Florida's Warmest Welcome

CITY OF POMPANO BEACH
REQUEST FOR LETTERS OF INTEREST
E-23-20

CONTINUING CONTRACT FOR ENGINEERING SERVICES FOR WATER AND REUSE TREATMENT PLANT PROJECTS

RLI OPENING: August 10, 2020, 2:00 P.M.
PURCHASING OFFICE
1190 N.E. 3RD AVENUE, BUILDING C (Front)
POMPANO BEACH, FLORIDA 33060

July 8, 2020

CITY OF POMPANO BEACH, FLORIDA

REQUEST FOR LETTERS OF INTEREST (RLI)
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CONTINUING CONTRACT FOR ENGINEERING SERVICES FOR WATER AND REUSE TREATMENT PLANT PROJECTS

Pursuant to Florida Statutes Chapter 287.055 "Consultants' Competitive Negotiation Act" the City of Pompano Beach invites qualified engineering firms to submit Letters of Interest, qualifications and experience for consideration to provide Professional Engineering Consulting services to the City on a continuing as-needed basis.

The City will receive sealed proposals until **2:00 p.m. (local), August 10, 2020.** Proposals must be submitted electronically through the eBid System on or before the due date/time stated above. Any proposal received after the due date and time specified, will not be considered. Any uncertainty regarding the time a proposal is received will be resolved against the Proposer.

Proposer must be registered on the City's eBid System in order to view the solicitation documents and respond to this solicitation. The complete solicitation document can be downloaded for free from the eBid System as a pdf at: https://pompanobeachfl.ionwave.net. The City is not responsible for the accuracy or completeness of any documentation the Proposer receives from any source other than from the eBid System. Proposer is solely responsible for downloading all required documents. A list of proposers will be read aloud in a public forum.

Introduction

The City intends to issue multiple contracts to engineering firms to provide continuing professional services to the City for various Water and Reuse Treatment Plant projects. Professional services under this contract will be restricted to those required for any project for which construction costs will not exceed $4 million, and for any study activity for which fees will not exceed $500,000

1. **The types of projects to be undertaken may include, but are not limited to**

   - Reuse Water Treatment Plant Expansion Projects
   - Reuse Water Treatment Plant Modification and/or Enhancement Projects
   - Water Treatment Plant Expansion Projects
   - Water Treatment Plant Modification and/or Enhancement Projects
   - The City's approved Capital Improvement Program maybe found here http://pompanobeachfl.gov/pages/department_directory/budget/budget.html.php

2. **The scope of services may include, but is not limited to, the following;**

   - Prepare studies and make recommendations on methods of operation and/or treatment.

- Prepare preliminary design reports and/or design alternative recommendations. This may include various types of utility modeling, surveying and field data analysis.
- Prepare all required bidding/construction documents for projects. This will include survey preparations, design plan preparations, technical specification preparations and cost estimate preparations. Attendance at all required pre-design, design, bidding and bid award meetings is required.
- Attend pre-bid conference, prepare possible bid addendums for plan revisions. Assist in making bid award recommendations for contracting/construction services.
- Prepare all required permit applications and submittal packages as required for permit issuance of all agency permits (i.e. State, County and City).
- Provide construction engineering/management services for projects. Services during construction may include shop drawing/contractor submittal reviews and approvals, inspection and approval of project improvements, possible plan revisions and review and approval of contractor pay applications.
- Provide project close-out services. This may include preliminary and final acceptance of projects, preparation and approval of punch list items and project certification as required to all permitting agencies.
- Firms must have previous experience in municipal water and reuse treatment plant projects and must be licensed to practice Professional Engineering in the State of Florida, Florida State Statute 471, by the Board of Professional Regulation.

3 Tasks/Deliverables

Tasks and deliverables will be determined per project. Each project shall require a signed Work Authorization (WA) form from the awarded firm to be provided to the City. Forms shall be completed in its entirety and include the agreed upon scope, tasks, schedule, cost, and deliverables for the project Consultant will be required to provide all applicable insurance requirements.

4. Term of Contract

The contracts will be for a term of five (5) years, commencing upon award by the appropriate City officials.

5. Local Business Program

On March 13, 2018, the City Commission approved Ordinance 2018-46, establishing a Local Business Program, a policy to increase the participation of City of Pompano Beach businesses in the City's procurement process.

For purposes of this solicitation, “Local Business” will be defined as follows:

1. **TIER 1 LOCAL VENDOR.** POMPANO BEACH BUSINESS EMPLOYING POMPANO BEACH RESIDENTS. A business entity which has maintained a permanent place of business within the city limits and maintains a staffing level, within this local office, of at least ten percent who are residents of the City of Pompano Beach or includes

subcontracting commitments to Local Vendors Subcontractors for at least ten percent of the contract value. The permanent place of business may not be a post office box. The business must be located in a non-residential zone, and must actually distribute goods or services from that location. The business must be staffed with full-time employees within the limits of the city. In addition, the business must have a current business tax receipt from the City of Pompano Beach for a minimum of one year prior to the date of issuance of a bid or proposal solicitation.

2. **TIER 2 LOCAL VENDOR.** BROWARD COUNTY BUSINESS EMPLOYING POMPANO BEACH RESIDENTS OR UTILIZING LOCAL VENDOR SUBCONTRACTORS. A business entity which has maintained a permanent place of business within Broward County and maintains a staffing level, within this local office, of at least 15% who are residents of the City of Pompano Beach or includes subcontracting commitments to Local Vendors Subcontractors for at least 20% of the contract value. The permanent place of business may not be a post office box. The business must be located in a non- residential zone, and must actually distribute goods or services from that location. The business must be staffed with full-time employees within the limits of the city. In addition, the business must have a current business tax receipt from the respective Broward County municipality for a minimum of one year prior to the date of issuance of a bid or proposal solicitation.

3. **LOCAL VENDOR SUBCONTRACTOR.** POMPANO BEACH BUSINESS. A business entity which has maintained a permanent place of business within the city limits of the City of Pompano Beach. The permanent place of business may not be a post office box. The business must be located in a non-residential zone, and must actually distribute goods or services from that location. The business must be staffed with full-time employees within the limits of the city. In addition, the business must have a current business tax receipt from the City of Pompano Beach for a minimum of one year prior to the date of issuance of a bid or proposal solicitation.

You can view the list of City businesses that have a current Business Tax Receipt on the City's website, and locate local firms that are available to perform the work required by the bid specifications. The business information, sorted by business use classification, is posted on the webpage for the Business Tax Receipt Division: www.pompanobeachfl.gov by selecting the Pompano Beach Business Directory in the Shop Pompano! section.

The City of Pompano Beach is **strongly committed** to insuring the participation of City of Pompano Beach Businesses as contractors and subcontractors for the procurement of goods and services, including labor, materials and equipment. Proposers are required to participate in the City of Pompano Beach's Local Business Program by including, as part of their package, the Local Business Participation Form (Exhibit A,) listing the local businesses that will be used on the contract, and the Letter of Intent Form (Exhibit B) from each local business that will participate in the contract.

Please note that, while no goals have been established for this solicitation, the City encourages Local Business participation in *all* of its procurements.

If a Prime Contractor/Vendor is not able to achieve the level of goal attainment of the contract, the Prime Vendor will be requested to demonstrate and document that good faith efforts were made to achieve the goal by providing the Local Business Unavailability Form (Exhibit C), listing firms that were contacted but not available, and the Good Faith Effort Report (Exhibit D), describing the efforts made to include local business participation in the contract. This documentation shall be provided to the City Commission for acceptance.

The awarded proposer will be required to submit "Local Business Subcontractor Utilization Reports" during projects and after projects have been completed. The reports will be submitted to the assigned City project manager of the project. The Local Business Subcontractor Utilization Report template and instructions have been included in the bid document.

Failure to meet Local Vendor Goal commitments will result in "unsatisfactory" compliance rating. Unsatisfactory ratings may impact award of future projects if a sanction is imposed by the City Commission.

The city shall award a Local Vendor preference based upon vendors, contractors, or subcontractors who are local with a preference as follows:

1. For evaluation purposes, the Tier 1 and Tier 2 businesses shall be a criterion for award in this Solicitation. No business may qualify for more than one tier level.

2. For evaluation purposes, local vendors shall receive the following preferences:

   a. Tier 1 business as defined by this subsection shall be granted a preference in the amount of five percent of total score.

   b. Tier 2 business as defined by this subsection shall be granted a preference in the amount of two and one-half percent of total score.

3. It is the responsibility of the awarded vendor/contractor to comply with all Tier 1 and Tier 2 guidelines. The awarded vendor/contractor must ensure that all requirements are met before execution of a contract.

6. Required Proposal Submittal

Submission/Format Requirements

Sealed proposals shall be submitted electronically through the eBid System on or before the due date/time stated above. Proposer shall upload response as one (1) file to the eBid System. The file size for uploads is limited to 250 MB. If the file size exceeds 250 MB the response must be split and uploaded as two (2) separate files.

Information to be included in the proposal: In order to maintain comparability and expedite the review process, it is required that proposals be organized in the manner specified below, with the sections clearly labeled:

Title page:

Show the project name and number, the name of the Proposer's firm, address, telephone number, name of contact person and the date.

Table of Contents:
Include a clear identification of the material by section and by page.

Letter of Transmittal:
Briefly state the Proposer's understanding of the project and express a positive commitment to provide the services described herein. State the name(s) of the person(s) who will be authorized to make representations for the Proposer, their title(s), office and E-mail addresses and telephone numbers. Please limit this section to two pages.

Technical Approach:
Firms or teams shall submit their technical approach to the tasks described in the scope, including details of how each phase of the project would be completed, and how their firm proposes to maintain time schedules and cost controls.

Schedule:
Proposer shall provide a timeline that highlights proposed tasks that will meet all applicable deadlines.

References:
References for past projects in the tri-county area (Broward, Palm Beach, and Miami-Dade.) Describe the scope of each project in physical terms and by cost, describe the respondent's responsibilities, and provide the contact information (name, email, telephone number) of an individual in a position of responsibility who can attest to respondent's activities in relation to the project.

List any prior projects performed for the City of Pompano Beach.

Project Team Form:
Submit a completed "Project Team" form. The purpose of this form is to identify the key members of your team, including any specialty subconsultants.

Organizational Chart:
Specifically identify the management plan (if needed) and provide an organizational chart for the team. The proposer must describe at a minimum, the basic approach to these projects, to include reporting hierarchy of staff and sub-consultants, clarify the individual(s) responsible for the co-ordination of separate components of the scope of services.

Statement of Skills and Experience of Project Team:
Describe the experience of the entire project team as it relates to the types of projects described in the Scope section of this solicitation. Include the experience of the prime consultants as well as other members of the project team; i.e., additional personnel, sub-consultants, branch office, team members, and other resources anticipated to be utilized for this project. Name specific projects (successfully completed within the past five years) where the team members have performed similar projects previously.

Resumes of Key Personnel
Include resumes for key personnel for prime and subconsultants.

Office Locations:
Identify the location of the office from which services will be rendered, and the number of professional and administrative staff at the prime office location. Also identify the location of office(s) of the prime and/or sub consultants that may be utilized to support any or all of the professional services listed above and the number of professional and administrative staff at the prime office location.

If firms are situated outside the local area, (Broward, Palm Beach, and Miami-Dade counties) include a brief statement as to whether or not the firm will arrange for a local office during the term of the contract, if necessary.

Local Businesses:
Completed Local Business program forms, Exhibits A-D.
NOTE: Form B must be signed by a representative of the subcontractor, NOT of the Prime.

Litigation:
Disclose any litigation within the past five (5) years arising out your firm's performance, including status/outcome.

City Forms:
The Proposer Information Page Form and any other required forms must be completed and submitted electronically through the City's eBid System. The City reserves the right to request additional information to ensure the proposer is financially solvent and has sufficient financial resources to perform the contract and shall provide proof thereof of its financial solvency. The City may as at its sole discretion ask for additional proof of financial solvency, including additional documents post proposal opening, and prior to evaluation that demonstrates the Proposer's ability to perform the resulting contract and provide the required materials and/or services.

Reviewed and Audited Financial Statements:

Proposers shall be financially solvent and appropriately capitalized to be able to service the City for the duration of the contract. Proposers shall provide a complete financial statement of the firm's most recent audited financial statements, indicating organization's financial condition. Must be uploaded to the Response Attachments tab in the eBid System as a separate file titled "Financial Statements" and marked "CONFIDENTIAL."

Financial statements provided shall not be older than twelve 12) months prior to the date of filing this solicitation response. The financial statements are to be reviewed and submitted with any accompanying notes and supplemental information. The City of Pompano Beach reserve the right to reject financial statements in which the financial condition shown is of a date twelve (12) months or more prior to the date of submittals.

The City is a public agency subject to Chapter 119, Florida's Public Records Law and is required to provide the public with access to public records, however, financial statements that are required as submittals to prequalify for a solicitation will be exempt from public disclosure.

The City reserves the right to request additional information to ensure the proposer is financially solvent and has sufficient financial resources to perform the contract and shall provide proof thereof of its financial solvency. The City may as at its sole discretion ask for

additional proof of financial solvency, including additional documents post proposal opening, and prior to evaluation that demonstrates the Proposer's ability to perform the resulting contract and provide the required materials and/or services.

A combination of two (2) or more of the following may substitute for audited financial statements:

1) Bank letters/statements for the past 3 months
2) Balance sheet, profit and loss statement, cash flow report
3) IRS returns for the last 2 years
4) Letter from CPA showing profits and loss statements (certified)

7. Insurance

The insurance described herein reflects the insurance requirements deemed necessary for this contract by the City. It is not necessary to have this level of insurance in effect at the time of submittal, but certificates indicating that the insurance is currently carried or a letter from the Carrier indicating upgrade ability will speed the review process to determine the most qualified Proposer.

The successful Proposer(s) shall not commence operations until certification or proof of insurance, detailing terms and provisions of coverage, has been received and approved by the City of Pompano Beach Risk Manager.

The following insurance coverage shall be required.

a. Worker's Compensation Insurance covering all employees and providing benefits as required by Florida Statute, Chapter 440, regardless of the size of the company (number of employees). The Contractor further agrees to be responsible for employment, control and conduct of its employees and for any injury sustained by such employees in the course of their employment.

b. Liability Insurance

1) Naming the City of Pompano Beach as an additional insured, on General Liability Insurance only, in connection with work being done under this contract.

2) Such Liability insurance shall include the following checked types of insurance and indicated minimum policy limits.

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LIMITS OF LIABILITY

	Type of Insurance		each occurrence	aggregate
GENERAL LIABILITY: ***MINIMUM $1,000,000 per OCCURRENCE/$1,000,000 AGGREGATE***				
	* Policy to be written on a claims incurred basis			
XX	comprehensive form			
XX	premises - operations	bodily injury		
__	explosion & collapse hazard	property damage		
__	underground hazard	_____		
__	products/completed operations hazard	bodily injury and		
XX	contractual insurance	property damage		
XX	broad form property damage	combined		
		_____		
XX	independent contractors			
XX	personal injury	personal injury		
AUTOMOBILE LIABILITY: ***MINIMUM $1,000,000 per OCCURRENCE/$1,000,000 AGGREGATE***				
		bodily injury (each person)		
XX	comprehensive form	bodily injury (each accident)	_____	_____
XX	owned	property damage	_____	_____
XX	hired	bodily injury and		
XX	non-owned	property damage combined		
REAL & PERSONAL PROPERTY				
XX	comprehensive form	Consultant must show proof they have this coverage.		
EXCESS LIABILITY				
XX	umbrella form	bodily injury and property damage		
XX	other than umbrella	combined	$2,000,000.	$2,000,000.
XX	**PROFESSIONAL LIABILITY**	$2,000,000.	$2,000,000.	
	* Policy to be written on a claims made basis			

The certification or proof of insurance must contain a provision for notification to the City, and the City's contracted law enforcement provider if applicable, thirty (30) days in advance of any material change in coverage or cancellation.

The successful Proposer shall furnish to the City the certification or proof of insurance required by the provisions set forth above, within ten (10) days after notification of award of contract.

8. Selection/Evaluation Process

A Selection/Evaluation Committee will be appointed to select the most qualified firm(s). The Selection/Evaluation Committee will present their findings to the City Commission.

The Committee will rank responses based upon the following criteria.

	Criteria	Point Range
1.	Prior experience of the firm with projects of similar size and complexity: a. Number of similar projects b. Complexity of similar projects c. References from past projects performed by the firm d. Previous projects performed for the City (provide description) e. Litigation within the past 5 years arising out of firm's performance (list, describe outcome)	0-45 points
2.	Qualifications of personnel including sub consultants: a. Organizational chart for project b. Number of technical staff c. Qualifications of technical staff: (1) Number of licensed staff (2) Education of staff (3) Experience of staff on similar projects	0-35 points
3.	Proximity of the nearest office to the project location: a. Location b. Number of staff at the nearest office	0-10 points
4.	Is the firm a certified minority business enterprise as defined by the Florida Small and Minority Business Assistance Act of 1985? (Certification of any sub-contractors should also be included with the response.)	0-10 points

Value of Work Previously Awarded to Firm (Tie-breaker) - In the event of a tie, the firm with the lowest value of work as a prime contractor on City of Pompano Beach projects within the last five years will receive the higher ranking, the firm with the next lowest value of work shall receive the next highest ranking, and so on. The analysis of past work will be based on the City's Purchase Order and payment records.

The Committee has the option to use the above criteria for the initial ranking to short-list Proposers and to use an ordinal ranking system to score short-listed Proposers following

presentations (if deemed necessary) with a score of "1" assigned to the short-listed Proposer deemed most qualified by the Committee.

Each firm should submit documentation that evidences the firm's capability to provide the services required for the Committee's review for short listing purposes. After an initial review of the Proposals, the City may invite Proposers for an interview to discuss the proposal and meet firm representatives, particularly key personnel who would be assigned to the project. Should interviews be deemed necessary, it is understood that the City shall incur no costs as a result of this interview, nor bear any obligation in further consideration of the submittal.

When more than three responses are received, the committee shall furnish the City Commission (for their approval) a listing, in ranked order, of no fewer than three firms deemed to be the most highly qualified to perform the service. If three or less firms respond to the RLI, the list will contain the ranking of all responses.

The City Commission has the authority to (including, but not limited to); approve the recommendation; reject the recommendation and direct staff to re-advertise the solicitation; or, review the responses themselves and/or request oral presentations and determine a ranking order that may be the same or different from what was originally presented to the City Commission.

9. Hold Harmless and Indemnification

Proposer covenants and agrees that it will indemnify and hold harmless the City and all of its officers, agents, and employees from any claim, loss, damage, cost, charge or expense arising out of any act, action, neglect or omission by the Proposer, whether direct or indirect, or whether to any person or property to which the City or said parties may be subject, except that neither the Proposer nor any of its subcontractors will be liable under this section for damages arising out of injury or damage to persons or property directly caused by or resulting from the sole negligence of the City or any of its officers, agents or employees.

10. Retention of Records and Right to Access

The selected firm shall maintain during the term of the contract all books of account, receipt invoices, reports and records in accordance with generally accepted accounting practices and standards. The form of all records and reports shall be subject to the approval of the City's Internal Auditor. The selected firm must comply with the Internal Auditor's recommendation for changes, additions, or deletions. The City's Internal Auditor must be permitted during normal business hours to audit and examine the books of account, reports, and records relating to this contract. The selected firm shall maintain and make available such records and files for the duration of the contract and retain them until the expiration of three years after final payment under the contract.

11. Communications

No negotiations, decisions, or actions shall be initiated or executed by the firm as a result of any discussions with any City employee. Only those communications, which are in writing from the City, may be considered as a duly authorized expression on behalf of the

City. In addition, only communications from firms that are signed and in writing will be recognized by the City as duly authorized expressions on behalf of firms.

12. No Discrimination

There shall be no discrimination as to race, sex, color, age, religion, or national origin in the operations conducted under any contract with the City.

13. Independent Contractor

The selected firm will conduct business as an independent contractor under the terms of this contract. Personnel services provided by the firm shall be by employees of the firm and subject to supervision by the firm, and not as officers, employees, or agents of the City. Personnel policies, tax responsibilities, social security and health insurance, employee benefits, purchasing policies and other similar administrative procedures applicable to services rendered under this agreement shall be those of the firm.

14. Staff Assignment

The City of Pompano Beach reserves the right to approve or reject, for any reasons, Proposer's staff assigned to this project at any time. Background checks may be required.

15. Contract Terms

The contract resulting from this RLI shall include, but not be limited to the following terms:

The contract shall include as a minimum, the entirety of this RLI document, together with the successful Proposer's proposal. Contract shall be prepared by the City of Pompano Beach City Attorney.

If the City of Pompano Beach defends any claim, demand, cause of action, or lawsuit arising out of any act, action, negligent acts or negligent omissions, or willful misconduct of the contractor, its employees, agents or servants during the performance of the contract, whether directly or indirectly, contractor agrees to reimburse the City of Pompano Beach for all expenses, attorney's fees, and court costs incurred in defending such claim, cause of action or lawsuit.

16. Waiver

It is agreed that no waiver or modification of the contract resulting from this RLI, or of any covenant, condition or limitation contained in it shall be valid unless it is in writing and duly executed by the party to be charged with it, and that no evidence of any waiver or modification shall be offered or received in evidence in any proceeding, arbitration, or litigation between the parties arising out of or affecting this contract, or the right or obligations of any party under it, unless such waiver or modification is in writing, duly executed as above. The parties agree that the provisions of this paragraph may not be waived except by a duly executed writing.

17. Survivorship Rights

This contract resulting from this RLI shall be binding on and inure to the benefit of the respective parties and their executors, administrators, heirs, personal representative, successors and assigns.

18. Termination

The contract resulting from this RLI may be terminated by the City of Pompano Beach without cause upon providing contractor with a least sixty (60) days prior written notice.

Should either party fail to perform any of its obligations under the contract resulting from this RLI for a period of thirty (30) days after receipt of written notice of such failure, the non-defaulting part will have the right to terminate the contract immediately upon delivery of written notice to the defaulting part of its election to do so. The foregoing rights of termination are in addition to any other rights and remedies that such party may have.

19. Manner of Performance

Proposer agrees to perform its duties and obligations under the contract resulting from this RLI in a professional manner and in accordance with all applicable local, federal and state laws, rules and regulations.

Proposer agrees that the services provided under the contract resulting from this RLI shall be provided by employees that are educated, trained and experienced, certified and licensed in all areas encompassed within their designated duties. Proposer agrees to furnish the City of Pompano Beach with all documentation, certification, authorization, license, permit, or registration currently required by applicable laws or rules and regulations. Proposer further certifies that it and its employees are now in and will maintain good standing with such governmental agencies and that it and its employees will keep all license, permits, registration, authorization or certification required by applicable laws or regulations in full force and effect during the term of this contract. Failure of Proposer to comply with this paragraph shall constitute a material breach of contract.

20. Acceptance Period

Proposals submitted in response to this RLI must be valid for a period no less than ninety (90) days from the closing date of this solicitation.

21. RLI Conditions and Provisions

The proposal must be submitted to the City on or before the time and date stated herein. All Proposers, by submission of a proposal, shall agree to comply with all of the conditions, requirements and instructions of this RLI as stated or implied herein. All proposals and supporting materials submitted will become the property of the City.

Exceptions or deviations to this solicitation may not be added after the submittal date.

All Proposers are required to provide all information requested in this RLI. Failure to do so may result in disqualification of the proposal.

The City reserves the right to postpone or cancel this RLI, or reject all proposals, if in its sole discretion it deems it to be in the best interest of the City to do so.

The City reserves the right to waive any technical or formal errors or omissions and to reject all proposals, or to award contract for the items herein, in part or whole, if it is determined to be in the best interests of the City to do so.

The City shall not be liable for any costs incurred by the Proposer in the preparation of proposals or for any work performed in connection therein.

22. Standard Provisions

a. Governing Law

Any agreement resulting from this RLI shall be governed by the laws of the State of Florida, and the venue for any legal action relating to such agreement will be in Broward County, Florida.

b. Licenses

In order to perform public work, the successful Proposer shall:
Be licensed to do business in Florida, if an entity, and hold or obtain such Contractor' and Business Licenses if required by State Statutes or local ordinances.

c. Conflict Of Interest

For purposes of determining any possible conflict of interest, each Proposer must disclose if any Elected Official, Appointed Official, or City Employee is also an owner, corporate officer, or an employee of the firm. If any Elected Official, Appointed Official, or City Employee is an owner, corporate officer, or an employee, the Proposer must file a statement with the Broward County Supervisor of Elections pursuant to §112.313, Florida Statutes.

d. Drug Free Workplace

The selected firm(s) will be required to verify they will operate a "Drug Free Workplace" as set forth in Florida Statute, 287.087.

e. Public Entity Crimes

A person or affiliate who has been placed on the convicted vendor list following a conviction for public entity crime may not submit a proposal on a contract to provide any goods or services to a public entity, may not submit a proposal on a contract with a public entity for the construction or repair of a public building or public work, may not submit proposals on leases of real property to public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Florida Statute, Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

f. Patent Fees, Royalties, And Licenses

If the selected Proposer requires or desires to use any design, trademark, device, material or process covered by letters of patent or copyright, the selected Proposer and his surety shall indemnify and hold harmless the City from any and all claims for infringement by reason of the use of any such patented design, device, trademark, copyright, material or process in connection with the work agreed to be performed and shall indemnify the City from any cost, expense, royalty or damage which the City may be obligated to pay by reason of any infringement at any time during or after completion of the work.

g. Familiarity With Laws

It is assumed the selected firm(s) will be familiar with all federal, state and local laws, ordinances, rules and regulations that may affect its services pursuant to this RLI. Ignorance on the part of the firm will in no way relieve the firm from responsibility.

h. Withdrawal Of Proposals

A firm may withdraw its proposal without prejudice no later than the advertised deadline for submission of proposals by written communication to the General Services Department, 1190 N.E. 3rd Avenue, Building C, Pompano Beach, Florida 33060.

i. Composition Of Project Team

Firms are required to commit that the principals and personnel named in the proposal will perform the services throughout the contractual term unless otherwise provided for by way of a negotiated contract or written amendment to same executed by both parties. No diversion or substitution of principals or personnel will be allowed unless a written request that sets forth the qualifications and experience of the proposed replacement(s) is submitted to and approved by the City in writing.

j. Invoicing/Payment

All invoices should be sent to City of Pompano Beach, Accounts Payable, P.O. Drawer 1300, Pompano Beach, Florida, 33061. In accordance with Florida Statutes, Chapter 218, payment will be made within 45 days after receipt of a proper invoice.

k. Public Records

1. The City of Pompano Beach is a public agency subject to Chapter 119, Florida Statutes. The Contractor shall comply with Florida's Public Records Law. Specifically, the Contractor shall:

    a. Keep and maintain public records that ordinarily and necessarily would be required by the City in order to perform the service;

    b. Provide the public with access to such public records on the same terms and conditions that the City would provide the records and at a cost that

does not exceed that provided in chapter 119, Fla. Stat., or as otherwise provided by law;

c. Ensure that public records that are exempt or that are confidential and exempt from public record requirements are not disclosed except as authorized by law; and

d. Meet all requirements for retaining public records and transfer to the City, at no cost, all public records in possession of the contractor upon termination of the contract and destroy any duplicate public records that are exempt or confidential and exempt. All records stored electronically must be provided to the City in a format that is compatible with the information technology systems of the agency.

2. The failure of Contractor to comply with the provisions set forth in this Article shall constitute a Default and Breach of this Agreement and the City shall enforce the Default in accordance with the provisions set forth herein.

23. Questions and Communication

All questions regarding the RLI are to be submitted in writing to the Purchasing Office, 1190 N.E. 3rd Avenue, Building C (Front), Pompano Beach, Florida 33060, fax (954) 786-4168, or email purchasing@copbfl.com. All questions must include the inquiring firm's name, address, telephone number and RLI name and number. Questions must be received at least seven (7) calendar days before the scheduled solicitation opening. Oral and other interpretations or clarifications will be without legal effect. Any addendum necessary to answer questions will be posted to the City's website, and it is the Proposer's responsibility to obtain all addenda before submitting a response to the solicitation.

24. Addenda

The issuance of a written addendum is the only official method whereby interpretation, clarification, or additional information can be given. If any addenda are issued to this solicitation the City will attempt to notify all known prospective Proposers, however, it shall be the responsibility of each Proposer, prior to submitting their response, to contact the City Purchasing Office at (954) 786-4098 to determine if addenda were issued and to make such addenda a part of their proposal.

PROJECT TEAM

RLI NUMBER _____

Federal I.D.#_____

PRIME

Role	Name of Individual Assigned to Project	Number of Years Experience	Education, Degrees
Principal-In-Charge			
Project Manager			
Asst. Project Manager			
Other Key Member			
Other Key Member			

SUB-CONSULTANT

Role	Company Name and Address of Office Handling This Project	Name of Individual Assigned to the Project
Surveying		
Landscaping		
Engineering		
Other Key Member		
Other Key Member		
Other Key Member		
Other Key Member		

(use attachments if necessary)

EXHIBIT A
CITY OF POMPANO BEACH, FLORIDA
LOCAL BUSINESS PARTICIPATION FORM

RLI Number & Title: _____ Prime Contractor's Name: _____

Name of Firm, Address	Contact Person, Telephone Number	Type of Good/Service to be Purchase	% of Work

EXHIBIT B
LOCAL BUSINESS
LETTER OF INTENT TO PERFORM AS A SUBCONTRACTOR

RLI Number_____

TO: _____
(Name of Prime or General Bidder)

The undersigned City of Pompano Beach business intends to perform subcontracting work in connection with the above contract as (check below)

_____ an individual _____ a corporation

_____ a partnership _____ a joint venture

The undersigned is prepared to perform the following work in connection with the above Contract, as hereafter described in detail:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____ _____
(Date) (Name of Local Business Contractor)

BY: _____

EXHIBIT C
LOCAL BUSINESS
UNAVAILABILITY FORM

RLI #_____

I,_____
(Name and Title)

of_____, certify that on the _____day of

_____, _____, I invited the following LOCAL BUSINESSES to bid work items to be performed in the City of Pompano Beach:

Business Name, Address	Work Items Sought	Form of Bid Sought (i.e., Unit Price, Materials/Labor, Labor Only, etc.)

Said Local Businesses:

___ Did not bid in response to the invitation

___ Submitted a bid which was not the low responsible bid

___ Other:_____

Signature: _____

Date: _____

Note: Attach additional documents as available.

EXHIBIT D
GOOD FAITH EFFORT REPORT
LOCAL BUSINESS PARTICIPATION

RLI #_____

1. What portions of the contract have you identified as Local Business opportunities?

   _____

   _____

   _____

   _____

2. Did you provide adequate information to identified Local Businesses? Please comment on how you provided this information.

   _____

   _____

   _____

3. Did you send written notices to Local Businesses?

   ____ Yes ____ No

   If yes, please include copy of the notice and the list of individuals who were forwarded copies of the notices.

4. Did you advertise in local publications?

   ____ Yes ____ No

   If yes, please attach copies of the ads, including name and dates of publication.

5. What type of efforts did you make to assist Local Businesses in contracting with you ?

   _____

   _____

7. List the Local Businesses you will utilize and subcontract percentage of work.

_____ _____

_____ _____

_____ _____

8. Other comments: _____

_____

_____

_____

_____

EXHIBIT E

MINORITY BUSINESS ENTERPRISE PARTICIPATION

RLI #_____

List all members of your team that are a certified Minority Business Enterprise (as defined by the State of Florida.) You must include copies of the MBE certificates for each firm listed.

Name of Firm	Certificate Included?

E-23-20
Eckler Engineering, Inc.
Supplier Response

Event Information

Number: E-23-20
Title: Continuing Contracts for Engineering Services for Water and Reuse Treatment Plant Projects
Type: Request for Letters of Interest
Issue Date: 7/8/2020
Deadline: 8/10/2020 02:00 PM (ET)
Notes: Pursuant to Florida Statutes Chapter 287.055 "Consultants' Competitive Negotiation Act" the City of Pompano Beach invites qualified engineering firms to submit Letters of Interest, qualifications and experience for consideration to provide Professional Engineering Consulting services to the City on a continuing as-needed basis.

The City will receive sealed proposals until **2:00 p.m. (local), August 10, 2020.** Proposals must be submitted electronically through the eBid System on or before the due date/time stated above. Any proposal received after the due date and time specified, will not be considered. Any uncertainty regarding the time a proposal is received will be resolved against the Proposer.

Proposer must be registered on the City's eBid System in order to view the solicitation documents and respond to this solicitation. The complete solicitation document can be downloaded for free from the eBid System as a pdf at: https://pompanobeachfl.ionwave.net. The

City is not responsible for the accuracy or completeness of any documentation the Proposer receives from any source other than from the eBid System. Proposer is solely responsible for downloading all required documents. A list of proposers will be read aloud in a public forum.

Contact Information

Contact: Jeff English
Address: Purchasing
1190 NE 3rd Avenue
Building C
Pompano Beach, FL 33060
Phone: (954) 786-4098
Fax: (954) 786-4168
Email: purchasing@copbfl.com

Eckler Engineering, Inc. Information

Contact: Douglas K. Hammann
Address: 4700 Riverside Drive, Suite 110
Coral Springs, FL 33067
Phone: (954) 510-4700
Fax: (954) 755-2741
Email: lfracasso@ecklerengineering.com

By submitting this Response I affirm I have received, read and agree to the all terms and conditions as set forth herein. I hereby recognize and agree that upon execution by an authorized officer of the City of Pompano Beach, this Response, together with all documents prepared by or on behalf of the City of Pompano Beach for this solicitation, and the resulting Contract shall become a binding agreement between the parties for the products and services to be provided in accordance with the terms and conditions set forth herein. I further affirm that all information and documentation contained within this response to be true and correct, and that I have the legal authority to submit this response on behalf of the named Supplier (Offeror).

Douglas K. Hammann
Signature

dhammann@ecklerengineering.com
Email

Submitted at 8/10/2020 12:21:48 PM

Supplier Note

Eckler Engineering, Inc Response to RLI E-23-20.

Requested Attachments

Proposal — Eckler Engineering Response to RLI E-23-20.pdf

Electronic version of proposal must be uploaded to the Response Attachments tab. The file size for uploads is limited to 250 MB. If the file size exceeds 250 MB the response must be split and uploaded as two (2) separate files.

Financial Statment — EEI Financial Statements.pdf

Will remain confidential pursuant to section 119.071 of the State of Florida Statutes.

Tier 1/ Tier 2 Local Business Form — T1_T2_Form.pdf

To comply with the City's Local Business Program as a Tier-1 or Tier-2 vendor, you must complete this form and upload it to the Response Attachments tab.

Local Business Program Forms — Exhibits A-D - Local_Business_Program_Forms.pdf

These forms are to be completed and uploaded to the Response Attachments tab. Online Only

Proposer Information Page — Proposer_Information_Page_Form.pdf

Proposer Information Page Form is to be included in your proposal that must be uploaded to the Response Attachments Tab.

Minority Business Enterprise Participation Form — Exhibit E - Minority_Business_Enterprise_Participation_Form_-_RLI.pdf

If your firm or any sub-consultant is a certified minority business enterprise this form must be completed and included with your proposal. If any members of your team are a certified Minority Business Enterprise copies of their certifications must be included in your submittal.

Project Team Form — Project_Team_Form.pdf

Project Team Form is to be included in your proposal that must be uploaded to the Response Attachments Tab.

Bid Attributes

1 Drug-Free Workplace

Whenever two or more bids which are equal with respect to price, quality, and service are received for the procurement of commodities or contractual service, a bid received from a business that certifies that it has implemented a Drug-free Workplace Program shall be given preference in the award process. If bidder's company has a Drug-free Workplace Program as outlined in General Conditions, section 32., indicate that by selecting yes in the drop down menu.

Yes

2 Conflict of Interest

For purposes of determining any possible conflict of interest, all bidders must disclose if any City of Pompano Beach employee is also an owner, corporate officer, or employee of their business. Indicate either "Yes" (a City employee is also associated with your business), or "No". (Note: If answer is "Yes", you must file a statement with the Supervisor of Elections, pursuant to Florida Statutes 112.313.)Indicate yes or no below with the drop down menu.

No

3 Local Business Participation Percentage

If you have indicated local business participation on the Local Business Participation Form Exhibit A enter the percentage of the contract that will be performed by local Pompano Beach businesses.

0%

4 Terms & Conditions

Check the box indicating you agree to the terms and conditions of this solicitation.

Agree

5 Acknowledgement of Addenda

Check this box to acknowledge that you have reviewed all addenda issued for this solicitation.

Yes

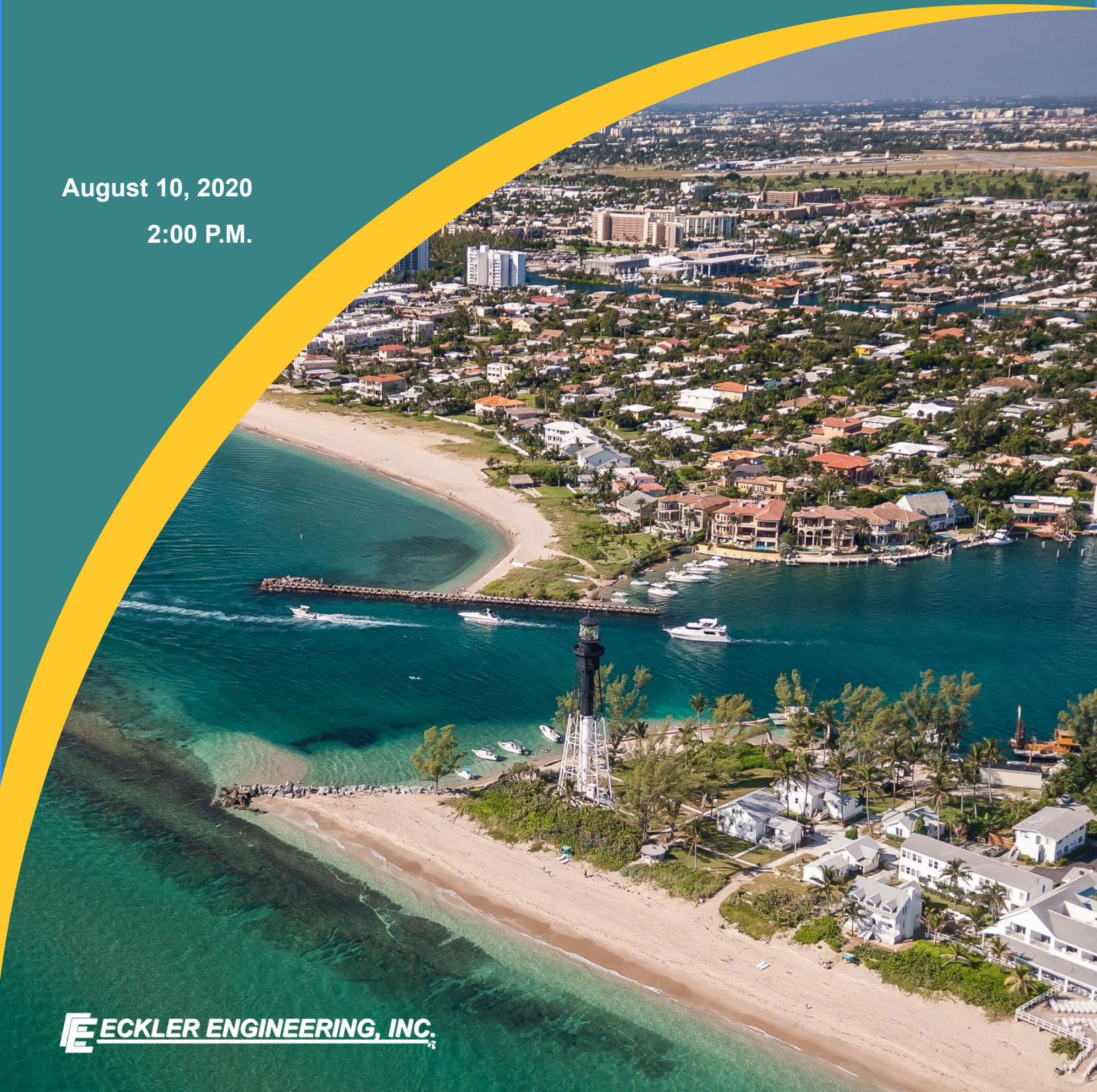
Request For Letters Of Interest

E-23-20

CONTINUING CONTRACT FOR ENGINEERING SERVICES FOR WATER AND REUSE TREATMENT PLANT PROJECTS

August 10, 2020

2:00 P.M.



ECKLER ENGINEERING, INC.

Request for Letters of Interest
E-23-20

Continuing Contract for Engineering Services for Water and Reuse Treatment Plant Projects

Submitted By:

ECKLER ENGINEERING, INC.

4700 Riverside Drive, Suite 110
Coral Springs, FL 33067
(954) 510-4700

Douglas K. Hammann, P.E.

August 10, 2020
2:00 PM

pompano beach
Florida's Warmest Welcome

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LETTER OF TRANSMITTAL

LETTER OF TRANSMITTAL

August 10, 2020
300-000.BD

City of Pompano Beach
Purchasing Office
1190 N.E. 3rd Avenue
Building C (Front)
Pompano Beach, FL 33060

eBid System: https://pompanobeachfl.ionwave.net

Reference: **Request for Letters of Interest**
Continuing Contract for Engineering Services for Water and Reuse Treatment Plant Projects
E-23-20

Eckler Engineering is pleased to make this submittal for consideration by the City of Pompano Beach for the provision of Professional Engineering Services. Our eBid system transmitted response to the RLI will demonstrate our understanding of the City's needs, introduce our project team, highlight our experience with project references, and provide other information requested or required by the published RLI.

ECKLER ENGINEERING INC. UNDERSTANDING OF THE PROJECT

Per the published RLI, the scope of work anticipated is professional engineering services inclusive of:

Various Water and Reuse Treatment Plant Projects. A continuing contract of five years is anticipated with individual project values in accordance with FS 287.055 Limitations per Authorization. Which Statute generally limits individual contract construction cost to not exceed $4 million and individual study projects not to exceed $500,000. Various types of projects are anticipated under this statutory guideline.

ECKLER ENGINEERING, INC. COMMITMENT TO THE CITY OF POMPANO BEACH

Eckler engineering will be professionally committed to the City and provide appropriate personnel to meet the needs of the City's utility system. Commitment to a client is more than a provision of staff. Any engineering firm can provide staff and labor to meet the needs of a project. Commitment is also defined as the integrity and desire of a firm to best meet the needs of a client.

Eckler Engineering is committed to putting the needs of the City of Pompano Beach above and beyond any needs to the firm or any other outside interests.

AUTHORIZED CONTACT(S) FOR ECKLER ENGINEERING, INC.

Our main contractual contact shall be Mr. Douglas K. Hammann, P.E., President, who will serve the City of Pompano Beach from the Coral Springs headquarters location:

4700 Riverside Drive, Suite 110
Coral Springs, FL 33067
Email: dhammann@ecklerengineering.com, Phone: (954) 510-4700

OFFICE LOCATION AND KEY PERSONNEL

Eckler Engineering was established in July 1985 to provide professional engineering services to governmental and private clients. Eckler Engineering specializes in water, wastewater and reuse water systems engineering. Eckler Engineering provides complete project engineering services from preliminary/conceptual planning through the design, permitting, bidding/award, engineering services during construction, and project closeout.

LETTER OF TRANSMITTAL

Eckler Engineering is based in Coral Springs, Florida. The firm is headquartered in the Eckler Professional Centre located at 4700 Riverside Drive in Coral Springs, Florida. Our proposed key project personnel are based in the Coral Springs, Florida location approximately 6 miles northwest of the City of Pompano Beach.

ORGANIZATION PROFILE AND QUALIFICATIONS

The core focus of our consulting business is to provide engineering services for public water, wastewater and reuse water utility systems throughout Florida. As a result, our focus has been providing engineering services for projects within fully developed areas in various cities or to make improvements to existing potable water systems (supply, treatment, storage, distribution), wastewater systems (collection, transmission, and treatment), and reuse water systems (treatment, storage, and distribution). One aspect that separates Eckler Engineering from our competition is that we do not focus our business on commercial or residential development. Our focus is on the rehabilitation and expansion of utility systems in order to meet growth requirements and renewal/replacement requirements due to system age.

To support Eckler Engineering we have assembled a team of industry recognized experts to meet the City's engineering and technical needs.

PROJECT REFERENCES

Eckler Engineering and our subconsultants have provided complete engineering services for numerous water, wastewater and reuse treatment facilities. This type of work has been completed for many different clients with individual project construction contract values ranging from $50,000 through $91 Million. In accordance with the requirements of the published RLI, Eckler Engineering has provided client project references.

OTHER INFORMATION

Our response to the RLI is complete with all information per Part 6. Required Proposal Submittal, per RLI E-23-20. The provided information will maintain comparability and expedite the City of Pompano Beach evaluation process.

CITY FORMS

City Forms section of our RLI response provides the City Forms required by the published RLI documents.

We look forward to the opportunity of further highlighting the needs of the City of Pompano Beach and our ability and experience in providing professional engineering services. If you have any questions or require additional information pertaining to this RLI submission, please do not hesitate to contact me.

Sincerely,

Douglas K. Hammann, P.E. President

ECKLER ENGINEERING, INC.

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TECHNICAL APPROACH

ANTICIPATED PROJECT TYPES

The type of projects to be undertaken may include, but are not limited to:

- Reuse Water Treatment Plant Expansion Projects
- Reuse Water Treatment Plant Modification and/or Enhancement Projects
- Water Treatment Plant Expansion Projects
- Water Treatment Plant Modification and/or Enhancement Projects

ANTICIPATED SCOPE OF SERVICES

The RLI does not define specific projects, but does provide a list of anticipated scope of services to be generally provided per project as follows:

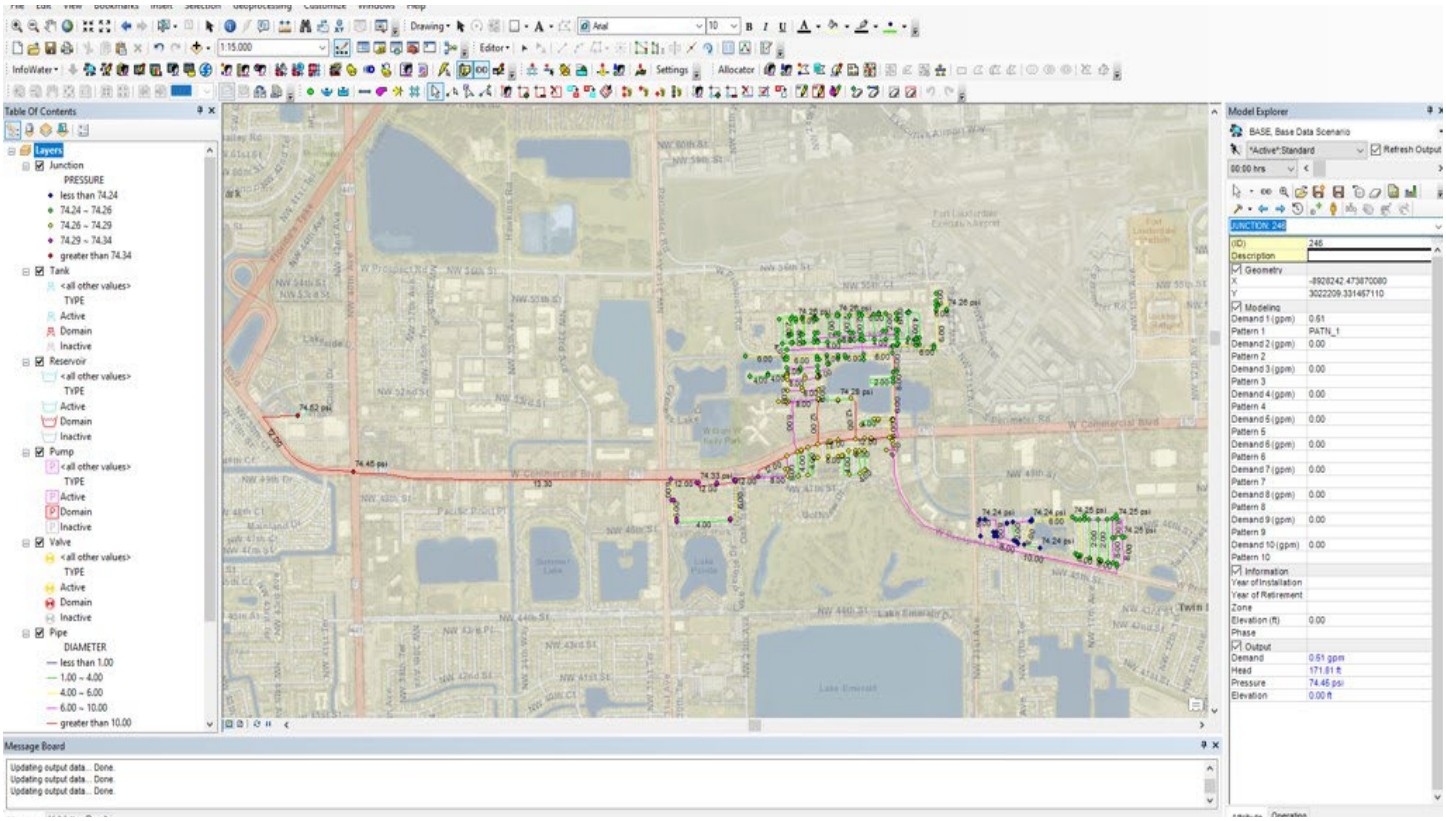
The scope of services may include, but is not limited to the following

- Prepare studies and make recommendations on methods of operation and/or treatment.
- Prepare preliminary design reports and/or design alternative recommendations. This may include various types of utility modeling, surveying, and field data analysis.
- Prepare all required bidding/construction documents for projects. This may include the preparation of surveys, design plans and construction documents, technical specifications, and cost estimates. Attendance at required pre-design, design, bidding and bid award meeting may also be required.
- Attend pre-bid conference, prepare possible bid addenda for contract document revisions. Assist in making bid award recommendations for contracting/construction services.
- Prepare all required permit applications and submittal packages as required for permit issuance of all agency permits (i.e. Federal, State, County and City).
- Provide construction engineering/management/administration services for projects. Services during construction may include shop drawing/contractor submittal reviews and approvals, inspection and approval of project improvements, certification of projects for various permitting entities, possible field revisions, and review and approval of contractor pay applications.
- Provide project close-out services. This may include preliminary and final acceptance of projects, preparation and approval of punch list items and project certification as required to all permitting agencies.
- Firms must have previous experience in municipal water and reuse treatment plant projects and must be licensed to practice Professional Engineering in the State of Florida, Florida State Statute 471, by the Board of Professional Regulation.

