infiltration Reduction *(Melbourne, FL)*	2012	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Manager. Provided desktop I&I evaluation, gravity pipe flow metering, smoke testing, and coordination of City CCTV crew to identify and prioritize I&I sources for remediation efforts.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS OF EXPERIENCE a. TOTAL	b. WITH CURRENT FIRM
Mark K. Worsham, P.E.	Design Task Manager	29	9

15. FIRM NAME AND LOCATION (City and State)

Reiss Engineering, Inc. (Winter Springs, FL)

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.S. Civil Engineering **B.S. Agricultural Engineering**	**Professional Engineer (Florida No. 63729)**

18. OTHER PROFESSIONAL QUALIFICATIONS ***(Publications, Organizations, Training, Awards, etc.)***

Mr. Worsham has 29 years of experience in the design and construction of water and wastewater projects, and in project management for clients from municipal, industrial, and governmental sectors. His areas of focus in the water/wastewater field have included mechanical designs, distribution system analyses, permitting, troubleshooting and preparation of studies and reports. Mr. Worsham's experience encompasses oversight of mechanical system designs, review of electrical and control system design, project and construction management for water system projects; hydraulic and water quality modeling for distribution system analyses; oversight and assistance with groundwater withdrawal and other permit applications; feasibility and rate studies and Preliminary Engineering Reports. Mr. Worsham's expertise also lies in the design of well systems, water treatment systems, pumping systems, chemical feed systems and storage/distribution systems. He has performed engineering relating to the operation of over 130 separate water supply systems and several wastewater systems including pump replacement design, treatment system modification and design, and distribution system program management as well as regulatory compliance of the systems.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED PROFESSIONAL SERVICES	(2) YEAR COMPLETED CONSTRUCTION *(If applicable)*
Infrastructure Asset Evaluation of the Mims Public Water System *(Brevard County, FL)*	2013	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Manager for the assessment of the Mims Water Treatment Plant (WTP) and associated distribution system facilities existing infrastructure integrity and condition for identification of repair and replacement costs which will be necessary over the next 10 years. Services included project administration, data collection and review, field investigations, asset evaluations.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED PROFESSIONAL SERVICES	(2) YEAR COMPLETED CONSTRUCTION *(If applicable)*
Country Club Water Treatment Plant Services During Construction *(Seminole County, FL)*	Ongoing	Ongoing

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Engineer for the planning, design and services during construction to support the County's mission of ensuring compliance with the future DBP rules. Reiss Engineering completed the design of the improvements to the CC WTP, and was selected by the County as Construction Manager At Risk (CMAR) to perform the construction of the improvements, including providing support services during construction of the improvements to the CC WTP that are required for compliance with the future DBP rules, and completing the construction in accordance with the associated FDEP permits and the Contract Documents, and for REI, the Engineer of Record, to sign and seal record drawings. Services include, observation of construction, submittal of permit certifications, preparation of record drawings, and review of field change orders.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED PROFESSIONAL SERVICES	(2) YEAR COMPLETED CONSTRUCTION *(If applicable)*
Rangeline RO Water Treatment Plant, Phase 1 (*Port St. Lucie, FL*)		

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Engineer for the mechanical system design and design team coordination for the storage and re-pump phase of a 10 MGD RO water treatment facility, expandable to 30 MGD.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED PROFESSIONAL SERVICES	(2) YEAR COMPLETED CONSTRUCTION *(If applicable)*
Midport Water Repump Station (*Port St. Lucie, FL*)	2007	2009

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Manager for the mechanical system design and design team coordination for upgrading a 10 MGD water pumping facility including a new 2 million gallon storage tank.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS OF EXPERIENCE a. TOTAL	b. WITH CURRENT FIRM
Curtis I. Kunihiro, P.E., BCEE	Project Engineer	36	3

15. FIRM NAME AND LOCATION (City and State)

Reiss Engineering, Inc. (Winter Springs, FL)

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.S. Chemical Engineering	**Professional Engineer (Florida No. 33688)**

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Mr. Kunihiro specializes in civil engineering projects and has served as a professional engineer in the areas of municipal water and wastewater treatment facilities.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED PROFESSIONAL SERVICES	(2) YEAR COMPLETED CONSTRUCTION *(If applicable)*
South Bermuda WRF Primary Clarifier Cover and Odor Control, Tohopekaliga Water Authority *(Kissimmee, FL)*	2010	2010

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Project Manager responsible for design, bidding, permitting, and construction administration for primary clarifier cover, odorous air ductwork, and odor control system for Toho Water Authority's South Bermuda WRF, a 14-mgd advanced secondary facility. The existing preliminary treatment structure, where influent screening occurs, and the existing primary clarifier, where scum and grit removal occur, were identified previously as significant sources of odor. Although the preliminary treatment structure was covered and had a packed tower for odor control, the packed tower was small and odorous air was escaping from air intake vents at the downstream end of the preliminary treatment structure. This project included an evaluation of hydrogen sulfide concentrations at both the preliminary treatment structure and at the primary clarifier, identified the air withdrawal rates from both structures, designed the cover over the primary clarifier, odorous air ductwork, and a packaged biofilter system to handle hydrogen sulfide removal. Performance tests showed that the odor control system lowered the hydrogen sulfide concentration in the odorous air from 10 ppm/v to less than 0.1 ppm/v.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED PROFESSIONAL SERVICES	(2) YEAR COMPLETED CONSTRUCTION *(If applicable)*
Polk County NWR WWTF Rehabilitation *(Polk County, FL)*	2014	2014

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Manager for the design, permitting, and bidding of the rehabilitation improvements for Polk County's 3-MGD Northwest Regional Wastewater Treatment Facility Upgrades.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED PROFESSIONAL SERVICES	(2) YEAR COMPLETED CONSTRUCTION *(If applicable)*
Eastern Water Reclamation Facility Phase V Improvements *(Orange County, FL)*	2013	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Project Manager responsible for preliminary design services to expand treatment capacity from 19 to 24-MGD AADF capacity including a new preliminary treatment structure, supplemental diffused aeration, blower building, secondary clarifier, new disk filters, new chlorine contact chambers, two effluent pumping stations, reject and reject-return pumping stations, bulk sodium hypochlorite storage and feed system, guard station, and site/civil improvements. Preliminary design services included an evaluation of wastewater disinfection technologies including, bulk sodium hypochlorite solution, onsite generation of sodium hypochlorite, and ultraviolet disinfection for 24- and 40-MGD AADF capacities.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED PROFESSIONAL SERVICES	(2) YEAR COMPLETED CONSTRUCTION *(If applicable)*
Parkway Water Reclamation Facility Upgrades, Tohopekaliga Water Authority *(Kissimmee, FL)*	2008	2008

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Project Manager responsible for preliminary design, design, permitting, bidding, and construction administration for upgrades to Toho Water Authority's existing 1.5-MGD Parkway WRF. The upgrades included replacing the influent screen and grit remover equipment, refurbishing aerobic digester tanks, replacing aeration system in the aerobic digesters, replacing electrical gear, providing a SCADA network with remote communication, and replacing two small generators with one generator sized to meet higher power demands from planned reclaimed water improvements. The WRF stores and supplies reclaimed water for public access reuse in the service area. Team worked together with TWA's Construction Manager at Risk to implement this project.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS OF EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Stefano Ceriana, P.E., LEED® AP	Project Engineer	14	<1

15. FIRM NAME AND LOCATION (City and State)

Reiss Engineering, Inc. (Winter Springs, FL)

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
M.S.E. Engineering **B.S. Civil/Environmental Engineering**	**Professional Engineer (Florida No. 66379)** **LEED® Accredited Professional** **NASSCO PACP/MACP/LACP Certification No. 06-12441**

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Mr. Ceriana is a project manager in the Winter Springs, Florida office of Reiss Engineering. He brings an extensive knowledge of water and wastewater utility projects including pipeline design (pressure and gravity), and lift station design. His expertise is comprised of project management duties ranging from project start-up, preliminary/final design, execution, and construction administration. His background includes utility system planning, permitting processes, use of CAD and GIS systems, resident project representation, and the use of hydraulic modeling software for planning and design purposes. Mr. Ceriana holds a National Association of Sewer Service Companies (NASSCO) certification in manhole and pipeline condition assessment (MACP and PACP respectively).

