The City of Key West

RFQ-17-002

General Engineering Services

April 19, 2017

Submitted by:

Mathews

a BAXTER WOODMAN company

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April 19, 2017

City Clerk CITY OF KEY WEST 1300 White Street Key West, FL 33040

Dear Sir or Madame:

Mathews Consulting, a **Baxter & Woodman Company**, is pleased to submit our Letter of Interest and Qualifications Package to the City of Key West RFQ#17-002 *Request for Qualifications for General Engineering Services*. Pursuant to your request, one (1) original and two (2) flash drives with single PDF file are included for your consideration.

Our firm is submitting qualifications for the following disciplines:

- Civil Engineering Services
- Utility Engineering Services

The Mathews Consulting Team selected to serve you on this Contract has extensive experience with these types of engineering services in the Florida Keys. The Mathews Consulting Team will provide the depth of resources needed to take on and successfully complete on time and within budget any task this Contract may entail. Mathews Consulting also offers a unique approach to serving the City of Key West: we will protect your interests, provide high-quality engineering solutions, and offer cost effective strategies. Our approach is based on achieving success for the City of Key West by providing the following:



Responsiveness. The nature of *general consulting* is such that responsiveness is the key to maintaining a long-term professional relationship. Many consultants claim to be responsive; however, we take great pride in ensuring that we <u>are</u> immediately accessible and responsive to our client's needs. This is demonstrated in the twenty-four (24) General Consulting Contracts that we serve throughout South Florida.

Leadership. A key component of General Consulting Contracts is having one point of contact with the engineering firm who can respond to <u>all</u> issues and needs pertaining to the Contract. This person will be knowledgeable of every project and provide an efficient means of communication between the City and the engineering consultant team. Our Project Manager, David Mathews, P.E., will direct all work products for this Contract and will be the City's central point of contact. Mr. Mathews is Vice President of Operations for Mathews Consulting and has 26 years South Florida engineering experience. Mr. Mathews has worked on several projects in the Florida Keys for the past 15 years and he believes in doing "whatever it takes" to ensure project success. Mr. Mathews will take personal ownership of each project assignment to ensure your satisfaction.

Technical Expertise. Mathews Consulting provides high-quality Engineering Services to numerous municipalities in South Florida. We are experienced in all facets of general civil, utility, water, wastewater and reclaimed water projects, including conceptual design, hydraulic modeling, permitting, detailed design, construction cost estimates, bidding assistance, construction management, inspections and final certifications. We have been providing engineering services similar to the work in this Engineering Services Contract to the Florida Keys Aqueduct Authority, Lauderdale-by-the-Sea, City of Tamarac, City of Pompano Beach, City of Delray Beach, City of West Palm Beach, Palm Beach County Water Utilities Department, Town of Lantana, City of Boynton Beach, Town of Gulf Stream, and City of Boca Raton. We were also recently selected to provide General Engineering Services for the City of Marathon.

477 S. Rosemary Ave. Suite 330, West Palm Beach, FL 33401 • 561.655.6175



Florida Keys Experience. The following projects highlight our extensive experience providing engineering services in the Florida Keys:

- Wastewater Utility Business Plan (1999)
- Marathon Pump Station drainage Well (2001)
- Stock Island Pump Station Drainage Well (2002)
- Big Coppitt Collection System Design/Build Study (2004)
- Big Pine Key Distribution Pump Station (2005)
- Islamorada Distribution Pump Station (2005)
- O Duck Key Reclaimed Water System, Storage & Pumping Facility (2007)
- O Lower Keys Wastewater Collection System Study (2009)
- Duck Key Utility Improvements (2014)
- Central Cudjoe Regional Wastewater Collection System (2016)
- Marathon Distribution Pump Station (2016)
- O Boca Chica Bridge 24-inch Transmission Main Replacement Deisgn/Build (2011)
- Florida Aquifer Raw Water Well #7 (2014)
- Key Haven Utility Improvements (under construction)
- Middle Torch Key / Big Torch Key LPSS (under construction)
- No Name Key LPSS (under construction)
- Key Haven Lift Stations Replacement (under design)
- Key Haven Force Main Transmission System (under design)

Experienced Team. In addition to Mathews Consulting's highly qualified and experienced professionals, we have added a supporting team of talented subconsultants for additional resources and specialty services.

- **Dennis J. Leavy & Associates (DJLA)**, located in Palm Beach County, will provide surveying and mapping services. DJLA provides over 90% of Mathews Consulting survey for design projects.
- *Electrical Design Associates (EDA)*, located in Palm Beach County, will provide electrical and instrumentation services. EDA provides over 90% of Mathews Consulting's electrical services for design projects.
- Sandra Walter Consultants, Inc., (SWC) located in Key West, Florida, will provide Landscape Architecture and Environmental services. SWC provides services in all areas of ecological and environmental consulting, land use planning, and landscape architecture design.
- *Nutting Engineers,* located in Dade County, will provide geotechnical services. Nutting has provided geotechnical services to all of Mathews Consulting projects in the Florida Keys since 2006.

Ease of Communication. Our office is located in the City of West Palm Beach. We have been serving our clients in the Florida Keys from this location since 1999. Additionally, our principals are always available during and after working hours should emergencies arise. This ease of communication promotes team oriented interaction which produces results!! We are also currently investigating having an engineering office located in Key West to be closer to our Florida Keys clients. If we are fortunate to be selected for this Contract, we guarantee the City that we will establish an engineering office in Key West within 6 months of contract execution!



Committed Project Partners. The City needs a consultant who will work as a partner with your staff – one who will be a proactive extension of your staff. Mathews Consulting has a solid track record of partnering with local utility clients to deliver the high level of personal service you desire. We are structured to allow for a long-term commitment of specific staff to serve your needs. By having principals of the firm directly involved, there is no "revolving door" of staff with our project team. Mathews Consulting, along with our Team Members, are committed to our utility practice in South Florida. Our highly experienced team will be accessible and responsive to your needs at all times.

Mathews Consulting has a tremendous desire to work as an extension of the City of Key West Staff. Our primary goal is to provide the City of Key West with an **experienced**, **cost effective**, **responsive and accessible** team that will help you improve and develop the best possible infrastructure to serve the City residents, while meeting your technical, budget, and schedule needs. We appreciate the opportunity to present our qualifications and look forward to working with the City on many important and challenging projects.

Please contact us if additional information is needed during the evaluation and selection process.

Very Truly Yours, MATHEWS CONSULTING, A BAXTER & WOODMAN COMPANY

David L. Mathews, P.E. Vice President of Operations Cell: (561) 762-7293 • Email: <u>dmathews@baxterwoodman.com</u>



Addendums



ADDENDUM NO. 1

GENERAL ENGINEERING SERVICES / RFQ # 17-002

March 20, 2017

This addendum is issued as supplemental information to the RFQ for clarification of certain matters of both a general and a technical nature. The referenced Request for Qualifications (RFQ) package is hereby amended in accordance with the following items:

On Page 2 of 49 Please make the following change:

For information concerning this Request for Qualifications please contact **Janet Muccino**, **Project Manager**, Engineering Services Department only in writing and requests for information must be received at least ten (10) days prior to the date fixed for opening of responses to RFQ. The contact email address is <u>imuccino@cityofkeywest-fl.gov</u>. The City's "Cone of Silence" Ordinance Section 2-773 does not allow verbal communication.

On Page 9 of 49 Please make the following change:

Contacts:

All requests for information should be only in writing and emailed to Janet Muccino, Project Manager at jmuccino@cityofkeywest-fl.gov and requests for information must be received at least ten (10) days prior to the date fixed for the opening of responses to the RFQ. Any and all such interpretations and any supplemental instructions will be in the form of written addendum to the RFQ. If City issues an addendum, the Respondent has sole responsibility to receive any such addendum or an y interpretations shall not relieve such Respondent from any obligation under his response as submitted. All addenda so issued shall become a part of the Contract document.

All Bidders shall acknowledge receipt and acceptance of this Addendum No. 1 with Attachment by submitting the addendum with their proposal. Proposals submitted without acknowledgement or without this Addendum may be considered non-responsive.

Mathews Consulting, a Baxter & Woodman Company

Name of Business

Signature

Page 1 of 1



ADDENDUM NO. 2

GENERAL ENGINEERING SERVICES / RFQ # 17-002

April 12, 2017

This addendum is issued as supplemental information to the RFQ for clarification of certain matters of both a general and a technical nature. The referenced Request for Qualifications (RFQ) package is hereby amended in accordance with the following items:

1.) I was curious if for this contract, and MEP firm can apply as Prime for our area of discipline? Or would we need to team with other engineers – i.e. civil, structural, etc.

An MEP can be prime; however, this RFQ is for general engineering services spanning the disciplines identified in the RFQ and teaming would be required. Discipline specific contracts will not be awarded

2.) No 'Scope of Work' (listed on Page 7) has been provided for "Structural Engineering" services, mentioned on Page 4. Please clarify.

Consultant team shall include licensed structural professional engineer/structural engineering firm to support evaluation and design of buildings (renovation and new), foundations, roof systems, coastal engineering, etc.

3.) ADD THE FOLLOWING TO ARTICLE 4 / PART 3 / DRAFT AGREEMENT

ARTICLE 4

TERM OF AGREEMENT; TIME FOR PERFORMANCE; CONTRACTOR DAMAGES;

4.6 The CONSULTANT shall provide design assistance to City staff and attend City Commission Meeting(s) should an omission, lack of detail or design considerations result in a Change Order issued by the Contractor against the City utilizing plans prepared and sealed by CONSULTANT. This assistance will be provided at no charge to the City to allow CONSULTANT the opportunity to address the issue leading to the Change Order to the satisfaction of the City Commission. 4.) Consultant team shall include licensed Landscape Architect/Landscape Architectural firm to support landscape and irrigation system design requirements. Experience with local landscaping conditions and plant materials preferred.

All Bidders shall acknowledge receipt and acceptance of this Addendum No. 2 by submitting the addendum with their proposal. Proposals submitted without acknowledgement or without this Addendum may be considered non-responsive.

Mathews Consulting, a Baxter & Woodman Company

Signature

Name of Business



Section 1

Consultant's Team



This section provides a brief overview of our firm history and specialties, our project design excellence, our project team organization, skills and talents of the individuals proposed for the Contract and advantages of our team. Information is organized as follows:



- The Firm
- O Office Location
- O Firm Specialties
- O Project Design Excellence
- O Specialty Subconsultants
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- O Advantages of Mathews Consulting's Project Team
- O Resumes

1.1 The Firm

Baxter & Woodman is a forward-thinking civil engineering firm dedicated to combining

sound engineering practices with emerging technologies to provide sustainable, innovative solutions. Our staff of 221 professionals specialize in municipal engineering, transportation services, water and wastewater management, stormwater management construction services, and technology services. We help build community value through safe roads and bridges, clean water supplies, and reliable wastewater treatment.

Baxter & Woodman was founded in 1946 after the firm's founding fathers, Richard Baxter and Lorrin Woodman, became friends in graduate school at Harvard University where they both studied sanitary engineering. During World



War II, their paths crossed again when they were stationed together in Guam. Before their return to the States, the two men struck a gentleman's agreement – they would start up an engineering firm upon their safe return home. Making good on this agreement, in 1946, the two friends founded Baxter & Woodman Consulting Engineers in Crystal Lake, Illinois. After WWII, the country began an era of prosperity and population growth. In response, Baxter and Woodman began providing infrastructure engineering to municipalities, state and county agencies, and sanitary districts. They focused on street, water main, sanitary sewer, and treatment plant design. They took great pride in providing personalized attention *to each and every client*.

Years later, much has changed – What started as a two-person operation almost 70 years ago, has transformed into a regionally recognized, thriving multi-discipline engineering firm with over 200 team members! Through it all, Baxter & Woodman staff remains committed to the core value of our founders:

"Provide government agencies with outstanding engineering services."

Today, Baxter & Woodman, Inc. still practices this time-honored philosophy adopted by Richard Baxter & Lorrin Woodman decades ago! Baxter & Woodman has specialized in municipal engineering since 1946, and over 95% of our business is from various forms of government - municipalities, counties, and state agencies. With this municipal sector focus, we have developed the staff, resources and training to provide the full range of engineering and technology services required by today's municipalities and public agencies.

In 2016, Baxter & Woodman acquired with the Florida-based engineering Mathews firm Consulting, Inc., a civil engineering consulting firm that specializes in municipal work for clients throughout South Florida. The merger expands the Midwest based firm's reach into the Florida region. The acquisition brings in-house professional planning, water and wastewater treatment, electrical, structural, GIS, information technology, transportation and surveying services into the company's Florida operations.



Effective August 2016, the 18-year Florida firm operates under the name of **Mathews Consulting**, **a Baxter & Woodman Company**. Mr. David Mathews, P.E. serves as

Vice President Florida Operations and Ms. Rene Mathews, P.E. leads the business development as Vice President of Business Development for the firm's Florida regional office. In a recent press release, Ms. Rene Mathews confirmed: "*The services you receive today and staff members you work with will remain the same. Our team will be joining Baxter & Woodman's 220+ professionals, which allows us to expand our reach in offering GIS, surveying, wastewater and water treatment, instrumentation and controls, trenchless technology, transportation planning, design and construction services".*

We are always available to serve our clients at short notice

1.2 Office Location

Baxter & Woodman currently employs over 220 professionals and staff members. The Corporate Headquarters is located at 8678 Ridgefield Road, Crystal Lake, Illinois 60012. Nine (9) other

Regional Offices are located in: Chicago, IL; DeKalb, IL; Grayslake, IL; Mokena, IL; Peoria, IL; Burlington, WI; Madison, WI, Milwaukee, WI; and West Palm Beach, Florida.

All design work shall be performed at our Florida Regional Office located at The Offices at CityPlace North, 477 S. Rosemary Avenue, West Palm Beach, Florida. All of our design work and construction administration for Florida projects is done at this office location. We have successfully served clients in the Florida Keys from this location since 1999! We are also currently investigating having an engineering office located in Key West so as to be closer to our Florida Keys clients. If we are fortunate to be

selected for this Contract, we guarantee the City that we will establish an engineering office in Key West within 6 months of contract execution!

We have a total of fifteen (15) employees at the Florida regional office location, including five (5) Professional Engineers, two (2) Project Engineers (E.I.'s), two (2) Engineering Technicians, two (2) Construction Managers with General Contractor Licenses, three (3) full-time inspectors and support staff.



Staff Member	Number of	Staff
Professional Engineers	5	
Project Engineers	2	
Construction Manager	2	
Construction Inspectors	3	
Sr. Engineering Tech / Cadd	2	
Administrator	1	
	Total: 15	

Mathews Consulting establishes direct relations between clients and firm principles for optimum communication protocol. We take pride in our work and ensure every project reflects our personal best. The working relationships we have established with our client's staff and the excellent performance we have demonstrated on past projects are invaluable to this CIP contract. Our company website can be found at www.mathewsconsultinginc.com.

1.3 Firm Specialties

Water, Wastewater & Reclaimed Water Facilities

As Civil Engineers, we face a unique challenge of maintaining the delicate balance between using our natural resources to improve our quality of life while preserving the natural state of those resources for future generations to come. Meeting this challenge is the primary objective of all Mathews Consulting water, wastewater and reclaimed projects.



Mathews Consulting helps clients to develop adequate water resources to meet various needs, including water supply, irrigation supply, and industrial/commercial uses. Our services include the prediction and management of both the quality and the quantity of water in both underground (aquifers) and above ground (lakes, rivers and streams resources). We have successfully designed, developed and constructed raw water supply wells and disposal wells for numerous

clients.

Service Highlights:

- Treatment Plant Design
- Collection Systems
- Pumping Facilities
- Transmission Systems
- Design / Build
- Hydraulic Modeling
- Comprehensive Master
 Planning
- Infiltration/Inflow Analysis

We strive to provide the highest quality drinking water to our customers through careful evaluation and process selection. We provide integrated solutions that will meet treatment and supply needs while providing future flexibility.

We implement efficient collection and treatment systems for our wastes, and find ways to beneficially use and reuse the treatment process byproducts to



add nutrients to the soil and to replenish the water supplies

through irrigation and aquifer recharge. Through careful planning to utilize our wastes full-circle, our water, wastewater and reclaimed water designs enhance the environment's natural recycling process to keep our air, land and water supplies pristine.

Mathews Consulting has extensive experience in wastewater collection & transmission system projects, ranging from: conventional gravity sewers, low pressure sewer systems, vacuum sewer systems, submersible lift stations, master booster pump stations and force mains. We are also experienced in rehabilitation of existing sanitary sewer systems, including: lining sanitary sewers, coating manholes and converting "can-type" lift stations to "submersible-type" lift stations.

We are also proficient in the design of pipelines using both jack & bore and directional drill methods. In recent years, horizontal directional drilling (HDD) has





(2)



been utilized in areas where traditional open-cut methods are not practical.

HDD is a trenchless method for installing a pressure pipeline. It is a multistage process consisting of site preparation and restoration, equipment setup and drilling a pilot bore along a predetermined path and then pulling the pipe back through the drilled space. The technique is as follows: (1) **Pilot Hole** – A pilot hole is drilled beginning at a prescribed angle from horizontal and continues under and across the obstacle along a design profile made up of straight tangents and long radius arc; (2) **Preream –** Once the pilot hole is complete, the hole must be enlarged to a suitable diameter for the product pipeline; (3) **Pullback** – Once the drilled hole is enlarged, the product pipeline can be pulled through it.

Mathews Consulting is one of the leading engineering consultants for reclaimed water systems in the tri-county area of South Florida. We have developed four (4) Reclaimed Water Master Plans in the last 5 years for clients such as City of Boca Raton, City of Delray Beach, City of Boynton Beach and Loxahatchee River District. We have also helped these clients implement \$18.5 million of



reclaimed water infrastructure improvements to distribute more than 10 mgd of reclaimed water to new users.



Master Planning

Our Project Team's master planning approach includes the full range of infrastructure management elements, and is intended to add value to the overall asset base. Multi-disciplinary teams of engineers, planners, and financial analysts will work closely with the City of Key West to develop planning tools that are geared to the size and nature of the assets being managed.

Our Project Team's master plans typically include:

- Up-front assessment of the age, condition, and function of existing facilities
- Planning studies to assess future needs including their environmental impacts
- Development of plans for capital improvements, either new facilities or repair and rehabilitation of existing works
- Financial analyses to support the decision and prioritization process

Our Team also utilizes a plethora of computer models to assist in the various master planning tasks. A sample of these computer model tools is described below:

Hydraulic Modeling

Our Project Team's master planning approach includes the full range of infrastructure management elements, and is intended to add value to the overall asset base. Multi-disciplinary teams of engineers, planners, and financial analysts will work closely with the County to develop planning tools that are geared to the size and nature of the assets being managed. Our Project Team's master plans typically include:

- Up-front assessment of the age, condition, and function of existing facilities
- Planning studies to assess future needs including their environmental impacts
- Development of plans for capital improvements, either new facilities or repair and rehabilitation of existing works
- Financial analyses to support the decision and prioritization process

Our Project Team is proficient with several hydraulic modeling programs. These include *InfoWater*[®], W*aterCAD*[®], and *SewerCAD*[®].

InfoWater[®] is a fully GIS-integrated water distribution modeling and management software application. Used by the largest water utilities in the world, InfoWater[®] provides engineers, managers, and operators a complete tool set to tackle all of the hydraulic and operational challenges facing a modern water utility. InfoWater[®] offers the following key benefits:





- Powerful Water Utility Engineering and Operations Platform: InfoWater® allows a utility to instantly analyze system pressures, find available fire flows, check water quality issues, maximize storage turnover and optimize pump efficiencies.
- *"Mathews Consulting demonstrates a* **Smarter Planning:** Advanced scenario management features *high level of technical detail and quality* allow for planning of maximum day demands, design of a new *in all of their work products. We are very pleased with their performance on past* storage tank, long-term master planning, and virtually any other *and current projects" combination of conditions. Victory Majtenyi*

Victory Majtenyi Deputy Director of Public Utilities City of Delray Beach

• Efficient Operation and Stronger Customer Service: With_______ tools to integrate SCADA data, add-on modules for building unidirectional flushing sequences, or isolating a contamination event, InfoWater® provides a cost effective platform for improving system operations and customer service.

SewerCad[®] is a program from Bentley/Haested Methods which models the design and analysis of gravityflow and pressure flow through pipe networks and pump stations. The program can be run in AutoCAD mode or in Stand-Alone mode utilizing separate graphic interface. The program can perform the following functions:

- Designs multiple sanitary sewer systems
- Analyzes various design scenarios for sanitary sewer systems
- Imports and exports AutoCAD and MicroStation .DXF files
- Generates plan and profile plots of a network
- Performs detailed cost estimating using an integrated cost analysis modeling subsystem

Baxter & Woodman, Inc. has a strong history of providing clients with clear guidance and developing strategic planning documents for their potable water,



wastewater and reclaimed water utilities. A key technical component of these assessments is the ability to apply state-of-the-art hydraulic modeling capabilities for solving real-world planning issues.

Baxter & Woodman's approach to master planning utilizes the latest technologies in hydraulic modeling, GIS databases, and web-based systems to provide accurate results, useful tools and applications for solving real world utility problems. With B&W's expert staff available for implementation, the resulting master plan is an efficient and cost-effective tool for utility managers to control the many activities tied to the needs of growing communication. Valuable planning and operational tools are then available for our clients' use, including hydraulic models that have been developed, and are continually updated, to assist with planning.

Why GIS?

Better Asset Management: sophisticated data storage, analysis and visualization capabilities

Better Data Coordination: integration between data layers results in more consistent, accurate information

Better Public Policy: accessible, comprehensive, and intuitive presentation of information



Baxter & Woodman's line of services for water system planning and GIS/modeling includes:

- Advanced hydraulic modeling and distribution planning
- Water supply planning and conservation programs
- Treatment facility sizing and operational troubleshooting
- O Compliance assessments and water-quality improvement planning
- Asset management systems
- Geolocation of facilities and assets
- Work order systems/reporting
- Extended period simulation hydraulic models
- O Pipeline and pump station preliminary design criteria
- Unidirectional flushing hydraulic models

GIS Services and Asset Management

Baxter & Woodman offers a wide range of GIS services – from master planning and data collection through custom application development and personalized training. Extensive municipal and public agency GIS experience has helped us develop expertise in a broad range of systems, services, products, programming languages and development environments. Our familiarity with the use of technology in a government setting - coupled with a dedicated, highly skilled staff - sets us apart!

CAPABILITIES

Asset Management Data Collection/Conversion GIS Website Development and Hosting GPS Survey Master Planning On-Site Training Sanitary and Stormwater Systems Modeling Water Distribution Modeling Zoning, Floodplain, Parcel Mapping Utility Atlas

SOFTWARE EXPERTISE

ArcGIS[™] for Desktop ArcGIS[™] for Server ArcGIS[™] for Mobile ArcGIS[™] Online Azteca Systems Cityworks Latitude Geographics Geocortex Essentials ArcPad[™] TerraSync/Pathfinder SQL Our team will help you apply the latest GIS technology to efficiently manage your assets and save TIME, ENERGY, RESOURCES, and MONEY through proactive maintenance programs!

Facility Planning

Mathews Consulting helps our clients expand their vision and recognize new opportunities in facility planning. Our facility planning services are tailored to meet the individual needs of the

client, and may include: site plan preparation, master planning, environmental evaluations, traffic circulation patterns, and utility corridor analyses. We also prepare due diligence reports for facility acquisitions, which may include assessment of facility conditions, appraisal of land value, estimation of depreciated value of facilities and financial analysis for funding mechanisms.

For Palm Beach County Water Utilities Department, Mathews Consulting prepared a planning document for the Wakodahatchee-Green Cay Trail outlining the proposed trail alignment, a standard design section with typical landscape beautification and interpretive signage and a planning level construction cost.

The Trail is proposed to connect a number of existing natural areas in suburban Delray Beach/Boynton Beach, Florida. The route will begin at the existing Wakodahatchee Wetlands south entrance on Jog Road, continue north along Jog Road to the Lake Worth Drainage District's L-30 Canal and turn west to the Green Cay Wetlands. The trail will continue through the wetlands and cross Hagen Ranch Road into the Southern Region Water Reclamation Facility via existing trails, terminating at the northern side of Southern Region at the future right-of-way extension of Flavor Pict Road.





Mathews Consulting prepared a formal Planning Document for Palm Beach County for the proposed trail. A corridor analysis verifying any alignment restrictions was performed. The analysis also evaluated the feasibility of placing the Trail within Lake Worth Drainage District ROW and Palm Beach County ROW.

Construction Management

Mathews Consulting provides full service planning, management, operations and maintenance, and resident inspection of construction projects. Our experience includes construction of environmental and public works facilities, including wastewater / water treatment plants, pumping stations, pipeline projects, streetscape projects and pilot facilities.

We tailor our construction management services to meet the specific needs of our clients

Construction administration services encompass the full realm of construction tasks: shop drawing review and approval; contract clarification; construction inspection; job site meetings; contractor pay request processing; change order negotiation; coordination of testing services; equipment testing/startup; and operator training.



We provide construction administration capabilities through the use of MicroSoft[®] Project and Primavera[®] software programs. Construction schedules are tailored to meet the individual needs of the client and respective construction projects. Schedule updating and detailed reporting in computer format complies with current industry standards and enables immediate, proactive responses to resolve schedule conflicts.

Regulatory Compliance

Florida is known throughout the nation as being a trend setter in regulatory compliance issues. The regulatory structure of the permitting agencies is constantly changing with delegation of new state regulatory programs and with pending rule revisions that impact water resources, wastewater facilities, reuse programs, drinking water quality, effluent disposal, and deep well injection, just to name a few.

Mathews Consulting, Inc., actively monitors Federal, State and local regulatory requirements and rule revisions. We track and forecast critical regulations to ensure project design criteria does not become "outdated". Our regulatory services include preparation of permit applications, safety management programs, facility compliance reporting and project completion

Service Highlights:

- Facility Permitting
- Capacity Analysis Reports
- Reuse Feasibility Studies
- Operation & Maintenance Reports
- Risk Management / Process
 Safety Management Plans
- Industrial Pretreatment
 Programs

documentation. Through our permitting experience, we have maintained strong local ties to each of the communities that we serve. Our familiarity with the rule makers and permitting staff at the various agencies simplifies the permitting process. Our goal is to help our clients meet regulatory compliance for all projects without "surprises" which may impact project objectives and schedules.

The complex interrelationship of the regulatory agencies can make permitting one of the most difficult project tasks to complete. Mathews Consulting maintains a clear understanding of the relationships between State and local agencies to ensure an accurate and efficient permitting process for all projects.



Value Engineering

Value Engineering (VE) identifies opportunities to remove unnecessary costs in projects while assuring that quality, reliability, performance and other critical factors will meet or exceed the customer's expectations. VE is a rigorous, systematic effort to improve the value and optimize the life cycle cost of a facility. VE generates these cost improvements without sacrificing needed performance levels.

Our VE results are unsurpassed!!! Our VE/CR services average a life cycle cost savings equal to 26% of construction costs Mathews Consulting specializes in value engineering and constructibility reviews for municipal projects. For the past nine (9) years, we have served as Palm Beach County's General Value Engineering Consultant and have provided VE and constructibility reviews (CR) for a variety of projects, including water and wastewater treatment plant expansions, master pump station designs, pipeline projects and utility valuations and acquisitions.

The results of our value engineering services are unsurpassed. On average, we have provided life cycle cost savings equal to 26% of

construction cost, and the average rate of return for our services is 64:1, which means for every \$1 spent for our value engineering services, we have provided \$64 of life cycle cost savings. Mathews Consulting provides VE expertise and an outstanding performance record to improve the value and optimize the cost of any project.

	Construction	VE Life Cycle	
Project	Cost	Savings	VE Fees
PBC Master P.S. 5229 VE	\$5,250,000	\$445,000	\$36,904
PBC SRWRF Expansion to 35 mgd VE	\$9,620,000	\$660,000	\$70,668
PBC WTP #8 VE/Rerate Analysis	\$7,300,000	\$5,000,000	\$29,248
East Central Regional WWTF Exp. VE	\$16,000,000	\$11,850,000	\$108,776
PBC NROC 90% Constructibility Review	\$18,500,000	\$920,000	\$43,301
PBC SRWRF Master Plan VE Review	\$6,200,000	\$8,930,000	\$31,762
PBC WTP #3 Phase II Expansion VE	\$34,000,000	\$8,980,000	\$75,917
PBC Green Cay Wetlands	\$12,730,000	\$315,000	\$59,827
PBC WTP 2, 8, 9	\$12,830,000	\$1,104,000	\$100,995
PBC WTP #8 Expansion VE	\$17,795,000	\$3,970,599	\$119,395
PBC Century Village Reclaimed System VE	\$3,500,000	\$629,251	\$24,535
ENCON WWTF 2 MGD Upgrade	\$24,200,000	\$1,020,000	\$39,000
S. Lake Worth Inlet Sand Transfer Plant	\$2,600,000	\$145,000	\$21,039
Total:	\$170,525,000	\$43,968,850	\$761,367
Avg. Rate of Return:		58:1	
Avg. Life Cycle Savings:	26% of		
	Construction		
	Costs		

1.4 Past Project Design Excellence

Mathews Consulting has received the following awards for engineering excellence:

- April 17, 2002 Mathews Consulting receives the American Society of Civil Engineers (Palm Beach Branch) 2002 Project of the Year Award for the "City of West Palm Beach South Flagler Sanitary Sewer Rehabilitation Project".
- August 8, 2003 Mathews Consulting receives the Florida Institute of Consulting Engineers (FICE) 2003
 Engineering Excellence Grand Award for the "City of West Palm Beach South Flagler Sanitary Sewer Rehabilitation Project".



- August 5, 2005 Mathews Consulting receives Florida Institute of Consulting Engineers (FICE) 2005 Engineering Excellence Grand Award for the *"Town of Lantana WTP Process Upgrades"*.
- January 4, 2006 Mathews Consulting receives the Florida Institute of Consulting Engineers (FICE) 2006 Engineering Excellence Honor Award for the "*City of West Palm Beach Garden Avenue Stormwater and Utility System Improvements*".
- November 25, 2013 Mathews Consulting receives the Florida Institute of Consulting Engineers (FICE) 2014 Engineering Excellence Grand Award for the *"Florida Keys Aqueduct Authority Duck Key Utility Improvements"*.

We are honored to be recognized for our past engineering accomplishments.

1.5 Specialty Subconsultants

Mathews Consulting is submitting as the Prime Consultant for this Contract and will be supported on <u>an as needed basis</u> by the following specialty subconsultants:



Subconsultant Firm	Expertise
Dennis J. Leavy & Assoc.	Surveying & Mapping
Electrical Design Associates	Electrical & Instrumentation Engineering
Nutting Engineers of Florida	Geotechnical
Sandra Walters Consultants (SWC)	Environmental, Landscape Architecture

The Mathews Consulting Team is committed to providing the City of Key West with the highest quality engineering solutions that will save you time and money. We do this by providing you with a team of experienced and technically superior professionals who know how to implement innovative, cost-saving ideas.

All of the specialty subconsultants have worked with Mathews Consulting on past utility projects. Our continued working relationship as a Team will ensure there is no learning curve in the services that will be included under this Contract for the City of Key West.

Our Project Team offers compatible backgrounds, capabilities, and philosophies consistent with the City's needs and requirements. We have established team member roles and responsibilities utilizing the following guidelines.

- Assignment and dedication of the principal owners of each firm to specific work task(s). The principals of each firm will be responsible for leading and performing the work.
- O Best available technical expertise to ensure project quality.
- O Extensive team experience on similar projects.