ECKLER ENGINEERING TECHNICAL APPROACH

Eckler Engineering shall approach the established projects as follows:

Project Assessment and Development	• Engineering assistance with preliminary development of project criteria, goals, budget and schedule. • Engineering consultant services for determination of design and engineering services during construction for projects planned to expand or maintain existing facilities. • Preparation of recommendation memorandums to support City's Capital Improvement Plan (CIP).
Hydraulic (Utility) Modeling	• Engineering evaluation of hydraulic conditions within the treatment facilities with software such as InfoWater, by Innovyze. • InfoWater network modeling software is completely integrated with-in the Esri ArcGIS environment.



Hydraulic (Profile) Modeling	• Engineering evaluation/modeling of the treatment facility hydraulic profile using software such as Visual Hydraulics. • This will allow development of existing profile followed by evaluation of facility expansion/modifications impact.

Studies	• Engineering evaluation and studies for the purpose of expansion or modification of a process within the existing Reuse or Water Treatment Plant facilities. • Evaluation(s) will include determination of a proposed treatment rates and capacities for expansion of facilities. • Evaluation(s) will include condition assessment of existing facilities and process components for determination of useful life remaining, replacement requirements, and upgrade requirements for capacity expansion. • Preparation of engineering evaluation/condition assessment reports for improvements. These reports will provide Basis of Design, general information related to the improvements, cost opinions for budgeting, and scheduling/prioritization recommendations. These reports will also meet the requirements by FDEP or other regulatory agencies for preliminary design reports required during the permitting process.
Reuse Water Treatment Plant Expansion Projects	• Expansion of existing facility to meet projected demand requirements. • Expansion of existing facility in accordance with the City's Master Planned Reuse Water Distribution Service Areas. • Capacity Expansion of the existing reuse treatment facility will need to take into consideration available site space constraints. Existing facilities at this site could be modified in order to produce additional reuse water volumes utilizing the footprints of the existing facilities. Expansion of the reuse facility to increase volume without increasing the footprint of the plant may require evaluation of other alternative technologies. These technologies may include the use of silicon carbide ceramic membranes for liquid/solids separation, mylar or cloth disc filtration, or modifications to existing upflow granular media filtration process.
Reuse Water Treatment Plant Modification and/or Enhancement Projects	• Ongoing removal/replacement and maintenance related projects. These facilities require continuous assessment, evaluation, and design for replacement of chemical feed systems, pumping equipment, valving, and other wear-related components. • Enhancement of the filtration system for a more efficient removal of floatable plastic materials. Modifications to address this issue may include screening improvements or a modified/enhanced filtration system of currently available advanced filtration processes. • Based on the location of this facility, the City of Pompano Beach has invested in architectural treatments and landscaping to blend with the surrounding community. As additional improvements are made to the facility, these architectural and landscaping elements will need to be updated, revised, or expanded. • Reuse water storage and high service pumping upgrades and improvements to meet current and future demand requirements.

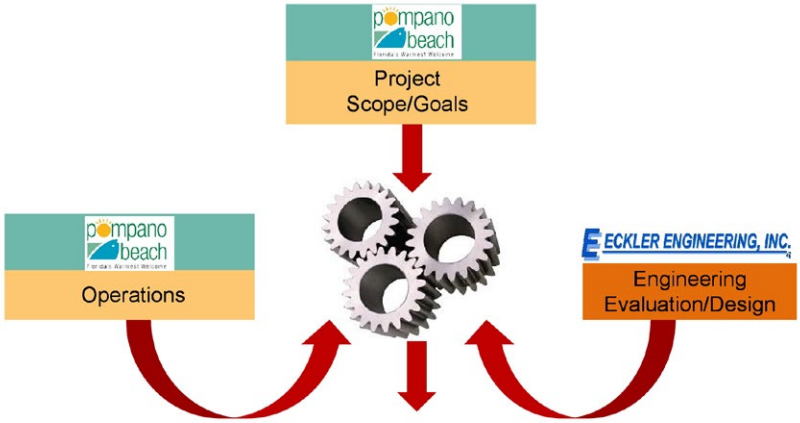
Water Treatment Plant Expansion Projects	• Water plant expansion projects may be developed to meet increased demands on the treatment facility. However, the scope of this RLI places a cap for these continuing contract type projects at $4 Million. Any major expansion to this facility would most likely require construction with a value exceeding the $4 Million cap. • This scope of work may include planning and preliminary design requirements to plan for future expansion of both the lime treatment facilities and membrane treatment facilities for the City of Pompano Beach. This work may include the production of a Basis of Design Memorandum, assessment/evaluation reports, and/or Basis of Design Criteria to utilize the Design/Build process under a separate contract. • When evaluating the expansion of a combined lime softening and membrane softening facility, the blending of water and resulting product will need to be taken into consideration to address and confirm the final product is stable and non-corrosive.
Water Treatment Plant Modification and/or Enhancement Projects	• Projects associated with the removal and replacement of maintenance related improvements such as pumping systems, chemical feed systems, valves, piping upgrade, and other wear-related components. • Periodic maintenance replacement of the membranes. • Potable water storage facility inspection, cleaning, and repairs in accordance with Florida Administrative Code 62-555.250. • Assessment, recommendation and design of general and specialty coating requirements within the treatment facility. • When necessary, evaluation of raw water supply quality and quantity as these items may impact the operation of and process equipment requirements of the treatment facility. • Assessment and improvement of communications from the water treatment plant to the reuse treatment plant, raw water supply wells, and other offsite potable or reuse water facilities. • UIC Permit renewal/modification as needed for the operation of the treatment facility.
Bidding and Construction Services	• Provide assistance to the City for advertisement, receipt of public bids, evaluation of bids, and recommendation to the City of the lowest, most responsive bidder for contract award. • Provision of engineering services during construction from the contractor Notice to Proceed through contract closeout. • Coordination of testing, startup/commissioning and certification of completion of the improvements along with applicable record drawings project permit certification and project closeout documentation.

Grant Funding, SRF Support and Davis Bacon Wage Act Reporting Requirements	• Identification of applicable/available funding sources • Completion of applications, forms, reports and supporting documentation, required by funding agency(s). • SRF support inclusive of preparation of FDEP facility plan(s) • Davis Bacon Wage Act support including but not limited to certified payroll procedures and contractor staff interviews/reports. • Participate in public engagement per agency requirements. • Evaluate applicable federal, state and local grant programs. • Coordination with master plans and basis of design reports.

Other Project Support Services	• Provide assistance to the City for Public Relations and Communications throughout the design and construction of the proposed improvements. If determined to be needed, these services will include public notifications, public meetings, posting information on the City website/social media platforms, and other traditional public relations and communications services.

ECKLER ENGINEERING PROJECT APPROACH

To meet the project requirements and goals, Eckler Engineering recommends that the City and the Eckler Engineering design team work together as a comprehensive project team. This approach, as depicted by the figure shown, will assure that all management, operations, and engineering concerns are known and addressed. These three distinctive groups will work together as a team to evaluate the system, solve the problem(s), and develop design recommendations to meet project requirements without adversely impacting existing system operations or causing service disruptions to current utility system customers.



Engineering Specifications and Details

Anticipated tasks required to complete the evaluation, design, permitting, bidding, and engineering services during construction related to a project or improvement are as follows:

1. Eckler Engineering shall review the proposed system or project improvement/modification.
2. Once initial design considerations have been determined, Eckler Engineering will prepare a preliminary design memorandum along with 30% design documents. This will provide the City with an overall recommendation for the project prior to final design completion. The design memorandum will include all engineering assumptions, design criteria, and other information necessary for the City to review and approve moving forward with final design document preparation.
3. Based on the City's approval of the design memorandum and 30% preliminary design, Eckler Engineering will finalize the design engineering documents required for this project.
4. During the final design process, Eckler Engineering will coordinate with the City to incorporate the City's Standard Details/Specifications, installation details, and preferred manufacturers of system components.

5. Following completion of the final design drawings and specifications, Eckler Engineering will coordinate and complete all regulatory permitting.

Preparation of CAD Drawing Documents

Eckler Engineering will utilize current available technology/resources to facilitate preparation of the drawings required for this project.

During the 30% design phase, the drawings will be prepared utilizing existing GIS data, record drawings and aerial SID file images. From this information, we will be able to prepare the 30% base documents.

Following approval of the 30% design, document preparation will continue to the 60% design level. At this point, the survey team member will field proof base file data and gather additional information as needed to finalize the drawings. Adjustments will be made to the drawings based upon existing facility dimensional information, manufacturer's equipment requirements, and other project requirements determined during the progression of the design phase.

Following approval of the 60% design, preparation of documents shall proceed to the 90% design level. At this point, we will continue the field proofing of data and drawings to confirm and address any conflicts discovered during the progression and preparation of drawings and specifications. This phase of the work will also include addressing any conflicts with existing utilities or other items of concern.

Following approval of the 90% documents, preparation of the 100% documents shall begin. This phase will adjust the documents based on all 90% comment, finalize drawings, specifications, and any other details necessary to prepare the project for permitting and bidding.

PROJECT DELIVERY

Eckler Engineering project delivery begins with project deliverable/fee schedules and ends with quality assurance, delivery on time and meeting all project parameters.

Project Schedule

The Eckler Engineering team will provide professional assistance to the City to prepare and establish an appropriate project schedule. The Eckler Engineering team will staff the project to the level needed to meet the established project schedule milestones.

Project Budget

Simultaneously, to schedule preparation, the engineering and construction budgets will be evaluated and established. During this process the Eckler Engineering Team will rely on our past experience and knowledge of similar geographically located projects located in Florida. Once the project budgets have been established, the Eckler Engineering Team will focus our efforts to meet these budgets.

Communication Plan

Successful completion of the project will require an effective but simple communications plan. The project will require interaction of City staff, Eckler Engineering Team staff, permitting agencies, and the public. To effectively communicate between all of the various entities involved, a single point of contact will be established for both the City and Eckler Engineering Team. All official communications will go through these two individual points of contact. To the greatest extent possible, we will establish electronic communications to maintain written records. Additionally, as the project progresses, it may become necessary to assign project specific element contacts in order to not hamper production capabilities. Once all project entities are identified, a communications flow chart with all project contact information will be established.

We also have a project Team member highly experienced in communications with the public. Based on past experience, communication with the public may become a critical project element. The public needs to be aware of project progress inclusive of:

- Overall project design status.
- Coordination with potential customers regarding location of existing facilities.
- Construction impacts inclusive of road closures and detours.
- Customer connection requirements.

If required for proper project completion, the project communications sub-consultant will coordinate with the Palm Beach County for the establishment of door to door and social media communications. They will also provide assistance with coordination of public meetings when needed.

Quality Assurance/Quality Control (QA/QC) and Cost Control/Savings

Successful completion will require our QA/QC and cost control/savings elements to be linked. The QA/QC component will be evaluated simultaneously with ongoing value engineering input. If not, the project schedule and engineering budgets may be negatively impacted if project elements require continuous re-evaluation and revision.

Schedule Control

The most effective way to control the project schedule is to not fall behind. Once the project milestones are established, the Eckler Engineering Team will staff and provide the resources needed to meet or better all project milestones. The best resource we have for schedule control is past experience.

pompano beach
Florida's Warmest Welcome

SCHEDULE

SCHEDULE

Eckler Engineering project team will maintain project schedules and budgets with three main project reporting documents as follows:

GENERAL OVERALL PROJECT MILESTONE SCHEDULE

A general overall project milestone schedule will be established for each project task order. The project milestone schedule will be updated and included with every project milestone submittal, for a quick status overview resource.

Example as follows:

PROJECT SCHEDULE (REVISION 1)
NPK PUMP STATION CONTROL STRATEGY REVISION AND TP-01 REPLACEMENT

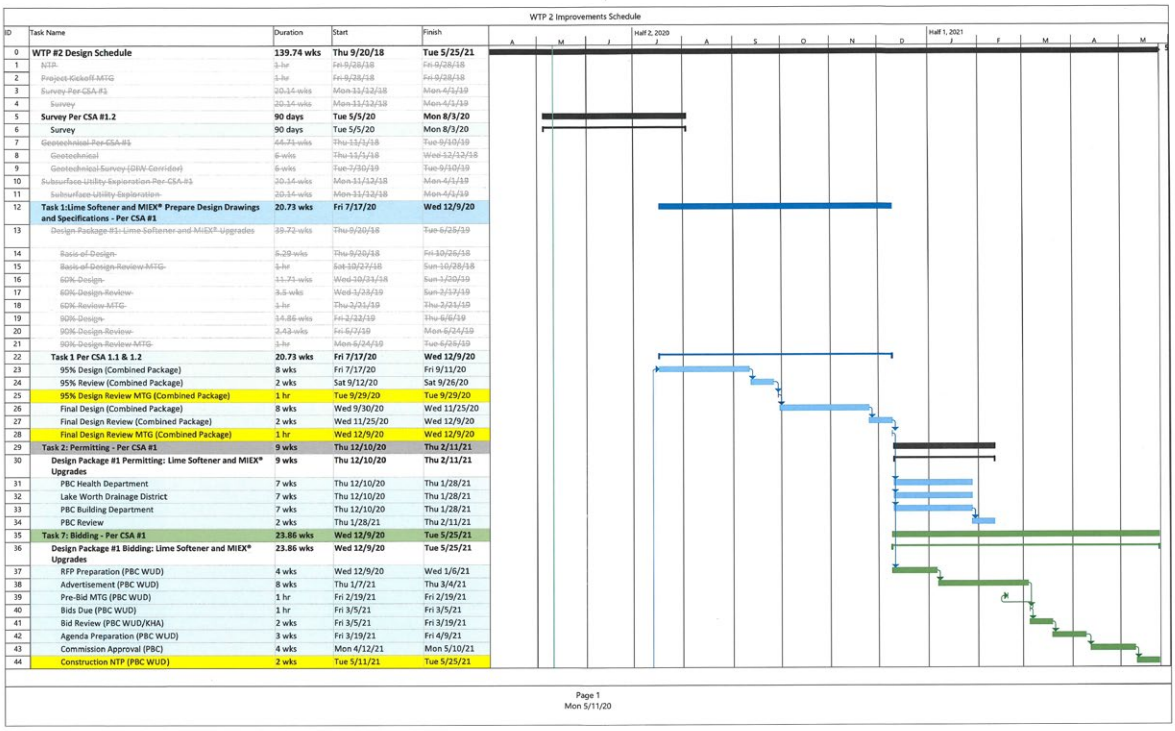
Village of Islamorada
EEI Project Number: 290-002.01 (Task Order No.: 02)

ACTIVITY	STATUS	TIME (days)	ORIGINAL SCHEDULE Start	ORIGINAL SCHEDULE End	ACTUAL SCHEDULE Start	ACTUAL SCHEDULE End	FLOAT DAYS	COMMENTS
Authorization to proceed	Completed	0	20-Jan-20	20-Jan-20	20-Jan-20	20-Jan-20	0	-
Submit Plans and Specifications (100% Submittal)	Completed	90	20-Jan-20	19-Apr-20	20-Jan-20	20-Apr-20	-1	
Receive Village Review Comments	Completed	14	19-Apr-20	3-May-20	20-Apr-20	6-May-20	-3	
Submit Plans and Specifications (2nd 100% Submittal)	Underway	90	15-May-20	13-Aug-20	15-May-20		-	Additional work Scope approved by Village Council 5-07-2020.
Receive Village Review Comments	Future	14	13-Aug-20	27-Aug-20			-	
Submit Plans and Specifications (FINAL Submittal)	Future	30	27-Aug-20	26-Sep-20			-	
Permitting	Future	45	26-Sep-20	10-Nov-20			-	
Bidding Coordination	Future	7	10-Nov-20	17-Nov-20			-	
Bidding and Award/Procurement	Future	60	17-Nov-20	16-Jan-21			-	
Construction (Final Completion)	Future	240	16-Jan-21	13-Sep-21			-	
Project Closeout	Future	14	13-Sep-21	27-Sep-21			-	
	Design =	350					-	
	Construction =	254					-	
	Total =	604					-	

PROJECT TASK SCHEDULE

A project task schedule shall also be prepared and maintained. This schedule will define the project critical path and the individual tasks needed to maintain the critical path.

Example is as follows:



WTP 2 Improvements Schedule

ID	Task Name	Duration	Start	Finish
0	**WTP #2 Design Schedule**	**139.74 wks**	**Thu 9/20/18**	**Tue 5/25/21**
1	~~NTP~~	~~1 hr~~	~~Fri 9/28/18~~	~~Fri 9/28/18~~
2	~~Project Kickoff MTG~~	~~1 hr~~	~~Fri 9/28/18~~	~~Fri 9/28/18~~
3	~~Survey Per CSA #1~~	~~20.14 wks~~	~~Mon 11/12/18~~	~~Mon 4/1/19~~
4	~~Survey~~	~~20.14 wks~~	~~Mon 11/12/18~~	~~Mon 4/1/19~~
5	**Survey Per CSA #1.2**	**90 days**	**Tue 5/5/20**	**Mon 8/3/20**
6	Survey	90 days	Tue 5/5/20	Mon 8/3/20
7	~~Geotechnical Per CSA #1~~	~~46.71 wks~~	~~Thu 11/1/18~~	~~Tue 9/10/19~~
8	~~Geotechnical~~	~~6 wks~~	~~Thu 11/1/18~~	~~Wed 12/12/18~~
9	~~Geotechnical Survey (SRW Corridor)~~	~~6 wks~~	~~Tue 7/30/19~~	~~Tue 9/10/19~~
10	~~Subsurface Utility Exploration Per CSA #1~~	~~20.14 wks~~	~~Mon 11/12/18~~	~~Mon 4/1/19~~
11	~~Subsurface Utility Exploration~~	~~20.14 wks~~	~~Mon 11/12/18~~	~~Mon 4/1/19~~
12	**Task 1:Lime Softener and MIEX® Prepare Design Drawings and Specifications - Per CSA #1**	**20.73 wks**	**Fri 7/17/20**	**Wed 12/9/20**
13	~~Design Package #1: Lime Softener and MIEX® Upgrades~~	~~19.72 wks~~	~~Thu 9/20/18~~	~~Tue 6/25/19~~
14	~~Basis of Design~~	~~5.29 wks~~	~~Thu 9/20/18~~	~~Fri 10/26/18~~
15	~~Basis of Design Review MTG~~	~~1 hr~~	~~Sat 10/27/18~~	~~Sun 10/28/18~~
16	~~60% Design~~	~~11.71 wks~~	~~Wed 10/31/18~~	~~Sun 1/20/19~~
17	~~60% Design Review~~	~~5.5 wks~~	~~Wed 1/23/19~~	~~Sun 3/17/19~~
18	~~60% Review MTG~~	~~1 hr~~	~~Thu 3/21/19~~	~~Thu 3/21/19~~
19	~~90% Design~~	~~14.86 wks~~	~~Fri 2/22/19~~	~~Thu 6/6/19~~
20	~~90% Design Review~~	~~3.43 wks~~	~~Fri 6/7/19~~	~~Mon 6/24/19~~
21	~~90% Design Review MTG~~	~~1 hr~~	~~Mon 6/24/19~~	~~Tue 6/25/19~~
22	**Task 1 Per CSA 1.1 & 1.2**	**20.73 wks**	**Fri 7/17/20**	**Wed 12/9/20**
23	95% Design (Combined Package)	8 wks	Fri 7/17/20	Fri 9/11/20
24	95% Review (Combined Package)	2 wks	Sat 9/12/20	Sat 9/26/20
25	95% Design Review MTG (Combined Package)	1 hr	Tue 9/29/20	Tue 9/29/20
26	Final Design (Combined Package)	8 wks	Wed 9/30/20	Wed 11/25/20
27	Final Design Review (Combined Package)	2 wks	Wed 11/25/20	Wed 12/9/20
28	Final Design Review MTG (Combined Package)	1 hr	Wed 12/9/20	Wed 12/9/20
29	**Task 2: Permitting - Per CSA #1**	**9 wks**	**Thu 12/10/20**	**Thu 2/11/21**
30	**Design Package #1 Permitting: Lime Softener and MIEX® Upgrades**	**9 wks**	**Thu 12/10/20**	**Thu 2/11/21**
31	PBC Health Department	7 wks	Thu 12/10/20	Thu 1/28/21
32	Lake Worth Drainage District	7 wks	Thu 12/10/20	Thu 1/28/21
33	PBC Building Department	7 wks	Thu 12/10/20	Thu 1/28/21
34	PBC Review	2 wks	Thu 1/28/21	Thu 2/11/21
35	**Task 7: Bidding - Per CSA #1**	**23.86 wks**	**Wed 12/9/20**	**Tue 5/25/21**
36	**Design Package #1 Bidding: Lime Softener and MIEX® Upgrades**	**23.86 wks**	**Wed 12/9/20**	**Tue 5/25/21**
37	RFP Preparation (PBC WUD)	4 wks	Wed 12/9/20	Wed 1/6/21
38	Advertisement (PBC WUD)	8 wks	Thu 1/7/21	Thu 3/4/21
39	Pre-Bid MTG (PBC WUD)	1 hr	Fri 2/19/21	Fri 2/19/21
40	Bids Due (PBC WUD)	1 hr	Fri 3/5/21	Fri 3/5/21
41	Bid Review (PBC WUD/KHA)	2 wks	Fri 3/5/21	Fri 3/19/21
42	Agenda Preparation (PBC WUD)	3 wks	Fri 3/19/21	Fri 4/9/21
43	Commission Approval (PBC)	4 wks	Mon 4/12/21	Mon 5/10/21
44	Construction NTP (PBC WUD)	2 wks	Tue 5/11/21	Tue 5/25/21

PERIODIC PROJECT STATUS REPORT

A periodic project status report shall be established and maintained for each task order. These reports give a written description of project status at the reporting interval established (IE: weekly, bi-weekly, monthly). Example is as follows:

PERIODIC PROJECT STATUS REPORT

Reporting Period: 05-09-2020 to 06-19-2020

Project: NPK Pump Station Control Strategy Revision and TP-01 Replacement

Prepared By: Douglas K. Hammann, P.E. EEI Project No.: 290-002.01 Date: 6-19-2020

GENERAL PROJECT INFORMATION

Estimated Percent Complete 50 %

Next Scheduled Milestone: 2nd 100% Submittal

Next Scheduled Milestone Date: August 13, 2020

Work or Task Completed Since Previous Project Status Report:

- Finalized the agreement between Eckler Engineering and Islamorada Village of Islands.
- Prepared new project schedule, based on the work added to the original scope.
- Began preparation drawing and specifications updates per the additional approved work components.
- Preparation of the Basis of Design Memorandums (BODM's) for the system components.
- Incorporated comments from the initial Project review by Islamorada Staff and Wade Trim.
- Completed initial equipment selections for the influent screens, emergency transfer pumps and revised septage pumping system.

Work or Tasks to be Completed Next Project Status Report Period:

- Continue preparation of Final drawings.
- Continue preparation of final Specifications.
- Complete BODM's.
- Schedule and complete second project review site visit.

Information, Review, and Other Needs from Client:

- Need Purchase Order from Islamorada per the executed project agreement dated June 1, 2020

Miscellaneous Comments and Information:

- The following Additional modifications discussed during the project kickoff site visit are now being incorporated into the project:

  1. Upsizing the existing generator; addition of a manual transfer switch; modifications to the vacuum pump discharge odor control system; demolition of existing facilities, components and equipment no longer in service at this facility; cleaning and removal of rags and other debris from interior of the pump station chambers; demolition and removal of existing

ECKLER ENGINEERING, INC. **Page 1 of 2**

PERIODIC PROJECT STATUS REPORT

Reporting Period: 05-09-2020 to 06-19-2020

chlorine contact basin and associated components; addition of an influent course screening system to remove rags and rocks to prevent accumulation of this material within the pump station structure; modification to the proposed septage receiving facility; addition of emergency storage system two way transfer pumps, per Wade Trim preliminary design Memo.

Schedule Status:

- A copy of the current project schedule is attached.
- The current project schedule reflects the requested additional work and approval of the project agreement.

ECKLER ENGINEERING, INC. **Page 2 of 2**

PROJECT SCHEDULE (REVISION 1)
NPK PUMP STATION CONTROL STRATEGY REVISION AND TP-01 REPLACEMENT

Village of Islamorada
EEI Project Number: 290-002.01 (Task Order No.: 02)

ACTIVITY	STATUS	TIME (days)	ORIGINAL SCHEDULE Start	ORIGINAL SCHEDULE End	ACTUAL SCHEDULE Start	ACTUAL SCHEDULE End	FLOAT DAYS	COMMENTS
Authorization to proceed	Completed	0	20-Jan-20	20-Jan-20	20-Jan-20	20-Jan-20	0	-
Submit Plans and Specifications (100% Submittal)	Completed	90	20-Jan-20	19-Apr-20	20-Jan-20	20-Apr-20	-1	
Receive Village Review Comments	Completed	14	19-Apr-20	3-May-20	20-Apr-20	6-May-20	-3	
Submit Plans and Specifications (2nd 100% Submittal)	Underway	90	15-May-20	13-Aug-20	15-May-20		-	Additional work Scope approved by Village Council 5-07-2020.
Receive Village Review Comments	Future	14	13-Aug-20	27-Aug-20			-	
Submit Plans and Specifications (FINAL Submittal)	Future	30	27-Aug-20	26-Sep-20			-	
Permitting	Future	45	26-Sep-20	10-Nov-20			-	
Bidding Coordination	Future	7	10-Nov-20	17-Nov-20			-	
Bidding and Award/Procurement	Future	60	17-Nov-20	16-Jan-21			-	
Construction (Final Completion)	Future	240	16-Jan-21	13-Sep-21			-	
Project Closeout	Future	14	13-Sep-21	27-Sep-21			-	
							-	
							-	
							-	

Design	=	350
Construction	=	254
Total	=	604

Y:\Documents\Islamorada\290-002.01 NPK Control Strategy and TP-01 Replacement\Schedule\Project Schedule 290-002.01 REV 1.xls 6/1/2020

REFERENCES

Eckler Engineering, Inc.

CITY OF POMPANO BEACH

TREATED WASTEWATER EFFLUENT IRRIGATION FACILITY

City of Pompano Beach
1201 NE 5TH Avenue
Pompano Beach, Florida 33060
(954) 545-7043

Project Location: Pompano Beach, Florida

Eckler Engineering, Inc. was selected to provide the engineering services required for this project.

The project was the first of this kind in the South Florida region. The City of Pompano Beach and Eckler Engineering planned this project to conserve potable water and to prevent the migration of the salt water interface into the city's high quality eastern well-field. The facility takes a sidestream from the existing Broward County North Regional Wastewater Treatment Plant ocean outfall and treats the water to irrigation quality standards per FAC 62-610. This tertiary treatment facility included influent pumping and suppport systems. The reclaimed water produced by this facility is delivered to the two adjacent City owned golf courses for irrigation supply.

The small site area, poor soil conditions and nearby airport presented challenging design constraints. To minimize the impact of limited space, some unit process structures were combined together. The chlorine contact basin was constructed on the interior of the prestressed concrete ground storage tank. Poor soil conditions were mitigated by foundation stabilization using deep soil consolidation (Vibrofloatation). Height restrictions were minimized by designing the ground storage tank to be partially buried.

PORTLAND CEMENT ASSOCIATION 1989 AWARD OF EXCELLENCE WINNER FOR DISTINGUISHED ARCHITECTURAL TREATMENT IN PRESTRESSED CONCRETE TANK CONSTRUCTION

Eckler Engineering, Inc.'s Services Included:

Planning, design, permitting, and engineering service during construction.

Final construction Cost: $2,746,000

Project Completion: February, 1990

Eckler Engineering, Inc.

CITY OF POMPANO BEACH

EFFLUENT PLANT EXPANSION - PHASE I

City of Pompano Beach
A. Randolph Brown, Director of Utilities
1201 NE 5TH Avenue
Pompano Beach, Florida 33060
(954) 545-7043

Project Location: Pompano Beach, Florida

Eckler Engineering, Inc. was retained as a sub consultant for engineering services required for this project.

The overall scope of the project was the expansion of the original facility constructed in 1989. The capacity of the plant was expanded from 2.5 MGD to 7.5 MGD. The scope of the project included new continuous backwash upflow filters, new low head residential distribution pumping system, new chemical feed building, new 4.0 MG prestressed concrete ground storage tank with an internal chlorine contact basin and support system improvements.

The expansion of this facility allowed for the originally planned dsitribution of reclaimed water to the nearby commercial and residential areas.

Final construction Cost: $ 6,500,000

Project Completion: February, 2003

Eckler Engineering, inc.'s Services Included:

Planning, design, permitting, and engineering services during construction.

ECKLER ENGINEERING, INC.

CITY OF CORAL SPRINGS

REPLACEMENT RAW WATER SUPPLY WELLS 18, 19 AND 20

City of Coral Springs

9551 W. Sample Road
Coral Springs, Florida 33065
(954) 344-1165

Project Location: Coral Springs, Florida
Contact: Najla Zerrouki, P.E. (954) 345-2188
nzerrouki@coralsprings.org

Eckler Engineering provided the engineering and hydrogeologic services for the replacement of three existing shallow, surficial aquifer water supply wells. The existing wells, originally constructed in the early 1990's, had seen a 75% reduction in their production capacity. The location of the wells within the median island of a major 4-lane roadway created difficulty and constructed in below grade vaults created several challenges for maintenance and re-development. Existing geologic conditions and the shallow production zone depth created further challenges with the design and construction of the replacement wells. Historically, the City's wellfields are impacted during the seasonal dry periods. During this time, the static ground water tables drop and impact the firm capacity of the wells. To address maintenance access, the replacement wells were located out of the median islands and the equipment was designed to be accessible from grade. To address the seasonal groundwater fluctuations and the shallow production zone, larger diameter well screens were proposed for the design, along with a slightly larger 80-slot screen size and slotted lap pipe. The impact of these changes allowed full use of the production zone, reduced screen entrance velocity and the ability to lower the submersible turbine pump into the lap pipe zone to reduce impact from the seasonal lower groundwater levels.

The three new wells have a design production capacity of 700 GPM, but can operate at rates up to 900 GPM, if needed. The project included drilling the new production wells, installation of well pumping equipment, control panels, VFD's, SCADA improvements and civil sitework. The relocation of the wells also required the extension of approximately 2000 feet of raw water transmission main and the electrical supply feeders followed by partial reconstruction of two 4-lane roadways.

Final construction Cost: $3,509,233.00

Project Completion: October, 2019

Eckler Engineering, Inc.'s Services Included:

Design, permitting , bidding/award assistance and engineering services during construction.

ECKLER ENGINEERING, INC.

TAMARAC
The City For Your Life

CITY OF TAMARAC

WATER TREATMENT PLANT WELLS 10, 11, 12 AND 13 UPGRADES

City of Tamarac

10101 State Street
Tamarac, Florida 33321
(954) 597-3758

Project Location: Tamarac, Florida
Contact: Earl Henry, P.E. (954) 597-3758
Earl.henry@Tamarac.org

Eckler Engineering was selected to provide engineering services for this project. The existing wells had been in continuous service since the 1970's. The original well design consisted of an open hole production zone wells with surficial casings. The existing vertical line shaft turbine pumps, valves and equipment were all located in below grade concrete vault structures. The project consisted of general rehabilitation of the existing wells, elimination of the below grade equipment vaults, extension of the well casing to an above grade termination point, replacement of the existing pumps with submersible turbine pumps/ motors, new discharge piping and valves, new electrical power distribution, new local controls and new SCADA RTU panels.

The improvements eliminated the confined space entry requirements to the below grade vaults, provided improved maintenance access and updated the existing equipment to same as other existing City wells

The capacity of the four upgraded wells is 700 GPM for normal daily operation with the ability to operate at 950 GPM per well.

Eckler engineering, Inc's Services Included	
• Design	• Engineering Services During Construction
• Permitting	

Final construction Cost:	***$ 1,067,580.00***
Project Completion	***April, 2020***

Eckler Engineering, Inc.

CITY OF CORAL SPRINGS

REHABILITATION OF THICKENERS 1 AND 2

City of Coral Springs
9551 W. Sample Road
Coral Springs, Florida 33065
(954) 344-1165

Project Location: Coral Springs, Florida
Contact: Najla Zerrouki, P.E. (954) 345-2188
nzerrouki@coralsprings.org

Eckler Engineering, Inc. was selected to provide engineering services for this project. The existing thickeners had been in service for approximately twenty years. Over that time the operations staff experienced numerous failures and maintenance issues related to the torque capability of the rake drives.

Other problems related to maintenance access and the introduction of lime sludge to the thickener mechanisms were also of concern. The rehabilitation design greatly increased the system torque by designing with a larger "k" factor and changing from a chain driven rake to a gear driven rake. Other improvements included larger access walkways and platforms and non-submerged discharge points to the thickeners.

Eckler Engineering, Inc.'s Services Included:

Planning, design, permitting, bidding administration services and engineering services during construction.

Final Construction Cost: $535,400.00

Project Completion: December, 2012

Eckler Engineering, Inc.

CITY OF CORAL SPRINGS

REHABILITATION OF EXISTING POTABLE WATER GROUND STORAGE TANKS

City of Coral Springs
9551 W. Sample Road
Coral Springs, Florida 33065
(954) 344-1165

Project Location: Coral Springs, Florida
Najla Zerrouki, P.E. (954) 345-2188
nzerrouki@coralsprings.org

The Florida Department of Environment Protection in accordance with Florida Administrative Code 62-555.350 requires that water storage tanks must be inspected and cleaned every five years. The City of Coral Springs completed the cleaning and inspection of the existing ground storage tanks in January 2009.

The City of Coral Springs operates seven ground storage tanks, four at the water treatment plant and one at each of three off site booster station locations. There is also a transfer pump station at the water plant which falls under the requirements of the Rule. Each of these tanks and the transfer pump station were inspected in accordance with OSHA, AWWA, ACI, and Standard Prestressed Concrete Tank Design Standards meeting the requirements of Florida Administrative Code 62-555.350.

A report was generated detailing the inspection process, the inspection findings and rehabilitative work recommendations for each of the inspected tanks. This project addressed the preparation of bidding documents and completion of the rehabilitative work recommended by the evaluation report.

The general scope of work components included the following:

- General structural rehabilitation and repairs to all seven (7) existing CITY ground storage tanks and filter effluent pump station per the report recommendations.
- Exterior painting of the following existing tanks: 0.3 MG (WTP), 0.5 MG (WTP), 1.5 MG (WTP), 2.5 MG(WTP), 1.0 MG (Mullins), 1.25 MG (West), and 1.35 MG (East).
- Addition of valves and pumpout connections to the existing drain lines on the 0.3 MG and 0.5 MG tanks at the water treatment plant.
- Remove existing ladders and replace with safety climb ladders on the following tanks: 0.3 MG (WTP), 0.5 MG (WTP), 1.5 MG (WTP), 1.0 MG (Mullins), 1.25 MG (West), and 1.35 MG (East).
- Replace existing interior influent stand pipes on the 0.3 MG and 0.5 MG tanks at the water treatment plant.

Final Construction Cost: $544,970.00

Project Completion: December, 2013

Eckler Engineering, Inc.'s Services Included:

Planning, design, permitting, bidding administration services and engineering services during construction

Eckler Engineering, Inc.

CITY OF CORAL SPRINGS

MISCELLANEOUS WTP IMPROVEMENTS PHASE III

City of Coral Springs
9551 W. Sample Road
Coral Springs, Florida 33065
(954) 344-1165

Project Location: Coral Springs, Florida
Contact: Najla Zerrouki, P.E. (954) 345-2188
nzerrouki@coralsprings.org

Eckler Engineering, Inc. provided engineering services for this third phase of improvements. The City of Coral Springs needed to perform miscellaneous improvements to their water treatment plant. The improvements included the following items:

Demolition of existing chemical feed systems and construction of new chemical feed building with new chemical feed systems. The new chemical feed systems include coagulant aid, hexametaphosphate, fluoride, ammonia, and sodium hypochlorite. Demolition of the existing high service pump station and the construction of a new high service pump station building with five vertical turbine high service pumps in suction cans capable of pumping a design flow rate of 16 MGD. Improvements to the finished water transmission piping. Rehabilitation of the filters. Complete plant-wide SCADA system inclusive of fiber network, interfacing with existing control systems and new base HMI systems. Expansion and remodeling of the existing water treatment plant administration building. Miscellaneous electrical and process instrumentation and controls work. General sitework and restoration. Access improvements to existing main including a temporary guard house and improvements to the entrance gate.

Contractor Bid Amount: $7,451,000

Final Construction Cost: $7,451,000

Project Completion: June, 2015

Eckler Engineering, Inc.'s Services Included:

- ***Planning, design, permitting, and engineering services during construction***

Eckler Engineering, Inc.

North Key Largo Utility Corp.

NORTH KEY LARGO UTILITY CORPORATION

MBR SYSTEM AND RO SYSTEM IMPROVEMENTS

North Key Largo Utility Corporation (NKLUC)
24 Dockside Lane, #512
Key Largo, FL 33037-5282
(305) 367-7337

Contact: Jeffrey Oeltjen, P.E. (305) 367-7337
joeltjen@oceanreef.com

Robert Orr (305) 367-0011
rorr@oceanreef.com

Eckler Engineering, Inc. (EEI) was selected to provide engineering services for improvements to the NKLUC Reverse Osmosis Irrigation Water Production Facility and their Advanced Wastewater Treatment Plant. The project expanded the overall capacity of their Reverse Osmosis Irrigation Water Production Facility and upgraded the membrane bioreactors of the Advanced Wastewater Treatment Plant. The project addressed the following Improvements:

Reverse Osmosis Irrigation Water Production Facility

- Expansion of the capacity of all three existing RO skids by the addition of six new RO pressure vessels and energy recovery modules to each RO train.
- Removal, replacement and upgrade of the RO System Motor Control Center (MCC).
- The work expanded the overall water production capacity from 1.274 MGD to 2.039 MGD with an overall pumping horsepower decrease from 375 to 352.
- Completed Request for Industrial Wastewater Permit Exemption and UIC Permit Modification for Expansion of a Class V Injection Well System.

Advanced Wastewater Treatment Plant

- Maintenance Removal and replacement of the existing submerged membrane units from MBR #1 and MBR #2.
- Consolidation of the best existing membranes available into MBR #3 and MBR #4 in a single stack configuration of four submerged membrane units per MBR basin. This revision allowed re-purposing of MBR #3 and MBR #4 to function as peak flow treatment capacity or digester/thickener during average flow conditions.
- Improvements to increase the solids concentration of the waste activated sludge (WAS) hauled for off-site disposal from the original design concentration of approximately 1% to a revised concentration of 4%.

Construction Bid Amount: $2,139,000
Final Construction Cost: $2,060,139
Project Completion: August 2016

Eckler Engineering, Inc.'s Services Included:

- ***Planning, design, permitting, and engineering services during construction***

Eckler Engineering, Inc.

CITY OF TAMARAC

FILTER BACKWASH WATER RECOVERY BASIN

City of Tamarac
10101 State St.
Tamarac, Florida 33321
(954) 597-3758

Project Location: Tamarac, Florida
Contact: Earl Henry, P.E. (954) 597-3758
earl.henry@tamarac.org

Eckler Engineering, Inc. was selected to provide engineering services required for this project.

The City of Tamarac determined that the washwater being used to backwash filters at their 20.0 MGD water treatment plant could be recovered for beneficial potable use. In order to achieve this goal the backwash water would have to be decanted and returned to the head of the treatment process. This would make the current un-lined pond unusable under current regulations. To meet the goal a new washwater recovery system was necessary to provide the following:

A lined recovery basin of sufficient volume to allow the filtered solids to settle.

Washwater recovery pump station to return decanted washwater to the head of the treatment plant.

Sludge pump station to remove the settled lime carryover to the existing sludge pond.

The improvements include : a 540,000 gallon reinforced concrete washwater recovery basin structure with two equal 270,000 gallon compartments, a washwater recovery pump station and a settled sludge pump station; two (2) constant speed, washwater recovery pumps each with a capacity of 450 GPM; two (2) constant speed, submersible settled sludge pumps each with a capacity of 300 GPM; controls and field instruments; yard piping improvements to incorporate the new washwater recovery system and site work.

Design washwater return rates are:

8.10% of WTP average annual daily flow.
4.32% of WTP maximum daily flow

Contractor bid amount: $1,297,700.00
Final construction Cost: $1,297,700.00
Project Completion: October, 2012

Eckler Engineering, Inc.'s Services Included:

Planning, design, permitting, engineering services during construction, startup, and operator training.

Eckler Engineering, Inc.

VILLAGE OF PALM SPRINGS

R.L. PRATT WATER TREATMENT PLANT
FILTER REHABILITATION

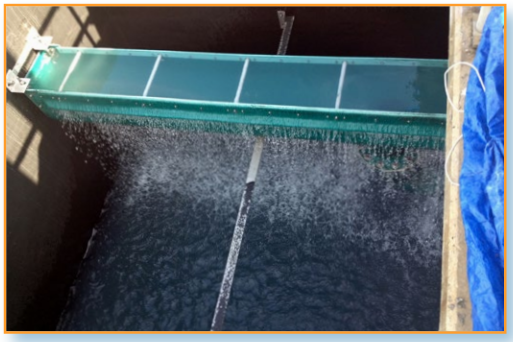
Village of Palm Springs
226 Cypress Lane
Palm Springs, Florida 33461
(561) 434-5100

Project Location: Palm Springs, Florida
Contact: Paul Ward (561) 601-5780
pward@vpsfl.org

Eckler Engineering, Inc. was selected to provide engineering services required for this project.

The existing filtration system had been in service for approximately 28 years and was in need of rehabilitation and upgrade. The lime softening treatment process created issues with back washing of the existing filters. To resolve these issues the existing nozzle style of underdrain system was replaced with a new lateral block style designed to control and equally distribute the backwash air and water supply. The rehabilitation required structural modifications to incorporate the new underdrain design.

The project also required the replacement of the air supply piping, sand and anthracite filter media, new wash water conveyance troughs and new filter backwash air supply blowers. Architectural improvements were also completed inclusive of filter structure interior and exterior coating.



Planning, design, permitting, bidding administration services and engineering services during construction.

Final construction Cost: $677,000.00

Project Completion: September, 2014

ECKLER ENGINEERING, INC.

VILLAGE OF PALM SPRINGS

R.L. PRATT WATER TREATMENT PLANT SPIRACTOR REPLACEMENT

Village of Palm Springs
226 Cypress Lane
Palm Springs, FL 33461
(561) 434-5100

Project Location: Palm Springs, Florida
Contact: Paul Ward (561) 601-5780
pward@vpsfl.org

Eckler Engineering, Inc., provided the preliminary engineering evaluation/design, and engineering services during construction.

The existing spiractors had been in services for approximately 34 years and were beyond their useful life. The carbon steel spiractor units showed signs of corrosion and wear from years of lime softening abrasion. Replacement of the spiractor units to prevent failure and to continue to provide excellent softening, was recommended and implemented.

The project Addressed the following improvements:

- Removal and replacement of two(2) existing spiractors units.
- Influent and effluent piping modifications.
- Spent catalyst disposal piping modifications.
- Improved maintenance access manways
- Addition of electric actuators on the two(2) influent lines.
- Miscellaneous civil site work.

Construction Bid Amount:	*$839,000.00*
Final Construction Cost:	*$833,683.66*
Project Completion:	*February 2020*

Eckler Engineering, Inc., Services Included:

Preliminary engineeering evaluation/design and engineering services during construction.

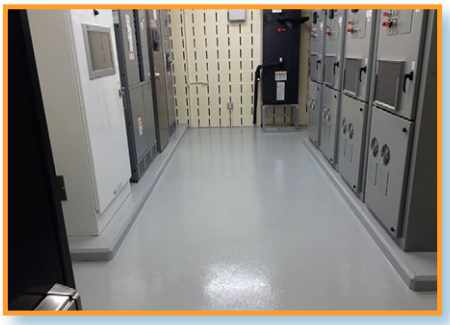
Eckler Engineering, Inc.

CITY OF CORAL SPRINGS

REHABILITATION OF MULLINS WATER BOOSTER STATION

City of Coral Springs
9551 W. Sample Road
Coral Springs, Florida 33065
(954) 344-1165

Project Location: Coral Springs, Florida
Contact: Najla Zerrouki, P.E. (954) 345-2188
nzerrouki@coralsprings.org



Eckler Engineering, Inc. was selected to provide the engineering services on this project. The Booster Station was rehabilitated to include four (4) new horizontal split case pumps, mechanical piping, valves, electrical, civil improvements, and instrumentation and control. A diesel generator is also installed on-site. Lastly rehabilitations included security and architectural improvements to enhance and keep the station secure.

Final construction Cost: $1,391,000

Project Completion: September, 2015

Eckler Engineering, Inc.'s Services Included:

Planning, design, permitting, and engineering services during construction.

ECKLER ENGINEERING, INC.

CITY OF CORAL SPRINGS

REHABILITATION OF EAST AND WEST WATER BOOSTER STATION

City of Coral Springs

9551 W. Sample Road
Coral Springs, Florida 33065
(954) 344-1165

Project Location: Coral Springs, Florida
Contact: Najla Zerrouki, P.E. (954) 345-2188
nzerrouki@coralsprings.org

Eckler Engineering, Inc., was selected to provide the engineering design, permitting and construction services for the rehabilitation of the East and West water booster stations. The East station required three new horizontal split case pumps, new yard piping, architectural improvements, structural improvements, new process instrumentation and controls and a new grinder station.

The West booster station required new architectural improvements, structural improvements, HVAC upgrades, three new horizontal split case pumps, modified yard piping, new process instruments and controls and electrical work.

Final construction Cost: $1,989,000.00

Project Completion: July, 2016

Eckler Engineering, Inc.'s Services Included:

Planning, design, permitting, and engineering services during construction

Eckler Engineering, Inc.

FLORIDA KEYS AQUEDUCT AUTHORITY

STOCK ISLAND PUMP STATIONS DESIGN/BUILD
DISTRIBUTION AND BACK PUMP IMPROVEMENTS

Florida Keys Aqueduct Authority
1100 Kennedy Drive
Key West, Florida 33040
(305) 296-2454

Project Location: Keywest, Florida
Contact: ***Thomas Clarke, (561) 845-1233***
tclarke@floridadesigncontractors.com

Eckler Engineering, Inc. provided the engineering services for the project Design/Build Team. The project addressed pumping system improvements at two existing potable water pump stations, the Distribution Pump Station and the Back Pump Station. The project addressed the following improvements:

Distribution Pump Station

- Removal and replacement of existing 350 HP split-case centrifugal pump.
- Removal and replacement of the pump's VFD.
- Removal and replacement of the discharge flow meter station and piping/valves.
- Electrical and SCADA improvements.
- Minor HVAC and Architectural/Structural improvements.

Back Pump Station

- Removal and replacement of existing split-case centrifugal pump and diesel engine driver
- Removal and replacement of the engine controls.
- Removal and replacement of the discharge flow meters and piping/valves.
- Diesel fuel system modifications.
- Electrical and SCADA improvements.
- Minor HVAC and Architectural/Structural improvements.

Eckler Engineering, Inc.'s Services Included:

- ***Enginnering services in support of the design/build contractor.***

Construction Bid Ammount: $1,290,000
Final Construction Cost: $TBD
Project Completion: November, 2016

Eckler Engineering, Inc.

CITY OF PEMBROKE PINES

DESIGN BUILD SERVICES FOR ODOR CONTROL AT THE WASTEWATER TREATMENT PLANT

City of Pembroke Pines
13975 Pembroke Road
Pembroke Pines, FL 33027

Project Location: Pembroke Pines, Florida
Contact: ***Cardinal Contractors***
Michael Brandao, (561) 809-1285
mbrandao@prim.com

Eckler Engineering, Inc. provided the engineering services for the project Design/Build Team. The project scope was focused on maintenance replacement of existing odor control and headworks equipment and associated components.

The project addressed the following improvements:

- Removal and replacement of two existing influent screens and wash press/compactors.
- Removal and replacement of two(2) existing grit separators.
- Installation of new common grit classifier.
- Demolition of existing biological odor control system
- Installation of new Induced Draft two stage wet chemical scrubber odor control system.
- Revisions to elevated FRP ductwork system to support new central odor control system.
- Improvements to associated electrical and process control systems.
- Miscellaneous civil site work.

Construction Bid Amount: $3,358,000
Final Construction Cost: $
Project Completion: August, 2015

Eckler Engineering, Inc.'s Services Included:

- ***Engineering services in support of the design/build contractor.***

Eckler Engineering, Inc.

CITY OF BOCA RATON

RECLAIMED WATER PRODUCTION FACILITY EXPANSION

City of Boca Raton
201 W. Palmetto Park Road
Boca Raton, Florida 33431
(561) 338-7301

Project Location: Boca Raton, Florida
Contact: Chris Helfrich, P.E. (561) 338-7303
chelfrich@ci.boca-raton.fl.us

Eckler Engineering, Inc. was selected to provide engineering services for this project. The CITY wanted to take a pro-active approach to meeting the needs of their existing reclaimed water distribution system and their current system expansion goals.