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Wastewater Hydraulic Modeling *(Inverness, FL)*	2012	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Project Manager for development, construction and calibration of a dynamic hydraulic wastewater model. Services included coordination with surveyor to obtain as-built data, analysis of current system infrastructure, identification of deficiencies, and evaluation of capacities within the system. Modeling was coupled with a limited physical assessment of manholes and lift stations using Manhole Assessment Certification Program (MACP) to rate defects. Based on the results from the modeling and field assessment, a detailed report of findings was created and recommendations made for collection system improvements.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Infiltration/Inflow Study *(Belmont, MA)*	2003	2004

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Project Engineer for services including field investigations, dry weather sampling/analysis, dye testing, internal house inspections, review of sewer and drain CCTV tapes using NASSCO standards. Study found illicit system connections (sewer service connections tied into stormwater system) and gravity pipe defects, which lead to creation of a rehabilitation program for sewer and drain lines using in-situ and lining technologies.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Dean Road 42-inch Force Main Relocation *(Orange/Seminole County, FL)*	On-going	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Manager for Dean Road Widening Utility Relocation by Seminole County Public Works Department. The widening of Dean Road impacts the existing 42-inch PVC force main owned by the South Seminole North Orange County Wastewater Transmission Authority (SSNOCWTA). The project consisted of preparing a Preliminary Design Report (PDR) to evaluate the potential impacts to the existing 42-inch PVC force main. The PDR provided two alternative options. The PDR recommend the force main be relocated to minimize traffic loads over the top of the existing force main piping, to allow for future operation and maintenance, and to use the timing of the current roadway project to instead of incurring additional future costs.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Citrus Springs Force Main *(Citrus County, FL)*	2013	2014

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Project Manager for the preliminary design report (PDR), hydraulic modeling, surveying, final contract documents and permitting services. The PDR evaluated the decommissioning of a small WWTP and interconnection with the County wastewater system. PDR evaluated three piping alternatives and future connections/flows, costs, pipe sizing, constructability, and phasing for each alternative. Final design included new master lift station, pump and piping upgrades to two (2) existing lift stations and over 28,000-LF of 8-inch force main.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS OF EXPERIENCE a. TOTAL	b. WITH CURRENT FIRM
Kelcia D. Mazana, E.I.	Project Engineer	14	11

15. FIRM NAME AND LOCATION (City and State)

Reiss Engineering, Inc. (Winter Springs, FL)

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
M.S.E. Environmental Engineering **B.S.E. Environmental Engineering**	**Engineer Intern (Florida No. 1100007027)**

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Ms. Mazana is a Project Engineer with over 14 years of experience concentrated in environmental engineering and environmental studies. Her experience includes unidirectional flushing program development, hydraulic and water quality modeling, design, potable water audits, pilot studies, report development, data management and master planning for a variety of municipal and government projects in water treatment.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED PROFESSIONAL SERVICES	(2) YEAR COMPLETED CONSTRUCTION *(If applicable)*
Water System Master Plan Update Project (Melbourne, FL)	2010	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Manager for a water delivery master plan to address an expanding service area, evaluate CIP, assess the capacity and reliability of key existing infrastructure, and investigating SRF opportunities. Master Plan components consist of potable water storage and delivery, high service pumping and transmission/ distribution piping for the entire City limits.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED PROFESSIONAL SERVICES	(2) YEAR COMPLETED CONSTRUCTION *(If applicable)*
Technical Services for Hydraulic Modeling and Pipe Bursting-Construction Oversight (Sanford, FL)	2012	2012

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Client Manager for construction oversight project including updates to the hydraulic model with the upgraded pipes, as well as providing documentation of the distribution system water quality improvements which resulted from the selected pipe replacement projects. This project involved using the updated model to ensure the recommended improvements resulted in water quality improvement and to maximize treatment chemicals, water, and energy savings through the City's flushing program. Scope also included performing project administration services for the project and development of a pipe bursting water quality sampling protocol that include the locations and samples to be collected before (pre) and after (post) pipe bursting. Project includes construction oversight on pipe bursting to ensure that installations are representation of the hydraulic modeling connections and sizing. This sub-task includes one REI staff in the field for up to 6 hours per month for up to 15 months.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED PROFESSIONAL SERVICES	(2) YEAR COMPLETED CONSTRUCTION *(If applicable)*
Reclaimed Water Distribution System Operations Protocol (Clearwater, FL)	2011	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Manager for a reclaimed water distribution system operations protocol to maximize the available reclaim water while minimizing valving and high service pump operations to improve energy efficiency. Protocol components consist of verifying operations, developing and simulating viable operations alternatives for the dry (peak) and wet (low) seasons, documenting selected alternatives, and providing training prior to implementing the selected operations. Protocol development utilizes extended period (24-hour) and steady state simulations. Responsibilities include project management and quality control reviews.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED PROFESSIONAL SERVICES	(2) YEAR COMPLETED CONSTRUCTION *(If applicable)*
North Booster Pump Station Pipeline Design (Melbourne, FL)	Ongoing	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Manager for a re-pump station pipeline design to improve filling and hydraulic operations. Designs included hydraulic impacts evaluation, 60 and 90 percent reviews, specifications, permitting with State, County, and City departments, and bidding services. The project included 1,450 and 1,800 feet of piping, a new flow control valve to fill, and positioning new water hydrants.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS OF EXPERIENCE a. TOTAL	b. WITH CURRENT FIRM
Scott W. Hoxworth, P.E.	Construction Task Manager	16	11

15. FIRM NAME AND LOCATION (City and State)

Reiss Engineering, Inc. (Winter Springs, FL)

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
M.S.E. Environmental Engineering **B.S.E. Environmental Engineering**	**Professional Engineer (Florida No. 58643)**

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Mr. Hoxworth has 16 years of experience in the water, wastewater, and reclaimed water fields. His experience encompasses the design, construction, start-up, and operation of water and wastewater treatment facilities; water, wastewater, and reclaimed water pipelines; stormwater systems; and lift/pump stations. He also has expertise pilot-scale membrane water treatment systems and pilot-scale and full-scale groundwater remediation systems in solid waste with landfill closure design, construction oversight and permitting.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED PROFESSIONAL SERVICES	(2) YEAR COMPLETED CONSTRUCTION *(If applicable)*
Brackish Reverse Osmosis Water Treatment Plant #2 Construction Administration Services *(Clearwater, FL)*	2012	Ongoing

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Engineer for construction administration services to complete the construction of the water treatment plant, remote well facilities, and raw water transmission main projects in accordance with the associated FDEP permits and the construction Contract Documents, and for REI, the Engineer of Record, and associated sub-disciplines to certify the construction to FDEP and sign and seal Record Drawings.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED PROFESSIONAL SERVICES	(2) YEAR COMPLETED CONSTRUCTION *(If applicable)*
Southeast Regional WTP *(Seminole County, FL)*	2014	2014

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Construction Engineer providing support services during the construction of major upgrades to Seminole County's Southeast Regional Water Treatment Plant, including an ozone treatment system addition, GAC filtration system, sodium hypochlorite feed system, transfer pump station, and high service pump station modifications.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED PROFESSIONAL SERVICES	(2) YEAR COMPLETED CONSTRUCTION *(If applicable)*
RO WTP Expansion Design *(St. Lucie West, FL)*	2013	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Engineer for the design of 3.4 MGD treatment process expansion of a reverse osmosis water treatment plant treating brackish groundwater from the lower Floridian aquifer. Design included energy recovery turbo-boost and high efficiency membranes.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED PROFESSIONAL SERVICES	(2) YEAR COMPLETED CONSTRUCTION *(If applicable)*
WTP NO. 1 Improvements *(St. Cloud, FL)*	2013	2013

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Construction Engineer providing support services during the construction of major upgrades to St. Cloud's Water Treatment Plant No. 1.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS OF EXPERIENCE a. TOTAL	b. WITH CURRENT FIRM
Brent R. White, P.E.	Project Engineer	6	3

15. FIRM NAME AND LOCATION (City and State)

Reiss Engineering, Inc. (Winter Springs, FL)

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.S.E. Civil Engineering	**Professional Engineer (Florida No. 75588)**

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Mr. White has 6 years of experience in consulting and water resources. He has experience in the areas of hydraulic analyses, pump station design, preliminary engineering studies, process engineering, stormwater system design, preliminary design reports, and construction administration & inspection.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED: PROFESSIONAL SERVICES	(2) YEAR COMPLETED: CONSTRUCTION *(If applicable)*
Water Treatment Plant Major Upgrades, Southeast Regional Water Plant *(Seminole County, FL)*		

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Engineer for major upgrades to the Southeast Regional Water Treatment Plant. Prepared preliminary design report detailing proposed improvements for submittal to FDEP. Prepared plans, calculations, specifications, and cost estimates for plant upgrades, which include: ozone treatment system addition, granular activated carbon filtration system, sodium hypochlorite feed system, transfer pump station, and high service pump station modifications. Engineer of record service tasks included review and approval of submittals, response to RFIs, issuing field orders, review and approval of work change proposals, onsite construction inspection and coordination with contractor to achieve design intent during construction.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED: PROFESSIONAL SERVICES	(2) YEAR COMPLETED: CONSTRUCTION *(If applicable)*
Cranes Roost Pump Station and Force main Upgrades *(Altamonte, FL)*	2013	2014

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Engineer for services including, preliminary design, hydraulic modeling, pump station, force main and reclaimed main design docs, final design docs, permitting, bidding and construction administration services for the replacement of an existing stormwater pump station serving Crane's Roost. The new pump station included four (4) new variable frequency drive stormwater pumps designed to supplement the reclaimed water supply to the City as well as an provide an emergency stormwater discharge to the Little Wekiva River. The project also included the design of a remote flow control station to split flow between the reclaimed water facility and the Little Wekiva River. Approximately 1,000 feet of 16-inch stormwater force main was designed along State Road 436. The additional reclaimed water will ultimately provide reclaimed water to the City of Apopka. This project is part of a collaborative effort including Florida Department of Transportation (FDOT), Florida Department of Environmental Protection (FDEP), and the SJRWMD to meet this goal.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED: PROFESSIONAL SERVICES	(2) YEAR COMPLETED: CONSTRUCTION *(If applicable)*
Water Treatment Plant # 2 Expansion - Design, Permitting, and Bidding Services *(Clearwater, FL)*		

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Engineer for performing preliminary design and cost estimates for conceptual post reverse osmosis ozone treatment process alternative. Performed preliminary design for transfer and deep injection well pump stations.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED: PROFESSIONAL SERVICES	(2) YEAR COMPLETED: CONSTRUCTION *(If applicable)*
Prineville Membrane Replacement Pilot Study *(Port St. Lucie, FL)*		

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Project Engineer for the design and construction of a new concentrate discharge pipeline at the Prineville Water Treatment Facility. The design included an above and below ground stainless steel pipeline designed to replace a temporary solvent welded PVC pipeline installed by the City.