We are confident that our Project Team will provide the City with outstanding services in an efficient and cost-effective manner.

DEN

DENNIS J. LEAVY & ASSOC.

Mathews Consulting will utilize **Dennis J. Leavy & Assoc.** to assist with surveying, mapping and GIS services for the contract. Dennis J. Leavy & Associates is a Land Surveying and Mapping Firm established in 1994 and is located in Palm Beach County, Florida. They offer a wide spectrum of services to all aspects of the Municipal Engineering, Land Development and Construction trades. Their land related services include, but are not limited to: land surveying, land planning, land development consulting, and platting. Dennis J. Leavy takes pride in their ability to offer a quality professional service in a timely manner at very competitive rates.

The firm employs four Registered Land Surveyors with over 80 years combined experience which enables this firm to offer a vast variety of knowledge in all aspects of the land surveying profession.

For fast and accurate performance on the forefront of technology, Leavy's field crews are equipped with an array of equipment, including Global Positioning Systems (GPS), Geodetic Total Stations (Topcon) and Data Collection (TDS). In order to meet the need of any job request, their firm also owns and maintains an airboat, two wave runners, three all terrain cycles, one all terrain vehicle, an aluminum boat, and four four-wheel drive pick-up trucks. To compliment the efforts of field crews, the office staff is equipped with AutoCAD Release 2000i and Land Development Desktop 2000i. Mr. Dennis J. Leavy qualifies the firm under certificate No. LB-0006599 issued by the Florida State Board of Professional Surveyors and Mappers.

Leavy's Elements of Service:

- O Boundary Surveys
- O Topographic Surveys
- O Right-of-way Surveys
- O Hydrographic Surveys
- Platting
- O Title Searches

- O Project Management
- O Legal Description Preparation
- O Control Surveys
- O As-Built Surveys
- O Record Drawings
- O ALTA/ACSM Surveys



Mathews Consulting will utilize **Electrical Design Associates**, **Inc. (EDA)** to provide electrical & instrumentation services for the Contract.

EDA is a small sized consulting engineering firm specializing in electrical and instrumentation design. They provide consulting engineering services primarily to the public sector. In September of 1998, EDA was formed as a minority owned business with offices in Palm Beach County and Orange County. Their present staff includes registered engineers, an instrumentation designer, and designer/Cadd technicians.

EDA is staffed to provide engineering services from inception through design, bid and construction completion. They take pride in the fact that while they are a small sized firm, they utilize state of the art computerization to accomplish design projects and project management which allows them to provide enhanced production quality, lower operating costs and closer engineer participation.

EDA's Elements of Services:

- O WWTP/WTP
- **O** Instrumentation Systems
- O SCADA Systems
- O Telemetry Systems
- O Studies
- O Power Distribution

- - O Value Engineering
 - O Sports Field Lighting
 - O Roadway Lighting
 - O Parking Lot Lighting
 - O Industrial Controls
 - **O** Construction Inspections

Electrical Design Associates design staff brings to this Contract vast electrical and instrumentation design and project management experience.



Sandra Walters Consultants, Inc. (SWC) is a Florida-certified engineering firm that provides services in all areas of ecological and environmental consulting, land use and public facilities planning and permitting, and landscape architecture. Their services include habitat assessments, wetland permitting and mitigation design, environmental impact statements, compliance monitoring, development agreements, and submerged land leases. SWC is also fully trained in utilization of State and federal wetland assessment methodologies.

SWC has extensive experience working with agencies to develop project designs that minimize impacts and meet permitting requirements, and to bring clients into compliance with regulatory standards. The firm has conducted data collection and analysis, and written environmental and planning sections of NEPA documents for FDOT, the FAA, the South Florida Water Management District, and U.S. Army Corps of Engineers, and also provides construction environmental compliance monitoring services. SWC provides a range of services in contamination assessment, including conducting Phase I and II environmental site assessments, soil and groundwater testing and reporting, underground storage tank removals, and acquisition of No Further Action determinations from the Florida Department of Environmental Protection.



SWC is certified as a disadvantaged business enterprise (DBE) with the State of Florida, South Florida Water Management District (SBE),

Florida Department of Transportation, Broward (also CBE), Dade (also SBE), Lee and Collier counties, and is a woman-owned small business (WOSB) with the US government.

The principal of the firm, Sandra Walters, has more than 30 years professional experience. She presently serves on and is a former chair of the South Florida Regional Planning Council, appointed by governors Bush, and Crist and Scott; and served a four-year term as a Governor's appointee on Florida's Acquisition and Restoration Council, which oversees purchase and management of State conservation lands.



NUTTING ENGINEERS OF FLORIDA, INC. has been one of the premier geotechnical engineering firms in South Florida since its inception in 1967. Prior to this date work was performed under the name Nutting Engineers, Inc., which originated in 1956 preceded by H.C. Nutting in Miami from 1932 until 1956.

Nutting's comprehensive range of services include geotechnical exploration and engineering including soil borings and groundwater well drilling, monitoring of pile installation, groundwork modification and chemical grouting procedures, quality control/ quality assurance testing of construction materials, structural inspections (special/threshold) of structures.

Project types include airports, seaports, roadways (improvements, widening, extensions, lighting, guard rails), bridges, parking lots and garages, drainage systems, city halls and municipal buildings, parks, recreational facilities, hospitals, educational facilities (K-12 and higher educational facilities) including auditoriums, stadiums/ sports facilities, water and wastewater treatment plants, water storage facilities, courthouses, industrial parks, mining operations, shopping centers, residential communities, hotels, assisted-living facilities, high-rise condominiums and office towers, and communication towers.

Nutting Engineers of Florida, Inc. has three office/laboratory locations to serve our clients from Key West to Melbourne. Their office/laboratory in Miami Dade would serve this City of Key West contract, and is located at 2051 NW 112th Avenue, Suite 126, Miami, Florida 33172

Nutting's four principals are all active employees of the company and bring a combined total of 100+ years of experience in geotechnical engineering, construction materials testing, special and threshold inspections and environmental engineering. Three of the four Principals are Florida licensed professional engineers (PEs); the fourth Principal serves as Director of Human Resources and oversees the efforts of the administrative team throughout all 3 offices/ laboratories. Together, they direct the staff of experienced professionals, most with over 15 years of experience in the industry throughout Florida and the United States.

Mathews Consulting has successfully worked with Dennis J. Leavy & Associates, Electrical Design Associates, SWC and Nutting Engineers on numerous past Florida Keys projects.

1.6 Project Team Organization

Figure 1-1 illustrates the functional role of each key project member assigned to our Project Team. The team organization stresses short and direct lines of communication between the Project Manager, City of Key West, and key project members. The Project Manager will select the respective technical support staff for each specific assignment in order to provide the City with the most efficient team of professionals.

Figure 1-1 Project Team Personnel



Team Member	Firm	Job Classification	Qualifications
David Mathews, P.E.	Mathews Consulting	Civil Engineer	Civil Engineering Services,
	Mathews Consulting	Civil Engineer	Utility Engineering Services Civil Engineering Services,
Rene Mathews, P.E.			Utility Engineering Services
Rebecca Travis, P.E.	Mathews Consulting	Civil Engineer	Civil Engineering Services,
			Utility Engineering Services
Jason Pugsley, P.E.	Mathews Consulting	Civil Engineer	Civil Engineering Services,
5 5.			Utility Engineering Services
Jason DeBrincat, P.E.	Mathews Consulting	Civil Engineer	Civil Engineering Services,
			Utility Engineering Services
Kyle Scott, E.I.	Mathews Consulting	Environmental Engineer	Civil Engineering Services, Utility Engineering Services
	Math	Factor and a Factor and	Civil Engineering Services,
Courtney Marshall, E.I.	Mathews Consulting	Environmental Engineer	Utility Engineering Services
Aaron Cutler, C.G.C.	Mathews Consulting	Construction Manager	Civil Engineering Services,
Adron Guiler, C.G.C.		Construction Manager	Utility Engineering Services
Richard Chipman, C.G.C.	Mathews Consulting	Construction Manager	Civil Engineering Services,
		e enten denten manager	Utility Engineering Services
Richard Adams	Mathews Consulting	Construction Inspector	Civil Engineering Services,
Brad Stoecker	Mathews Consulting	Construction Inspector	Utility Engineering Services
			Civil Engineering Services, Utility Engineering Services
David Bower, PSM	Dennis J. Leavy & Assoc.	Surveyor	Civil Engineering Services,
			Utility Engineering Services
Jeffrey Chandler, PSM	Dennis J. Leavy & Assoc.	Surveyor	Civil Engineering Services,
			Utility Engineering Services
Lillian Reyes, P.E. Electrical Desi	Electrical Design Assoc.	Electrical Engineer	Civil Engineering Services,
			Utility Engineering Services
Sandra Walters	SWC	Environmental	Civil Engineering Services,
	SWC	Environmental	Utility Engineering Services Civil Engineering Services,
Audrey Siu			Utility Engineering Services
Randy Corbin	SWC	Environmental	Civil Engineering Services,
			Utility Engineering Services
Jill Cohen	SWC	Landscape Architect	Civil Engineering Services,
			Utility Engineering Services
Richard Wohlfarth, P.E.	Nutting Engineers	Geotechnical	Civil Engineering Services,
			Utility Engineering Services
Scott Ersland	Nutting Engineers	Geotechnical	Civil Engineering Services,
			Utility Engineering Services

A summary of our Team's job classification and qualifications are presented below.

We are confident that our Team's organizational structure and qualifications will provide the City of Key West with the technical resources needed to successfully complete all assignments on schedule and within budget constraints. Our Team is **"quick, nimble and responsive"**. It is important to note that our Project Manager, David L. Mathews, P.E., has successfully managed numerous utility projects for municipalities in South Florida and in the Florida Keys.

Mathews Consulting's contact person(s) who will will directly participate and be **responsible and accountable** for assigned engineering projects are as follows:

David L. Mathews, P.E. Vice President of Operations 561-655-6175 (office) 561-762-7293 (cell) dmathews@baxterwoodman.com Rene L. Mathews, P.E. Vice President Business Development 561-655-6175 (office) 561-346-3625 (cell) <u>mathews@baxterwoodman.com</u>

1.7 Key Personnel Qualifications

Every member of this team has significant experience with numerous civil and utility (water & wastewater) projects. They also each bring a long history of local South Florida experience. The following is a brief overview of the individual project responsibilities and qualifications of our key management and technical staff relative to this project.

David L. Mathews, P.E., Vice President Mathews Consulting, a Baxter & Woodman Company Project Manager

David Mathews is Vice President of Mathews Consulting and will serve as Project Manager for this Contract and will be responsible for day-to-day communication and coordination with City staff. Mr. Mathews' responsibilities will include providing overall comprehensive direction and guidance for all project tasks to be completed. David Mathews demonstrates quality, reliability and efficiency in all of his work products.

Mr. Mathews' background focuses on civil and utility infrastructure engineering projects. Mr. Mathews has provided all aspects of engineering services for utility infrastructure projects, ranging from preliminary design, final design, permitting, cost estimating and bidding through construction inspection services. Relative project experience includes: design of gravity sanitary sewers, low

pressure sewer systems, vacuum sewer systems, forcemains, lift stations, water mains, reclaimed water mains, and stormwater systems; rehabilitation of sanitary sewers; directional drilling; and roadway reconstruction/resurfacing.

Mr. Mathews is also fully experienced with construction administration and inspection programs for various utility projects, including pipeline infrastructure, lift stations, roadway reconstruction, and water/wastewater treatment plants.

Rene L. Mathews, P.E., Vice President Mathews Consulting, a Baxter & Woodman Company Quality Assurance, Value Engineering

Rene Mathews is Vice President of Mathews Consulting and will provide Quality Assurance and Value Engineering for this contract. Ms. Mathews has extensive experience with water and wastewater systems, including water audits, master planning, design, permitting and construction of water/wastewater/reclaimed water facilities. Ms. Mathews has also served as the Value Engineering Facilitator for Palm Beach County Water Utilities for the past fifteen (15) years.

Rebecca Travis, P.E., Vice President Mathews Consulting, a Baxter & Woodman Company Project Manager / Civil, Storwmater & Utility Design

Rebecca Travis is the Stormwater Department Manager for the Florida Operations. Ms. Travis has over 32 years of progressively responsible civil engineering design and project management experience in both private sector residential and commercial land development, as well as

municipal stormwater, roadway and utility projects. Her range of experience includes performance of complex professional engineering work involving investigation, planning, design development, permitting, management and construction of public and private developer improvement projects. Ms. Travis's close attention to details and outstanding performance on numerous past projects for municipalities provides the City with the greatest level of assurance of completing projects ontime and within budget.



Jason Pugsley, P.E., Water & Wastewater Department Manager Mathews Consulting, a Baxter & Woodman Company Water & Wastewater Design

Jason Pugsley is the Water & Wastewater Department Manager for the Florida Operations. Mr. Pugsley has over 15 years of experience in project management; permitting; design and construction of numerous projects within the Water/Wastewater,

Facilities, Infrastructure and Environmental business practices. His experience within multiple business practices makes him uniquely qualified to design, construct and manage projects which are multi-pronged and which typically require the use of multiple staff which are each independently qualified within the respective disciplines.

Aaron Cutler, Vice President/Construction Manager Mathews Consulting, a Baxter & Woodman Company Construction Administration & Inspections



Aaron Cutler is Vice President and Construction Manager with Mathews Consulting and will provide Construction Administration/ Inspection services for this Contract.

Mr. Cutler has 18 years of experience in all facets of construction management, ranging from roadway, pipeline and pump station inspections to management of multiple contractors for water, wastewater and reuse facility projects. Mr. Cutler is currently the Construction Manager for FKAA's Cudjoe Regional Wastewater Collection System and FKAA's Key Haven Wastewater Collection system.

David Bower, P.S.M Dennis J. Leavy & Associates, Inc. Surveying & Mapping

David Bower is a Project Manager with Dennis J. Leavy & Associates and will direct all land surveying activities for the Contract. With over 30 years of experience in land surveying and project management, Mr. Bower has been involved in all disciplines of the land surveying profession. He is proficient in



performing topographic, hydrographic, boundary, and ALT/ACSM surveys, as well as platting, record drawings, and construction layout for utilities, roadways and building. Mr. Bower's expertise is a valuable asset of our Team.

Lillian Reyes, P.E., President Electrical Design Associates Electrical & Instrumentation Design

Lillian Reyes is President of Electrical Design Associates and will provide electrical and instrumentation design as well as electrical construction inspection services. Ms. Reyes has over 28 years of proven experience providing electrical and I&C consulting engineering, design, and inspection services for municipalities in South Florida. Ms. Reyes is also proficient in the design, testing and start-up of instrumentation, control and power systems. Ms. Reyes is currently providing electrical services to numerous municipalities in South Florida in conjunction with on-going submersible lift station programs, including low pressure/grinder pump systems.

Sandra Walters, President Sandra Walters Consultants, Inc. (SWC) Environmental

Sandra Walters is President of Sandra Walters Consultants (SWC) and has more than 30 years of professional environmental experience in Florida. She has conducted and supervised environmental studies, and developed avoidance and mitigation plans, in all South Florida submerged and upland habitats; has successfully permitted projects ranging from single family homes to major roadway projects, working with all regulatory agencies; has extensive experience in design and implementation of public outreach programs and review and development of comprehensive plans; and has represented clients successfully with many agencies and government boards. She serves on the South Florida Regional Planning Council, appointed by three governors; serves on EPA's Water Quality Steering Committee for the Florida Keys; and served from 2000 to 2004 as a Governor's appointee on Florida's Acquisition and Restoration Council, which oversees purchase and management of State conservation lands.
Jill Cohen, Senior Planner & Landscape Architect Sandra Walters Consultants, Inc. (SWC) Landscape Architecture

Ms. Cohen is a Registered Landscape Architect (RLA), Certified Planner (AICP), LEED AP and Certified Arborist (ISA) with more than 30 years of professional experience focused on planning, urban design, landscape architecture and sustainable design. Her professional experience includes working closely with municipalities, institutional and private clients on projects involving planning, site planning, land-scape architecture, land use, variances, rezoning, platting, processing and permitting, due diligence and documentation. Currently, Ms. Cohen's focus is on sustainability and revitalization projects and providing proactive, responsive and personalized service including attention to detail to provide quality projects.

1.8 Advantages of Mathews Consulting's Project Team

We believe that the City of Key West would receive the following benefits by selecting the Mathews Consulting Team for the General Engineering Services contract:

Responsiveness. The nature of *General Consulting* is such that responsiveness is the key to maintaining a long-term professional relationship. Many consultants claim to be responsive; however, we take great pride in ensuring that we <u>are</u> immediately accessible and responsive to our client's needs. This is demonstrated in the twenty-four (24) general consulting contracts that Mathews Consulting serves throughout South Florida and the Florida Keys.

Familiarity with Florida Keys. Mathews Consulting has successfully worked on numerous projects in the Florida Keys on past utility and civil projects. We are very familiar with environmental conditions and project constraints associated with these types of projects.

Ease of Communication. Our office is located in West Palm Beach. We have been serving clients in the Florida Keys from this location since 1999. Additionally, our principals are always available during and after working hours should emergencies arise. This ease of communication promotes team-oriented interaction, which produces results!

Civil, Stormwater, Water & Wastewater Engineering Experience. Our civil, stormwater, water & wastewater engineering expertise stems from years of designing and

constructing <u>successful</u> civil and utility projects for municipal clients. We have developed a detailed, systematic approach for designing civil and utility engineering projects which includes an in-depth investigation of existing conditions to identify all potential conflicts prior to design completion. This ensure minimal conflicts during construction which could lead to costly project change orders.

Committed Project Partners. The City needs a consultant who will work as a partner with your staff – one who will be a proactive extension of your staff. Mathews Consulting has a solid track record of partnering with local utility clients to deliver the high level of personal service you desire. We are structured to allow for a long-term commitment of specific staff to serve your needs. By having principals directly involved, there is no "revolving door" of staff with our project team.

Mathews Consulting, along with our Key Team Members, are committed to our utility practice in South Florida. Our highly experienced team will be accessible and responsive to your needs at <u>all</u> times.

1.9 Resumes

Detailed resumes presenting the expertise and accomplishments of our Project Team personnel immediately follow this Section.



Resumes



Education

B.S., Civil Engineering University of South Florida, 1990

Years of Experience: 26+

Registrations

Licensed Professional Engineer: Florida

Associations

American Society of Civil Engineers Water Environment Federation National Society of Professional Engineers Florida Engineering Society

Appointments

Past President Palm Beach County Branch ASCE (1995-1996)

Awards

1995 Young Engineer of the Year, South Florida Section, ASCE Dave has over 26 years of experience in the planning, design, permitting, construction and management of civil, wastewater, water and stormwater projects. His broad experience covers water and wastewater facilities planning and design; utility infrastructure improvements; wastewater pumping stations; construction management; and regulatory compliance.

Representative Projects

Duck Key Utility System Improvements, Florida Keys Aqueduct Authority, FL. Project Manager for providing engineering services for the design, permitting, public participation and bidding for the Duck Key Utility System Improvements. Duck Key is a small island community located at Overseas Highway Mile Marker 60 in unincorporated Monroe County. Duck Key consists of five (5) islands connected by Venetian Style Bridges. Infrastructure improvements include: 41,632 lineal feet of 8" & 6" water mains, 36,344 lineal feet of 8" sanitary sewer, 12,742 lineal feet of 8", 6" and 3" force main, conversion of existing water main to reclaimed water main, nine lift stations and roadway reconstruction.

Big Torch Key & Middle Torch Key LPSS, Florida Keys Aqueduct Authority, FL. Project Manager for the construction of a central wastewater collection and transmission system for the Cudjoe Region Inner Islands. The wastewater collection will be pumped to the new Cudjoe Key WWTP. The project is scheduled to be completed by December 2015. Providing Engineering Services to assist FKAA in the construction of the project.

FKAA Lower Keys (Central Cudjoe) Regional Wastewater Collection System, Florida Keys, FL. Project Manager for the design and permitting of a wastewater conveyance system for the Central Cudjoe Regional Wastewater Collection System (Upper Sugarloaf Key, Cudjoe Key and Summerland Key). The design combined various technologies for a "hybrid" system consisting of both conventional gravity collection system to serve densely populated areas and low pressure sewer system to serve the less dense and outer areas. The design optimized the concept of connecting as many on-site wastewater systems for the lowest overall life cycle cost.

Auburn Avenue Improvements, City of Delray Beach, FL Project Manager for the design, permitting and bidding for stormwater facilities, gravity sanitary sewer, water mains, roadway reconstruction, and roadway resurfacing.

Boca Raton Heights Infrastructure Improvements, City of Boca Raton, FL. Project Manager for the design, permitting and bidding for stormwater facilities, sanitary sewers, water mains and roadway reconstruction.

SW 2nd Ave. Streetscape, City of Delray Beach, FL. Project manager for the proposed streetscape improvements (reconstructing existing roadway, curbing, brick paver sidewalks, raised brick paver crosswalk, parallel parking, and

pavement markings), decorative street lights, landscaping and irrigation, and minor stormwater improvements.

Main Street Infrastructure Improvements - Phase I, City of Tamarac, FL. Project Manager for the design, permitting and bidding services for the Main Street utility infrastructure and streetscaping improvements for: decorative street lighting, roadway reconstruction, off-street parking, decorative paver bricks, hardscaping, landscaping, and water, sewer and drainage improvements.

Country Club Acres Infrastructure Improvements, City of Delray Beach, FL. Project Manager for the engineering services for the preliminary design, final design, permitting, public involvement, and bidding services for roadway and utility infrastructure improvements to Country Club Acres Development in the City of Delray Beach.

Monceaux Road - Group II, City of West Palm Beach, FL. Project Manager for the design, permitting, bidding and construction administration/inspections for the Monceaux Road - Group II Stormwater and Utility System Improvements Project.

Swinton Avenue Beautification - Phase II, City of Delray Beach, FL. Project Manager for the design services for the beautification of a 6-block section of Swinton Avenue in downtown Delray Beach. The improvements include replacement of existing concrete sidewalks with paver brick walks, installation of paver brick crosswalks, improvements to meet the Americans with Disabilities Act, and street lighting improvements.

Rolling Green Stormwater Improvements, City of Boynton Beach, FL. Project Manager for the design, permitting, construction administration and full time inspection services for the Rolling Green Stormwater and Water Main Improvement Project at N.W. 17th Avenue. Specific project elements include stormwater improvements via exfiltration trench, water main upgrades and 30,500 feet of pavement resurfacing.

Garden Avenue Utility Improvements, City of West Palm Beach, FL. The City of West Palm Beach selected the Design/Build Team of Chaz Equipment Company/Mathews Consulting, Inc. to design and construct the Garden Avenue Stormwater and Utility System Improvement Project. Mathews Consulting is responsible for design, permitting, public workshops and construction services, including coordination with the Design/Build Contractor. Roadway improvements include: reconstruction, resurfacing and street lighting. Underground utility improvements include: stormwater facilities, water mains and sanitary sewers.

Barrier Island Infrastructure Improvements, City of Delray Beach, FL. Project Manager for the final design, permitting and bidding services for nine infrastructure improvement projects on the Barrier Island portion of the City limits. The improvements consisted of 3,400 linear feet of roadway reconstruction/resurfacing, 500 linear feet of 24-inch exfiltration trench, 900 linear feet of 30-inch stormwater pipe, 2,400 linear feet of 8" DIP water main upgrades, and 1,000 linear feet of 8" PVC C900 sanitary sewer including manholes.



Rene L. Mathews, P.E. Vice President Business Development

Education

B.S., Civil Engineering North Carolina State University, 1990

Years of Experience: 26+

Registrations

Professional Engineer, Florida, 1995

Associations

American Society of Civil Engineers Water Environment Federation American Water Works Association National Society of Professional Engineers Florida Engineering Society Rene has over 26 years of experience in the planning, design, construction and management of wastewater, water, reuse and air quality projects. Her broad experience covers water and wastewater treatment, distribution and collection systems; process operation and pilot facilities; effluent/reuse management and disposal; sludge treatment and disposal; odor control and air quality assurance; industrial pretreatment; construction management; and regulatory compliance.

Representative Projects

Northwest Service Area Wastewater Hydraulic Model, Loxahatchee River Environmental Control District, Jupiter, FL. Project Manager for the wastewater hydraulic study evaluating future capacity requirements the District's Northwest Service Area. Project included field investigations, analysis of existing pump station flows, population and flow projections, hydraulic modeling of the wastewater transmission system, and development of recommendations and cost options for improvements.

Duck Key Reclaimed Water System, Storage & Pumping Facility, Florida Keys Aqueduct Authority, FL. Project Manager for the engineering design, permitting and bidding of new Reclaimed Water Pump Station and 0.2 MG ground storage tank to serve Duck Key Service Area. Also served as Project Manager for full-time Construction Management Services, including submittal review, resident inspection services, conducting progress meetings, reviewing contractor's pay requests, startup and testing coordination and final certification of project completion.

Rehabilitation of Master Lift Station 309, City of Boynton Beach, FL. Project Manager for the installation of a 16-inch FM to replace existing 12-inch FM and reduce hydraulic head loss from LS 309 to the connection point adjacent to LS 359. Replace existing jockey pump with a full size pump to increase reliability and reduce starts per pump. Install variable frequency drives to reduce pump starts during normal operating conditions. Replace the existing MCC to operate with the new variable frequency drives and larger pump.

Lift Station Rehabilitation, Palm Beach County Water Utilities Department, FL. Project Manager for the design, permitting, and bidding services for the rehabilitation of six (6) lift stations located in Southern and Central Palm Beach County. The work includes conversion of existing can-type lift stations to submersible type lift stations.

City-Wide Water Audit, City of Delray Beach, FL. Project Manager for a detailed review of the City's unaccounted for water loss. Through a detailed review of missing accounts, billing protocol, meter calibration in the distribution system and at the treatment plant, and accounting errors, Mathews Consulting was able to recover half of the potential water loss in the system.

Marathon Pump Station Drainage Well, Florida Keys Aqueduct Authority, FL. Project Manager for the engineering design and permitting for the Class V injection drainage well to serve Marathon Water Storage and Pump Station. Well will also be used to divert water from the Marathon membrane water treatment facility.

Water Distribution Leak Detection Study, Palm Beach County Water Utilities Department, FL. Project Manager for the preparation of project reports summarizing the results of the system-wide sonic leak study of water mains throughout Palm Beach County. Reports were created for each of Quadrants 1-4, a Master Meter Testing Report and a Consolidated Leak Survey Final Report. Reports included a description of survey activities, results of mechanical checks, preliminary sweep of distribution system, surface water evaluation, detailed leak investigation results, re-investigation of repaired leak, map showing location of leaks, estimated leak volumes, and overall survey results.

Marathon Distribution Pump Station Improvements, Florida Keys Aqueduct Authority, FL. Project Director for the engineering design of the following improvements: Upgrade the Marathon Distribution Pump Station to include two 750 gpm pumps, for a total capacity of 1,500 gpm @ 60psi; Provide a new ground storage tank with 4 MG storage capacity, to replace the existing aging 3.0 MG and 0.5 MG ground storage tanks.

A-39 & A-41 Pump Station Renovations, Town of Palm Beach, FL. Project Manager for the design, permitting, bidding and construction of lift station rehabilitation modifications, including pump replacement, structural rehabilitation, electrical improvements, and generator replacement.

Northern Region Pumping Facility, Palm Beach County Water Utilities Department, FL. Project Manager for engineering design, permitting, bidding and construction services for new in-line booster master wastewater pump station. Phase I of the pump station consists of the following components: wastewater pump station to transfer wastewater from the Royal Palm Beach and Northern Region Service area to the East Central Regional Wastewater Treatment Facility (ECRWWTF), chemical storage and feed facilities for hypochlorite, ammonia and Odophos, emergency generator to serve pumping and chemical facilities, and wastewater collection and transmission lines.

Water Master Plan, City of Tamarac, FL. Project Manager for the preparation of a Comprehensive Water Master Plan for the City of Tamarac. The purpose of the Master Plan is to keep the City current with overall water planning strategies and identify future water supply, treatment and distribution needs for the City's service area.

Wastewater Master Plan, City of Pompano Beach, FL. Project Manager for developing a new Wastewater Master Plan for the City. Tasks include: evaluate historical wastewater flow data; project future population and wastewater flows; evaluate non-sewered areas; perform asset evaluation and condition assessment of existing lift stations and wastewater collection system; evaluate I/I issues; develop hydraulic model and identify improvements needed to meet future flow conditions; provide cost estimate and recommended schedule for improvements.



M. Rebecca Travis, P.E.

Vice President / Stormwater Department Manager

Education

B.S., Civil Engineering, Iowa State University, 1984

Years of Experience: 32+

Registrations

Licensed Professional Engineer, Florida

LEED Green Associate

Envision Sustainability Professional Credential

Associations

National Association of Women in Construction: Chapter Treasurer, 1994 & 2003; Chapter Board member 1994 thru 2006, 2011 to present

Water Environment Federation

American Water Works Association

Society of Women Engineers: Chapter President, 1995 Rebecca has over 32 years of progressively responsible civil engineering design and project management experience municipal stormwater, roadway and utility projects. Her range of experience includes performance of complex professional engineering work involving investigation, planning, design development, permitting, management and construction of public improvement projects.

Esquire Lake Stormwater Improvements, City of Pompano Beach, FL. Project Manager to provide professional engineering services to the City for the installation of a new Drainage System within the project area. The Engineering Services shall include the following: data collection, design, permitting, public outreach, bidding and construction administration.

Lake Wyman Shores, City of Boca Raton, FL. Engineering services for the design, permitting and bidding for stormwater facilities, sanitary sewers, water mains and roadway reconstruction.

Hidden Valley Water and Waste Water Improvements, City of Boca Raton, FL. Project Manager for the design, permitting and bidding services for 9,000 LF of 8inch sanitary sewer system, 9,000 LF of 12-inch water main upgrades and total roadway reconstruction.

Monroe Drive and Monceaux Road Improvements, City of West Palm Beach, FL. Project Engineer for the design of the pavement and drainage system replacement. The design required coordination for the connection to existing downstream facilities and coordination of the pavement grades in order to match existing residential and commercial driveways.

Southgate Boulevard Streetscape Improvements, City of Tamarac, FL. Project Manager for providing engineering design and permitting of Southgate Boulevard Streetscape Improvements. Approximately 4,200 feet in length, the work included design of a curvilinear roadway with an alternating 2-lane undivided/divided section, including two roundabouts. Landscaping and irrigation was also provided for this traffic calming and beautification project.

Swinton Avenue Beautification, City of Delray Beach, FL. Design services for beautification to a 6-block section of Swinton Avenue in downtown Delray Beach. The improvements include replacement of existing concrete sidewalks with paver brick walks, installation of paver brick crosswalks, improvements to meet the Americans with Disabilities Act, and street lighting improvements.

Mangrove Intracoastal Park, City of Delray Beach, FL. Project Manager for the design, permitting and construction administration for the construction of a new park to provide boat access to the Intracoastal Waterway. Project design includes a boat ramp, associated parking area, seawall modifications, grading and drainage design and provision for a new turn lane at the project within US Highway 1. Utility service connections will be extended to serve a proposed restroom building and to provide fire protection. Additional water quality treatment was required due to the drainage system discharging to a mangrove area. The project involves coordination of work with a number of design firms including the geotechnical engineer, the

surveyor and the planner/architect for design elements and also with the environmental engineering firm for the wetland mitigation and seagrass preservation work required for the site.