The project also needed to focus on providing a reclaimed water treatment capacity to match the wastewater plant effluent with the goal of eventually eliminating the ocean outfall as the primary disposal option. The initial capacity of 15.0 MGD was selected with an ultimate capacity goal of 17.5 MGD. To achieve these goals the existing 7.5 MGD system had to be upgraded to meet the proposed ultimate treatment capacity goal. The scope required upflow filtration upgrade of 10.0 MGD, increase of the chlorine contact basin capacity to 17.5 MGD; increase of the filter influent flow capacity to 17.5 MGD; New chemical storage/feed systems for coagulant and NaOCl; new filter backwash air supply system; new yard piping; SCADA system improvements and other ancillary work.

The beneficial impact to the CITY is the help with other infrastructure operations including permit renewals of the existing ocean outfall and permit renewals with the South Florida Water Management District for the withdrawal of surficial groundwater supply for drinking water.

Eckler Engineering, Inc. Services Included:

Planning, design, permitting, bidding administration services and engineering services during constrution.

Final construction Cost: $4,414,429.00

Project Completion: August, 2010

ECKLER ENGINEERING, INC.

CITY OF SUNRISE UTILITIES DEPARTMENT`

SAWGRASS WWTP HLD REUSE FACILITY - PHASE 1 (4.0 MGD)

Eckler Engineering, Inc., provided project engineering services as a sub-consultant to Brown and Caldwell. The overall project scope was related to the implementation of a new High Level Disinfection (HLD) Reuse Facility at the existing Sawgrass WWTP. This initial Phase 1 Project provided 4.0 MGD of Reuse water production meeting F.A.C. 62-610. The Eckler Engineering scope addressed the following:

- Demolition design of existing yard piping facilities where removal was needed to facilitate new construction.
- General planning of new yard piping/process piping improvements
- Preparation of the preliminary design memorandum for the proposed yard piping elements.
- Detailed engineering design and preparation of all yard/process piping improvements.
- Engineering design/drawings of precast concrete chemical feed piping trench system.
- Address and tabulate all fitting/valve coordinates.
- Compile conflict tables and resolutions.
- Specific yard piping details.
- Regulatory permitting.
- Engineering services during construction of the overall facility.
- Preparation of Project Record drawings and contract closeout.

Final construction Cost:	***$ 15,004,550.00***
Project Completion	***September, 2018***

City of Sunrise, Utilities Department

14150 NW 8th Street
Sunrise, Florida 33325

Project Location: Sawgrass WWTP
Contact: Eli Tilen, P.E. (305) 704-4423
ETilen@brwncald.com

Eckler engineering, Inc's Services Included	
• Preliminary Design	• Engineering Services During Construction
• Final Design	• Permitting

ECKLER ENGINEERING, INC.

North Key Largo Utility Corp.

NORTH KEY LARGO UTILITY CORPORATION

UIC OPERATION PERMIT MODIFICATION

North Key Largo Utility Corporation (NKLUC)
24 Dockside lane, #512
Key Largo, FL 33037-5282
(305) 367-7337

Project Location: Key Largo, Florida
Contact: Jeffrey Oeltjen, P.E. (305) 367-7337
joeltjen@ocenreef.com

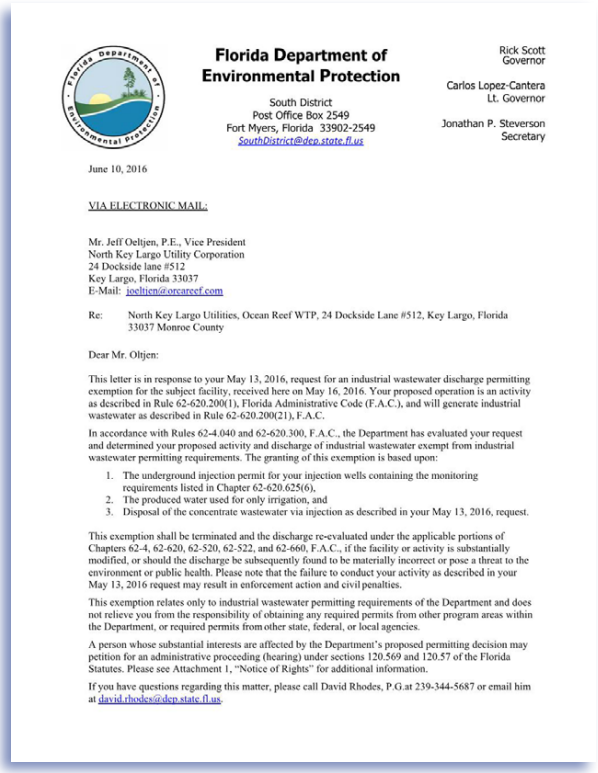
Robert Orr (305) 367-0011
rorr@oceanreef.com

Eckler Engineering, Inc. (EEI) provided engineering services to the NKLUC to complete a modification to their existing UIC Operation permit. This permit covered operation of the existing two (2) reverse osmosis concentrate injection wells. The existing permit had a maximum injection rate of 764 GPM (1.10 MGD). This volume was sufficient for the NKLUC brackish water RO irrigation water supply treatment system until it was expanded to increase the Permeate production rate to 1761 GPM (2.50 MGD). This expansion increased the concentrate reject volume to approximately 1172 GPM (1.69 MGD). Prior to submittal of the UIC permit modification application Eckler Engineering submitted and obtained an industrial Wastewater discharge permitting exemption per Rule 62-620.200(1) , Florida Administrative Code.

Following issuance of the exemption Eckler Engineering Submitted a request to modify the existing UIC Operation Permit. This modification was required to provide injection capacity for the new updated irrigation water production RO skids and some nominal future additional capacity. The permit modification was issued with the following operational parameters;

- Maximum Daily Disposal Volume: 2.20 MGD
- Maximum Injection Rate: 1528 GPM
- Maximum Wellhead Injection Pressure: 40 psi

Project Completion: July 2016



Florida Department of Environmental Protection

South District
Post Office Box 2549
Fort Myers, Florida 33902-2549
SouthDistrict@dep.state.fl.us

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

June 10, 2016

VIA ELECTRONIC MAIL:

Mr. Jeff Oeltjen, P.E., Vice President
North Key Largo Utility Corporation
24 Dockside lane #512
Key Largo, Florida 33037
E-Mail: joeltjen@orcareef.com

Re: North Key Largo Utilities, Ocean Reef WTP, 24 Dockside Lane #512, Key Largo, Florida 33037 Monroe County

Dear Mr. Oltjen:

This letter is in response to your May 13, 2016, request for an industrial wastewater discharge permitting exemption for the subject facility, received here on May 16, 2016. Your proposed operation is an activity as described in Rule 62-620.200(1), Florida Administrative Code (F.A.C.), and will generate industrial wastewater as described in Rule 62-620.200(21), F.A.C.

In accordance with Rules 62-4.040 and 62-620.300, F.A.C., the Department has evaluated your request and determined your proposed activity and discharge of industrial wastewater exempt from industrial wastewater permitting requirements. The granting of this exemption is based upon:

1. The underground injection permit for your injection wells containing the monitoring requirements listed in Chapter 62-620.625(6),
2. The produced water used for only irrigation, and
3. Disposal of the concentrate wastewater via injection as described in your May 13, 2016, request.

This exemption shall be terminated and the discharge re-evaluated under the applicable portions of Chapters 62-4, 62-620, 62-520, 62-522, and 62-660, F.A.C., if the facility or activity is substantially modified, or should the discharge be subsequently found to be materially incorrect or pose a threat to the environment or public health. Please note that the failure to conduct your activity as described in your May 13, 2016 request may result in enforcement action and civil penalties.

This exemption relates only to industrial wastewater permitting requirements of the Department and does not relieve you from the responsibility of obtaining any required permits from other program areas within the Department, or required permits from other state, federal, or local agencies.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. Please see Attachment 1, "Notice of Rights" for additional information.

If you have questions regarding this matter, please call David Rhodes, P.G.at 239-344-5687 or email him at david.rhodes@dep.state.fl.us.

Eckler Engineering, Inc.'s Services Included:

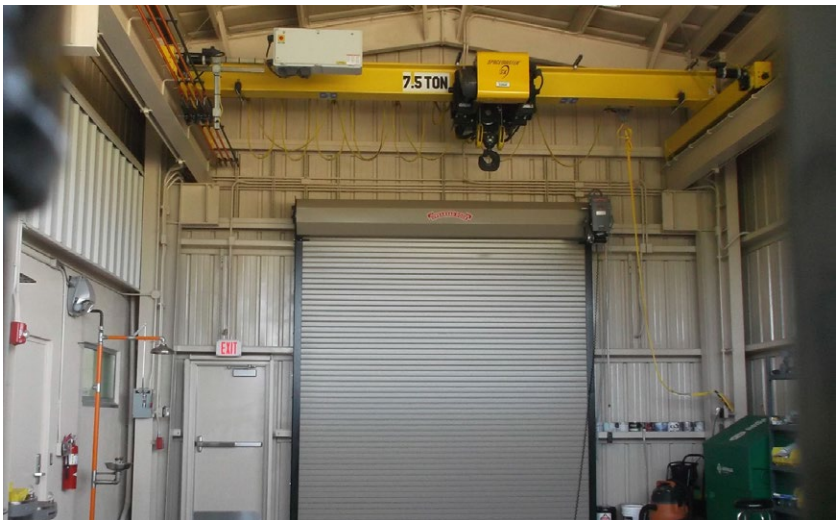
Coordination with Regional and State level FDEP Staff, engineering support and preparation of all required permit modification request documents.

EAST CENTRAL REGIONAL (ECR) OPERATION & MAINTENANCE BUILDING

Palm Beach County, Florida

The East Central Regional (ECR) Water Reclamation Facility in West Palm Beach required an Operation and Maintenance Facility for the Reclaimed Water O&M of the pumping facilities. WGI performed the structural engineering design, developed construction documents, and provided the special inspection of the metal building, including all bolted and welded connections.

The design included a 7.5-ton bridge crane and an open bay for delivery and maintenance of ECR's vertical turbine pump assemblies.



REFERENCE:
Palm Beach County Water Utilities
Steve McGrew
8100 Forest Hill Boulevard
West Palm Beach, FL 33413
p. 561.493.6110
f. 561.740.4634
e. smcgrew@pbcwater.com

DATE STARTED:
Design October 2013
Construction September 2015

DATE COMPLETED:
Design April 2015
Construction June 2016

TOTAL COST:
Design $36K
Construction $750K

PROJECT MANAGER:
Jeffrey Bergmann, PE

KEY STAFF:
Tim Sherwood, BI

STRUCTURAL SOLUTIONS

WGI™
WGInc.com

NORTHERN REGION OPERATIONS CENTER

Palm Beach County, Florida

WGI provided design and construction phase services for the Pump Station and Control Building at Palm Beach County's Northern Region Operations Center (NROC). The design for this 6,400-square foot, high bay building incorporates concrete moment resisting frame, concrete masonry infill walls and keystone concrete joists for the roof structure. The design also includes a 5-ton bridge crane within the maintenance bay. A chemical tank area with containment walls was also included.

REFERENCE:
Palm Beach County Water Utilities
Steve McGrew
8100 Forest Hill Boulevard
West Palm Beach, FL 33413
p. 561.493.6110
f. 561.740.4634
e. smcgrew@pbcwater.com

DATE STARTED:
Design January 2006
Construction January 2007

DATE COMPLETED:
Design December 2006
Construction March 2008

TOTAL COST:
Design $30K
Construction $2M

PROJECT MANAGER:
Chris LaForte, PE

KEY STAFF:
Sasha Kishore, EI

STRUCTURAL SOLUTIONS

WGI™
WGInc.com

WESTERN REGION OPERATIONS CENTER

Palm Beach County, Florida

WGI provided structural engineering design and construction phase services for Palm Beach County's Western Region Operations Center (WROC). The Western Operation Center serves the Belle Glade, Pahokee, and South Bay area in Palm Beach County. The building consists of two 10,000-square foot pavilion structures which provide covered storage for portable generators, material and equipment laydown areas. The Center also includes a 16,337-square foot warehouse administration and repair shop, of which 8,680 square feet is warehouse; and a 2,600-square foot generator building. The buildings are designed to Risk Category III/IV with ultimate wind speeds of 180 mph and are constructed with reinforced masonry walls, concrete tie columns and beams, steel joist/structural steel roof framing members and steel roof deck. The shop buildings include a two-ton bridge crane supported from the roof structure and the pump wash section of the building includes a two-ton underslung monorail hoist.

REFERENCE:
Palm Beach County Water Utilities
Steve McGrew
8100 Forest Hill Boulevard
West Palm Beach, FL 33413
p. 561.493.6110
f. 561.740.4634
e. smcgrew@pbcwater.com

DATE STARTED:
Design May 2014
Construction January 2016

DATE COMPLETED:
Design April 2015
Construction October 2017

TOTAL COST:
Design $80K
Construction $9.9M

PROJECT MANAGER:
Jeffrey Bergmann, PE

KEY STAFF:
Chris LaForte, PE
Sasha Kishore, EI
Tim Sherwood, BI
Dave Mizelle

STRUCTURAL SOLUTIONS

WGI™
WGInc.com

Kimley»Horn

Kimley-Horn References Projects

Jupiter Reverse Osmosis (RO) Bank II Membrane Replacement, Jupiter, FL

Kimley-Horn prepared specifications to receive competitive bids for replacement membranes, membrane supply, and installation separate contracts for Bank II reverse osmosis (RO) trains and assisted the Town through the process of bidding and subsequent rebidding of the contracts. These evaluations included projected short- and long-term membrane performance, as well as life cycle costs. Kimley-Horn evaluated performance of the initial set of membranes installed which were not meeting requirements of the contract documents. These membranes were replaced by the membrane manufacturer and their performance closely examined to confirm that they met the requirements. This new generation of membranes performed adequately to be installed in all four RO trains. This project included refurbishing RO Bank I vessel end clamps, cleaning Bank I membranes in place, replacing all grooved couplings in the RO plant, and close inspection followed by replacement of internal vessel components in Bank II.

Project Cost: $650,000.00
Project Duration: December 2015 – December 2016
Point of Contact Name: Amanda Barnes, Assistant Director
Telephone Number: 561.741.2537
Email: amandab@jupiter.fl.us

15.0-MGD Nanofiltration Water Treatment Plant (WTP) Construction Phase Services, Jupiter, FL

Kimley-Horn was engaged by the Town of Jupiter administrator during construction of their new nanofiltration VVTP. Kimley-Horn assembled a team of Kimley-Horn personnel combined with Town personnel to staff a full-time inspection and site presence operation. This nanofiltration plant replaced their existing lime softening treatment facilities. A unique feature of this plant is that it was the first in the U.S. to utilize center feed membrane vessels. Kimley-Horn was chosen to represent the Town on this project based on our familiarity with the site, preferences of the Town of Jupiter, and a demonstrated ability to keep construction moving while implementing field changes that individually make incremental improvements in the facility. This plant also includes more than $10 million in owner-purchased equipment which saved the Town more than $600,000. Kimley-Horn developed a unique teaming approach with the Town during construction that allowed Town staff to be very involved throughout the process and significantly reduced their costs. Town employees were assigned to perform certain administrative and construction observation roles that would normally be offered by the engineering consultant on a project of this magnitude. Kimley-Horn's professional staff on-site were then available to focus on time-critical engineering efforts and field changes. This collaborative approach has proven to be highly successful from both the Town's and Contractor's standpoint.

Project Cost: $37,000,000.00
Project Duration: April 2008 – December 2010 (design); 2013 (construction)

Point of Contact Name: Amanda Barnes, Assistant Director
Telephone Number: 561.741.2537
Email: amandab@jupiter.fl.us

Tropical Farms 10.0-MGD Brackish Water Treatment Plant, Martin County, FL

Over the last decade, Kimley-Horn has provided a variety of services for the Tropical Farms Water Treatment Plant. Tropical Farms is a regional treatment facility to serve Martin County's southern service area. Kimley-Horn provided all phases of design, permitting, construction, and SCADA system integration for the 10.0-MGD reverse osmosis water treatment system. Specific tasks included in this program include: drilling of five new brackish water Floridan aquifer supply wells, including formation water disposal system, and monitoring of formation water disposal; design and permitting of Martin County's second reverse osmosis plant, an 8.0-MGD reverse osmosis plant expansion at the Tropical Farms facility; and construction phase services for the expansion, including wellfield, piping, pretreatment, reverse osmosis process, chemical systems, post-treatment, auxiliary power, SCADA system improvements, and high-service pumping. Ongoing services we have provided have included:

- Four-Log virus reduction and approval from FDEP
- Membrane Fouling Evaluation & Autopsies
- Water Master Plan Update
- Emergency Response Plan Update
- Ammonia Tank replacement
- Generator Silencer Replacement and noise abatement
- Membrane and Pressure Vessel Evaluation and Replacement

Project Cost: $23,141,112.00
Project Duration: 2003 – 2008 (design); 2009 (construction)
Point of Contact Name: Leo Repetti, P.E.
Telephone Number: 772.320.3065
Email: lrepetti@martin.fl.us

Martin County Utilities 5.5-MGD Jensen Beach Brackish Water Reverse Osmosis (RO) Water Treatment Plant, Martin County, FL

The Kimley-Horn team provided years of engineering support to Martin County Utilities for their first brackish water reverse osmosis (RO) membrane treatment plant. Kimley-Horn designed, permitted, and oversaw construction and commissioning of the original 1 .5-MGD membrane treatment plant constructed back in 1991 to supplement the old 3.3- MGD lime softening treatment plant. The Kimley-

Horn team partnered with MCU over the years to expand the treatment plant to its current rated capacity of 5.5 MGD using three 1 .8-MGD rated skids.

The Kimley-Horn team implemented energy recovery improvements to each of the existing RO skids to improve water quality, increase recovery and treatment capacity, and reduce operating costs. The improvements included installation of interstage turbo boosters on the second stage, replacement of the existing membrane elements with newer energy saving polyamide membranes and upgrading the array to allow increase in capacity---all without any increase in feedwater capacity. The cost of the improvements was $1.2 million, all of which was captured with a return on investment of 5-7 years with the energy savings. The improvements also allowed operation of the membrane system with a degradation in raw water quality which has occurred with one of the Floridan aquifer supply wells. Kimley-Horn provided design, permitting, construction phase services, SCADA programming, and commissioning of these improvements.

Project Cost: $1,336,351.00
Project Duration: March 2015 – November 2015
Point of Contact Name: Leo Repetti, P.E.
Telephone Number: 772.320.3065
Email: lrepetti@martin.fl.us

Indian River County Utilities Membrane Replacement and Water Treatment Plant (WTP) Improvements – 17.14-MGD Hobart Membrane Water Treatment Plant, Indian River County, FL

Kimley-Horn is providing technical support and oversight of membrane replacement and improvements to IRCU's North Hobart membrane treatment plant. Several of the membranes have lost their useful life and IRCU chose our team to oversee membrane replacement and explore methods of improving efficiency and water quality. Our team is working on reviewing membrane replacement options which will reduce fouling potential, improve water quality, and increase recovery while lowering overall operating costs. A significant amount of raw water bypass is used, which has contributed to an increase in disinfection byproducts. Through better membrane selection, our intent is to improve overall finish water quality without requiring major equipment changes and an increase in overall operating costs.

Project Cost: $1,300,000.00
Project Duration: January 2016 – August 2017
Point of Contact Name: Vincent Burke, Utilities Director
Telephone Number: 772.226.1834
Email: vburke@ircgov.com

Finish Water Stabilization (Lime Slurry Injection) to Reverse Osmosis (RO) Water Treatment Plants (WTPs) and Finish Water Stabilization Corrosion Study

Kimley-Horn was selected to implement improvements to Indian River County's finish water quality. The County has two regional water treatment plants with a combined capacity of 25 MGD. Both facilities utilize low pressure and nanofiltration membrane treatment, both of which have reduced hardness and alkalinity to levels which created aggressive and corrosive water. Blending with raw water was not adequate to stabilize the finish water without creating disinfection byproducts in the finish water stream. Zinc orthophosphate was used for years as a corrosion inhibitor, but failed to provide consistent corrosion protection without excessive scaling developed in the distribution system.

Kimley-Horn evaluated the stabilization methods for Indian River County's consolidated water system. Indian River County required an improvement to their existing corrosion control method which utilized zinc orthophosphate. The Kimley-Horn team evaluated alternative treatment methods, conducted pilot testing using lime slurry and carbon dioxide injection, and designed and permitted chemical stabilization systems for Indian River County's North Hobart RO WTP (rated at 17 .1 MGD) and their South Oslo Road RO WTP (rated at 8.5 MGD). The project included a carbon dioxide and lime slurry feed system which enhanced finish water alkalinity and hardness, major contributors to enhancing the Langelier Saturation Index (LSI) of the finish water.

Kimley-Horn designed, permitted, and oversaw construction of post-treatment systems for both regional facilities which utilized carbon dioxide (CO2) and liquid lime feed systems to improve alkalinity and stability of the finish water stream. Additionally, Kimley-Horn conducted corrosion testing using lead, copper, steel, and ductile coupons to evaluate the effectiveness of the improvements. The team is also evaluating water quality throughout the distribution system to determine the effectiveness of these improvements. Ultimately, the goal is to provide stable finish water quality without the addition of corrosion inhibitor.

Project Cost: $2,780,000.00
Project Duration: July 2012 – February 2015
Point of Contact Name: Terry Southard
Telephone Number: 772.226.3404
Email: tsouthard@ircgov.com

Oslo Road South Reverse Osmosis (RO) 8.57-MGD Brackish Water Treatment Plant (WTP) Modifications, Indian River County, FL

The Kimley-Horn team provided years of engineering support to Indian River County under their general services contract. Kimley-Horn completed modifications to Indian River County's South RO WTP, including construction of a new clearwell with transfer pumps, degasifiers, blowers, two-stage wet-scrubbers for odor control, recirculation pumps, and replacement of existing 30-inch FRP yard and process piping. To control odor emissions from Indian River County's regional plant, an odor control system was constructed. An important element of this project was replacement of their

existing fiberglass (FRP) yard piping and process piping which was necessary because of its age and poor condition.

This included all of the process piping within the RO plant and underground pipe bringing raw water into the plant, as well as carrying treated water out of the plant. The challenge of the project was to keep the plant operational during piping replacement. Kimley-Horn staff developed a detailed phasing plan to allow operation of the plant while the main raw water piping was replaced.

Permitting the disposal of concentrate from an RO WTP can be a daunting effort that has undefinable results. The Kimley-Horn project team has more than 25 years of permitting RO concentrate since the first largest WTP for the Town of Jupiter, which continues to use a less expensive alternative surface water disposal method. An innovative approach for Indian River County was to modify their surface water disposal method (due to some toxicity issues with the existing treatment system) using comingling of stormwater with RO concentrate. The combined stream would then be discharged to an algal turf scrubber system to help reduce nutrients prior to discharging to the Indian River Farms drainage system. Multiple agency coordination was required, including the Florida Department of Environmental Protection, Florida Wildlife Federation, U.S. Fish and wildlife Service, Indian River Farms Water Control District, Florida Fish and Wildlife Commission, and the Audubon Society.

Project Cost: $2,700,000.00
Project Duration: February 2005 – June 2008
Point of Contact Name: Vincent Burke, Utilities Director
Telephone Number: 772.226.1834
Email: vburke@ircgov.com

Palm Beach County Utilities Lake Region Reverse Osmosis (RO) Water Treatment Plant (WTP) #11 Operation Improvements, Palm Beach County, FL

Kimley-Horn provided support in restoring lost treatment capacity and improving operations of the 10-MGD Lake Region RO WTP #11, a brackish water treatment facility. The facility had struggled with a rapid decline in raw water quality and the Kimley-Horn team was instrumental in helping restore plant capacity through enhancements to the WTP and operational improvements. The Kimley-Horn team designed energy recovery improvements to the reverse osmosis (RO) system and identified several operational changes to optimize system recovery, including:

- Piggy back sulfuric acid contract, which saved more than $700,000
- Improved acid injection detail, which eliminated costly static mixer replacement
- Improved plant and wellfield operating plan
- Relieved plant operators of "white-knuckled" startups
- Restored treatment capacity with energy recovery devices

- Reduced energy costs by more than 25%!
- Mitigated need for membrane cleaning
- Identified flow meter issues with RO trains
- Drastically reduced noise levels in process room through the use of interstage energy recovery devices

Enhancements to the SCADA system were also implemented, which allowed automatic download of operating data to their Normalization program, greatly reducing staff time in managing operating data. With these improvements, the WTP was not only able to recover nearly 30% reduction in plant capacity, but operate at a higher capacity and efficiency.

Project Cost: $2,172,000 (construction); $266,395 (design)
Project Duration: 2012 – 2013 (construction); 2013 – 2014 (construction)
Point of Contact Name: Jim Stiles, Utility Director
Telephone Number: 561.493.6109
Email: jstiles@pbcwater.com

Water Treatment Plant Development and Rehabilitation, Wellington, FL

This project involves the improvements for the Village of Wellington's water treatment plant. Kimley-Horn assumed the role from another consultant to complete improvements including adding high service pumps, rehabilitating the old HS building, relocate or replace existing electrical equipment, update the plant-wide SCADA system. replace trench piping supports, add a membrane train, re-membrane four existing trains, reconfigure cleaning headers, provide new bulk and day fuel tanks, update the sodium hypochlorite system, add a new fluoride feed system, expand and upgrade the control room and operator facilities and other services. For each task, we are providing design, permitting, and bidding services and construction services.

Project Cost: $409,830.00
Project Duration: April 2016 (design) – June 2017
Point of Contact Name: Jim Barnes, Deputy Village Manager
Telephone Number: 561.791.4000
Email: jbarnes@wellingtonfl.gov

Water Treatment Plant No. 11 Membrane Replacement Pilot Study, Palm Beach County Water Utilities Department, Palm Beach County, FL

This project involves WTP No. 11 has been in operation and producing potable water for the cities of Belle Glade, Pahokee and South Bay since 2007. The original reverse osmosis (RO) membranes remain in service and need replacing.

Kimley-Horn was retained to conduct a membrane pilot study at WTP No. 11 to select suitable replacement RO membranes and antiscalant. The goal is to identify the membrane that exhibits the

best performance with respect to operating pressures, water quality and long-term performance, which should be utilized for the future replacement.

Project Cost: $70,919.00
Project Duration: May 2018 – Ongoing
Point of Contact Name: Craig Irwin, P.E.
Telephone Number: 561.493.6024
Email: cirwin@pbcwater.com

South Oslo Road Water Plant Rehabilitation Improvements, Vero Beach, FL

This facility has a total treatment capacity of 8.57 MGD, including 6 MGD of membrane treatment capacity with 2.57 MGD of bypass raw water blending quality. **The Kimley-Horn team has been involved with this facility for more than 15 years,** when we were called into help install a new post-treatment degasification and off-gas scrubber system for the membrane permeate water. There was no odor control at the time, and the degasifiers were elevated on top of the ground storage tanks, impeding normal maintenance to the degasification equipment. Off-gas from the original degasifiers was also creating corrosion of some of the onsite equipment, as well as the nearby school infrastructure. Our team also designed and permitted the replacement of the original fiberglass raw water piping which failed frequently and impacted plant operations and reliability.

Our team has been involved with this facility since 2000 and has provided similar services to the Hobart facility, including evaluation and improvements of the existing wellfield, membrane replacement and treatment evaluation, post-treatment stabilization and carbon dioxide (CO2) feed, and lead and copper corrosion testing and studies. **Several improvements and/or challenges this facility has that our team can help address include but are not limited to:**

- Reverse osmosis (RO) membrane skids are badly corroded and in need of upgrades/replacement, including membrane elements which are nearly 10 years old
- Continue with rehabilitating the existing Floridian wells and deepening to improve water quality and (specific) capacity
- Main plant discharge water main is in need of replacement and construction of a dual high-service pump discharge header will provide reliability through redundancy
- Scrubbers blowdowns are always challenging with scaling issues when combined with wastewater, and pH reduction coupled with scale inhibitor addition helps minimize scaling issues
- Similar to the Hobart water plant, chlorine feed to concentrate has the opportunity to be deleted from the process since it is only used for sulfide reduction which is not currently regulated by the current brine disposal permit
- SCADA system upgrades, including replacement of an outdated PLC and improving HMI infrastructure and interface

Project Cost: $189,625.00
Project Duration: April 2015 – Ongoing
Point of Contact Name: Vincent Burke, P.E.
Telephone Number: 772.226.1834
Email: vburke@ircgov.com

Palm Beach County Water Utilities Department General Water Treatment Plant Engineering Services, Palm Beach County, FL

Kimley-Horn performed general water plant engineering services on an as-requested basis. Services may include: preparation of drawings and specifications; assistance with the preparation of design-build criteria and studies; review of water plant performance and reports; site visits; and evaluation of plant operations and treatment efficiency. Projects under this contract included:

- Water Treatment Plant #2 Expansion Study
- Water Treatment Plant #2 Evaluating Existing Treatment Facilities
- Water Treatment Plant #11 Clearwell and Post-Treatment Evaluation
- Water Treatment Plant #11 Finish Water Quality Evaluation and Corrosion Study
- Water Treatment Plant #11 Distribution System Biofouling and Corrosion Inhibitor Evaluation
- Water Treatment Plant #3 Membrane Replacement Pilot Study
- Water Treatment Plant #3 Membrane Replacement Impacts to System Components and Evaluation
- Water Treatment Plant #3 Membrane Replacement Extending Pilot Testing
- Water Treatment Plant #11 Priority 1 Clearwell Improvements
- Florida Power & Light Reclaimed Water Facility at the East Central Regional Water Reclamation Facility (ECRWRF) Safety Review
- Water Treatment Plant #11 Production Well (PW) 11 Well, Wellhead, and EI&C Design and Bidding Phase Services
- Water Treatment Plant #11 Production Well (PW) 11 Raw Water Main Design Phase Additional Services PW 11 Raw Water Main
- Water Treatment Plant #9 Sand Separator
- Water Treatment Plant #3 Concentrate Corrosion Study
- Water Treatment Plant #2 Evaluating Existing System

- Lead and Copper Corrosion Study of Water Treatment Plant #s 2, 3, 8, and 9
- Water Treatment Plant #11 Acid Elimination Evaluation

Project Cost: $22,108.77
Project Duration: July 2014 – June 2017
Point of Contact Name: Krystin Berntsen, P.E., P.M.P.
Telephone Number: 561.493.6027
Email: kberntsen@pbcwater.com

West Villages Improvement District Southwest Water Treatment Plant, Sarasota, FL

Kimley-Horn is retained to provide professional services for the design of a water treatment plant (ETP) to be located at the northwest corner of the intersection of the future West Villages Parkway and future Manasota Beach Road. The facility is planned to utilize reverse osmosis (RO) membrane treatment and will be constructed in two phases equaling 5 MGD.

Due to an aggressive schedule, the deliver method will be Construction Manager at Risk (CMAR) and our team helped select and coordinated with the CMAR throughout the design and preconstruction. Once constructed, it is anticipated the ownership of the facility will be dedicated to the City of North Port for ownership, operation, and maintenance. Therefore, all design elements, manufacturer requirements and treatment preferences will be approved by the City.

Kimley-Horn prepared Preliminary Design Report, and is providing WTP design services and construction plans, source water hydraulic modeling and water quality projections, environmental and permitting services, raw water wellhead and main designs, and concentrate line design services.

Project Cost: $2,331,016.00
Project Duration: August 2019 - Ongoing
Point of Contact Name: Martin Black
Telephone Number: 561.630.4922
Email: mblack@westvillagesid.org

Prior Projects Performed for The City of Pompano Beach		
Project Name	**Year Completed**	**Comments**
Pompano Reuse Master Plan	1999	Subconsultant to Montgomery Watson
Water & Wastewater Refunding Bonds	Prior to 2001	Prime
Preliminary Report on Repair/Rehab of Old WTP	Prior to 2001	Prime
Water Treatment Plant Rehabilitation	Prior to 2001	Prime
Treated Wastewater Effluent Irrigation Facility	Prior to 2001	Prime
Bond Refunding	Prior to 2001	Prime
Rate Consultant	Prior to 2001	Prime
Design/Build W & WW Offices	Prior to 2001	Prime
WTP Clearwell Structural Investigation	Prior to 2001	Prime
Fuel Tank Replacements (WTP)	Prior to 2001	Prime
H_2S Study in Gravity Sewer Collection	Prior to 2001	Prime
Pompano SFWMD WUP	Prior to 2001	Prime
Backflow Prevention	Prior to 2001	Prime
Rehabilitation of WTP Treatment Unit #1	Prior to 2001	Prime
Reuse Application Area Permit	Prior to 2001	Prime
Utilities for NW Industrial Area	Prior to 2001	Prime
Utility Master Plan (water, Wastewater, reclaim)	Prior to 2001	Prime
Rehabilitation of Pump Stations 4, 7 & 11	Prior to 2001	Prime
Rehabilitation of Pump Stations 3 & 6	Prior to 2001	Prime
Lyons Park Water System Replacement	Prior to 2001	Prime
Collier City Sanitary Sewer II	Prior to 2001	Prime
Rehabilitation of Pump Station 21	Prior to 2001	Prime
Water Resources Center Expansion – Phase I	2001	Subconsultant to Montgomery Watson
Reclaimed Water Mains	2002	Subconsultant to Montgomery Watson
WTP High Service Pump Diesel Fuel Piping Rev.	2002	Prime
Operating Protocol – Reclaim WTP	2002	Prime
Reclaimed Water Mains	2004	Prime
Alternative Reclaimed Water Supply	2005	Prime
Reject Water Pump Analysis (Reclaimed WTP)	2008	Prime
Influent Screening Modifications (Reclaimed WTP)	2009	Prime
Disc Filter Pilot (Reclaimed WTP)	2009	Prime
Ten Year Reuse Master Plan Update	2009	Prime

Eckler Engineering Highlights of Above Projects:

EOR for the original Reuse Water Treatment Plant

Co-EOR for the Phase I Expansion of the Reuse Water Treatment Plant.

EOR for Rehabilitation of Lime Softening Water Treatment Plant

pompano beach
Florida's Warmest Welcome

PROJECT TEAM FORM

PROJECT TEAM FORM

COMPLETE THE PROJECT TEAM FORM ON THE ATTACHMENTS TAB IN THE EBID SYSTEM. PROPOSERS ARE TO COMPLETE FORM IN ITS ENTIRITY AND INCLUDE THE FORM IN YOUR PROPOSAL THAT MUST BE UPLOADED TO THE RESPONSE ATTACHMENTS TAB FOR THE RLI IN THE EBID SYSTEM.

PROJECT TEAM

RLI NUMBER E-23-20

Federal I.D.# 65-0755534

PRIME

Role	Name of Individual Assigned to Project	Number of Years Experience	Education, Degrees
Principal-In-Charge	Douglas K. Hammann, P.E.	31	ME, BSCET, AS
Project Manager	Bryant J. Facey, P.E.	14	BS
Asst. Project Manager	Chase O. Dickinson, P.E.	8	BS, MS
Other Key Member	Omar Khan, P.E.	14	BSCE
Other Key Member	Oscar L. Rubio, P.E.	48	BSCE

SUB-CONSULTANT

Role	Company Name and Address of Office Handling This Project	Name of Individual Assigned to the Project
Surveying	Avirom & Associates, Inc. 50 SW 2nd Avenue, Boca Raton, FL 33432	John Doogan, P.L.S.
Landscaping		
Engineering	Kimley-Horn and Associates, Inc. 1920 Wekiva Way, WPB, FL 33411	Andrea Carpenter
Other Key Member	Nutting Engineers of Florida, Inc. 1310 Neptune Drive, Boynton Beach, FL 33426	Richard Wohlfarth, P.E.
Other Key Member	Jones Edmunds 2240 Lake Worth Road, Ste 221, Lake Worth, FL 33467	Bill Lynch, P.E.
Other Key Member	Electrical Design Associates, Inc. 8401 NW 2nd Avenue, Ste. 221, Lake Worth, FL 33467	Dameoin Donaldson, P.E.
Other Key Member	Quest Corporation of America, Inc. 17220 Camelot Court, Land O'Lakes, FL 34628	Peter Dobens

(use attachments if necessary)

RLI NUMBER E-23-20

PROJECT TEAM PAGE TWO

SUB-CONSULTANT

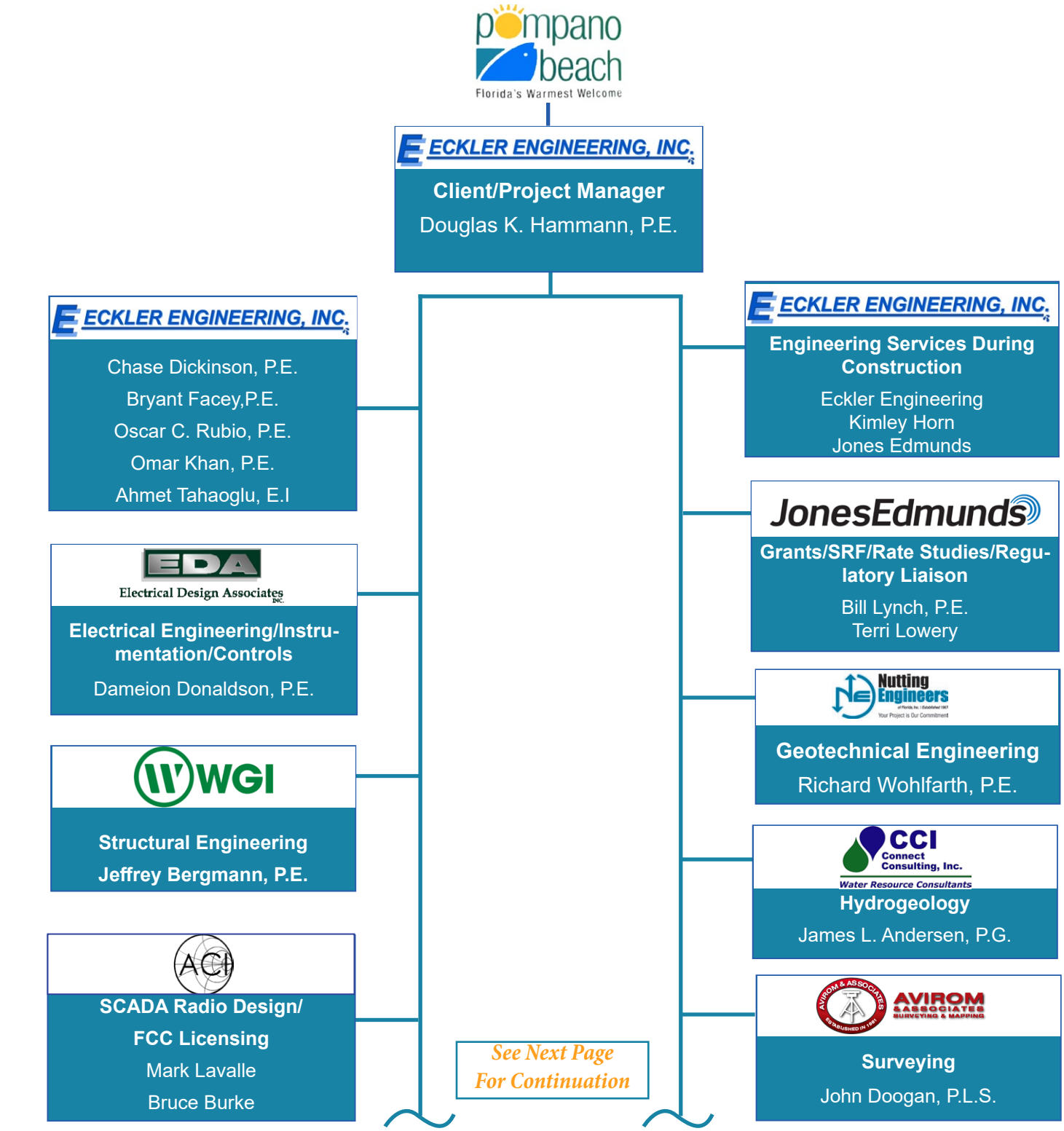
Other Key Member	WGI, Inc. 2035 Vista Parkway, Suite 100 West Palm Beach, FL 33441	Jeffrey Bergmann, P.E.
Other Key Member	Connect Consulting, Inc. 1907 Commerce Lane Jupiter, FL 33458	James L. Anderson, P.G.
Other Key Member	Cardinal Contractors, Inc. (PSC) 13790 NW 4th St., Suite 109 Sunrise, FL 33325	Michael Brandao
Other Key Member	Crom 250 SW 36th Terrace Gainesville, FL 32607	Alex Ciasca, P.E.
Other Key Member	Advantage Communications, Inc. 515 South Highlands Drive Hollywood, FL 33021	Mark Lavalle

ORGANIZATIONAL CHART

ORGANIZATIONAL CHART

The following project staffing diagram shows project team firms and their respective assignments. The organizational chart also shows subconsultants that may be required to properly complete specific project(s).

Total staff availability to Eckler Engineering to meet the needs of the City of Pompano Beach per this RLI response is approximately 50+ various professional, technical, and administrative personnel.



ORGANIZATIONAL CHART

Kimley»Horn

Membrane Process Specialist
Lance Littrell, P.E.
Mark Miller, P.E.
Jason Lee, P.E.
Nick Black, P.E.
Andrea Carpenter, P.E.
Stefano Viola, P.E.

QCA Quest Corporation of America

Public Relations/ Communications
Peter F. Dobens

Continued from Previous Page

PSC Primoris Services Corporation / Cardinal Contractors

Constructability Review/Water/ Wastewater Contractor
Michael Brandao, V.P.

CROM

Potable Water Storage Facility Inspection/Maintenance and Specialty Coating Consultation
Alex Ciasca, P.E.
Sigfreado Orama

These professionals have worked closely with Eckler Engineering on current and previous projects and we have developed a working relationship which expedites the work process. We believe that we have assembled a team of experienced professionals who, due to their special areas of expertise, are uniquely qualified to meet the needs of the City of Pompano Beach.

The Eckler Engineering Project Team capabilities can be summarized as follows:

Current and ongoing Lime Softening Water Treatment Plant engineering services.

Current and ongoing Membrane Water Treatment Plant engineering services.

Current and ongoing Reuse Water Treatment Plant engineering services.

Capability to perform potable water storage facility inspections and cleaning per FAC 62-555.250.

Capability to complete Design/Build projects for scheduled or unscheduled maintenance work.

Capability to provide Hydrogeology and water quality consulting services.

Grant and project funding resources and consulting services.

Engineering support services in the disciplines of geotechnical, surveying, electrical, structural and communications.

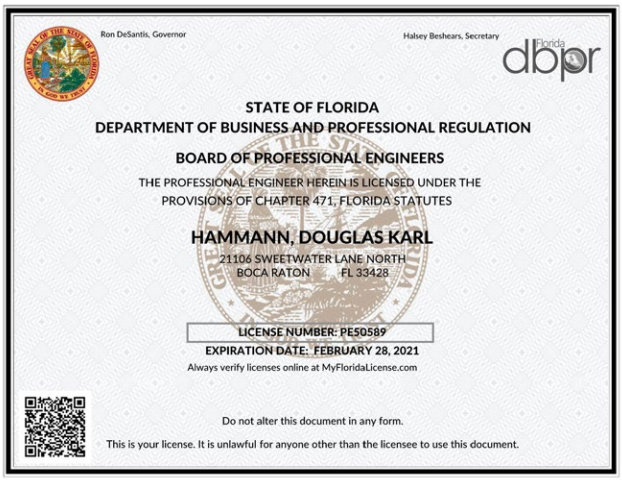
ORGANIZATIONAL CHART

ECKLER ENGINEERING PROJECT TEAM

Eckler Engineering, Inc. has assembled a project team to address water, wastewater, reclaimed water and civil engineering consultation, investigations and professional services for the City as outlined in the RLI on an ongoing, as needed basis and to supplement and assist the City's staff. Subconsultants that may be required to properly complete specific tasks and projects are proposed as well.

Engineer of Record (Prime Consultant) - Eckler Engineering, Inc.

Discipline	Civil Engineering
Type of Firm	Corporation
Date Incorporated	4-28-97
State of Incorporation	Florida
Date authorized to do business in Florida	7-25-85
President, Vice President, Secretary	Douglas K. Hammann, P.E.
Federal Employers Identification Number	65-0755534


Ron DeSantis, Governor
Halsey Beshears, Secretary
Florida dbpr
STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
BOARD OF PROFESSIONAL ENGINEERS
THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES
HAMMANN, DOUGLAS KARL
21106 SWEETWATER LANE NORTH
BOCA RATON FL 33428
LICENSE NUMBER: PE50589
EXPIRATION DATE: FEBRUARY 28, 2021
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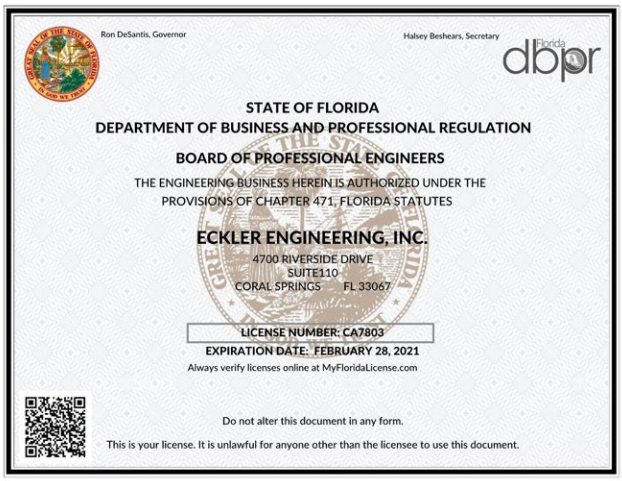
Ron DeSantis, Governor
Halsey Beshears, Secretary
Florida dbpr
STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
BOARD OF PROFESSIONAL ENGINEERS
THE ENGINEERING BUSINESS HEREIN IS AUTHORIZED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES
ECKLER ENGINEERING, INC.
4700 RIVERSIDE DRIVE
SUITE110
CORAL SPRINGS FL 33067
LICENSE NUMBER: CA7803
EXPIRATION DATE: FEBRUARY 28, 2021
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This project team has worked together on numerous water, wastewater, and reuse water projects in the past.

The majority of the engineering services required for the anticipated project(s) will be provided by Eckler Engineering, Inc. Our staff personnel may be assigned as follows:

Douglas K. Hammann, P.E. - Client / Project Manager. Mr. Hammann will be the Engineer of Record charged with the day-to-day operation of the project(s), general management, assignment of project personnel, establishment of design criteria, scheduling of work, and coordination and scheduling of subconsultants as necessary to properly complete project(s).

Mr. Hammann will be the prime contact between the City of Pompano Beach and Eckler Engineering project team.

Chase Dickinson, P.E., Bryant Facey, P.E., Oscar L. Rubio, P.E., Omar Khan, P.E. and Ahmet Tahaoglu, E.I. will be utilized as staff engineers for project(s). These engineers have sanitary collection system, wastewater transmission system, potable water system, treatment, storage and pumping systems experience and will be utilized on an as-needed basis depending upon the specific project requirements.

The proper completion of potential projects may require the use of various subconsultant professionals.

ORGANIZATIONAL CHART

Subconsultants may be utilized to provide surveying work, electrical engineering, structural engineering, hydrogeology, environmental engineering, and other services. Eckler Engineering has used most of the following subconsultants for the majority of our projects for the past 20 years. Subconsultants that are anticipated and may be called upon for specific projects are as follows:

Surveying - Avirom & Associates, Inc.

Avirom & Associates, Inc. has their office located in Boca Raton, Florida and will provide the field surveying services. They have been involved in numerous water and wastewater system designs with Eckler Engineering for more than twenty years. They are familiar with these types of facilities and the field data which must be collected. Avirom & Associates, Inc. has provided the surveying services for the majority of the projects Eckler Engineering has completed when surveying services were required.

Avirom & Associates, Inc. are very automated in their field data collection process. All survey services will be performed using data collectors capable of direct communication to their computers. These computers are equipped with Autocad 3D which has been enhanced with Land Development Desktop software to enable their personnel to edit and prepare finished survey drawings with extreme accuracy and time efficiency. They furnish Eckler Engineering with the base Cadd files which permit our engineers and Cadd technicians to utilize this information for design purposes. This has a significant impact on our ability to produce the necessary design drawings in a timely manner.

Key Personnel: John Doogan, PLS.

Electrical Engineering - Electrical Design Associates (EDA)

Electrical Design Associates, Inc. is a consulting engineering firm specializing in electrical and instrumentation design for water and wastewater facilities. We provide consulting engineering services primarily to the public sectors.

In September of 1998, Electrical Design Associates, Inc. was formed. **EDA is a Certified Minority/ Women Business Enterprise with offices in Palm Beach, Hillsborough and Orange Counties.** EDA staff includes registered electrical engineers, instrumentation designers, designer/cadd technicians, and field supervisors.

EDA's electrical experience includes electrical and instrumentation system designs for industrial plants, specifically Water and Wastewater Treatment Facilities located throughout the state of Florida. Electrical distribution systems experience covers the full range up to 13kvolt distribution systems as well as standby generator systems. Instrumentation systems design experience includes SCADA and PC based systems, as well as numerous traditional plant monitoring and control panel designs. Design experience encompasses computer/PLC controlled systems utilizing SCADA based systems for interfacing to remote locations, as well as hard wired relay controlled custom solutions.

EDA takes pride in the fact that while they are a small sized firm, they utilize state of the art computerization to accomplish their design projects and project management. The use of CADD systems provides enhanced production quality, lower operating costs and closer engineer participation thereby ensuring a higher quality product for the owner.

To reinforce EDA's emphasis on quality, the company uses an internal quality assurance/quality control system and interfaces with designers from complimentary disciplines to review standards and specifications for specific project needs.

Electrical Design Associates, Inc. is staffed to provide electrical and instrumentation engineering services from inception through design, bid and construction completion.

Key Personnel: Dameion Donaldson, P.E.

Geotechnical Engineering - Nutting Engineers of Florida, Inc.

Nutting Engineers of Florida, Inc. is available to provide geotechnical engineering services as project needs dictate. Nutting Engineers have been providing geotechnical services to Eckler Engineering for 20+ years and we have developed a good working relationship and they are included as a team member in a majority of our projects.