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: 1

21. TITLE AND LOCATION *(City and State)*

Strategic Auto-Flusher Water Conservation Project
(St. Petersburg, FL)

22. YEARS COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2013	N/A

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
City of St. Petersburg, FL	Mr. David Abbaspour, P.E.	(727) 892-5382

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

The City provides water, wastewater, and reclaimed water service to meet the needs of its 250,000 citizens. The City aggressively expanded its reclaimed water usage reducing demands for potable water, as reclaimed water has replaced potable water as the source for irrigation for customers with access to the reclaimed water distribution system. This reduction of irrigation using potable water in areas with reclaimed service available led to increased water age in the potable water distribution system, as localized potable demands were significantly reduced. Increased water age in the potable distribution system poses a number of challenges to water quality, including increased potential to form disinfection byproducts (DBPs), problems with taste and odor, and nitrification.

To optimize delivered water quality to customers and reduce flushing water volumes, the City implemented the Strategic Auto-Flusher Water Conservation Project Program. The project was accomplished in two phases: In Phase 1 new automatic flushing assemblies were implemented and seasonal conversion of 4 of the City's parks from reclaimed to potable water for irrigation purposes that showed reduced: in flushing, nitrification sampling, customer complaints, and City water distribution manpower and equipment usage.

In Phase 2, a pilot uni-directional flushing (UDF) program was implemented in a historically low chloramine residual area of the City. The pilot demonstrated that the UDF was effective in cleaning the pipes including the 20-inch transmission main. Turbidity profiles devised during this project supported the flushing effectiveness conclusions. Flushing turnovers of 3 to 6 pipe volumes produced very low turbidity water, again indicating effectiveness of the flushing to clean upstream pipes. Overall, the pilot program demonstrated that the City could utilize UDF as an effective tool to help clean and maintain water distribution and transmission mains. As part of Phase 2, the action plan was updated so the City may continue to provide high quality potable water at the tap.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Reiss Engineering, Inc.	Winter Springs, FL	Subconsultant
b.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: 2

21. TITLE AND LOCATION *(City and State)*

Hydraulic Modeling Services
(Orange County, FL)

22. YEARS COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Ongoing	N/A

23. PROJECT OWNER'S INFORMATION

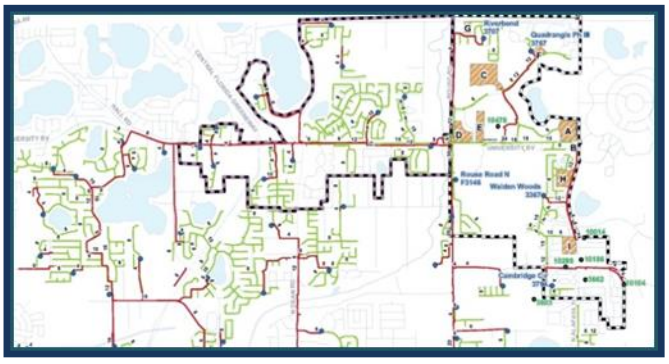
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Orange County, FL	Mr. Brandon Bryant, P.E.	(407) 254-9920

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Reiss Engineering is providing hydraulic modeling services to Orange County Utilities (OCU) to update, operate, and utilize potable water, wastewater, and reclaimed water system hydraulic models for planning and conceptual design purposes. OCU has customers in four major water service areas: East, West, South, and Lake John Shores, as well as several smaller consecutive systems. OCU staff maintains and utilizes a hydraulic model to help efficiently plan, operate, and expand its potable water transmission system to their customers.

The engineering services provided by Reiss included utilization of hydraulic models to support utilities planning, including recommendation of capital improvements projects (including cost estimates), design, operation, and regulatory compliance. Services included in the overall hydraulic modeling services contract include:

1. System Data Management and Documentation
2. Update/Enhancement of Hydraulic Model Models
3. Field Troubleshooting Evaluations
4. Hydraulic Surge Evaluations
5. Hydraulic Model Field Calibration and Verification
6. System Optimization Evaluations
7. Minor Hydraulic Engineering Analysis
8. Alternative Water Supply Extended Period Water Quality Analysis



Reiss brings a unique level of knowledge with respect to the OCU's water distribution system hydraulic model, making integration of all models more seamless as this project is executed. Reiss developed and implemented the hydraulic and water quality verification protocol for obtaining field measurements and correlating the field measurements with the outputs from the water hydraulic model. Adjustments to the model were made based on field measurements to accurately simulate the existing system conditions. Reiss verified the OCU model for hydraulic (flows and pressure) and water quality (water age and chlorine residual) predictions to within plus or minus 10 percent accuracy in all hydraulic locations, and most water quality locations. There were roughly six water quality locations out of sixty that required further investigation. The verification was performed using extended period simulations to include intraday variations. Reiss discovered and made numerous improvements to the hydraulic model during the verification effort.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Reiss Engineering, Inc.	Winter Springs, FL	Prime Consultant
b.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: 3

21. TITLE AND LOCATION *(City and State)*

Unidirectional Flushing Program Implementation
(Melbourne, FL)

22. YEARS COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2010	N/A

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
City of Melbourne, FL	Mr. Harold Nantz	(321) 608-5000

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT ***(Include scope, size, and cost)***

The City of Melbourne completed its initial unidirectional flushing effort to improve the water quality of the City's distribution system. Due to the positive results in lowering customer complaints and improving the water quality throughout the system, the City requested that additional services related to the UDF program be administered. Reiss Engineering was selected to design a formal Unidirectional Flushing (UDF) program for the City of Melbourne's water distribution system. The UDF program was developed and optimized with the use of cutting-edge UDF program software, the City's calibrated hydraulic model, and GIS information.

Obtaining accurate GIS data became a major objective during the project. Many assets had previously been mapped incorrectly, and field crews were unable to locate them, causing valuable time to be wasted. Reiss coordinated with field crews to locate the assets prior to flushing, and ensured they were in proper working condition.

Computer modeling was performed to identify the best hydrant locations, valve manipulation scenarios, flows and sequence velocities for distinct UDF 'zones'. The UDF 'zones' represented a group of pipes that can be sequentially flushed using the unidirectional method while minimizing disturbance in adjacent piping groups. The UDF program provided structured flushing sequences to ensure a systematic flushing regiment that will clean the distribution system and improve water quality issues.

In total, there were 28,000 utility connections. This project spanned 22 months and Reiss provided design and program management.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Reiss Engineering, Inc.	Winter Springs, FL	Prime Consultant
b.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: 4

21. TITLE AND LOCATION *(City and State)*

Water, Wastewater and Reclaimed Water Master Plan
(Port St. Lucie, FL)

22. YEARS COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2012	N/A

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
City of Port St. Lucie, FL	Mr. Brad Macek	(772) 873-6412

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT ***(Include scope, size, and cost)***

Reiss Engineering has provided master planning services to the City of Port St. Lucie. The City had an immediate need for a water delivery, wastewater collection and reuse utilities master plan to address an escalating population service area and to assess the capacity and reliability of key, existing infrastructure. As part of this Master Planning effort the City continued the development and updating of the water, wastewater and reuse hydraulic models. The Master planning was needed to ensure cost-effective service to existing and future customers and was the basis for millions in capital improvements. The City recently expanded its water supply facilities and is in the process of expanding wastewater treatment and water reclamation facilities. Reiss Engineering's accelerated component of the total Master Utilities Plan focused on potable water delivery, wastewater collection and reuse delivery. Water delivery components include potable water and reuse product storage, high service pumping and transmission/ distribution piping.