West Atlantic Ave./N.W. 24th Ave. Intersection and Turn Lane Improvements, City of Delray Beach, FL. Project Manager for the design, permitting and bidding services for the proposed turn lane improvements along West Atlantic Avenue between Congress Avenue and Homewood Boulevard in Delray Beach, FL. The design services included the creation of a "T" configuration intersection, which will accommodate signalization at the intersection of NW 24th Avenue and West Atlantic Avenue and include an eastbound left and westbound right turn lane. All proposed roadway improvements are for the future development of the new Delray Beach High School.

Roadway Master Plan, Town of Lantana, FL. Field inspection and condition assessment of the entire roadway system within the Town, approximately 35 miles of roadway. A condition assessment system was developed and applied to each section of roadway, a representative photograph taken and a master plan produced which identifies areas to be overlaid or reconstructed based upon the grade assignment. Construction cost for improvements will be provided and projects recommended based upon their proximity and the available funding.

Stormwater Fee Evaluation, City of Delray Beach, FL. Provide engineering services and recommendations regarding the amount of increase needed in order to adequately fund the Stormwater Utility Program. Provide a comparison of the City's current and proposed new rates with rates of other similar Stormwater Utilities throughout Florida (approx. 30+). Recommendations will be made in letter report format.

L-33 Canal Culvert Extension, City of Delray Beach, FL. Design, permitting and construction administration services for approximately 350 LF of 10'x12' box culvert. Work involved permitting through the LWDD and SFWMD for the culvert design and construction dewatering.

Hidden Valley Drainage Improvements, City of Boca Raton, FL. Project Engineer responsible for stormwater system study, design and construction administration for system upgrades to an existing 323-acre residential neighborhood. The neighborhood had a history of extensive flooding problems primarily due to the fact that the original developer had not completed the SFWMD permitted surface water management improvements. The study recommended various improvements including installation of 2,100 LF of 60-inch drainage pipe, canal restoration and lining and construction of a 90 cfs stormwater pump station. The station was only the second of its type issued by SFWMD in Palm Beach County. The permit required the preparation of a Memorandum of Understanding between the City and the District, which outlined the approved operational conditions for the pump station.



Jason A. Pugsley, P.E. Water / Wastewater Department Manager

Education

B.S., Civil/Environmental Engineering, Florida State University, 2001

Years of Experience: 15+

Registrations

Professional Engineer, Florida

Associations

American Water Works Association

Jason has over 15 years of experience in project management; permitting; design and construction of numerous projects within the Water/Wastewater, Facilities, Infrastructure and Environmental business practices. His experience within multiple business practices makes him uniquely qualified to design, construct and manage projects which are multi-pronged and which typically require the use of multiple staff which are each independently qualified within the respective disciplines.

Representative Projects

A.1.A. 16-Inch Forcemain Extension, Jupiter, FL. Project Manager for the design of 1,700 LF of 16" PVC C-905 force main extension along A.1.A Highway. Project included two (2) Jack & Bores on the north and south sides of A.1.A Bridge.

River Oaks / Little Oaks Sewer System, Jupiter, FL. Project Manager for the design of a new conventional gravity sewer system to serve a 78-residential unit neighborhood. The project included: Two (2) new submersible lift stations; approximately 2,650 LF of 2 to 3-inch force main; approximately 4,800 LF of 8-inch sanitary sewer, manholes, and service laterals in the assessment area; and reconstruction/resurfacing of roadways as required.

Area D Sanitary Sewer System, Pompano Beach, FL. Project Manager for the design of a new conventional gravity sewer system to serve "Area D", an unsewered area which occupies approximately 21 acres along Martin Luther King Boulevard, east of the Turnpike and west of NW 27th Avenue. The design elements included: one (1) new packaged MOPS submersible lift station and control panel; approximately 1,650 LF of 8-inch gravity sanitary sewer, seven (7) manholes and six (6) sewer laterals & clean-outs; approximately 800 LF of 3 to 4-inch force main and fittings; and roadway trench repair.

Lyons Road 16-Inch Force Main Replacement, Palm Beach County, FL. Project Engineer for the design and permitting of a new 16-inch forcemain (3,300 l.f.) to replace an existing, aging 12-inch forcemain.

Key Haven Lift Stations and Transmission Main Improvements, Florida Keys Aqueduct Authority, FL. Project Engineer for the design and permitting of replacement lift stations within the Key Haven community, and for an 8-inch force main transmission system. The project includes the design of three (3) new District Lift Stations and specific upgrades to two (2) existing lift stations (District A Lift Station and Plant Lift Station) which will be re-used. The new force main transmission system consists of an 8-inch pipe from Key Haven Road, east along US 1 (Overseas Highway), across the Boca Chica Bridge and ending at the Equalization Tanks at the Boca Chica WWTP.

Rehabilitation of Master Lift Station 309, City of Boynton Beach, FL. Project Manager for the installation of a 16-inch FM to replace existing 12-inch FM and reduce hydraulic head loss from LS 309 to the connection point adjacent to LS 359. Replace existing jockey pump with a full size pump to increase reliability and reduce starts per pump. Install variable frequency drives to reduce pump starts

during normal operating conditions. Replace the existing MCC to operate with the new variable frequency drives and larger pump.

Master Lift Station #1 Rehabilitation, Loxahatchee River Environmental **Control District, FL.** Project Manager to identify special project objectives to evaluated including: Replacement of the existing dry pit, non-submersible type pumps. Replacement of the existing diesel driven stand by generator unit. Evaluation of the size and adequacy of the existing diesel fuel storage and delivery system. Replacement of the existing pump suction and discharge piping to accommodate the new pumps and discharge valve locations. Replacement and relocation of the existing manually operated plug valves on the vertical pump discharge piping just upstream of the common, horizontal discharge header piping. Incorporation of a second temporary bypass connection to provide reliability and redundancy during facility shut-downs. Installation of a 30-inch isolation valve on the pump discharge header. Recoating of the interior concrete surfaces, except flooring surfaces and wet well surfaces, of the pump station, including the operations, electrical and dry-pit rooms. Evaluation of the feasibility to install a continuous flow metering device. Installation of a new overhead bridge crane system to provide equipment/material handling capabilities with the dry-pit. An evaluation of the existing motor control center gear with regard to age, capacity, useful life and parts availability was completed. An evaluation of the hazardous classifications of the pump station areas, specifically the dry-pit and operating rooms was completed.

Low Lift Pump Station Modification, City of Boca Raton, FL. Project Manager for the Low Lift Pump Station Modifications at the City of Boca Raton Wastewater Treatment Facility. The Low Lift Pump Station serves as the Reuse System Filter Feed Pump Station. The station currently includes three HP vertical turbine pumps. The City desires to add a fourth pump. Project also includes replacement of an existing effluent pump station VFD as well as replacement of three secondary unit electrical substations. The project also includes replacement of two sodium hypochlorite lines.

Lift Stations 45 & 51 Rehabilitation, City of West Palm Beach, FL. Project Manager for engineering design services for the rehabilitation of Lift Stations 45 & 51. Upgrades include converting the existing "can-type" stations to submersible stations, providing structural modifications of the existing wetwell to convert it into a submersible wetwell and replace the existing control panel and RTU in accordance with City Standards.

Marathon Distribution Pump Station Improvements, Florida Keys Aqueduct Authority, FL. Project Manager for improvements to the Florida Keys Aqueduct Authority Marathon Distribution Pump Station. The existing Marathon Distribution Pump Station and ground storage tanks (one 3.0) MG tank and one 0.5 MG tank) have reached the end of their useful service life and are in need of replacement. Design components included the following improvements: upgrade the Marathon Distribution Pump Station to include two 750 gpm pumps, for a total capacity of 1,500 gpm @ 60 psi; a new ground storage tank with 4 MG storage capacity, to replace the existing aging 3.0 MG and 0.5 MG ground storage tanks; associated civil, mechanical, electrical, instrumentation and controls improvements.



Education

B.S., Civil Engineering Florida Atlantic University, 2005

Associate of Arts – Architecture Palm Beach State College, 1995

Years of Experience: 20+

Registrations Professional Engineer, Florida

Associations

National Society of Professional Engineers Florida Engineering Society MATHCOUNTS committee member Jason brings over 20 years of experience. As a registered civil engineer, Jason offers a diverse background ranging from construction management, designing water distribution systems, sanitary sewage collection systems, master plan layouts, residential site planning, and land development design.

Representative Projects

No Name Key LPSS, Florida Keys Aqueduct Authority, FL. Project Engineer for the design and permitting of a new low pressure sewer system (LPSS) to serve the No Name Key service area. No Name Key is an island community located in the lower Keys which connects to Big Pine Key by a concrete bridge. The residents (total of 45 houses) are currently served by septic tanks. Recently commercial electric power was extended to No Name Key. Design components include coordination with Keys Energy for electrical requirements for the neighborhood lift station and low pressure lift stations.

Lyons Road 16-Inch Force Main Replacement, Palm Beach County, FL.

Project Engineer for the design and permitting of a new 16-inch forcemain (3,300 l.f.) to replace an existing, aging 12-inch forcemain.

Water Main Replacement Project, Town of Highland Beach, FL. Project Engineer for the design, permitting, and construction administration for the replacement of approximately 6,700 feet of 4 to 6-inch old asbestos cement (AC) pipe located on the side streets of the Town. The AC pipes have exceeded their service life and are in need of replacement. The condition of existing valves, hydrants, service lines and other appurtenances warrant their replacement as well. In addition to the side street water mains, service lines from the main to the meter are made from galvanized pipe and are included in the replacement program.

Key Haven Lift Stations and Transmission Main Improvements, Florida Keys Aqueduct Authority, FL. Project Engineer for the design and permitting of replacement lift stations within the Key Haven community, and for an 8-inch force main transmission system. The project includes the design of three (3) new District Lift Stations and specific upgrades to two (2) existing lift stations (District A Lift Station and Plant Lift Station) which will be re-used. The new force main transmission system consists of an 8-inch pipe from Key Haven Road, east along US 1 (Overseas Highway), across the Boca Chica Bridge and ending at the Equalization Tanks at the Boca Chica WWTP.

City of Key West Drainage Master Plan - Key West, Florida

Project Engineer/Field Work Supervisor Responsibilities included field data gathering and update the City's stormwater inventory for the development of a stormwater master plan to model the entire island of Key West. Coordination and review of schematic plans included progress meetings with the team and client on the current piping conditions, review of As-builts, field verification and utility map updates. Recognized by CH2M HILL for innovation at work going GREEN as all the field verification was done on bicycle. With the Key West crowded streets, limited parking and continuous traffic being a challenge, we developed a plan to increase data gathering, increase safety and reduce costs by riding bikes.

City of West Palm Beach Waterfront Commons - (2010 Project of the Year Award)

Project Engineer/Design Team Lead Responsibilities included the design and preparation of schematic level plans for the redevelopment of the downtown waterfront in West Palm Beach. Coordination and review of concept plans to include progress meetings with the team and client on the design. Responsibility of design included; coordination with special events and parks to include the Boat Show and Sunfest, demolition of the existing library on site, site plan design and submittal, utility master plan, water main relocations, and drainage improvements. Project was separated into phases for the client to secure funding from various sources. Project is complete and construction management services were performed for the Design Build Firm.

Flagler Drive Reconfiguration - West Palm Beach, Florida

Project Engineer/Construction Administration Supervisor Responsibilities included the design and preparation of civil-site construction plans for 1300 lf of roadway reconstruction and reconfiguration of Flagler Drive through the core of the downtown waterfront in West Palm Beach. Responsibility of design included water main relocations, sanitary sewer modifications, on street parking, grading and drainage improvements as part of the Commons design. Permits obtained included PBC Traffic, SFWMD, FDEP, and FDOT. Construction administration services included support to the city on site visits, construction coordination/progress meetings with the contractor, review of shop drawings, pressure testing, as-built plans, change orders, and final certification.

Waterfront Floating Docks - (2009 Marine Industries Beacon of Light Award) - West Palm Beach, Florida

Design Team Lead/Construction Administration Supervisor Responsibilities included the design and preparation of landside site civil construction plans for three floating dock systems within the waterfront Project in downtown West Palm Beach. Responsibility of design included dock layout, amenity layout, water main supply to each dock for fire protection, irrigation and electrical design. Landside improvements included backflow prevention and ADA access to the docks with the use of modifying grades to ensure access. Construction administration services include site visits, construction coordination/progress meetings with the contractor, review shop drawings, pressure testing, as-built plans, and final certification.

Central Seacrest Corridor - City of Boynton Beach, Florida

Project Engineer/Design Team Lead Responsibilities included the design and preparation of civil-site construction plans for a 640-acre residential neighborhood within the City of Boynton Beach. Responsibility of design included complete upsizing of the water distribution system, drainage improvements to include a series of exfiltration trench systems throughout the entire neighborhood, and pavement restoration. Coordination and review of the plans included progress meetings with the client on the design and develop standard details.



Education

B.S., Environmental Engineering University of Central Florida, 2013

Years of Experience: 3

Registrations

Engineering Intern, Florida, 2013

Kyle has three (3) years of engineering design and construction experience, which includes potable water systems, reclaimed water systems, wastewater collection and transmission systems, hydraulic modeling, master planning, and construction observation.

Representative Projects

No Name Key LPSS, Florida Keys Aqueduct Authority, FL. Project Manager for the design and permitting of a new low pressure sewer system (LPSS) to serve the No Name Key service area. No Name Key is an island community located in the lower Keys which connects to Big Pine Key by a concrete bridge. The residents (total of 45 houses) are currently served by septic tanks. Recently commercial electric power was extended to No Name Key. Design components include coordination with Keys Energy for electrical requirements for the neighborhood lift station and low pressure lift stations.

Basin Drive Stormwater Improvements, Lauderdale-by-the-Sea, FL. Project Engineer for design of a new drainage system along Basin Drive. Design elements included: piping and catch basins; milling and resurfacing the roadway; swale areas plus the conversion to parking areas.

Delray Shores WM Phase II, City of Delray Beach, FL. Project Engineer for design of the Delray Shores Water Main Replacement (Phase IIP). Project components consist of: Water Main replacement (approximately 4,500 LF of 6" WM) including 7 fire hydrants, sixty-four (64) new water services and meter boxes, and roadway restoration consisting of pavement trench repair. New swales and driveway restoration were designed in the R-O-W where the new 6-inch WM is to be installed.

Avenue O Infrastructure Improvements, City of Riviera Beach, FL. Design Engineer for the infrastructure improvements to the Avenue O Neighborhood. Specific project components consist of: full roadway reconstruction within the 30foot ROW, drainage system improvements consisting of piping, exfiltration trench, catch basins and manholes; potable water system improvements, including new fire hydrants, gate valves, new water services and meter boxes; and sanitary sewer system improvements.

2016 Reclaimed Water Master Plan Update, City of Delray Beach, FL. Project Engineer responsible for providing engineering services to update the City's previous 2003 Reclaimed Water Master Plan and identify future phases of the reclaimed expansion project. Tasks included: review historical flow records of existing customers and quantify actual reclaimed water demands for existing customers, develop an updated list of future reclaimed water customers; perform a corridor analysis and field investigations for the proposed future reclaimed water transmission and distribution pipelines to determine which pipeline alignments are the most feasible based on review of existing City utility alignments (water, sewer, drainage) and review of visible above-ground features; update the Reclaimed Water Hydraulic Model (previously developed using the WaterCad® software platform), inputting proposed/existing pipe layouts and reuse customer demands; prepare an Updated Reclaimed Water Master Plan, identifying the

recommended future reclaimed water customers and the recommended transmission and distribution pipe layout segregated into phases, with detailed cost analysis presented for each phase.

Wastewater Master Plan, City of Pompano Beach, FL. Project Engineer for developing a new Wastewater Master Plan for the City. Tasks include: evaluate historical wastewater flow data; project future population and wastewater flows; evaluate non-sewered areas; perform asset evaluation and condition assessment of existing lift stations and wastewater collection system; evaluate I/I issues; develop hydraulic model and identify improvements needed to meet future flow conditions; provide cost estimate and recommended schedule for improvements.

2016 Mechanical Integrity Testing of IW-1, City of Lake Worth, FL. Project Engineer for developing a Deep Injection Well MIT testing plan and monitoring the performance of the testing by a licensed contractor. Mechanical integrity of the wells was demonstrated by completing four (4) test procedures: a video television survey, a pressure test, a temperature log, and a radioactive tracer survey (RTS) at the injection well.

2014 Water Supply Plan Update, City of Lake Worth, FL. Project Engineer to provide the required update to the City's Water Supply Facilities Work Plan in order to keep the City current with overall planning strategies and projection data. Specific tasks completed included: updated the April 2009 Work Plan to include a 10-year planning duration of 2014 to 2024; submitted a copy of the updated 10-Year Water Supply Facilities Work Plan to SFWMD for review; review the Town's current Comprehensive Plan (Volume 1: Goals, Objectives and Policies (GOP) and provide red-lined markups to reflect current data as contained in the Updated 10-Year Water supply Facilities Work Plan; and attend a meeting with Town staff to review the Comprehensive Plan edits.

N.W. Service Area Wastewater Hydraulic Study Update, Loxahatchee River Environmental Control District, FL. Project Engineer for the wastewater hydraulic study evaluating future capacity requirements the District's Northwest Service Area. Project included field investigations, analysis of existing pump station flows, population and flow projections, hydraulic modeling of the wastewater transmission system, and development of recommendations and cost options for improvements.



Courtney K. Marshall, E.I.T.

Engineer II

Education

B.S., Environmental Engineering University of Florida, 2013

Years of Experience: 3

Registrations

Engineering Intern, Florida, 2013

Courtney has three (3) years of engineering design experience, which includes stormwater management systems, potable water systems, reclaimed water systems and wastewater collection and transmission systems.

Representative Projects

Area D Sanitary Sewer System, City of Pompano Beach, FL. Design Engineer for the design of a new gravity sewer system to serve the un-sewered Area D – Martin Luther King Blvd, within the City of Pompano Beach. Specific project elements included: approximately 1,650 LF of 8-inch gravity sanitary sewer, manholes and sewer laterals & clean-outs and roadway trench repair.

Avenue T Infrastructure Improvements, City of Riviera Beach, FL. Design Engineer for the infrastructure improvements to the Avenue T Neighborhood. Specific project components consist of: full roadway reconstruction within the 50foot ROW, drainage system improvements consisting of piping, exfiltration trench, catch basins and manholes; potable water system improvements, including new fire hydrants, gate valves, new water services and meter boxes; and sanitary sewer system improvements.

Avenue O Infrastructure Improvements, City of Riviera Beach, FL. Design Engineer for the infrastructure improvements to the Avenue O Neighborhood. Specific project components consist of: full roadway reconstruction within the 30foot ROW, drainage system improvements consisting of piping, exfiltration trench, catch basins and manholes; potable water system improvements, including new fire hydrants, gate valves, new water services and meter boxes; and sanitary sewer system improvements.

Esquire Lake Stormwater Improvements, City of Pompano Beach, FL. Design Engineer for stormwater improvements within the Esquire Lake Neighborhood to address roadway flooding and standing water issues after rainfall events. The improvements included replacement of existing facilities with new 42-inch exfiltration trench, manholes and inlets.

Lake Ida Drainage Improvements, City of Delray Beach, FL. Design Engineer for the recommended improvements to the Lake Ida Area (approx. 16.40 acres) in order to address reported standing water issues after heavy rainfall events. Improvements included construction of a dry detention areas, drainage structures, inlets and outfalls to Lake Ida. The project also included upsizing the existing 2-1/2" water mains along NW 3rd Avenue to 8" water mains.

Reclaimed Water Expansion Area 12B, City of Delray Beach, FL. Design Engineer for expansion of the City's reclaimed water distribution system into Area 12B. Project included the design of reclaimed water mains (ranging from 6-inch to 10-inch diameters), valves, fittings & reclaimed water meter boxes/services, water main improvements, and roadway mill and overlay.

Tropic Palms Water Main Improvements, City of Delray Beach, FL. Design Engineer for the water main replacement project which included approximately 5,150 LF of 6" WM. Project included new fire hydrants, new water services and meter boxes, along with roadway restoration, pavement trench repair, and 1-inch mill & 1-inch overlay.

Liberty Park Sewer Improvements, City of Pompano Beach, FL. Project Engineer for the design of sewer system improvements in the Liberty Park area. Five (5) new sanitary doghouse style manholes were designed to be inserted into the existing 8-inch sanitary sewers, along NW 21st Street, NW 20th Court, NW 20th Street, NW 19th Street, NW 6th Avenue.

Basin Drive Stormwater Improvements, Lauderdale-by-the-Sea, FL. Project Engineer for design of a new drainage system along Basin Drive. Design elements included: piping and catch basins; milling and resurfacing the roadway; swale areas plus the conversion to parking areas.

A.1.A. Area Wastewater Infrastructure Improvements, City of Boca Raton, FL. Project Engineer for design, permitting, bidding and construction of new sewer system to serve 21 residential units within the A1A Area as part of an assessment program.

Intracoastal Waterway Watermain Replacement, Town of Lantana, FL. Project Engineer for the engineering design, permitting, bidding and construction of new 12-inch HDPE water main to be installed via directional drill methods across the Intracoastal Waterway in Lantana, Florida.

S. Atlantic Drive Watermain Replacement, Town of Lantana, FL. Project Engineer for the design, permitting, bidding and construction of: 3,400 LF of 8-inch water main; 1,400 LF of 6-inch water main; ten (10) fire hydrants; and transfer of all existing water services from existing 3-inch water mains to proposed 8-inch water main.

S. 13th Place Watermain and S. Lake Drive Force Main Replacement, Town of Lantana, FL. Project Engineer for the engineering design, permitting, bidding and construction of a new 6-inch water main along S. 13th Place from W. Drew St. to W. Broward St. and the abandonment of the existing AC 6-inch water main. Project also included a new 6-inch force main for Lift Station #4 along S. Lake Drive.

A.1.A. 16-Inch Forcemain Extension, Loxahatchee River District, FL. Project Manager for the design of 1,700 LF of 16" PVC C-905 force main extension along A.1.A Highway. Project included two (2) Jack & Bores on the north and south sides of A.1.A Bridge.



Aaron I. Cutler, C.G.C. Vice President / Construction Department Manager

Education

AAS Civil Engineering Technology, Pensacola Junior College

Years of Experience: 18

Certifications

State of Florida Certified General Contractor

Red Vector FDOT Asphalt Paving Level One and Level Two Certification

Florida Department of Environmental Protection Stormwater Erosion and Sedimentation Control - Certified Stormwater Management Inspector (Inspector No. 21817) Aaron has over 18 years of experience in several phases of municipal construction, including: complete infrastructure improvements, wastewater treatment plants, utility pipeline projects, stormwater drainage systems, NPDES compliance, roadway construction, reclaimed pump stations, lift stations, elevated water storage tanks and vertical construction.

As Construction Manager for Mathews Consulting, his daily duties include: managing a staff of construction inspectors, acting as the EOR's representative, design review, overall construction administration, review of shop drawings, review of pay applications, administering pre-construction and progress meetings, construction schedule review, preparing and negotiating change orders, responding to contractor's RFIs and clarifications, processing final project certifications, and verifying contractor's conformance to construction documents.

Representative Projects

Cudjoe Regional WW – Construction Assistance, Florida Keys Aqueduct Authority. Construction Manager for new wastewater collection and transmission system serving the Cudjoe Key Service Area (Upper Sugarloaf Key, Cudjoe Key and Summerland Key) that will combine various wastewater collection system technologies for a "hybrid" system consisting of a combination of (1) conventional gravity sewer systems to serve densely populated areas, and (2) low pressure sewer systems to serve the less dense and outer/hard to reach areas. The project was divided into 3 construction contracts: Contract 1 - Cudjoe Key; Contract 2 -Upper Sugarloaf Key; and Contract 3 - Summerland Key.

- Cudjoe Key infrastructure improvements included: 293 low pressure pump stations, 14 submersible lift stations, 57,185 feet of force main, 36,650 feet of gravity sewers, and 139 sanitary manholes.
- Summerland Key infrastructure improvements included: 133 low pressure pump stations, 11 submersible lift stations, 36,360 feet of force main, 31,000 feet of gravity sewers, and 103 sanitary manholes.
- Upper Sugarloaf Key infrastructure improvements included: 157 low pressure pump stations, 1 submersible lift stations, 38,635 feet of force main, 4,740 feet of gravity sewers, and 18 sanitary manholes.

Duck Key Utility Improvements, Florida Keys Aqueduct Authority. Construction Manager for utility improvements on Duck Key, a small island community located at Overseas Highway Mile Marker 60 in unincorporated Monroe County. Duck Key consists of five islands connected by Venetian Style bridges. The infrastructure improvements included: low pressure sewer system (30 pump stations); sanitary sewer system; water main replacement; reclaimed water main system; nine lift stations and force main system; four bridge crossings; and roadway reconstruction.

Esterly Wastewater Infrastructure Improvements, City of Boca Raton, FL. Construction Manager for construction of a new sanitary sewer system to serve the Esterly Area, which include new gravity sewer for 37 residences and 2 commercial properties. The project included one (1) lift station, potable water improvements new water services and meter boxes, new fire hydrants, and roadway reconstruction within project area.

Middle Torch Key & Big Torch Key LPSS, Florida Keys Aqueduct Authority. Construction Manager for construction of a new sanitary sewer system to serve the Middle Torch and Big Torch Key service areas. Project components include 58 low pressure pump stations, 1 submersible lift station, 30,000 feet of force main, and 1,400 feet of directional drill pipe installation.

Highland Beach A1A Water Main Replacement Construction Management Services, Town of Highland Beach, FL. Construction Management and Administration for the installation of 3 miles of 10-inch water main. Project components included coordinating with the Contractor, Town, Residents and Regulatory Agencies, as well as full construction administration.

Rolling Green Infrastructure Improvements, City of Boynton Beach, FL. Construction Manager for storm water improvements via exfiltration trench, water main improvements and roadway resurfacing. Services include progress meetings, shop drawing review, periodic site visits, coordination with on-site Construction Inspector, Engineer of Record and Client, review of Contractor's monthly payment request, and review of record drawings

IQ Pump Station, Loxahatchee River Environmental Control District, FL. Construction Inspection and Management for a new "IQ" irrigation quality reclaimed water master pump station to serve the District's entire reclaimed water serve area. Project included new 22.4 MGD submersible pump station with (3) 335 Hp and (1) 160 Hp pumps, new electrical building to house VDS, MCCs and control panel, and associated mechanical, electrical and instrumentation/control improvements. Services include progress meetings, shop drawing review, coordination with Engineer of Record, and inspections as needed.

Boca Raton Reclaimed Water Main Extension, Boca Raton, FL. Construction Inspector for over 10,000 LF of new 20-inch reclaimed water main. Services included shop drawing review, record drawing review, and coordination with Client, Engineer of Record, and Contractor.

Key Haven Utility Improvements, Florida Keys Aqueduct Authority. Construction Manager for utility improvements within the Key Haven service area, including replacement of approximately 24,100 linear feet of gravity sewer pipe and 80 manholes within the Key Haven wastewater collection system.

S.E. Federal Highway Corridor Infrastructure Improvement, City of Boynton Beach, FL. Construction Manager for a separate Design Engineer on a total infrastructure improvement project, which included water main pipeline, reclaimed pipeline, storm water pipeline, gravity sewer, roadway, curbing, and swales.



Richard M. Chipman, C.G.C. Construction Manager

Education

Construction Law, Auburn University Construction Materials and Methods, Palm Beach Junior College Licensing, Florida School of Construction Estimating, Palm Beach Junior College Accounting, University of Buffalo Quantitative Management/Construction Technology, Erie Community College

Years of Experience: 34+

Registrations

State of Florida Certified General Contractor NICET Certified Geosynthetic Engineering Technician

SBCCI Certified Building Inspector

Previous Member Building Officials Association of Florida Richard has over 34 years of experience in several phases of municipal construction, administration of complex construction projects, and supervisory management in the fields of building construction, site development, and water and wastewater treatment. His management and technical skill offers a wide range of tangible experience.

Representative Projects

Construction Management & Inspection

8th Avenue South Water Main Improvements, City of Lake Worth, FL. Construction Manager for construction of the new 8-inch water main to be located within the unpaved right-of-way of 8th Avenue South. The new water main is intended to increase water pressure and fire protection to the community surrounding the proposed water main extension.

Western Region Operations Center, Palm Beach County Water Utilities Department, FL. Construction Manager for a new Water Utilities Operation Center. Facilities include a new Warehouse Building which includes approximately 6,600 sf of storage area, 1,470 sf shop keeper area, and a 3-bay loading dock. The Warehouse Building connects to a 7,020 sf Shop Building which includes a central IT room serving the compound, locker room facilities, office space, meter shop and pump wash facilities. A Vehicle Wash and Generator Building are also located at the site. Covered storage pavilions for portable generator storage and for materials storage, site improvements including paving, drainage, water, wastewater, site electrical, CATV and telecommunications systems are in design along with coordination with off-site utilities.

ECR Reclaimed Office & Storage Facility, Palm Beach County Water Utilities Department, FL. Construction Manager for the construction of a new 3,750 square foot building including office and warehouse space for uses associated with the Reclaimed Water Treatment System located at the East Central Regional Water Reclamation Facility (ECRWRF).

Water Treatment Plant #8 Anion Exchange Upgrade, Palm Beach County Water Utilities Department, FL. Construction Manager for improvements to the Water Treatment Facility, including civil site work and surface water management modifications, plant site pump station modifications, and new pump station for the backwash storage pond.

LS #17 Rehabilitation, City of Boca Raton, FL. Construction Manager for the construction of new Master Lift Station #17 for the City of Boca Raton. Project components included: construction of a new 12-foot diameter wet well adjacent to the existing wet well, with associated valve vault and access hatches; installation of three (3) new submersible pumps rated for 865 gpm at 109 feet TDH, 47 Hp; installation of new discharge piping and valve vault from the new wet well; installation of new 12" force main (approx. 150 feet) from the wet well to tie-in to the existing downstream 16-inch force main; installation of new lift station control

panel rack assembly consisting of pump control panel, FPL meter, disconnect switch and ATS; and installation of new fixed, reach-in emergency generator with base-mounted fuel tank

NEFCO/SWA Pelletization Facility Ventilation System Modifications, West Palm Beach, FL. Construction Manager for modifications to the ventilation system serving two (2) single stage odor scrubbers which collect and treat sulfide gases from the sludge palletization process building. NEFCO requested modifications to the building ventilation system to add direct ventilation intake point(s) at the Sludge Tipping Facility Reclaimer Bins. Project components included: one (1) new ventilation blower and ductwork piping which pull air from the bins through ductwork extending through the ceiling and across the roof to the odor scrubbers. The project also involves associated structural and electrical modifications to accommodate the ventilation system modifications.

Lift Stations 1, 3, 4, and 9 Improvements, Town of Lantana, FL. Construction Manager for various electrical and control panel improvements at four (4) lift stations located in the Town of Lantana.

Lantana Sports Facility, Town of Lantana, FL. Construction Manager for the construction of a new 11 acre sports facility for the Town of Lantana. Facilities included: three (3) lighted baseball fields, two (2) lighted soccer fields, concession/restroom building, batting cages, parking lot, water, sewer, paving, grading, drainage, landscape and irrigation systems.

Lantana Beach Parking Lot, Town of Lantana, FL. Construction Manager for construction of new Beach Parking Lot for Town of Lantana. Design improvements include raising the elevation of the parking area to reduce tidal impacts, improved surface runoff by pavement slope, new drainage pipe, inlets and connection to the drainage outfall, realignment of the parking lot access points to improve vehicular circulation, sidewalks, striping, and decorative pavement in selected areas. Construction work was phased in order to provide parking during all phases of construction. The improvements were also coordinated with the Town's contract to replace the existing parking meters with centralized pay kiosks.