Key Personnel: Richard Wohlfarth, P.E.

Public Relations/Communications - QCA

Quest Corporation of America (QCA) will be providing communications and public relations when needed for the proper execution for projects. Their work will include support to the City for social media outreach, City's website posting, and general communication and information services for the public and the City of Pompano Beach utility systems customers. **Quest is a certified women owned business enterprise.**

Key Personnel: Peter F. Dobens, Communications Manager

Grant Funding / SRF; Rate, Connection Fee and Revenue Sufficiency Studies; Regulatory Liaison – Jones Edmunds

Established in 1974, Jones Edmunds is a Florida-based, multi-disciplinary professional services firm. The focus of their consulting practice is serving the needs of local government with an emphasis on public utilities since their inception. Dr. Richard Jones and Bob Edmunds founded the company on water and wastewater engineering. Jones Edmunds has over 120 staff members serving clients from seven offices in West Palm Beach, Sarasota, Titusville, Gainesville, Tampa, Winter Haven, and Jacksonville. **The West Palm Beach location will support Eckler Engineering.**

Jones Edmunds is currently working with the City to implement the Cityworks Asset Management System for water distribution, wastewater collection, and water treatment systems. This familiarity with the City will allow Jones Edmunds to support Eckler Engineering, Inc. in other areas including funding assessment and pursuit, regulatory reviews and updates, and other utility matters.

Communities routinely face the financial pressures of providing quality services to citizens, including furnishing clean water, wastewater disposal, safe roadways, quality recreation facilities, and solid waste disposal. Jones Edmunds has an outstanding record of accomplishment for obtaining federal and state grant funding from 319(h) grants, TMDL grants, SRF grants, and others. The following table outlines selected experience in successfully obtaining funding from various agencies.

Client	Project	Type of Funding	Grant/Loan Amount
City of Bradenton	ASR II Project – Potable Water, Surface Facilities & Degasification	SWFWMD	$3,000,000
City of Bradenton	ASR I Project – Potable Water	SWFWMD	$1,129,625
City of Bradenton	Reclaim Water System Modifications	SWFWMD	$400,000
City of Bradenton	Reuse System	SWFWMD	$299,000
City of Bradenton	WW Force Main Replacement	FDEP SRF	$500,000
City of Bradenton	Lift Station 5 & 31 Modifications	FDEP SRF	$600,000
City of Bradenton	WWTP & Lift Station	FDEP SRF	$5,600,000
City of Bradenton	WWTP Improvements	FDEP SRF	$2,500,000

Braden River Utilities	Reclaim Transmission	SWFWMD	$6,000,000
City of Dunnellon	WW Rehabilitation and Expansion	SRF Small Community Grant	$11,000,000
City of High Springs	New Wastewater System	Legislative Appropriation, USDA RD, SRWMD	$4,475,000
City of Madison	WWTP Improvements	Legislative Appropriations	$1,200,000
City of Madison	WWTP Expansion	USDA RD	$2,229,900
City of Newberry	Wastewater Treatment Plant Expansion	Legislative Appropriation, SRF loan	$2,600,000
City of Newberry	Water Main, Wastewater Force Main, Roadway for Mixed use residential development	CDBG	$900,000
City of Plant City	Wastewater Improvements	DEP	$75,000
City of Plant City	Reuse System	SWFWMD	$3,852,500
City of Plant City	Wastewater Improvements	DEP	$657,000
City of Rockledge	ASR	SJRWMD	$1,240,000
City of Rockledge	Reclaimed Water Storage Tank	SJRWMD	$400,000
City of Rockledge	Septic to Sewer	Legislative Appropriation	$775,000
City of Zephyrhills	Fireflow Water Line	Legislative Appropriation	$1,900,000
Charlotte County	Reclaimed Water Expansion-Stage 5	SWFWMD	$2,500,000
Citrus County	Southwest Regional WRF Upgrade and Reclaimed Water Treatment	Springs Funding (FDEP), SWFWMD	$5,000,000
Putnam County	Wastewater System	Legislative Appropriation, USDA, SRF	$14,000,000
Putnam County	Water System	USDA RD, SRF, EPA, SJRWMD	$28,800,000
Wakulla County	Wells, WTP, Elevated Storage Tanks, Water Mains	FEMA	$2,000,000
Taylor Coastal Water & Sewer District	Wastewater System	USDA RD, Legislative Appropriation, OTTED, EPA	$4,700,000
Volusia County	Wastewater Force Main	SJRWMD Cooperative Funding	$1,400,000
Volusia County	Gemini and DeLeon Springs Wastewater Feasibility	FDEP Springs	$250,000

Key Personnel: Bill Lynch, P.E. and Terri Lowery

SCADA Radio Design / FCC Licensing - Advantage Communications, Inc.

Advantage Communications Inc. (ACI) is a specialized technology firm that provides consulting on SCADA radio networks for utility operators in the United States. ACI was incorporated in December of 1993 and has worked on the largest SCADA radio networks in the United States including Virginia Beach, Virginia and Hillsborough County, Florida. These networks cover hundreds of square miles and communicate with thousands of RTU's. ACI has a long rich history of providing RF consulting services that include selection of appropriate SCADA radio technology for the service area. Consulting includes frequency of operation for the desired radio network

and determining the required antenna heights to facilitate reliable communications as well as radio frequency interference avoidance and mitigation of RF interference hazards.

ACI is uniquely skilled at utilities FCC work due to the its primary focus of radio communications systems and its extensive experience with the Code of Federal Regulations (Title 47, Part 90) FCC rule as they relate to SCADA operation over licensed radio networks. **ACI will assist with SCADA communication at Raw Water Supply Wells off site storage facilities and Reuse Facility, where needed.**

ACI has performed SCADA system FCC radio station licensing for the following entities:

- The City of Coral Springs Florida Utilities Department
- The City of Boca Raton, Florida Utilities Department
- The City of Hollywood, Florida Utilities Department
- The City of Eustis, Florida Utilities Department
- The City of Sunrise, Florida Utilities Department
- The City of Tamarac, Florida Utilities Department
- The City of Weston, Florida Utilities Department
- The City of Cape Coral, Florida Utilities Department
- Seacoast Utility Authority, Florida
- Indian River County, Florida Utilities Department
- Palm Beach County, Florida Utilities Department
- Martin County, Florida Utilities Department
- Broward County, Florida Utilities Department
- and many more

Key Personnel: Mark Lavalle
Bruce Burke

Structural Engineering - WGI, Inc.

WGI, Inc., is a structural engineering firm headquartered in West Palm Beach, Florida. They will be called upon to provide the necessary structural engineering design for any of the improvements which require their services. They have provided The City of Pompano Beach with the structural design services for The City Pier Project. We have a good working relationship with this firm and believe that we can achieve economical designs meeting all applicable building codes.

Key Personnel: Jeffrey Bergmann, P.E.
Christopher Laforte, P.E.

Hydrogeologist – Connect Consulting, Inc., Water Resource Consultant

Connect Consulting, Inc. (CCI) has worked with many municipalities and utilities throughout Florida since their founding in 1996. CCI is a private and progressive hydrogeologic firm dedicated to providing innovative and economical solutions for their clients' hydrogeologic and water resource planning issues. CCI's groundwater supply projects have ranged from preliminary well siting with aquifer testing and evaluation to detailed wellfield design and construction. CCI specializes in evaluating and rehabilitating wells to restore production and improve water quality, including wellhead and discharge piping modifications to meet current regulatory requirements. One of CCI's areas of water supply expertise is in investigating and developing alternative water sources, such as the Floridan aquifer, as a source of potable water. An important strength of CCI is their experience and relationships with the staff of the five water management districts throughout Florida. CCI has successfully negotiated a

variety of technical issues related to water supply planning and implementation on behalf of their clients within the jurisdictions of most of the water management districts. Since their beginning, CCI has developed over two billion gallons per day of drinking water wellfield capacity and completed numerous consumptive use permit applications that included the development of supporting groundwater models and wellfield construction. In addition, they have worked on many specialty projects including sea water reverse osmosis water supply and concentrate disposal wells, aquifer storage and recovery design and construction, complex consumptive water use projects, detailed, calibrated groundwater models, and projects with unique geologic/hydrogeologic site conditions.

Services

Well Rehabilitation and Maintenance	Comprehensive District Master Planning
Well Design and Construction	Consumptive/Water Use Permitting
Geophysical Logging and Video Surveys	Permit Compliance Monitoring
Services During Well Construction	Groundwater Modeling
Wellfield Development	Floridan Aquifer System Investigations
Aquifer Performance Testing	Alternative Water Supply Development
Monitoring Data Evaluations	Hydrogeologic Studies

Key Personnel: James L. Andersen, P.G.

Potable Water Storage Facility Inspection / Maintenance; Specialty Coatings Consultation – Crom LLC

Crom is a specialist in the design and construction of prestressed concrete tanks and infrastructure restoration and repair. With over 65 years of experience, their continued success is driven by self-performing skilled teams with zero division responsibility for their clients. Crom was built from a foundation of core values that is committed to safety, professional integrity, and high quality execution. Crom is based in Gainesville, Florida, but operates a West Palm Beach regional office at 766 Pike Road, West Palm Beach, Florida, 33411. Key project personnel will be based at the West Palm Beach office location.

Crom will be tasked with completing the Florida Department of Environmental Protection five year cycle of water storage tank inspection, cleaning, and repairs in accordance with Florida Administrative Code 62-555.250.

Crom is also a very skilled specialty coating and restorations contractor for potable and non-potable water retaining structures. This experience has been coordinated and provided to Eckler Engineering clients to address exterior concrete walls of existing Accelator softening units at the water

Key Personnel: Alex Ciasca, P.E. and Sigfredo Orama

Constructability Review / Water / Wastewater Contractor – Primoris Service Corporation (PSC)

PSC can provide constructability reviews, where necessary or when requested by the City, for the utility projects. This firm is a general water and wastewater contractor located in Florida with a local office in Sunrise, Florida. Eckler Engineering has worked with PSC in a design/build capacity and engineer/contractor capacity for numerous years. **They will provide valuable experience for constructability-related issues and potential design/build project delivery.**

Key Personnel: Michael Brandao, V.P.

Membrane Specialist - Kimley Horn and Associates, Inc.

ORGANIZATIONAL CHART

Kimley-Horn is one of the nation's premier planning and design consulting firms. With over 3,000 staff members in more then 80 offices across the U.S., the firm offers full services in a wide range of disciplines. Kimley-Horn provides a high level of engineering expertise with membrane processes. Kimley-Horn will support the Eckler Engineering Project Team as the Engineering Lead for the City's Membrane Water Treatment needs.

Key Personnel:

Lance Littrell, P.E.
Mark Miller, P.E.
Jason Lee, P.E.
NIck Black, P.E.
Andrea Carpenter, P.E.
Stefano Viola, P.E.

pompano beach
Florida's Warmest Welcome

STATEMENT OF SKILLS AND EXPERIENCE OF THE PROJECT TEAM

STATEMENT OF SKILLS AND EXPERIENCE OF PROJECT TEAM

EXPERIENCE AND TECHNICAL CAPABILITIES

The core focus of our consulting business is to provide engineering services for water, wastewater, and reclaimed water utility systems to municipalities throughout Florida. As a result, our focus has been providing engineering services for projects within fully developed areas in various cities or to make improvements to existing potable water systems (supply, treatment, storage, distribution), wastewater systems (collection, pumping/transmission and treatment), and reclaimed water systems (treatment, storage, pumping and distribution). One aspect that separates Eckler Engineering from our competition is that we do not focus our business on commercial or residential development of parcels. Our focus is on the rehabilitation and expansion of utility systems in order to meet growth requirements and renewal/replacement requirements due to system age. We are a municipal engineering firm, not a general development services consulting engineering firm.

Since inception of Eckler Engineering in 1985, the following table provides a snapshot of the overall volume of; raw water supply projects; water use permit applications; water / wastewater / reclaimed water treatment facilities / booster stations / storage facilities; hydraulic models; and utility-related engineering studies completed by Eckler Engineering and the Eckler Engineering Project Team.

System / Project Type	Length / Numbers Completed (EEI)	EEI Project Team
Water Distribution Wastewater Force Main Transmission Reclaimed Water Transmission/Distribution Raw Water Transmission	+/- 285 Miles	> 285 Miles
Water / Wastewater / Reclaimed Water Treatment Facilities	49	Numerous
Storage Tanks / Booster Stations	16	Numerous
Raw Water Supply Wells	34	Numerous
Water Use / Supply Permits	11	Numerous
Hydraulic Models	Numerous	Numerous
Engineering Studies	Numerous	Numerous
Utility Master Plans	9	Numerous

RESOURCES AND SIMILAR EXPERIENCE

Eckler Engineering has the resources available to provide services under a continuing contract for all of the utility related disciplines currently anticipated by the City of Pompano Beach. Eckler Engineering has long-term continuing engineering contracts for similar services anticipated by this RLI request for the following clients:

- The City of Coral Springs - Eckler Engineering has provided general water and wastewater utility engineering services for the City of Coral Springs since 1992.
- The Village of Palm Springs - Eckler Engineering has provided general water, wastewater and civil engineering services to the Village since 1988.
- The City of Tamarac - Eckler Engineering has provided general water and wastewater engineering services to the City of Tamarac since 2001.
- The City of Coconut Creek - Eckler Engineering has provided general water and wastewater engineering

services to the City of Coconut Creek since 2010.

- The City of Margate - Eckler Engineering has provided general water and wastewater engineering services to the City of Margate in March 2018.
- The Village of Islamorada - Eckler Engineering has provided continuing engineering services since 2015.
- The City of Marathon - Eckler Engineering entered into a Continuing Services Agreement for water and wastewater engineering with the City of Marathon in 2017.
- The North Key Largo Utility Authority and the Okeechobee Utility Authority - Although not considered as continuing contracts, Eckler Engineering has completed multiple water and wastewater engineering service task orders for these two utilities since 2010.

In addition to these continuing contracts, Eckler Engineering is currently providing water, wastewater, and civil / environmental engineering services to other clients within the southeast Florida geographical region.

PROJECT TEAM COLLABORATION

The project team selected for this RLI has a vast amount of experience intended to benefit and meet all of the water and reuse water treatment facility's needs of the City of Pompano Beach. The multiple team members not only have individual experiences with their firms and working with Eckler Engineering, but bring with them experience not only of the individual, but with the entire firm on a multitude of various and similar projects that are anticipated for the City of Pompano Beach. This arrangement gives us the opportunity to draw on experience not just local to the City but across the State of Florida.

The members of our project team have participated in various collaborations and projects. Currently, members of this project team are working with Eckler Engineering on the following projects:

- Replacement Water Plant Control and Administration Building for the City of Tamarac.
- Water Treatment Plant Improvements for the Okeechobee Utility Authority.
- Fluoride System Upgrades for Palm Beach County Water Utilities Department, Water Treatment Plants 3, 8, 9, and 11.
- Water Treatment Plant No. 2 Treatment and Disposal Improvements for Palm Beach County Water Utilities Department.
- Design-Build Optimization and Improvements for Water, Wastewater and Reclaimed Water, Palm Beach County Water Utilities.

PERFORMANCE RECORD

We believe that the success of our project performance can best be demonstrated by the fact that most of our work comes from repeat clients and Eckler Engineering, since our inception in 1985, has completed more than 675 water, wastewater, and reclaimed water projects with individual construction values ranging from $50,000 to over $91 Million and has never had a claim for errors or omissions filed against our firm. Additionally, there has never been an indemnity payment by any professional liability carrier on behalf of Eckler Engineering. We believe that this record indicates our understanding of our Client's needs and our ability to successfully carry through with a project that meets the client's goals and objectives.

pompano beach
Florida's Warmest Welcome

RESUMES OF KEY PERSONNEL

Douglas K. Hammann, P.E.

Eckler Engineering, Inc.
Consulting Civil Engineers

Years of Experience
31

Education
ME, Environmental and Water Resources Engineering, Florida Atlantic University

BSCET, Civil Engineering, Southern Illinois University

AS, Architectural Technology, Rend Lake College

Professional Registrations

Professional Engineer
Florida, 1996
Ohio - 2006

Affiliations
ASCE Broward Branch Past President
AWWA
FWEA
WEF

Publications

WEF Committee to update EPA Manual Alternative Wastewater Collection Systems (EPA/625/1-91/024

Evaluation of a Magnetic Ion Exchange Resin to meet DBP Regs at the Village of Palm Springs, Journal AWWA, February 2004, Volume 96, Number 2

Summary

Principal Engineer with 31 years of experience in the planning, design, permitting and construction administration of water, wastewater and reclaimed water projects for various municipal and private clients. These projects have included master planning, design, permitting and construction monitoring of water distribution systems, sanitary sewer collection and transmission systems, additions/rehabilitation of water treatment plants, and reclaimed water treatment and distribution systems.

Project Experience

Experience

1989 - Present Eckler Engineering, Inc.

RAW WATER SUPPLY

Replacement of Raw Water Supply Wells 18, 19 & 20, City of Coral Springs
Eckler Engineering provided design, permitting and services during construction for the replacement of three raw water supply wells for the City of Coral Springs. Eckler designed the wells due to lack of water production. The project included relocating the three supply wells and approximately 1,500 feet of 12-inch and 8-inch ductile iron water main. The design components of the supply wells are comprised of drilling, wellheads, column pipe, pumps, control panels and electrical requirements. The construction cost for this project was $3,570,000.

Forest Hills Wellfield Rehabilitation, Coral Springs, FL
Eckler Engineering provided the evaluation, preliminary design, final design, bidding assistance and engineering services during construction for the rehabilitation of the City of Coral Springs existing Forest Hills Wellfield. The project is the fourth phase of rehabilitation improvements to the City's existing raw water supply wells, per the recommendations of the Utility System Master Plan Update, Eckler Engineering 2006 and the Raw Water Supply System Evaluation Report, Eckler Engineering 2007. The general scope of improvements for this project include: Abandonment of three (3) existing surficial aquifer wells; drilling and development of two (2) 30" diameter, 180 feet depth surficial aquifer wells; casing cleaning, screen cleaning, casing lining and re-development of five (5) existing surficial aquifer wells; construction of new wellheads, pumping systems, controls, electrical and civil improvements for seven (7) well sites.

Replacement Raw Water Supply Wells 2, 3, 4, 5, 6, 7, 8 and 11
These wells were over 30 years old and needed to be replaced because there were problems with the casing integrity. These wells were drilled and replaced with PVC casings and stainless steel screens. New pumps and motors, wellheads, electrical, controls and meters were also a part of the overall project(s).

POTABLE WATER TREATMENT/STORAGE

Surface Water Treatment Plant Improvements, Okeechobee Utility Authority
Eckler Engineering is currently providing design services for surface water treatment plant improvements for the Okeechobee Utility Authority. The improvements currently under design includes the addition of a 3.0 MG prestressed concrete ground storage tank, new high service pumps , new transfer pumps, new backwash pumps, addition of a new gravity sludge thickener and improvements to the existing Actiflo system.

Douglas K. Hammann, P.E.

Eckler Engineering, Inc.
Consulting Civil Engineers

Project Experience cont'd

Surface Water Treatment Plant Softening Evaluation, Okeechobee Utility Authority
Eckler Engineering provided engineering services to the Okeechobee Utility Authority associated with the evaluation of water softening equipment at their two existing water treatment plants. On-site pilot well testing of Ballasted Floculation/Softening (Actiflo®) and Combination Cation/Anion exchange (MIEX MIco process) were completed. Eckler Engineering evaluated fluctuating water quality parameters inclusive of hardness, turbidity and color and compared water quality results with different water treatment processes. After gathering and analyzing data, Eckler Engineering recommended to incorporate an Actiflo® softening system at the ground water treatment plant. Other miscellaneous civil, mechanical, structural, electrical and instrumentation system improvements have also been recommended. At the surface water treatment plant, Eckler Engineering recommended various modifications/upgrades to the existing Actiflo® softening system.

Stock Island Pump Stations Design/Build Distribution and Back Pump Improvements, FKAA
Removal and replacement of existing potable water distribution pumps and drivers (electric and diesel) and ancillary items such as VFD's and engine controls. Other miscellaneous items addressed included: piping, valves and meter replacements; miscellaneous structural/architectural improvements; electrical and control modifications; and minor HVAC improvements. Project delivery method was design/build.

MAWSS MIEX® Pretreatment System Review and Evaluation
Evaluation and review for the implementation of a magnetic ion exchange (MIEX®) Pretreatment System, the existing Mobile Area Water and Sewer Systems, 30 MGD H. E. Meyers Water Filtration Facility, and 16 MGD E. M. Stickney Water Filtration Facility. The evaluations included the preparation of preliminary design documents and construction cost estimates.

Reclamation of Nano Filtration Concentrate
Feasibility evaluation and preliminary design recommendations for the incorporation of magnetic ion exchange (MIEX®) system for reduction of organic concentrations and color from nano filtration concentrate. The system was proposed for the reclamation of the concentrate and returning of the effluent stream to the City of Boca Raton's existing conventional lime softening filtration plant.

7.5 MGD MIEX Pretreatment System
Addition of a magnetic ion exchange MIEX Pretreatment System for removal of TOC from an Ohio River raw water supply upstream of the City of Portsmouth, Ohio's existing water filtration plant. Project completed using design/build delivery method.

Rehabilitation of Water Treatment Plants
Upgrading of the R. L. Pratt and Main Water Treatment Plants by adding a magnetic ion exchange (MIEX) system for the removal of TOC and the conversion of the gas chlorination system to a sodium hypochlorite feed system at the Village of Palm Springs. FICE Engineering Excellence Award Winner 2005. ACEC National Recognition Award, 2006.

Miscellaneous Water Treatment Plant Improvements, Phase III, City of Coral Springs
Eckler Engineering provided the evaluation, preliminary design, final design, bidding assistance and engineering services during construction for the Third phase of improvements to the City of Coral Springs existing 16.0 MGD lime softening Water Treatment facility. The improvements follow the recommendations of the 2006 Utility System Master Plan Update, prepared by Eckler Engineering. The general scope of improvements included: New high service pump station; new chemical storage and feed building (for Coagulant Aid, Hexametaphosphate, Ammonia and Fluoride); New plant wide SCADA system and fiber optic network; New electrical feeder, distribution and VFD's for the high service pump station; modifications to the existing sodium hypochlorite feed system to convert from positive displacement pumps to low pressure distribution; remodel of two story WTP administration building; yard piping improvements, civil site work, instrumentation and control systems and electrical.

Miscellaneous Water Treatment Plant Improvements, Phase II, City of Coral Springs
Demolition of the previously decommissioned clearwell, replacement of the four (4) existing tray aerators and rehabilitation of the existing aeration structure, construction of a new backwash water supply pump station with two (2) new variable speed vertical turbine filter backwash pumps, removal/replacement of four (4) vertical turbine filter effluent transfer pumps, removal/replacement of dewatering building roof, structural repair of steel column located in dewatering building, removal/replacement of two (2) drum belt vacuum filter systems, miscellaneous yard piping improvements,

Douglas K. Hammann, P.E.

Eckler Engineering, Inc.
Consulting Civil Engineers

Project Experience cont'd

miscellaneous process instrumentation and controls, miscellaneous electrical work, sitework and restoration including but not limited to asphalt paving, concrete sidewalks, earthwork, grading, sodding, and site cleanup, surface preparation and painting including but not limited to interior and exterior surfaces, submerged steel and concrete, flooring, and piping.

Three Water Booster Stations, City of Coral Springs
Eckler Engineering, Inc. rehabilitated three (3) potable water boosters stations within the City of Coral Springs. The aging booster stations required new mechanical, electrical and instrumentation equipment along with miscellaneous civil site plan improvements. Each of the stations help sustain the design pressure within the distribution system.

1.0 MGD Brackish Water R.O. WTP
Design/build services for the completion of a 1.0 MGD brackish water reverse osmosis water treatment facility. This facility was incorporated into an existing site with an existing ground storage tank. The water is utilized for irrigation of the existing Lost Tree Golf Club.

Water Treatment Plant Washwater Recovery Basin, City of Tamarac
Construction of the addition of a new filter backwash recovery basin complete with two decant basins, washwater recovery pumping system, lime sludge removal pumping system, controls, electrical, and other miscellaneous improvements.

Water Treatment Plant Clearwell Addition, City of Tamarac
Construction of the addition of a new filter effluent clearwell complete with contact flow channels, transfer pumping system, backwash supply pumping system, controls, electrical, and other miscellaneous improvements.

Miscellaneous Water Treatment Plant Improvements, City of Coral Springs
Engineering services for the preliminary design, final design, permitting, bidding phase, and engineering services during construction for the rehabilitation of the filters, piping modifications, chemical feed addition, and other general repair to an existing 16 MGD WTP.

New Lime Storage/Feed Facility, City of Coral Springs
Replacement of existing lime slurry storage and feed facilities including new 200 ton lime storage silo, 3 lime slaking process trains, 3 lime slurry storage tanks, and 6 variable speed lime slurry feed pumps. This system is designed for the provision of lime slurry addition to 4 existing Accelator softening units. The equipment and controls are located and configured within a new CMU structure at the Coral Springs Water Treatment Plant.

Rehabilitation of Thickeners 1 and 2, City of Coral Springs
Eckler Engineering provided the evaluation, preliminary design, final design, bidding assistance and engineering services during construction for the rehabilitation of two (2) existing lime sludge gravity thickeners. The two (2) existing 45 foot diameter, 12 foot SWD thickeners were experiencing operational issues due to torque related structural fatigue and age related maintenance. The overall scope of the project was the removal and replacement of the two (2) thickener equipment mechanisms. The proposed design included increase of the torque resistance capability of the rake mechanism, provision of additional maintenance access space to the thickener drive and lift components, new controls and general structural/architectural repairs.

Master Plans
Utility system master plans for water, wastewater, and reclaimed water facilities for the Cities of Coral Springs (2), Pompano Beach (2), Hillsboro Beach and Palm Springs (2), Florida.

Big Cypress Water Repump Station
A new 400,000 gallon ground storage tank, repump station and sodium hypochlorite feed system for the Seminole Tribe of Florida.

Ground Storage Tanks
Design, permitting and construction phases for prestressed concrete ground storage tanks for the Cities of Palm Springs (0.75 MG), Pompano Beach (2.0 MG), Lauderhill (3.0 MG), Coral Springs (2.5 MG), Tamarac (2.0 MG), and Sunrise (4.0 MG).

Douglas K. Hammann, P.E.

Eckler Engineering, Inc.
Consulting Civil Engineers

Project Experience cont'd

POTABLE WATER DISTRIBUTION

Water Distribution, Reclaimed Water Distribution, Wastewater Collection and Wastewater Transmission Systems
Various systems throughout South Florida totaling in excess of 1,200,000 linear feet of mains.

WASTEWATER COLLECTION/TRANSMISSION

Cudjoe Regional Wastewater Transmission System for the Outer Islands
This Design/Build project will convey wastewater from neighborhood lift stations located on Lower Sugarloaf Key, Ramrod Key, Little Torch Key and Big Pine Key to the Cudjoe Key Regional Wastewater Treatment Plant. The transmission system will consist of over nine miles of buried, slip-lined and horizontal directional drilled pipe. The system will also include eight bridge crossings and three, 10 foot diameter wet well master pump stations with biological odor control.

Sanitary Lift Stations
Preliminary design reports, design, permitting and construction services for the rehabilitation of 250+ existing sanitary lift stations for the Cities of Coral Springs, Palm Springs, Delray Beach, Hypoluxo, Sunrise, and Pompano Beach, Florida.

Rehabilitation of Master Pump Station
Design, permitting and construction phase for the Rehabilitation of Master Pump Station Number 21 for the City of Pompano Beach, Florida. Triplex wet pit/dry pit operation with an average daily influent flow of 3,600 GPM (5.0 MGD).

Water Distribution, Reclaimed Water Distribution, Wastewater Collection and Wastewater Transmission Systems
Various systems throughout South Florida totaling in excess of 1,200,000 linear feet of mains.

LOW PRESSURE AND VACUUM SANITARY COLLECTION SYSTEMS

Islamorada Wastewater Collection and Transmission
This Design/Build/Operate project will convert the Village of Islamorada's current wastewater collection system from septic tank treatment to vacuum sewer and low pressure systems. E/One grinder pumps and vacuum pump stations will serve over 2,000 equivalent dwelling units on Plantation Key and Lower Matecumbe Key. This system will convey wastewater from these service areas to the Key Largo Water Treatment District's Regional Treatment Plant.

Wastewater and Stormwater Management System Improvements
Design/build project completed for the Ponte Vedra, Florida Municipal Service District under contract with JEA. Project consisted of 45,000 feet of vacuum main, 350 vacuum service pits, a vacuum pump station, and biological odor control for a high heat direct air system.

Vacuum Sanitary Collection System
Vacuum sanitary collection system for the Town of Hypoluxo. This system included a vacuum pump station, 4,000 liner feet of various diameter vacuum mains, 50 vacuum pits for 72 connections and approximately 40 linear feet of force main.

Vacuum Sewer Extension
The vacuum sewer extension for Nelson Drive and Prairie Lane. This system was an expansion to the previous YMCA Vacuum Sewer project. The expansion included 1,450 linear feet of vacuum main and 23 vacuum pits.

YMCA Vacuum Sewer System Improvements
The YMCA Vacuum Sewer Project for the Village of Palm Springs. This system included a vacuum pump station, 25,000 linear feet of various size vacuum lines, 210 vacuum pits with approximately 400 connections.

Islamorada, Village of Islands, Florida, Middle Plantation Key Vacuum Collection System
Provision of 30%, 60%, 90%, and QA/QC. Project review for Program Manager, Hazen and Sawyer. Review covered the vacuum collection system, vacuum station, and transmission system.

Douglas K. Hammann, P.E.

Eckler Engineering, Inc.
Consulting Civil Engineers

Project Experience cont'd

10th Avenue North Vacuum Sewer System
This third vacuum sewer collection system for the Village of Palm Springs contains 13,500 linear feet of pipe and 162 vacuum valves for over 200 customers.

Marilyn Drive Vacuum Sewer System
The Marilyn Drive Vacuum Sewer Project for the Village of Palm Springs. This project included a vacuum pump station, 5,000 linear feet of various size vacuum mains, 42 vacuum pits for approximately 100 connections. The system is designed to be expanded to approximately 80 vacuum pits and 200 connections.

Phillippi Creek Septic System Replacement Program
This project was a hybrid of conventional gravity sewer, low pressure sewer and vacuum sewer. Eckler Engineering provided QA/QC for Area A consisting of approximately 25,000 linear feet of vacuum main and approximately 500 vacuum pits.

Vacuum Sewer Collection System Service Area "B"
This vacuum sewer collection system, located in Key Largo, Florida, included more than 60,000 linear feet of pipe, served in excess of 1,100 homes, and cost more than $8.5 Million. The project was constructed in six phases and completed in 2010.

Vacuum Sewer Collection System Service Areas "E" and "F"
This vacuum sewer collection system, located in Key Largo, Florida, included more than 70,000 linear feet of pipe, served in excess of 1,250 homes, and cost $7.5 Million. The project was constructed in eight phases and completed in 2010.

Rockridge Vacuum Sewer System, Indian River County Utilities
A vacuum sanitary sewer system designed for the collection of wastewater along the streets within the Rockridge Subdivision. This project required the construction of approximately 20,000 linear feet of vacuum sewer piping complete with approximately 210 valve chambers and all necessary surface restoration. The project also included a vacuum pump station and force main from the vacuum pump station to the force main system (along existing surveyed routes or cost must be modified). Plans for removing the existing low pressure system from service was also included.

WASTEWATER TREATMENT

MBR System and RO System Improvements, North Key Largo Utility Corporation
Removal and replacement of the submerged membrane units from existing membrane bioreactors 1 and 2. Consolidation of submerged membranes and repurposing existing membrane bioreactors 3 and 4 to function as peak flow treatment capacity or digester/thickening during average flow conditions. Overall capacity of the existing reverse osmosis (RO) irrigation water production facility was expanded from 1.274 MGD to 2.039 MGD. Six additional RO pressure vessels and isobaric energy recovery units were added to each RO train. This allowed the capacity increase of 60% with an overall pumping horsepower reduction of 6%. Project included engineering services to complete a major WWTP permit modification and modify the capacity of two Class V injection wells.

Service Area 5 WWTP MBR Upgrade, Marathon, FL
Removal and replacement of the submerged membrane units from three existing membrane bioreactor basins. Project included engineering services to complete a minor revision to the facility operation permit. Project completed using design/build delivery method.

PSEN-13-03 Odor Control at the Wastewater Treatment Plant, City of Pembroke Pines
This was a design-build project that provided engineering services to improve parts of the existing wastewater facility. Eckler Engineering, Inc. was responsible for the structural, electrical, instrumentation and civil design associated with the incorporation of odor control and headworks building improvements. The scope of improvements for the odor control included a new two stage wet chemical scrubber system and new odor control misters. Improvements to the headworks building included removing and replacing bar screens, vortex grit separators, shaftless grit classifiers and wash presses. The scope of services also included analyzing hydraulic issues within the headworks building in terms of flow measurements through the system's parshall flumes.

Douglas K. Hammann, P.E.

Eckler Engineering, Inc.
Consulting Civil Engineers

Project Experience cont'd

Aerobic Sludge Digester
Design, permitting and construction phases for a new primary sludge digester for South Broward Utility's existing wastewater treatment plant.

Mariposa Development WWTP
Project consisted of the preliminary design of a 3.0 MGD facility for the Mariposa Development in Putnam County. The facility included a low lift pump station, aerated equalization basin, headworks, membrane bioreactors, disinfection basin, IQ water pump station, aerobic digester, waste sludge pump station, blower/chemical building and odor control. Final design and construction not completed.

RECLAIMED WATER

Effluent Reuse Facility
A 2.5 MGD effluent reuse facility for the City of Pompano Beach, Florida. This project included filters, disinfection, pumping and a 2 MG ground storage tank which won the 1989 Portland Cement Association Award of Excellence for "Distinguished Architectural Treatment of Prestressed Concrete Tank Construction".

Reclaimed Water Production Facility Expansion
Expansion of existing 7.5 MGD facility to 17.5 MGD for the City of Boca Raton. The project was inclusive of new tertiary filtration, new NaOCl and coagulant storage/feed systems, contact basin modifications, new reclaimed water transfer pumps and demolition of existing facilities.

Influent Screening Modifications, City of Pompano Beach Reuse Water Treatment Plant
Removal and replacement of existing step screen(s) with new 3 mm perforated plate screen(s), new screenings washing compactor, modifications to existing channels to facilitate screen system revisions, new control systems and electric for the 7.5 MGD facility.

Reclaimed Water Treatment Facility Expansion, City of Pompano Beach
Expansion of existing 2.5 MGD facility to 7.5 MGD. The project was inclusive of new tertiary filters, new low head residential pump station, new chemical building, new 4.0 mg storage tank and support system improvements.

Water Distribution, Reclaimed Water Distribution, Wastewater Collection and Wastewater Transmission Systems
Various systems throughout South Florida totaling in excess of 1,200,000 linear feet of mains.

DESIGN/BUILD PROJECT DELIVERY

Stock Island Pump Stations Design/Build Distribution and Back Pump Improvements, FKAA
Removal and replacement of existing potable water distribution pumps and drivers (electric and diesel) and ancillary items such as VFD's and engine controls. Other miscellaneous items addressed included: piping, valves and meter replacements; miscellaneous structural/architectural improvements; electrical and control modifications; and minor HVAC improvements. Project delivery method was design/build.

Service Area 5 WWTP MBR Upgrade, Marathon, FL
Removal and replacement of the submerged membrane units from three existing membrane bioreactor basins. Project included engineering services to complete a minor revision to the facility operation permit. Project completed using design/build delivery method.

PSEN-13-03 Odor Control at the Wastewater Treatment Plant, City of Pembroke Pines
This was a design-build project that provided engineering services to improve parts of the existing wastewater facility. Eckler Engineering, Inc. was responsible for the structural, electrical, instrumentation and civil design associated with the incorporation of odor control and headworks building improvements. The scope of improvements for the odor control included a new two stage wet chemical scrubber system and new odor control misters. Improvements to the headworks building included removing and replacing bar screens, vortex grit separators, shaftless grit classifiers and wash presses.

Douglas K. Hammann, P.E.

Eckler Engineering, Inc.
Consulting Civil Engineers

Project Experience cont'd

The scope of services also included analyzing hydraulic issues within the headworks building in terms of flow measurements through the system's parshall flumes.

7.5 MGD MIEX Pretreatment System
Addition of a magnetic ion exchange MIEX Pretreatment System for removal of TOC from an Ohio River raw water supply upstream of the City of Portsmouth, Ohio's existing water filtration plant. Project completed using design/build delivery method.

Islamorada Wastewater Collection and Transmission
This Design/Build/Operate project will convert the Village of Islamorada's current wastewater collection system from septic tank treatment to vacuum sewer and low pressure systems. E/One grinder pumps and vacuum pump stations will serve over 2,000 equivalent dwelling units on Plantation Key and Lower Matecumbe Key. This system will convey wastewater from these service areas to the Key Largo Water Treatment District's Regional Treatment Plant.

Cudjoe Regional Wastewater Transmission System for the Outer Islands
This Design/Build project will convey wastewater from neighborhood lift stations located on Lower Sugarloaf Key, Ramrod Key, Little Torch Key and Big Pine Key to the Cudjoe Key Regional Wastewater Treatment Plant. The transmission system will consist of over nine miles of buried, slip-lined and horizontal directional drilled pipe. The system will also include eight bridge crossings and three, 10 foot diameter wet well master pump stations with biological odor control.

Wastewater and Stormwater Management System Improvements
Design/build project completed for the Ponte Vedra, Florida Municipal Service District under contract with JEA. Project consisted of 45,000 feet of vacuum main, 350 vacuum service pits, a vacuum pump station, and biological odor control for a high heat direct air system.

1.0 MGD Brackish Water R.O. WTP
Design/build services for the completion of a 1.0 MGD brackish water reverse osmosis water treatment facility. This facility was incorporated into an existing site with an existing ground storage tank. The water is utilized for irrigation of the existing Lost Tree Golf Club.

STUDIES/PLANS

Master Plans
Utility system master plans for water, wastewater, and reclaimed water facilities for the Cities of Coral Springs (2), Pompano Beach (2), Hillsboro Beach and Palm Springs (2), Florida.

Water Use Permits
Water Use Permit Renewals with the South Florida Water Management District for the cities of Coral Springs, Tamarac, Palm Springs, Pompano Beach, and the North Key Largo Utility Corporation.

1988 to 1988 Black and Veatch

Mr. Hammann was a design engineer with the environmental division for land reclamation projects. His duties included access road design, site grading and drainage, embankment design, earthwork estimating and resident project representation.

Chase O. Dickinson, P.E.

Eckler Engineering, Inc.
Consulting Civil Engineers

Years of Experience
7

Education
Bachelor of Science
Civil Engineering
Florida Atlantic University, 2012

Master of Science
Florida Atlantic University, 2015

Professional Registrations

Professional Engineer
Florida, 2017

Affiliations

ASCE
Tau Beta Pi Engineering Honor Society

Summary

Mr. Dickinson graduated from Florida Atlantic University in May 2012 and has been working with Eckler Engineering since October 2012. He has designed infrastructure improvement projects, performed project management duties and acted as a construction services representative. His advanced knowledge in Geographic Information Systems (GIS) has led Eckler Engineering to develop and expand its hydraulic modeling capabilities for water and wastewater systems.

Project Experience

2012 - Present Eckler Engineering, Inc.

RAW WATER SUPPLY

Replacement of Raw Water Supply Wells 18, 19 & 20, City of Coral Springs
Eckler Engineering provided design, permitting and services during construction for the replacement of three raw water supply wells for the City of Coral Springs. Eckler designed the wells due to lack of water production. The project included relocating the three supply wells and approximately 1,500 feet of 12-inch and 8-inch ductile iron water main. The design components of the supply wells are comprised of drilling, wellheads, column pipe, pumps, control panels and electrical requirements. The construction cost for this project was $3,570,000.

POTABLE WATER TREATMENT/STORAGE

Miscellaneous Water Treatment Plant Improvements - Phase III, City of Coral Springs
Eckler Engineering provided the evaluation, preliminary design, final design, bidding assistance and engineering services during construction for the Third phase of improvements to the City of Coral Springs existing 16.0 MGD lime softening Water Treatment facility. The improvements follow the recommendations of the 2006 Utility System Master Plan Update, prepared by Eckler Engineering. The general scope of improvements included: New high service pump station; new chemical storage and feed building (for Coagulant Aid, Hexametaphosphate, Ammonia and Fluoride); New plant wide SCADA system and fiber optic network; New electrical feeder, distribution and VFD's for the high service pump station; modifications to the existing sodium hypochlorite feed system to convert from positive displacement pumps to low pressure distribution; remodel of two story WTP administration building; yard piping improvements, civil site work, instrumentation and control systems and electrical. The construction cost for this project was $7,451,000.

POTABLE WATER TRANSMISSION/DISTRIBUTION

NW 110th Avenue Water Main Replacement, City of Coral Springs
In response to the City's concern for operational issues associated with cast iron pipe in the distribution system, Eckler Engineering designed a new water main along NW 110th Avenue from Wiles Road to Sample Road. The project consisted of installing approximately 5,280 feet of 8-inch ductile iron pipe alongside the old cast iron main which was abandoned and grouted. There were five existing fire hydrants that were removed and replaced along with three new fire hydrants installed. The project also consisted of replacing forty-two water services that serve the surrounding neighborhood. Eckler Engineering provided site visit evaluations and field testing inspections during construction. The construction cost for this project was $866,000.

New Water Main on Sample Road, City of Coral Springs
Engineering services for preliminary design, final design, permitting, bidding and services during construction. In an effort to increase water distribution capabilities throughout the

Chase O. Dickinson, P.E.

Eckler Engineering, Inc.
Consulting Civil Engineers

Project Experience cont'd

City of Coral Springs' service area, Eckler Engineering was appointed the lead consultant in designing a new water main along Sample Road between Coral Hills Drive and University Drive. Additionally, as an add alternate to this project, a new water main was also designed along Coral Hills Drive from Sample Road to NW 31st Court. The project consisted of approximately 1,500 feet of 16-inch ductile iron water main along Sample Road and 950 feet of 12-inch ductile iron water main along Coral Hills. Eckler Engineering was responsible for construction services such as daily site evaluations and inspections. The construction cost was $1,500,000.

WASTEWATER COLLECTION/TRANSMISSION

Cudjoe Regional Wastewater Collection System Design Build Project for Outer Islands
This is a $90 Million design-build wastewater construction project. The project provides wastewater service to Lower Sugarloaf Key, Ramrod Key, Little Torch Key, and Big Pine Key. Eckler Engineering's portion of this project included the design of approximately 55,000 linear feet of transmission force main and four master repump stations.

Wastewater System Facilities for Village of Islamorada
This is a $91 Million design-build wastewater construction project. The project provides wastewater service within the Village of Islamorada. Eckler Engineering's portion of this project included the design of the collection systems for Lower Matecumbe Key and South Plantation Key. This includes more than 100,000 linear feet of vacuum sewer pipe and 41,000 linear feet of low pressure force main pipe.

North Hutchinson Island Septic Removal Project (St. Lucie County Utilities)
This is a design-bid-build vacuum collection system project for the southern portion of North Hutchinson Island. The project involves converting the existing collection system from septic tanks to a central vacuum sewer collection system. Eckler Engineering is responsible for the design of over 44,500 linear feet of vacuum sewer pipe and the vacuum pump station.

Odor Control at the Wastewater Treatment Plant, City of Pembroke Pines
This is a design build project that provides engineering services to improve parts of the existing wastewater facility. Eckler Engineering, Inc. is responsible for the structural, electrical, instrumentation and civil design associated with the incorporation of odor control and headworks building improvements. The scope of improvements for the odor control include a new two stage wet chemical scrubber system and new odor control misters. Improvements to the headworks building include removing and replacing bar screens, vortex grit separators, shaftless grit classifiers and wash presses. The scope of services also includes analyzing hydraulic issues within the headworks building in terms of flow measurements through the system's parshall flumes.

New Force Main on Sample Road, City of Coral Springs
Engineering services for planning, design, permitting, and services during construction. Eckler Engineering designed a new force main along Sample Road between Coral Hills Drive and University Drive in response to the City's growing concern regarding aged transmission force mains. The project consisted of approximately 1,500 feet of 20-inch ductile iron force main as well as a right turn lane on Sample Road at NW 94th Avenue. Eckler Engineering was responsible for construction services such as daily site evaluations and inspections. The construction cost was $1,500,000.

Rehabilitation of Lift Stations 14E, 17A, 17C and 18C, City of Coral Springs
Engineering services for planning, designing, permitting, and construction services. Eckler Engineering designed approximately 5,800 feet of new 4-inch and 8-inch force main to provide the necessary utility improvements for the aging infrastructure within the City. The cost for the force main infrastructure improvements and the rehabilitation of the lift stations was $2,279,000.

Long Key Wastewater Systems Design-Build, Florida Keys Aqueduct Authority
This design-build project provided engineering services for a wastewater collection system for the eastern and western portions of Long Key located in the Florida Keys. It included the design of twenty-three grinder pump stations and over twenty-one miles of open-cut and directional drilled low pressure force main along US Highway 1. The construction cost was $900,000.

Chase O. Dickinson, P.E.

Eckler Engineering, Inc.
Consulting Civil Engineers

Project Experience cont'd

Abandonment of Kent Pump Station, Village of Palm Springs
The Village of Palm Springs selected Eckler Engineering to provide design, permitting and construction services required for this project. The abandonment of the Kent Pump Station required complete demolition of the electrical equipment, concrete slab and mechanical equipment of the lift station. Furthermore, it required the design of approximately 1,625 feet of sanitary sewer, three new manholes and twenty service laterals. The construction cost of this project was $609,000.

Wiles Road Reclaimed Water Main, City of Coconut Creek
This project consisted of extending the City of Coconut Creek's reclaimed water distribution system to future development within the service area. This main now serves as the trunk main for delivery of reclaimed water from Broward County to the City. The design was a hybrid of conventional open-cut pipeline installation and trenchless horizontal direction drill (HDD). The open-cut installation consisted of 1,275 feet of 16-inch ductile iron pipe. The HDD portion consisted of 270 feet of 12-inch HDPE pipe and 3,300 feet of 16-inch HDPE pipe. The installation requirements were challenging with the two nearby heavily travelled multilane roadway and a 90-degree HDD intersection. The construction cost was $1,385,000.

STUDIES/PLANS

Triennial Engineering Report for Water and Wastewater Systems FY2014-2016, City of Coral Springs
Eckler Engineering prepared this report for the City of Coral Springs to evaluate the condition of the water and wastewater systems over a three year period. The report analyzed water production and use along with wastewater collection and transmission to evaluate the overall condition of the both systems.

Water Distribution Model and Master Plan, City of Coral Springs
Eckler Engineering prepared this report in response to service demand increases on the water system. The project modeled the water transmission and distribution network using ArcGIS and evaluated the hydraulic capacity with respect to current and future demands. The project also identified cast iron piping and recommended the required pipe sizes to replace the obsolete components. The final report included a phased Master Plan for recommended improvements to the existing water transmission and distribution system.

Wastewater Transmission Model and Master Plan, City of Coral Springs
Eckler Engineering prepared this report in response to force main piping system breaks, increase in horsepower requirements at lift stations and the results of localized force main integrity evaluations. The project modeled the wastewater transmission system using ArcGIS and evaluated the hydraulic capacity with respect to current and future service requirements. The project also included investigating the air release valves and isolation valves. The final report included a phased Master Plan for recommended improvements to the existing wastewater transmission system.

Red Lichen Sanctuary Monitoring Reports, City of Coral Springs
As required by the South Florida Water Management District's Water Use Permit requirements, the City of Coral Springs is obligated to submit a series of annual monitoring reports related to health of the Red Lichen Sanctuary. The reports evaluated the change in vegetation, water levels and wildlife habitats over the course of six years to determine whether raw water well pumping affected the sanctuary. Eckler Engineering was responsible for preparing the reports, analyzing the findings and submitting the required documentation to the South Florida Water Management District.

Water Distribution System Model and Master Plan, Village of Palm Springs
This project consisted of preparing the results of a comprehensive engineering study of present and future demands of the Village's water distribution system and a plan for providing the necessary improvements for meeting the future demands. In addition to meeting these project future demands, the master plan also provided guidance and planning to meet future regulatory changes that were anticipated to impact the water distribution system.

Wastewater Transmission System Model and Master Plan, Village of Palm Springs

This project consisted of preparing the results of a comprehensive engineering study of present and future demands of the Village's wastewater transmission system and a plan for providing the necessary improvements for meeting the future

Chase O. Dickinson, P.E.

Eckler Engineering, Inc.
Consulting Civil Engineers

Project Experience cont'd

demands. In addition to meeting these project future demands, the master plan also provided guidance and planning to meet future regulatory changes that were anticipated to impact the wastewater transmission system.

Water Treatment Plant No. 2 MIEX Treatment Capacity Evaluation, Palm Beach County
Eckler Engineering was tasked with evaluating the MIEX system at WTP No. 2 for possible explanations for high resin and salt consumption. The project involved field testing and analysis to determine causes for possible overuse of resin and salt. The project also involved finding solutions in maximizing plant capacity and potential optimization of the treatment operation.

2012 - 2012 - Hazen and Sawyer

North Regional Wastewater Treatment Plant (NRWWTP) Monitoring Well for Broward County
This project included the construction of a single monitoring well as part of the NRWWTP expansion project. This project included design and permitting services as well as construction administration services. It was completed in 2012.

Bryant J. Facey, P.E.