As part of this project, valuable planning and operational tools including water, wastewater and reuse hydraulic models were developed and updated to assist with the Planning. The project approach and tools included the following innovations:

- Geo-located 47,000 water meters
- GIS demand/flow allocations and projections
- Enhance enterprise-wide data management
- 24-hour extended period simulations
- Water quality modeling
- Model 28 MGD WW booster pumping station
- GIS-based reuse demand and customer management system
- Flow-through remote storage & repump

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Reiss Engineering, Inc.	Winter Springs, FL	Prime Consultant
b.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: 5

21. TITLE AND LOCATION *(City and State)*

Rangeline Phase I- WTP and Offsite Transmission Mains *(Port St. Lucie, FL)*

22. YEARS COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2006	2009

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
City of Port St. Lucie, FL	Mr. Brad Macek	(772) 873-6412

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

City of Port St. Lucie experienced rapid growth and economic development in the mid-2000s. The City's Utility Systems Department provides water, wastewater and reuse services to 130 square miles, including unincorporated areas outside the current City limits. The City identified a need to rapidly address utility infrastructure for the western area to accommodate growing demands.

To address these developments, the City contracted with Reiss Engineering, Inc. (Reiss) to design the major utility transmission lines to the new Rangeline Water Treatment Facility (WTF) and design the WTF. In addition, Reiss conducted preliminary design, final design, permitting, bidding, and construction of water, wastewater and reuse transmission piping.

Reiss designed the three pipelines to be constructed in parallel, minimizing associated road construction efforts. The final design included jack and bore crossings using steel casing and carrier pipe. The piping included: water transmission pipe, which included approximately 16,350 combined lineal feet of 24-inch and 28-inch diameter pipe; wastewater transmission pipe, which included approximately 6,430 combined lineal feet of 24-inch, 28-inch and 30-inch diameter pipe; and a reclaimed water transmission main relocation, which relocated approximately 3,040 combined lineal feet of 30-inch, 36-inch and 42-inch diameter pipe.

The City also identified a need to rapidly address utility infrastructure for the western area to accommodate growing demands. As such, the Rangeline WTP was constructed in multiple phases to address population growth and provide treated water capacity for the western area.

The City contracted Reiss Engineering to perform preliminary and final design, permitting, and construction services for the Phase I potable water storage and re-pump facility, including over three miles of off-site potable water mains. This project consisted of one 4 MGD storage tank, two 300-HP 6,000 gpm, and two 100-HP 1,850 gpm high service pumps for a total firm high service pumping capacity of 9,700 gpm. Also included were chemical storage/feed facilities to allow disinfectant addition and full service backup power to allow the facility to operate during extended power outages common with Florida hurricane events. The off-site piping included water transmission pipe (approximately 16,350 combined lineal feet of 24-inch and 28-inch diameter pipe); wastewater transmission pipe (approximately 6,430 combined lineal feet of 24-inch, 28-inch and 30-inch diameter pipe); and a reclaimed water transmission main relocation (approximately 3,040 combined lineal feet of 30-inch, 36-inch and 42-inch diameter pipe).

Completed on time and within budget.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Reiss Engineering, Inc.	Winter Springs, FL	Prime Consultant
b.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: 6

21. TITLE AND LOCATION *(City and State)*

Indian Health Services Preliminary Engineering Reports
(Hollywood and Brighton, FL)

22. YEARS COMPLETED

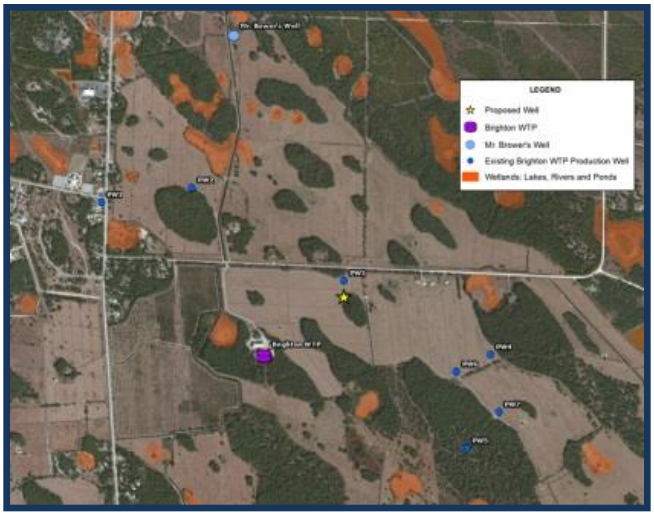
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2014	N/A

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Seminole Tribe of Florida	Mr. Derek Koger, MPA	(954) 894-1060

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT ***(Include scope, size, and cost)***

The Seminole Tribe of Florida identified two projects that required attention. The first project identified existing potable water wells at the Brighton Reservation WTP that produced poor water quality and caused operational issues within the treatment process. The second project identified a section of the Hollywood Reservation that was not on the Tribe distribution system and thus subject to high user rates and impact fees, not within the Tribe's control. The Seminole Tribe of Florida's objective was to obtain funding in order to address the identified problems. As part of the Indian Health Service funding process, a Preliminary Engineering Report (PER) was required for each project. Two Preliminary Engineering Reports (PER) were developed for each project outlining background, alternatives, evaluation / selection of alternative and recommendations. The PERs developed identified the construction of one new potable water well and the extension of a 16-inch water main within the Tribe's distribution system.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Reiss Engineering, Inc.	Winter Springs, FL	Prime Consultant
b.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: 7

21. TITLE AND LOCATION *(City and State)*

WTP Treatment Plant Chemical System Improvements
(Brighton, FL)

22. YEARS COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Ongoing	Ongoing

23. PROJECT OWNER'S INFORMATION

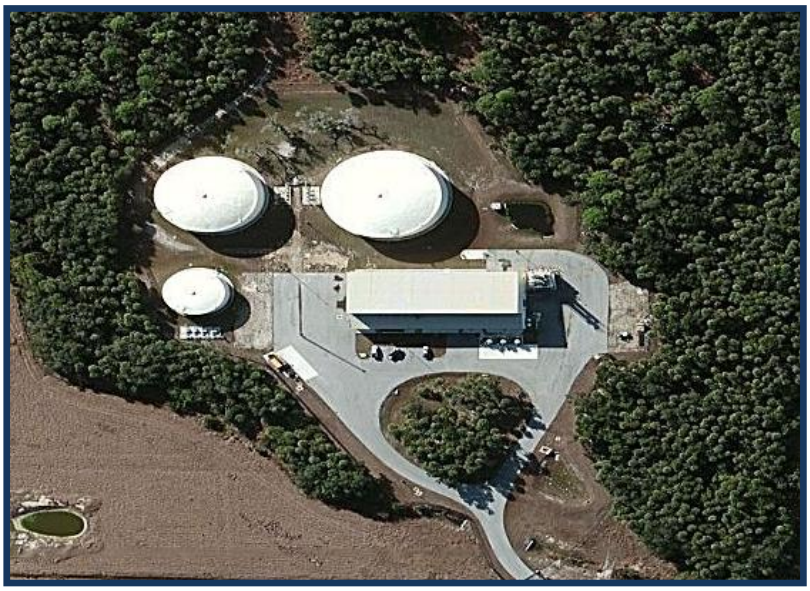
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Seminole Tribe of Florida	Mr. Derek Koger, MPA	(954) 894-1060

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

The Seminole Tribe of Florida (STOF) owns and operates the Brighton Seminole Indian Reservation Water Treatment Plant (WTP) which supplies potable water to the Brighton Reservation and Lakeport community. The WTP is located at 17000 Water Plant Road, Okeechobee, FL 34974. The WTP has a design capacity of 1.6 million gallons per day (MGD) and average daily demands of approximately 270,000 gallons per day (gpd).

To address some major safety and operational concerns associated with the chemical storage and injection systems were identified. Failure of these concerned chemical storage and injection system could have caused a number of major problems for the facility; including safety risks and an expensive clean up. Bulk tanks, chemical transfer pumps, sulfuric injection piping, new secondary containment and chemical pavilion for exterior bulk storage areas were all designed. Replacement of the exisiting injection assembly with new chemical injectors, as well as new chemical control panel were designed and incorporated into the WTP's exisitng control system.

Reiss is currently in progress with Construction oversite for this project.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Reiss Engineering, Inc.	Winter Springs, FL	Prime Consultant
b.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: 8

21. TITLE AND LOCATION *(City and State)*

WTP Treatment Plant Chemical System Improvements
(Immokalee, FL)

22. YEARS COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Ongoing	Ongoing

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Seminole Tribe of Florida	Mr. Derek Koger, MPA	(954) 894-1060

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT ***(Include scope, size, and cost)***

The Seminole Tribe of Florida (STOF) owns and operates the Immokalee Seminole Indian Reservation Water Treatment Plant (WTP) which supplies potable water to the Immokalee Reservation. The WTP has a design capacity of 0.216 million gallons per day (MGD) and currently produces 0.1 MGD average day flow (adf). For the STOF to move forward with their plans to expand their distribution system to serve a potential new hotel, future golf course, and projected population increases within the Immokalee water service area, the facility's capacity and reliability had to be increased to accommodate the additional demands and to provide sufficient redundancy to ensure continuous supply of drinki0.
ng water to their customers.