Education

Coaching the Experienced Driver, Palm Beach Gardens, Fl Degree, Continuing Driver Education August 2013

CIPP, Toronto ON Degree, Cured in Place Pipe August 2009

Buried Facility Locate Training, Palm Beach Gardens Fl.

Underground Utility Locating January 1995

Years of Experience: 15+

Rick is a Construction Coordinator with more than 15 years of experience in fastpaced Construction Industry. Rick demonstrates excellent observation and compliance skills, and has an outstanding track record of achieving exceptional results in Plan/As-builts review.

Representative Projects

Liberty Park Sewer Improvements, City of Pompano Beach, FL. Project Engineer for the design of sewer system improvements in the Liberty Park area. Five (5) new sanitary doghouse style manholes were designed to be inserted into the existing 8-inch sanitary sewers, along NW 21st Street, NW 20th Court, NW 20th Street, NW 19th Street, NW 6th Avenue.

Area D Sanitary Sewer Improvements, City of Pompano Beach, FL. Project Inspector for the construction of a new gravity sewer system to serve the unsewered Area D – Martin Luther King Blvd, within the City of Pompano Beach. Specific project elements included: approximately 1,650 LF of 8-inch gravity sanitary sewer, manholes and sewer laterals & clean-outs and roadway trench repair.

Watermain Replacement Project, Town of Highland Beach, FL. Project Inspector during construction for replacement of approximately 6,700 feet of 4 to 6-inch old asbestos cement (AC) pipe located on the side streets of the Town. The AC pipes have exceeded their service life and are in need of replacement. The condition of existing valves, hydrants, service lines and other appurtenances warrant their replacement as well. In addition to the side street water mains, service lines from the main to the meter are made from galvanized pipe and are included in the replacement program.

Western Region Operations Center, Palm Beach County Water Utilities Department, FL. Construction Inspector for a new Water Utilities Operation Center. Facilities include a new Warehouse Building which includes approximately 6,600 sf of storage area, 1,470 sf shop keeper area, and a 3-bay loading dock. The Warehouse Building connects to a 7,020 sf Shop Building which includes a central IT room serving the compound, locker room facilities, office space, meter shop and pump wash facilities. A Vehicle Wash and Generator Building are also located at the site. Covered storage pavilions for portable generator storage and for materials storage, site improvements including paving, drainage, water, wastewater, site electrical, CATV and telecommunications systems are in design along with coordination with off-site utilities.

Water Treatment Plant #8 Anion Exchange Upgrade, Palm Beach County Water Utilities Department, FL. Construction Inspector for improvements to the Water Treatment Facility, including civil site work and surface water management modifications, plant site pump station modifications, and new pump station for the backwash storage pond. **Gravity Sewer CIPP Lining Monitoring Services, Town of Lauderdale-by-the-Sea, FL.** Construction Inspector responsible for overall monitoring and inspections during the cleaning, pre-TV, CIPP lining and post-TV of approximately 15,619 linear feet of gravity sewer (8", 10" and 12" diameters).

May 2000 to August 2015 - Seacoast Utility Authority - Construction Coordination Supervisor. Provided supervision of Engineering Inspectors, Technicians and New Services Representative. In addition to supervisory duties, routine responsibilities included interaction, primarily in the field, with developer, engineer representatives, contractors, business owners and home owners. Tasks included inspecting and troubleshooting water/sewer/reclaimed water and landscape land development issues. (Construction Development Supervisor), reviewing plans and as-builts used in the inspection process for compliance and release of CO. Also highly experienced with locating of underground facilities.

January 1995 to May 2000 - Utility Locator - No Cuts Inc.

Responsible for locating underground facilities for BST, FPL, ADTV, PBT and privately owned facilities.



Brad R. Stoecker Resident Project Representative

Education

A.S., Building Construction Technology Morrison College, 1990

Joined Firm in 1998

Years of Experience: 27

Certifications/Training

Illinois Department of

Transportation: Electronic RE Visual Materials Management for **Resident Engineers** Documentation (Cert #13-0480) **Small Drainage Structures ICORS** ACI/IDOT Level I and Level II **Concrete Field Technician** ACI/IDOT Level I & Level II HMA Technician Mixture Aggregate Technician **Pavement Patching Concrete Structures** Piling Earth Excavation and Embankment Material Inspection Storm Sewer Design **Traffic Control** Stabilized Subbase PCC Pavement **Erosion Control Nuclear Density Testing MISTIC Entry Database**

Work History

1990-1998

Engineer Technician III, Illinois Department of Transportation

Brad has a strong background in construction survey and layout, inspection and documentation. His eight years of experience with the Illinois Department of Transportation gives him in-depth knowledge of DOT standards and procedures. His interpersonal skills were developed while supervising DOT projects, where he coordinated work between the engineer and contractor and kept the general public informed of project status. He has completed numerous DOT Task Training courses including Documentation certification.

Representative Projects

Florida Keys Aqueduct Authority, Florida Cudjoe Regional Wastewater Collection System

Construction inspection services for the connection of residential properties to the newly constructed regional wastewater collection system. Services include: providing inspections of contractors connecting into the new wastewater force main; completing televising inspections of the connections to make sure the connections were completed properly; providing grade inspections at properties to see if there is adequate slope to connection between the house and the connection at the provided connection point; providing inspections on properties to make sure the existing sewer system is in good condition before being allowed to connect into the new wastewater system.

Village of Bull Valley, Illinois Bull Valley Road Rehabilitation

Construction inspection services for the STP-funded rehabilitation of Bull Valley Road from Valley Hill Road east to the east Nunda Township limits in the Village of Bull Valley and in Nunda Township, Illinois. The work included removal and replacement of existing hot-mix asphalt pavement, pavement patching of the hotmix asphalt pavement, aggregate shoulders, and pavement markings. The gross Project length is 1.819 miles (9,605 feet).

Village of Glen Ellyn, Illinois

Oak - Euclid - Forest & Alley Improvements

Assisted with construction observation for curb repair or replacement; sidewalk repair; drainage improvements; water main and sanitary sewer repairs; Hot-Mix Asphalt resurfacing or replacement; aggregate base repairs; and site restoration.

Village of Lombard, Illinois Finley Road Rehabilitation, Phase 2

Assistant Project Representative for the reconstruction of approximately 2,990 linear feet of Finley Road during Phase 2. The project included the removal of 3-inches of existing pavement surface, with the old roadway surface being replaced with 5-inches Portland Cement Concrete Overlay. Additional work included full curb & gutter replacement, intermittent sidewalk removal and replacement, driveway apron reconstruction, storm sewer drainage improvements, spot sanitary sewer repairs and replacement, water main and valve replacement, street lighting conduit and wiring replacement.

Huntley, Illinois

Ruth Road, Manhattan Drive and Dundee Road Improvements

Construction inspection for the extension of Ruth Road between Main Street and Dundee Roads, as well as the extension of Manhattan Road, south of Main Street. Construction included new roadway, installation of storm sewer, water main, sanitary sewer, street lighting, curb and gutter, and bituminous pavement.



Professional Registrations

 Licensed Professional Surveyor & Mapper Florida No. 5888

Professional History

• 2000-Present: Dennis J. Leavy & Associates, Inc.

Professional Affiliations

 Florida Surveying & Mapping Society

Experience Summary

- Boundary Survey
- Topographic Surveys
- Right-of-way Surveys
- Hydrographic Surveys
- Platting
- Title Commitment Review
- Project Management
- Legal Description
- Preparation
- Control Surveys
- As-Built Surveys
- Record Drawings
- ALTA/ACSM Surveys

Mr. Bower possesses over 30 years of land surveying and project management experience within the South Florida area. Over the past 16 years, Mr. Bower has worked with the firm Dennis J. Leavy & Associates delivering the highest standards of quality and services to his clients.

His professional experience encompasses all aspects of land surveying. This includes initial project research and document review, calculations for infrastructure layout, field crew set-up and supervision, management and coordination of survey data, and preparation of survey drawings.

Mr. Bower's open communication with the Client and his commitment to the Project ensures that each project will be delivered with the highest quality of services on time and within budget.

Selected Relevant Projects:

Duck Key Utility Improvements -

Duck Key, Florida

Senior Project Manager to provide Land Surveying Services for engineering design and improvements of wastewater system.

Project Responsibilities: research and calculations of Plats and right-ofway maps, identification of ownership lines and platted easements; calculations for aerial target placement; and calculations to establish baseline and control network.

Project Size: 9 miles +/-

Marathon Distribution Pump Station Improvements -

Key West, Florida

Senior Project Manager to provide Land Surveying Services for engineering design/improvements of Water Storage Tank and Distribution Pump Station.

Project Responsibilities: research and calculations of Plats and right-ofway maps, identification of ownership lines and platted easements; and calculations to establish baseline and control network

Project Size: 3.5 acres +/-

Lake Region Water Treatment Plant / Western Regions Operations Center –

Palm Beach County, Florida

Senior Project Manager to provide Land Surveying Services for engineering design/improvements of Water Treatment Plant.

Project Responsibilities: research and calculations of Plats and right-ofway maps, review of Ownership and Encumbrance Reports; identification of ownership lines and platted easements; and calculations to establish baseline and control network Project Size: 3.5 acres +/- Senior Project Surveyor/Field Supervisor



Professional Registration

 Licensed Professional Surveyor & Mapper Florida No. 6358

Professional History

 1997-Present: Dennis J. Leavy & Associates, Inc.

Professional Affiliations

 Florida Surveying & Mapping Society

Experience Summary

- Boundary Survey
- Topographic Surveys
- Right-of-way Surveys
- Hydrographic Surveys
- Platting
- Title Commitment Review
- Project Management
- Legal Description
- Preparation
- Control Surveys
- As-Built Surveys
- Record Drawings
- ALTA/ACSM Surveys

Mr. Chandler has been with the firm of Dennis J. Leavy & Associates for over 20 years. His career reflects over 33 years of land surveying experience within the South Florida area and encompasses all aspects of field surveying including site research and reconnaissance, calculations, construction layout, and topography.

His responsibilities include field crew supervision, coordination of onsite survey services, and collection of clear, concise, and accurate field survey data.

Mr. Chandler's extensive background has consistently resulted in successful completions within strict budget and time constraints.

Selected Relevant Projects:

Duck Key Utility Improvements -

Duck Key, Florida

Senior Project Surveyor to provide Land Surveying Services for engineering design and improvements of wastewater system.

Project Responsibilities: field crew supervision; collection of topographic field data; obtain field location of fixed improvements and underground infrastructure; field placement of aerial targets; ground truthing of data and field identification of aerial imagery; and management and processing of field collected data.

Project Size: 9 miles +/-

Cudjoe Regional Wastewater Collection System -

No Name Key, Florida

Senior Project Surveyor to provide Land Surveying Services for engineering design of force main.

Project Responsibilities: field crew supervision; collection of topographic field data; obtain field location of fixed improvements and underground infrastructure; obtain field cross-section of roadway and bridges; obtain location of mean high water line; and obtain location of finished floor elevations of adjacent homes.

Project Size: 3.6 miles +/-

Reclaimed Watermain Expansion (Area 12A, 12B and 12C) -

City of Delray Beach, Florida

Senior Project Surveyor to provide Land Surveying Services for engineering design of reclaimed watermain.

Project Responsibilities: field crew supervision; collection of topographic field data; obtain field location of fixed improvements and underground infrastructure.

Project Size: 10,735 linear feet +/-





Lillian M. Reyes, P.E.

Professional Record

Ms. Reyes is the chief electrical engineer for Electrical Design Associates, Inc. Ms. Reyes is experienced in designing electrical power distribution for municipal systems, water and wastewater treatment facilities, and above and below ground distribution systems. Ms. Reyes project management responsibilities encompass preliminary and final design, cost estimating, and construction/start-up services.

Experience:

Ms. Reyes has 28 years of experience in electrical design for various projects with the private and public sector. Ms. Reyes was the project manager, in responsible charge, for all electrical design concerns for the following projects:

- Cudjoe Regional Wastewater Collection System Improvements – Inner Islands Florida Keys Aqueduct Authority, Florida
- Cudjoe Regional Wastewater Collection System Improvements – Outer Islands Florida Keys Aqueduct Authority, Florida
- Floridian Aquifer Raw Water Well #7 North Key Largo, Florida
- Duck Key Utility Improvements Florida Keys Aqueduct Authority, Florida
- Cudjoe Master Lift Stations Florida Keys Aqueduct Authority, Florida
- Duck Key Water Storage & Pumping Facility Florida Keys Aqueduct Authority, Florida
- Apopka WRF Expansion Apopka, Florida
- Water Reclamation Facility Master Plan City of Largo, Florida

Academic Credentials:

Bachelors of Science in Electrical Engineering Florida Atlantic University, 1988

Professional Engineer – Florida 50780

Employment Record:

- 1998-Present Electrical Design Associates, Inc. Owner/President, Electrical Engineer
- 1996-1999 Bailey Engineering Consultants, Inc., Electrical Engineer
- 1989-1996 IBM Corporation Senior Associate Engineer
- 1988-1989 Brabham Debay and Associates, Inc. Electrical Engineer

Principal Areas of Expertise:

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

Electrical Cost Estimating

Professional Activities:

Florida Engineering Society (FES) Illuminating Engineering Society (IES) National Fire Protection Association (NFPA) National Association of Women in Construction (NAWIC)





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:

- Cudjoe Regional Wastewater Collection System Improvements – Inner Islands Florida Keys Aqueduct Authority, Florida
- Cudjoe Regional Wastewater Collection System Improvements – Outer Islands Florida Keys Aqueduct Authority, Florida
- Floridian Aquifer Raw Water Well #7 North Key Largo, Florida
- Duck Key Utility Improvements
 Florida Keys Aqueduct Authority, Florida
- Water Reclamation Facility Master Plan City of Largo, Florida
- North Hutchinson Island Repump #1 Fort Pierce Utilities Authority, Florida
- Vero Beach RO WTF Expansion Vero Beach, Florida
- RO Plants Lime Slurry Injection Indian River County, Florida
- Water Treatment Plant No. 1 & 2 Improvements Haines City, 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

SANDRA WALTERS President & Senior Environmental Scientist



ACADEMIC BACKGROUND

Masters, Marine Affairs, RSMAS, University of Miami, FL, 1983 B.S., Animal Behavior and Marine Biology, University of California, Davis, CA, 1974

SPECIALIZED PROFESSIONAL COMPETENCE

Ms. Walters has more than 30 years of professional experience in Florida. She is qualified as an Expert Witness in Florida administrative hearings and court proceedings; has conducted and supervised environmental studies, and developed avoidance and mitigation plans, in all South Florida submerged and upland habitats; has successfully permitted projects ranging from single family homes to major roadway projects, working with all regulatory agencies; has extensive experience in design and implementation of public outreach programs and review and development of comprehensive plans; and has represented clients successfully with many agencies and government boards. She serves on the South Florida Regional Planning Council, appointed by three governors; serves on EPA's Water Quality Steering Committee for the Florida Keys; and served from 2000 to 2004 as a Governor's appointee on Florida's Acquisition and Restoration Council, which oversees purchase and management of State conservation lands.

REPRESENTATIVE PROFESSIONAL EXPERIENCE

Principal, SWC (Sandra Walters Consultants, Inc.), Monroe, Dade, Broward & Lee County offices, 1996-present

Provide engineering, planning and environmental science consulting services to both public- and private-sector clients in areas of ecological/environmental and land use planning and permitting, including habitat evaluation, mitigation and contamination assessment and remediation; public involvement and outreach; and community and government liaison.

ASSESSMENTS, PERMITTING, CONSTRUCTION COMPLIANCE

City of Key West Stormwater System

Assisted City to come into compliance with ERP requirements for already-completed and future maintenance work of stormwater system, including developing impact assessment and mitigation plan with 5.6 acres of wetland restoration and enhancement, planting of red mangroves and colonization of black mangroves and seagrasses, and creation of hydrologic connection to enhance 131 acres of wetlands and cause significant water-quality improvements, providing enough mitigation credit to bring entire City stormwater system exempt from future permitting.

Tarpon Pier Replacement, City of Key West

SWC was in charge of environmental data collection, and development and implementation of an impact assessment and mitigation plan, for replacement of existing City pier in Garrison Bight. Work included mapping submerged resources including seagrasses and corals, coordination with the Florida Keys National Marine Sanctuary and Florida Department of Environmental Protection, transplantation of impacted corals consistent with Sanctuary requirements, and construction environmental compliance inspections.

Mallory Dock Maintenance Dredge, City of Key West Principal in charge of successful acquisition of all permit modifications to add Mallory Dock to Navy Key West Harbor dredging project, including collection of all submerged habitat data, coordination with dredging company and environmental monitoring contractor, acquisition of EPA approval for use of offshore disposal site, and provision of Quality Assurance services onboard dredging vessel.

Submerged Habitat Study and Sediment Analysis, Key West Harbor and Vicinity

Conduct survey of submerged habitats in and around Key West Harbor. Divers collected field data from 50, randomly selected sites. This data was then collated into maps showing general distribution of habitats in area, along with underwater photographs. Data was compared with other sites throughout Florida Keys, to assess habitat quality in relation to shipping activities in Harbor. Supervise collection of sediment samples in and near harbor following approved DEP protocol, transmit to State certified laboratory for testing, prepare report summarizing findings.

Key West Mooring Field Seagrass Monitoring Project Conduct seagrass monitoring project at Key West Mooring Field that investigated potential shading impacts from boats, including project design, photographic documentation of stations over time, collection of seagrass density and shoot count data, and report preparation including data analysis and final summary report with recommendations.

- S. Roosevelt Seawall Repair Seagrass Monitoring, Key West Supervised assessment and documentation of seagrasses in vicinity of seawall undergoing repairs, including field data collection and photography, update of CAD files delineating seagrass line, measurement of seagrass impacts in project area for mitigation purposes, and report preparation.
- Smathers Beach Seagrass Mitigation Monitoring, Key West Member of team that conducted field monitoring of seagrass mitigation project for City of Key West. Roles included field personnel establishing monitoring sites, collecting required data, supervising surveyor, assisting with preparation of monitoring reports, and providing local liaison with City and base of operation for work..
- Key West Mooring Field Pilot Project, Monroe County Principal in charge of conducting 1-year, monthly data collection, analysis and report preparation for moored vessels around Key West Mooring Field as part of County and State mooring field pilot project.
- Wetland Delineation and Impact Avoidance for North Key Largo Stormwater Projects, Monroe County Principal in charge of conducting wetland jurisdictional determinations, working in field with surveyor to map wetland and hammock lines, prepare documents to assist design engineer to avoid wetland impacts, and write wetland and water quality construction notes.
- Wetland Delineation and Impact Avoidance for Cudjoe Regional Wastewater Project, FKAA Conducted wetland jurisdictional determinations and data collection to assist design engineer in wetland avoidance and minimization for new central wastewater system in Lower Florida Keys. Work included field data collection and mapping, preparation of figures utilizing GIS programming, and preparation of report detailing findings and making recommendations for alternative locations for pump



stations and other project elements that would avoid wetland impacts.

Horizontal Directional Drill Permitting, Islamorada Wastewater Project, Islamorada

Principal in charge of permitting with DEP, USACE and FKNMS for directional drills under seven channels to accommodate wastewater pipelines. Extensive coordination with project engineers, contractors, resource management and regulatory agencies; benthic and emergent habitat assessments including detailed mapping and characterization of resources below which pipeline will run; preparation and processing of permit applications; and responses to requests for additional information. Acquired permits in less than three months due to extensive agency coordination and very thorough permit applications.

Horizontal Directional Drill Environmental Monitoring, Islamorada Wastewater Project, Islamorada

Principal in charge of third party environmental monitoring for directional drills under seven channels. Work included preparation of safety Standard Operation Procedures (SOPs) to meet OSHA requirements, full-time onsite monitoring and continuous record keeping during drill activities to assure compliance with all environmental permit requirements, coordination with FKNMS staff and evaluation of submerged resource impacts if breakout of drill materials (frac out) occurs in submerged lands, and preparation of all reports.

- Jewfish Creek Bridge/US Highway 1 Project, Florida Keys Member of design-build team in charge of environmental compliance for final design and construction of 65-foot-high bridge over Jewfish Creek and new roadway from North Key Largo to just south of Dade County line, including training of onsite personnel regarding avoidance of listed species; coordination with agencies for permit modifications; assessment of preconstruction environmental conditions; and continuous work with project engineer and contractor to assure all environmental permit conditions are met during four-year project.
- Electric Transmission Line Environmental Compliance Monitoring, Florida Keys

Conducted DEP and USACE permit conditions environmental compliance monitoring for installation of new electric tieline poles in wetland and submerged habitats, including documenting pre-construction conditions, onsite inspections, and long-term monitoring to document postconstruction recovery.

> Residential Project in Marathon, Florida Keys

Project manager for all aspects of environmental planning and ERPs for 99-slip marina serving 92-unit redevelopment project called Marlin Bay Yacht Club, including supervision of all field data collection and preparation of benthic assessments and avoidance and minimization plans, supervision of ERP application preparation and submittal and all responses to requests for additional information, work with DEP to acquire net positive public benefit exception to State submerged land lease riparian restriction, and presentations to Governor and Cabinet regarding lease rule provisions and final lease adoption. Permit and lease issued in only nine months from application. Environmental Impact Study & Permitting, Ft. Lauderdale Airport Runway Extension

Principal in charge of fulfillment of all NEPA requirements including listed species impact assessment and wetland delineation. Acquired concurrence from all resource agencies on jurisdictional lines and UMAM scores for all wetlands affected by one or more project alternatives, prepared approved National Marine Fisheries Service (NMFS) and U.S. Fish & Wildlife Service (USFWS) EFH and Biological assessments, prepared all DEIS and FEIS text, responded to agency and public questions, and participate in environmental resource permitting process.

- Port Everglades Master Plan Update, Broward County Principal in charge of all natural systems data collection and analysis and permitting assessments for five-year master plan update and adoption into County Comprehensive Plan.
- Stormwater Filter Marsh, City of Naples, Collier County Principal in charge of wetland jurisdictional determination, habitat evaluation, and listed species survey; development of impact assessment and mitigation plan; and general assistance with preparing and processing environmental resource permit (ERP) applications with DEP and US Army Corps of Engineers (USACE) for creation of filter marsh to provide treatment to stormwater presently being pumped untreated into Naples Bay.
- Utility Corridor, Okeechobee, Hillsborough and Miami-Dade counties

Principal in charge of wetland data collection and jurisdictional delineation for utility corridor, utilizing both federal and State wetland delineation methodologies, including extensive habitat characterization, mapping using sub-foot-accuracy Trimble GPS equipment, and daily downloading and transmitting of data to central processing facility. Also prepared EFH Assessment meeting NMFS requirements for South Dade County segment, including cumulative and secondary impacts analyses.

Vice President & Manager of Environmental and Permitting Div., H.J. Ross Associates, Inc., Coral Gables, FL, 1994-1996

> US Highway 1 South Project, from Key Largo to Florida City Consultant Project Manager-assist Florida Department of Transportation, District 6, in permitting for expansion of US Highway 1, including construction of new bridge with 65 foot water clearance at Jewfish Creek. Permits were required from U.S. Coast Guard, SFWMD, and USACE, and coordination with Dade County DERM. Work included preparation of permit applications; creating CADD generated permit sketches; responding to information sufficiency reviews (including extensive evaluation of potential secondary impacts of project on community and environment; supervising field investigations for construction projects and associated mitigation (including mangrove, seagrass, and freshwater emergent habitats); public information; and coordinating with many commenting agencies.



RANDALL "Randy" CORBIN Environmental Technician and Monitor



ACADEMIC BACKGROUND

A.S. in Marine Environmental Technology, Florida Keys Community College, Key West, FL, 2012

B.S. in Earth Science, University of Wisconsin River Falls, River Falls, WI, 1975

SPECIALIZED PROFESSIONAL COMPETENCE

Mr. Corbin is knowledgeable in tropical marine and wetland ecological systems. He is trained in sampling and analytical techniques for field data collection, water quality sampling and assessment, and identification and enumeration of tropical marine and wetland species including seagrasses, fish, invertebrates and corals, mangroves and coastal marshes, and is trained and experienced in coral nursery and transplantation methodologies. Mr. Corbin is currently focusing his professional career on marine protected species and benthic assessments—including submerged aquatic vegetation and corals, implementation of mitigation plans for unavoidable wetland or benthic impacts, and environmental compliance monitoring during construction to ensure adherence to permit conditions.

REPRESENTATIVE PROFESSIONAL EXPERIENCE

Environmental Technician and Monitor, SWC, July 2013-present

Monroe, Miami-Dade and Broward County offices, FL Provide onsite monitoring of construction operations to ensure permit compliance and identify and assist in prevention or response to any impacts to nearshore water quality, wetlands or submerged resources. Reports to Sandy Walters, SWC president, 305-294-1238.

Environmental Compliance Monitor, Seasons 1-3 of Bloodline Television Series being filmed in Upper Keys, 2014-present

Participate in all film sequences that take place in environmentally sensitive areas to assist in preventing impacts to benthic habitats and wetlands, consistent with conditions of Florida Keys National Marine Sanctuary permit. Assist with determining what additional permits might be required at potential film sites.

Wetland Delineation, Key Largo Subdivision, 2014-2015

Participated in delineation of wetlands near subdivision roads to provide data for engineers to eliminate wetland impacts in design of new stormwater system, including photo documentation and coordination with surveyors who mapped lines.

- Environmental Compliance Monitor, Islamorada Wastewater System Horizontal Directional Drill (HDD) Under Seven Channels, 2012-2014 Fulltime monitor responsible for oversight of HDD activities to ensure environmental resources are protected and all permit conditions are met. Work includes being onsite during all construction activities, preparing a daily log that includes drill pressure, walking the corridor repeatedly to detect any frac-outs of drill material in channels (none to date), preparing summary reports at completion of work at each channel, and preparing a final summary report.
- Benthic Assessment for Docking Facility, Stock Island, 2015 Documented marine resources from in and near vicinity of proposed docking facility, including mapping seagrass beds and characterizing using Braun Blanquet methodology, and identifying, measuring and mapping coral colonies.
- Benthic Assessment for Beach Restoration and Mooring Buoy Placement, Islamorada, 2015 Documented marine resources from beach shoreline to 700 feet offshore, including mapping seagrass beds and characterizing using Braun Blanquet methodology.
- Preliminary Benthic Assessment, Caloosa Cove Marina, Islamorada, 2014

Conducted snorkel assessment of submerged habitats in marina and entrance channel for assessment of whether permits would be attainable for maintenance dredging.

RECENT RELEVANT PROJECT EXPERIENCE

Coral Reef Conservation and Restoration, 2012

Participated in preparing and maintaining coral nurseries for Acoroporid species with both the Coral Restoration Foundation in Key Largo and the FKCC nursery in Key West. Prepared coral clippings for nursery and out-planted mature colonies on designated reefs.



Randy Corbin

RESUME PAGE 2

Field Application in Marine Science: Monitoring Caribbean Reef Fish, 2012

Designated team leader for coordinating the results of Caribbean reef fish monitoring survey done in Bonaire. Using the Bohnsack-Bonnerot stationary fish survey method, each team collected data on multiple reefs for comparison to previous surveys. Both a technical report and Power Point presentation were generated with the results.

Marine Data Collection, 2012

Participated in field-oriented marine data collection and establishment of marine data base for selected coral reef, sea grass and mangrove ecological systems. Survey emphasis was on population dynamics, successsion and establishment of density, dominance, frequency and important values for sessile invertebrates and marine plants.

Coral Reef Biology and Management, 2011

Study and field application of the biology of corals, coral reefs, including the ecological principles of competition, diversity, symbiosis, disturbance, adaptation, reproduction and recruitment. Also examined the impact of wetlands, mangrove and seagrasses on the overall health and development of coral reefs. Studied the management and conservation practices of the Florida Keys National Marine Sanctuary.

Field Application in Marine Science: Assessment of Coral Reef Habitats, 2011

Conducted multiple Caribbean coral reef assessments in Bonaire using both RECON and Reef Check assessment methods. As team leader was responsible for assigning survey duties, monitoring progress and verifying accuracy of data collected. Developed technical report comparing findings to previous papers and presenting a theory as to any changes in the health of the reefs that were identified.

Scientific Research Diving, 2012

Practical application of the tools and techniques for collecting scientific data through the use of scuba diving skills and research methodology as applied to the fields of shipwreck archaeology, physical oceanography and marine biology. Through the use of quadrants, transect lines, sample collection equipment and photography, collected data on various coral reefs and archaeological wrecks throughout Key West. Assisted with deployment of water quality monitoring station for the EPA.

CERTIFICATIONS AND TRAINING

- Certified Protected Species Observer
- Coral transplantation training from Florida Keys National Marine Sanctuary
- Qualified Stormwater Management Inspector, DEP



Main Tel 305-294-1238, FAX 305-294-2164, SWC Email <u>swc@swcinc.net</u>, Website <u>www.swcinc.net</u> Main Office Key West, Branch Offices Miami, Hollywood, & Fort Myers, FL

- Certified PADI Divemaster
- AAUS Scientific Research Diver, SWC AAUS dive safety program, Key West, FL
- Certified RECON Survey Diver & Reef Check Trainer
- Emergency First Response, CPR/AED/First Aid and DAN O2 Provider





ACADEMIC BACKGROUND

Professional Science Master's (Environmental Policy and Management), Florida International University, 2016

Bachelor of Arts (Environmental Studies), Florida International University, 2007

SPECIALIZED PROFESSIONAL COMPETENCE

Ms. Siu is an environmental professional practiced in regulatory permitting in Miami-Dade and Monroe counties. She has eight years of experience in environmental regulation for a variety of projects in marine and freshwater ecosystems. Ms. Siu is well versed in identification and characterization of wetland and submerged habitat, native flora and fauna, invasive exotic species, and threatened/ endangered species. She is knowledgeable in agency coordination, stakeholder engagement, and requirements for alternatives analyses including avoidance. minimization, and mitigation. Ms. Siu has determined project class-of-action and prepared National Environmental Property Act (NEPA) documentation (Categorical Exclusions, Environmental Assessments/ FONSI).

RELEVANT PROFESSIONAL EXPERIENCE

Florida City Correction/Detention Facility SAJ-2005-04620

Project proposed permanent fill impacts to 38.5 acres of herbaceous, exotic-infested wetland over 40-acre property adjacent to Florida City's correctional facility "hub" outside of Everglades National Park (ENP). Purpose was to construct privately-run, 312,000 square foot prison. Initiated coordination with Park to convey operational impacts on ENP. Recorded comments in opposition to project from non-government organizations that believed project should have been evaluated under Environmental Impact Statement pursuant to NEPA. Requested formal coordination with U.S. Fish and Wildlife Service (FWS) for impacts to Florida Panther as project was within boundaries of primary panther focus area. Relaved FWS's requirement for client to purchase panther credits. Assisted client with calculating compensatory mitigation for unavoidable impacts at Florida Power & Light's Everglades Mitigation Bank (FPL EMB). PM Ingrid Gilbert, 305-526-7185.

Blessed 4/ TEBA Development,

SAJ-2006-5246

Project was for fill of previously-impacted, herbaceous wetland with history of violations. Worked with client and USACE's enforcement section to resolve property violations and calculate compensatory mitigation for prior impacts. Project was also within woodstork "coreforaging area" (within 18.6 miles of active woodstork colony) and required FWS consultation for impacts to species' suitable foraging habitat. FWS issued concurrence letter requiring client to purchase woodstork credits in addition to wetland credits. Accordingly, USACE permit incorporated findings of both agencies and accepted compensatory mitigation plan for credit purchase at FPL EMB. Credits purchased at this bank "overlap," as bank is approved for sale of both wetland and woodstork credits. PM Ingrid Gilbert, 305-526-7185.