Eckler Engineering, Inc.
Consulting Civil Engineers

Years of Experience
14

Education
BS, Environmental Engineering
University of Central Florida

Registration
Professional Engineer
Florida, 2013

FAA UAS Remote Pilot, 2017

Affiliations
American Water Works Association (AWWA)

Florida Water Environment Association (FWEA)

Water Environment Federation (WEF)

Summary

Mr. Facey has 14 years of experience in the planning, design, permitting, and construction administration of water, wastewater and reclaimed water projects for various municipal clients throughout Florida. These projects have included master planning, design, permitting, and construction services of water distribution systems, sanitary sewer collection and transmission systems, improvements/rehabilitation of water treatment plants, wastewater treatment plants, reclaimed water treatment and distribution systems, and raw water supply wells. His broadening experience base of multidisciplinary municipal utility projects via various project delivery methods expands his ability to provide management and engineering services to his clients.

Project Experience

Water Treatment

- Water Treatment Plant Improvements, Okeechobee Utility Authority
  Planning, design, permitting, bidding and construction administration services
- Recovery of Process Water Phase II, City of West Palm Beach
  Planning, design, and construction administration
- Fluoride System Improvements, WTP 3, 8, 9 and 11, Palm Beach County, FL
- WTP 11 Phase II Improvements, PBCWUD
- WTP 2 Treatment and Disposal Improvements, PBCWUD
- WTP 8 Backwash System Evaluation, PBCWUD

Reclaimed Water Treatment Facilities

- Intermediate Filter Backwash System Upgrades, City of Boca Raton
- Iron Bridge Reclaimed Water Facility Improvements, City of Orlando

Reclaimed Water Distribution Systems

- Dixie Highway Reclaimed Water Main Extension, +/- 5,000 Linear Feet 6” HDPE and DIP Reclaimed Water Main (2019), City of Boca Raton

Other Related Projects

- Reclaimed Water System Feasibility Study, Coral Springs Improvement District
- Water Treatment Plant 11 Degasifier and Clearwell Modifications, Palm Beach County, Belle Glade, FL
- CSID/Margate Potable Water Interconnect, Coral Springs Improvement District
- Well 4 and 7 Relocation, Coral Springs Improvement District
- SRPF Membrane Concentrate Bypass, Palm Beach County, Boca Raton, FL
- CONSERV II/ MetroWest Reclaimed Water System Evaluation (2008), City of Orlando
- Reclaim Water Feasibility Study (2007), City of Eustis
- Pembroke Pines WWTP Improvements, City of Pembroke Pines, FL
- System-Wide Safety Improvements, PBCWUD

Oscar L. Rubio, P.E.

Eckler Engineering, Inc.
Consulting Civil Engineers

Years of Experience
48

Education
Bachelor of Science
Civil Engineering
Florida International University

Professional Registrations

Professional Engineer
Florida, 1979
New Jersey, 1981

Affiliations
AWWA, WEF, NSPE, FES, AAEE, AAAS

Summary

Mr. Rubio is an experienced civil engineer with over 45 years of experience in design of water treatment, water distribution, wastewater treatment, wastewater collection and transmission, water reuse, and utility operations for both private and municipal clients. His experience in all aspects of water, wastewater and general civil engineering provides a sound, broad base to develop policies and procedures required to ensure quality control and client satisfaction. Mr. Rubio has also managed the permitting and installation of various industrial processes; and designed, permitted, completed and performed start-up operations for industrial wastewater pre-treatment systems to meet EPA/FDEP and local environmental regulations.

Project Experience

Big Diameter Pipe

MDWASD Rehabilitation of 54-inch PCCP wastewater transmission pipeline (SW 280TH STREET/SW 112TH AVE-SW 248TH ST/SW 107TH AVE)
Responsible for the design of rehabilitation improvements relating to the rehabilitation of 13,000 linear feet of 54-inch diameter PCCP transmission force main commencing at SW 280th Street and SW 112th Avenue; which then proceeds in a northerly direction on SW 112th Avenue to SW 268th Street then proceeding east on SW 268th Street to SW 107th Avenue and then proceeding north on SW 107th Avenue to SW 248th Street. The project also includes a 100 linear feet segment of aerial crossing over the Biscayne Canal (C-102), north of SW 268th Street along 107th Avenue. This project located in the southern area of Miami Dade County is required as part of the EPA Consent Decree program.

MDAWSD New 54-Inch PCCP FM from SW 280th St. and SW 127th Ave. To SW 248nd St. and SW 107th Ave.
Responsible for the preliminary design of 18,000 linear feet of 54-inch diameter PCCP transmission force main in three phases required to expand WASD's transmission system in Southern area of Miami Dade County. The first phase encompasses an alignment that starts at SW 280th Street and SW 127th Avenue and then proceeds northerly on SW 127th Avenue to SW 268th Street then East on SW 268th Street to SW 112th Avenue proceeding North on SW 112th Avenue to SW 248th Street. This phase is approximately 18,000 linear feet. The second phase of this design involves a new 54-inch diameter PCCP force main connecting at end of Phase 1 at SW 112th Avenue and SW 248th Street; the proceeding easterly on SW 248th Street to SW 107th Avenue connecting to existing 54-inch force main. This segment is approximately 2,650 linear feet. This project is located in the southern area of Miami Dade County and is required as part of the EPA Consent Decree program.

MDWASD NW 170th St (36-Inch Diameter) Transmission Main Improvements I-75 Crossing at NW 170 Street
Mr. Rubio was responsible for designing the micro-tunneling portion of the 36-inch water main that traversed underneath I-75. The micro-tunneling consisted of 580' of 52-inch Perma-lok steel casing with spacers with the 36-inch ductile iron pipe inside. Mr. Rubio was the Sr. Engineer for this project and was responsible for the design and permitting of the water main.

Piping < 36" Diameter

Coral Springs New Force Main and Water Main on University Drive
Engineering services for planning, design, and permitting force main and water main replacements due to aging of existing pipes. Eckler Engineering designed a new six (6) inch force main from Lift Station 15C south to Sample Road and a twelve (12) inch water main from Broken Woods Drive to NW 44 Street both along University Drive.

Oscar L. Rubio, P.E.

Eckler Engineering, Inc.
Consulting Civil Engineers

Project Experience cont'd

Seminole Tribe of Florida Immokalee Reservation Main Extension
Consisted of 12-inch outside diameter HDPE for horizontal directional drilling (HDD) HDPE runs and 10-inch inside diameter PVC for open cut (C-900 PVC) runs to complete an 11,000-foot loop through wetlands and cleared land within the reservation. Pre-design, design, bid plans, specifications.

BCWWS North Andrews Neighborhood Improvement District Force Main Extension
Consisted of 20-inch diameter ductile iron P401 lined force main extension connecting the manifold of smaller force mains from the North Andrews Neighborhood NE 58 Street and N Andrews Avenue to the regional pump station at NW 66 Street and west of NW 2 Avenue.

Pump Stations and Lift Stations

City of Coral Springs Rehabilitation of Lift Stations 14A, 15C, 17B, 19C, and 20C
Engineering services for planning, design, and permitting. As project engineer for Eckler Engineering, Mr. Rubio completed the design for changing wet pit – dry pit lift stations to submersible lift stations for five lift station sites. The work included site relocation, new larger wet wells, converting the old wet –pits to manholes, design calculations, supervising CAD operations, QA/QC, and permitting.

MDWASD Pump Station No. 0414 Improvements
Mr. Rubio was a senior technical engineer / expert involved in this significant and major undertaking from Miami Dade Water and Sewer Department. The purpose of this project was to convert PS 0414 into a booster type station and rehabilitate and replace the entire facility equipment. The collection area consists of domestic wastewater flow that is mainly residential. Pump Station 0414 facility includes a multilevel building where pump motors and electrical equipment are housed at grade level and the pumps, valves and associated suction and discharge piping are located in a pump room (dry pit) below grade. The pump station includes three (3) Yeomans, Model 10522, vertical solids handling centrifugal pumps (2 operating, 1 standby), each having two-speed motors with 250/140 hp and 1180/885 rpm. Motors are coupled to the pumps through extended shafting. Pump Station 0414 discharges through a 36-inch force main that connect to the Booster Station 1310 and 0300 downstream that eventually discharges to the NDWWTP. The projected 2035 design peak flows for PS 0414 will be up to 11.1 million gallons per day (MGD).

MDWASD Pump Station No. 0415 Improvements
Mr. Rubio was a senior technical engineer / expert involved in this significant and major undertaking from Miami Dade Water and Sewer Department. This project involved major improvements to WASD's PS 0415. The existing pump station equipment had reached the end of its useful life and the wet well structure was badly deteriorated due to H2S. Mr. Rubio completed the Field Investigation Services task that included a site visit, field report, and photos and served as an advisor for the project.

MDWASD Pump Station No. 0416 Improvements
Mr. Rubio was a senior technical engineer / expert involved in this significant and major undertaking from Miami Dade Water and Sewer Department. This project involved major improvements to WASD's PS 0416 since the existing pump station equipment has reached the end of its useful life. The projected design flows for PS 0416 will be up to 10 million gallons per day (MGD). Mr. Rubio completed the Field Investigation Services task that included a site visit, field report, and photos and served as an advisor for the project.

Sunrise Utilities Rehabilitation of Master Lift Stations - 403 (Weston)
Project Manager & Engineer of Record responsible for the design, production of plans and specifications for upgrading lift stations including report on flow and 1/1 findings; engineering construction management services including issuance of Notice to Proceed, Notice of Commencement, field inspections, records, shop drawing reviews & approvals, review of contract schedules, review & approval of pay-requests, record drawings, certifications, project closure & final payment.

Sunrise Utilities Rehabilitation of Master Lift Stations - 407 (Weston)
Project Manager & Engineer of Record responsible for the design, production of plans and specifications for upgrading lift stations including report on flow and 1/1 findings; engineering construction management services including issuance of Notice to Proceed, Notice of Commencement, field inspections, records, shop drawing reviews & approvals, review of contract schedules, review & approval of pay-requests, record drawings, certifications, project closure & final payment.

Oscar L. Rubio, P.E.

Eckler Engineering, Inc.
Consulting Civil Engineers

Project Experience cont'd

Water and Wastewater Plant Work

Atlantic Utilities, Inc. of Sarasota
For this project, Mr. Rubio was the Project Manager for the Water Distribution Master plan, collection of hydrant flows and residual pressure data, modeling, model calibration and cost estimates for supply main upgrades. He also designed the Sewer Master plan, collection of I/I data, modeling, model calibration and cost estimates for lift station upgrades and system upgrade to meet the peak flow requirements.

Omar Khan, P.E.

Eckler Engineering, Inc.
Consulting Civil Engineers

Years of Experience
13

Education
B.S.C.E., Florida Atlantic University, 2007

Professional Registrations

Professional Engineer Florida, 2012

Affiliations

ASCE

Summary

Mr. Khan has performed project engineering and managerial duties on a wide array of infrastructure improvement projects. Some of the projects include the rehabilitation of wastewater pump stations, new water mains, force and gravity sewer mains, booster station modifications, and Consumptive Use Permits.

Project Experience

2020 – Present – Eckler Engineering, Inc.

2018 – 2020 - GHD

POTABLE WATER DISTRIBUTION

Water Distribution Main Replacement and Sidewalk, Town of Wingate, North Carolina
Project manager for the design and permitting of three (3) water distribution main pipelines and a new sidewalk. Project included approximately 550 LF of 2-inch galvanized water with 2-inch PVC water pipe, 1,100 LF of galvanized waterline with 6-inch PVC water pipe, approximately 260 LF of 2-inch galvanized waterline with 2-inch PVC water pipe, and new construction of approximately 1,300 LF of sidewalk. All projects included development of design drawings and specifications, system pressure evaluation, opinion of probable construction costs, and permitting. Project included coordination with the Centralina Council of Governments (CCOG) as the Town received funding through the Community Development Block Grant (CDBG).

POTABLE WATER STORAGE

Leonardtown Meadow Run Water Storage Tank, Leonardtown, Maryland
Project manager for new 1.0 MG water storage tank in Leonardtown, Maryland. The purpose of this project is to allow for more capacity since development has been growing in the town. Coordination with development contractors and engineers to secure and clear site was required. Mr. Khan led a team of engineers, architects and CAD designers to produce drawings and specifications to review it the client. Civil, mechanical, structural, architectural, geotechnical, HVAC, electrical and instrumentation coordination were all designed, managed and reviewed. Provisions were also made to include a future chemical feeds system and storage area for a future raw water supply well. Mixing systems within the water tank were recommended to allow for better water quality. The Engineer's opinion of the cost was $3,400,000.

WASTEWATER COLLECTION/TRANSMISSION

Stevens Creek Trunk Sewer Phase 1, Charlotte Water, North Carolina
Provided design QA/QC, bidding, and currently construction engineer for a new 10,500 LF gravity sewer, ranging from 12 to 24 inches along Stevens Creek. Construction includes engineering (CE) and administration services, oversight and part-time field inspection, rock pre- and post-blast survey, continuous vibration monitoring and inspection, combined County Stream Restoration and new Nature Preserve construction project coordination, survey stake-out, geotechnical subgrade and bearing capacity inspection and density testing. CE services included shop drawings, RFIs, work changes, monthly meetings, field coordination, etc.

Stevens Creek Trunk Sewer Phase 2, Charlotte Water, North Carolina
Project design engineer for the design, permitting, bidding, and construction of a new 7,000 LF gravity sewer main, which includes 2,000 LF of existing sanitary sewer reuse evaluation, all ranging from 8 to 12 inches along Stevens Creek. The design included a preliminary

Omar Khan, P.E.

Eckler Engineering, Inc.
Consulting Civil Engineers

Project Experience cont'd

engineering sewer study, hydraulic evaluation, flow projections, inflow and infiltration study, sewer trunk sizing, landowner meetings and coordination, opinion of probable construction costs, preparation of drawings and specifications, bid evaluations and recommendations. Overall project includes study phase, preliminary and detailed design, and procurement services.

Locust Grove Sewage Pump Station and Force Main, Allegany County, Cumberland, Maryland
Project Estimated Cost $46M, Construction
Responsible for evaluation and design of a 10 MGD self-cleaning sewage pump station (SPS), including force main rehabilitation, site work, river and highway crossings and permitting. The new Locust Grove SPS will be built adjacent to the existing Locust Grove SPS to allow it to remain in service during the construction. The new sewage pumping station accommodates a combined sewer system and will be a wet well/dry well configuration with a self-cleaning trench style wet well. Two 5 HP grinders and three 110 HP dry-pit submersible pumps will be provided to deliver a permitted pumping capacity of 8.8 mgd and a maximum pumping rate of 10 mgd. Flows greater than system capacity will be diverted to Willis Creek via a permitted combined sewer overflow. The new station will include odor control and an emergency generator. The pumping station design is being done entirely in Revit 3D Building Information Management software.
Construction Type: Design-Bid-Build
Project Construction Cost: $10.5M

WASTEWATER TREATMENT PLANT IMPROVEMENTS

Rehoboth Beach WWTP Capital Improvements Program Phase II, Rehoboth Beach, Delaware
Project included the demolition of a sludge thickener, construction of a new dewatering building including, belt filter presses, pumps and blowers. Grading, erosion control and new coarse bubble diffusers were installed in digester as well as yard piping to connect various new processes were designed. Appropriate foundation designed built on piles supported yard piping and structures since WWTP was built on a landfill in 1984.

2007 – 2018 - Eckler Engineering, Inc.

RAW WATER SUPPLY

Forest Hills Wellfield Rehabilitation, Coral Springs, FL
Eckler Engineering provided the evaluation, preliminary design, final design, bidding assistance and engineering services during construction for the rehabilitation of the City of Coral Springs existing Forest Hills Wellfield. The project is the fourth phase of rehabilitation improvements to the City's existing raw water supply wells, per the recommendations of the Utility System Master Plan Update, Eckler Engineering 2006 and the Raw Water Supply System Evaluation Report, Eckler Engineering 2007. The general scope of improvements for this project include: Abandonment of three (3) existing surficial aquifer wells; drilling and development of two (2) 30" diameter, 180 feet depth surficial aquifer wells; casing cleaning, screen cleaning, casing lining and re-development of five (5) existing surficial aquifer wells; construction of new wellheads, pumping systems, controls, electrical and civil improvements for seven (7) well sites.

POTABLE WATER TREATMENT/STORAGE

Miscellaneous Water Treatment Plant Improvements, Phase III, City of Coral Springs
Eckler Engineering provided the evaluation, preliminary design, final design, bidding assistance and engineering services during construction for the Third phase of improvements to the City of Coral Springs existing 16.0 MGD lime softening Water Treatment facility. The improvements follow the recommendations of the 2006 Utility System Master Plan Update, prepared by Eckler Engineering. The general scope of improvements included: New high service pump station; new chemical storage and feed building (for Coagulant Aid, Hexametaphosphate, Ammonia and Fluoride); New plant wide SCADA system and fiber optic network; New electrical feeder, distribution and VFD's for the high service pump station; modifications to the existing sodium hypochlorite feed system to convert from positive displacement pumps to low pressure distribution; remodel of two story WTP administration building; yard piping improvements, civil site work, instrumentation and control systems and electrical.

Omar Khan, P.E.

Eckler Engineering, Inc.
Consulting Civil Engineers

Project Experience cont'd

Three Water Booster Stations, City of Coral Springs
Eckler Engineering, Inc. rehabilitated three (3) potable water booster stations within the City of Coral Springs. The aging booster stations required new mechanical, electrical and instrumentation equipment along with miscellaneous civil site plan improvements. Each of the stations help sustain the design pressure within the distribution system.

Master Plans, City of Coral Springs
Utility system master plans for water, wastewater, and reclaimed water facilities for the Cities of Coral Springs (2), Pompano Beach (2), Hillsboro Beach and Palm Springs (2), Florida.

POTABLE WATER DISTRIBUTION

Miscellaneous Water Distribution System Improvements, City of Coral Springs
Engineering services for the preliminary design, final design, permitting, bidding phase, and engineering services during construction for the installation of approximately 16,200 linear feet of new 12-inch and 16-inch transmission water mains.

Emergency Water Service Interconnect with Coconut Creek and Coral Springs
This project included the installation of 360 LF of 12" ductile iron water main, meters, and vaults connecting the water distribution system of the City of Coconut Creek and Coral Springs.

Southwest Quadrant Downtown Water and Sewer Improvements, City of Coral Springs
Engineering services for planning, design, permitting, and services during construction. Eckler Engineering designed approximately 1,200 feet of new 12-inch water main and 1,000 feet of 8-inch force main to provide the necessary utility improvements for the new Municipal Complex. A new sanitary lift station was also designed for the Municipal Complex. The construction cost was $1,800,000.

New Water Main on Sample Road, City of Coral Springs
Engineering services for preliminary design, final design, permitting, bidding and services during construction. In an effort to increase water distribution capabilities throughout the City of Coral Springs' service area, Eckler Engineering was appointed the lead consultant in designing a new water main along Sample Road between Coral Hills Drive and University Drive. Additionally, as an add alternate to this project, a new water main was also designed along Coral Hills Drive from Sample Road to NW 31st Court. The project consisted of approximately 1,500 feet of 16-inch ductile iron water main along Sample Road and 950 feet of 12-inch ductile iron water main along Coral Hills. Eckler Engineering was responsible for construction services such as daily site evaluations and inspections. The construction cost was $1,500,000.

WASTEWATER COLLECTION/TRANSMISSION

Rehabilitation of Lift Stations 11B, 11C, 12D, 12E, 13A, 13B, 13C and 13D, City of Coral Springs
Engineering services for planning, design, permitting, and services during construction. Eckler Engineering designed the rehabilitation of eight lift stations that required mechanical, electrical and civil upgrades. Four grinder stations were also designed and constructed within this project. The total project construction cost was $1,678,000.

Lift Station 21C Reconstruction and New Force Main, City of Coral Springs
Engineering services for planning, design, permitting, and services during construction. Eckler Engineering designed approximately 1,400 feet of 8-inch and 10-inch force main to provide the necessary utility improvements and lower the horsepower required at Lift Station 21C. The entire lift station was demolished and replaced with new pumps, piping, valves, fittings, wet well, valve vault, electrical and instrumentation components and various civil upgrades. The total construction cost for this project was $986,000

Rehabilitation of Lift Stations 14E, 17A, 17C, and 18C, City of Coral Springs
Engineering services for planning, design, permitting, and services during construction. Eckler Engineering designed approximately 5,800 feet of new 4-inch and 8-inch force main to provide the necessary utility improvements for the aging infrastructure. The cost for the force main infrastructure improvements and the rehabilitation of the four lift stations was $2,279,000.

Omar Khan, P.E.

Eckler Engineering, Inc.
Consulting Civil Engineers

Project Experience cont'd

New Force Main on Sample Road, City of Coral Springs
Engineering services for planning, design, permitting, and services during construction. Eckler Engineering designed a new force main along Sample Road between Coral Hills Drive and University Drive in response to the City's growing concern regarding aged transmission force mains. The project consisted of approximately 1,500 feet of 20-inch ductile iron force main as well as a right turn lane on Sample Road at NW 94th Avenue. Eckler Engineering was responsible for construction services such as daily site evaluations and inspections. The construction cost was $1,500,000.

STUDIES/PLANS

Master Plans
Utility system master plans for water, wastewater, and reclaimed water facilities for the Cities of Coral Springs (2) and Palm Springs (2), Florida.

Water Use Permits
Water Use Permit Renewals with the South Florida Water Management District for the cities of Coral Springs, Tamarac, and Palm Springs

2006 to 2007 Engineering Express

Mr. Khan was an engineering intern who assisted in the design of screen enclosures, wooden decks, docks and seawalls. His duties included wind load design, drafting, and structural loading calculations.

Ahmet Tahaoglu

Eckler Engineering, Inc.
Consulting Civil Engineers

Years of Experience
2

Education
BS, Environmental Engineering
Florida Atlantic University

Affiliations

American Society of Civil Engineers (ASCE)

American Water Works Association (AWWA)

Florida Water Environment Association (FWEA)

Water Environment Federation (WEF)

Summary

Mr. Tahaoglu has 2 years of experience in the assisting of planning, design and permitting of water, wastewater and reclaimed water projects for various municipal and private clients. These projects have included master planning, design, permitting and construction monitoring of water distribution systems, sanitary sewer collection and transmission systems and. additions/rehabilitation of water treatment plants. His willingness to learn and execute what is needed for these municipal utility projects working alongside seasoned Professional Engineers allows him to assist in evaluating the client's needs and designing solutions.

Project Experience

2017 - Present Eckler Engineering, Inc.

POTABLE WATER TRANSMISSION/DISTRIBUTION

New Water Main on Sample Road, City of Coral Springs
Engineering services for preliminary design, final design, permitting, bidding and services during construction. In an effort to increase water distribution capabilities throughout the City of Coral Springs' service area, Eckler Engineering was appointed the lead consultant in designing a new water main along Sample Road between Coral Hills Drive and University Drive. Additionally, as an add alternate to this project, a new water main was also designed along Coral Hills Drive from Sample Road to NW 31st Court. The project consisted of approximately 1,500 feet of 16-inch ductile iron water main along Sample Road and 950 feet of 12-inch ductile iron water main along Coral Hills. Eckler Engineering was responsible for construction services such as daily site evaluations and inspections. The construction cost was $1,500,000.

WASTEWATER COLLECTION/TRANSMISSION

New Force Main on Sample Road, City of Coral Springs
Engineering services for planning, design, permitting, and services during construction. Eckler Engineering designed a new force main along Sample Road between Coral Hills Drive and University Drive in response to the City's growing concern regarding aged transmission force mains. The project consisted of approximately 1,500 feet of 20-inch ductile iron force main as well as a right turn lane on Sample Road at NW 94th Avenue. Eckler Engineering was responsible for construction services such as daily site evaluations and inspections. The construction cost was $1,500,000.

Lift Station 21C Reconstruction and New Force Main, City of Coral Springs
Engineering services for planning, design, permitting, and services during construction. Eckler Engineering designed approximately 1,400 feet of 8-inch and 10-inch force main to provide the necessary utility improvements and lower the horsepower required at Lift Station 21C. The entire lift station was demolished and replaced with new pumps, piping, valves, fittings, wet well, valve vault, electrical and instrumentation components and various civil upgrades. The total construction cost for this project was $986,000.

Cudjoe Regional Wastewater Collection System Design Build Project for Outer Islands
This was a $90 Million design-build wastewater construction project. The project provided wastewater service to Lower Sugarloaf Key, Ramrod Key, Little Torch Key, and Big Pine Key. Eckler Engineering's portion of this project included the design of approximately 55,000 linear feet of transmission force main and four master repump stations.

Ahmet Tahaoglu

Eckler Engineering, Inc.
Consulting Civil Engineers

Project Experience cont'd

RECLAIMED WATER

Wiles Road Reclaimed Water Main, City of Coconut Creek
This project consisted of the design of a reclaimed water distribution system for the City of Coconut Creek. This project included approximately 1,250 LF of 16" PVC reclaimed water main installed via open cut and 4,000 LF of 16" HDPE reclaimed water main installed via directional drill. This project was designed to provide irrigation to future connections.

RAW WATER SUPPLY

Replacement of Raw Water Supply Wells 18, 29 and 20, City of Coral Springs
Design, permitting, bidding assistance, and services during construction for three replacement surficial aquifer wells. Eckler Engineering designed three new raw water supply wells due to a significant lack of water production. The project included relocating three raw water supply wells and approximately 1,500 feet of 12-inch and 8-inch ductile iron raw water main. The design components of the supply wells are comprised of drilling, wellheads, column pipe, pumps, control panels and electrical requirements. A preliminary design report was provided that included a geological survey of the proposed sites. Eckler Engineering also provided permitting assistance during the design phase. Hydrological field services and general construction evaluation and inspections were conducted by Eckler Engineering.

Avirom & Associates,

John T. Doogan

Professional Land Surveyor / LS4409 / Florida
Project Surveyor

Years with Avirom & Associates: 21
Total Years of Experience: 44

Education

1974 / Associates in Science / Engineering

Professional Experience

John Doogan had twenty four years of survey experience prior to joining Avirom & Associates in 1999. He has been a Florida registered surveyor since July of 1987 and became certified in Geographic Information System from Florida Atlantic University in June of 2003. He is currently responsible for boundary surveys, topographic surveys, GPS surveys and expert witness testimony. John is a member of the Florida Society of Professional Land Surveyors.

Professional Projects

City of Coral Springs:

Route-of-line surveys and base mapping for existing utilities above and below ground for engineer's design – *Sample Road, University Drive, Wiles Road, etc.*

Lift Station Surveys – LS 14A, 19C, 20C, 17B, 21D, etc.

Well Site Surveys – Well 18 at Forrest Hills Drive, Well 19 west of Riverside Drive, Well 20 at Pride Promoters Park, etc.

Coral Springs Public Safety Complex – boundary and topographic survey for architect and engineer's design of police headquarters and fire substation renovation

City of Lauderhill:

Fire Station 30 Relocation - boundary and topographic survey
First City Hall - topographic and final survey
Habitat Condo - topographic survey
Lift Station #37 – topographic survey for design of lift station improvements
Veterans Park/Fire Station – boundary and topographic survey
Jackie Gleason Park – boundary and topographic survey
City of Lauderhill Water Treatment Plant – boundary and topographic surveys; sketch and descriptions; construction services

50 SW 2nd Avenue, Suite 102, Boca Raton, Florida 33432

Electrical Design Associates

Dameion Donaldson, P.E.

Professional Record

Mr. Donaldson is an electrical engineer with 12 years of experience in various projects within the private and public sectors. He is experienced in designing electrical power distribution for municipal systems, water and wastewater treatment facilities, above and below ground distribution systems, lighting systems for roadway and industrial facilities. His electrical designing responsibilities encompass all aspects of drawing production, as well as system design.

Experience:

Mr. Donaldson has been involved in the electrical system design on a variety of projects including, but not limited to:

- Water Reclamation Facility Master Plan
  City of Largo, FL
- North Hutchinson Island Repump #1
  Fort Pierce Utilities Authority, Florida
- Vero Beach RO WTF Expansion
  Vero Beach, Florida
- Water Conserv II WRF Evaluation
  City of Orlando, FL
- NWRF Master Plan & Plant Expansion Design
  City of Orlando, FL
- Wastewater Master Plan
  City of Pompano Beach, FL
- Meadow Woods WSF Improvements
  Orange County, Florida
- Punta Gorda WWTP Filtration Improvements
  Charlotte County, Florida
- Southwest WRF – Electrical Improvements
  Orange County, Florida
- Margate Lift Station Improvements
  City of Margate, Florida

Academic Credentials:

Bachelors of Science in Electrical Engineering
Florida International University, 2003

Professional Engineer – Florida 70851

Employment Record:

2011-Present:	Electrical Design Associates, Inc. Electrical Engineer
2009-2011:	Lea & Elliot, Inc. Electrical Project Engineer
2008- 2009:	Gers USA Consulting Electrical Engineer
2006-2008:	Electrical Design Associates, Inc. Electrical Engineer
2004-2005:	Ivax Research, Inc. Electrical Project Engineer

Principal Areas of Expertise:

Electrical Design of Power Distribution, Lighting, and Fire Alarm Systems for Environmental, Municipal and Commercial Projects

Electrical Cost Estimating
Testing and Commissioning

Professional Activities:

Florida Engineering Society (FES)
Institute of Electrical & Electronics Engineers (IEEE)
IEEE Power and Energy Society

Richard C. Wohlfarth, P.E.
Principal/ Director of Engineering

FORMAL EDUCATION:

University of Florida,
Gainesville, Florida

Bachelor of Science,
Civil Engineering

PROFESSIONAL REGISTRATIONS:

Registered Engineer-
State of Florida #50858

Registered Building Inspector-
State of Florida BN #3580

SBCCI #6528

ACI Level 1 #991175

UBCI

PROFESSIONAL AFFILIATIONS:

Florida Engineering Society
*Past Chapter President

National Society of Professional Engineers

REFERENCES:

Palm Beach County -
Department of Engineering and Public Works
2300 North Jog Road
West Palm Beach, Fl. 33411
Mr. Steven O'Neil
561- 684-4149

South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Fl. 33416
Ms. Jennifer Gent, PE
561-274-4863

PROFESSIONAL EXPERIENCE:

Mr. Wohlfarth, P.E. is the Director of the Engineering Department which includes professional and technical personnel. He also has overall responsibility for the Special Inspection, Construction Materials Testing and Geotechnical Engineering Divisions where he directs training, quality system review and personnel evaluations. His responsibilities include report review, signing and sealing geotechnical engineering, structural inspection and laboratory testing reports for the company, providing contract negotiation and administration, budget estimating and project management.

Mr. Wohlfarth has 25 years of experience (20 with NEF; 5 with other) in various aspects of geotechnical engineering which include determining feasibility of site development, foundation design analysis and recommendations, providing engineering evaluation for bridge and roadway construction, pavement design for roadways, roadway subgrade stabilization by geotextiles and other means, design of shoring systems for utility trenches and other deep excavations, dewatering methodology for trench and other excavations and backfill procedures, setting up and monitoring pile load tests, and providing value engineering for foundations.

PROJECT EXPERIENCE:

- Seminole Tribe of Florida & Atkins North America experience:
  - Water Main and Sewer Replacement, Hollywood Reservation: Geotechnical study (for Atkins North America) relevant to the installation of ~27,500 lf of water and sewer lines through Okalee Village. Fifty three (53) borings were performed, and samples were lab tested. 2016
  - Additional geotechnical studies at the main lift station, the Stirling Road section, HR loop section and 64th Avenue section of the water and sewer line replacement at the Hollywood Reservation. An additional eight (8) borings were performed, and samples were lab tested. 2016
- Seminole Tribe of Florida Public Works Department:
  - Brighton Waste Water Treatment Plant, Okeechobee - Installed monitoring wells around retention pond. 2014
  - Immokalee Reservation Public Works Facility, Immokalee - Geotechnical study for a 120' x 50' storage pad. 2014
- Westport WWTP, Port St. Lucie: Expansion of the Westport WWTP to 6.0 MGD with elements to increase capacity to the ultimate 12 MGD capacity.
- W/WTP projects include: Immokalee Seminole Indian Reservation WWTP (2014), City of Sunrise SW WTP Lime Silo and relocation of filters (2015), NRWWTP Electrical Load Center and Motor Control Centers Rehabilitation, Pompano Beach (2015)

Richard C. Wohlfarth, P.E.
Principal/Director of Engineering

PROJECT EXPERIENCE:

- City of Port St. Lucie, multiple projects via Qualification Based Contract (2007 – ongoing) including the Eastern Watershed Improvement Program (EWIP):
  - Loutus Pond (16 acres) and Blackwell Waterway Reservoir (2400 lf of new stormwater force main)
  - Elks Cane Stormwater Treatment Area (STA) (13 acres)
  - Patio Circle STA (4 acres)
- Various projects for the Palm Beach County Board of Commissioners: Qualification Based Contract (1986- 2000; 2011 - ongoing) Environmental Assessments, Geotechnical Engineering, Material Testing, Structural Inspections.
  - Kirk Road Bridge over LWDD L-9 Canal
  - Village of Palm Springs Water Interconnection
  - 10th Avenue North Water Main Extension
  - Riddle Road, Karl Road, Willow Road & Pine Road Water Main Extension
  - Belvidere Road & Haverhill Road Intersection Improvements
  - South County Water Services Replacement Phase II
  - Town of Mangonia- Pioneer Road Sanitary Sewer Extension
- City of Lake Worth, 7th Avenue South Extension: 1,600 to 1,700 linear feet of new asphalt paved roadway section consisting of two lanes, each bordered by concrete curb and gutter and a four foot wide bike lane
- Seacrest Boulevard Roadway Improvements, Boynton Beach: Including embankment, 12 inch thick stabilized sub grade (type “B”), 8 inch thick limerock base course, concrete sidewalks and curbs, stamped paving and some milling of existing and paving of asphaltic concrete pavement
- Southwest WWTP Repair & Replacement Upgrades, Sunrise, 2014 - 2016/Ongoing: Demolition of various structures and mechanisms, rehabilitation of existing oxidation ditches, existing secondary clarifiers, repair of existing chlorination building. Construction of new headworks facility, odor control system, master lift station, filter feed pump station, deep bed filters, chlorine contact basins, sodium hypochlorite facility, RAS/WAS pumping station, power to all new facilities and re-feed power to all of the existing equipment. Installation of SCADA system, site work, yard piping, paving, grading and drainage and modifications to 2 existing percolation ponds.
- Springtree WTP Water Stabilization and Solids Handling, Sunrise, 2016 - 2017: Demolishing the east filters and pump station, installation of a new settled water transfer pump station, new carbon dioxide system, demolishing and replacing the lime sludge dewatering system, installation of a chloride dilution system, repair of damaged concrete, installation of a thickener supernatant forcemain, replacement of guard railing, and coat the west filters and pump station.
- City of Sunrise Sawgrass Floridian Raw Water Main, Reuse Water Pipeline and Wellheads, Phase I, 2012: Installation of a 24” raw water pipeline extending along NW 8th Street, International Parkway and Concord Terrace. Installation done using open cut in the roadway areas and directional drilling at the canal crossing.

Peter F. Dobens

Public Relations and Community Outreach

QUEST CORPORATION OF AMERICA

Experience – 40 Years

Peter Dobens is a seasoned communications and public relations specialist with an in-depth background in transportation and more than 20 years communications experience. Mr. Dobens is an expert at transportation projects, utility projects, supporting infrastructure projects, community outreach and involvement.

As a Senior Communications Manager for Quest, Mr. Dobens is responsible for communications, public outreach, community relations, and photography for several projects in Palm Beach County and Broward County. A South Florida resident for 25 years, he has served clients on I-95 construction projects regional road construction projects and water-sewer construction projects. He has established, long-standing relationships with area elected officials and the media that serve the communities within Palm Beach and Broward Counties. He has been a member of the Palm Beach County Media Co-Op since 1994 and the Broward Media Coalition since 2011. Also, he has served as a member of the U. S. Department of Homeland Security Southeast Regional Domestic Task Force Joint Communications team.

RELEVANT PROJECT EXPERIENCE

City of Coral Springs, Raw Water Well Replacement Project

City of Coral Springs, FL (2019-present)

Mr. Dobens manages public relations and outreach for the City of Coral Springs Raw Water Well Replacement Project. This project includes drilling three replacement wells and upgrading one existing well. All the wells are located within residential neighborhoods. Mr. Dobens' activities include community liaison for the City and Utilities Department, door-to-door outreach with residents, manages resident inquiries and concerns. He serves as the 24-hour contact on the project.

City of Coral Springs, Sample Road Water & Sewer Line Replacement Project.

City of Coral Springs, FL (2017-18)

Mr. Dobens supported Eckler Engineering on the Sample Road Water & Sewer Line Replacement Project. Activities include: public outreach and public involvement throughout the project; supporting the City's social media outreach; providing weekly reports to the City for posting on the City's website and Facebook pages; and photography. Mr. Dobens serves as the 24/7 point of contact for businesses and residents for the City while they are replacing aging underground infrastructure with large-capacity water and sewer mains.

Sunshine Water Control District West Outfall Canal Project

City of Coral Springs, FL (2017-present)

Mr. Dobens manages the public information and outreach services for the Sunshine Water District's canal widening project within the city of Coral Springs, FL. Environmentally sensitive, the project includes using district lands to widen the canal and improve drainage. Because the project includes removal of trees and other plant life on district lands behind homes, Mr. Dobens is meeting with residents face-to-face, door-to-door to ensure the Sunshine Water Control District's message is reaching all stakeholders. Throughout the project, Mr. Dobens meets with the elected Board of Supervisors and staff to ensure a consistent message is reaching stakeholders.

City of Hallandale Beach, FL, SW Drainage Improvement Project

Hallandale Beach, FL (2017)

Mr. Dobens planned and executed community outreach and mounted a public relations campaign for the City of Hallandale Beach in advance of this project to improve drainage and mitigate flooding in the southwest section of the City. The project includes the placement of larger drainage pipes to double the capacity for handling runoff. Mr. Dobens' outreach included video presentations, social media, door-to-door outreach and traditional print media to inform residents about the project. The project is currently out for bid.

City of Hallandale Beach, FL, NE 14th Avenue Drainage Improvement Project

Hallandale Beach, FL (2013-2015)

Mr. Dobens managed communications for the City of Hallandale Beach drainage project that included replacing old water and sewer pipes with new, larger-capacity pipes to control drainage and runoff in a highly flood-prone area. The two-year, $14 million project disrupted numerous condominium residents and Mr. Dobens managed media relations, community outreach, established social media relationships, and documented the project in video and photography.

FDOT District Four, U.S. 1 Drainage Improvement Project
Palm Beach Gardens (2009)
Mr. Dobens managed communications and community outreach with the business community during this reconstruction of U.S. 1 at PGA Boulevard and the placement of high-capacity drains in Palm Beach Gardens. The project impacted local businesses, shopping centers and residents, and Mr. Dobens mitigated community concerns through effective door-to-door outreach and meetings with businessmen. He facilitated meetings between the business leaders and project engineers to further explain the impacts and answer all concerns.

OTHER PROJECT EXPERIENCE

FDOT, District 4, I-95 Interchanges at Gateway Boulevard and Boynton Beach Boulevard
City of Boynton Beach, Palm Beach County, FL (2017)
Mr. Dobens served as a team leader for the design projects on I-95 at Gateway Boulevard and Boynton Beach Boulevard. Located one mile apart, these separate FDOT projects were combined for community outreach and community involvement. Mr. Dobens was an integral team member meeting with stakeholders in advance of the community workshop, and at the public workshop.

City of Fort Lauderdale South Ocean Drive Bridge Replacement Project
City of Fort Lauderdale, Broward County, FL (2018)
Mr. Dobens is managing community outreach for this city-funded project to replace a 66-year-old bridge over a navigable waterway and into a heavily populated neighborhood on the north side the Port Everglades Inlet. He is managing communications and community outreach between the project team and 18 homeowners and condominium associations.

FDOT District Four, I-95 at Northlake Boulevard Interchange
Palm Beach County, FL (2017)
Mr. Dobens has served in a support role for the Northlake Boulevard Interchange Project with working in public outreach and public involvement throughout the project. Activities included: PowerPoint presentation support, project newsletters, and door-to-door outreach for businesses and website updates. The project will help eliminate the I-95 exit ramp traffic from queueing into I-95; improve intersection operations; maintain reliable travel times; improve mobility for pedestrians, bicycles and transit; and improve safety and reduce crashes.

PAST PROJECT EXPERIENCE

Public Relations & Marketing Manager, City of Hallandale Beach
Hallandale Beach, FL (2012 – 2017)
Mr. Dobens was the City's first public relations specialist/manager, where he established the City's Social Media platforms to promote transportation and infrastructure projects. He developed video, audio, and online content to promote the city's efforts to mitigate flooding, and improve the city's water distribution and wastewater collection system. He also developed and implemented a marketing program to promote the City's free bus service.

EDUCATION

- B.S., Business Administration, minors in Economics, Accounting and Aviation History, Nathaniel Hawthorne College

PROFESSIONAL DEVELOPMENT

- Poynter Institute for Media Studies, St. Petersburg, FL (1978, 1992, 2007)
- Texas A & M University, College Station, TX, Weather reporting, (1978)
- American Bar Association, Media Panelist, (2009)
- Member Southeast Regional Domestic Task Force Joint Communications (present)
- FEMA (Federal Emergency Management Agency) G-290 & G-291 Media Relations Certified (2012, 2016)
- NIMS (National Incident Management System) – 700; 701; 800 Certified (2012)

PROFESSIONAL CAREER

- Senior Communications Manager/Public Relations Specialist, QCA
- Government Public Relations/Television/Radio Station Manager, 5 years
- Television Managing Editor/Assignment Manager, 19 years (14 in Palm Beach County)
- Newspaper Transportation Reporter/Photographer, Business Editor 15 years

BILL LYNCH, PE, CDT

UTILITIES CONSULTANT

Bill has more than 35 years of program and project delivery experience for utilities, water management agencies and industries in the State of Florida. His capabilities and experience serving Florida utilities have developed through a variety of consulting and engineering assignments completed in various roles over his career.

SELECTED PROJECT EXPERIENCE

DEO 2019 Community Planning Technical Assistance Grant Support | Monroe County, FL | Project Manager | Bill serves as PM working with the County leadership and staff to update and streamline Monroe County Code Sections 114-2(a)(S) and 114-3 to reflect best practices in floodplain management; and to update and republish the "Manual of Stormwater Management Practices" and "Layman's Brochure" including facilitating Stakeholder Engagement Forums and Public Meetings.

Septic-to-Sewer Program Funding Sources Review | Martin County, FL | Senior Engineer | Bill served as the Senior Engineer supporting the County's assessment of funding sources to minimize the financial impacts to the residents from implementation of the Septic to Sewer conversion program. Funding programs assessed included the Water Infrastructure Finance and Innovation Act (WIFIA) and State Revolving Fund (SRF).

Septic-to-Sewer Program Funding Options Review | Lake Clarke Shores, FL | Senior Engineer | Bill served as the Senior Engineer supporting the Town's funding sources review to implement a town-wide S2S conversion program. Loan and grant funding options including SRF Clean Water Fund (Planning Loans, Design Loans, Inflow/Infiltration Loans and Construction Loans) and the USDA Rural Development Water & Waste Disposal Loan & Grant Program.

Wastewater Utility Formation, Consulting and Engineering | Village of Islamorada, FL | Lead Consultant | Bill led the consultant team during the evaluation of Village-wide wastewater service and the development of their wastewater utility and plan. He coordinated with the Village, regulators, and attorneys to ensure all requirements were fulfilled. Participated in numerous public meetings during utility development and provided ongoing utility consulting on an as-needed basis.

Bond Engineering Services |Florida Governmental Utility Authority | Engineer of Record | Bill was the Project Manager and Engineer of Record for six Bond Feasibility Studies supporting the ~$250,000,000 purchase of several utility systems as well as Bond Engineer for subsequent bond issues for capital improvement program funding. Bill consulted with affected parties on operations, customer service, billing, and capacity agreements.

AREAS OF SPECIALIZATION:

- Program and Project Management
- QA/QC
- Utilities Consulting Services
- Expert Services and Testimony

YEARS OF EXPERIENCE: 35

YEARS WITH FIRM: 3

EDUCATION:

Bachelor of Science, Environmental Engineering, Florida Institute of Technology, 1984

PROFESSIONAL CERTIFICATION:

Professional Engineer, Florida, No. 45302

Certified Document Technologist, Construction Specifications Institute

TERRI LOWERY

FUNDING/GRANT SPECIALIST

Terri has more than 30 years of experience working with clients and technical staff on project funding strategies and public involvement programs. Terri is experienced in organizing and coordinating public meetings, media communication, and celebratory events in support of community milestone projects including developing presentation materials, establishing speakers' bureaus, organizing and conducting public meetings, and interfacing with the media. She is a registered lobbyist and assists with legislative tracking and grant pursuits, organizing and conducting funding workshops, and monitoring and reporting on legislative activities. She has been featured in the *Florida Today* authoring an opinion-editorial article on Cities, Counties Need Plan to Switch Septic to Sewer and made numerous presentations on the topic of Septic to Sewer.

SELECTED PROJECT EXPERIENCE

Septic-to-Sewer Program Funding Consulting | Martin County | Funding Consultant and Public Relations Specialist | Terri has served as the funding consultant assisting the County with assessment of funding sources to address utility related upgrades. Terri is also providing specific support with the SRF Clean Water fund for the Golden Gate Septic to Sewer project. As part of this project, she has coordinated with multiple department and prepared and made public presentations required by the SRF funding process.

Southwest Regional Water Reclamation Facility Advanced Wastewater Project | Citrus County | Funding and Public Relations Specialist / Client Services | Terri served as the funding and public relations specialist working with the County and agencies on grant procurement and reclaimed water use and working with the County to provide project information to the community.

State Revolving Funding Assistance | City of Zephyrhills | Funding and Public Relations Specialist | Terri worked with the City to develop both Clean Water and Drinking Water applications for a multi-project consolidated facilities plan. Work included coordinating with SRF and City staff and preparing and conducting the public meeting.

Wastewater Treatment Facility Improvements: Headworks, Oxidation Ditch, Biosolids Treatment and Reclaimed Water Transmission | City of Bradenton | Funding Specialist | Terri provided funding assistance on this project, specifically assistance with FDEP SRF funding for construction.

East Port WRF– Stage 1, 2, and 5 Improvements | City of Bradenton | Funding Specialist | Terri provided funding assistance on this project. Jones Edmunds provided a preliminary engineering report, final design, and construction administration for a phased expansion of the 6-MGD East Port WRF to 9-MGD.

AREAS OF SPECIALIZATION:

- Funding Assistance
- Community/Public Relations Programs
- Communication and Media Development
- Marketing Research and Promotional Activities
- Legislative Coordination and Support

YEARS OF EXPERIENCE: 33

EDUCATION:

Bachelor of Science, Business Administration/Marketing, University of Florida, 1986

PROFESSIONAL CERTIFICATION:

Registered Lobbyist, 2006, FL

CROM®

ALEXANDER CIASCA, PE

AREA MANAGER

352.239.2741 | 250 SW 36th Terrace, Gainesville, Florida | www.cromcorp.com | aciasca@cromcorp.com

PROFILE:

Advanced skills developed in marketing, sales, and management of construction projects. Comprehensive understanding of the engineering design and construction details required in the prestressed concrete tank industry, as well as the coordination between government agencies, owners, engineers, and contractors to ensure the successful development of projects. Focused on details and dedicated to delivering clients a product constructed safely, ahead of schedule, and held to the highest industry standards.

EXPERIENCE:

AREA MANAGER, CROM, GAINESVILLE, FLORIDA 2015—Present

- Complete responsibility for company operations for the Eastern Florida market, as well as Louisiana and Mississippi.
- Duties include marketing and sales, preparing and submitting bids for various projects as a general contractor and subcontractor, interacting with engineers to assist in developing projects, interacting with owners, general contractors, subcontractors and suppliers.
- Design and estimating review duties for projects including estimates and detailed shop drawings.

OTHER EXPERIENCE:

Project Engineer	Holtz Consulting Engineers, Inc.	2012-2015
Project Engineer	AECOM Technical Services, Inc.	2006-2012

PROFESSIONAL EDUCATION:

UNIVERSITY OF FLORIDA, GAINESVILLE, FLORIDA

Bachelor of Science in Environmental Engineering

PROFESSIONAL MEMBERSHIPS & CERTIFICATIONS:

- Texas Board of Professional Engineers (PE #124565)
- Louisiana Board of Professional Engineers (PE #41401)
- Engineers Without Borders
- Florida Board of Professional Engineers (PE #73007)
- Mississippi Board of Professional Engineers (PE #28541)

CROM®

SIGFREDO ORAMA

PROJECT MANAGER

352.372.3436 | 250 SW 36th Terrace, Gainesville, Florida | www.cromcorp.com | sorama@cromcorp.com

PROFILE:

Project Manager of CROM, LLC (CROM), Crom Coatings and Restoration Division. Advanced skills developed in estimating, job cost control, management, scheduling, document control, contract review, and site safety management. Comprehensive understanding of the attention required for team organization and development necessary to help guide projects' progress, safety, and quality through to successful completion.

EXPERIENCE:

PROJECT MANAGER, CROM COATINGS AND RESTORATIONS	**2018-Present**
Inspections and Engagement Consultant, Professional Service, Isabela, Puerto Rico	**2014-2017**
Head of New Business Development, Ocean Green Service, Ceiba, Puerto Rico	**2012-2014**
Managing Partner, Constructora Orama, Jayuya/Utuado, Puerto Rico	**2008-2012**
President/General Manager, Prorama, Inc., Utuado, Puerto Rico	**2000-2012**

EDUCATION:

Juris Doctor, Law School
Pontificia Universidad Catolica De Puerto Rico 2005-2008

B.A. in Liberal Studies
Pontificia Universidad Catolica De Puerto Rico 2002-2005

PROFESSIONAL CERTIFICATIONS AND TRAININGS:

AMERICAN RED CROSS (ARC)
San Juan, Puerto Rico

- Board Member - Puerto Rico Chapter ARC Blood Services

Safetyplusweb Training Program

- JEA 2Hour Safety Training
- Confined Space Training
- Emergency Preparedness
- Evacuation Procedures
- Fall Protecion
- Accident Reporting Procedures
- Hazmat
- Rigging Training
- Scaffold Training
- Spill Containment

Licenses and Credentials, Resumes for Key Personnel

It may be of interest to note that Mark Lavallee (ARS: AC4UV) and Bruce Burke (ARS: WB4YUC) hold FCC radio station licenses for amateur radio service. Mark Lavallee holds a Commercial General Radio Telephone Operators License # (PG-GB-04274) ACI holds a radio station license of its own FCC Callsign (WQOA976). We create and maintain hundreds of radio station licenses with the FCC. ACI holds numerous radio system manufacturers certifications and awards and all are available on request.