For each improvement an evaluated as an option to ensure the increased demand and redudancy was met, a detailed feasibility analysis and detailed cost estimate for each option. Additional the safety and operational improvements associated with the chemical storage and injection systems were identified. New chemical feed pump skids, with diaphragm metering pumps, were designed inside secondary conatinment structures. A new chemical control panel for each chemical was designed and incorporated into the WTP's exisitng control system. Bulk and Day tanks were added for each chemical. Weight scales and radar level transmitters to monitor daily chemcial usage for the corrosion inhibitor, sodium hypochlorite, antiscalant feed, flouride, and sodium hydroxide. Chemical trenchs, and new chemical injection assembly was designed and installed. Instrumentation was designed for and installed for improved process and control. Such as, flow meters were installed on the anti scalent feed system, in order to shut down the RO system on lose of anti scalent flow to protect the membranes.

Reiss is currently in progress with Construction oversite for this project.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Reiss Engineering, Inc.	Winter Springs, FL	Prime Consultant
b.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: 9

21. TITLE AND LOCATION *(City and State)*

Midport Repump Station - Drainage Design
(Port St. Lucie, FL)

22. YEARS COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2007	2009

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
City of Port St. Lucie, FL	Mr. Brad Macek	(772) 873-6412

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT ***(Include scope, size, and cost)***

The City of Port St. Lucie's Utility Systems Department had been experiencing rapid growth and economic development making it one of the fastest growing Cities in the United States. As such, the City identified an immediate need to increase the capacity of the Midport Water Repump Station (MWRS) to address local growth.

The City intended to increase the storage, treatment and pumping capacity of the MWRS as well as upgrade the existing facilities during the design. The City selected Reiss Engineering to perform the full-service design of the upgrades including stormwater improvements required to accommodate the additional impervious area.

Reiss designed an additional 2 million gallon storage tank and new chemical feed building contributing to the additional impervious area for this existing utility site. Additional equipment pads, sidewalks and concrete structures also increased the need for additional stormwater evaluation. As such, Reiss provided the master drainage system design services to upgrade the existing surface water management system. Utilizing the data collected, Reiss modeled the increased impervious area to identify the necessary structures and treatment improvements needed. Reiss performed a flood analysis based upon an interpretation of data provided by the United States Geological Survey (USGS). It was determined that the proposed site did not lie within the 100-year flood plain requiring major modifications to the existing site. Even with the substantial increase in impervious area, Reiss was able to conclude the project design and construction could be completed without significant impact on the surface water management system. As such, Reiss Engineering provided the full-scale design of general drainage improvements associated with the new construction and planned future expansion of this facility. The total design remained consistent with the original permit allowing a utility land use type on the MWRS property.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Reiss Engineering, Inc.	Winter Springs, FL	Prime Consultant
b.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: 10

21. TITLE AND LOCATION *(City and State)*

Southport Water Re-pump Station Expansion
(Port St. Lucie, FL)

22. YEARS COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2004	2005

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
City of Port St. Lucie, FL	Mr. Brad Macek	(772) 873-6412

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

As one of the fastest growing cities in the United States, the City of Port St. Lucie, Florida, is rapidly expanding its potable water distribution system. To meet the subsequent increased demands placed on the potable water system from this rapid growth in population, the City of Port St. Lucie needed to implement expanded infrastructure in similar time frames.

Due to the need for additional storage and pumping requirements in the southern area of the City, expansion of the storage and pumping facilities at the Southport Repump Station was selected as the primary project for meeting these needs. The Utilities Department selected the design/build method of delivery in order to meet a short schedule for implementation of this project. WPC Industrial Contractors, Inc. and Reiss Engineering were selected by the City as the Design/Build Team to meet this challenge.

Originally, the station, constructed in 1972, consisted of a 0.3 MGD ground storage tank and three pumps, which could not meet the short-term or long-term needs of the system. The proposed improvements to the Southport Repump Station included discontinuing use of the existing facilities, demolition of some of the original structures, and the construction of a new 3.0 MGD ground storage tank and a new and expanded high service pumping station.

Reiss Engineering provided all of the preliminary and final design-related services for this project as a part of the design/build team. In addition to preparing the preliminary design reports and construction documents (drawings and specifications), Reiss Engineering was also responsible for the coordination of surveying and geotechnical consultants as well as all permitting related to the facility improvements including FDEP, South Florida Water Management District, and City of Port St. Lucie permits.

Construction administration services were performed by Reiss Engineering which included shop drawing review, participation at construction meetings, site visits, and substantial and final completion.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Reiss Engineering, Inc.	Winter Springs, FL	Prime Consultant
b.			

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS

26. NAMES OF KEY PERSONNEL (From Section E, Block 12)	27. ROLE IN THIS CONTRACT (From Section E, Block 13)	28. EXAMPLE PROJECTS LISTED IN SECTION F (Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role.)									
		1	2	3	4	5	6	7	8	9	10
Lance R. Littrell, P.E.	Client Services Manager			✓	✓	✓	✓	✓	✓	✓	✓
Matthew S. Grewe, E.I.	Project Manager	✓	✓	✓	✓						
C. Robert Reiss, Ph.D., P.E.	Technical Advisor	✓		✓	✓	✓					
James R. Murin, Jr., P.E.	Technical Advisor	✓	✓								
Mark K. Worsham, P.E.	Design Task Manager				✓	✓				✓	✓
Curtis I. Kunihiro, P.E., BCEE	Project Engineer							✓	✓		
Stefano Ceriana, P.E., LEED AP	Project Engineer						✓				
Edward H. Talton, Jr., P.E.	Hydraulic Modeling, Planning & Studies Task Manager	✓	✓	✓	✓		✓				
Kelcia D. Mazana, E.I.	Project Engineer			✓	✓	✓					
Scott W. Hoxworth, P.E.	Construction Task Manager				✓	✓				✓	✓
Brent R. White, P.E.	Project Engineer				✓		✓	✓	✓		

29. EXAMPLE PROJECTS KEY

NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)	NO.	TITLE FO EXAMPLE PROJECT (FROM SECTION F)
1	**Strategic Auto-Flusher Water Conservation Project** ***(St. Petersburg, FL)***	6	**Indian Health Services Preliminary Engineering Reports** ***(Hollywood and Brighton, FL)***
2	**Hydraulic Modeling Services** ***(Orange County, FL)***	7	**WTP Treatment Plant Chemical System Improvements** ***(Brighton, FL)***
3	**Unidirectional Flushing Program Implementation** ***(Melbourne, FL)***	8	**Membrane Replacement Evaluation** ***(Immokalee, FL)***
4	**Water , Wastewater and Reclaimed Water Master Plan** ***(Port St. Lucie, FL)***	9	**Midport Repump Station - Drainage Design** ***(Port St. Lucie, FL)***
5	**Rangeline Phase I- WTP and Offsite Transmission Mains** ***(Port St. Lucie, FL)***	10	**Southport Water Repump Station Expansion** ***(Port St. Lucie, FL)***

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

Reiss Engineering (Reiss) was founded with the mission of providing expert professional engineering services in the water and wastewater field. Reiss's strength is defined not only by its corporate experience but more importantly by the experience and skills of those employed by the firm. Reiss actively pursues and hires employees whose background, experience and interest match the focus and direction of the company. Our staff brings with them a specialized portfolio of experience that is consistent with the services requested by the City of Coconut Creek. The combination of experience and expertise provides our firm with the ability to provide services in the following areas:

Water:

- Taste and odor issues (including hydrogen sulfide)
- Advance processes including ozone and membranes
- Sodium hypochlorite conversions
- Permitting and regulatory compliance
- Operations and maintenance

Wastewater:

- Process optimization and re-rating
- Wastewater collection system design and evaluation (i.e., SSES, I/I)
- Evaluation and facility assessments
- Biological nutrient removal
- Reuse treatment (including membranes) and implementation

Permitting:

- Effluent disposal including surface water discharge
- Residuals management
- Sodium hypochlorite conversions

Utilities:

- Hydraulic modeling (EPA Net, WaterCad, Cybernet, H2ONET) to identify system improvements
- Design/Relocation of water distribution and transmission pipelines
- Design/Relocation of wastewater force mains
- Trenchless technologies
- Permitting

Stormwater:

- Hydrological and hydraulic modeling and studies
- Stormwater infrastructure assessment
- Stormwater design and retrofit design
- Water quality modeling
- Permitting

Construction Administration:

- Preparation of construction bid packages
- Bid evaluation
- Shop drawing review
- Certification of payment
- Preparation of as-built drawings
- Construction inspection

Computer Capabilities:
Reiss Engineering has the latest computer equipment and software to ensure efficient communication and technical resource utilization. PC-type computers and workstations are present on every desktop. Laptop computers will be used by the project staff for portability. Our computer network includes central servers with full, daily backup execution.