Florida Keys Hydropower Magnetic Levitation Tidal Turbine Pilot Project 2007-2008

Conducted extensive coordination for alternativeenergy pilot project, acting for lead federal agency (USACE). Work involved transmittal of detailed information regarding submerged aquatic habitat and endangered species impacts to NMFS HCD, NMFS PRD, and FKNMS. PM Ingrid Gilbert, 305-526-7185.

PortMiami Wharf Strengthening, 2010-2011

Project was for over one mile of bulkhead armoring to accommodate new post-Panamax, deep-draft vessels. Conducted significant inter- and intra-agency coordination between Port and federal agencies (USACE CONOPS, USCG, NMFS, FWS) for navigation, habitat, and endangered species impacts. PM Ingrid Gilbert, 305-526-7185.

Water and Sewer Agency Force Main Relocation, 2010-2011

Project was for excavation and relocation of 54-inch diameter sewage main to lower elevation to ensure adequate clearance for harbor dredge and new class of deep-draft vessels. Proposed construction of cofferdam in federal channel presented navigation and safety hazard in addition to coral impacts. Worked with applicant to ensure robust alternatives analysis. Conducted intersignificant and intra-agency coordination for navigation hazards and potential light impacts adjacent to turtle nesting beach. Ensured coral relocation and mitigation for unavoidable impacts met USACE requirements under 33 C.F.R. Part 332 (2008 Mitigation Rule). PM Ingrid Gilbert, 305-526-7185.

Florida Power & Light Seagrass Mitigation, Overtown/ Venetian Line, 2011

Worked with applicant to finalize seagrass mitigation plans compliant with the USACE's 2008 Mitigation Rule. Authorization of this mitigation was precedent-setting for region as no seagrass mitigation bank exists in Miami-Dade. PM Ingrid Gilbert, 305-526-7185.

South Point Park Pier, 2012

Steered project, involving replacement of coralincrusted public pier, through lengthy NMFS PRD and NMFS HCD consultation. Pile-driving for large supports required consideration of noise impacts on smalltooth sawfish. Coral required suitable translocation to reef modules. PM Ingrid Gilbert, 305-526-7185.



PROFESSIONAL POSITIONS

Environmental Scientist, SWC, Miami, Hollywood and Key West, 2016, PM Sandy Walters, 305-294-1238

Conduct field wetland delineations utilizing Florida and federal methodologies, collect and analyze field data for wetland and protected species habitat impact avoidance and minimization, coordinate with resource agencies, develop Florida and federal permit applications including mitigation plans for unavoidable impacts, and participate in NEPA studies.

Environmental Scientist, Stantec, Miami, FL, 2015, PM Jeff Marcus, 304-445-2900

Prepared and submitted project applications for regulatory approval. Monitored environmental mitigation projects and drafted reports. Provided in-house office support to FDOT D6 ESO. Gained familiarity with PD&E and ETDM manuals, PD&E studies.

Regulatory Project Manager, US Army Corps of Engineers, Miami, FL, 2007-2014, PM Ingrid Gilbert 305-526-7185

Evaluated permit applications for wide variety of projects impacting wetland and aquatic ecosystems. Verified project consistency with applicable regulation and policy, including NEPA, 404(b)(1) Guidelines, and Section 10 of the Rivers and Harbors Act. Processed projects under most efficient permit category available, choosing from among 52 different, expedited Nationwide Permit mechanisms tailored for recurring project classes (i.e., minor fills, temporary impacts, and pipelines), when appropriate. Conveyed legal and technical requirements to stakeholders in clear, concise manner. Conducted inter- and intra- agency coordination for potential impacts to protected species, critical habitats, historic properties, and navigation interests. Verified wetland delineations. Authored NEPA documents to record results of public and agency coordination, avoidance and minimization measures, mitigation calculations, and agency final decisions. Acted as office's liaison to U. S. Coast Guard. Acted as designated point of contact to convey agency transparency to regulated public.



JILL BETH COHEN Senior Planner, Landscape Architect & Certified Arborist

ACADEMIC BACKGROUND



Bachelor of Landscape Architecture, State University of New York, College of Environmental Science and Forestry, Syracuse, NY

Bachelor of Science, Environmental Studies, Syracuse University, NY

SPECIALIZED PROFESSIONAL COMPETENCE

Ms. Cohen is a Registered Landscape Architect (RLA), Certified Planner (AICP), LEED AP and Certified Arborist (ISA) with more than 30 years of professional experience focused on planning, urban design, landscape architecture and sustainable design. Her professional experience includes working closely with municipalities, institutional and private clients on projects involving planning, site planning, landscape architecture, land use, variances, rezoning, platting, processing and permitting, due diligence and documentation. Currently, Ms. Cohen's focus is on sustainability and revitalization projects and providing proactive, responsive and personalized service including attention to detail to provide quality projects. Ms. Cohen is a senior associate with SWC and also has her own consulting business.

Additionally, Ms. Cohen was chair of the Broward USGBC (US Green Building Council), Southeastern Chapter, serving two consecutive terms in this position and two years as Advocacy Chair. She was instrumental in organizing and providing the leadership for the BROWARD 2030, a group of 60 plus publicprivate professionals involved in green building and sustainable landscapes which was the forerunner 'seed organization' to the Sustainability Stewards of Broward County.

Currently, Ms. Cohen has been providing guidance and consulting services in the re-writing of the landscape codes for two cities--the City of Miramar and the City of Parkland.

REPRESENTATIVE PROFESSIONAL EXPERIENCE

Senior Planner and Landscape Architect, SWC, Hollywood and Miami offices, FL, 2010-present

Conduct land use planning and permitting analyses and prepare site and landscape plans; prepare and process land use permit applications, coordinating with local and State government agencies and officials; supervise other staff and provide quality assurance review; conduct LEED AP reviews; provide landscape, green energy and site inspection services to local governments.

Landscape Plan, Funland Boat Storage Facility, Big Coppitt Key

Created landscape design meeting Monroe County Code that included native plantings in buffers and setbacks and parking landscape areas. Prepared signed and sealed drawings for successful County Minor Conditional Use Amendment.

Tree Obstruction Survey, Hollywood-Ft. Lauderdale International Airport, Broward County

In charge of tree obstruction survey and report for entire airport property. Work includes field data collection and

preparation of report including a detailed spreadsheet with tree specifications and recommendations for trimming or removal, aerial figures showing all tree locations, and photo exhibits.

President, jbc planning and design, Weston, FL, 2009-present

> City of Parkland Landscape Inspector, Broward County

Project manager, landscape plans reviewer and inspector for the City of Parkland as a Cost-Recovery Consultant. The City of Parkland is undergoing a large growth spurt with the recently annexed parcels. Hundreds of acres are being developed into residential communities with supporting recreational needs in addition to neighborhood businesses to meet the needs of the residents of this rapidly growing municipality. Landscape Plan Reviews & Landscape Inspections have included single-family, townhomes, project entries, recreational areas, common areas, signage and places of worship. Inspections also include tree removals, relocations and use of green building practices.

Miramar DRC Plan Review & Inspections

Project manager, planning and landscape architectural reviewer providing plan review services for City of Miramar as cost-recovery consultant since 1998. Initially, Ms Cohen began providing development review committee (DRC) reviews for landscape architecture with community services department. Landscape data chart which is still in use today for development reviews was first initiated under this contract. Since that time, City has expanded scope of services to include reviews with Planning & Zoning Department as cost-recovery consultant. These fast-paced tasks included DRC services for residential, commercial and industrial sites throughout City. Working closely with staff to meet quick turnaround times, Ms. Cohen provides the following project reviews to meet needs of this growing municipality-site plan, master plan, platting plan, landscape plan, and traffic plans. Ms. Cohen also is currently providing landscape reviews, Community Appearance Board and landscape inspections for the City.

> City of Marathon US Highway 1 Medians LAP Project

Preparation of 2-mile US Highway 1 corridor median landscape plans through the City of Marathon in Florida Department of Transportation (FDOT) District Six. There will be no irrigation and the project is designed to be developed as sustainable through use of Best Management Practices (BMPs) incorporating xeriscaping. In addition to preparation of detailed plans and specifications, prepared report, analysis and justification



for a variation to FDOT Standard Index 546 for reduction in width of medians at crossings and modifications for viewing for billboards along project.

Associate, Planning Supervisor and Project Manager, Miller Legg, Pembroke Pines, FL, 1997-2009

Residential, commercial, and redevelopment projects. Costrecovery Development Review Committee (DRC) consultant for planning, platting and landscaping; Planner; Landscape Architect; LEED AP and company 'Champion' for Redevelopment and Sustainable Design.

Monterra Development (Waldrep Parcel)

Prior to preparing detailed neighborhood design for the parcels, Ms. Cohen was project landscape architect and planner for this 526-acre parcel which is one of last large remaining tracts of vacant unincorporated land in southwest Broward County. Project involved development of residential community including multi-family, townhomes, and single family units, commercial parcels and associated project amenities. Planning services preparation of included design guidelines for development, rezoning, platting, plat note amendment and delegation requests, site plan preparation, submittal and processing.

Town of Davie Planning/Development Review Committee (DRC) Reviews, Broward County

Development Review Committee (DRC) reviews for planning and landscape architecture with Development Services Department as a Cost Recovery consultant. Fastpaced tasks included DRC services for residential, commercial and industrial sites throughout Town of Davie. Working closely with staff to meet quick turnaround times, Ms. Cohen provided following project reviews to meet needs of this growing municipality—site plan, master plan, platting plan and landscape plan.

Coral Springs DRC Consultant

Cost Recovery Consultant reviewer providing landscape architecture DRC reviews and landscape field inspections including review, administering of and approval of City Grants from Community Development Department for Street Tree Replacement for residential homeowners post Hurricane Wilma.

> Miramar Landscape Corridor Planning, Broward County

Preparation of landscape corridor guidelines consisting of 15 corridors for City of Miramar beginning with defining of scope of services to eventual final costing and assistance in enacting ordinances to effectuate proposed design. Increased pressures of development on City of Miramar necessitated Landscape Corridor Guidelines to be established to provide unification and overall design theme for citywide corridors to guide and keep pace with increased growth. Working closely with City's engineering staff on development of typical roadway sections, provided direction on roadway section designs to allow for optimum landscaping of corridors, particularly in applying sight distance clear zones and landscaping per FDOT standard indexes 545, 546 and 700.

PROFESSIONAL REGISTRATIONS/AFFILIATIONS/CERTIFICATIONS

- > American Institute of Certified Planners, (AICP), since 1999
- Registered Landscape Architect, (RLA), State of Florida, since 1997
- Certified Arborist, (ISA), 2014
- Certified Landscape Inspector, (LIAF), 2012
- Crime Prevention Through Environmental Design, (CPTED), State of Florida, 1998
- Leadership in Energy & Environmental Design, (LEED AP), since 2008
- Board Member, U.S. Green Building Council (USGBC), South Florida Chapter
- Past Chair of Broward Branch, USGBC, South Florida Chapter, Broward
- Past Chair, Broward 2030, USGBC, South Florida Chapter, Broward Branch
- Member, American Planning Association, (APA)
- Member, American Society of Landscape Architects, (ASLA)
- Member ISA & LIAF
- Member, SmartGrowth
- Member, Broward League of Cities (BLOC) Blue (Water) & Green (Sustainability) Committee
- Member, Broward Days
- Member Leadership Broward, Class XXV, won best Community Project Award
- Member, Broward County Climate Change Task Force (CCTF)
- Participant, Visioning Broward, Broward County Redevelopment & Affordable Housing initiatives, and Partners in Education
- Instructor, Broward Sheriff's Office & State Attorney's Office for Crime Prevention Through Environmental Design (CPTED) certification programs
- Speaker, Broward 2030 and related presentations on LEED and Sustainable Design
- Publication; Broward 2030, A Roadmap Empowering South Florida Leaders, October 2009


Richard C. Wohlfarth, P.E., B.N. 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:

Florida Keys Aqueduct Authority 1100 Kennedy Drive Key West, Florida Mr. Ray Shimokubo, PE Mr. Tom Walker, PE 305-296-2454

CH2M Hill 6410 5th Street, Suite 2A Key West, Florida 33040 Mr. Sean McCoy 305-294-1645

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 28 years of experience (24 with NEF) 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.

- City of Marathon:
 - LaPalma Property: Provided geotechnical exploration on a ~6 acre generally vacant site with a canal approx. 400' long and 50' wide bisecting the southern half of the property. Exploration included evaluating existing stockpiles of soil measuring 12' in height, 200' by 100' on the site, with the top being accessible to truck mounted drilling equipment, to determine is suitable for fill material. Future plans include constructing a 10,000 SF storage/maintenance building.
 - Reuse Mixing Tank at Marathon Community Park: Provided geotechnical exploration services for a proposed reuse mixing tank to be constructed as part of using effluent for irrigation purposes.
- City of Key West Improvement Projects (Five Sites via CH2M Hill):
 - Mallory Square T-Pier: installation of new berthing dolphin at north end of the existing T-pier structure and extension of the existing pier
 - Zero Duval Seawall: Construction of new sheet pile wall outside of the existing wall
 - Ferry Terminal Dock Extension: 121 ft long extension to and existing 180 ft long dock
 - Ferry Terminal Floating Docks: 204 ft long floating dock system with 50 ft extension along Trumbo Road
 - Tarpon Pier: Replacement of the existing 400 ft long concrete deck pier



- Central Cudjoe Key Regional Wastewater System Extension: Performed/performing geotechnical exploration/engineering services for multiple phases of the wastewater collection system through the Lower Florida Keys, from Mile Marker MM 17 to MM 33, to provide service to Lower Sugarloaf Key, Upper Sugarloaf Key, Cudjoe Key, Summerland Key, Ramrod Key, Middle Torch Key, Big Torch Key, Little Torch Key, Big Pine Key and No Name Key.
- Calusa Campground and Collection Water System, MM 101, Key Largo
- Cudjoe Key Waste Water Collection System: Construction of the Lower Sugar Loaf Pump Station, Lower Sugar Loaf Key
- Dozens of Florida Keys Aqueduct Authority projects, not limited to:
 - Proposed expansion of the Overseas Highway, Key Largo Water Treatment District Basins G and H, Key Largo Pump Station and WWTP, Ocean Reef Distribution System Improvements (Phase II), Vacuum/Pump Station, Regional Waste Water Collection System Improvements/ Upgrades on Cudjoe Key, Summerland Key and Sugarloaf Key
- W/WTP projects include: Key Largo WTP @ MM 105.5, FKAA Robert Dean WTP @ Florida City, Duck Key WTP, North Key Largo Advanced Treatment and Wastewater Reuse project @ Ocean Reed Club, Dania Beach WWTP @ Stirling Road, Deerfield Beach WWTP, Pembroke Pines WTP Improvements @ Johnson Street, Sawgrass WTP @ Sawgrass Corporate Parkway, City of Coral Springs WTP @ 85th Avenue, Layton WWTP Expansion, Florida City WTP High Service Pump Station
- Florida Keys SPCA Building; Performed geotechnical exploration/engineering for proposed 2story ~24,000 SF building
- Miami-Dade County, Multiple Departments including: DERM, Public Works, Parks and Recreation, Aviation, Fire Rescue and Water/ Sewer. Projects include but are not limited to:
 - Miami International Airport North Terminal Development Program, Miami: Performed geotechnical exploration/engineering services for the renovation and addition to existing Terminal (formerly Terminal A), includes Mile Long Terminal and Sky Train. In addition, Nutting Engineers of Florida, Inc. also provided pile load testing, pile installation monitoring and testing of grout, construction material testing of onsite and imported materials, soil density testing, concrete and grout sampling and testing, proctor tests, Limerock Bearing Ratio (LBR) tests, gradation, and special/ threshold inspection services on various aspects of the project.
 - Joseph Caleb Center Property, Miami: Performed geotechnical exploration/engineering services for the Phased construction of a three level 149,500 SF parking garage and a separate 2-story 38,000 SF courthouse annex building on the approximate 1.44 acre site.
 - Fire Station #62, Palmetto Bay: Performed geotechnical exploration/engineering services for the future construction of a new one-store, ~10,750 SF Fire Station, 25 space parking area, associated asphalt paved driveways and concrete aprons. Additional testing was performed for the septic tank installation on this site, as well as testing for the temporary ~1,380 SF trailer, concrete sidewalks and canvas awning/canopy on the adjacent site.



FORMAL EDUCATION:

University of Wisconsin Eau Claire, Wisconsin

Palm Beach Community College, West Palm Beach

Rochester Community College, Minnesota

PROFESSIONAL REGISTRATIONS:

NIOSH 582 Sampling and Evaluating Airborne Asbestos Dust Training

Asbestos Abatement Contractor/Supervisor Training Course (40 hours)

State of Minn. Department of Health Asbestos Abatement Site Supervisor

OSHA training for Hazardous Waste Operations and Emergency Response

Annual 8-Hour OSHA Refresher Course for Working at Hazardous Sites

PROFESSIONAL AFFILIATIONS:

State of Florida Water Well Contractor #11110

The National Groundwater Association

PROFESSIONAL EXPERIENCE:

Mr. Ersland is the Department Manager of the Geotechnical and Environmental Drilling Division for each of our office locations- Miami Dade, Palm Beach, and St. Lucie Counties. This division includes ~8 technical field personnel and a fleet of 4 truck mounted drill rigs and 1 track rig.

Mr. Ersland's duties include project planning, proposal and contract preparation and execution of requested services as well as client development and interaction. He has *nineteen* years of experience and has coordinated projects requiring standard penetration test borings (SPTs), auger borings, rock coring and double ring infiltration tests. Mr. Ersland oversees projects concerning the installation of monitoring wells, recovery wells, vapor extraction wells and air sparge wells, well abandonment, air lifting and South Florida Water Management District and Florida Department of Transportation exfiltration tests. Clients for these projects include, but are not limited to, public and private entities which include different Engineering and Public Work Departments, Water and Sewer Departments and Roadway Divisions, the Florida Department of Transportation, and land developers.

- City of Marathon, via the City:
 - Coco Plum Drive Evaluation
 - o Coco Plum Drive Pedestrian Bridge
 - o Sombrero Boulevard Shoulder Improvements
 - o Reuse Mixing Tank for Community Park
 - o La Palma Property Stockpile Evaluation
- City of Marathon, via consultant:
 - o 89th Street Canal Culvert Crossing
- City of Key West (via consultant):
 - Improvements at Mallory Square T-Pier, Zero Duvall Seawall, Ferry Terminal Dock Extension, Ferry Terminal Floating Docks, Tarpon Pier, Key West
 - o Simonton Road Drainage Evaluation
 - Key West Public Transportation Facility
 - VFD Wastewater Pump Station Upgrades
 - o Truman Waterfront Park Improvements
 - o Sailfish Pier Improvements
 - o Smather's Beach Restroom
 - Truman Waterfront Park Restroom
 - o Dolphin Pier Improvements



- FKAA Lower Keys Waste Water Collection, Ramrod Key, No Name Key, Little Torch Key, Big Pine Key & Lower Sugar Loaf Key: Performed geotechnical exploration/engineering relevant to the installation of 150,000 lf of gravity sewer lines and associated lift stations (42-45).
- FKAA Haven Utility Improvements, Key Haven: Performed geotechnical exploration/engineering relevant to the installation of gravity sewers, water mains, and lift stations at the one square mile site.
- Niles Channel Directional Drilling: Performed geotechnical exploration/engineering relevant to the Installation of a 24-inch diameter force main by directional drilling, Lower Florida Keys
- Multiple Pump Station Replacements and Improvements, Multiple Locations, Miami (on behalf of Stantec Consulting Services): Performed geotechnical exploration/engineering for multiple pump station improvement projects including:
 - Proposed submersible pumps at station #0688 and #819
 - Upgrades and 200' new force main at station #0076
 - General upgrades at station #870, #0689, #0124 and 0105
- Monroe County School District Plantation Key School K-8 Phased Replacement, Tavernier: Performed geotechnical exploration/engineering services (and currently providing testing services) for the new two-story, ~100,000 square foot multi-structure educational facility.
- Miami-Dade County, Multiple Departments(Qualification Based Contract), Projects include but not limited to:
 - Fire Station #62, Palmetto Bay: Performed geotechnical exploration/engineering services for the future construction of a new one-store, ~10,750 SF Fire Station, 25 space parking area, associated asphalt paved driveways and concrete aprons. Additional testing was performed for the septic tank installation on this site, as well as testing for the temporary ~ 1,380 SF trailer, concrete sidewalks and canvas awning/canopy on the adjacent site.
 - Miami International Airport North Terminal Development Program, Miami: Performed geotechnical exploration/engineering services for the renovation and addition to existing Terminal (formerly Terminal A), includes Mile Long Terminal and Sky Train. In addition, Nutting Engineers of Florida, Inc. also provided pile load testing, pile installation monitoring and testing of grout, construction material testing of onsite and imported materials, soil density testing, concrete and grout sampling and testing, proctor tests, Limerock Bearing Ratio (LBR) tests, gradation, and special/ threshold inspection services on various aspects of the project.
 - Port of Miami Rip Rap project at Pilot Station: Performed geotechnical exploration/engineering services for the installation of rip rap slope protection along ~565 If of shoreline at the existing pilot station on Lummus Island.
- Town of Miami Lakes, projects include but are not limited to:
 - Town Hall and Public Safety Building: Performed geotechnical exploration/engineering services for the construction of a new two to three-story, ~ 25,000 SF town hall and public safety building.
 - Park East: Performed geotechnical exploration/engineering services for the construction of a one-story youth center, basketball court, two picnic areas, and dumpster enclosure.
 - Sevilla Estates Park Improvements: Performed geotechnical exploration/engineering services for various park improvements including a new picnic shelter, playground, basketball half court, observation pier, and asphalt walkways.





Section 2

Firm Experience



This section provides information relative to Mathews Consulting's Firm experience. Information is organized as follows:

- O Related Project Experience in South Florida
- O Ability to perform on a Fast Track Basis
- Project Data Sheets

2.1 Related Project Experience

Detailed project descriptions that illustrate Mathews Consulting's related experience with the following facets of this work immediately follow this section.

- Civil Engineering Projects
- Utility Projects
- Wastewater Collection & Transmission Systems
- Roadway Improvements
- Stormwater Improvements
- Pump Stations
- Studies and Reports
- Value Engineering
- Surveying
- Electrical Engineering
- O Environmental
- O Geotechnical

2.2 Ability to Perform on a Fast Track Basis

Mathews Consulting is fully experienced with working on fast track projects. As a small business enterprise, a significant part of our business stems from clients that have fast track projects and are aware that firms with layers of red tape will not be able to perform as effectively and efficiently as needed. In the last few years, we successfully completed fast track projects for the City of West Palm Beach, Palm Beach County Water Utilities Department, and the City of Delray Beach. A summary of these three projects are as follows:

Project: South Flagler Service Area Sanitary Sewer Rehabilitation Project

Description: Data collection, survey services, detailed design, permitting services, bidding assistance, construction administration and inspection services for the installation of 6,500 LF of 10-inch HDPE force main installed by directional drill methods; 4,000 LF of 16-inch DIP force main installed by conventional open cut methods; 5,000 LF of 18-inch HDPE force main installed by directional drill methods; Upgrade pumps in Lift Station No. 3 and No. 5; and 1,000 LF of 15-inch Sanitary Sewer replaced with 18-inch HDPE pipe using pipe bursting methods. *Mathews Consulting was awarded the 2003 Engineering Excellence "Grand Award" for this project by the Florida Institute of Consulting Engineers.*



10-inch HDPE FM being pulled through drilled hole.



Pit w/ bentonite drilling mix. 10" HDPE FM being pulled through bore hole.

South Flagler Drive after completion of project. The entire road in our project area was micro-surfaced.

Permitting Agencies:	Florida Department of Environmental Protection Florida Department of Transportation
Schedule:	Project design was completed within 120 days from notice-to- proceed. Project was bid within 150 days from notice-to- proceed.
Engineering Fees:	\$300,000.00

Construction Cost: \$4,000,000.00

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Project: Membrane Concentrate Pipeline Extension

Description: Data collection, survey services, detailed design, permitting services, and bidding assistance for the installation of 10,200 linear feet of 20-inch diameter pipeline that will convey membrane concentrate from the Palm Beach County Water Treatment Plant No. 3 to the reclaimed water storage tank(s) located at Palm Beach County Water Reclamation Facility.

Permitting Agencies:	Florida Department of Environmental Protection Lake Worth Drainage District (aerial canal crossing) Palm Beach County Land Development
Schedule:	Project design was completed within 45 days from notice-to- proceed. Project was bid within 75 days from notice-to- proceed.
Engineering Fees:	\$50,000.00
Construction Bid Cost:	\$1,250,000.00

Project: LWDD L-33 Canal Box Culvert

Description: Data collection, detailed design, permitting services and bidding assistance for the construction of 700 LF of 10' x 12' Precast Concrete Box Culvert that will continue to convey stormwater in the canal and permit parking for the new Delray Beach High School facility.



Permitting Agencies:	South Florida Water Management District
	Florida Department of Environmental Protection (NPDES)
	Lake Worth Drainage District

Schedule: Project design was completed within 45 days from notice-toproceed. Project was bid within 75 days from notice-toproceed.

Engineering Fees: \$80,000.00

Construction Bid Cost: \$750,000.00

These projects show that we can meet the performance expectations of our clients!



Project Data Sheets

FLORIDA KEYS AQUEDUCT AUTHORITY, FL DUCK KEY UTILITY SYSTEM IMPROVEMENTS

Mathews Consulting provided engineering services for the data collection, design, public participation, permitting and bidding for the Duck Key Utility System Improvements. Duck Key is a small island community located at Overseas Highway Mile Marker 60 in unincorporated Monroe County. Duck Key consists of five islands connected by Venetian Style bridges.

The infrastructure improvements included:

- Low pressure sewer system (30 pump stations)
- Sanitary sewer system (26,765 LF)
- Water main replacement (28,960 LF)
- Reclaimed water main system (28,960 LF)
- 9 lift stations and force main system (17,923 LF)
- Four bridge crossings
- Roadway reconstruction

Design components of the project included:

- Aerial survey of project area
- Conduct soil investigation of project area
- Wastewater system hydraulic model
- Reclaimed water system hydraulic model
- Review environmental constraints (wetlands)
- Collect and review record drawings of project area
- Prepare detailed plan & profile design drawings
- Prepare lift station mechanical & electrical design
- Prepare and process permit applications to FDEP
- Prepare technical specifications
- Prepare cost estimates

The project was broken into 7 phases (4 bid contracts). The project will be constructed as follows:

- Contract 1 Phase 1 & 2
- Contract 2 Phase 3
- Contract 3 Phase 4, 5 & 6
- Contract 4 Phase 7

The project was constructed for \$15.76M, which was 3% under FKAA's budget of \$16.24M.



HIGHLIGHTS:

COMPLETION DATE: January 2014

Design Fee: \$1,436,901 Project Cost: \$15,760,000 Contractor: Metro Equipment

REFERENCE:





FLORIDA KEYS AQUEDUCT AUTHORITY, FL BOCA CHICA 24" WATER MAIN REPLACEMENT

The Florida Keys Aqueduct Authority (FKAA) owns and operates a 24-inch diameter water transmission main that carries potable water from the middle keys to the lower keys and the City of Key West. As much as 10 mgd can pass through this transmission main on a peak day with a working pressure of 80 psi. This transmission main must be maintained in daily service with shut down durations of 12 hours maximum throughout the transmission line replacement project.

Mathews Consulting is part of a Design/Build Team for the replacement of approximately 2,639 linear feet of 24" steel potable transmission water main. Each pipeline segment spans 62 feet and is bridge-supported using stainless steel pipe support assemblies. The project is located at the Boca Chica Bridge (Mile Marker 6). In general, the work includes removing the existing pipeline and replacing it with a new steel pipeline using the existing support brackets, which will be completed through a series of FKAA planned water system shut-downs.

Mathews Consulting is responsible for final design, permitting and construction services, including coordination with the Design/Build Contractor.

HIGHLIGHTS:

COMPLETION DATE: July 2011

Design Fee: \$64,860 Project Cost: \$1,616,804 Contractor: Akerblom Construction

REFERENCE:

Mr. Tom Walker, P.E. Director of Engineering Florida Keys Aqueduct Authority 1100 Kennedy Drive Key West, Florida 33041 (305) 296-2454 (305) 294-5683 (Fax)

The design, permitting, and construction of the project has also been completed. The total design/build cost was \$1,125,782. The Owner (FKAA) direct purchased the piping for \$491,022. The total project cost was \$1,616,804.







FLORIDA KEYS AQUEDUCT AUTHORITY, FL CENTRAL CUDJOE REGIONAL WASTEWATER COLLECTION SYSTEM INNER ISLANDS

Mathews Consulting provided engineering services for the design and permitting of a wastewater conveyance system for the Central Cudjoe Regional Wastewater Collection System Inner Islands that will combine various wastewater collection system technologies for a "hybrid" system consisting of a combination of (1) conventional gravity sewer systems to serve densely populated areas, and (2) low pressure sewer systems to serve the less dense and outer/hard to reach areas.

The Inner Islands (Upper Sugarloaf Key, Cudjoe Key and Summerland Key) are located between Mile Markers 20 and 25. The infrastructure improvements included:

- 583 low pressure pump stations
- 26 submersible lift stations
- 132,180 feet of force main
- 72,390 feet of gravity sewers
- 260 sanitary manholes
- Prepare low pressure/grinder pump stations mechanical & electrical design elements

Design components of the project include the following:

- Complete aerial survey of project area
- Conduct soil investigation of project area
- Obtain underground utility soft-dig data
- Develop wastewater system hydraulic model
- Review environmental constraints in project area (i.e. wetlands)
- Prepare detailed plan & profile design drawings
- Prepare lift station mechanical & electrical design
- Prepare low pressure/grinder pump stations mechanical & electrical design elements
- Prepare & process permit applications to FDEP & FDOT
- Prepare technical specifications
- Prepare cost estimates

The project is currently in the construction Phase, with a total construction cost of \$33,000,000.





(305) 296-2454 (305) 294-5683 (Fax)

HIGHLIGHTS:

REFERENCE:

Mr. Tom Walker, P.E.

1100 Kennedy Drive

Director of Engineering

Key West, Florida 33041

COMPLETION DATE: April 2016

Contractor: Giannetti Contracting

Florida Keys Aqueduct Authority

Design Fee: \$1,019,514 Project Cost: \$33,000,000





FLORIDA KEYS AQUEDUCT AUTHORITY MIDDLE TORCH KEY & BIG TORCH KEY LPSS

Mathews Consulting is providing engineering services for the design and permitting of a wastewater conveyance system for the Middle Torch Key & Big Torch Key Low Pressure Sewer System (LPSS).

Middle Torch Key & Big Torch Key are located at Mile Marker 28. The infrastructure improvements include:

- 58 low pressure pump stations
- 1 submersible lift station
- 30,000 feet of force main
- 1,400 feet of directional drill

Design components of the project include the following:

- Complete survey of project area
- Conduct soil investigation of project area
- Obtain underground utility soft-dig data
- Develop wastewater system hydraulic model
- Review environmental constraints in project area (i.e. wetlands)
- Prepare detailed plan & profile design drawings
- Prepare lift station mechanical & electrical design
- Prepare low pressure/grinder pump stations mechanical & electrical design elements
- Prepare & process permit applications to FDEP & FDOT
- Prepare technical specifications
- Prepare cost estimates

The project was bid for a construction cost of \$1.65M. The project is currently in the construction phase.