Mark Lavallee

Education:

Broward College
Electrical Engineering Technology Graduated 1992

Professional Experience:

Owner Operator of sole proprietor business that focused on the broadcast and two way radio industry 1990 – 1992
Contact Gabriel 1992-1992 Two way radios business that closed due to dissolution. Responsible radio gear in operation for public safety and other two way radio consumers. Provided RF Technical services to the business.
President of Advantage Communications Inc. 1993-Present
General Manager and RF consultant

Certifications and licenses

Society of Broadcast Engineers Certified Radio Broadcast Engineer (21212)
FCC General Radio Operator License (PG-GB-04274)
PCIA / NABER Certification
Harris Microwave Certifications
GE MDS Certifications
OSHA and Fall Protection
Others

Bruce Burke (954)410 0750
1333 Seaview, North Lauderdale, FL 33068-3909 bruce.burke@advantage-com.com

Professional Profile

Engineering Technician-Designer: Well-rounded, spirited individual with long-proven diverse skills and a documented record of making improvements in designs and processes whether at the component or system level to achieve best in class results.

- Product Management
- Design Improvement
- Product Factory Turnover
- Technical Writing
- Process Design and Improvement
- Cross Functional Team Interface
- Customer and Dealer Training
- EIA/TIA-603 Testing
- Intricate Problem Solving
- Field Support/Customer Interface
- System to Component Level skills
- Troubleshooting to Component Level
- FCC radio station licensing
- RF path computer modeling
- RF consulting
- High importance factor project lead

Professional Experience

Advantage Communications, Inc.

2007 – present

- Senior RF technician
- RF consulting
- FCC radio station licensing
- RF path computer modeling

Motorola, Inc., Plantation, FL

1995-2007

US and Latin America Engineering: Engineering Technician-Designer

Achievements:

- Designed and managed process for Technical Field Bulletins
- Quality Report System development and automation for upper management
- Assisted with multiple product turnovers
- Optimized performance of several radio platforms
- Separated transmit and receive functions for trunking pathloss evaluations

Responsibilities:

- Managed Desktrac Desktop base station to product sunset
- Communication System integration and testing
- Interface with Global Design Teams for product design and improvements
- Interface with Marketing and Legal Departments for product turnovers and documentation
- Manage Technical Field Bulletins and Process
- Product Evaluation, Data Taking, Report Generation
- Warranty Analysis
- Customer and Dealer Training

- Customer problem solving site visits

1980-1995

Special Applications Engineering: Engineering Technician-Designer

Achievements:

- Selected for White House Communications Contract design team as first assignment
- Improved Portable Suitcase Repeater order processing from 2 hours to 20 minutes and achieved higher quality results
- Designed and Managed SVA Portable Basestation
- Designed first full-duplex synthesized radio modules for second generation White House Basestation/Repeater
- Secure communication certification for security sensitive customers

Responsibilities:

- Product Management
- Factory Oversight
- Writing Manuals
- Design and Process Improvements
- Special Request Integration
- Direct Customer Interface
- Cross Functional Team Responsibilities
- Test Fixture design, fabrication, and test procedure development
- System Level Design and Integration

1978-1980

Special Applications: Final Technician

Achievements:

- Rewarded for removal of two-steps from the three-step sub-assembly process
- Perfect record for over 500 units randomly selected by Final Quality Audit
- Commended for work on Litton Industries Naval Warship Contract

Responsibilities:

- Troubleshooting and alignment of unique radio communication products
- Selected to work on Litton Industries Naval Warship Contract
- Quality Assurance testing

1978

Crystals: Bench Technician

Achievements:

- Developed a troubleshooting technique improving fault detection with better confidence and significant testing throughput improvement

Responsibilities:

- Troubleshooting surface mount Channel Elements for MX300 series radio

Skills Expansion and Other Activities

Continuing Education:

- Digital Communications - Skylar
- EMI/RFI and Grounding Techniques
- Mentor Graphics
- Design for 6-Sigma
- Framemaker
- Doing business with the Government
- Hazardous Materials Handling
- Fall Prevention

Motorola Amateur Radio Club

- Newsletter Editor
- Repeater Committee Chairman
- Emergency Communications Liaison to Broward County
- NASA SAREX Team Member
- FCC Testing Manager
- MIREX Team Leader for Silver Lakes Middle School

United Methodist Church

- Trustee Chairman
- A/V Committee Chair
- Worship Leader
- Advanced Bible Study Facilitator

References

References are available upon request. Testing capabilities available upon request.

CCI Connect Consulting, Inc.
Water Resource Consultants

James L. Andersen, P.G.
Principal Hydrogeologist
Connect Consulting, Inc.

Jim Andersen is responsible for CCI South Florida operations, project management, technical oversight, well design, permitting and construction phase services team leader. He has extensive groundwater experience, having developed monitoring and supply wells in every aquifer system in South Florida. Mr. Andersen is also the president of JLA Geosciences, Inc. a Jupiter based hydrogeologic services company. Mr. Andersen is a board member of the Palm Beach County Natural Resources Protection Board and on the Southeast Desalting Association Board. He is a frequent speaker for AWWA, AMTA, SEDA, AGWT, AWRA on topics such as Aquifer Storage and Recovery, hydrogeology, water use permitting and well design, construction and rehabilitation strategies.

Education
BS in Geology, 1985, Florida Atlantic University

Employment History

2016 to present	Connect Consulting, Inc., Secretary/Principal Hydrogeologist
2003 to present	JLA Geosciences, Inc., President/Principal Hydrogeologist
1994 to 2003	Stemle Andersen & Assoc, Inc., Sr. Hydrogeologist
1984 to 1994	Missimer & Associates, Inc., Hydrogeologist

Experience
Mr. Andersen has over 35 years working experience in hydrogeology, groundwater water resource investigations, well and wellfield design, construction, development, well problem evaluation and rehabilitation of older wells, injection wells, groundwater monitoring, geophysical logging and interpretation, water supply for membrane treatment and reverse osmosis (RO), collection, analysis and QA of water quality data. He has been responsible for the completion of hundreds of fresh, brackish and seawater water supply wells in Florida, North Carolina, Virginia, Bahamas, Virgin Islands and Bermuda.

South Florida Wellfield Development / Membrane Treatment Supply
Mr. Andersen has been responsible for the development of numerous raw water supply projects for nanofiltration, brackish water RO and Seawater RO in South Florida, Bahamas and the Caribbean Islands, for public and private water use including municipal and county water treatment plants, and electric utility cooling water. He has extensive expertise in developing wells completed in the surficial, Biscayne and Floridan Aquifers located in Dade, Broward, Palm Beach, Martin, St Lucie, Indian River, Okeechobee, Lee, Collier and Monroe Counties.

A partial list of clients that Mr. Andersen has worked for included the following:

- Coral Springs Improvement District
- City of Ft Lauderdale
- City of Pembroke Pines
- City of Miramar
- Palm Beach County
- Martin County
- Indian River County
- Ft Pierce Utilities Authority
- City of Delray Beach
- Town of Jupiter
- City of Stuart
- City of Lake Worth
- City of West Palm Beach
- Seacoast Utility Authority
- Florida Power and Light
- Florida Municipal Power Agency

Professional Licenses / Memberships
State of Florida Professional Geologist - License No. 1103
Southeast Desalting Association, Board Member
Palm Beach County Natural Resources Protection, Board Member
American Membrane Treatment Association
Geological Society of America
International Association of Hydrogeologists

Mike Brandao

Vice President

Firm Name:
Cardinal Contractors, Inc.

Years with this Firm:
10 Years

With Other Firms:
9 Years

Education:
University of Florida
College of Engineering
B.S. Mechanical Engineering

Licensing:
Florida Department of Business and Professional Regulation:

Mechanical Contractors
License No. CMC1250454

Plumbing Contractors
License No. CFC1429729
License No. CFC1430001

Engineering Intern
License No. 1100011244

Qualifications:

Mr. Brandao has 18 years of experience in the construction and rehabilitation of water and wastewater treatment plants in Florida. His construction experience has a foundation in the construction of reverse osmosis / membrane softening water treatment plants. More recently, Mr. Brandao has worked on a variety of traditional water treatment plant processes and wastewater treatment plants with experience in rehabilitations and retrofits, new concrete hydraulic structures. His experience at Cardinal includes 16 design-build projects in South Florida.

Experience:

2016-Present Cardinal Contractors, Inc.
Vice President

2009-Present Cardinal Contractors, Inc.
Project Manager

2000 to 2009 Poole and Kent Company
Project Manager

Recent Project Experience:

City of Pembroke Pines
WTP Ion Exchange Rehabilitation & Improvements
Pembroke Pines, FL

City of Sunrise
Sawgrass WTP Acid System Modifications & Membrane Replacement
Sunrise, FL

City of Pembroke Pines
WTP Emergency Filter Rehabilitation
Pembroke Pines, FL

City of Sunrise
Sawgrass WWTP Reuse Facility Phase 1
Sunrise, FL

Palm Beach County
Design-Build Optimization and Improvements for Water, Wastewater & Reclaimed Water
West Palm Beach, FL

City of Hollywood
Headworks Replacement and Rehabilitation
Hollywood, FL

City of Pembroke Pines
Design Build Services for Odor Control
Pembroke Pines, FL

Mike Brandao

Vice President

Other Project Experience:

City of Venice
Biological Odor Control System
Venice, FL

City of Sunrise
Sawgrass Rerate Improvements
Sunrise, FL

City of Tamarac
WTP Emergency Generator Replacement
Tamarac, FL

Broward County- 2A4Log Virus Removal
Pompano Beach, FL

City of Pembroke Pines
Master Lift Station #4
Pembroke Pines, FL

City of Pembroke Pines
Rehabilitation of Units #2 and #3

City of Sunrise
Springtree WTP NaOCl Tank Replacement
Sunrise, FL

City of Pembroke Pines
Rehabilitation of Treatment Unit #4 WWTP
Pembroke Pines, FL

City of Sunrise
Springtree WTP NaOCl Tank Replacement
Sunrise, FL

Town of Davie
Refurbishment of System III Lime Softening Unit
Davie, FL

Palm Beach County
Design Build- Water, Wastewater & Reclaimed Water Improvements
West Palm Beach, FL

City of Ft. Lauderdale
Influent Screening Devices
Ft. Lauderdale, FL

City of Pembroke Pines
Wastewater Plant Blower Replacement
Pembroke Pines, FL

City of Pembroke Pines Environmental Services Division

Mike Brandao

Vice President

Rehabilitation of Plant #1 for the Wastewater Treatment Plant
Pembroke Pines, FL

City of Sunrise
Effluent Pumping Station Expansion
Sunrise, FL

City of Miramar
Wastewater Reclamation Facility Expansion to 10.5 MGD Design-Build
Miramar, FL

Miami-Dade Water and Sewer Department
South District Wastewater Treatment Plant
Miami, FL

Palm Beach County Water Utilities Department
Lake Region Water Treatment Plant
Belle Glade, FL

Town of Jupiter
Jupiter Nanofiltration Water Treatment Plant
Jupiter, FL

City of Boca Raton Utility Services Department
Wastewater Treatment Plant Solids Processing Facility Improvements
Boca Raton, FL

City of Boca Raton Utility Services Department
Glades Road Water Treatment Plant Membrane Softening Process Addition
Boca Raton, FL

Mark Miller, P.E.

Engineer

Relevant Experience

Indian River County Utilities Membrane Replacement and Water Treatment Plant (WTP) Improvements - 17.14-MGD Hobart Membrane WTP (also wellfield), Ft. Pierce, FL— Project manager. Kimley-Horn is providing technical support and oversight of membrane replacement and improvements to IRCU's North Hobart membrane treatment plant. Several of the membranes have lost their useful life and IRCU chose our team to oversee membrane replacement and explore methods of improving efficiency and water quality. Our team is working on reviewing membrane replacement options which will reduce fouling potential, improve water quality, and increase recovery while lowering overall operating costs. A significant amount of raw water bypass is used, which has contributed to an increase in disinfection byproducts. Through better membrane selection, our intent is to improve overall finish water quality without requiring major equipment changes and an increase in overall operating costs.

DeSoto Correctional Institute Water and Wastewater System Improvements, Arcadia, FL— DeSoto County Utilities (DeSoto County Correctional Institute) RO Water Treatment Plant Expansion, DeSoto County, FL— Project manager. DeSoto County operated a nanofiltration treatment facility that was limited in raw water quantity, and also limited to 60% recovery due to elevated levels of silica. Our team was called upon to develop an alternative water supply using the Floridan aquifer, and design a system expansion from 0.5 MGD to 0.75 MGD that could operate at a higher recovery. Our team provided the design, permitting, construction oversight, and SCADA system implementation to DCU's membrane plant. We designed a dual membrane system array that could be operated as a single stage and double stage system, which could vary in recovery from 60% to 80%, depending on the type of water quality that entered the plant. A post-treatment system using forced draft degasification also designed and constructed for the facility. The facility was recently constructed and is operational.

Indian River County Finish Water Stabilization (Lime Slurry Injection) to Reverse Osmosis (RO) Water Treatment Plants (WTPs) and Finish Water Stabilization Corrosion Study, Vero Beach, FL— Project manager. Evaluated the stabilization methods for Indian River County's consolidated water system. Indian River County required an improvement to their existing corrosion control method which utilized zinc orthophosphate. The Kimley-Horn team evaluated alternative treatment methods, conducted pilot testing using lime slurry and carbon dioxide injection, and designed and permitted chemical stabilization systems for Indian River County's North Hobart reverse osmosis (RO) water treatment plant (WTP) rated at 17.1 MGD, and their South Oslo Road RO WTP, rated at 8.5 MGD. The project included a carbon dioxide and lime slurry feed system which enhances finish water alkalinity and hardness, major contributors to enhancing the Langelier Saturation Index (LSI) of the finish water.

Martin County Floridan Aquifer Wells, FL— Project manager for the Kimley-Horn team that provided design, permitting, and construction phase services for the Martin County Environmental Service Department's only Floridan supply wells for their reverse osmosis water treatment plant. The first two wells, RO-1 and RO-2, were drilled on the plant site and were designed to provide 1.7 MGD of capacity. However, through improved well design and drilling techniques, the wells produced up to 2.2 MGD. Recently, the third well, RO-3, was drilled and can produce up to 3.0 MGD. Through improved well design and specified drilling procedures, additional well capacity was achieved. In doing so, the cost of additional wells has been significantly reduced.

Special Qualifications

- Has 33 years of experience with the design, permitting, construction, and operations of water and wastewater systems, including pump stations, treatment plants, and distribution systems
- Responsible for the design, construction management, and start-up coordination for numerous membrane water treatment plants.
- Conducted pilot studies for various water treatment alternatives and developed preliminary design studies
- Strong process design experience for all types of water treatment facilities
- Responsible for the design and construction phase services of several specialty water systems, including ion exchange treatment, filter systems, membrane pilot studies, SCADA system integration, and operational testing of numerous municipal treatment systems
- Experience with Membrane Performance Projection software, Control Valve Sizing software, and Pump Performance at Variable Speeds software

Professional Credentials

- Master of Engineering, Civil Engineering, University of Florida
- Bachelor of Science, Ocean Engineering, Florida Institute of Technology

Professional Organizations

- American Water Works Association (AWWA)
- National Association of Corrosion Engineers
- American Water Works Association (AWWA)
- Southeast Desalting Association

Mark Miller, P.E.

Relevant Experience Continued

City of Stuart Tropical Farms Floridan Wells TFRO-6 and TFRO-7 and Raw Water Main Addition, Stuart, FL— Principal-in-charge. This project includes drilling and constructing a sixth and seventh well to provide Floridan raw water to the Tropical Reverse Osmosis (RO) Water Treatment Plant (WTP), which has four RO trains. The siting of the wells is intended to be within the western area of Halpatiokee Park along SW Lost River Road. The scope of work includes: well siting and raw water main route evaluation; preparation of design drawings and specification for Wells TFRO-6 and TFRO-7; permitting assistance; preparation of design drawings and specifications for the raw water main; meetings; and bidding assistance.

Palm Beach County Water Utilities Department General Water Treatment Plant Engineering Services, Palm Beach County, FL— Project manager. Kimley-Horn is performing general water plant engineering services on an as-requested basis. Services may include: preparation of drawings and specifications; assistance with the preparation of design-build criteria and studies; review of water plant performance and reports; site visits; and evaluation of plant operations and treatment efficiency.

Indian River County Oslo Road South Reverse Osmosis (RO) 8.57-MGD Brackish Water Treatment Plant (WTP) Modifications, Vero Beach, FL— Project manager for the design, permitting, and construction of a new post-treatment facility for Indian River County's South RO WTP. Odor complaints for neighboring properties initiated Indian River County Utilities to call upon Kimley-Horn's expertise to design upgrades to their South RO plant post-treatment system, including construction of a new clearwell with transfer pumps, degasifier upgrades, blowers, two-stage wet-scrubbers for odor control, recirculation pumps, and replacement of existing 30-inch fiberglass (FRP) yard and process piping, which is failing. Our team also developed a detailed phasing plan in order to allow operation of the plant while the main raw water and pre-treatment piping is replaced. Provided permitting, design, construction, and operational testing (SCADA) services for Indian River County's Utility Department.

Jupiter 15.0-MGD Nanofiltration Water Treatment Plant (WTP) Construction Phase Services, Jupiter, FL— Project engineer during the construction phase of this $37-million-dollar plant in the Town of Jupiter. Kimley-Horn developed a unique teaming approach with the Town during construction that has allowed the Town staff to be very involved throughout the process. This has allowed the Town to save a significant amount of money by reducing the amount of consultant fees that would normally be expected on a project of this magnitude.

Martin County Utilities 5.5-MGD Jensen Beach Brackish Water Reverse Osmosis (RO) Water Treatment Plant, Jensen Beach, FL— Project manager. JLA Geosciences, Inc., along with Kimley-Horn, developed Martin County's first Florida wellfield for their North Jensen Beach water treatment plant (WTP). Project services consisted of master planning, raw water main corridor study and design, water supply permitting, wellfield siting and development, and oversight of the construction of four deep Floridan wells. The project team provided design, permitting, and construction phase services for the Floridan supply wells which serve their brackish water, low pressure reverse osmosis (RO) WTP. The first two wells, RO-1 and RO-2, were drilled on the plant site and were designed to provide 1.7 MGD of capacity. Through improved well design and innovative drilling procedures which were specified, additional well capacity was achieved from the additional wells 3 and 4. In doing so, the cost of additional wells was significantly reduced. JLA, along with the Kimley-Horn team, also developed improvements to their 3.5-MGD shallow surficial wellfield which served their lime softening plant, of which treated water is blended with the RO plant product water. Our project team provided water use permitting, wetland monitoring, rehabilitation and abandonment of old wells, and planning for the shallow water wellfield.

Jupiter Phase I 6.0-MGD Membrane Water Treatment Plant, FL— Project engineer. The firm designed a 6.0-MGD membrane water treatment plant (WTP), expandable to 13.5 MGD, to supplement the capacity of an existing 13.5-MGD lime softening WTP that served the Town of Jupiter. The initial phase of the membrane WTP consisted of four 1.5-MGD trains. The membrane plant was constructed at the same location as the existing 13.5-MGD lime softening plant. A key design element was keeping the existing lime plant on-line during construction activities. The firm's design for the facility employed state-of-the-art computerized control systems for monitoring the process and operating the plant. This system included redundant computers and PLCs, and full manual operating capability of all equipment from the control room. Full control of the existing 13.5-MGD lime softening treatment plant was incorporated into the control and supervisory control systems.

Martin County Utilities and Solid Waste North Jensen Energy Recovery Implementation, Martin County, FL— Project engineer. Martin County Utilities owns and operates the North Jensen Water Treatment Plant, a low pressure brackish reverse osmosis (RO) water treatment facility. A combination of 10 year old membranes and declining raw water quality from the Floridan aquifer led to difficulties meeting the rated treatment capacity. In order to address these deficiencies and improve operating efficiencies of the RO skids, the Kimley-Horn team developed bid documents for turbines which utilize interstage boost.

Mark Miller, P.E.

Relevant Experience Continued

North Reverse Osmosis Water Treatment Plant Capacity Evaluation Study, Jensen Beach, FL— Project manager for the Kimley-Horn team that evaluated the existing north reverse osmosis (RO) water treatment plant's ability to provide capacity in excess of the currently planned ultimate treatment capacity of 5.3 million gpd. The RO plant capacity needed to be increased to offset the significant reductions in surficial aquifer raw water allocation by the South Florida Water Management District and to provide finished water to the Port Salerno service area through the existing interconnect. A summary of recommended improvements, including costs, was provided so capital improvement budgeting and scheduling could be established.

Okeelanta Membrane Water Treatment Plant (aka Okeelanta 1.2-MGD Brackish Water Treatment Plant), South Bay, FL— Project manager for the design and construction of a 0.75 MGD membrane water treatment facility, expandable to 1.0 MGD, for a sugar mill and refinery. The facility provides three qualities of water: boiler feedwater, process water, and potable water. The fast-track design included groundwater wells, pre-treatment, membrane treatment, degasification of membrane product water, ion-exchange units for final polishing, and treatment and disposal of membrane concentrate to percolation pond. Directed construction of facility using several contractors and coordinated start-up and performance testing of installed system.

Palm Beach County Water Utilities Dept. System 3 Membrane Plant Expansion Preliminary Design Report, Palm Beach County, FL— Project manager. The firm was selected under our general engineering contract with Palm Beach County Water Utilities Department to prepare a preliminary design report to expand the County's System 3 membrane softening plant from a 9.4-MGD facility to an 18-MGD facility.

Water Treatment Plant No. 11 Membrane Replacement Pilot Study, Palm Beach County Water Utilities Department, Palm Beach County, FL— Project engineer. WTP No. 11 has been in operation and producing potable water for the cities of Belle Glade, Pahokee and South Bay since 2007. The original reverse osmosis (RO) membranes remain in service and need replacing. Kimley-Horn was retained to conduct a membrane pilot study at WTP No. 11 to select suitable replacement RO membranes and antiscalant. The goal is to identify the membrane that exhibits the best performance with respect to operating pressures, water quality and long-term performance, which should be utilized for the future replacement.

Reverse Osmosis Water Treatment System Town of Manalapan, Manalapan, FL— Kimley-Horn provided engineering services to the Town of Manalapan to evaluate the reliability of their existing reverse osmosis water treatment system. This project included a review of historical water production data to determine a planning horizon for future water requirements and identifying significant deficiencies within the existing treatment system. This project also identified areas within the treatment system that could be modified to improve the efficiency, either in production capacity or cost to produce. Kimley-Horn produced a report which identified the deficiencies, areas lacking reliability, and inefficient components. We ranked these factors and provided budgetary costs for revision.

Jupiter Reverse Osmosis (RO) Bank II Membrane Replacement, Jupiter, FL— Project engineer. Kimley-Horn prepared specifications to receive competitive bids for replacement membranes, membrane supply, and installation separate contracts for Bank II reverse osmosis (RO) trains and assisted the Town through the process of bidding and subsequent rebidding of the contracts. These evaluations included projected short- and long-term membrane performance, as well as life cycle costs. Kimley-Horn evaluated performance of the initial set of membranes installed which were not meeting requirements of the contract documents. These membranes were replaced by the membrane manufacturer and their performance closely examined to confirm that they met the requirements. This new generation of membranes performed adequately to be installed in all four RO trains. This project included refurbishing RO Bank I vessel end clamps, cleaning Bank I membranes in place, replacing all grooved couplings in the RO plant, and close inspection followed by replacement of internal vessel components in Bank II.

Seacoast Utility Authority Water Treatment Plants (Nanofiltration), FL— Project engineer. Kimley-Horn is providing engineering services to Seacoast Utility Authority for several components of their new reverse osmosis and nanofiltration water treatment plants. One of these assignments was to conduct a peer review of the water treatment construction documents. This review identified constructability, cost reduction, and plant durability issues which could be implemented to save the utility construction dollars, operation cost, and maintenance requirements.

Tropical Farms Membrane Softening (Nanofiltration) Water Treatment Plant (First Phase), Martin County, FL— Project manager for the Kimley-Horn team who coordinated the membrane replacement for the 1.5-MGD plant after careful evaluation and selection of membranes that were more appropriate for the plant's raw water. Services included expediting membrane procurement, membrane installation, permitting, and improvements to the treatment plant's cleaning system that restored capacity and improved the plant's operating efficiency.

Mark Miller, P.E.

Relevant Experience Continued

Palm Beach County Water Utilities Department (PBCWUD) Water Treatment Plant #11 (WTP #11) Operational Improvements, FL—Project manager. Kimley-Horn helped to restore plant capacity and greatly improve operations at the 10-MGD Lake Region Reverse Osmosis (RO) Water Treatment Plant (WTP). The facility had struggled with a rapid decline in raw water quality. Kimley-Horn was instrumental in helping restore plant capacity through enhancements to the WTP and operational improvements. Services includes the design of energy recovery improvements to the RO system and several operational changes to optimize system recovery. Enhancements to the SCADA system were also implemented, which allowed the automatic download of operating data to their normalization program, greatly reducing staff time needed to manage operating data. With these improvements, Kimley-Horn was able to eliminate the nearly 30% reduction in capacity the plant had experienced.

Jupiter Floridan Aquifer Wellheads, Pumps, and Electrical Services, Jupiter, FL— Project manager. Kimley-Horn provided design, permitting, and bid coordination for wellhead piping, pumps, and electrical for 10 Floridan Aquifer production wells to serve the Town's membrane water treatment plant. A special feature of this project was material selection to address the corrosive nature of the brackish hydrogen sulfide laden Floridan Aquifer water. Large diameter polyethylene and 316 stainless steel pipe were used extensively on this project. Well pumps were surface mounted. The end-suction design allowed for easy maintenance and variable speeds to enable operation within the system requirements. Wells were controlled by programmable logic controllers (PLCs) located at each well with radio communication to the central plant. Control of the pumps and well instrumentation was accomplished automatically by the PLC or by hand from either the control room or well site.

Brackish Water Reverse Osmosis Water Treatment Plant Design/Build, Town of Jupiter Island, FL— Project manager for a program that involved preliminary planning, water withdrawal permitting, well construction, concentrate discharge permitting, water plant basis of design documents, construction of an ocean outfall for concentrate disposal, water plant construction, and water plant start-up. This program encompassed approximately 5 years and resulted in a reverse osmosis water treatment facility with a production capacity of 2.0 MGD and expandable to a production of capacity of 4.0 MGD. Two water supply wells were constructed, each approximately 1,500 feet deep and each capable of producing 1,750 gpm of brackish groundwater. This element of the program also included equipment and disposal of water produced during well drilling and development since the brackish wells were located within the existing surficial, fresh water aquifer wellfield. The concentrate discharge element of this program involved examination of a number of surface water discharge alternatives with the ultimate discharge location being approximately 1,500 feet offshore in the Atlantic Ocean. Following acquisition of a permit for concentrate discharge this program included constructing the outfall piping using horizontal drilling techniques. Basis of design documents were prepared for the water treatment plant and construction was procured using a design/build process. We served as the owner's representative throughout the construction and start-up phases.

Lead and Copper Corrosion Study Water Treatment Plants (WTPs) 2 3, 8, and 9, Palm Beach County, FL— Project manager. This project is part of Kimley-Horn's general water treatment plant engineering services contract. Kimley-Horn was retained by Palm Beach County Water Utilities Department to conduct a lead and copper corrosion study for Water Treatment Plants #2, #3, #8, #9, and #11. The results of this study provided a baseline for future plant improvements for water quality.

Indian River County North and South Plant Floridan Well Evaluation and Rehabilitation, Indian River, FL— Project manager. Indian River County Utilities owns and operates 15 Floridan supply wells which are the raw water supply and source water for their regional reverse osmosis (RO) water treatment facilities (WTFs). The North Hobart WTF operates nine in-service Floridan production supply wells and the South Oslo Road WTF operates six production wells. These wells are the lifeblood of the treatment facilities and maintaining efficient operation of these wellfields is critical to the sustainability of the water system. The Kimley-Horn team (along with JLA Geosciences, Inc.) evaluated the performance of the wellfield and conducting field testing of their Floridan aquifer production wells in both the Hobart wellfield and Oslo wellfield, including field water quality and capacity testing. The project team developed recommendations to improve efficiency of wells, define a comprehensive maintenance program, determine a rehabilitation program for wells not currently meeting performance, and developed improvements to the wellfield which enhanced future reliability and sustainability of their raw water supply.

North Plant SCADA System Modifications, Martin County, FL— Martin County Environmental Services treatment and distribution systems are monitored and controlled through a wide-area network that allows operator interface with any treatment plant from any remote location. We are integrating several of the treatment plant expansions and newly constructed facilities into this system to allow the operations staff to maintain monitoring of the remote facilities. This allows improved real-time monitoring of the facilities where operators are not stationed and will permit future reductions in staffing. We are also currently optimizing the North RO Plant

Mark Miller, P.E.

Relevant Experience Continued

Tropical Farms and Jensen Beach Reverse Osmosis (RO) Water Plant Floridan Well Evaluation, Martin County, FL— Project manager for the Kimley-Horn team that assisted Martin County Utilities with collecting raw water quality from each of the nine Floridan wells, reviewing water quality and well performance data, evaluating alternate wellfield operating plans, and providing recommendations to optimize wellfield operations. Tasks were: Upper Floridan Well (UFA) testing, review data, evaluate wellfield operations, and meetings and recommendations. Additional tasks orders included: hydrogeological modeling, preparation of additional reports, if necessary; design of any improvements; well siting investigation; and laboratory testing expenses by Martin County Utilities.

Reverse Osmosis Water Treatment Plant City of Venice, Venice, FL— Project engineer. Kimley-Horn provided engineering services to the City of Venice for renewal of their permit from FDEP to discharge concentrate from the reverse osmosis water treatment plant. This water treatment plant is one of the oldest in Florida and discharges concentrate into the nearby Intracoastal Waterway. As a surface discharge of reverse osmosis concentrate, this permit renewal involved not only quality of the concentrate, but also mixing with ambient waters, as well as potential toxicity matters. The permit was renewed with no additional monitoring requirements imposed on the City of Venice.

Floridan Wellhead Improvements for Three Wells, Seacoast Utility Authority, Palm Beach Gardens, FL— Project manager. As part of the planned RO plant expansion for Seacoast Utility Authority, three Floridan wellheads will be constructed. Kimley-Horn services include the design of wellhead assembly for each wellhead consisting of site plan, pumps and piping plan, mechanical, electrical, and controls for each Floridan well. Each well will be controlled via Data Flow System Radio Telemetry Units, and be eventually networked in with the RO plant SCADA system. A wellsite plan will also be prepared, consisting of piping from each well to the raw water main, grading, and access to each of the sites. Kimley-Horn will also prepare drawings and technical specifications for the Floridan wellheads. Kimley-Horn also prepared documents for an Alternative Water Supply grant application to South Florida Water Management District and received 40% matching funds to construct the project.

South Oslo Road Water Plant Floridan Well Rehabilitation and Construction of Well #7, Vero Beach, FL— Project manager for this project for Indian River County Utilities (IRCU) that owns and operates six Floridan supply wells which are the raw water supply and source water for the South Oslo Road water treatment facility. These wells are the lifeblood of the treatment facilities and maintaining efficient operation of these wellfields is critical to the sustainability of the water system. An evaluation of the wellfield performance was conducted in November 2013 that determined rehabilitation of several wells is necessary to restore capacity and reliability to the water treatment plant. In addition, the planned and permitted well #7 will be constructed concurrently with the rehabilitation work to provide long-term sustainability of the raw water supply to the South plant. The project will consist of the following key improvements: well rehabilitation of four wells, well #7 installation including drilling and wellhead, raw watermain construction to connect well #7 to plant raw water system, and SCADA system improvements to include well #7 and fiber optic communication with wells.

City of Stuart Water Treatment Plant Emerging Contaminants (PFAS's) Treatment and Implementation, Stuart, FL— Project manager. The City of Stuart's Water Treatment Plant (WTP) s a 6.0-MGD lime softening facility with the surficial aquifer as the source of supply via 23 production wells. Kimley-Horn provided professional engineering services related to the implementation of a water treatment system for the removal of emerging contaminants, including perfluorinated chemicals (PFAS's), PFOA (Perfluorooctanoic Acid), and PFOS (Perfluorooctane Sulfonate) sampled and measured in the raw water supply for the City's drinking water wells. Contamination from a nearby public works facility that used and stored firefighting foams (AFFF) was determined to be the source of the groundwater contamination, forcing the City to construct an advanced treatment system to remove these contaminants. Kimley-Horn provided the design and permitting of the largest full-scale PFAS treatment system in the United States. Kimley-Horn also provided assistance preparing bid documents and construction phase services for the treatment system using anion exchange (AIX) resin with granular activated carbon (GAC) toppings. This 4.0/8.0-MGD AIX/GAC system was designed to treat all of the City's raw water supply. This project involved four different resin manufactures and is the largest ion exchange system in the United States, removing PFAS's to 10 parts per trillion.

Lance Littrell, P.E.

Civil Engineer/Water/Wastewater

Relevant Experience

Flagler County Eagle Lakes Reverse Osmosis (RO) Water Treatment Plant, Bunell, FL — Project Manager. Kimley-Horn provided the treatment and storage expansion for the Utility's water treatment plant including doubling the capacity of the reverse osmosis treatment, ground storage tanks and evaluation of the hydro-pneumatic tank condition. The new treatment system includes new control system and automatic operation.

Palm Beach County Water Utilities Department General Water Treatment Plant Engineering Services, Palm Beach County, FL - Project engineer responsible for generating detailed design drawings for water treatment project upgrades including planning level studies, pilot testing of desired treatment technologies, and implementation of selected components within WTP #11 and WTP #2. His role included preparation of drawings and specifications; assistance with the preparation of design-build criteria and studies; review of water plant performance and reports; site visits; and evaluation of plant operations and treatment efficiency.

Lead and Copper Corrosion Study Water Treatment Plants (WTPs) 2 3, 8, and 9, Palm Beach County, FL— Project engineer. This project is part of Kimley-Horn's general water treatment plant engineering services contract. Kimley-Horn was retained by Palm Beach County Water Utilities Department to conduct a lead and copper corrosion study for Water Treatment Plants #2, #3, #8, #9, and #11. The results of this study provided a baseline for future plant improvements for water quality.

Ocala Water Treatment Facility Feasibility Study/Blending Analysis, Ocala, FL— Project manager. Kimley-Horn prepared a water treatment facility analysis for the recently constructed lower Floridan aquifer well and potential future well supplies. The purpose of the analysis was to plan the treatment necessary to treat the water supply to potable water quality, integration of the existing and new water treatment facilities, blending of the two water supplies, and identification of the optimal water treatment ratios of the existing and future treated water supplies. The project's scope of services included the specific tasks to gather information, develop treatment needs, perform necessary analyses, develop costs, and document the project results. The feasibility analysis focused on available treatment alternatives, anticipated water qualities and capital cost for each, integration techniques within the City, existing infrastructure and new blending facilities, and establishing the recommended road map for the City of Ocala's future treatment needs.

Wildwood Oxford Water Treatment Plant (WTP) Design (Lower Floridan Well), Wildwood, FL— Project engineer providing technical review and advice on treatment plant design upgrades, sizing, process analysis and selection, operational cost analysis, and chemical treatment compatibility with existing water treatment facility. Services include: potable water well testing; regulatory support, rule development, and compliance; advanced treatment design and water chemistry analysis; and owner review support with operating and capital cost analysis.

Palm Beach County Water Treatment Plant #2 Treatment and Disposal Improvements, West Palm Beach, FL— Project manager. Kimley-Horn was retained by Palm Beach County Water Utilities Department for design, permitting and bidding services related to Water Treatment Plant #2. The goal is to upgrade the plant facility in several areas within the treatment process and about the treatment facility to sustain treatment quality and quantity through the next decade. These improvements will help address deficiencies identified in a recent study by Kimley-Horn for the hydraulic process as well as recommended upgrades. The plant's two lime softening unit have reached the end of their useful life and need upgrades and repair to continue services. This project will provide a new lime softening unit, demolition of the one of the existing lime softening units, a new deep injection well, operational upgrades, a new 5 MG storage tank for increased storage capacity, new raw water supply well.

Special Qualifications

- Has 19 years of experience successfully delivering water, wastewater, and reclaimed water utility projects throughout Florida
- Experience includes the design, project management, construction oversight, and fabrication of reverse osmosis and ultrafiltration water treatment plants for municipal utilities
- Municipal experience includes a well-rounded portfolio of planning, design, construction inspection, and start-up services, as well as operations assistance
- Significant experience in design and hands-on construction of membrane treatment systems in the U.S. and abroad
- Serves as the Region III Chair for FSAWWA, as well as on the Board of Directors of the Southeast Desalting Association (SEDA) (Board of Directors, 2011-Present)
- Lance has worked closely with the leadership of FDEP's Drinking Water Program to develop guidance for FDEP's administration of chlorine dioxide to be used as a pioneering alternate disinfectant to chlorine or chloramines

Professional Credentials

- Professional Engineer, FL, 65645, 10/20/2006
- Professional Engineer, OH, 79857, 12/06/2019

Professional Organizations

- American Membrane Technology Association
- American Society of Mechanical Engineers
- American Water Works Association (AWWA)

Kimley»Horn

Lance Littrell, P.E.

Relevant Experience Continued

Water Treatment Plant No. 11 Membrane Replacement Pilot Study, Palm Beach County Water Utilities Department, Palm Beach County, FL— Project manager. WTP No. 11 has been in operation and producing potable water for the cities of Belle Glade, Pahokee and South Bay since 2007. The original reverse osmosis (RO) membranes remain in service and need replacing. Kimley-Horn was retained to conduct a membrane pilot study at WTP No. 11 to select suitable replacement RO membranes and antiscalant. The goal is to identify the membrane that exhibits the best performance with respect to operating pressures, water quality and long-term performance, which should be utilized for the future replacement.

Palm Beach County Water Treatment Plant #2 (WTP #2) Evaluation of Existing Treatment Facilities, Palm Beach County, FL— Project engineer responsible for evaluating the facility components, preparing a capital improvements project planning report for the necessary upgrades to facilitate compliance and the desired water quality upgrades. Lance was responsible for the technical evaluation, analysis of potential options for treatment upgrades and conceptual planning of treatment improvements, cost analysis and financial planning for the facility's 40-year horizon. His role included working closely with operations, managers, engineering staff and director level staff to obtain guidance and concurrence on the technical and financial outcome for the Utility.

West Villages Improvement District Southwest Water Treatment Plant, North Port, FL— Engineer of Record. Kimley-Horn is retained to provide professional services for the design of a water treatment plant (WTP) to be located at the northwest corner of the intersection of the future West Villages Parkway and future Manasota Beach Road. The facility will utilize reverse osmosis (RO) membrane treatment and will be constructed in two phases equaling 5 MGD. Due to an aggressive schedule, the deliver method is Construction Manager at Risk (CMAR) and our team helped select and coordinate with the CMAR throughout design and preconstruction. Once constructed, it is anticipated the ownership of the facility will be dedicated to the City of North Port for ownership, operation, and maintenance. Therefore, all design elements, manufacturer requirements and treatment preferences will be approved by the City. Kimley-Horn prepared Preliminary Design Report, and is providing WTP design services and construction plans, source water hydraulic modeling and water quality projections, environmental and permitting services,, raw water wellhead and main designs, and concentrate line design services.

WTP #11 Acid Elimination Evaluation, Palm Beach County, FL— Project engineer. This project is part of Kimley-Horn's general water treatment plant engineering services contract. Kimley-Horn was retained by Palm Beach County Water Utilities Department to examine the effects Water Treatment Plant #11 and treatment processes when eliminating acid injection in the pretreatment process.

WTP#3 Concentrate Corrosion Study, Palm Beach County, FL— Project engineer. This project is part of Kimley-Horn's general water treatment plant engineering services contract. Kimley-Horn was retained to investigate of the corrosiveness of nanofiltration concentrate and treated effluent at Water Treatment Plant #3. The project includes providing design sketches for rebuilding the existing coupon test racks, reviewing possible sources of corrosion in the injection well; review the deep well; water quality testing; and preparing a final report on findings with recommendations.

Davenport Water Facilities Plan (includes Drinking Water Master Plan task), Davenport, FL— Project manager. The Drinking Water Facilities Plan identified the road map for successful utility expansion for the Town of Davenport based on present day, 5-year, 10-year, and 20-year water demands. Kimley-Horn provided data collection, model update, potable water system hydraulic modeling, and a Drinking Water Master Plan in support of the preparation of the Drinking Water Facilities Plan. Kimley-Horn prepared a capacity evaluation of each water treatment plant along with a combined system capacity evaluation. The Drinking Water Master Plan included: an existing and future service area description; population/demand projections; water system analysis and methodology; recommended water system improvements; water system planning alternative and phasing; and water main replacement project features (components, alternative analyses, cost analysis, and challenges). The Drinking Water Facilities Plan was prepared in accordance with FDEP requirements and involved scheduling of and participation in a public meeting with a detailed agenda addressing required issues.

Wildwood Continental Country Club Wastewater Treatment Facility, Wildwood, FL— Project engineer. Kimley-Horn performed a condition assessment, operational review, rehabilitation design, and construction administration for a 0.200-MGD Davco ring steel WWTF. The condition assessment and operational review included structural integrity evaluations, mechanical equipment inspections, and effluent disposal capacity evaluations. The rehabilitation design and construction administration included blower replacement, catwalk repairs, launder trough repairs, diffuser replacement, and digester rehabilitation.

Jason Lee, P.E.

Engineer

Relevant Experience

DeSoto Correctional Institute Water and Wastewater System Improvements, Arcadia, FL— As part of the DeSoto County Correctional Institute's (DCI's) expansion, Kimley-Horn was selected to lead the off-site utilities design effort. Due to the rural location of the site, extensive investigations were necessary to accommodate the expanded water and wastewater facilities. The study involved new potable wells, reverse osmosis, ground storage, wastewater plant upgrades, and force main connections. Served as project engineer on the Kimley-Horn team for these efforts.

DCI Water Treatment Plant (WTP) Expansion. Project engineer on the Kimley-Horn team that provided construction phase services for the expansion of an existing WTP facility at the DCI that Kimley-Horn designed. The DCI reverse osmosis (RO) WTP was expanded to provide additional capacity by modifying the existing skids and constructing a new degasification and post-treatment system to use a proposed new Floridan well. Permit coordination was conducted through DeSoto County and the Florida Department of Environmental Protection.

Indian River County Oslo Road South Reverse Osmosis (RO) 8.57-MGD Brackish Water Treatment Plant (WTP) Modifications, Vero Beach, FL— Project engineer for the design, permitting, and construction of a new post-treatment facility for Indian River County's South RO WTP. Odor complaints for neighboring properties initiated Indian River County Utilities to call upon Kimley-Horn's expertise to design upgrades to their South RO plant post-treatment system, including construction of a new clearwell with transfer pumps, degasifier upgrades, blowers, two-stage wet-scrubbers for odor control, recirculation pumps, and replacement of existing 30-inch fiberglass (FRP) yard and process piping, which is failing. Our team also developed a detailed phasing plan in order to allow operation of the plant while the main raw water and pre-treatment piping is replaced. Provided permitting, design, construction, and operational testing (SCADA) services for Indian River County's Utility Department.

Brackish Water Reverse Osmosis Water Treatment Plant Design/Build, Town of Jupiter Island, FL— Project manager for a program that involved preliminary planning, water withdrawal permitting, well construction, concentrate discharge permitting, water plant basis of design documents, construction of an ocean outfall for concentrate disposal, water plant construction, and water plant start-up. This program encompassed approximately 5 years and resulted in a reverse osmosis water treatment facility with a production capacity of 2.0 MGD and expandable to a production of capacity of 4.0 MGD. Two water supply wells were constructed, each approximately 1,500 feet deep and each capable of producing 1,750 gpm of brackish groundwater. This element of the program also included equipment and disposal of water produced during well drilling and development since the brackish wells were located within the existing surficial, fresh water aquifer wellfield. The concentrate discharge element of this program involved examination of a number of surface water discharge alternatives with the ultimate discharge location being approximately 1,500 feet offshore in the Atlantic Ocean. Following acquisition of a permit for concentrate discharge this program included constructing the outfall piping using horizontal drilling techniques. Basis of design documents were prepared for the water treatment plant and construction was procured using a design/build process. We served as the owner's representative throughout the construction and start-up phases.

Jupiter 15.0-MGD Nanofiltration Water Treatment Plant (WTP) Construction Phase Services, Jupiter, FL— Project engineer during the construction phase of this $37-million-dollar plant in the Town of Jupiter. Kimley-Horn developed a unique teaming approach with the Town during construction that has allowed the Town staff to be very involved throughout the process. This has allowed the Town to save a significant amount of money by reducing the amount of consultant fees that would normally be expected on a project of this magnitude.

Special Qualifications

- Has 17 years of water resources and utilities engineering experience. Serves as project manager for the design and construction of numerous utility projects throughout southeast Florida
- Specializes in projects featuring watermains, forcemains, RO treatment design, sanitary pump stations, stormwater pump stations, and potable water high service pumping stations
- Mechanical engineering design experience includes providing HVAC systems, ventilation system design, sound attenuated generator rooms, fleet fueling stations, and stormwater and sanitary pump stations
- Project engineer and project manager for various utility projects throughout southeast Florida
- Jason is a fourth generation Floridian; his family has lived in Palm Beach County since his great grandfather first homesteaded land on Torry Island

Professional Credentials

- Bachelor of Science, Mechanical Engineering, Florida Atlantic University

Professional Organizations

- American Membrane Technology Association
- American Public Works Association (APWA), 2014-2015 Chair of Gold Coast Branch
- American Water Works Association (AWWA)
- Southeast Desalting Association
- 2009-2010 Palm Beach County Fire Code Board of Appeals and Adjustments

Kimley»Horn

Jason Lee, P.E.

Relevant Experience Continued

Town of Jupiter Supplemental Blend Box, Jupiter, FL— Project manager. Kimley-Horn developed an innovative process for stabilizing reverse osmosis (RO) permeate with nano permeate and designed the structures, pipes, pumps, and other components needed to implement this process at the Jupiter Water Plant. In addition to providing a method of stabilizing RO permeate, this process improved operation of the nano degasifiers, lowered the hydraulic gradient in the RO degasifiers, and created a redundant path for nano permeate to reach the clearwell and, from there, customers of the Jupiter water system. This project implemented a number of elements or improvements around the water plant, including: corrosion inhibitor bulk storage; day tank; feed pumps and injection piping; dry air supply to bulk sulfuric acid storage tanks; nano pilot unit piping and pumps; and connection of the lime softening and nano pretreatment filters backwash basins.

Martin County Utilities 5.5-MGD Jensen Beach Brackish Water Reverse Osmosis (RO) Water Treatment Plant, Jensen Beach, FL— Project engineer. JLA Geosciences, Inc., along with Kimley-Horn, developed Martin County's first Florida wellfield for their North Jensen Beach water treatment plant (WTP). Project services consisted of master planning, raw water main corridor study and design, water supply permitting, wellfield siting and development, and oversight of the construction of four deep Floridan wells. The project team provided design, permitting, and construction phase services for the Floridan supply wells which serve their brackish water, low pressure reverse osmosis (RO) WTP. The first two wells, RO-1 and RO-2, were drilled on the plant site and were designed to provide 1.7 MGD of capacity. Through improved well design and innovative drilling procedures which were specified, additional well capacity was achieved from the additional wells 3 and 4. In doing so, the cost of additional wells was significantly reduced. JLA, along with the Kimley-Horn team, also developed improvements to their 3.5-MGD shallow surficial wellfield which served their lime softening plant, of which treated water is blended with the RO plant product water. Our project team provided water use permitting, wetland monitoring, rehabilitation and abandonment of old wells, and planning for the shallow water wellfield.

Martin County Utilities and Solid Waste North Jensen Energy Recovery Implementation, Martin County, FL— Project manager. Martin County Utilities owns and operates the North Jensen Water Treatment Plant, a low pressure brackish reverse osmosis (RO) water treatment facility. A combination of 10 year old membranes and declining raw water quality from the Floridan aquifer led to difficulties meeting the rated treatment capacity. In order to address these deficiencies and improve operating efficiencies of the RO skids, the Kimley-Horn team developed bid documents for membrane replacement along with implementation of energy recovery turbines which utilize interstage boost. In addition, it is estimated that the ROI (return on investment) for these improvements is less than 6 years and will save nearly $150,000 per year in operating costs. Kimley-Horn permitted, designed, and is currently overseeing the construction of these improvements for Martin County Utilities.

Reverse Osmosis Water Treatment System Town of Manalapan, Manalapan, FL— Project engineer. Kimley-Horn provided engineering services to the Town of Manalapan to evaluate the reliability of their existing reverse osmosis water treatment system. This project included a review of historical water production data to determine a planning horizon for future water requirements and identifying significant deficiencies within the existing treatment system. This project also identified areas within the treatment system that could be modified to improve the efficiency, either in production capacity or cost to produce. Kimley-Horn produced a report which identified the deficiencies, areas lacking reliability, and inefficient components. We ranked these factors and provided budgetary costs for revision.