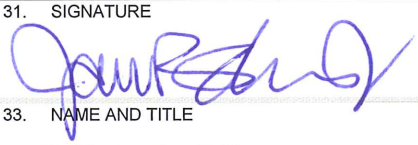
CADD: Our firm uses AutoCAD software to prepare construction drawings for all design projects.

Geographic Information Systems (GIS): Our firm consistently uses GIS as a tool to more efficiently develop hydraulic models and implement infrastructure assessments as well as display data in a clear and concise manner. GIS is extremely useful in preparation of presentation material to government agencies and the public.

I. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

31. SIGNATURE



32. DATE

11/19/2014

33. NAME AND TITLE

James R. Murin, Jr., P.E.

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: RFQ NO. 11-19-14-10

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME	3. YEAR ESTABLISHED	4. DUNS NUMBER
Reiss Engineering, Inc.	1998	09-586-9405

2b. STREET	5. OWNERSHIP
1451 W. Cypress Creek Rd., Suite 300	a. TYPE: Corporation

2c. CITY	2d. STATE	2e. ZIP CODE	b. SMALL BUSINESS STATUS
Ft. Lauderdale	FL	33309	N/A

6a. POINT OF CONTACT NAME AND TITLE	7. NAME OF FIRM *(If block 2a is a branch office)*
Lance R. Littrell, Client Services Manager	

6a. TELEPHONE NUMBER	6c. E-MAIL ADDRESS
(786) 416-0427	**lrlittrell@reisseng.com**

8a. FORMER FIRM NAME(S) *(If any)*	8b. YR. ESTABLISHED	8c. DUNS NUMBER
Reiss Environmental, Inc.	1998	

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
02	Administrative	9	
08	CADD Technician	4	
10	Chemical Engineer	2	
12	Civil Engineers	7	1
15	Construction Inspector	1	
16	Construction Manager	2	
29	GIS Specialist	2	
32	Hydraulic [Modeling] Engineer	2	
42	Mechanical Engineer	1	
48	Project Manager	2	1
52	Sanitary Engineers	11	
	Stormwater Engineer	1	
	Other Employees		
	Total	44	2

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number (see below)
D03	Desalination (Proc & Facilities)	3
C04	Chemical Processing & Storage	1
C15	Construction Management	4
D04	D/B – Preparation of RFPs	1
G04	GIS Svcs: Dvlpmnt, Anal, Data Coll	2
P05	Planning (Comm, Reg, Area, Dist)	5
P06	Planning (Site, Installation, Proj)	4
P07	Plumbing and Pipe Design	5
S04	Sewage Collection, Trtmt, Dispos	5
S13	Stormwater Handling & Facilities	2
W02	Water Resources: Hydro, GW	2
W03	Water Supply: Trtmt & Distrib.	6

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	0
b. Non-Federal Work	7
c. Total Work	7

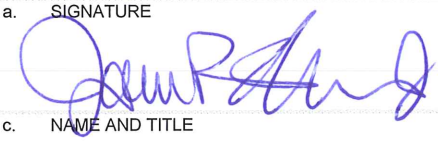
PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE



b. DATE: 11/19/2014

c. NAME AND TITLE

James R. Murin, Jr., P.E.

Required Documents

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 9/12/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Eidson,A Marsh&McLennan Agency, LLC 2807 Edgewater Drive Orlando FL 32804	CONTACT NAME: PHONE (A/C, No, Ext): (407) 849-0333 FAX (A/C, No): (407) 425-5694 E-MAIL ADDRESS:
INSURED (407) 679-5358 Reiss Environmental, Inc. & Reiss Engineering, Inc 1016 Spring Villas Pt. Winter Springs FL 32708	INSURER(S) AFFORDING COVERAGE / NAIC # INSURER A : Hartford Casualty Insurance Comp 29424 INSURER B : Continental Casualty Company 20443 INSURER C : American Casualty Co of Reading 20427 INSURER D : Auto-Owners Insurance Co. 18988 INSURER E : INSURER F :

COVERAGES **CERTIFICATE NUMBER:** Cert ID 45929 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
C	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT LOC OTHER:			2075095657	9/21/2014	9/21/2015	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 1,000,000 $ 300,000 $ 10,000 $ 2,000,000 $ 2,000,000
D	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS			4472389700	9/21/2014	9/21/2015	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
B	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED X RETENTION $ 10,000			2091445161	9/21/2014	9/21/2015	EACH OCCURRENCE AGGREGATE	$ 1,000,000 $ 1,000,000
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		21WE9420NV	9/21/2014	9/21/2015	X PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
B	Professional Liability Full Prior Acts			AEH288355198 Claims Made	9/21/2014	9/21/2015	Liability-Each Claim/Aggregate Retention	2,000,000 25,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Proof of Insurance Only.

CERTIFICATE HOLDER

For Information Purposes Only

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Laura Cassrove

ATTACHMENT "A"

LIST OF DISCIPLINES

Company Name: Reiss Engineering, Inc.

CHECK APPROPRIATE BOXES FOR DISCIPLINES:

☐	Acoustical Engineering	☐	Hydrology / Hydrographic Surveying
☐	Americans with Disabilities (ADA)	☐	Industrial Engineering
☐	Aerial Photography	☐	Industrial Hygiene
☐	Aeronautical Engineering	☐	Interior Design
☐	Airport Studies	☐	Irrigation / Drainage
☐	Archeology	☐	Land Surveying
☐	Architecture	☐	Landscape Architecture
☐	Asbestos Survey & Removal	☐	Mapping
☐	Biological Engineering	☐	Materials / Materials Handling Engineering
☒	Computer-Aided Drafting and Design	☐	Mechanical Engineering
☐	Cartography	☐	Municipal Solid Waste
☐	Chemical Engineering	☐	Oceanography
☒	Civil Engineering	☐	Photo Interpretation / Photogrammetry
☐	Coastal Engineering	☒	Planning
☐	Communications Engineering	☒	Reclaimed Water
☒	Construction Cost Estimating	☐	Remote Sensing
☒	Construction Inspections	☐	Research & Development
☒	Construction / Project Management	☒	Risk Assessment
☐	Corrosion Engineering	☐	Safety / Occupational Health Engineering
☐	Cost Engineering / Estimating	☐	Sanitary Engineering
☐	Ecology	☒	Scheduling
☐	Economics	☐	Security Specialty
☐	Electrical / Instrumentation Engineering	☐	Soils Engineering
☐	Energy Management	☒	Specification Writing
☒	Engineering	☐	Structural Engineering
☒	Environmental Engineering	☐	Surveying
☒	Environmental Science	☒	Technical / Analysis
☐	Fire Protection Engineering	☐	Telecommunications
☐	Forensic Engineering	☐	Toxicology
☐	Foundation / Geotechnical Engineering	☐	Traffic Engineering
☐	Geodetic Surveying	☐	Transportation Design & Studies
☒	Geographic Information Systems	☐	Transportation Engineering
☐	Geological & Mining Engineering	☒	Utilities
☐	Hazardous Material Tanks	☒	Value Engineering
☐	Health Facility Planning	☒	Wastewater Services
☐	Heating, Ventilation & Air Conditioning	☒	Water
☒	Hydraulic Engineering	☐	Water Tank Inspection / Corrosion Control

☒ LEED (Leadership in Energy and Environmental Design) Accredited

☒ Office located in Tri-County Area (Miami-Dade, Broward, or West Palm Beach County)

OTHER DISCIPLINES:

Master Planning, Hydraulic Modeling, Water Quality Modeling, Unidirectional Flushing

ATTACHMENT "E"

PROPOSER'S CERTIFICATION

WHEN PROPOSER IS A CORPORATION

IN WITNESS WHEREOF, the Proposer hereto has executed this Proposal Form this 19 day of November, 2014.

Reiss Engineering, Inc.
Printed Name of Corporation

Florida
Printed State of Incorporation

By: _____
Signature of President or other authorized officer

(CORPORATE SEAL)

James R. Murin, Jr., P.E.
Printed Name of President or other authorized officer

ATTEST:

1451 W. Cypress Creek Rd., Suite 300
Address of Corporation

By _____
Secretary

Ft. Lauderdale, FL 33309
City/State/Zip

(786) 416-0427
Business Phone Number

State of Florida

County of Seminole

The foregoing instrument was acknowledged before me this 19th day of November, 2014, by James R. Murin, who is personally known to me or who has produced _____ as identification and who did (did not) take an oath.

WITNESS my hand and official seal.

_____
NOTARY PUBLIC

Kimberly Jones
(Name of Notary Public: Print, Stamp, or Type as Commissioned)

KIMBERLY JONES
NOTARY PUBLIC
STATE OF FLORIDA
Comm# FF054259
Expires 9/25/2017

ATTACHMENT "F"

PROPOSER'S QUALIFICATION STATEMENT

In order to properly evaluate the proposal submittals, Proposers are expected to complete the questionnaire and include the following documentation. By attesting to this submittal, Proposer guarantees the truth and accuracy of all statements and answers herein contained.