HIGHLIGHTS:

COMPLETION DATE: In Progress

Design Fee: \$126,439 Project Cost: \$1,650,000 Contractor: FKAA and Key Honey Contracting

REFERENCE:







FLORIDA KEYS AQUEDUCT AUTHORITY, FL MARATHON DISTRIBUTION PUMP STATION IMPROVEMENTS

The Florida Keys Aqueduct Authority owns and operates the Marathon Distribution Pump Station (located at 33rd Street) which provides potable water to the customers located within the Marathon, Florida service area. The Marathon Distribution Pump Station operates in conjunction with other area distribution systems, including Vaca Cut Pump Station, 69th Street Pump Station, and Crawl Key Pump Station, to provide total water to the system. The existing Marathon Distribution Pump Station and ground storage tanks (one 3.0 MG tank and one 0.5 MG tank) have reached the end of their useful service life and are in need of replacement.

FKAA contracted with Mathews Consulting to provide engineering design, permitting, and bidding services for the required improvements. Design components include the following:

- New 4.0 MG ground storage tank (up to three (3) different types of tank, e.g. concrete, steel or glass-fused steel will be considered for bidding purposes).
- New pre-manufactured pump station building with pumps & controls pre-mounted on the inside of the building by the manufacturer. Building will be installed on raised platform seated on pile foundation to keep electrical and mechanical components above the flood elevation.
- Associated civil, mechanical, structural, electrical & instrumentation improvements. SCADA improvements for system controls will be similar to the controls provided at other FKAA distribution tanks/pump stations (e.g. tank level, tank fill flow, PS discharge flow, PS discharge pressure, etc.)

HIGHLIGHTS:

COMPLETION DATE: In Progress

Design Fee: \$184,726 Project Cost: TBD Contractor: TBD

REFERENCE:





FLORIDA KEYS AQUEDUCT AUTHORITY, FL NO NAME KEY LPSS

No Name Key is an island community located in the lower Keys which connects to Big Pine Key by a concrete bridge. The residents (total of 45 houses) are currently served by septic tanks. Recently, commercial electric power was extended to No Name Key. The residents that are not hooked up to commercial electric power use a combination of solar energy and diesel or gas generators.

The Florida Keys Aqueduct Authority (FKAA) has asked Mathews Consulting to prepare a Preliminary Design Report (PDR) that will investigate the feasibility of providing a Low Pressure Sewer System (LPSS) to the residents of No Name Key. The PDR will include: the development of base drawings for the project area; a pipeline coordination analysis; resident coordination regarding location of LPSS and how each house is powered by electricity; hydraulic modeling of the LPSS, including how the Big Pine Key North system is affected by the additional peak flows from No Name Key; evaluation of the force main bridge crossing (i.e. directional drill vs. bridge attachment); coordination with Keys Energy for electrical requirements for the neighborhood lift station and low pressure lift stations; preliminary construction cost estimates; and development of 30% design drawings for the LPSS, including connecting to the Big Pine Key North system.

HIGHLIGHTS:

COMPLETION DATE: In Progress

Design Fee: \$138,953 Project Cost: \$2,092,400 Contractor: Key Honey Contracting

REFERENCE:









FLORIDA KEYS AQUEDUCT AUTHORITY, FL KEY HAVEN UTILITY IMPROVEMENTS

Key Haven is located in the lower keys and consists of six separate Districts, A-F. There are approximately 24,100 linear feet of gravity sewer pipe and 80 manholes within the Key Haven collection system. There are also four lift stations within the neighborhood which are referred to as District A lift station, District B lift station, District C lift station and District D lift station. From these four lift stations, all wastewater is pumped to a treatment plant lift station located within Key Haven. The Key Haven also has existing water mains within the neighborhood.

FKAA contracted with Mathews Consulting to provide engineering design, permitting, bidding and construction administration services for the project. Project components included replacement of the existing gravity collection system and force mains in Districts A, B, C, D, E and F of the Key Haven service area. The existing water main in Districts B, C, D, E, and F were also replaced.

It was required that the new sewer collection system be designed and constructed parallel to the existing sewer collection system. The construction was also sequenced to incorporate bypassing existing manhole to manhole pipe sections from the Lift Station Collection Manhole to the Terminal Manhole in each section. Once the bypass system for a section is in place, new adjacent manholes and sewer pipe were installed and activated along with the new service lateral stub-ups. Once the manhole and pipe section was completed the sewer laterals were stubbed up near the existing cleanout so that they can be switched over to the new system with zero disruption in service. Existing manholes and pipe were grout filled or removed.

HIGHLIGHTS:

COMPLETION DATE: In Progress

Design Fee: \$333,406 Project Cost: \$9,033,744 Contractor: DN Higgins and Charlie Toppino and Sons

REFERENCE:







CITY OF POMPANO BEACH, FLORIDA KENDALL LAKE NEIGHBORHOOD DRAINAGE IMPROVEMENTS PDR

The City of Pompano Beach is implementing projects associated with the Stormwater Master Plan as prepared by Chen-Moore & Associates. As part of the Master Plan, Study Area 7 - Kendall Lake Neighborhood was identified as an area which experiences roadway flooding; and the existing lake does not have a positive outfall connection. The neighborhood is located on either side of NW 3rd Avenue between NW 21st Street and NW 16th Street.

Mathews Consulting will review the assumptions made and the study data in the Stormwater Master Plan as it relates to the Kendall Lake Neighborhood; review the improvement recommendations made for pipe size upgrades, for exfiltration trench or some combination of the two; review up to four (4) possible positive lake discharge options; re-run the stormwater modeling utilizing the Stormwater Management Model (SWMM) computer program; provide the results and our recommendations to the City for stormwater improvements to the Kendall Lake Neighborhood in preliminary design report and electronic (.pdf) format. The purpose of the project is to review and refine the previous modeling efforts, provide recommendations for a positive drainage outfall from the lake and provide our preliminary design for improvements to the Kendall Lake Neighborhood drainage system. Topographical survey and geotechnical analysis will also be completed in the project area as part of this WA.

The stormwater design effort has been divided into two phases. Phase I will include the review of the Stormwater Master Plan assumptions and recommendations and Phase II will include modeling efforts for the purposes of sizing and cost estimating of proposed improvement options. A design report will be prepared outlining our findings and recommendations.

The project is currently in the Preliminary Design phase.

HIGHLIGHTS:

COMPLETION DATE: In Progress

Design Fee: \$234,891 Project Cost: TBD Contractor: TBD

REFERENCE:

Ms. Alessandra Delfico, P.E. Utilities City of Pompano Beach 1201 N.E. 5th Avenue Pompano Beach, Florida 33060 (954) 545-7073 (954) 786-4028 (Fax)







CITY OF WEST PALM BEACH, FLORIDA MONCEAUX ROAD GROUP I INFRASTRUCTURE IMPROVEMENTS

Mathews Consulting is currently providing engineering services for the design, permitting, bidding and construction administration/inspections for the Monceaux Road - Group I Stormwater and Utility System Improvements Project. The project is part of the City's Phase II Stormwater Projects that is being funded by a Stormwater Bond.

Elements of the project include Data Collection, Preliminary and Final Design, Permitting, Public Relations, Bidding Assistance, Construction Administration and Inspection Services.

- The infrastructure improvements are to include:
- Stormwater facilities
- Water main upgrades
- Sanitary sewer replacement and rehabilitation
- Roadway, curb & gutter, and sidewalk reconstruction
- Signage and pavement markings
- Landscaping
- Decorative Street Lighting

Design components of the project include the following:

- Collect and review record drawings of project area.
- Conduct soil investigation of project area.
- Prepare detailed plan and profile design drawings.
- Prepare and process permit applications for South Florida Water Management District, FDOT, FEC Railway, and Palm Beach County Health Department.
- Prepare technical specifications.
- Prepare cost estimates.

The project was bid on December 11, 2013 with a Construction cost of \$3,532,899. Construction of the project was completed in July 2016.



HIGHLIGHTS:

COMPLETION DATE: July 2016

Design Fee: \$247,242 Project Cost: \$3,532,899 Contractor: Ric-Man International

REFERENCE:

Mr. Tracy Ward, P.E. Senior Project Engineer City of West Palm Beach 401 Clematis Street, 4th Floor West Palm Beach, Florida 33401 (561) 494-1040 (561) 494-1115 (Fax)



DELRAY BEACH, FLORIDA LAKE IDA AREA DRAINAGE IMPROVEMENTS

The City of Delray Beach previously selected Mathews Consulting to prepare a Drainage Study for the Lake Ida Area. This Study Report prepared by Mathews Consulting provided the recommended improvements to the Lake Ida Area (approx. 16.40 acres) in order to address reported standing water issues after heavy rainfall events at a residence on NW 3rd Avenue and also to address identified roadway ponding in the western areas of NW 12th Street near Lake Drive. The final recommendations from this Study Report were divided into three (3) phases:

Phase #1 specifically addresses improvements for site ponding at 1127 NW 3rd Avenue and includes construction of a dry detention area, drainage structures and inlets that collect runoff from in front of 1127 NW 3rd Avenue and direct it to the dry detention area and subsequently to a bubble-up structure outfall along NW 12th Street.

Phase #2 addresses the reported standing water in the roadway at the intersection of NW 12th Street and Lake Drive. Phase #2 includes an inlet at the southeast corner of the intersection with a bubble-up structure to the west which discharges to Lake Ida. This outfall will also assist in the collection and discharge of the overland runoff from the east within the swales.

Phase #3 interconnects the improvements included in Phase #1 and Phase #2 with the installation of a drainage inlet and piping along the south side of NW 12th Street, between NW 6th Avenue and Lake Drive. This interconnect will improve the time it takes for the runoff from the eastern areas of the Lake Ida study area to be collected and discharged into Lake Ida.

All of the phases #1, #2, and #3 were combined into one (1) design project for the Lake Ida Area. Additionally, the City requested to upsize the existing 2-1/2" water mains along NW 3rd Avenue to 8" water mains.

The project was bid in November 2015 with a construction cost of \$711,890.



HIGHLIGHTS:

COMPLETION DATE: November 2015

Design Fee: \$62,696 Project Cost: \$711,890 Contractor: Man-Con, Inc.

REFERENCE:

Mr. Victor Majtenyi Deputy Director City of Delray Beach Environmental Services 434 S. Swinton Avenue Delray Beach, FL 33444 (561) 243-7300 (561) 243-7060 (Fax)





CITY OF POMPANO BEACH, FLORIDA ESQUIRE LAKE STORMWATER IMPROVEMENTS

The City of Pompano Beach previously selected Mathews Consulting (MC) to prepare a Drainage Preliminary Design Report for the Esquire Lake Neighborhood under Work Authorization No. WA-05. The Drainage Preliminary Design Report provided the recommended improvements to the Esquire Lake Neighborhood in order to address roadway flooding and standing water issues after rainfall events in the neighborhood. The Esquire Lake Neighborhood project limits is bounded on the east by Powerline Road, on the west by NW 27th Avenue, on the south by NW 6th Street and the north by Martin Luther King Boulevard.

As discussed in the Drainage Preliminary Design Report, Alternative 3B was our recommended drainage alternative since it provides the most overall benefit in terms of roadway flooding. The City also requested that the existing 36-inch exfiltration trench, manholes and inlets along NW 6th Court be replaced with a new 42-inch exfiltration trench, manholes and inlets.

MC is currently providing engineering design, permitting, bidding, public relations and construction administration services for this project. This project is currently in the 100% Design Stage. The 100% estimated construction cost opinion is \$3,066,000.

HIGHLIGHTS:

COMPLETION DATE: In Progress

Design Fee: \$198,389 Project Cost: TBD Contractor: TBD

REFERENCE:

Mr. Randolph Brown, P.E. Utilities Director City of Pompano Beach 1201 N.E. 5th Avenue Pompano Beach, Florida 33060 (954) 786-4061 (954) 786-4028 (Fax)



TOWN OF LANTANA, FLORIDA

INTRACOASTAL WATERWAY WATER MAIN SUBAQUEOUS CROSSING

The Town of Lantana owns a 10-inch cast iron water main which crosses the Intracoastal Waterway on the north side of the Lantana (Ocean Avenue) Bridge. The water main is approximately 60 years old and supplies potable water to the residents located on Hypoluxo Island. The 10-inch water main also serves as a redundant pipe to an existing 12-inch subaqueous water main that also crosses the Intracoastal to supply water to the Island.

In 2013, the 10-inch water main was damaged and repaired when construction of the replacement bridge was completed by FDOT. After the bridge was completed, more sections of the pipe started leaking and it was determined that the water main is at the end of its useful service life and beyond repair. The Town desires to replace the 10-inch water main with a new directional drilled HDPE pipe in order to provide redundancy to the 12-inch water main, and to increase water volume for fire protection on Hypoluxo Island.

Consultant Service Authorization No. 2015-07 provides the scope of work, schedule, and fees for data collection, design, permitting, bidding and construction administration and inspection services for the ICWW Water Main Subaqueous Crossing.

HIGHLIGHTS:

COMPLETION DATE: In Progress

Design Fee: \$102,230.00 Project Cost: TBD Contractor: TBD

REFERENCE:

Mr. Jerry Darr Director of Utilities Town of Lantana 510 W. Pine Street Lantana, Florida 33462 (561) 540-5764 (561) 540-5759 (Fax)





TOWN OF HIGHLAND BEACH, FLORIDA REPLACEMENT OF WATER DISTRIBUTION LINE

The Town of Highland Beach (Town) desires to replace approximately 6,700 feet of 4 to 6-inch old asbestos cement (AC) pipe located on the side streets of the Town. In addition to the side street water mains, service lines from the main to the meter are made from galvanized pipe and need replacement as well. Some of the Town's water meters are located on private property. Under these circumstances, the meters should be relocated to the public right-of-way. There are also several services (approximately 14) that need to be renewed along State RouteA1A.

The AC pipes in need of replacement are located on Highland Beach Drive, Bel Lido Drive, Tranquility Drive, Intracoastal Drive, Bel Air Drive and Russell Drive. It is the intent of the Town to have curbto-curb restoration of the streets included as part of this project. Specific project components consist of the following:

- 8" PVC C900 Piping (approx. 6,700 LF) to be installed in the pavement w/trench repair. Note: an alternate bid item for 8" HDPE piping will be included in the bid documents.
- The Town roadways will be milled & resurfaced.
- Fire Hydrants and Gate Valves.
- DIP Fittings (Polywrapped).
- Water Services at residential properties within the project limits. Any meter boxes on private property shall be moved to Town ROW.
- Water Services w/new master meter boxes & 4" compound meters, including back flow preventers (@ condos 14).
- Decommission existing 6" &8" water mains (grout).
- Connect to existing water main at cross-streets and to the existing 14" water main on the west side of S.R.A1A.

The project is currently in the construction phase.

HIGHLIGHTS:

COMPLETION DATE: In Progress

Design Fee: \$363,028 Project Cost: \$2,818,432 Contractor: Man-Con, Inc.

REFERENCE:

Mr. Ed Soper Public Works Director Town of Highland Beach 3614 S. Ocean Boulevard Highland Beach, Florida 33487 (561) 243-2084 (561) 279-9040 (Fax)





CITY OF POMPANO BEACH, FLORIDA GATEWAY DRIVE DRAINAGE IMPROVEMENTS PDR

The City of Pompano Beach is implementing projects associated with the Stormwater Master Plan as prepared by Chen-Moore & Associates. As part of the Master Plan, Study Area 6 – Gateway Drive was identified as an area which has little existing drainage and reported problems with widespread and extended roadway ponding. The commercial and industrial area is bounded by West McNab Road to the south, by Powerline Road to the East, by SW 36th Avenue to the west and by the SFWMD C-14 Canal to the north. Broward County Water Control District #4 (BCWCD#4) owns and maintains an existing canal that runs north-south in the center of the Gateway Drive area and along the east side of an existing lake. The stormwater model recommends exfiltration trench along many of the side streets and piping with a positive discharge outfall to the BCWCD#4 Canal.

Mathews Consulting will review the assumptions made and the study data in the Stormwater Master Plan as it relates to the Gateway Drive area; review the improvement recommendations made for the proposed exfiltration trench and piping with positive outfall discharge; re-run the stormwater modeling utilizing the Stormwater Management Model (SWMM) computer program; provide the results and our recommendations to the City for stormwater improvements to the Gateway Drive area in preliminary design report and electronic (GIS) formats. The purpose of the project is to review and refine the previous modeling efforts and provide a preliminary design for improvements to the Gateway Drive drainage system that will maximize the effectiveness of the exfiltration trench; provide for the best use of less expensive swales where appropriate; and interconnect proposed drainage pipe and inlet improvements with a positive drainage outfall. Topographical survey and geotechnical analysis will also be completed in the project area as part of this work effort.

The project is currently in the Preliminary Design phase.



HIGHLIGHTS:

COMPLETION DATE: In Progress

Design Fee: \$194,360 Project Cost: TBD Contractor: TBD

REFERENCE:

Ms. Alessandra Delfico, P.E. Utilities Engineer City of Pompano Beach 1201 N.E. 5th Avenue Pompano Beach, Florida 33060 (954) 545-7073 (954) 786-4028 (Fax)





CITY OF BOYNTON BEACH, FLORIDA REHABILITATION OF MASTER LS 309

The City of Boynton Beach owns and operates Master Wastewater Lift Station No. 309 (LS 309) which is located at the NW corner of the intersection of N. Seacrest Blvd. and NW 19th Avenue. The station is a triplex station which currently serves the surrounding sewer area, as well as serves as a repump station for twenty (20) upstream wastewater lift stations, fifteen (15) of which pump directly to LS 309.

During recent storm events, the City has experienced extended periods of high water levels within the wet well at Master Lift Station 309. The City contracted with Mathews Consulting, Inc. to complete an evaluation of the existing wastewater gravity collection system as well as the wastewater force main systems located within the limits of Wastewater Basin 309 of the City's wastewater service area. The resulting report, "Wastewater Basin 309 Evaluation", completed June 1, 2014, made several recommendations of upgrades to improve the performance of LS #309 during major rain events and during normal daily peak hour flows. The following improvements were recommended:

- Installation of a 16-inch FM (approximately 3,200-ft.) to replace the existing 12-inch FM and to reduce the hydraulic head loss from LS #309 to the connection point adjacent to LS# 359. The existing FM will be abandoned in place.
- Replace the existing jockey pump with a full size pump to increase reliability and reduce starts per pump (the existing jockey pump will not operate on its curve after the proposed parallel force main is placed into service).
- Install variable frequency drives (VFDs) to reduce pump starts during normal operating conditions.
- Replace the existing MCC to operate with the new VFDs and larger pump.

The project was bid for a construction cost of \$1.82M. The project is currently under construction.

ATHEWS CONSULTING a BAXTER WOODMAN company

HIGHLIGHTS:

COMPLETION DATE: In Progress

Design Fee: \$194,924 Project Cost: \$1,832,000 Contractor: Florida Design Drilling

REFERENCE:

Mr. Chris Roschek Engineering Division Manager City of Boynton Beach 124 East Woolbright Road (561) 742-6400 (561) 742-6298 (Fax)

CITY OF WEST PALM BEACH, FLORIDA RUTLAND BOULEVARD IMPROVEMENTS

Mathews Consulting is currently providing engineering services for the preliminary design, final design, public participation, permitting, bidding and construction administration/inspections for the Rutland Boulevard Improvements Project. The project is located in a residential neighborhood in the City of West Palm Beach.

The infrastructure improvements include:

- Stormwater facilities
- Water main upgrades
- Sanitary sewer replacement
- Roadway, curb & gutter, and sidewalk reconstruction
- Signage and pavement markings
- Decorative street lights

Scope of work for the project included the following:

- Collect and review record drawings of project area.
- Conduct soil investigation of project area.
- Prepare detailed plan and profile design drawings.
- Prepare and process permit applications for South Florida Water Management District, and Palm Beach County Health Department.
- Prepare technical specifications.
- Prepare cost estimates.

Construction of the project was completed in July 2016, with a construction cost of \$1.54M.





HIGHLIGHTS:

COMPLETION DATE: July 2016

Design Fee: \$149,846 Project Cost: \$1,541,384 Contractor: DP Development

REFERENCE:

Mr. Tracy Ward, P.E. Senior Project Engineer City of West Palm Beach 401 Clematis Street, 4th Floor West Palm Beach, Florida 33401 (561) 494-1040 (561) 494-1115 (Fax)





CITY OF DELRAY BEACH, FLORIDA DELRAY BEACH NE 1ST AVENUE IMPROVEMENTS

Mathews Consulting provided engineering services for the final design, permitting, and bidding for the NE 1st Avenue Improvements project as follows:

NE 1st Avenue (NE 1st Street to NE 2nd Street)

- Mill and resurface roadway.
- On-street parallel parking where space is available.
- Paver sidewalk on both sides of roadway.
- Landscape nodes w/ landscaping.
- Irrigation Plans for landscape nodes.
- Decorative street lights.
- Paver intersection at NE 1st Avenue and NE 1st Street.
- Replace existing 2" WM with new 8" WM.
- Adjust existing drainage and add new drainage components as necessary to accommodate improvements.

The roadway typical section was designed as a mirror image as follows:

• 11-foot travel lane, 2-foot valley gutter, 5-foot parking stall, 2-foot F-curb, 5- foot paver sidewalk.

The project was bid in September 2013 with a construction cost of \$569,207. Construction of the project has been completed.



HIGHLIGHTS:

COMPLETION DATE: 2014

Design Fee: \$74,956 Project Cost: \$569,207 Contractor: N/A

REFERENCE:

Mr. Victor Majtenyi, Deputy Director City of Delray Beach Environmental Services 434 S. Swinton Avenue Delray Beach, Florida 33444 (561) 243-7300 (561) 243-7060 (Fax)







CITY OF BOCA RATON, FLORIDA BOCA RATON HEIGHTS INFRASTRUCTURE IMPROVEMENTS

Mathews Consulting is currently providing engineering services for the preliminary design, final design, public participation, permitting and bidding services for the Boca Raton Heights Infrastructure Improvement Project. The project is located in the City of Boca Raton.

The Boca Raton Heights neighborhood is bounded by topographic features such as a natural ridge and roadways which result in stormwater runoff being trapped in the low-lying areas of the neighborhood. Stormwater improvements are proposed in order to address the problems associated with water ponding on the roadways, including pavement section deterioration.

A pavement condition review was completed and a decision matrix prepared to assist in analyzing which of the existing roadways should be reconstructed or whether a cost-saving overlay would be recommended.

In addition, new sanitary sewer and a wastewater lift station are proposed to serve the houses and businesses that are currently on septic tank, and watermain improvements are proposed to improve fireflow and water system pressure.

The project was bid on July 19, 2013 with a construction cost of \$2,666,237. Construction of the project has been completed.





HIGHLIGHTS:

COMPLETION DATE: 2014

Design Fee: \$218,517 Project Cost: \$2,666,237 Contractor: Man-Con, Inc.

REFERENCE:

Mr. Chris Helfrich, Utilities Director City of Boca Raton Utilities Department 1401 W. Glades Road Boca Raton, Florida 33431 (561) 338-7300 (561) 659-7458 (Fax)



CITY OF BOCA RATON, FLORIDA BOCA RATON HILLS WASTEWATER INFRASTRUCTURE IMPROVEMENTS

The City of Boca Raton identified the Boca Raton Hills neighborhood as a candidate to receive conventional gravity sanitary sewer and discontinue the use of septic tanks in the area. Approximately 111 residential units were sewered as part of this project.

The City also identified potable water improvements to be completed in conjunction with the sanitary sewer work. The limits of these improvements are as follows:

- Backyard WM's: Abandon (plug and grout) 520 LF of 4" WM.
- NW 4th Avenue: Install 1,290 LF of 8" WM.
- NW3rd Terrace: Install 800 LF of 8"WM.
- Provide new water services and meter boxes.
- Transfer rear yard water connections to front yards.
- Provide new fire hydrants.
- Reconstruct roadways within project area.

Mathews Consulting provided preliminary and final engineering design, public participation, permitting, bidding and construction management services for the Boca Raton Hills project.

The project was bid in July 2013 with a bid cost of \$3,522,600.00. Construction of the project has been completed.

HIGHLIGHTS:

COMPLETION DATE: January 2015

Design Fee: \$186,159 Project Cost: \$3,552,600 Contractor: Lanzo Construction

REFERENCE:

Mr. Chris Helfrich Utilities Director City of Boca Raton Utilities Department 1401 W. Glades Road Boca Raton, Florida 33431 (561) 338-7303 (561) 659-7358 (Fax)



CITY OF POMPANO BEACH, FLORIDA WASTEWATER MASTER PLAN

The City of Pompano Beach desired to develop a new Wastewater Master Plan to identify and plan for the necessary improvements required to meet future growth demands on their wastewater Utility System. The City contracted with Mathews Consulting (MC) to develop and prepare the Master Plan. The general scope of the project was to evaluate the existing wastewater utility system (with focus on the wastewater lift stations, force main and transmission system) and to make recommendations for necessary improvements needed to maintain adequate level of service for the anticipated 20year planning period.

Specific tasks completed include the following:

- Evaluate historical data
- Summarize current and future wastewater collection regulatory requirements
- Identify wastewater system goals
- Perform capacity analysis of wastewater system
- Perform asset evaluation and assessment of existing structures and equipment
- Evaluate non-sewered areas
- Evaluate City I&I abatement program
- Project future wastewater flows
- Develop hydraulic model and evaluate future capacity needs
- Develop recommendation of improvements with associated costs and schedule
- Review current wastewater system operations and make recommendations for improvements

HIGHLIGHTS:

COMPLETION DATE: December 2016

Design Fee: \$139,750 Project Cost: N/A Contractor: N/A

REFERENCE:

Mr. Randolph Brown P.E. Utilities Director City of Pompano Beach 1201 N.E. 5th Avenue Pompano Beach, Florida 33060 (954) 786-4061 (954) 786-4028 (Fax)





CITY OF WEST PALM BEACH, FLORIDA GRANT STREET WASTEWATER SYSTEM EVALUATION

The City of West Palm Beach has selected Mathews Consulting (MC) to perform preliminary engineering and hydraulic modeling for the Grant Street Wastewater System Evaluation.

Recently, the City experienced a wastewater gravity main pipe failure at the intersection of Grant Street and Tamarind Avenue. Repairs were made to the gravity pipe extending across the intersection; however, the City is concerned there may be issues with the system condition and deterioration of the gravity sewer in this area. The City has asked Consultant to provide field investigations to confirm the condition of the gravity main and make recommendations regarding any repairs that are required. The City has also asked MC to update population and wastewater flow projections for the project area, and perform hydraulic modeling analysis to confirm recommended upsizing of the 30-inch force main. The hydraulic analysis will consider two (2) flow options:

- Continue transferring wastewater flow from LS 23 through the Grant Street 30-inch force main.
- Re-direct wastewater flow from LS 23 through the Town of Palm Beach 30-inch force main on 22nd Street which eventually discharges into the 42-inch force main upstream of Grant Street.

A Technical Memorandum shall be prepared summarizing the hydraulic modeling findings and providing recommendations on required gravity main and force main improvements.

Scope of work for the project includes the following:

- Investigation Phase
- Field Investigations
- Hydraulic Model Development
- Hydraulic Analysis
- Final Report





HIGHLIGHTS:

COMPLETION DATE: August 2013

Design Fee: \$42,732 Project Cost: N/A Contractor: N/A

REFERENCE:

Ms. Laura Le, P.E. Senior Project Engineer City of West Palm Beach 401 Clematis Street, 4th Floor West Palm Beach, Florida 33401 (561) 494-1040 (561) 494-1115 (Fax)





Section 3

Approach to Scope of Services



Approach to Scope of Services

This section provides Mathews Consulting's understanding of the project(s) and engineering services to be performed under this General Engineering Services Contract for the City of Key West. Also included is a general approach that we typically follow for civil (stormwater & roadway) and utility transmission, distribution & collection systems (e.g. water, sewer & reclaimed) types of projects, and our company project management philosophy that is implemented for all projects. We feel our project approach, outstanding team members, and our South Florida & Florida Keys experience will be the most cost effective for the City of Key West based on the following:

- O We offer streamlined operations to implement projects efficiently.
- We provide cost effective engineering rates.
- **O** We are highly experienced in municipal civil, roadway, stormwater, and utility projects.
- **O** We are experienced in meeting schedules for fast-track projects.
- Our understanding of the local regulatory environment and our working relationship with permit reviewers ensures timely permitting schedules.
- **O** We maintain continuity of project staff throughout duration of project.
- We are readily accessible to serve you at a moment's notice.
- We offer a "Good Neighbor" public relations program to keep your residents informed of the project.
- Our construction management services minimize change-orders and scheduling delays.
- We take pride in getting the job done right "the first time".

Our project approach will provide the City of Key West with quality engineering services at a cost effective rate, while exceeding all project deadlines and budget requirements.

3.1 Project Understanding

The City of Key West requires the services of qualified firm(s) to provide General Engineering Services. These services may include, but are not limited to, planning services, design services, permitting assistance, bid and proposal development services, and services during construction. Mathews Consulting is specifically submitting for the following disciplines:

- Civil Engineering Services
- Utility Engineering Services

Mathews Consulting, along with our team members, possess the qualifications and expertise necessary to perform consulting services in all of the disciplines listed above.

3.2 Project Approach

Mathews Consulting has a proven track-record in providing the design, permitting, public outreach, bidding and construction administration/inspections of general civil and utility infrastructure improvement projects (water mains, forcemains, gravity sanitary sewer, roadway & stormwater facilities) and wastewater pump station projects, including low-pressure pump stations. Our project approach to these types of projects involves the following primary tasks:

- O Project Kick-Off
- O Data Collection / Survey Mapping / Geotechnical Investigation
- Hydraulic Modeling
- Final Design Services
- Value Engineering Services
- O Cost Estimate
- O Permitting Services
- Bidding Services
- O Public Outreach
- Construction Administration
- Resident Project Representative (RPR)
- Final Certification

Total Quality Assurance/Quality Control is maintained during all aspects of Mathews Consulting's projects. Our project approach for the project(s) under this Contract is summarized in the Flow Chart as shown on **Figure 3.1** and discussed below.

Project Kick-Off

Mathews Consulting Team members will attend a notice-toproceed kick-off meeting with the primary objectives of developing a clear understanding of the scope of work and the key concerns of all project participants, obtaining relevant information that may be available from the City, and establishing proper communication between the consultant team and the City's staff.



Data Collection

This task involves the collection of project specific data to be used in the design of water/wastewater systems, pump stations and pipeline projects. We propose to use Dennis J.

Leavy & Associates (DJL&A) to provide topographical survey of the project area. The survey information will be used in conjunction with the City's available record drawing (e.g. "As-Builts") information, existing GIS maps, and aerial maps. Mr. Dennis J. Leavy is a respected surveyor who provides professional surveying services to over 95% of Mathews Consulting design projects since 2002.

We also propose to use Nutting Engineers, to collect geotechnical (e.g. soil information) and provide testing as needed for design purposes. A Geotechnical Report shall be prepared for each project that will provide a description of the underground soil characteristics and water table information and provide recommendations for trench design, removal of unsuitable material and any special pipe trench design.






The project team will obtain information on existing utilities in the project area in order to avoid utility conflicts. This will include reconciling apparent discrepancies between record information and existing photographic and field-verification information. Typical utility information includes: electric, telephone, cable TV, gas, water, sanitary, reclaimed water and storm drainage. Mathews Consulting has a strong working relationship with these local utility companies in Monroe County to make sure that they provide us with all of their known utilities in the project area(s). This information will be added to the design drawings.