Jupiter Reverse Osmosis (RO) Bank II Membrane Replacement, Jupiter, FL— Project manager. Kimley-Horn prepared specifications to receive competitive bids for replacement membranes, membrane supply, and installation separate contracts for Bank II reverse osmosis (RO) trains and assisted the Town through the process of bidding and subsequent rebidding of the contracts. These evaluations included projected short- and long-term membrane performance, as well as life cycle costs. Kimley-Horn evaluated performance of the initial set of membranes installed which were not meeting requirements of the contract documents. These membranes were replaced by the membrane manufacturer and their performance closely examined to confirm that they met the requirements. This new generation of membranes performed adequately to be installed in all four RO trains. This project included refurbishing RO Bank I vessel end clamps, cleaning Bank I membranes in place, replacing all grooved couplings in the RO plant, and close inspection followed by replacement of internal vessel components in Bank II.

Tropical Farms Reverse Osmosis (RO)/Water and Wastewater Treatment Plant Expansion, Stuart, FL— The project included the construction of Phase I and II of a 12-MGD membrane treatment plant. Provided construction phase services, including on-site engineering, shop drawing review, and start-up of the RO system and associated processes.

Jason Lee, P.E.

Relevant Experience Continued

Water Treatment Plant (WTP) #11 Clearwell and Post-Treatment Evaluation, West Palm Beach, FL— Project engineer. This project consisted of an overall evaluation of the post-treatment system to the reverse osmosis water treatment plant. The report provided recommendations to help improve the water quality produced at Lake Region Water Treatment Plant. Kimley-Horn was retained to conduct an evaluation of the clearwell, chemical addition, degasification, and off-gas system. Our team developed finish water quality goals, conducted a clearwell evaluation, evaluated second-stage scrubber and lift station issues, and prepared a summary report. Recommendations included within the report were immediately incorporated into a series of design-build contracts.

Palm Beach County Water Utilities Department (PBCWUD) Water Treatment Plant #11 (WTP #11) Operational Improvements, FL— Project engineer. Kimley-Horn helped to restore plant capacity and greatly improve operations at the 10-MGD Lake Region Reverse Osmosis (RO) Water Treatment Plant (WTP). The facility had struggled with a rapid decline in raw water quality. Kimley-Horn was instrumental in helping restore plant capacity through enhancements to the WTP and operational improvements. Services includes the design of energy recovery improvements to the RO system and several operational changes to optimize system recovery. Enhancements to the SCADA system were also implemented, which allowed the automatic download of operating data to their normalization program, greatly reducing staff time needed to manage operating data. With these improvements, Kimley-Horn was able to eliminate the nearly 30% reduction in capacity the plant had experienced.

Delray Beach 10-Year Water Treatment Master Plan, Delray Beach, FL—Project engineer. Kimley-Horn was engaged by the City of Delray Beach to develop a 10-year water treatment master plan. We developed a 20-year linear population projection model using assembled data to meet the needs of the plan update and identify projects for the City and its service area during this growth period. Kimley-Horn prepared the water treatment master plan to recommend facilities, treatment process, treatment capacities, facility locations, planning level budget estimates, and construction timing.

Jupiter Floridan Aquifer Wellheads, Pumps, and Electrical Services, Jupiter, FL— Project engineer. Kimley-Horn provided design, permitting, and bid coordination for wellhead piping, pumps, and electrical for 10 Floridan Aquifer production wells to serve the Town's membrane water treatment plant. A special feature of this project was material selection to address the corrosive nature of the brackish hydrogen sulfide laden Floridan Aquifer water. Large diameter polyethylene and 316 stainless steel pipe were used extensively on this project. Well pumps were surface mounted. The end-suction design allowed for easy maintenance and variable speeds to enable operation within the system requirements. Wells were controlled by programmable logic controllers (PLCs) located at each well with radio communication to the central plant. Control of the pumps and well instrumentation was accomplished automatically by the PLC or by hand from either the control room or well site.

Martin County Utilities Martin Downs Reclaimed Storage (2 MG) and Distribution System Improvements, Martin County, FL, Martin County, FL— Project engineer. Martin County Utilities owned and operated an old package water and wastewater treatment facility that served their Martin Downs service area. With consolidation of their utility, this facility was taken off-line, but the existing water storage tanks remained. As part of their plan to provide 100% reuse capabilities, our team was selected to design a storage and pumping station for distribution of reclaimed water to several reclaim customers, including golf courses and common public access reuse sites. Our team provided the design, construction oversight, SCADA system integration, and commissioning of a 2.0-MG storage and repump facility for a 1.0-MGD ADF reclaimed water supply system. The project included conversion of two potable 1.0-MG prestressed concrete ground storage tanks, low head pumps, and control system to allow independent filling from a separate reuse transmission pipeline from their regional wastewater treatment plant and pumping to their reuse customers. A unique feature of the facility allowed gravity flow to one or more of the sites in order to reduce operating costs of the station.

Town of Jupiter Mobile Bed Absorber (MBA) Improvements, Jupiter, FL— Project manager for the design phase of this project. The mobile bed absorber (MBA) scrubber units at the Jupiter Water Treatment Plant were originally designed by Kimley-Horn and have been in service since approximately 1990. Jupiter's two MBA units remove hydrogen sulfide from air discharged from the reverse osmosis permeate and occasionally concentrate degasifiers. The MBA units continue to be very effective and efficient in removing very high levels of hydrogen sulfide from air discharged from the degasifiers. After 25 years of service, the Town requested Kimley-Horn provide a condition assessment and recommendations for improvements to assist the Town with reducing maintenance requirements, reducing operating requirements, and improving the reliability of the performance of the units.

Andrea Carpenter, P.E.

Civil Engineer

Relevant Experience

City of Stuart Water Treatment Plant, Floridan Well Design, Permitting, Bidding, and Construction, Stuart, FL— Project engineer. Engineering services for the preparation of design and bid documents for one 1.33 million gallon per day Floridan Aquifer Supply (FAS) well (FA-1); preparation and submittal of permit applications (MCHRS, FDEP, and notification to SFWMD) and supporting materials; and bidding phase services for the construction of wells with casings finished above ground. The design for this project has been completed. Project manager for the construction phase services related to FA-1. Construction for FA-1 is ongoing.

Water Treatment Plant, Reverse Osmosis (RO) Basis of Design Report (BODR) and Design, Stuart, FL— Project engineer. Engineering services include the preparation of a BODR and design for all related project elements that include raw water supply, reverse osmosis treatment, treatment and disposal of membrane byproduct water to establish design criteria and design of these processes for all of the proposed membrane treatment facility components. The plant is proposed to be a 3 million gallon per day RO treatment plant with pre- and post-treatment process elements. The permeate from the RO treatment process is to be blended with the existing lime softening plant. This project is ongoing.

Water Treatment Plant Emerging Contaminants (PFAS's) Treatment and Implementation, Stuart, FL— Project engineer. The City of Stuart's Water Treatment Plant (WTP) s a 6.0-MGD lime softening facility with the surficial aquifer as the source of supply via 23 production wells. Kimley-Horn provided professional engineering services related to the implementation of a water treatment system for the removal of emerging contaminants, including perfluorinated chemicals (PFAS's), PFOA (Perfluorooctanoic Acid), and PFOS (Perfluorooctane Sulfonate) sampled and measured in the raw water supply for the City's drinking water wells. Contamination from a nearby public works facility that used and stored firefighting foams (AFFF) was determined to be the source of the groundwater contamination, forcing the City to construct an advanced treatment system to remove these contaminants. Kimley-Horn provided the design and permitting of the largest full-scale PFAS treatment system in the United States. Kimley-Horn also provided assistance preparing bid documents and construction phase services for the treatment system using anion exchange (AIX) resin with granular activated carbon (GAC) toppings.

Sawgrass Water Treatment Plant, Sunrise, FL—Project engineer during construction for the City of Sunrise, Sawgrass Water Treatment Plant' nanofiltration plant. This project included nanofiltration membrane replacement and replacement of the sulfuric acid pumps. The City of Sunrise required replacement of their existing membranes with a hybrid design and refurbishment of their sulfuric acid pump room and pumps.

Water Treatment Plant No. 8 Rehabilitation and Replacement Evaluation, Palm Beach County Water Utilities Department, Palm Beach County, FL— Deputy project manager. Kimley-Horn was retained to conduct a condition assessment and rehabilitation and replacement evaluation of WTP #8 to identify the improvements needed to maintain water production for the next 10 years. This evaluation will be used to develop a project scope of improvements that be implemented in the next year as part of the master capital improvement plan. The project also includes: evaluating replacement and standardization of the existing carbon dioxide feed system; anion exchange vessel and resin replacement evaluation; finish water distribution flow meters and plant service water supply evaluation; wash water recovery basin and decant system evaluation; polymer and sodium hexametaphosphate additional evaluation; high-service pump replacement and pipe chase access and upgrade evaluation; lime softening flume evaluation; and electrical improvements evaluation.

Special Qualifications

- More than eight years of engineering experience
- Experience with water treatment processes (i.e. conventional treatment, ion exchange, and reverse osmosis), plants, surficial aquifers, and Floridan aquifer wells; deep injection well design; treatment process assessment and design; construction oversight; and water resources related to flow analysis for culverts, spillways, weirs, pump stations, and water control structures
- Proficient in Microsoft Office, AutoCAD, WaterCAD, and has working knowledge in ArcGIS, Wolfram Mathematica, HEC-HMS, and HEC-RAS

Professional Credentials

- Bachelor of Science, Civil Engineering, Florida Atlantic University
- Master of Science, Civil Engineering, Florida Atlantic University

Registration and Certifications

- Professional Engineer, FL, 83362, 06/28/2017

Professional Affilations

- American Society of Civil Engineers (ASCE)
- Tau Beta Pi - National Engineering Honor Society

Andrea Carpenter, P.E.

Relevant Experience Continued

Palm Beach County Water Utilities Department General Water Treatment Plant Engineering Services, Palm Beach County, FL— Project analyst. Kimley-Horn is performing general water plant engineering services on an as-requested basis. Services may include: preparation of drawings and specifications; assistance with the preparation of design-build criteria and studies; review of water plant performance and reports; site visits; and evaluation of plant operations and treatment efficiency.

Water Treatment Plant, Surficial Aquifer Wellfield Evaluation, Stuart, FL — Project manager. The City of Stuart wellfields (30 production wells) required an assessment based on dissolved oxygen levels reported to be unusually high which contributed to air entrainment to the raw water main system and newly installed ion exchange system to be utilized for contaminant removal once incorporated into the existing system. The evaluation also required an assessment of the existing flow meters associated with the wells which were giving false readings in low flow scenarios. It was identified that, for some of the wells, the false readings were also due to air entrainment issues. Other tests conducted were sand testing, water quality, specific capacity, dead head, motor amps, and well condition.

Palm Beach County Water Utilities Department Water Treatment Plant No. 2 16.4-mgd Treatment and Disposal Improvements Design, West Palm Beach, FL— Project engineer. This project includes the design of a new deep injection well to for brine disposal associated with the existing MIEX® system and concentrate disposal for the for concentrate waste associated with a future membrane plan. Other components related to this project include relocation of an existing surficial raw water well, the design of a new 5 million-gallon ground storage tank which includes the addition of a mixer, retrofitting of a mixer into the existing 5 million-gallon ground storage tank, and other general plant upgrades. A flow hydraulic analysis was completed utilizing WaterCAD software to check if existing transfer pump system will be able to transfer water from the filter clearwell to the new 5 million-gallon ground storage tank and confirm that the high-service transfer pumps will operate in the operating range when pumping from new 5 million-gallon storage tank. This project is ongoing,

Riviera Beach Utility District (CRBUD), Florida, Water Treatment Plant Evaluation, Riviera Beach, FL— Project engineer for the City of Riviera Beach Utility District (CRBUD), Florida, Water Treatment Plant Evaluation. This project included the evaluation of the process systems at the CRBUD Water Treatment Plant to determine the expected performance of each process system. The evaluation identified expected performance of each process system in terms of intended function and capacity along with a review of meeting established permitted regulatory criteria. This effort included review of existing documents, performing process calculations, interviews with operations staff, and review of application permits and regulatory criteria. Also included was the evaluation of the existing treatment system hydraulics.

Springtree Water Treatment Plant Phase II Improvements & Rehabilitation, Sunrise, FL— Project engineer during construction for the City of Sunrise, Springtree Water Treatment Plant Phase II Improvements & Rehabilitation. This project included renewal and upgrades to several treatment process structures including the existing four 6 mgd each solids contact clarifiers, addition of raw water aerators, replacement of a lime silo, concrete structure rehabilitation for the filters and flume, and the addition of a new transfer pump station.

Southwest Water Treatment Plant Ion Exchange (IX) and Improvements, Sunrise, FL— Project engineer for the City of Sunrise, Southwest Water Treatment Plant Ion Exchange (IX) and Improvements. This project included the addition of a 2 mgd fixed bed vessel IX system to treat surficial aquifer water for iron, color control, and reduce organics. Other components included well replacement, replacement of the existing diesel tank, and replacement of the existing lime silo and associated lime slakers. These improvements allowed the City to improve water quality as well as meet regulatory requirements and meet the groundwater rule.

Nick Black, P.E.

Engineer/Utilities

Relevant Experience

Indian River County Finish Water Stabilization (Lime Slurry Injection) to Reverse Osmosis (RO) Water Treatment Plants (WTPs) and Finish Water Stabilization Corrosion Study, Vero Beach, FL— Project analyst for design and construction phase of finish water stabilization which utilizes chemical feed of carbon dioxide and lime slurry to improve the stability of the finish water. The current reverse osmosis (RO) plants have product clearwells where degasified water is collected, and chemicals are added and transferred to storage. Historically, Indian River County Utilities (IRCU) has faced water quality issues at both facilities concerning taste, appearance, and odor of the water, as well as scaling and corrosion issues throughout the distribution system due to highly corrosive RO treated water. This "post-treatment" stabilization provides a cost-effective solution to these issues IRCU currently faces. Specific duties include: drafting responsibilities (AutoCAD); submittal and RFI review; payment application and processing of change orders; and coordinating with contractor, electrical engineer, and instrumentation and controls engineer. Also handle construction-related issues, coordinating start-up of the facilities, conducting progress meetings, and miscellaneous other tasks to complete this project.

Town of Jupiter Supplemental Blend Box, Jupiter, FL— Project analyst. Kimley-Horn developed an innovative process for stabilizing reverse osmosis (RO) permeate with nano permeate and designed the structures, pipes, pumps, and other components needed to implement this process at the Jupiter Water Plant. In addition to providing a method of stabilizing RO permeate, this process improved operation of the nano degasifiers, lowered the hydraulic gradient in the RO degasifiers, and created a redundant path for nano permeate to reach the clearwell and, from there, customers of the Jupiter water system. This project implemented a number of elements or improvements around the water plant, including: corrosion inhibitor bulk storage; day tank; feed pumps and injection piping; dry air supply to bulk sulfuric acid storage tanks; nano pilot unit piping and pumps; and connection of the lime softening and nano pretreatment filters backwash basins.

Martin County Utilities 5.5-MGD Jensen Beach Brackish Water Reverse Osmosis (RO) Water Treatment Plant, Jensen Beach, FL— Analyst. JLA Geosciences, Inc., along with Kimley-Horn, developed Martin County's first Florida wellfield for their North Jensen Beach water treatment plant (WTP). Project services consisted of master planning, raw water main corridor study and design, water supply permitting, wellfield siting and development, and oversight of the construction of four deep Floridan wells. The project team provided design, permitting, and construction phase services for the Floridan supply wells which serve their brackish water, low pressure reverse osmosis (RO) WTP. The first two wells, RO-1 and RO-2, were drilled on the plant site and were designed to provide 1.7 MGD of capacity. Through improved well design and innovative drilling procedures which were specified, additional well capacity was achieved from the additional wells 3 and 4.

Martin County Utilities and Solid Waste North Jensen Energy Recovery Implementation, Martin County, FL— Project analyst. Martin County Utilities owns and operates the North Jensen Water Treatment Plant, a low pressure brackish reverse osmosis (RO) water treatment facility. A combination of 10-year-old membranes and declining raw water quality from the Floridan aquifer led to difficulties meeting the rated treatment capacity. In order to address these deficiencies and improve operating efficiencies of the RO skids, the Kimley-Horn team developed bid documents for membrane replacement along with implementation of energy recovery turbines which utilize interstage boost. In addition, it is estimated that the ROI (return on investment) for these improvements is less than 6 years and will save nearly $150,000 per year in operating costs. Kimley-Horn permitted, designed, and is currently overseeing the construction of these improvements for Martin County Utilities.

Special Qualifications

- 8 years of experience as a civil analyst
- Software experience includes AutoCAD Civil 3D; Hydranautics; IMSDesign; ROSA9, Membrane Projections; and RS Means, Cost Works

Professional Credentials

- Bachelor of Science, Civil Engineering, University of Central Florida
- Bachelor of Science, Environmental Engineering, University of Central Florida

Registration and Certifications

- Engineering Intern, FL, 1100017530, 07/10/2013
- Professional Engineer, NC, 046217, 02/16/2018
- Professional Engineer, FL, 84908, 04/16/2018
- FirstAid CPR AED, NSC, 02/01/2019

Professional Affilations

- American Public Works Association (APWA)
- American Water Works Association (AWWA)

Nick Black, P.E.

Relevant Experience Continued

Water Treatment Plant No. 11 Membrane Replacement Pilot Study, Palm Beach County Water Utilities Department, Palm Beach County, FL— Project engineer. WTP No. 11 has been in operation and producing potable water for the cities of Belle Glade, Pahokee and South Bay since 2007. The original reverse osmosis (RO) membranes remain in service and need replacing. Kimley-Horn was retained to conduct a membrane pilot study at WTP No. 11 to select suitable replacement RO membranes and antiscalant. The goal is to identify the membrane that exhibits the best performance with respect to operating pressures, water quality and long-term performance, which should be utilized for the future replacement.

Jupiter Reverse Osmosis (RO) Bank II Membrane Replacement, Jupiter, FL— Project analyst. Kimley-Horn prepared specifications to receive competitive bids for replacement membranes, membrane supply, and installation separate contracts for Bank II reverse osmosis (RO) trains and assisted the Town through the process of bidding and subsequent rebidding of the contracts. These evaluations included projected short- and long-term membrane performance, as well as life cycle costs. Kimley-Horn evaluated performance of the initial set of membranes installed which were not meeting requirements of the contract documents. These membranes were replaced by the membrane manufacturer and their performance closely examined to confirm that they met the requirements. This new generation of membranes performed adequately to be installed in all four RO trains. This project included refurbishing RO Bank I vessel end clamps, cleaning Bank I membranes in place, replacing all grooved couplings in the RO plant, and close inspection followed by replacement of internal vessel components in Bank II.

Tropical Farms Reverse Osmosis (RO)/Water and Wastewater Treatment Plant Expansion, Stuart, FL— Served as project analyst for the expansion of Tropical Farms $25-million water treatment plant (WTP). Kimley-Horn has teamed with another firm for the expansion of Martin County's water and wastewater treatment plant. Kimley-Horn provided all phases of design, permitting, construction, and SCADA system integration for the brackish RO WTP expansion.

Wellfield Improvements and Engineering Design Services, Palm Beach County Water Utilities Department (PBCWUD), West Palm Beach, FL— Project engineer. As a subconsultant to another firm, Kimley-Horn is developing bidding/design documents for improvements to surficial aquifer production wells throughout the PBCWUD service area. Our services include preparation for and attendance at project meetings; client coordination; well siting; review of past construction information including well videos, construction reports, engineering details, and record drawings; bid packages to include design specifications, project drawings, and opinion of probable cost; permitting; and construction phase services.

WTP #11 Acid Elimination Evaluation, Palm Beach County, FL— Project analyst. This project is part of Kimley-Horn's general water treatment plant engineering services contract. Kimley-Horn was retained by Palm Beach County Water Utilities Department to examine the effects Water Treatment Plant #11 and treatment processes when eliminating acid injection in the pretreatment process.

Palm Beach County Water Utilities Department (PBCWUD) Water Treatment Plant #11 (WTP #11) Operational Improvements, FL— Project analyst. Kimley-Horn helped to restore plant capacity and greatly improve operations at the 10-MGD Lake Region Reverse Osmosis (RO) Water Treatment Plant (WTP). The facility had struggled with a rapid decline in raw water quality. Kimley-Horn was instrumental in helping restore plant capacity through enhancements to the WTP and operational improvements. Services includes the design of energy recovery improvements to the RO system and several operational changes to optimize system recovery. Enhancements to the SCADA system were also implemented, which allowed the automatic download of operating data to their normalization program, greatly reducing staff time needed to manage operating data. With these improvements, Kimley-Horn was able to eliminate the nearly 30% reduction in capacity the plant had experienced.

WTP #3 Membrane Replacement Pilot Study, Palm Beach County, FL— Project analyst. This project is part of Kimley-Horn's general water treatment plant engineering services contract. Kimley-Horn was retained by Palm Beach County Water Utilities Department to conduct a pilot study comparing three different membranes for Water Treatment Plant No. 3. The membrane comparison is for pressure, flux, fouling characteristics, and the ability to clean the membrane elements. The pilot study will also consider post permeate mineralization and use of Floridan Aquifer water to supplement the plants raw water supply. Two phases of pilot testing were conducted and reports with recommendations were submitted.

Energy Recovery Implementation – North Jensen Beach Reverse Osmosis (RO) Plant, Martin County, FL — Serves as a project analyst for the implementation of energy recovery at Martin County Utilities' North Jensen Beach RO Plant. Currently, one of the three RO skids at the North Plant has an energy recovery device where energy from the second stage concentrate is captured in a turbine to increase second stage feed pressure. This project will incorporate energy recovery on the remaining two skids, along with membrane replacement will help reduce feed pressures, improve permeate water quality, and lower energy costs.

Nick Black, P.E.

Relevant Experience Continued

Delray Beach 10-Year Water Treatment Master Plan, Delray Beach, FL— Project analyst. Kimley-Horn was engaged by the City of Delray Beach to develop a 10-year water treatment master plan. We developed a 20-year linear population projection model using assembled data to meet the needs of the plan update and identify projects for the City and its service area during this growth period. Kimley-Horn prepared the water treatment master plan to recommend facilities, treatment process, treatment capacities, facility locations, planning level budget estimates, and construction timing.

Palm Beach County Water Utilities Department General Water Treatment Plant Engineering Services, Palm Beach County, FL— Project analyst. Kimley-Horn is performing general water plant engineering services on an as-requested basis. Services may include: preparation of drawings and specifications; assistance with the preparation of design-build criteria and studies; review of water plant performance and reports; site visits; and evaluation of plant operations and treatment efficiency.

Lead and Copper Corrosion Study Water Treatment Plants (WTPs) 2 3, 8, and 9, Palm Beach County, FL— Project analyst. This project is part of Kimley-Horn's general water treatment plant engineering services contract. Kimley-Horn was retained by Palm Beach County Water Utilities Department to conduct a lead and copper corrosion study for Water Treatment Plants #2, #3, #8, #9, and #11. The results of this study provided a baseline for future plant improvements for water quality.

Town of Jupiter Mobile Bed Absorber (MBA) Improvements, Jupiter, FL— Project analyst. The mobile bed absorber (MBA) scrubber units at the Jupiter Water Treatment Plant were originally designed by Kimley-Horn and have been in service since approximately 1990. Jupiter's two MBA units remove hydrogen sulfide from air discharged from the reverse osmosis permeate and occasionally concentrate degasifiers. The MBA units continue to be very effective and efficient in removing very high levels of hydrogen sulfide from air discharged from the degasifiers. After 25 years of service, the Town requested Kimley-Horn provide a condition assessment and recommendations for improvements to assist the Town with reducing maintenance requirements, reducing operating requirements, and improving the reliability of the performance of the units.

City of Stuart Water Treatment Plant Emerging Contaminants (PFAS's) Treatment and Implementation, Stuart, FL— Project engineer. The City of Stuart's Water Treatment Plant (WTP) s a 6.0-MGD lime softening facility with the surficial aquifer as the source of supply via 23 production wells. Kimley-Horn provided professional engineering services related to the implementation of a water treatment system for the removal of emerging contaminants, including perfluorinated chemicals (PFAS's), PFOA (Perfluorooctanoic Acid), and PFOS (Perfluorooctane Sulfonate) sampled and measured in the raw water supply for the City's drinking water wells. Contamination from a nearby public works facility that used and stored firefighting foams (AFFF) was determined to be the source of the groundwater contamination, forcing the City to construct an advanced treatment system to remove these contaminants. Kimley-Horn provided the design and permitting of the largest full-scale PFAS treatment system in the United States. Kimley-Horn also provided assistance preparing bid documents and construction phase services for the treatment system using anion exchange (AIX) resin with granular activated carbon (GAC) toppings. This 4.0/8.0-MGD AIX/GAC system was designed to treat all of the City's raw water supply. This project involved four different resin manufactures and is the largest ion exchange system in the United States, removing PFAS's to 10 parts per trillion.

Water Treatment Plant (WTP) #11 Clearwell and Post-Treatment Evaluation, West Palm Beach, FL— Project analyst. This project consisted of an overall evaluation of the post-treatment system to the reverse osmosis water treatment plant. The report provided recommendations to help improve the water quality produced at Lake Region Water Treatment Plant. Kimley-Horn was retained to conduct an evaluation of the clearwell, chemical addition, degasification, and off-gas system. Our team developed finish water quality goals, conducted a clearwell evaluation, evaluated second-stage scrubber and lift station issues, and prepared a summary report. Recommendations included within the report were immediately incorporated into a series of design-build contracts.

Palm Beach County Water Utilities Department Water Treatment Plant #11 Turbidity Management Evaluation, West Palm Beach, FL— Project engineer. To assist with Palm Beach County's goal of maintaining a Nephelometric Turbidity Units (NTUs) level of 1.0 at Water Treatment Plant #11, Kimley-Horn was retained to evaluate short-term and long-term management practices. Finished water turbidity continues to be an issue at WTP#11 where NTU average over 1.5, which can inhibit the efficacy of disinfection. Tasks include: a short-term evaluation; review of the current operation of the post-treatment systems; field testing the existing treatment process; conduct degasifier performance; conduct chlorine dosage; conduct Silt Density Index pad testing; evaluate improving degasifier removal efficiency and evaluate alternate forms of permeate pH adjustment; alternative stabilization; evaluate short-, mid-, and long-term alternative treatment options; evaluation of alternative H2S treatment technologies; preparation of technical memoranda; and preparation of executive summary.

Stefano Viola, P.E.

Engineer

Relevant Experience

24-inch Water Main Route Evaluation Report and Design, West Palm Beach, FL— Project engineer. Also provided utility coordination. As a result of the Florida Department of Transportation (FDOT) relocating the Flagler Memorial Bridge, the City of West Palm Beach was required to relocate an existing subaqueous 24-inch water main that conflicted with the new bridge location. To implement the most beneficial relocation route for the City, Kimley-Horn developed a water main route evaluation report. The project included evaluating four alternative water main alignments to cross the Intracoastal Waterway from the City of West Palm Beach to the Town of Palm Beach. The report discussed community impacts, constructability, permit feasibility, and a recommendation to proceed with a preferred water main route.

Continuing Engineering Services, Miramar, FL— Project manager for Kimley-Horn's general civil engineering, traffic engineering, landscape architecture and park design consulting services to the City of Miramar on an ongoing basis. Areas of assistance include review of traffic impact analyses and parking studies specific to development applications, park design services for the Police Benevolent Association Civic Center Park Expansion, reclaimed water line design, water main design, and site civil engineering. Additional services include involvement as a member of the City of Miramar's land development staff to provide traffic and transportation input to the Planning and Zoning Board and the City Commission for traffic operation issues and proposed development site plans.

Floranada Business Development Stormwater Improvements, Oakland Park, FL— Project analyst for the design and construction of FBD/NE 6th Terrace Drainage Project. The project involved the installation of three stormwater pumping stations that will deliver stormwater via drainage force mains to three proposed Biscayne Aquifer Wells. The project also involved the connection and upsizing of antiquated drainage systems and construction of exfiltration trenches within the FBD. Professional services included stormwater analysis, civil and electrical engineering design, permitting, and construction phase services.

Continuing Services Contract for Utilities and Infrastructure, Hollywood, FL— Project engineer. Kimley-Horn has been serving the City of Hollywood since 2011 on a variety of utility and infrastructure projects including: South Park Road 16-inch Force Main Upgrade; Water Main Replacement Program 11-5110 – Hollywood Blvd. to Pembroke Road, I-95 to S. 26th Avenue; Water Main Replacement Program 12-5114 – Hollywood Blvd. to Pembroke Road, S. 26th Avenue to S. Dixie Highway; and 6-inch to 16-inch Water Main Replacement Program 14-5122 – Hollywood Blvd. to Moffett Street, U.S.1 to Intracoastal Waterway (Phase III). Kimley-Horn's services include design and preparation of construction documents, regulatory assistance, assistance with bid and award of the construction contract, and construction administration services.

Force Main Rehabilitation Design Criteria Package, North Bay Village, FL— Project engineer. Based on an approved force main route evaluation report, Kimley-Horn developed a Design Criteria Package (DCP) for the City's force main rehabilitation program. The DCP was used to select a design-build team for construction of the City's new force main system. The DCP included schematic design drawings for the remaining open-cut force main route, hydraulic modeling of the main wastewater pump station and force main system, design plans for environmental permitting, design criteria for construct of the project, documents to address land ownership issues, design-build contracts or "front end" documents, and associated opinions of probable construction costs.

Special Qualifications

- More than 13 years of engineering experience, including roadway restoration/resurfacing, drainage modeling, water/wastewater utility design, stormwater master planning, preparation of engineering drawings, permitting, and site/plan preparation and review
- Prior to joining Kimley-Horn, served as Sergeant in the United States Marine Corps for five years
- Experience with AutoCAD, WaterCAD, StormCAD, and Cascade

Professional Credentials

- Bachelor of Science, Civil Engineering, Florida International University

Registration and Certifications

- Professional Engineer, FL, 74655, 06/08/2012

Professional Affilations

- American Society of Civil Engineers (ASCE)
- Florida Engineering Society

Stefano Viola, P.E.

Relevant Experience Continued

Bid Pack 4 Water Main and Force Main Replacement, Oakland Park, FL— Project engineer for the preparation of construction documents and associated permits for the replacement of more than 27,000 linear feet of water main and force main in the City of Oakland Park. Also provided utility coordination. The project consisted of replacing existing water mains that were identified as being substandard with respect to system pressures during fire flow. Services and meter boxes were replaced to the property line on new water line installations and fire hydrants were installed in residential and commercial areas.

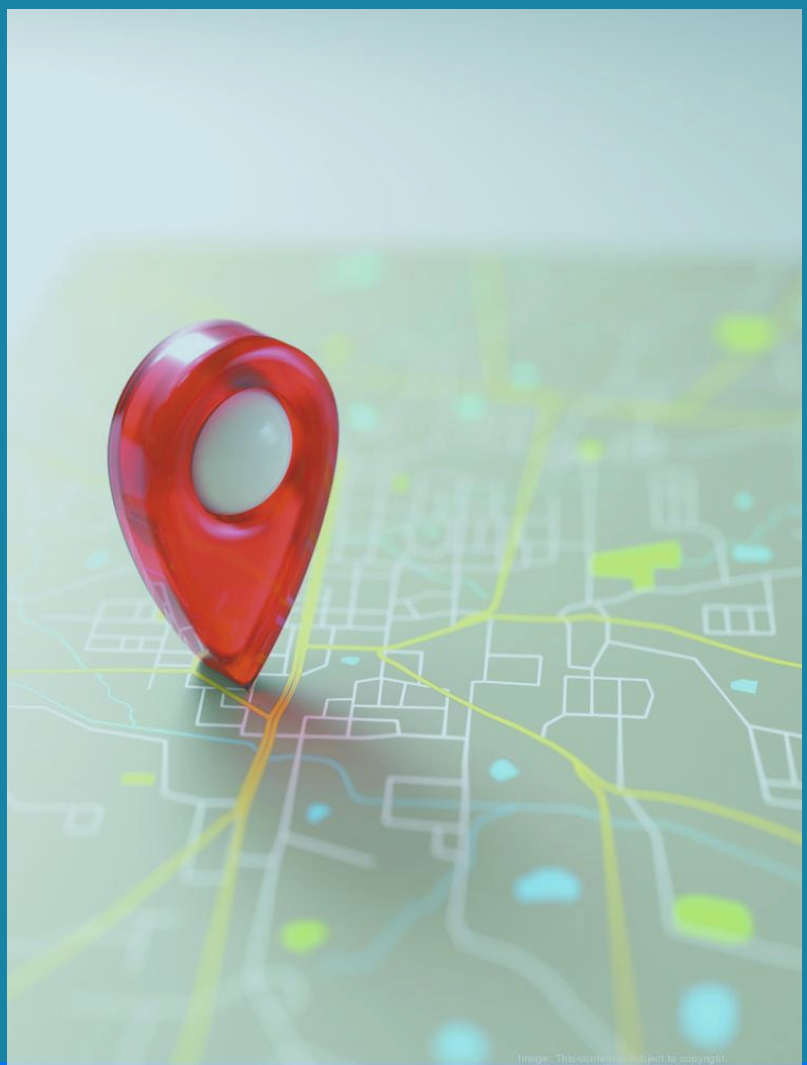
Continuing Services Agreement for Planning, Utilities, Engineering, and Roadways, North Bay Village, FL— Project engineer. Kimley-Horn provides general engineering services for the City of North Bay Village on an ongoing basis. Services have included water and wastewater studies, planning, design, permitting, and construction phase services.

16-inch Force Main Rehabilitation Design-Build Project, Construction Administration, North Bay Village, FL— Provided plans preparation for the implementation of the design-build criteria package Kimley-Horn developed for the replacement of the City's wastewater force main system.

16-inch Force Main Route Evaluation Report, North Bay Village, FL— Project engineer for development of a force main route evaluation report for the City's force main system. Also provided utility coordination. The City's existing sub-aqueous 12-inch force main system was old and deteriorating and required replacement. The evaluation process included coordination with stakeholders and permitting agencies that had jurisdiction and/or influence over the project to identify requirements, concerns, and obtain feedback pertaining to issues that affect the permitting, design, construction, schedule, and cost of the proposed project. The final force main route evaluation report addressed stakeholders' issues, permit feasibility, project timeframes, preliminary opinions of probable cost, and a recommendation to proceed with the preferred route. The report also included proposed connection points, overall pipe lengths, construction methods, pipe material, and known or potential issues and constraints for each route including environmental issues.

Utility Relocations on 79th Street Causeway Eastern Bridge, North Bay Village, FL— Project engineer. Kimley-Horn provides general engineering services for the City of North Bay Village on an ongoing basis. One project involved utility relocations on the 79th Street Causeway Eastern Bridge. Based on a bridge rehabilitation project performed by the Florida Department of Transportation (FDOT), Kimley-Horn developed construction documents to relocate an existing 10-inch water main and an existing 8-inch force main on a 79th Street causeway. The scope of services included the development of the construction plans, technical specifications, contract documents, utility coordination, permitting, opinions of probable construction cost, bidding assistance, and construction phase services. The project required close coordination with FDOT during design and was completed successfully on a compressed schedule as to not impact the FDOT bridge rehabilitation program.

OFFICE LOCATION



OFFICE LOCATION

ECKLER ENGINEERING, INC. LOCATION(S) AND GENERAL INFORMATION

Eckler Engineering is based in Coral Springs, Florida. The firm is headquartered in the Eckler Professional Centre located at 4700 Riverside Drive, Coral Springs, Florida. All proposed key project personnel are based in the Coral Springs, Florida location. The firm also maintains a satellite office located at 2255 Glades Road, Suite 324A, Boca Raton, Florida. The satellite office is used primarily for project representative services during construction for projects local to Palm Beach County locations.

Eckler Engineering was established in July 1985 to provide professional engineering services to governmental and private clients. Eckler Engineering specializes in water, wastewater, and reclaimed water systems engineering. Eckler Engineering provides complete project engineering services from preliminary/conceptual planning through design, permitting, bidding/ award, engineering services during construction, and project closeout.

Eckler Engineering is currently, or has provided, general water and wastewater consulting services to the Okeechobee Utility Authority, City of Coral Springs, the Village of Palm Springs, the City of Delray Beach, the City of West Palm Beach, the City of Boca Raton, the City of Pompano Beach, the City of Sunrise, the Town of Hillsboro Beach, the Town of Highland Beach, the City of Tamarac, the Town of Hypoluxo, the City of Coconut Creek, the City of Venice, the City of North Lauderdale, the City of Lauderhill, South Broward Utilities, the City of Plantation, the City of Pembroke Pines, Jacksonville Electric Authority, Key Largo Wastewater Treatment District, Village of Islamorada, Florida Keys Aqueduct Authority, the City of Portsmouth, Ohio, South Florida Water Management District, City of Marathon, Palm Beach County Water Utilities Department, City of Margate, North Key Largo Utility Corp, St Lucie County, Indian River County, and the Seminole Tribe of Florida. Eckler Engineering has also served as a subconsultant to many other engineering firms offering our expertise in vacuum sewer collection systems, magnetic ion exchange, and all aspects of water/wastewater system engineering. Many different projects have been completed for these clients.

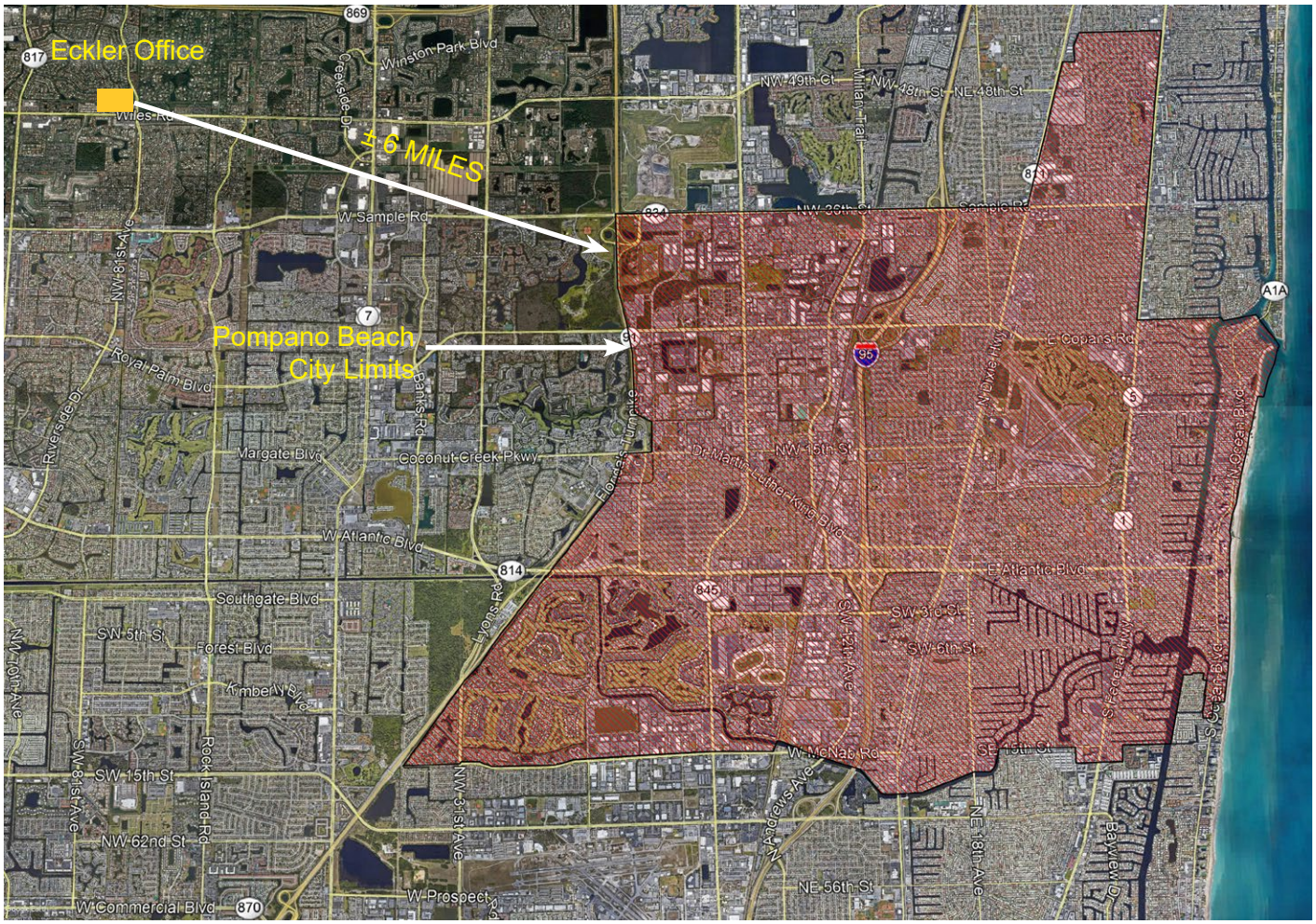
OFFICE RESPONSIBLE FOR ACTUAL PRODUCTION

All engineering services will be provided out of Eckler Engineering's headquarters' office located in Coral Springs, Florida. Our office is located less than 6 miles northwest of the Pompano Beach City limits. All proposed Eckler Engineering, Inc. key project personnel are located at our headquarters' location.

OFFICE LOCATION

Professional, technical and administrative staff at the Coral Springs location is as follows:

Licensed engineers:	5
Unlicensed engineers:	1
CAD Designers:	3
Field Inspectors:	1
Administrative:	1



CURRENT AND PROJECTED WORKLOAD

Eckler Engineering Current and Projected Workload spreadsheet dated July 29, 2020 is included herein below:

ECKLER ENGINEERING CURRENT AND PROJECTED WORKLOAD

EEI PROJECT NUMBER	PROJECT	PROJECT FEE	FEE REMAINING	CONTRACT PERIOD (DAYS)	STAFF ASSIGNED	PERCENT COMPLETE	PROJECT DESCRIPTION
228-008.00	Water Supply Facilities Work Plan 2020 Update, City of Coconut Creek	$ 13,500.00	$ 3,375.00			75%	Engineering services for the preparation of the Water Supply Facilities Work Plan 2020 Update
230-003.03	Process Water Recovery Treatment Phase 2 City of West Palm Beach	$ 92,689.00	$ 10,656.00	TBD	2	89%	Services during construction of Process Water Recovery Treatment.
235-004.03	Water Treatment Plant Improvements Okeechobee Utility Authority	$ 223,600.00	$ 26,130.54	475	2	88%	Engineering services during construction of water treatment plant improvements. Finished water storage, finished water pumping, backwash system, solids handling and Actiflo improvements.
235-006.01	Pine Ridge Park Utility Improvements Okeechobee Utility Authority	$ 145,600.00	$ 99,008.00			32%	Engineering services for the design of Pine Ridge Park Utility Improvements
235-006.03	Pine Ridge Park Utility Improvements Okeechobee Utility Authority	$ 103,900.00	$ 103,900.00			0%	Engineering services during construction of Pine Ridge Park Utility Improvements.
243-002.13	WWTP Rehabilitation - Phase I Pembroke Pines, FL	$ 310,323.00	$ 37,050.47	-	2	88%	Engineering services in support of Design/Build contract to rehabilitate the East Influent Pump Station, East and West Surge Tanks, Treatment Unit #5, and other miscellaneous improvements.
249-005.01	New Buildings Wells 2, 4, and 5, North Key Largo Utility Corp.	$ 26,990.00	$ 7,891.00	180	1	71%	Design and limited engineering services during construction for replacement enclosure structures at existing wells 2, 4, and 5.
263-002-01	PBCWUD WTP#2 Treatment plant Optimization and Disposal Upgrades, Kimley Horn	$ 295,440.00	$ 47,257.80	515	2	84%	Engineering design, permitting and bidding assistance for MIEX system Improvements, New Lime Softener No. 3, Upgrade Lime Softener #2 and Demolition of Lime Softener #1
263-003.00	WTP No. 8 Rehabilitation and Replacement Evaluation	$ 25,143.00	$ 2,011.44	120	2	92%	Rehabilitation and replacement evaluation of WTP No. 8
266-001.13	S331 C&CC Communications system upgrade, SFWMD , Revere	$ 167,054.00	$ 25,058.10	270	2	85%	Engineering services in support of design/build project
267-003.13	WTP #3, 9 and 11 Fluoride Improvement	$ 137,901.00	$ 29,643.90	500		79%	Engineering services in support of design/build project
267-004.13	WTP #8 Fluoride Improvements	$ 45,697.00	$ 10,998.76	425		76%	Engineering services in support of design/build project

ECKLER ENGINEERING CURRENT AND PROJECTED WORKLOAD

EEI PROJECT NUMBER	PROJECT	PROJECT FEE	FEE REMAINING	CONTRACT PERIOD (DAYS)	STAFF ASSIGNED	PERCENT COMPLETE	PROJECT DESCRIPTION
277-001.01	WTP Control Building City of Tamarac	$ 333,812.00	$ 333,812.00			0%	Engineering services for the design of the City of Tamarac WTP Control Building.
277-001.03	WTP Control Building City of Tamarac	$ 259,367.00	$ 259,367.00			0%	Engineering services during construction for the City of Tamarac WTP Control Building.
275-083.03	Rehabilitation of Lift Stations 14A, 17B, 19C, 20C, and 21D, city of Coral Springs - SDC	$ 104,500.00	$ 82,004.55	343	2	22%	Engineering services during construction for 5 existing sanitary pump stations.
275-062.GE	Water and Wastewater Systems 2012 Master Plan Update	$ 9,128.00	$ 827.35			91%	Engineering services for preparation of miscellaneous updates to the City of coral Springs' existing 2012 Wter and Wastewater System Master Plan.
275-085.03	University Drive Water Main & Force Main, City of Coral Springs	$ 76,800.00	$ 18,095.47	288	2	76%	Engineering services during construction of force main and water main replacements in advance of FDOT roadway improvements.
275-085.04	Public Relations for University Drive Water Main and Force Main	$ 12,096.00	$ 4,997.71			59%	Management and coordination of Community Relations Specialist to provide Community Outreach Services for the City of Coral Springs.
275-087.99	Environmental Consulting for Fleet City of Coral Springs	$ 45,847.00	$ 20,778.45			55%	Professional engineering services for the monthly site service/inspections at City fuel storage facilities.
275-088.01	Water Main and Force Main Replacement on Sample Road - Phase II	$ 39,800.00	$ 39,800.00			0%	Engineering services for the design of the water main and force main replacement on Sample Road - Phase II
275-089.00	Water Supply Facilities Work Plan 2020 Update	$ 18,510.00	$ -			100%	Engineering services relative to the preparation of the Water Supply Facilities Work Plan 2020 Update
275-090.01	EPA Risk & Resilience Assessment and Emergency Response Plan	$ 79,200.00	$ 59,400.00			25%	Engineering services relative to the preparation of the EPA Risk & Resilience Assessment and Emergency Response Plan
290-002.01	NPK Pump Station Control Strategy Revision	$ 170,030.00	$ 62,911.10		2	63%	Engineering services for design and miscellaneous improvements to the North Plantation Key Wastewater Transfer Pump Station. Improvements include addition of a 3rd wastewater pump, design of permanent bypass pumping system, SCADA control modifications, and the addition of a septic receiving station.
400-076.01	RLP MIEX Regeneration System Upgrade Village of Palm Springs	$ 128,256.24	$ 32,064.06			75%	Engineering services for the design of the RLP MIEX Regeneration System Upgrade.

ECKLER ENGINEERING CURRENT AND PROJECTED WORKLOAD

EEI PROJECT NUMBER	PROJECT	PROJECT FEE	FEE REMAINING	CONTRACT PERIOD (DAYS)	STAFF ASSIGNED	PERCENT COMPLETE	PROJECT DESCRIPTION
400-076.03	RLP MIEX Regeneration System Upgrade Village of Palm Springs	$ 120,642.58	$ 120,642.28			0%	Engineering services during construction for the design of the RlP MIEX Regeneration System Upgrade.
400-077.01	SCADA System Upgrades - Main and R. L. Pratt WTP, Village of Palm Springs	$ 133,652.00	$ 6,682.62	270	2	95%	Design of the SCADA System Upgrades at the Main and R. L. Pratt Water Treatment Plants
400-077.03	SCADA System Upgrades - Main and R. L. Pratt WTP, Village of Palm Springs	$ 27,139.54	$ 27,139.54			0%	Engineering services during construction of the SCADA System Upgrades at the Main and R. L. Pratt Water Treatment Plants
400-082.03	R. L. Pratt WTP Spiractor Replacement Village of Palm Springs	$ 37,764.00	$ -	210		100%	Professional engineering services relative to the services during construction of the R. L. Pratt WTP Spiractor Replacement. Fabricator drawings processed and returned to FDD 8-01-2019.
400-083.01	Kirk Road Pipe & Material Building Village of Palm Springs	$ 23,540.00	$ 1,177.00	190	2	95%	Engineering services for the design of the Kirk Road Pipe and Material Building.
400-083.03	Kirk Road Pipe & Material Building Village of Palm Springs	$ 15,108.00	$ 15,108.00			0%	Engineering services during construction of the Kirk Road Pipe & Material Building.
400-084.01	Pump Station SCADA Upgrades Village of Palm Springs	$ 65,395.00	$ 39,237.00	344	2	40%	Engineering services for the design of the Pump Station SCADA Upgrades.
400-084.03	Pump Station SCADA Upgrades Village of Palm Springs	$ 91,012.00	$ 91,012.00			0%	Engineering services during construction of the Pump Station SCADA Upgrades.
400-085.01	Main WTP Equipment Storage Building Village of Palm Springs	$ 22,494.00	$ 3,374.10	197	2	85%	Engineering services for the design of the Main WTP Equipment Storage Building.
400-085.03	Main WTP Equipment Storage Building Village of Palm Springs	$ 20,818.50	$ 20,818.50			0%	Engineering services during construction of the Main WTP Equipment Storage Building.
400-086.01	MIEX Regeneration System Upgrade - Main WTP, Village of Palm Springs	$ 119,886.00	$ 35,965.80	323	3	70%	Engineering services for the design of the MIEX Regeneration System Upgrade - Main WTP.
400-086.03	MIEX Regeneration System Upgrade - Main WTP, Village of Palm Springs	$ 114,801.58	$ 114,801.58			0%	Engineering services dor the services during construction of the MIEX Regeneration System Upgrade.