SUBMITTED TO: City of Coconut Creek
Purchasing Division
4800 West Copans Road
Coconut Creek, FL 33063

Submitted By: Reiss Engineering, Inc.
Name: James R. Murin, Jr., P.E.
Address: 1451 W. Cypress Creek Rd., Suite 300
City, State, Zip Ft. Lauderdale, FL 33309
Telephone No. (786) 416-0427
Fax No. (954) 337-2835

Check One
☒ Corporation
☐ Partnership
☐ Individual
☐ Other

1. State the true, exact, correct and complete name of the partnership, corporation, trade or fictitious name under which you do business and the address of the place of business.

   The correct name of the Proposer is: Reiss Engineering, Inc.

   The address of the principal place of business is: 1451 W. Cypress Creek Rd., Suite 300
   Ft. Lauderdale, FL 33309

2. If Proposer is a corporation, answer the following:
   a. Date of Incorporation: December 14, 1998
   b. State of Incorporation: Florida
   c. President's Name: C. Robert Reiss
   d. Vice President's Name: James R. Murin, Jr.
   e. Secretary's Name: Marc A. Cannata
   f. Treasurer's Name: Marc A. Cannata
   g. Name and Address of Resident Agent: Marc A. Cannata

3. If Proposer is an individual or a partnership, answer the following:
   a. Date of Organization: N/A
   b. Name, Address and Ownership Units of all Partners: N/A

c. State whether general or limited partnership: N/A

4. If Proposer is other than an individual, corporation or partnership, describe the organization and give the name and address of principals:
N/A

5. If Proposer is operating under a fictitious name, submit evidence of compliance with the Florida Fictitious Name Statute. N/A

6. How many years has your organization been in business under its present business name? 6

a. Under what other former name has your organization operated?
Reiss Environmental, Inc.

7. Indicate registration, license numbers or certificate numbers for the businesses or professions, which are the subject of this proposal. Please attach certificate of competency and/or state registration.
FL Professional Engineers No.: 8181 - Certificate Attached

8. Litigation/Judgments/Settlements/Debarments/Suspensions:
Submit information on any pending litigation and any judgments and settlements of court cases relative to providing General Professional Engineering Services that have occurred within the last three (3) years. Also indicate if your firm has been debarred or suspended from bidding or proposing on a procurement project by any government during the last five (5) years.
Please see attached Litigation Statement.

9. Have you ever failed to complete any work awarded to you? If so, state when, where and why?
No.

10. List the pertinent experience of the key individuals of your organization (continue on insert sheet, if necessary).
Mr. Lance R. Littrell, P.E., 13 years of experience
Mr. Matthew S. Grewe, E.I., 6 years of experience
Please see Section B - Organizational Profile - for detailed resumes.

11. State the names, telephone numbers and last known addresses of three (3) owners, individual or representatives of owners with the most knowledge of work which you have performed or goods you have provided, and to which you refer (government owners are preferred as references).

(Name)	(Address)	(Phone Number)
Mr. Derek Koger, MPA	3107 N. State Road 7, Hollywood, FL 33021	(954) 894-1060
Mr. Brad Macek	900 SE Ogden Lane, Port St. Lucie, FL 34983	(772) 873-6412
Mr. Chris Rader, P.E.	225 Newburyport Avenue, Altamonte Springs, FL 32701	(407) 571-8338

12. State the name of the individual who will have personal management of the work:

Mr. Matthew S. Grewe, E.I.

13. State the name and address of attorney, if any, for the business of the Proposer:

Gray Robinson, 301 East Pine Street, Suite 1400, P.O. Box 3068, Orlando, FL 32802-3068

14. State the names and addresses of all businesses and/or individuals who own an interest of more than five percent (5%) of the Proposer's business and indicate the percentage owned of each such business and/or individual:

C. Robert Reiss - 1016 Spring Villas Pt., Winter Springs, FL 32708 - 76%

Marc A. Cannata - 1016 Spring Villas Pt., Winter Springs, FL 32708 - 6%

Edward H. Talton, Jr. - 1016 Spring Villas Pt., Winter Springs, FL 32708 - 10%

15. State the names, addresses and the type of business of all firms that are partially or wholly owned by Proposer:

N/A

16. List the following information concerning all Proposer's contracts in progress as of the date of submission and completed projects over the last five (5) years. (In case of any co-venture, list the information for all co-ventures.)

Name of Project	Owner	Total Contract Value	Contracted Date of Completion	% of Completion to Date

Please see Section C - Firm Qualifications - for a list of in progress and completed projects over the last five (5) years.

17. Do you have a complete set of documents, including drawings and addenda? Yes ☒ No ☐

The Proposer acknowledges and understands that the information contained in response to this Qualification Statement shall be relied upon by City in awarding the contract and such information is warranted by Proposer to be true. The discovery of any omission or misstatement that materially affects the Proposer's qualifications to perform under the contract shall cause the City to reject the proposal, and if after the award, to Cancel and terminate the award and /or contract.

Proposer's Signature James R. Murin, Jr., P.E. 11/19/2014 Date

ACKNOWLEDGEMENT
PROPOSER'S QUALIFICATION STATEMENT

State of Florida

County of Seminole

On this the 19th day of November, 2014, before me, the undersigned Notary Public of the State of Florida, Personally appeared

James R. Murin And

(Name(s) of individual(s) who appeared before notary)

whose name(s) is/are Subscribed to within the instrument, and he/she/they acknowledge that he/she/they executed it.

WITNESS my hand and official seal.

Kimberly Jones
NOTARY PUBLIC, STATE OF FLORIDA

NOTARY PUBLIC

SEAL OF OFFICE :

Kimberly Jones
(Name of Notary Public : Print, Stamp, or Type as Commissioned)

KIMBERLY JONES
NOTARY PUBLIC
STATE OF FLORIDA
Comm# FF054259
Expires 9/25/2017

☑ Personally known to me, or
☐ Produced identification

(Type of Identification Produced)

☐ DID take an oath, or
☑ DID NOT take an oath

Litigation Statement

Reiss Engineering, Inc. provides a wide range of services including design and construction of water treatment, wastewater, and reuse water facilities, as well as planning and permitting services. With a historical focus on potable water supply and water quality studies, and an impressive resume of complex design projects, Reiss Engineering, Inc. has established itself as an industry leader in civil and environmental consulting engineering.

Over the past 16 years, Reiss Engineering, Inc. has completed over 600 projects for more than 130 clients, with the majority throughout the State of Florida. Only twice in our 16 year history has Reiss Engineering, Inc. been involved in litigation relating to projects on which we provided services, with both instances pertaining to the same project, a $20 Million wastewater system for the Village of Islamorada.

- Reiss Engineering, Inc. was brought in as a fourth party defendant in a lawsuit filed against the General Contractor and the Owner by a private homeowner in 2006 concerning the Village of Islamorada's wastewater system. The suit was settled in mediation, with a minimal nuisance value payment towards settlement of $5,000 by Reiss Engineering, Inc.

- Reiss Engineering, Inc. was later brought in as a third party defendant in a lawsuit filed by the Village of Islamorada against the General Contractor pertaining to the same wastewater system. This was settled in April 2012, with a minimal nuisance value payment towards settlement of $5,000 by Reiss Engineering, Inc.

With an impressive history of project successes, Reiss Engineering, Inc. has been widely embraced by clients in need of the expertise, customer service, and attention to detail offered by the firm's staff. If you have any specific questions or concerns about this disclosure, please feel free to contact us to discuss further.

ATTACHMENT "G"

SWORN STATEMENT
ON PUBLIC ENTITY CRIMES
UNDER FLORIDA STATUTES CHAPTER 287.133(3)(a).

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICER AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted with RFQ No. 11-19-14-10 for General Professional Engineering Services.

2. This sworn statement is submitted by Reiss Engineering, Inc. (name of entity submitting sworn statement) whose business address is 1451 W. Cypress Creek Rd., Suite 300, Ft. Lauderdale, FL 33309 and (if applicable) its Federal Employer Identification Number (FEIN) is 59-3546309. (If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: _____.)

3. My name is James R. Murin, Jr., P.E. and my
(Please print name of individual signing)

   relationship to the entity named above is Vice President.

4. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid, proposal, reply, or contract for goods or services, any lease for real property, or any contract for the construction or repair of a public building or public work, involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

5. I understand that a "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

6. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means:

   a. A predecessor or successor of a person convicted of a public entity crime: or

   b. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The Cityship by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

7. I understand that a "person" as defined in Paragraph 287.133(1)(e), Florida Statutes, means any natural person or any entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts let by a public entity, or which otherwise transacts or applies to transact business with a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

8. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. **(Please check all statements that are applicable)**

   ☒ Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989.

   ☐ The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989, AND (Please indicate which additional statement applies.)

   ☐ There has been a proceeding concerning the conviction before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer did not place the person or affiliate on the convicted vendor list. (Please attach a copy of the final order.)