As necessary, utilities will be potholed and surveyed. We will use a local Underground Utility Locating Firm, that will locate any existing <u>critical</u> underground utility locates using "ground penetrating radar". This information would be added to the design drawings.

During the data collection process, the Project Team will work closely with the City to determine what site data may already exist in an effort to avoid redundant collection of data. This will allow the project to move forward quickly and cost effectively.

Hydraulic Modeling

The Project Team will perform all necessary system capacity and and hydraulic modeling for each project that includes water/wastewater improvements to confirm pipe routing and sizing. We will confirm input data, existing system conditions, elevations and delineation of the service areas.

Mathews Consulting will utilize various hydraulic modeling programs available for sanitary sewers, pump stations and water mains. We predominantly use WaterCAD® and SewerCAD® modeling programs, and InfoWater.

Design

Our approach is to break each design project into two subtasks: preliminary design layout (preparation of 30% design documents and construction cost opinion), and final design (preparation of biddable contract documents – subject to 60 and 100 percent reviews).



- Preliminary Design Layout Based on the survey and geotechnical data collected and utility locates, the project team will layout the proposed infrastructure improvements for the project area. The system will be designed to maximize system performance, provide for ease of maintenance, minimize utility conflicts, and minimize construction costs. The project will also be designed in accordance with the City design standards and regulatory agencies requirements (e.g. FDEP, FDOT, SFWMD, Monroe County, etc.). Also, any requirements that need to be followed in order to receive grant or stimulus money for the project will be closely adhered to. Upon completion of the layout, we will hold a review meeting with the City to review the layout for approval before proceeding. This will also include preparation of a preliminary phasing plan, if required, to implement construction consistent with available multi-year funding.
- Contract Document Preparation Detailed design (subject to 60 and 90 percent reviews) will commence immediately following completion and acceptance of the preliminary design. The construction documents shall include drawings and technical specifications. The construction drawings shall include: cover sheet, phasing plan (if required), civil (plan and profile) drawings, mechanical drawings, structural drawings, electrical drawings, and miscellaneous detail sheets. The drawings will be designed using AutoCAD Version 2016. Regular consultation will be made with City staff to inform them of the project's progress and to receive their input. At 60 percent design completion, plans, specifications, and construction cost opinion will be submitted to the City for review.

When the design drawings and specifications are at 90 percent completion, a submittal will again be made to the City. The submittal will include a construction cost opinion. This ninety percent design submittal will serve as the basis for obtaining the City staff's final project input prior to finalization of the contract documents for bid. Throughout the design, our project team will provide necessary internal quality assurance/quality control reviews.

Value Engineering and Constructability Reviews

Value Engineering (VE) is the method by which a project is studied and reviewed with the intent of generating cost improvements without sacrificing the project's needed performance levels. VE is a

rigorous, systematic effort to improve the value and optimize the life cycle cost of a facility. Mathews Consulting has developed a unique and efficient approach to conducting value engineering studies:

- A team of in-house experts is assembled to participate in the workshop review session. Disciplines covered include civil, mechanical, process, structural, architectural, electrical, instrumentation and control, and/or operations as needed for the specific project requirements.
- The team utilizes brainstorming sessions coupled with independent reviews to identify VE proposals.



- VE proposals are thoroughly researched to present accurate capital and life cycle cost savings. A Function Analysis and Cost Model are developed for each project to validate project value and to establish target VE savings.
- The VE report is prepared in conjunction with the workshop session so that the client has immediate results at the end of the review period.

To facilitate workshop progress and to enhance the presentation of results, Mathews Consulting has developed custom forms for value engineering projects. The forms list VE and constructability comments according to discipline so that the results are easy to reference and implement by the

Value Engineering Recomm Project: East Canter Reporte WVT Item: Consider covering the project Original Design Proposed tank is 1007 dismeter open too	F Expansion wed 60 lank and provide odor control o	P. 5	6				
			Sur	mma	ry of Potential Cost Savings		
			Pro	ect: ation	East Central Regional WWTF Expansion	Deta	3/16/01
				iosala		Initial Savings	Life Cycle Savings
Propose similar son tark but provide pe	odess: clarve cover and usize control by	len.	VAR	D-SIT			
			¥.	4	North CCB, eliminate 48' line and plug 8' efficient PS.	29,657	29,687
				5	Eliminate effuent PS/ North CCB, 48" parallel live.	111.675	111.675
				~	YARD-SITE TOTAL		141,232
			EP.O	CER	EQUIPMENT		
Discussion - Advantages, and Disative The will reduce odors only when extrem sayital and spending oper.		/ significantly more both in	P-		Shewi M-5 EQ tank brassfer pumps consist of 6 pumps and 6 lines. Suggest 4 pumps and fewer lines.	120,452	120,452
			P -	á	Revise gravity flow line from EQ tank to AB 7. Consider hard-pipe to bottom of bettin in lieu of complex concrete traugh	70,475	70,475
Advantages: Marginally induce indofs			P-	5	Consider covering the proposed EQ tank and provide odor costrol system.	-1.044.000	-1.520,550
Disadvantager; • Higher capital and operating solids • Additional maintenance cost			р.,	6	Check mixer design for EQ tank. Appears too small. Use feed pumps to redirculate	60,063	66,787
Life Cycle Cost Summary	tria	Annual	P	R	Consider single stage, modulating vane blowers in lieu of multi- stage blowers.	-182.700	587,532
Drignel Propolett Savings	1,044,000	45,017 (45,000	P-	14	Utilize new 5 MG tank as primary EQ Basin	-1,510,799	-4.105,349
	PW Annual Savings at (Factor) Total Savings (Initial + PW Annual)	10.54 (478.55) 5(1.5) (1.520.55)	P -	17	Proposed roll up door in chilorina bldg will not work with monorell. Provide monorall extension & change doore to bifold	7,569	7,569
			P -	20	Recalculate may Day 02 themand and use 1 mg1 D.O. May result in 1 less blower.	571,851	649,158
			P-	23	Elemente effuent P.S. expansion	1,985,475	1,985,478
					Process-Equip. Total	78,389	(2116,346)
			STR	UCTU	Dat		

Design Team. Detailed cost proposal forms ensure cost estimates compare "apples to apples", represent "true" life cycle costs of the item and include proper construction markups.

Constructability reviews are conducted in the mid to later project design stages to ensure constructability and clarity of the design documents and to avoid conflicts, delays, and added costs. These reviews minimize the need for redesign, reduce construction costs, expedite project completion, and reduce environmental impacts and long-term maintenance costs.

Constructability reviews measure the ease with which a project design can be built while complying with the drawings, specifications, construction schedule, quality control requirements, and budget constraints. The reviewer identifies areas where the ability to build a facility can be improved by listing construction constraints and sequencing the design components to meet the construction schedule.

Cost Estimates

Cost estimates will be prepared at the 60, 90 and 100 percent completion stages. The cost estimates will reflect changes in general scope, and additional design requirements that may be incorporated during the design review stages. This affords the City the opportunity to make changes in project direction based on construction budget constraints.

Permitting

Typical utility type projects that involve water and wastewater are permitted through the Florida Department of Environmental Protection (FDEP); drainage facilities are permitted through South Florida Water Management District (SFWMD). Projects that involve state roads are permitted through the Florida Department of Transportation (FDOT). It is very important that the regulatory agencies be involved in the project from the outset. This participation is vital to obtain information and direction, which may be critical to the success of the project. For this reason, we typically hold a pre-application conference with the regulatory agencies to discuss the project and troubleshoot any potential problems.

After approval by City staff of the 90 percent submittal, the contract documents will be submitted to the appropriate regulatory agencies for construction permits. Mathews Consulting has a strong professional relationship with all regulatory agencies in South Florida. This has been developed over many years of working with the various regulatory agencies in South Florida.

Bidding

The bid review process is very important in order to ensure that the Contractor selected for the work is qualified to provide the construction services in the bid documents. In all of our conventional design-bid-construct projects, Mathews Consulting evaluates the bids submitted by the General Contractor's. The bids are typically evaluated for the following items:

- Bidder maintains a permanent place of business and is fully licensed.
- Bidder has adequate manpower and equipment to do the work properly and expeditiously.
- Bidder has suitable financial resources to meet the obligations of the work.
- Bidder will perform a specified percentage of the work using his own forces.

- Bidder's Project Manager is experienced in executing the required work.
- Subcontractor's proposed for use are qualified to perform the work.
- Bidder meets insurance requirements.
- All bid forms are filled out correctly.
- The bid prices are mathematically correct if a unit price bid is used.
- Any addendum's are acknowledged.
- Bid Bond (5% bid price) is submitted with bid.
- Mathews Consulting checks the bidders references.

After Mathews Consulting has evaluated the bids we typically recommend the lowest responsible and responsive bidder whose bid meets the requirements of the Contract Documents and provides the City the <u>best value</u>. In situations, where the lowest bidder is not qualified, we then evaluate the second low bidder, and so forth, until a bidder is selected.

The Bid Phase Services for this Contract may include the following tasks:

- Coordinate with the City's Procurement Services staff to distribute copies of the Contract Documents to the prospective bidders.
- Provide pre-bid services, such as assistance with advertisement, answering questions from potential bidders, and prepare responses for issuance of addenda to the plan holders by the City.
- Respond to questions from prospective bidders and suppliers and prepare responses for issuance of addenda by the City.
- Participate in Pre-Bid meetings with interested contractors and City staff. Prepare responses as a result of the meeting, for issuance of addenda by the City.
- Review bid packages received, document the due diligence process, and recommend award for each project.
- Prepare the required sets of conformed Contract Documents for execution by the selected contractor. The conformed sets will include addenda issued during the bid phase and the awarded contractor's schedule of bid items.

Public Outreach

As with any infrastructure improvements project, including roadway and underground utility improvements residential infrastructure in neighborhood(s) and/or business districts, positive public relations are a vital aspect of the program. Our approach to Public Outreach is to keep the public and City Officials informed and involved. By using a proactive "Good Neighbor" approach with the public, the City can generate a partnering relationship with the affected residents. This can be done by keeping the public aware of project scope, road closures, schedules, and benefits of project through handouts, flyers, etc. We will tailor the public relations campaign to meet the specific needs of the City for these particular project(s). The following outlines our approach to Public Relations:



The Residents and Business Owners Matter

Our Team understands that the public matters when it comes to a successful project. At the heart of the project are a series of tactics that will serve as the implementation component of the public education and outreach program. These tactics are summarized below and incorporate a variety of public education on outreach techniques.

- Conduct public outreach meetings
- O Develop presentations and provide speakers to attend public meetings
- O Post project updates on the City's Web site
- O Establish and maintain a project telephone information line
- Prepare traffic advisory flyers
- Provide email alerts
- O Prepare project press releases and project fact sheets
- O Develop and distribute a project newsletter

The objective of the public outreach program is to convey information to the public and interested groups. By using a multi-faceted approach to convey information, the success of the effort is optimized. For example, individuals wanting specific information about a certain area of the project may feel more comfortable leaving a message on the telephone information line, instead of asking

a speaker a question in front of a group, or sending an email or written letter. The Public Outreach Plan describes the general approach and specific benefits of each element of the program.

Newsletter / News Release

Newsletters will be written to include information, calendars of service days, telephone numbers, information about the Web site, and maps. The newsletters will be printed and distributed at fundamental intervals. Newsletters differ from press releases, in that a newsletter will have a smaller audience, greater depth of reporting, and more issues presented than a press release. Each newsletter will explain how to provide input.

Newsletter distribution points will be identified on the project Web site and via press releases distributed to the local media. Although the primary method of distribution will be at established distribution points, newsletters will be mailed out upon specific request. Based on need, newsletters can be printed in English on large-type formats.

Email Alerts

If the City has the capability to use email alerts to residences regarding issues and other announcements, this tool can be used to share information about the project.

Telephone Information Line

A dedicated telephone line can be developed to provide access for interested parties to leave questions, comments, and/or concerns on a voicemail system. Callers may leave messages and questions for senior staff to address. The number of the telephone line will be listed in newsletters and on the Web site. This service is internet based and transfers calls to a designated cell phone or any number programmed into the system. This system also allows for emergency call response.

Website

In today's fast moving technological environment, citizens want timely and accurate information. The City has a functional and easy-to-use Web site. Because the citizens are familiar with City's Web site, it can be used to provide information and description of the project and project schedule. The Web site can be updated on a weekly or monthly basis, or as frequently as City updates the information.

Public Outreach Meeting

Working with City staff and elected officials, our team will schedule public outreach meetings to inform the residents. These meetings will give an overview of the project budget, design and construction schedule. The public outreach meeting will also help to facilitate accurate information to the residents and businesses.

- O Focus on residences
- O Focus on commercial interest

Press Releases

As important developments warrant, the Mathews Consulting Team will prepare press releases, project fact sheets, and traffic advisory flyers for local distribution. While newsletters address several issues with depth, press releases are limited on the number of items discussed and are typically constrained on the depth to which it addresses an issue. Press releases also have a wider audience than do newsletters. As with newsletters, press releases will be prepared at intervals when public awareness is encouraged or during significant events. These press releases can be disseminated via the local radio stations, local newspapers, etc.

Summary

A Public Outreach Plan is effective when several facets are implemented as part of a coordinated program. In certain situations, single elements of the plan may be more effective than other elements. Combining several techniques in conveying project information to the public creates an optimal approach.

Services During Construction

Close supervision and documentation is required to ensure that quality construction is provided. Mathews Consulting provides full service planning, resident inspection, management startup, operations and maintenance of construction projects. Our experience includes construction of environmental and public works facilities, including wastewater/water treatment plants, pumping stations, underground utility infrastructure projects, parks, and streetscape/beautification projects. Construction administration and inspection services are provided by our in-house engineers and construction management staff members.

Mathews Consulting is available to provide construction administration throughout the construction contract period(s). We will work with City staff to structure our construction management services (CMS) to fit your needs. In that way, we can work jointly with the City to cover necessary facets of CMS without spending duplicate time (and cost). These services may include:

- Administer the City's contract with the Contractor and ensure all contract conditions are met.
- Conduct pre-construction conference.
- Interpret and clarify plans and specifications throughout construction.
- Conduct site visits and direct construction meetings with Contractor.
- Provide resident inspection services.
- Process detailed construction shop drawing submittals.
- Field questions and phone calls from residents during construction.
- O Observe initial operations and performance tests required by specifications.



- involving changes in extent or amount of contract or changes in design.
- Prepare and process change orders involving changes in approved design.

Mathews Consulting is prepared to provide complete construction inspection/resident engineering services to oversee all construction activities in the field as desired by the City or act as an extension of the City's in-house inspection team. The major field engineering responsibilities are summarized below:

O Observe materials and completed work to monitor the Contractor's general compliance with plans, specifications, and design intent.





- Advise the City in all matters relating to interpretation of technical requirements of the plans and specifications.
- Coordinate, supervise, and review material sampling and testing, including concrete and soils testing, where appropriate.
- Coordinate the establishment of necessary surveying consistent with requirements of the specifications.
- O Review quantity and cost estimates for periodic payment to the Contractor.
- Review Contractor's Monthly Pay Request.
- O Witness start-up of systems (e.g. water/wastewater treatment facilities, pumping facilities, etc.).



O In conjunction with City, make preliminary and final inspections of the project and prepare

Contractor punch lists.

- Advise the City to the substantial and final completion of the project.
- Prepare certificate of completion of construction.
- Complete Record Drawings for the project.

Mathews Consulting maintains detailed documentation and open lines of communication with contractors to minimize the potential for claims during construction. *Our approach to construction administration is to stay on top of the contractor's activities, identify conflicts before they cause delays and change orders, and keep the project on schedule.*

Construction Schedule Controls

Reviewing and evaluating the construction schedule - including the baseline schedule, monthly schedule updates and revisions, and 2-week look ahead schedules – is integral to construction project(s) successful completion. Mathews Consulting's Construction Manager examines schedules to identify variances between scheduled and probable completion dates of activities, as presented by the Contractor, so that we can analyze the effect on the overall project completion.

In conjunction with schedule review, we provide recommendations to the Contractor relevant to the adequacy of their personnel performing construction tasks. We make observations regarding the availability of equipment and materials necessary to execute work efficiently and effectively. These elements ultimately determine a construction schedule's success or failure. The following steps will be implemented on these construction projects for the City:

- Mathews Consulting's Construction Manager will request the contractor to provide a Baseline Critical Path Method (CPM) Construction Schedule as a formal Shop Drawing Submittal prior to Construction.
- The CPM Schedule provided by the Contractor will include the entire group of electronic files so that the schedule logic can be analyzed by Mathews Consulting during the review process.
- The CPM Schedule must include at a minimum all work activities showing the baseline start column and baseline finish date column in calendar days. The Contractor's CPM Schedule shall include a column displaying the amount of



float time available and a column displaying percentage to completion.

• The CPM Schedule will be reviewed and approved based on conformance to contract milestone dates, logical phasing and succession of the work, material procurement & delivery, achievable crew production rates, permitting certifications, and project closeout and completion.

- The Contractor must provide a Monthly Updated Schedule with each Pay Request. Two columns will be added to the monthly updated schedule for "Actual Start" and "Actual Finish" to track schedule progress. The Baseline Column will remain fixed.
- Mathews Consulting's Construction Manager will monitor the Contractor's Schedule and notify the City in writing when the Contractor appears to be behind schedule. Mathews Consulting will also request from the Contractor a Revised Schedule or a Schedule Recovery Plan if deemed necessary. The pay application will not be approved until a schedule recovery plan is submitted.

Our Construction Manager will review schedule compliance on a bi-monthly basis at project schedule control meetings and take appropriate action to prevent slippage with it first becomes apparent.

With the vast changes in the construction business and the need to combine both design and construction together, our Project Team has become an avid user of many scheduling tools that assist the design and construction professional to maintain thorough understanding of the cost related to projects. While there are a variety of tools on the market today that give project management personnel the capability to manage construction projects, we have chosen the Primavera suite of software tools to assist these professionals with the difficult tasks they face on a daily basis. These tools include the following:

P6 Primavera Project Planner provides an easy-to-use approach to project planning with an

intuitive interface that makes project planning and control easy without sacrificing the powerful sophistication of high-end project-management software. P6 is a multi-user product that operates on networks allowing users to share data with other networks users and anyone who manages projects using Primavera software. The unique features of P6 are:

- O Project Modeling
- O Scheduling
- Resource and Cost Management
- Reports and Graphics
- O Data Exchange



O Add-on products

Construction Budget Controls

The dollar value awarded to the Contractor based on their bid is considered the Construction Budget for a specific construction time-frame. The goal of the construction budget management is to control the project costs within the approved budget and deliver the expected project goals. Mathews Consulting's definition of a successful construction project is: the project is constructed on schedule and budget, and once delivered, it meets the quality expectations of the Owner and regulatory agencies.

Examples of procedures that Mathews Consulting's Construction Manager will administer to ensure that the Project stays within budget are as follows:

• Close daily review and measurement of field quantities by our resident inspector (RPR) are discussed with the Contractor's Superintendent on a weekly basis. Mathews Consulting provides a weekly spreadsheet based on the approved schedule of values so that pay item quantities are accurately tracked in the field on a daily basis.



- O Mathews Consulting will provide a detailed review of the Contractor's Pay Application for incorrect quantities, mathematical errors, and percentage of pay item completion. When completion percentages exceed the project progression, the City will be notified to discuss and determine what action is needed.
- Our Team will respond in a timely manner to any Contractor claims or request for additional compensation. Mathews Consulting has significant experience resolving these types of claims and will not recommend approval of any such claim unless the claim is completely warranted and the procedures

for filing such a claim listed in the contract documents are followed.

• We closely monitor the Contractor's schedule so that the project can be completed in the timeliest and cost effective manner.

• Lastly, we establish a respectful working relationship with the Contractor to effectively resolve potential issues during construction that meet the City's and/or Engineering Standards, but can also be done in a practical and timely manner and that doesn't create additional costs or time on the Contractor.

3.3 City Staff Involvement

Our Team's project philosophy is to match experienced individuals with the Owner's staff when developing the project goals and defining the desired outcome. Key to the success of the project is frequent communication between Owner staff and the design team at scheduled meetings. There is no substitute for interpersonal interaction throughout the implementation phase to ensure a clearly defined set of deliverables that meet the Owner's and staff's expectations.

The Project Team Organization Chart shown in Section 1 of this proposal defines the lines of communication between team members and shows the flow of information to and from City Staff. Our Team's philosophy is not to employ unnecessary layers of management (i.e., project administrator, client coordinator, principal in charge, etc.), but to require **direct**, **open interface between the City Staff and our project manager and team members**.

3.4 Project Management Philosophy

Development of a sound approach and methodology is of primary importance for completion of projects in a timely and cost effective manner. This is especially evident for small to mid-size projects with fast track schedules. This section briefly outlines the basic project management philosophy followed by Mathews Consulting. The principals of Mathews Consulting's Project Team are involved in all facets of projects, which ensures that full attention is paid to every work assignment. We place a high emphasis on "getting the job done right". The success of this philosophy is evidenced by the repeat business that we have received from our current clients.

Project Management

The overall contract will be administered by our Project Manager, David L. Mathews, P.E., who has the direct authority to commit the resources as required for the successful completion of the project(s). The Project Manager is responsible for maintaining full knowledge of all aspects of the

project. This approach is designed to provide one person answerable to the City at all times. Our project management framework results in direct lines of communication and responsibility and allows for simple project coordination.

For utility construction projects in residential neighborhoods (e.g. roadway reconstruction and underground utility improvements, etc.), it is extremely beneficial to have the Project Manager integrally involved with the project – from conceptual design through construction services. This will ensure continuity during the entire duration of the project(s). Our Project Manager will be "hands-on" during the design and construction of projects under this contract with the City.

Schedule Control

It is important that each and every work authorization meet the established time schedule. The Project Manager will be responsible for schedule compliance. Mathews Consulting's principals review schedule compliance on a bi-monthly basis at project schedule control meetings and take appropriate action to prevent slippage with it first becomes apparent.

Cost Control

Just as it is with schedule control, it is essential that all work authorizations stay within approved budgets. Each task and associated subtasks will be tightly managed to achieve this goal. Work authorization budgets will be established by task and by subtask.

These budgets will be used as the basis against which actual costs will be measured. The Project Manager will be responsible for maintaining the task or subtask within the budget.

Quality Assurance / Quality Control

Our Team recognizes the importance of a clear focus on ensuring quality. Our Quality Control Manager will monitor the implementation of the QC program on each task order and will ensure that all work is performed in conformance with the "QA/QC Plan". The committee will work with the Client Manager to select an appropriate senior reviewer for each delivery order based on applicable experience and technical expertise.

Quality is not a "one time" commitment, but rather a continuous process of improvement Our Team's quality management program incorporates oversight of specific quality control functions to ensure that:

- Project staff including subcontractors are qualified to perform their duties and meet all regulatory and project specific training requirements.
- Items and services procured for the project meet necessary quality requirements.
- O Quality related work is documented and documents are managed and controlled.
- Computer hardware and software is controlled.
- Work is properly planned.
- Work procedures are established where necessary.
- O Work is reviewed and quality processes are audited for effectiveness.
- O Deficiencies are documented and effective corrective action is promptly completed.

Our Team's QA/QC program emphasizes to all project members that quality is not a "one time" kind of commitment, but rather is a continuous process of improvement.

Professional Ethics

Mathews Consulting's policy is to uphold the highest ethics for all actions and work products implemented by the company in conducting our daily business activities. The firm has developed an "Employee Manual" which details company policies and procedures, including the requirements for each employee to maintain proper ethics in performing their duties. The Manual specifically prohibits the disclosure of confidential information from our clients, and prohibits the acceptance of gifts and gratuities from any source which could, in any way, be construed as interfering with impartial and objective execution of one's duties. Each employee is required to sign an acknowledgement that they have read and agree to follow all policies of the company Employee Manual.

Our Firm's ethics policy will ensure there are no conflicts of interest or improper performance in completing engineering services under this contract.

Computer Systems

Our Project Team uses state-of-the-art engineering equipment, hardware and software for execution of all projects. This ensures efficient execution of all projects and services to our clients. The following sections describe our equipment base, software packages, and in-house expertise.

Office Equipment

Mathews Consulting has standardized on DELL® Computers, Hewlett Packard® color plotters / laser printers and MicroSoft® software. DELL® computers and HP printers provide the highest quality and reliability for hardware systems. *Each* employee of Mathews Consulting has been provided with a desktop or laptop computer with full internet and e-mail access. This ensures the most reliable network of communication within our firm and to our clients.

CADD Systems

All of our Project Team designs are computer generated using AutoCAD version 2016. This allows seamless interface with all members of the design team, from surveying through the record drawing phase. All design work will be prepared in our local West Palm Beach office.

Computer Modeling

Mathews Consulting is proficient with several hydraulic modeling programs. These include *WaterCAD*[®], *SewerCAD*[®], and ArcGIS. Refer to Section 1 for more details regarding our Computer Modeling capabilities.

3.5 Cost Control Performance

Mathews Consulting is committed to producing high quality, cost efficient products within required time frames. The Principal Owners of the firm continually monitor the design and construction costs of each project. Also, we are extremely familiar with the construction contractors in South Florida and are aware of bidding conditions that can affect the construction cost of a project.

Table 3-1 is a record of recent cost estimates which shows our competence and dedication to providing clients with accurate project estimating. <u>This is the best physical evidence an engineering firm can present as demonstration of project cost control performance.</u>

Project	Engineer's Estimate	Bid Was
City of Boca Raton Reclaimed Water Storage & Pumping Facility	\$5,200,000	\$3,914,909
City of Boca Raton On-Site Reclaimed Water Pumping Facility	\$811,000	\$730,000
City of Boca Raton West Reclaimed Water Main Extension	\$1,768,437	\$1,557,425
City of Delray Beach - 24" Reclaimed Water Main	\$321,522	\$271,364
City of Delray Beach - Country Club Acres Infrastructure Imp.	\$1,515,811	\$1,377,027
City of Delray Beach - Sea Sage Dr/Melaleuca Rd/Oleander Lane	\$984,063	\$1,126,755
City of Delray Beach - SW 12th/SW 11th Avenue Water Main	\$736,740	\$721,420
City of Delray Beach - Venetian Drive Infrastructure Imp.	\$1,495,164	\$1,458,795
City of Delray Beach - Area 1 Reclaimed Water System	\$1,484,995	\$1,312,100
City of Delray Beach - Area 2 & 3 Reclaimed Water System	\$1,500,000	\$1,731,265
City of Delray Beach - Area 11 Reclaimed Booster Pump Station	\$989,590	\$691,084
City of Tamarac - Tamarac Lakes Water Main Improvements	\$837,441	\$766,175
City of Tamarac - Southgate Blvd. Streetscape Improvements	\$1,449,717	\$1,239,469
City of Tamarac - McNab Road Water Main Improvements	\$477,250	\$486,832
City of West Palm Beach Monroe Drive Infrastructure Improvements	\$7,077,975	\$5,984,486
Loxahatchee River District - S. Seabrook Road Sewer System	\$1,689,931	\$1,494,589
Loxahatchee River District - Tidewater Drive Sewer System	\$290,081	\$274,156
Loxahatchee River District - Jupiter Highlands Low Pressure System	\$315,728	\$245,018
Palm Beach County - 30" Reclaimed Water Main	\$368,520	\$299,705
Palm Beach County - FPL On-site Reclaimed Water Facilities	\$3,600,000	\$2,772,000
Town of Gulf Stream - 24" Stormwater Outfall	\$44,746	\$39,655
Town of Lantana - Raw Water Supply Wells No. 11	\$755,000	\$631,500
Town of Lantana - Raw Water Supply Well No. 12	\$400,000	\$341,400
Town of Highland Beach A.1.A. Water Main Replacement	\$3,700,000	\$2,714,707
	Average	-11.43%
(uno	der engineer's estima	ate)

Table 3-1 Mathews Consulting's Recent Cost Estimates

3.6 Current Workload & Availability

Mathews Consulting is available to begin the work tasks associated with this Contract immediately, and we are committed to be available for continuation of the work on an on-going and as needed basis. Our experienced staff and team members permit us to commit all of our necessary resources to the City's General Engineering Projects. Our team is committed to assign the most qualified, technical expertise to every project assignment, meet the required schedules and budgets, and produce exceptional project results. Our Project Manager, David Mathews, P.E., will be fully dedicated to this Contract and to the City to ensure that all project(s) are performed on time and within budget. **Our Project Manager will be available for the duration of this General Engineering Contract for the City of Key West.**

The projection below illustrates the current workload and availability of Mathews Consulting's staff for this Contract. We are immediately available to provide exceptional consulting services to the City of Key West.



3.7 Regulatory Agency Experience

Mathews Consulting's staff for this Contract has extensive experience with <u>all</u> of the regulatory agencies that may be involved during the design and construction of the projects associated with this Contract. The following matrix provides a summary of each of our Staff Members experience with the identified regulatory agencies for this Contract.

Regulatory Agency	David Mathews	Rene Mathews	Rebecca Travis	Aaron Cutler	Jason Pugsley	Jason DeBrincat	Kyle Scott	Courtney Marshall
Florida Department of Environmental Protection (FDEP)	\checkmark	✓	\checkmark	✓	\checkmark	✓	\checkmark	✓
Monroe County Health Department (MCHD)	\checkmark	\checkmark		✓	\checkmark		\checkmark	
South Florida Water Management District (SFWMD)	\checkmark	\checkmark	\checkmark	✓	\checkmark	\checkmark	\checkmark	\checkmark
Florida Department of Transportation (FDOT)	\checkmark	\checkmark	\checkmark	✓	\checkmark	\checkmark	\checkmark	\checkmark
Monroe County	\checkmark	\checkmark		\checkmark	\checkmark		\checkmark	

3.8 Ability to Provide Continuing Engineering Assistance

The City of Key West needs a consultant who will work as a partner with the City's staff – one who will be a proactive extension of your staff. Mathews Consulting has a solid track record of partnering with local utility clients to deliver the high level of personal service you desire. We are structured to allow for a long-term commitment of specific staff to serve your needs. By having principal owners directly involved, there is no "revolving door" of staff with our project team. Mathews Consulting is committed to its utility practice in South Florida. We have developed and refined our approach to continuing service contracts and offer you the advantages of our partnering philosophy. Mathews Consulting is currently providing general civil and utility engineering services to the following municipalities:

- O Florida Keys Aqueduct Authority
- City of Marathon
- City of Lauderhill
- O Town of Lauderdale-by-the-Sea
- City of Tamarac
- O City of Pompano Beach
- O City of Boca Raton
- City of Delray Beach

- **O** Town of Highland Beach
- City of Boynton Beach
- ${\bf O}$ Town of Gulf Stream
- O Town of Lantana
- O City of Lake Worth
- O Palm Beach County Water Utilities Department
- O City of West Palm Beach
- O City of Riviera Beach
- Solid Waste Authority of PBC
- O Loxahatchee River Environmental Control District

We pride ourselves on the fact that **95% of our business is repeat business from existing clients**. This high percentage demonstrates our ability to provide exceptional service to clients on a continual basis.



Section 4

Forms



This Section provides the following information for Mathews Consulting, and all of our Team Subconsultants, as requested in the Qualifications Package:

- O Anti-Kickback Affidavit
- Public Entity Crimes Certification
- O Equal Benefits for Domestic Partners Affidavit
- O Indemnification Form
- O Cone of Silence Affidavit

ANTI-KICKBACK AFFIDAVIT

STATE OF FLORIDA) : SS COUNTY OF MONROE)

I, the undersigned hereby duly sworn, depose and say that no portion of the sum herein bid will be paid to any employees of the City of Key West as a commission, kickback, reward or gift, directly or indirectly by me or any member of my firm or by an officer of the corporation.