ECKLER ENGINEERING CURRENT AND PROJECTED WORKLOAD

EEI PROJECT NUMBER	PROJECT	PROJECT FEE	FEE REMAINING	CONTRACT PERIOD (DAYS)	STAFF ASSIGNED	PERCENT COMPLETE	PROJECT DESCRIPTION
400-087.01	Vacuum Station No. 2 Sewage Pumps Upgrade, Village of Palm Springs	$ 14,088.00	$ 14,088.00	160	2	0%	Engineering services for the design of Vacuum Station No. 2 Sewage Pumps Upgrade.
400-088.01	Replacement of Sand Loader System at Palm Springs WTP	$ 18,373.00	$ 1,837.30		2	90%	Engineering services for the design of the replacement sand loader system at Palm Springs Main WTP.
400-088.03	Replacement of Sand Loader System at Palm Springs WTP	$ 17,386.00	$ 17,386.00			0%	Engineering services during construction of the Replacement Sand Loader System.
400-089.01	Vacuum Station No. 1 Upgrades Village of Palm Springs	$ 34,092.00	$ 10,227.60			70%	Engineering services for the design of the Vacuum Station No. 1 Upgrades.
400-089.03	Vacuum Station No. 1 Upgrades Village of Palm Springs	$ 26,685.00	$ 26,685.00			0%	Engineering services during construction of the Vaccum Station No. 1 Upgrades.
442-016.01/03	Lift Stations/Wells SCADA Improvements, City of Tamarac	$ 114,200.00	$ 9,970.37	509	1	91%	Engineering services for the design/build of lift stations/wells SCADA improvements
442-018.01/03	Lift Stations 16A, 34, 37 and 2E Generator Additions, City of Tamarac	$ 102,823.00	$ 45,673.00	542	2	56%	Engineering design and services during construction of lift station generator additions.
442-019.01/03	WTP Finished Water Meter Replacement City of Tamarac	$ 68,100.00	$ 35,460.00			48%	Engineering design and services during construction of finished water metering systems at the Tamarac WTP.
442-020.01/03	Design and Services During Construction of Upgrade of Tract 27 Booster Station	$ 250,100.00	$ 120,900.00			52%	Engineering design and services during construction of Upgrade of Tract 27 Booster Station
442-021.01	Water Supply Facilities Work Plan Update City of Tamarac	$ 19,810.00	$ -	147	2	100%	Preparation of Plan Update for SFWMD
442-022.01/03	East Side Distribution Expansion City of Tamarac	$ 1,084,800.00	$ 1,084,800.00			0%	Engineering services for the design and services during construction of the East Side Distribution Expansion.
538-002.01	Basin 1 Electrical Maintenance Improvements, Seminole Tribe	$ 133,400.00	$ 51,642.12	850	2	61%	Engineering design and services during construction for electrical improvements to 10 stormwater pump stations.
	Town of Lake Clarke Shores Vacuum						
TOTALS		**$ 5,527,793.44**	**$ 3,208,291.51**			**42%**	

pompano beach
Florida's Warmest Welcome

LOCAL BUSINESSES

LOCAL BUSINESSES

Eckler Engineering, Inc. made a good faith effort to locate and evaluate potential Tier 1 and Tier 2 Local Vendors per the Local Business Program defined in RLI E-23-20.

Unfortunately we were unable to find Local Vendors to support this RLI for the following reason:

1. Local Vendors providing services needed for this RLI are direct competitors.

However, we are a Broward County Business Enterprise (CBE),per the Broward County Business Opportunity Act of 2012.

The completed Local Business Program Forms, Exhibits A through D, are provided herein under the City Forms Section.

Our proposed project team does include Minority Business Enterprise Participation and Exhibit E is provided herein under the City Forms Section.

LITIGATION

LITIGATION DISCLOSURE

Since our inception in 1985 Eckler Engineering has completed more than 650 water, wastewater, and reclaimed water projects ranging in cost from $50,000 to over $91 Million and has never had a claim for errors or omissions filed against our firm. Additionally, there has never been an indemnity payment by any professional liability carrier on behalf of Eckler Engineering. We believe that this record indicates clear, thorough understanding of our client's needs and our ability to successfully carry through with a project that meets the client's goals and objectives.

pompano beach
Florida's Warmest Welcome

CITY FORMS

CITY FORMS

The following forms have been completed, uploaded and attached per the RLI:

- Proposer Information Page.
- Local Business Program Forms, Exhibits A-D.
- Minority Business Enterprise Participation, Exhibit E.
- Tier 1 / Tier 2 Compliance Form.
- Vendor Certification Regarding Scrutinized Companies Lists.

COMPLETE THE PROPOSER INFORMATION FORM ON THE ATTACHMENTS TAB IN THE EBID SYSTEM. PROPOSERS ARE TO COMPLETE FORM IN ITS ENTIRITY AND INCLUDE THE FORM IN YOUR PROPOSAL THAT MUST BE UPLOADED TO THE RESPONSE ATTACHMENTS TAB FOR THE RFP IN THE EBID SYSTEM.

PROPOSER INFORMATION PAGE

RFP E-23-20 (number), Continuing Contract for Engineering Services for Water and Reuse Treatment Plant Projects (RFP name)

To: The City of Pompano Beach, Florida

The below named company hereby agrees to furnish the proposed services under the terms stated subject to all instructions, terms, conditions, specifications, addenda, legal advertisement, and conditions contained in the RFP. I have read the RFP and all attachments, including the specifications, and fully understand what is required. By submitting this proposal, I will accept a contract if approved by the City and such acceptance covers all terms, conditions, and specifications of this proposal.

Proposal submitted by:

Name (printed) Douglas K. Hammann Title President

Company (Legal Registered) Eckler Engineering, Inc.

Federal Tax Identification Number 65-0755534

Address 4700 Riverside Drive, Suite 110

City/State/Zip Coral Springs, FL 33067

Telephone No. 954.510.4700 Fax No. 954.755.2741

Email Address dhammann@ecklerengineering.com

LOCAL BUSINESS EXHIBIT "A"
CITY OF POMPANO BEACH, FLORIDA
LOCAL BUSINESS PARTICIPATION FORM

Solicitation Number & Title: E-23-20 Continuing Contract for Engineering Services for Water and Reuse Treatment Plant Projects

Prime Contractor's Name: Eckler Engineering, Inc.

Name of Firm, Address	Contact Person, Telephone Number	Type of Work to be Performed/Material to be Purchased	Contract Amount or %
N/A			

LOCAL BUSINESS EXHIBIT "A"

LOCAL BUSINESS EXHIBIT "B"
LOCAL BUSINESS
LETTER OF INTENT TO PERFORM AS A LOCAL SUBCONTRACTOR

Solicitation Number E-23-20

TO: N/A
(Name of Prime or General Bidder)

The undersigned City of Pompano Beach business intends to perform subcontracting work in connection with the above contract as (check below)

_____ an individual _____ a corporation

_____ a partnership _____ a joint venture

The undersigned is prepared to perform the following work in connection with the above Contract, as hereafter described in detail:

_____

_____

_____

_____

at the following price: _____

_____ _____
(Date) (Print Name of Local Business Contractor)

_____
(Street Address)

_____
(City, State Zip Code)

BY: _____
(Signature)

IMPORTANT NOTE: Signatures on this form MUST be by an authorized employee of Subcontractor and must be uploaded to the Response Attachment Tab

LOCAL BUSINESS EXHIBIT "B"

LOCAL BUSINESS EXHIBIT "C

LOCAL BUSINESS
UNAVAILABILITY FORM

BID # E-23-20

I, Douglas K. Hammann, President
(Name and Title)

of Eckler Engineering, Inc., certify that on the 10th day of August, 2020, I invited the following LOCAL BUSINESSES to bid work items to be performed in the City of Pompano Beach:

Business Name, Address	Work Items Sought	Form of Bid Sought (i.e., Unit Price, Materials/Labor, Labor Only, etc.)
None available meeting the needs of project RLI		

Said Local Businesses:

___ Did not bid in response to the invitation

___ Submitted a bid which was not the low responsible bid

___ Other:_____

Name and Title: _____

Date: _____

Note: Attach additional documents as available.

LOCAL BUSINESS EXHIBIT "D"
GOOD FAITH EFFORT REPORT
LOCAL BUSINESS PARTICIPATION

BID # E-23-20

1. What portions of the contract have you identified as Local Business opportunities?

Unable to identify any

2. Did you provide adequate information to identified Local Businesses? Please comment on how you provided this information.

No local business available

3. Did you send written notices to Local Businesses?

____ Yes X No

If yes, please include copy of the notice and the list of individuals who were forwarded copies of the notices.

4. Did you advertise in local publications?

____ Yes X No

If yes, please attach copies of the ads, including name and dates of publication.

5. What type of efforts did you make to assist Local Businesses in contracting with you ?

7. List the Local Businesses you will utilize and subcontract amount.

_____ $_____

_____ $_____

_____ $_____

8. Other comments: We searched all available engineering businesses located within the municipal limits of Pompano Beach and found:

LOCAL BUSINESS EXHIBIT “D” – Page 2

1. None available with services applicable to this RLI.

2. Available firms are direct competitors.

BIDDERS ARE TO COMPLETE FORM AND UPLOAD COMPLETED FORM TO THE EBID SYSTEM

EXHIBIT E

MINORITY BUSINESS ENTERPRISE PARTICIPATION

RLI # E-23-20

List all members of your team that are a certified Minority Business Enterprise (as defined by the State of Florida.) You must include copies of the MBE certificates for each firm listed with your electronic submittal.

Name of Firm	Certificate Included?
Quest Corporation of America, Inc.	Yes
Electrical Design Associates, Inc.	Yes

State of Florida

Woman Business Certification

Quest Corporation of America, Inc.

Is certified under the provisions of
287 and 295.187, Florida Statutes, for a period from:

12/10/2019 to 12/10/2021

Jonathan R. Satter, Secretary
Florida Department of Management Services

Department of MANAGEMENT SERVICES
Office of Supplier Diversity

Office of Supplier Diversity
4050 Esplanade Way, Suite 380
Tallahassee, FL 32399
850-487-0915
www.dms.myflorida.com/osd

State of Florida

Woman & Minority Business Certification

Electrical Design Associates, Inc

Is certified under the provisions of
287 and 295.187, Florida Statutes, for a period from:

06/13/2019 to 06/13/2021

Jonathan R. Satter, Secretary
Florida Department of Management Services

office of supplier DIVERSITY

Office of Supplier Diversity • 4050 Esplanade Way, Suite 380 • Tallahassee, FL 32399 • 850-487-0915 • www.dms.myflorida.com/osd

TIER 1/TIER 2 COMPLIANCE FORM

IN ORDER FOR YOUR FIRM TO COMPLY WITH THE CITY'S LOCAL BUSINESS PROGRAM AS A TIER 1 OR TIER 2 VENDOR, BIDDERS MUST COMPLETE THE INFORMATION BELOW AND UPLOAD THE FORM TO THE RESPONSE ATTACHMENTS TAB IN THE EBID SYSTEM.

TIER 1 LOCAL VENDOR

_____ My firm has maintained a permanent place of business within the city limits and maintains a staffing level, within this local office, of at least 10 % who are residents of the City of Pompano Beach.

And/Or

_____ My firm has maintained a permanent place of business within the city limits and my submittal includes subcontracting commitments to Local Vendors Subcontractors for at least 10 % of the contract value.

Or

__X__ My firm does not qualify as a Tier 1 Vendor.

TIER 2 LOCAL VENDOR

_____ My firm has maintained a permanent place of business within Broward County and maintains a staffing level, within this local office, of at least 15% who are residents of the City of Pompano Beach

And/Or

_____ My firm has maintained a permanent place of business within Broward County and my submittal includes subcontracting commitments to Local Vendors Subcontractors for at least 20% of the contract value.

Or

__X__ My firm does not qualify as a Tier 2 Vendor.

I certify that the above information is true to the best of my knowledge.

August 10, 2020
(Date)

Eckler Engineering, Inc.
(Name of Firm)

BY: Douglas K. Hammann
(Name)

COMPLETE THE PROPOSER INFORMATION FORM ON THE ATTACHMENTS TAB IN THE EBID SYSTEM. PROPOSERS ARE TO COMPLETE THE FORM IN ITS ENTIRITY AND INCLUDE THE COMPLETED FORM IN YOUR PROPOSAL THAT MUST BE UPLOADED TO THE RESPONSE ATTACHMENTS TAB IN THE EBID SYSTEM.

VENDOR CERTIFICATION REGARDING SCRUTINIZED COMPANIES LISTS

Respondent Vendor Name: Eckler Engineering, Inc.

Vendor FEIN: 65-0755534

Section 287.135, Florida Statutes, prohibits agencies from contracting with companies, for goods or services over $1,000,000, that are on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List. Further, Section 215.4725, Florida Statutes, prohibits agencies from contracting (at any dollar amount) with companies on the Scrutinized Companies that Boycott Israel List, or with companies that are engaged in a boycott of Israel. As the person authorized to sign electronically on behalf of Respondent, I hereby certify by selecting the box below that the company responding to this solicitation is not listed on the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or the Scrutinized Companies that Boycott Israel List. I also certify that the company responding to this solicitation is not participating in a boycott of Israel, and is not engaged in business operations in Syria or Cuba. I understand that pursuant to sections 287.135 and 215.4725, Florida Statutes, the submission of a false certification may subject company to civil penalties, attorney's fees, and/or costs.

I Certify

[X]

pompano beach
Florida's Warmest Welcome

REVIEWED AND AUDITED FINANCIAL STATEMENTS

REVIEW AND AUDITED FINANCIAL STATEMENTS

FINANCIAL STATEMENTS "CONFIDENTIAL"

The following documents have been uploaded under the "Financial Statement" heading per the published RLI instructions:

1. Bank statements for the past three months.
2. Balance sheet and income statement for calendar years 2018 and 2019.

INSURANCE

Client#: 1048604 ECKLEENG

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 3/13/2020

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 have ADDITIONAL INSURED provisions or 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 any rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
USI Insurance Services, LLC 2502 N Rocky Point Drive Suite 400 Tampa, FL 33607	PHONE (A/C, No, Ext): 813 321-7500	FAX (A/C, No):
	E-MAIL ADDRESS:	

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Old Dominion Insurance Co	40231
INSURER B : Travelers Casualty and Surety Company	19038
INSURER C : XL Specialty Insurance Company	37885
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
Eckler Engineering, Inc.
4700 Riverside Dr.
Suite 110
Coral Springs, FL 33067

COVERAGES **CERTIFICATE NUMBER:** **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 INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY	X	X	BPG1074A	11/27/2019	11/27/2020	EACH OCCURRENCE	$1,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$500,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						MED EXP (Any one person)	$10,000
	POLICY PRO-JECT LOC						PERSONAL & ADV INJURY	$1,000,000
	OTHER:						GENERAL AGGREGATE	$2,000,000
							PRODUCTS - COMP/OP AGG	$2,000,000
								$
A	AUTOMOBILE LIABILITY	X	X	BPG1074A	11/27/2019	11/27/2020	COMBINED SINGLE LIMIT (Ea accident)	$1,000,000
	ANY AUTO						BODILY INJURY (Per person)	$
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS ONLY / X NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
A	X UMBRELLA LIAB X OCCUR	X	X	CUG1074A	11/27/2019	11/27/2020	EACH OCCURRENCE	$5,000,000
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$5,000,000
	DED RETENTION $							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N		X	UB4K822131	05/01/2020	05/01/2021	X PER STATUTE OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? N	N / A					E.L. EACH ACCIDENT	$1,000,000
	(Mandatory in NH)						E.L. DISEASE - EA EMPLOYEE	$1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	$1,000,000
C	Professional Liability			DPR9954082	01/01/2020	01/01/2021	$2,000,000 per claim $2,000,000 annl aggr.	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Professional Liability coverage is written on a claims-made basis.

CERTIFICATE HOLDER

For Proposal Purposes

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.

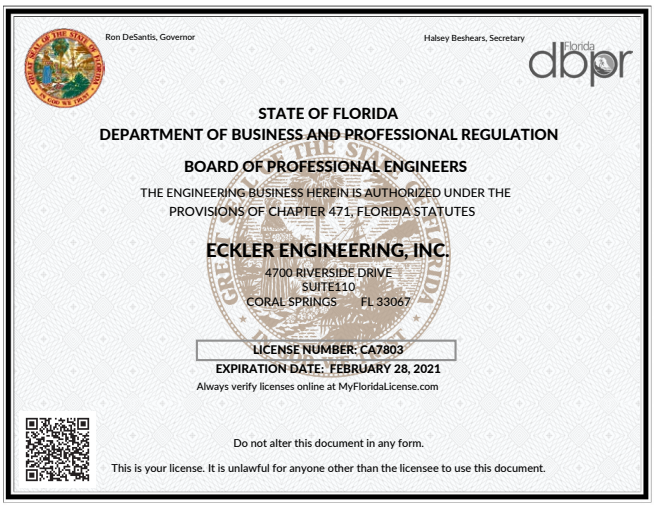
AUTHORIZED REPRESENTATIVE

pompano beach
Florida's Warmest Welcome

LICENSES

ECKLER ENGINEERING, INC.

Firm name, address and phone number	Eckler Engineering, Inc. 4700 Riverside Drive, Suite 110 Coral Springs, Fl 33067 (954) 510-4700
Discipline	Civil Engineering
Type of firm	Corporation
Date incorporated	4-28-1997
State of incorporation	Florida
Date authorized to do business in Florida	7-25-1985
President, Vice President, Secretary	Douglas K Hammann, P.E.
Federal Employers Identification Number	65-0755534



Ron DeSantis, Governor

Halsey Beshears, Secretary

Florida dbpr

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

BOARD OF PROFESSIONAL ENGINEERS

THE ENGINEERING BUSINESS HEREIN IS AUTHORIZED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

ECKLER ENGINEERING, INC.
4700 RIVERSIDE DRIVE
SUITE110
CORAL SPRINGS FL 33067

LICENSE NUMBER: CA7803
EXPIRATION DATE: FEBRUARY 28, 2021
Always verify licenses online at MyFloridaLicense.com

Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.

State of Florida
Department of State

I certify from the records of this office that ECKLER ENGINEERING, INC. is a corporation organized under the laws of the State of Florida, filed on April 28, 1997.

The document number of this corporation is P97000038740.

I further certify that said corporation has paid all fees due this office through December 31, 2020, that its most recent annual report/uniform business report was filed on January 16, 2020, and that its status is active.

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

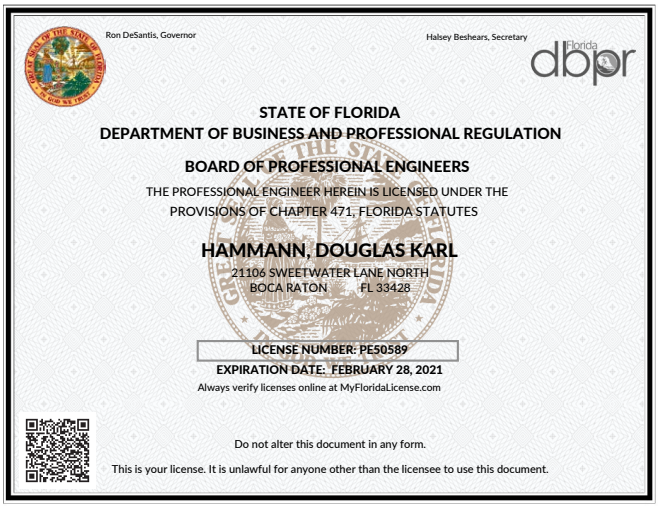
Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Sixteenth day of January, 2020

Secretary of State

Tracking Number: 5229936150CC

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

https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication



Ron DeSantis, Governor

Halsey Beshears, Secretary

Florida dbpr

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

BOARD OF PROFESSIONAL ENGINEERS

THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

HAMMANN, DOUGLAS KARL
21106 SWEETWATER LANE NORTH
BOCA RATON FL 33428

LICENSE NUMBER: PE50589
EXPIRATION DATE: FEBRUARY 28, 2021
Always verify licenses online at MyFloridaLicense.com

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BROWARD COUNTY FLORIDA

Office of Economic and Small Business Development

Governmental Center Annex
115 S. Andrews Avenue, Room A680 • Fort Lauderdale, Florida 33301 • 954-357-6400 • FAX 954-357-5674 • TTY 954-357-5664

This Certificate is Awarded to:

ECKLER ENGINEERING, INC.

As set forth in the Broward County Business Opportunity Act of 2012, the certification requirements have been met for:

County Business Enterprise (CBE)
Anniversary Date: May 24th

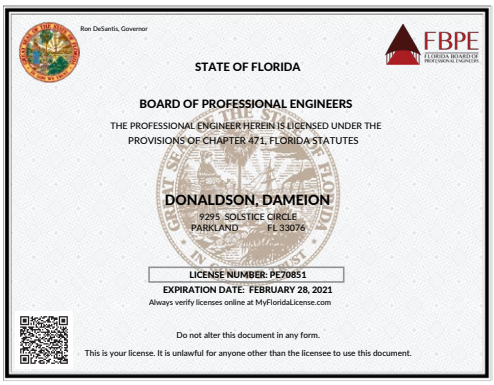
Authorized Representative

The Office of Economic and Small Business Development must be notified within 30 days of any material changes in the business which may affect ownership and control. Failure to do so may result in the revocation of this certificate and/or imposition of other sanctions.

A Service of the Broward County Board of County Commissioners
www.broward.org/smallbusiness

Electrical Design Associates INC.

Consultant:	Electrical Design Associates, Inc. (EDA)
Discipline:	Electrical Engineering
Office Location:	8401 Lake Worth Road, Suite 221 Lake Worth, FL 33467
Certificate of Authorization:	CA 8079
Qualifier:	Dameion Donaldson, P.E. 70851
Corporate Charter No.:	P98000086834
Years Associated with Eckler Engineering:	7+
Experience relative to services they will provide:	Electrical engineering services relative to the proposed SCADA RTU panels and SCADA network requirement design.



Ron DeSantis, Governor

FBPE

STATE OF FLORIDA

BOARD OF PROFESSIONAL ENGINEERS

THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

DONALDSON, DAMEION

9295 SOLSTICE CIRCLE
PARKLAND FL 33076

LICENSE NUMBER: PE70851
EXPIRATION DATE: FEBRUARY 28, 2021
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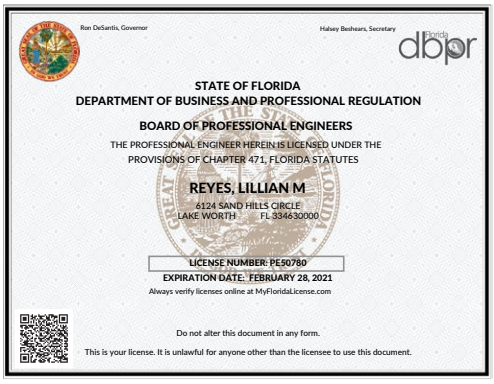

Ron DeSantis, Governor

Halsey Beshears, Secretary

Florida dbpr

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

BOARD OF PROFESSIONAL ENGINEERS

THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

REYES, LILLIAN M

6124 SAND HILLS CIRCLE
LAKE WORTH FL 334630000

LICENSE NUMBER: PE50780
EXPIRATION DATE: FEBRUARY 28, 2021
Always verify licenses online at MyFloridaLicense.com

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State of Florida

Woman & Minority Business Certification

Electrical Design Associates, Inc

Is certified under the provisions of
287 and 295.187, Florida Statutes, for a period from:

06/13/2019 to 06/13/2021

Jonathan R. Satter, Secretary
Florida Department of Management Services

office of supplier DIVERSITY

Office of Supplier Diversity • 4050 Esplanade Way, Suite 380 • Tallahassee, FL 32399 • 850-487-0915 • www.dms.myflorida.com/osd

Palm Beach County
Office of Small Business Assistance

Certifies That

Electrical Design Associates, Inc.

Vendor # VC0000008316

is a Small/Minority/Woman Business Enterprise as prescribed by section 2-80.21 – 2-80.35 of the Palm Beach County Code for a three year period from

June 7, 2018 to June 6, 2021

The following Services and/or Products are covered under this certification:

Electrical Engineering, Including Cogeneration Design Services

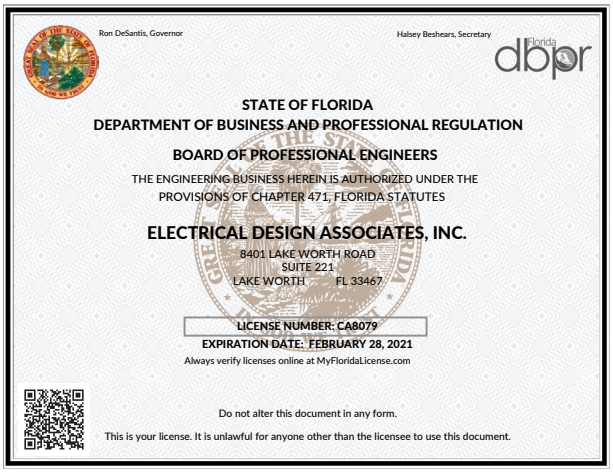
Allen F. Gray, Manager

June 7, 2018

Palm Beach County Board of County Commissioners

Melissa McKinlay, Mayor
Mack Bernard, Vice Mayor
Hal R. Valeche
Paulette Burdick
Dave Kerner
Steven L. Abrams
Mary Lou Berger

County Administrator
Verdenia C. Baker



Ron DeSantis, Governor

Halsey Beshears, Secretary

Florida dbpr

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

BOARD OF PROFESSIONAL ENGINEERS

THE ENGINEERING BUSINESS HEREIN IS AUTHORIZED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

ELECTRICAL DESIGN ASSOCIATES, INC.

8401 LAKE WORTH ROAD
SUITE 221
LAKE WORTH FL 33467

LICENSE NUMBER: CA8079
EXPIRATION DATE: FEBRUARY 28, 2021
Always verify licenses online at MyFloridaLicense.com

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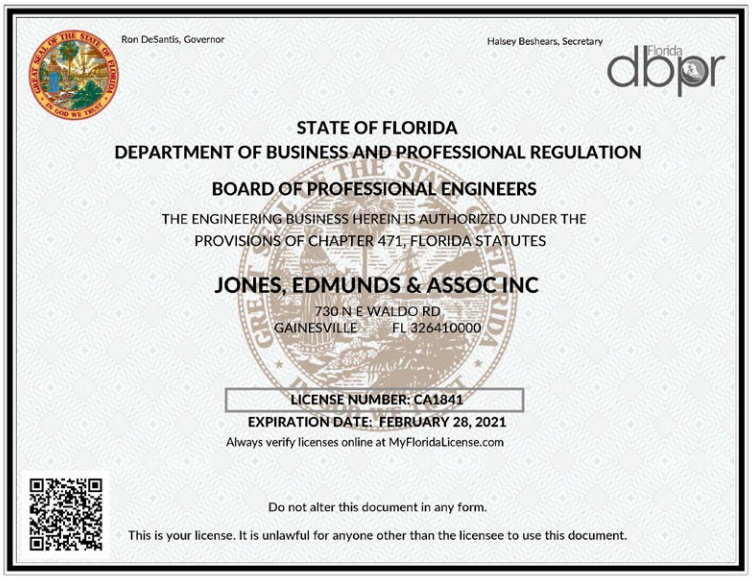
JonesEdmunds

Consultant:	Jones, Edmunds & Associates, Inc
Discipline:	Grants and Funding
Office Location:	730 NE Waldo Rd, Gainsville FL 32641
Certificate of Authorization:	CA1841
Qualifier:	William Lynch, P.E.
Years Associated with Eckler Engineering:	7+



Ron DeSantis, Governor

Halsey Beshears, Secretary

Florida dbpr

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

BOARD OF PROFESSIONAL ENGINEERS

THE ENGINEERING BUSINESS HEREIN IS AUTHORIZED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

JONES, EDMUNDS & ASSOC INC
730 N E WALDO RD
GAINESVILLE FL 326410000

LICENSE NUMBER: CA1841
EXPIRATION DATE: FEBRUARY 28, 2021
Always verify licenses online at MyFloridaLicense.com

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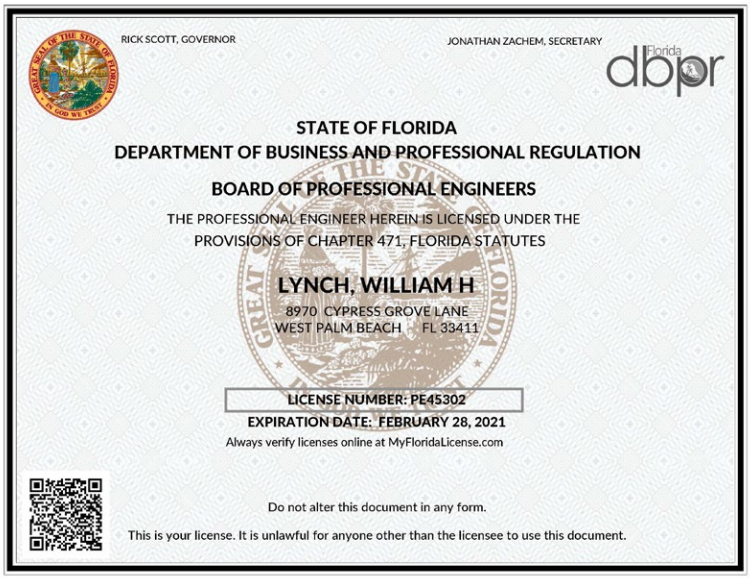

RICK SCOTT, GOVERNOR

JONATHAN ZACHEM, SECRETARY

Florida dbpr

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

BOARD OF PROFESSIONAL ENGINEERS

THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

LYNCH, WILLIAM H
8970 CYPRESS GROVE LANE
WEST PALM BEACH FL 33411

LICENSE NUMBER: PE45302
EXPIRATION DATE: FEBRUARY 28, 2021
Always verify licenses online at MyFloridaLicense.com

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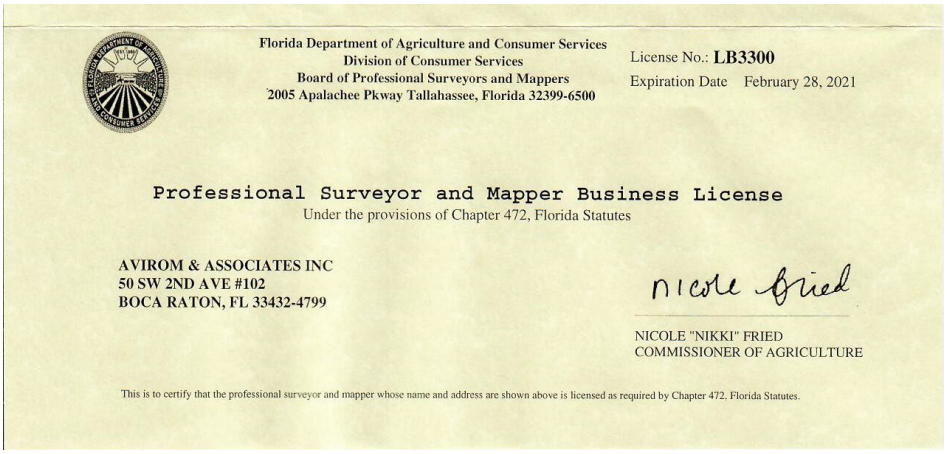
Consultant:	Avirom & Associates, Inc.
Discipline:	Surveying
Office Location:	50 S.W. 2nd Ave., Boca Raton FL 33432
Certificate of Authorization:	LB3300
Qualifier:	John Doogan, PLS
Years Associated with Eckler Engineering:	25+



Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500

License No.: **LB3300**
Expiration Date February 28, 2021

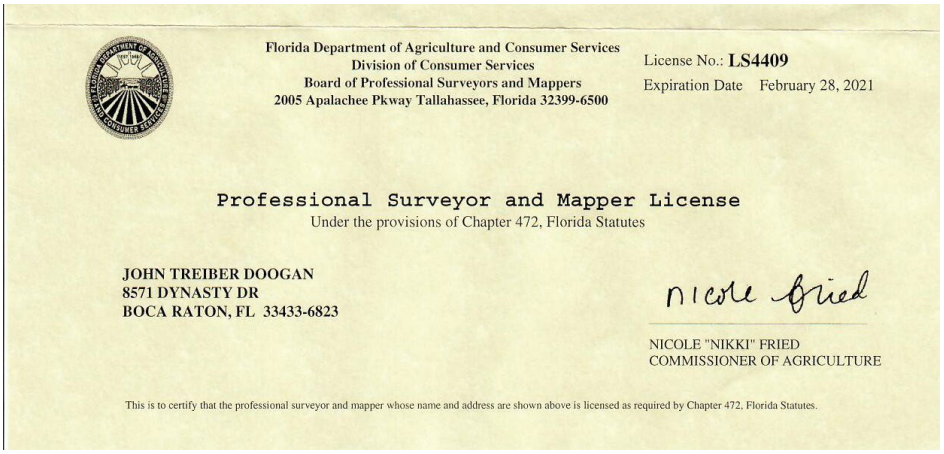
Professional Surveyor and Mapper Business License
Under the provisions of Chapter 472, Florida Statutes

AVIROM & ASSOCIATES INC
50 SW 2ND AVE #102
BOCA RATON, FL 33432-4799

nicole fried

NICOLE "NIKKI" FRIED
COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.



Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500

License No.: **LS4409**
Expiration Date February 28, 2021

Professional Surveyor and Mapper License
Under the provisions of Chapter 472, Florida Statutes

JOHN TREIBER DOOGAN
8571 DYNASTY DR
BOCA RATON, FL 33433-6823

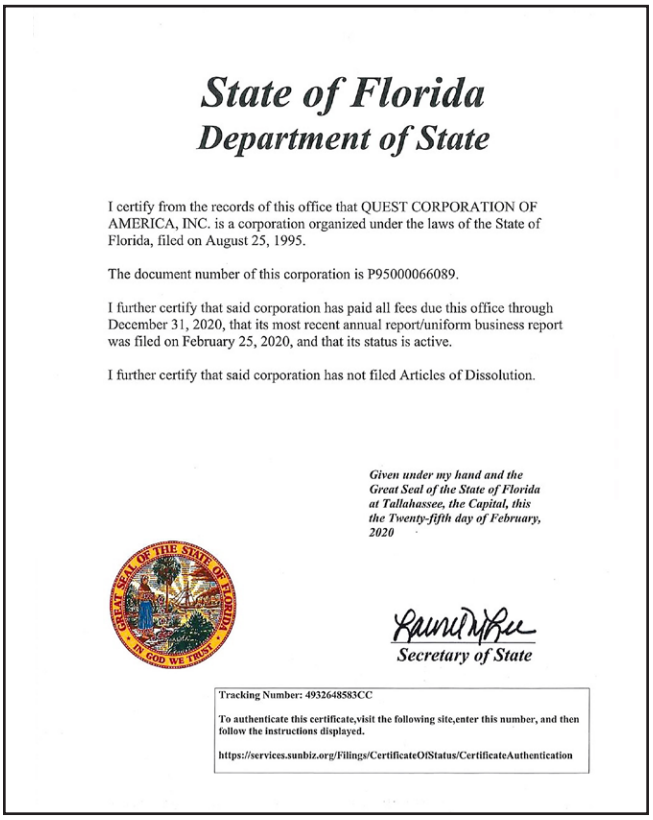
nicole fried

NICOLE "NIKKI" FRIED
COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.

QCA
Quest Corporation of America

Consultant:	Quest Corporation of America.
Discipline:	Public Involvement and Relations Services
Office Location:	717220 Camelot Court, Land O' Lakes, FL 34638
Certificate of Authorization:	N/A
Qualifier:	Peter Dobens
Years Associated with Eckler Engineering:	5+



State of Florida
Department of State

I certify from the records of this office that QUEST CORPORATION OF AMERICA, INC. is a corporation organized under the laws of the State of Florida, filed on August 25, 1995.

The document number of this corporation is P95000066089.

I further certify that said corporation has paid all fees due this office through December 31, 2020, that its most recent annual report/uniform business report was filed on February 25, 2020, and that 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 Twenty-fifth day of February, 2020

Secretary of State

Tracking Number: 4932648583CC

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

https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication

State of Florida

Woman Business Certification

Quest Corporation of America, Inc.

Is certified under the provisions of
287 and 295.187, Florida Statutes, for a period from:

12/10/2019 to 12/10/2021

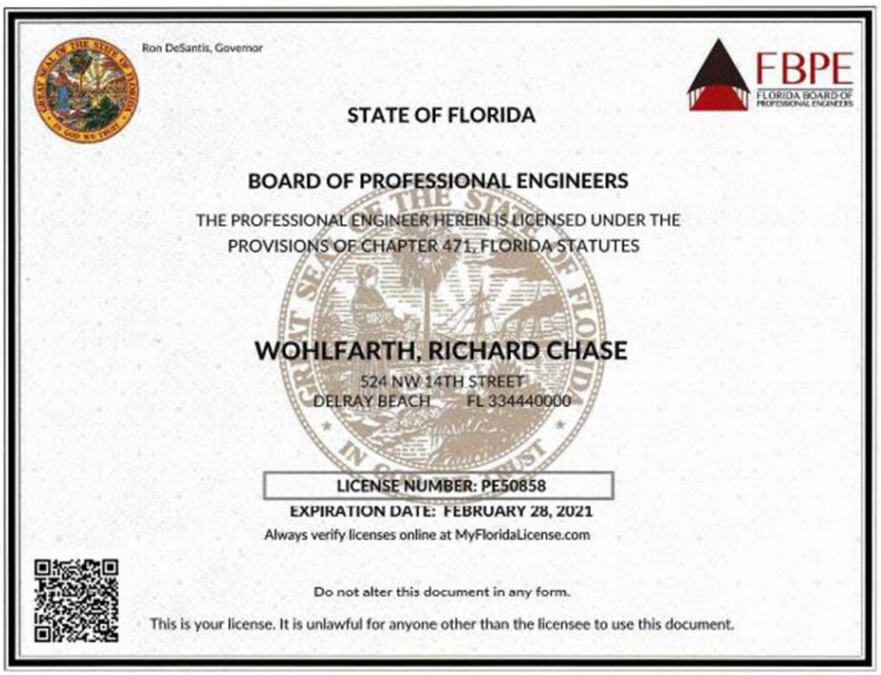
Jonathan R. Satter, Secretary
Florida Department of Management Services

Department of MANAGEMENT SERVICES
Office of Supplier Diversity

Office of Supplier Diversity
4050 Esplanade Way, Suite 380
Tallahassee, FL 32399
850-487-0915
www.dms.myflorida.com/osd

Nutting Engineers of Florida, Inc. | Established 1967
Your Project is Our Commitment

Consultant:	Nutting Engineers of Florida, Inc.
Discipline:	Geotechnical
Office Location:	1310 Neptune Drive, Boynton Beach, FL 33426
Certificate of Authorization:	CA606
Qualifier:	Richard Wohlfarth, P.E., 50858
Years Associated with Eckler Engineering:	20+



Ron DeSantis, Governor

FBPE
FLORIDA BOARD OF PROFESSIONAL ENGINEERS

STATE OF FLORIDA

BOARD OF PROFESSIONAL ENGINEERS

THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

WOHLFARTH, RICHARD CHASE
524 NW 14TH STREET
DELRAY BEACH FL 334440000

LICENSE NUMBER: PE50858
EXPIRATION DATE: FEBRUARY 28, 2021
Always verify licenses online at MyFloridaLicense.com

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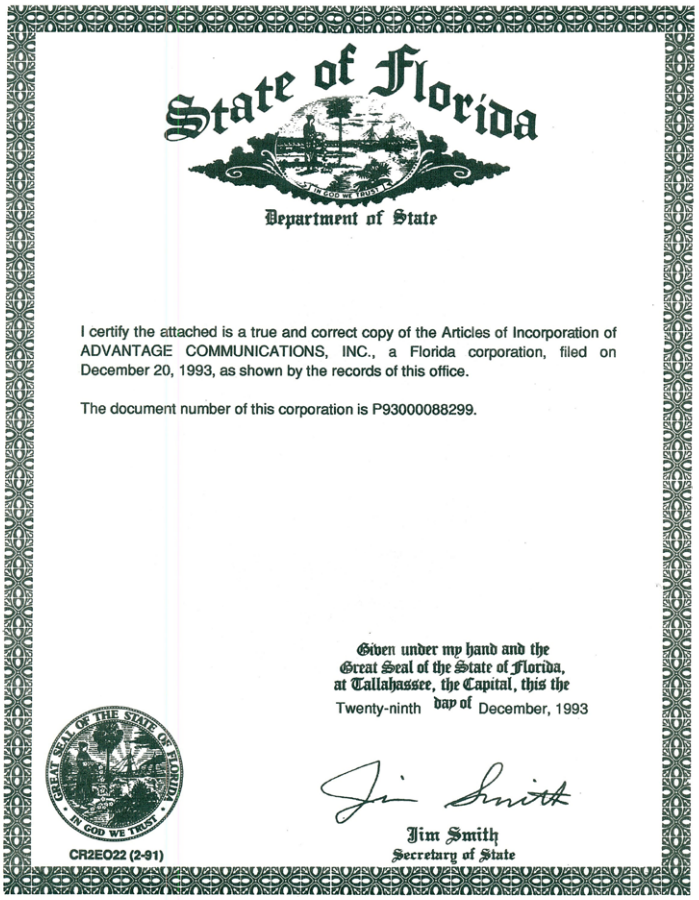
Consultant:	Advantage Communications, Inc.
Discipline:	SCADA Network/RF Consultant
Office Location:	4062 Pembroke Road, Hollywood, FL 33021
Certificate of Authorization:	N/A
Qualifier:	Mark Lavallee
Corporate Charter No.:	P93000088299
Years Associated with Eckler Engineering:	10+



State of Florida

Department of State

I certify the attached is a true and correct copy of the Articles of Incorporation of ADVANTAGE COMMUNICATIONS, INC., a Florida corporation, filed on December 20, 1993, as shown by the records of this office.

The document number of this corporation is P93000088299.

Given under my hand and the Great Seal of the State of Florida, at Tallahassee, the Capital, this the Twenty-ninth day of December, 1993

Jim Smith
Secretary of State

CR2EO22 (2-91)

Consultant:	WGI Inc.
Discipline:	Structural Engineering
Office Location:	2035 Vista Parkway, West Palm Beach, FL 33411
Certificate of Authorization:	CA6091
Qualifier:	Jeffrey R. Bergmann, P.E. 50159
Corporate Charter No.:	S66593
Years Associated with Eckler Engineering:	1

State of Florida
Department of State

I certify from the records of this office that WGI, INC. is a corporation organized under the laws of the State of Florida, filed on July 12, 1991.

The document number of this corporation is S66593.

I further certify that said corporation has paid all fees due this office through December 31, 2020, that its most recent annual report/uniform business report was filed on January 6, 2020, and that 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 Thirty-first day of January, 2020

Secretary of State

Tracking Number: 2829658951CU

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

https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication

RICK SCOTT, GOVERNOR

JONATHAN ZACHEM, SECRETARY

Florida dbpr

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

BOARD OF PROFESSIONAL ENGINEERS

THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

BERGMANN, JEFFREY ROBERT

14391 BLACKBERRY DR
WELLINGTON FL 33414

LICENSE NUMBER: PE50159
EXPIRATION DATE: FEBRUARY 28, 2021
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RICK SCOTT, GOVERNOR

JONATHAN ZACHEM, SECRETARY

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STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

BOARD OF PROFESSIONAL ENGINEERS

THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

LAFORTE, CHRISTOPHER BARRY

3911 VICTORIA DRIVE
WEST PALM BEACH FL 33406

LICENSE NUMBER: PE76797
EXPIRATION DATE: FEBRUARY 28, 2021
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Primoris Services Corporation
Cardinal Contractors

Consultant:	Cardinal Contractors, Primoris Services Corporation
Discipline:	Constructability Review/Water and Wastewater Contractor and D/B Team Member
Office Location:	13794 NW 4th St, Suite 200, Sunrise, FL 33325
Certificate of Authorization:	N/A
Qualifier:	Michael Brandao, V.P.
Corporate Charter No.:	P030000135967
Years Associated with Eckler Engineering:	25+

Ron DeSantis, Governor
Halsey Beshears, Secretary
Florida dbpr

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD

THE PLUMBING CONTRACTOR HEREIN IS CERTIFIED UNDER THE PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

BRANDAO, MICHAEL LUIS
CARDINAL CONTRACTORS, INC.
13794 NW 4TH STREET
UNIT 200
SUNRISE FL 33325

LICENSE NUMBER: CFC1429729
EXPIRATION DATE: AUGUST 31, 2022
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Halsey Beshears, Secretary
Florida dbpr

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD

THE MECHANICAL CONTRACTOR HEREIN IS CERTIFIED UNDER THE PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

BRANDAO, MICHAEL LUIS
CARDINAL CONTRACTORS, INC.
13794 NW 4TH STREET
UNIT 200
SUNRISE FL 33325

LICENSE NUMBER: CMC1250454
EXPIRATION DATE: AUGUST 31, 2022
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Ron DeSantis, Governor
Halsey Beshears, Secretary
Florida dbpr

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD

THE GENERAL CONTRACTOR HEREIN IS CERTIFIED UNDER THE PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

BRANDAO, MICHAEL LUIS
CARDINAL CONTRACTORS, INC.
13794 NW 4TH STREET SUITE 200
SUNRISE FL 33325

LICENSE NUMBER: CGC1529337
EXPIRATION DATE: AUGUST 31, 2022
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Kimley»Horn

Consultant:	Kimley-Horn Associates, Inc.
Discipline:	Membrane Process Specialist
Office Location:	1920 Wekiva Way, Suite 200, West Palm Beach, FL 33411
Certificate of Authorization:	CA00696
Qualifier:	Lance Littrell, P.E., Mark Miller, P.E., Jason Lee, P.E., Nick Black, P.E., Andrea Carpenter, P.E., Stefano Viola, P.E.
Corporate Charter No.:	N/A
Years Associated with Eckler Engineering:	6

DBPR - MILLER, MARK DOUGLAS, Professional Engineer Page 1 of 1

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Licensee Details

Licensee Information

Name:	**MILLER, MARK DOUGLAS (Primary Name)**
Main Address:	**1920 WEKIVA WAY SUITE 200 WEST PALM BEACH, FL 33411**
County:	**PALM BEACH**
License Mailing:	**1107 SW BROMELIA TERRACE STUART FL 34997**
County:	**MARTIN**
LicenseLocation:	

License Information

License Type:	**Professional Engineer**
Rank:	**Prof Engineer**
License Number:	**45320**
Status:	**Current,Active**
Licensure Date:	**03/27/1992**
Expires:	**02/28/2021**

Special Qualifications **Qualification Effective**

DBPR - CARPENTER, ANDREA, Professional Engineer Page 1 of 1

4:03:40 PM 8/8/2020

Licensee Details

Licensee Information

Name:	**CARPENTER, ANDREA (Primary Name)**
Main Address:	**1920 WEKIVA WAY SUITE 200 WEST PALM BEACH, FL 33411**
County:	**PALM BEACH**
License Mailing:	
LicenseLocation:	

License Information

License Type:	**Professional Engineer**
Rank:	**Prof Engineer**
License Number:	**83362**
Status:	**Current,Active**
Licensure Date:	**06/28/2017**
Expires:	**02/28/2021**

Special Qualifications **Qualification Effective**
Civil **01/25/2017**

CCI Connect Consulting, Inc.
Water Resource Consultants

Consultant:	CCI-Connect Consulting, Inc.
Discipline:	Hydrogeology and Water Resource Consultant
Office Location:	1907 Commerce Lane, Suite 104, Jupiter, FL 33458
Certificate of Authorization:	N/A
Qualifier:	James L. Andersen, P.G.
Corporate Charter No.:	
Years Associated with Eckler Engineering:	5+

Licensee

Name:	**ANDERSEN, JAMES LASSEN**	License Number:	**1103**
Rank:	**Professional Geologist**	License Expiration Date:	**07/31/2022**
Primary Status:	**Current**	Original License Date:	**03/12/1990**
Secondary Status:	**Active**		

Related License Information

License Number	Status	Related Party	Relationship Type	Relation Effective Date	Rank	Expiration Date
	Current	JLA GEOSCIENCES INC	Professional Geologist	06/29/2005	Geology Business Information	

https://www.myfloridalicense.com/relationList.asp?record_cnt=1&LicId=1364794&Lnam... 8/10/2020

Consultant:	CROM
Discipline:	Potable Water Storage Facility Inspection / Maintenance; Specialty Coatings Consultation
Office Location:	766 Pike Rd, Suite B, West Palm BEach, FL 33411
Certificate of Authorization:	N/A
Qualifier:	Alex Ciasca, P.E.
Corporate Charter No.:	F14000001585, L14000042855
Years Associated with Eckler Engineering:	30+

11:47:35 AM 8/10/2020

Licensee Details

Licensee Information

Name:	**CIASCA, ALEXANDER DAVID (Primary Name)**
Main Address:	**759 N STREET WEST PALM BEACH Florida 33401**
County:	**PALM BEACH**
License Mailing:	
LicenseLocation:	**250 SW 36TH TERRACE CROM GAINESVILLE FL 33407**
County:	**ALACHUA**

License Information

License Type:	**Professional Engineer**
Rank:	**Prof Engineer**
License Number:	**73007**
Status:	**Current,Active**
Licensure Date:	**06/04/2011**
Expires:	**02/28/2021**

Special Qualifications	Qualification Effective
Environmental	**01/18/2011**
Advanced Building Code Course Credit	**08/24/2018**

Licensee

Name:	**OYENARTE, ROBERT GLENN**	License Number:	**1517301**
Rank:	**Certified General Contractor**	License Expiration Date:	**08/31/2020**
Primary Status:	**Current**	Original License Date:	**05/21/2009**
Secondary Status:	**Active**		

Related License Information

License Number	Status	Related Party	Relationship Type	Relation Effective Date	Rank	Expiration Date
	Current, Active	CROM, LLC	Primary Qualifying Agent for Business	05/21/2009	Construction Business Information	