   ☐ The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove the person or affiliate from the convicted vendor list. (Please attach a copy of the final order.)

9. Based on information and belief, the statement that I have marked below is true in relation to the entity submitting this sworn statement.

   ☒ The person or affiliate has not been placed on the convicted vendor list. (Please describe any action taken by or pending with the Department of General Services.)

10. The herein sworn statement shall be subject to and incorporate all the terms and conditions contained in Section 287.133 of the Florida Statutes.

11. Conviction of a public entity crime shall be cause for disqualification.

James R. Murin, Jr., P.E.
Proposer's Name

Signature

Date: 11/19/2014

State of: Florida

County of : Seminole

The foregoing instrument was acknowledged before me this 19th day of November, 2014, by James R. Murin, who is (who are) personally known to me or who has produced _____ as identification and who did (did not) take an oath.

Notary Public Signature

Kimberly Jones
Notary Name, Printed, Typed or Stamped

Commission Number: FF054259

My Commission Expires: 9/25/17

KIMBERLY JONES
NOTARY PUBLIC
STATE OF FLORIDA
Comm# FF054259
Expires 9/25/2017

ATTACHMENT "H"

DRUG-FREE WORKPLACE FORM

The undersigned vendor in accordance with *Florida Statutes*, Chapter 287, Section 287.087 hereby certifies that Reiss Engineering, Inc. does:
(Name of Business)

1) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.

2) Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.

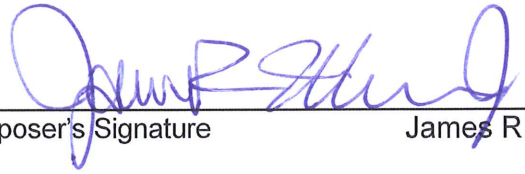
3) Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).

4) In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of *Florida Statutes*, Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.

5) Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.

6) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.



Proposer's Signature James R. Murin, Jr., P.E.

11/19/2014
Date

ATTACHMENT "I"

INDEMNIFICATION CLAUSE

The parties agree that one percent (1%) of the total compensation paid to Consultant for the work of the contract shall constitute specific consideration to Consultant for the indemnification to be provided under the Contract. The Consultant shall indemnify and hold harmless the City Commission, the City of Coconut Creek, and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the work provided that any such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) including the loss of use resulting therefrom, and (2) is caused in whole or in part by any negligent act or omission of the Consultant, any subconsultant, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

In any and all claims against the City, or any of their agents or employees by any employee of the Consultant, any subconsultant, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Paragraph shall not be limited in any way by any limitation on this amount or type of damages compensation or benefits payable by or for the Consultant or any subconsultant under Workers' Compensation Acts, Disability Benefit Acts or other Employee Benefit Acts. Nothing in this section shall affect the immunities of the City pursuant to Chapter 768, *Florida Statutes.*

James R. Murin, Jr., P.E. — Consultant's Name

Signature

11/19/2014 — Date

State of: Florida

County of: Seminole

The foregoing instrument was acknowledged before me this 19th day of November, 2015, by James R. Murin, who is (who are) personally known to me or who has produced _____ as identification and who did (did not) take an oath.

Notary Public Signature

Kimberly Jones

Notary Name, Printed, Typed or Stamped

Commission Number: FF054259

My Commission Expires: 9/25/17

KIMBERLY JONES
NOTARY PUBLIC
STATE OF FLORIDA
Comm# FF054259
Expires 9/25/2017

ATTACHMENT "J"

NON-COLLUSIVE AFFIDAVIT

State of Florida)
)ss.
County of Seminole)

James R. Murin, Jr., P.E. being first duly sworn, deposes and says that:

(1) He/she is the Officer
(Owner, Partner, Officer, Representative or Agent)
of Reiss Engineering, Inc. the Proposer that has submitted the attached proposal;

(2) He/she is fully informed respecting the preparation and contents of the attached proposal and of all pertinent circumstances respecting such proposal;

(3) Such proposal is genuine and is not a collusive or sham proposal;

(4) Neither the said Proposer nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, have in any way colluded, conspired, connived or agreed, directly or indirectly, with any other Proposer, firm, or person to submit a collusive or sham proposal in connection with the work for which the attached proposal has been submitted; or to refrain from bidding in connection with such work; or have in any manner, directly or indirectly, sought by agreement or collusion, or communication, or conference with and Proposer, firm or person to fix the price or prices in the attached proposal or of any other Proposer, or to fix an overhead, profit, or cost elements of the proposal price or the proposal price of any other Proposer, or to secure through any collusion, conspiracy, connivance, or unlawful agreement any advantage against (Recipient), or any person interested in the proposed work;

(5) The price or prices quoted in the attached proposal are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the Proposer or any other of its agents, representatives, owners, employees or parties in interest, including this affiant.

Signed, sealed and delivered
in the presence of:

CHRISTOPHE M. ROBERT, SECRETARY

By: _____

James R. Murin, Jr., P.E.
(Printed Name)

Vice President
(Title)

ACKNOWLEDGEMENT

State of Florida

County of Seminole

The foregoing instrument was acknowledged before me this 19th day of November, 2015, by James R. Murin, who is personally known to me or who has produced _____ as identification and who did (did not) take an oath.

WITNESS my hand and official seal

NOTARY PUBLIC

KIMBERLY JONES
NOTARY PUBLIC
STATE OF FLORIDA
Comm# FF054259
Expires 9/25/2017

Kimberly Jones
(Name of Notary Public: Print, Stamp, or
Type as Commissioned.)

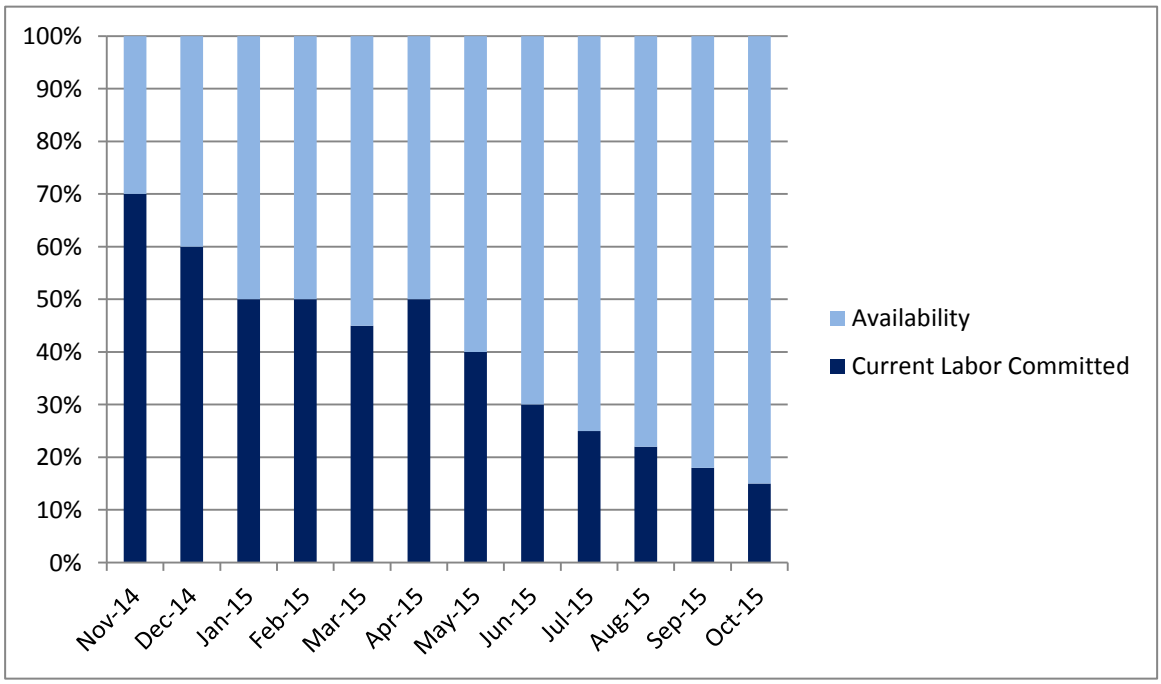
Other Information

F Other Information

1) Recent, Current and Projected Workload

One of the City of Coconut Creek's priorities for this assignment, beyond identifying qualified consulting firms, is to contract with firms that have the necessary resources dedicated specifically to the City. Reiss Engineering's most experienced team members and staff are ready and available to serve Coconut Creek on this important assignment. The Reiss Team is committed to providing the highest quality service to the City and has dedicated the available capacity to complete any projects under this contract.

Reiss currently has over 40 full-time employees. Our current backlog of formal commitments and contracts has been compared to the manpower available in our firm for the next calendar year. As illustrated in the figure below, Reiss has staff available to execute any project that may arise, and provides the assurance that the key personnel will be assigned to provide professional services to the City as needed.



Reiss Engineering, Inc.
1451 W. Cypress Creek Rd.
Suite 300
Ft. Lauderdale, Florida 33309
Ph: (786) 416-0427
Fax: (954) 337-2835