By:

Sworn and subscribed before me this

8 day of April, 2017. when mershall NOTARY PUBLIC, State of Florida at Large

My Commission Expires: 04/12/2020



SWORN STATEMENT UNDER SECTION 287.133(3)(a) FLORIDA STATUTES ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICE AUTHORIZED TO ADMINISTER OATHS.

 This sworn statement is submitted with Bid, Bid or Contract No. <u>The City of Key West</u> for Mathews Consulting, a Baxter & Woodman Company
This sworn statement is submitted by David L. Mathews, P.E., Vice President of Operations (Name of entity submitting sworn statement)

whose business address is 477 S. Rosemary Avenue, Suite 330, West Palm Beach, FL 33401

and (if applicable) its Federal Employer Identification Number (FEIN) is <u>36-2845242</u> (If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement.)

3. My name is <u>David L. Mathews, P.E.</u> and my relationship to (Please print name of individual signing)

the entity named above is _____ Vice President of Operations

- 4. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), <u>Florida Statutes</u>, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including but not limited to, any Bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other states and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, material misrepresentation.
- 5. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), <u>Florida Statutes</u>, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication guilt, in any federal or state trial court of record relating to charges brought by indictment information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
- 6. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means
 - 1. A predecessor or successor of a person convicted of a public entity crime: or
 - 2. An entity under the control of any natural person who is active in the management of t entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.
- 7. I understand that a "person" as defined in Paragraph 287.133(1)(8), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter

into a binding contract and which Bids or applies to Bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

- 8. Based on information and belief, the statement, which I have marked below, is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies.)
 - X Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989.

The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989, AND (Please indicate which additional statement applies.)

- There has been a proceeding concerning the conviction before a hearing of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer did not place the person or affiliate on the convicted vendor list. (Please attach a copy of the final order.)
- _____The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove the person or affiliate from the convicted vendor list. (Please attach a copy of the final order.)
- ____The person or affiliate has not been put on the convicted vendor list. (Please describe any action taken by or pending with the Department of General Services.)

(Signature) 4-18-17 (Date)

STATE OF Florida

COUNTY OF Palm Beach

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

David L. Mathews (Name of individual signing)

who, after first being sworn by me, affixed his her signature in the

18 day of Pri 2017 space provided above on this My commission expires: 04/12/2020 NOTARY PUBLIC Contract Marchell Notary Public State of Florida **Courtney Marshall** My Commission FF 981674 Expires 04/12/2020

RFQ No. 17-002 General Engineering Services

INDEMNIFICATION

To the fullest extent permitted by law, the CONSULTANT expressly agrees to indemnify and hold harmless the City of Key West, their officers, directors, agents, and employees (herein called the "indemnitees") from liabilities, damages, losses and costs, including, but not limited to, reasonable attorney's fees and court costs, such legal expenses to include costs incurred in establishing the indemnification and other rights agreed to in this Paragraph, to persons or property, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the CONSULTANT, its Sub-consultants or persons employed or utilized by them in the performance of the Contract. Claims by indemnitees for indemnification shall be limited to the amount of CONSULTANT's insurance or \$1 million per occurrence, whichever is greater. The parties acknowledge that the amount of the indemnity required hereunder bears a reasonable commercial relationship to the Contract and it is part of the project specifications or the bid documents, if any.

The indemnification obligations under the Contract shall not be restricted in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the CONSULTANT under workers' compensation acts, disability benefits acts, or other employee benefits acts, and shall extend to and include any actions brought by or in the name of any employee of the CONSULTANT or of any third party to whom CONSULTANT may subcontract a part or all of the Work. This indemnification shall continue beyond the date of completion of the work.

CONTRACTOR: Mathews Consulting, a Baxter & Woodman Company SEAL:

477 S. Rosemary Ave., Suite 330, West Palm Beach, FL 33401

Address

David L. Mathews, P.E. Print Name

Vice President of Operations Title

<u>4-18-17</u> Date

EQUAL BENEFITS FOR DOMESTIC PARTNERS AFFIDAVIT

STATE OF Florida) : SS COUNTY OF Palm Beach)

I, the undersigned hereby duly sworn, depose and say that the firm of <u>Mathews Consulting</u>, <u>a Baxter & Woodman Company</u> provides benefits to domestic partners of its employees on the same basis as it provides benefits to employees' spouses per City of Key West Ordinance Sec. 2-799.

By:

Sworn and subscribed before me this

8 ____ day of April , 20 7 da_at Large NOTARY PUBLIC, State of FLO

My Commission Expires: 04/12/2020



CONE OF SILENCE AFFIDAVIT

STATE OF	Florida)
		: SS
COUNTY OF	Palm Beach)

I the undersigned hereby duly sworn depose and say that all owner(s), partners, officers, directors, mathews Consulting, employees and agents representing the firm of <u>a Baxter & Woodman Company</u> have read and understand the limitations and procedures regarding communications concerning City of Key West issued competitive solicitations pursuant to City of Key West Ordinance Section 2-773 Cone of Silence (attached).

(signature) -18-17 (date)

Sworn and subscribed before me this

_ Day of April , 20]). Y PUBLIC, State of Florida at Large

My Commission Expires: 04/12/2020



ANTI-KICKBACK AFFIDAVIT

STATE OF FLORIDA) : SS COUNTY OF MONROE)

I, the undersigned hereby duly sworn, depose and say that no portion of the sum herein bid will be paid to any employees of the City of Key West as a commission, kickback, reward or gift, directly or indirectly by me or any member of my firm or by an officer of the corporation.

By: Donnif & But Vice President

Sworn and subscribed before me this

day of ADR. , 2017. 140 usan

NOTARY PUBLIC, State of Florida at Large

My Commission Expires: October 15, 2019

VE-Y COMMISSION # FF928001 EXPIRES: October 15, 2019

SWORN STATEMENT UNDER SECTION 287.133(3)(a) FLORIDA STATUTES ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICE AUTHORIZED TO ADMINISTER OATHS.

- 1. This sworn statement is submitted with Bid, Bid or Contract No. RFQ NO. 17-002 for
- 2. This sworn statement is submitted by Dennis J. Leavy & Associates, Inc. (Name of entity submitting sworn statement)

whose business address is 460 Business Park Way, Suite B, Royal Palm Beach, FL 33411

______and (if applicable) its Federal Employer Identification Number (FEIN) is <u>65-0529801</u> (If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement.)

3. My name is <u>David A. Bower</u> and my relationship to (Please print name of individual signing)

the entity named above is Vice President

4. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), <u>Florida Statutes</u>, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including but not limited to, any Bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other state and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, material misrepresentation.

- 5. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), <u>Florida Statutes</u>, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication guilt, in any federal or state trial court of record relating to charges brought by indictment information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
- 6. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means
 - 1. A predecessor or successor of a person convicted of a public entity crime: or
 - 2. An entity under the control of any natural person who is active in the management of t entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.
- 7. I understand that a "person" as defined in Paragraph 287.133(1)(8), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter

into a binding contract and which Bids or applies to Bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

- Based on information and belief, the statement, which I have marked below, is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies.)
 - X Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989.
 - The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989, AND (Please indicate which additional statement applies.)
 - ____There has been a proceeding concerning the conviction before a hearing of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer did not place the person or affiliate on the convicted vendor list. (Please attach a copy of the final order.)
 - ____The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove the person or affiliate from the convicted vendor list. (Please attach a copy of the final order.)
 - ____The person or affiliate has not been put on the convicted vendor list. (Please describe any action taken by or pending with the Department of General Services.)

Daniel a	r. B
(Signature)	
(Signature) 04/06/17	
(Date)	

STATE OF FLORIDA

COUNTY OF PALM BEACH

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

David A, Bower (Name of individual signing)

8.

who, after first being sworn by me, affixed his/her signature in the

SUSAN DIETZ MY COMMISSION # FF928001 EXPIRES: October 15, 2019

space provided above on this 6th day of APRi

My commission expires: Oct. 15, 2019 NOTARY PUBLIC

RFQ No. 17-002 General Engineering Services

INDEMNIFICATION

To the fullest extent permitted by law, the CONSULTANT expressly agrees to indemnify and hold harmless the City of Key West, their officers, directors, agents, and employees (herein called the "indemnitees") from liabilities, damages, losses and costs, including, but not limited to, reasonable attorney's fees and court costs, such legal expenses to include costs incurred in establishing the indemnification and other rights agreed to in this Paragraph, to persons or property, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the CONSULTANT, its Sub-consultants or persons employed or utilized by them in the performance of the Contract. Claims by indemnitees for indemnification shall be limited to the amount of CONSULTANT's insurance or \$1 million per occurrence, whichever is greater. The parties acknowledge that the amount of the indemnity required hereunder bears a reasonable commercial relationship to the Contract and it is part of the project specifications or the bid documents, if any.

The indemnification obligations under the Contract shall not be restricted in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the CONSULTANT under workers' compensation acts, disability benefits acts, or other employee benefits acts, and shall extend to and include any actions brought by or in the name of any employee of the CONSULTANT or of any third party to whom CONSULTANT may subcontract a part or all of the Work. This indemnification shall continue beyond the date of completion of the work.

CONTRACTOR: Dennis J. Leavy & Associates, Inc.

SEAL:

460 Business Park Way, Suite B, RPB, FL 33411 Address

Signature

David A. Bower Print Name

Vice President Title

04/06/17 Date

EQUAL BENEFITS FOR DOMESTIC PARTNERS AFFIDAVIT

STATE OF <u>FLORIDA</u>) : SS

COUNTY OF <u>PALM BEACH</u>)

I, the undersigned hereby duly sworn, depose and say that the firm of <u>Dennis J. Leavy &</u> <u>Associates, Inc.</u> provides benefits to domestic partners of its employees on the same basis as it provides benefits to employees' spouses per City of Key West Ordinance Sec. 2-799.

By: Daniel a. Brend Vice President

Sworn and subscribed before me this

6th l , 20/7. day of Apri Rida at Large NOTARY PUBLIC, State of

NOTARY PUBLIC, State of <u>Florida</u> at Large

My Commission Expires: October 15, 2019


CONE OF SILENCE AFFIDAVIT

STATE OF <u>FLORIDA</u>) : SS COUNTY OF <u>PALM BEACH</u>)

I the undersigned hereby duly sworn depose and say that all owner(s), partners, officers, directors, employees and agents representing the firm of <u>Dennis J. Leavy & Associates, Inc.</u> have read and understand the limitations and procedures regarding communications concerning City of Key West issued competitive solicitations pursuant to City of Key West Ordinance Section 2-773 Cone of Silence (attached).

(date)

Damil A. B. / Vice President (signature) 04/06/17

Sworn and subscribed before me this

Day of ADRi , 20/7.

an NOTARY PUBLIC, State of C origida at Large

My Commission Expires: October 15,209

mmmy SUSAN DIETZ MY COMMISSION # FF928001 EXPIRES: October 15, 2019 mannanan

ANTI-KICKBACK AFFIDAVIT

STATE OF FLORIDA) : SS COUNTY OF MONROE)

I, the undersigned hereby duly sworn, depose and say that no portion of the sum herein bid will be paid to any employees of the City of Key West as a commission, kickback, reward or gift, directly or indirectly by me or any member of my firm or by an officer of the corporation.

llian Reyes, P.E

Sworn and subscribed before me this

_ day of _ April ____, 2017.

Heatlen Propyins NOTARY PUBLIC, State of Florida at Large



My Commission Expires: 1/17/2021

SWORN STATEMENT UNDER SECTION 287.133(3)(a) FLORIDA STATUTES ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICE AUTHORIZED TO ADMINISTER OATHS.

- 1. This sworn statement is submitted with Bid, Bid or Contract No. <u>RFQ # 17-002</u> for General Engineering Services.
- 2. This sworn statement is submitted by Electrical Design Associates, Inc. (Name of entity submitting sworn statement)

 whose business address is 8401 Lake Worth Road, Suite 221

 Lake Worth, FL 33467

 and (if applicable) its Federal

 Employer Identification Number (FEIN) is 650868970

include the Social Security Number of the individual signing this sworn statement.)

3. My name is Lillian Reyes, P.E. _____ and my relationship to (Please print name of individual signing)

the entity named above is <u>Owner</u>

- 4. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), <u>Florida Statutes</u>, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including but not limited to, any Bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other states and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, material misrepresentation.
- 5. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(l)(b), <u>Florida Statutes</u>, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication guilt, in any federal or state trial court of record relating to charges brought by indictment information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
- 6. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means
 - 1. A predecessor or successor of a person convicted of a public entity crime: or
 - 2. An entity under the control of any natural person who is active in the management of t entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.
- 7. 1 understand that a "person" as defined in Paragraph 287.133(1)(8), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter

into a binding contract and which Bids or applies to Bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

- Based on information and belief, the statement, which I have marked below, is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies.)
 - X Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989.
 - ____The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989, AND (Please indicate which additional statement applies.)
 - ____There has been a proceeding concerning the conviction before a hearing of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer did not place the person or affiliate on the convicted vendor list. (Please attach a copy of the final order.)
 - _____The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove the person or affiliate from the convicted vendor list. (Please attach a copy of the final order.)
 - ____The person or affiliate has not been put on the convicted vendor list. (Please describe any action taken by or pending with the Department of General Services.)

(Signature) 04/06/2017 (Date)

STATE OF Florida

COUNTY OF Palm Beach

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

Lillian Reyes (Name of individual signing) who, after first being sworn by me, affixed his/her signature in the

space provided above on this day of April 2017 HEATHER LOGGINS My commission expires: 1/17/2021 Y COMMISSION # GG063067 NOTARY PUBLIC anger unogens EXPIRES January 17, 2021

INDEMNIFICATION

To the fullest extent permitted by law, the CONSULTANT expressly agrees to indemnify and hold harmless the City of Key West, their officers, directors, agents, and employees (herein called the "indemnitees") from liabilities, damages, losses and costs, including, but not limited to, reasonable attorney's fees and court costs, such legal expenses to include costs incurred in establishing the indemnification and other rights agreed to in this Paragraph, to persons or property, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the CONSULTANT, its Sub-consultants or persons employed or utilized by them in the performance of the Contract. Claims by indemnitees for indemnification shall be limited to the amount of CONSULTANT's insurance or \$1 million per occurrence, whichever is greater. The parties acknowledge that the amount of the indemnity required hereunder bears a reasonable commercial relationship to the Contract and it is part of the project specifications or the bid documents, if any.

The indemnification obligations under the Contract shall not be restricted in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the CONSULTANT under workers' compensation acts, disability benefits acts, or other employee benefits acts, and shall extend to and include any actions brought by or in the name of any employee of the CONSULTANT or of any third party to whom CONSULTANT may subcontract a part or all of the Work. This indemnification shall continue beyond the date of completion of the work.

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Print Na	ame	yes, I	P.E.		

CONTRACTOR: Electrical Design Associates, Inc.SEAL:

EQUAL BENEFITS FOR DOMESTIC PARTNERS AFFIDAVIT

STATE OF Florida) : SS COUNTY OF Palm Beach)

I, the undersigned hereby duly sworn, depose and say that the firm of <u>Electrical Design</u> <u>Associates</u>, <u>Inc</u>, provides benefits to domestic partners of its employees on the same basis as it provides benefits to employees' spouses per City of Key West Ordinance Sec. 2-799.

By: Reyes, P.E. ian

Sworn and subscribed before me this

Let day of April , 2017.

NOTARY PUBLIC, State of Florida at Large

My Commission Expires: 01/17/2021



CONE OF SILENCE AFFIDAVIT

STATE OF Florida) : SS COUNTY OF Palm Beach)

I the undersigned hereby duly sworn depose and say that all owner(s), partners, officers, directors, employees and agents representing the firm of <u>Electrical Design</u> have read and understand the limitations and procedures regarding communications concerning City of Key West issued competitive solicitations pursuant to City of Key West Ordinance Section 2-773 Cone of Silence (attached).

(signature)

(date)

Sworn and subscribed before me this

Day of April , 2017.

Statures horas NOTARY PUBLIC, State of Florida at Large

My Commission Expires: 1/17/2021



ANTI-KICKBACK AFFIDAVIT

STATE OF FLORIDA)
	: SS
COUNTY OF MONROE)

I, the undersigned hereby duly sworn, depose and say that no portion of the sum herein bid will be paid to any employees of the City of Key West as a commission, kickback, reward or gift, directly or indirectly by me or any member of my firm or by an officer of the corporation.

Sondre Watter Br

Sandra Walters

Sworn and subscribed before me this

5th day of APRIL, 2017.

Nancy L. Barton MANCY L. BARTA NOTARY PUBLIC, State of Florida at Large

My Commission Expires: 01-17-20



SWORN STATEMENT UNDER SECTION 287.133(3)(a) FLORIDA STATUTES ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICE AUTHORIZED TO ADMINISTER OATHS.

- 1. This sworn statement is submitted with Bid, Bid or Contract No. <u>RFQ # 17-002</u> for General Engineering Services
- 2. This sworn statement is submitted by Sandra Walters Consultants, Inc. d/b/a SWC (Name of entity submitting sworn statement)

whose business address is 6410 Fifth Street, Suite 3, Key West, FL 33040

______and (if applicable) its Federal Employer Identification Number (FEIN) is <u>65-0975585</u> (If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement.)

3. My name is <u>Sandra Walters</u> and my relationship to (Please print name of individual signing)

the entity named above is President

- 4. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), <u>Florida Statutes</u>, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including but not limited to, any Bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other states and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, material misrepresentation.
- 5. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(l)(b), <u>Florida Statutes</u>, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication guilt, in any federal or state trial court of record relating to charges brought by indictment information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
- 6. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means
 - 1. A predecessor or successor of a person convicted of a public entity crime: or
 - 2. An entity under the control of any natural person who is active in the management of t entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.
- 7. I understand that a "person" as defined in Paragraph 287.133(1)(8), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter

into a binding contract and which Bids or applies to Bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

Based on information and belief, the statement, which I have marked below, is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies.)

V Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1. 1989.

The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989, AND (Please indicate which additional statement applies.)

- There has been a proceeding concerning the conviction before a hearing of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer did not place the person or affiliate on the convicted vendor list. (Please attach a copy of the final order.)
- The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove the person or affiliate from the convicted vendor list. (Please attach a copy of the final order.)
- The person or affiliate has not been put on the convicted vendor list. (Please describe any action taken by or pending with the Department of General Services.)

(Signature) Walters

(aney 2. barl

(Date)

STATE OF FLORIDA

COUNTY OF KORROR

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

who, after first being sworn by me, affixed his/her signature in the

(Name of individual signing)

day of APRIL space provided above on this

My commission expires: NOTARY PUBLIC

8.



RFQ No. 17-002 General Engineering Services

INDEMNIFICATION

To the fullest extent permitted by law, the CONSULTANT expressly agrees to indemnify and hold harmless the City of Key West, their officers, directors, agents, and employees (herein called the "indemnitees") from liabilities, damages, losses and costs, including, but not limited to, reasonable attorney's fees and court costs, such legal expenses to include costs incurred in establishing the indemnification and other rights agreed to in this Paragraph, to persons or property, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the CONSULTANT, its Sub-consultants or persons employed or utilized by them in the performance of the Contract. Claims by indemnitees for indemnification shall be limited to the amount of CONSULTANT's insurance or \$1 million per occurrence, whichever is greater. The parties acknowledge that the amount of the indemnity required hereunder bears a reasonable commercial relationship to the Contract and it is part of the project specifications or the bid documents, if any.

The indemnification obligations under the Contract shall not be restricted in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the CONSULTANT under workers' compensation acts, disability benefits acts, or other employee benefits acts, and shall extend to and include any actions brought by or in the name of any employee of the CONSULTANT or of any third party to whom CONSULTANT may subcontract a part or all of the Work. This indemnification shall continue beyond the date of completion of the work.

CONTRACTOR: Sandra Walters Consultants, Inc. (dba SWC) SEAL:

6410 Fifth St. Suite 3 Key West, FL 33040 Address

Signature

Sandra Walters Print Name

President Title

EQUAL BENEFITS FOR DOMESTIC PARTNERS AFFIDAVIT

STATE OF FLORIDA) : SS COUNTY OF MONROO)

I, the undersigned hereby duly sworn, depose and say that the firm of Sandra Walters Consultants, Inc. (dba SWC) provides benefits to domestic partners of its employees on the same

basis as it provides benefits to employees' spouses per City of Key West Ordinance Sec. 2-799.

By: Sandra Walters

Sworn and subscribed before me this

5th day of APRIL, 2020

NOTARY-PUBLIC, State of FLORIDA at Large

My Commission Expires: 01-17-20



CONE OF SILENCE AFFIDAVIT

STATE OF FLORIDA) : SS COUNTY OF MORROD)

I the undersigned hereby duly sworn depose and say that all owner(s), partners, officers, directors, employees and agents representing the firm of <u>Sandra Walters Consultants, Inc. (dba SWC)</u> have read and understand the limitations and procedures regarding communications concerning City of Key West issued competitive solicitations pursuant to City of Key West Ordinance Section 2-773 Cone of Silence (attached).

Sandra Walters

(signature)

(date)

Sworn and subscribed before me this

Day of APRIL, 20 20

NOTARY-PUBLIC, State of FLORIDA at Large

My Commission Expires: 01-17-20



ANTI-KICKBACK AFFIDAVIT

STATE OF FLORIDA) : SS COUNTY OF MONROE)

I, the undersigned hereby duly sworn, depose and say that no portion of the sum herein bid will be paid to any employees of the City of Key West as a commission, kickback, reward or gift, directly or indirectly by me or any member of my firm or by an officer of the corporation.

Richard C. Wohlfarth, PE By:

Sworn and subscribed before me this

, 2017. 10 day of C pal

NOTARY PUBLIC, State of Florida at Large

My Commission Expires:



SWORN STATEMENT UNDER SECTION 287.133(3)(a) FLORIDA STATUTES ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICE AUTHORIZED TO ADMINISTER OATHS.

- 1.
 This sworn statement is submitted with Bid, Bid or Contract No. <u>RFQ # 17-002</u> for

 General Engineering Services
- 2. This sworn statement is submitted by Nutting Engineers of Florida, Inc. (Name of entity submitting sworn statement)

whose business address is 2051 NW 112 Avenue, Suite 126, Miami, Florida 33172

_____and (if applicable) its Federal Employer Identification Number (FEIN) is 59-1159182 (If the entity has no FEIN,

include the Social Security Number of the individual signing this sworn statement.)

3. My name is <u>Richard C. Wohlfarth, PE</u> and my relationship to (Please print name of individual signing)

the entity named above is Principal/Vice President

- 4. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), <u>Florida Statutes</u>, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including but not limited to, any Bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other states and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, material misrepresentation.
- 5. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(l)(b), <u>Florida Statutes</u>, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication guilt, in any federal or state trial court of record relating to charges brought by indictment information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
- 6. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means
 - 1. A predecessor or successor of a person convicted of a public entity crime: or
 - 2. An entity under the control of any natural person who is active in the management of t entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.
- 7. I understand that a "person" as defined in Paragraph 287.133(1)(8), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter

into a binding contract and which Bids or applies to Bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

- 8. Based on information and belief, the statement, which I have marked below, is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies.)
 - X Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989.
 - The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989, AND (Please indicate which additional statement applies.)
 - There has been a proceeding concerning the conviction before a hearing of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer did not place the person or affiliate on the convicted vendor list. (Please attach a copy of the final order.)
 - _____The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove the person or affiliate from the convicted vendor list. (Please attach a copy of the final order.)

____The person or affiliate has not been put on the convicted vendor list. (Please describe any action taken by or pending with the Department of General Services.)

Richard Wohrforth

(Signature) April 6, 2017 (Date)

STATE OF Florida

COUNTY OF Miami-Dade

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

Richard C. Wohlfarth, PE (Name of individual signing) who, after first being sworn by me, affixed his/her signature in the

space provided above on th	nis_10th_day of_	april	, 201).
My commission expires: NOTARY PUBLIC	Diacif	mer	TRACY L. MEEKS MY COMMISSION # FF 160273 EXPIRES: November 21, 2013 Bonded Thru Notary Public Underwriters

INDEMNIFICATION

To the fullest extent permitted by law, the CONSULTANT expressly agrees to indemnify and hold harmless the City of Key West, their officers, directors, agents, and employees (herein called the "indemnitees") from liabilities, damages, losses and costs, including, but not limited to, reasonable attorney's fees and court costs, such legal expenses to include costs incurred in establishing the indemnification and other rights agreed to in this Paragraph, to persons or property, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the CONSULTANT, its Sub-consultants or persons employed or utilized by them in the performance of the Contract. Claims by indemnitees for indemnification shall be limited to the amount of CONSULTANT's insurance or \$1 million per occurrence, whichever is greater. The parties acknowledge that the amount of the indemnity required hereunder bears a reasonable commercial relationship to the Contract and it is part of the project specifications or the bid documents, if any.

The indemnification obligations under the Contract shall not be restricted in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the CONSULTANT under workers' compensation acts, disability benefits acts, or other employee benefits acts, and shall extend to and include any actions brought by or in the name of any employee of the CONSULTANT or of any third party to whom CONSULTANT may subcontract a part or all of the Work. This indemnification shall continue beyond the date of completion of the work.

CONTRACTOR: Nutting Engineers of Florida, Inc,

SEAL:



<u>2051 NW 112 Avenue, Suite 126, Miami, Flori</u>da 33172 Address

Signature

Richard C. Wohlfarth, PE Print Name

<u>Principal/Vice President/Director of Engineering</u> Title

April 6, 2017 Date

EQUAL BENEFITS FOR DOMESTIC PARTNERS AFFIDAVIT

STATE OF <u>Florida</u>) : SS COUNTY OF <u>Miami-Dade</u>)

I, the undersigned hereby duly sworn, depose and say that the firm of Nuting Engineers of <u>Florida, Inc.</u> provides benefits to domestic partners of its employees on the same basis as it provides benefits to employees' spouses per City of Key West Ordinance Sec. 2-799.

By: Richard C. Wohlfarth, PE

Sworn and subscribed before me this

,2017 10h day of ()NOTARY PUBLIC, State of Florido at Large

My Commission Expires:



CONE OF SILENCE AFFIDAVIT

STATE OF <u>Florida</u>) : SS COUNTY OF <u>Miami-Dade</u>)

I the undersigned hereby duly sworn depose and say that all owner(s), partners, officers, directors, employees and agents representing the firm of <u>Nutting Engineers of Florida, Inc.</u> have read and understand the limitations and procedures regarding communications concerning City of Key West issued competitive solicitations pursuant to City of Key West Ordinance Section 2-773 Cone of Silence (attached).

(signature) Richard C, Wohlfarth, PE April 6, 2017 (date)

Sworn and subscribed before me this

loth	Day of <u>April</u>	, 2017
ara	PUBLIC, State of FI	up
NOTARY	PUBLIC, State of FI	oride at Large

My Commission Expires:





Sections

other Information



This section provides additional information as requested in the Qualifications Package regarding Professional Registration Certificates and Proof of Insurance.

5.1 Professional Registration

Baxter & Woodman's Florida State Board of Professional Engineer's Business Registration Number is <u>EB #31795</u>. Copies of our engineering business license, as well as a copy of our Engineer's licenses, are provided in this section.

5.2 Proof of Insurance

In this section, please find our Certificate of Insurance which indicate Mathews Consulting's current level of insurance in the areas of General Liability, Worker's Compensation, and Professional Liability.



















RICK SCOTT GOVERNOR

Tallahassee, FL 32399-0450

RACHEL D. CONE INTERIM SECRETARY

March 1, 2017

Louis Haussmann, Executive Vice President/COO BAXTER & WOODMAN, INC. d/b/a Mathews Consulting a Baxter & Woodman Company 477 South Rosemary Avenue, Suite 330 West Palm Beach, Florida 33401

Dear Mr. Haussmann:

The Florida Department of Transportation has reviewed your application for qualification package and determined that the data submitted is adequate to technically qualify your firm for the following types of work:

- Highway Design Roadway Group 3
 - 3.1 - Minor Highway Design
 - Major Highway Design 3.2
- Group 4 - Highway Design - Bridges
 - 4.1.1 Miscellaneous Structures
 - 4.1.2 Minor Bridge Design
- Group 7 - Traffic Operations Design
 - 7.1 - Signing, Pavement Marking and Channelization
 - Signalization 7.3
- Group 10 - Construction Engineering Inspection
 - 10.1 - Roadway Construction Engineering Inspection

Your firm is now technically qualified to pursue work for the Department for minor projects only, enabling your firm to compete for Professional Services projects with fees estimated at below \$500,000.00. This status shall be valid until November 7, 2017 for contracting purposes.

On the basis of self-certification materials submitted, the rates listed below represent the costs the Department has accepted.

		Facilities		
	Home/Branch	Capital Cost	Overtime	
	<u>Office</u>	of Money	<u>Premium</u>	Direct Expense
Indirect Cost	143.86%	0.347%	Reimbursed	4.08% (Home)

Should you have any questions, please feel free to contact me by email at carliayn.kell@dot.state.fl.us or by phone at 850-414-4597.

Sincerely,

antionen Kell

Carliayn Kell Professional Services Qualification Administrator



presents the

Envision[™] Sustainability Professional Credential

to

Mary R Travis

Presented on: May 18, 2014

William Bertara

William Bertera Executive Director Institute for Sustainable Infrastructure



GREEN BUILDING CERTIFICATION INSTITUTE HEREBY CERTIFIES THAT

Mary R Travis

HAS ATTAINED THE DESIGNATION OF

LEED GREEN ASSOCIATE

BY DEMONSTRATING THE KNOWLEDGE AND UNDERSTANDING OF GREEN BUILDING PRACTICES AND PRINCIPLES NEEDED TO SUPPORT THE USE OF THE LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN (LEED*) GREEN BUILDING RATING SYSTEM™.

Peter Templeton, GBCI President

April 28, 2012 Date Issued

10156330 Identification Number

April 27. 2014 Valid Through





PROFESSIONAL LICENSES



Dennis J. Leavy & Associates, Inc. Land Surveyors & Mappers



Electrical Design Associates

PROFESSIONAL LICENSES







State of Florida

Board of Professional Engineers Attests that

James Ronald Brush, P.E.



Is licensed as a Professional Engineer under Chapter 471, Florida Statutes Expiration: 2/28/2019 Audit No: 228201923262 R BELLIC. No: 48504

State of Florida

Board of Professional Engineers

Attests that

Sandra Walters Consultants, Inc.

d/b/a: SWC

FBPE FLORIDA BOARD OF FROFISSIONAL ENGINEERS

Is authorized under the provisions of Section 471.023, Florida Statutes, to offer engineering services to the public through a Professional Engineer, duly licensed under Chapter 471, Florida Statutes.

Expiration: 2/28/2019 Audit No: 228201902142 R

CA Lic. No: 31217

Florida Corporate and Engineering License







NUTTING ENVIRONMENTAL OF FLORIDA, INC. Your Project Is Our Commitment.



ACORD [®] CERTIFICATE OF LIABILITY INSURANCE						E	DATE (MM/DD/YYYY) 8/3/2016		
C B R	HIS CERTIFICATE IS ISSUED AS A ERTIFICATE DOES NOT AFFIRMAT ELOW. THIS CERTIFICATE OF INS EPRESENTATIVE OR PRODUCER, A IPORTANT: If the certificate holder	IVELY OF SURANCE ND THE C	R NEGATIVELY AMEND, DOES NOT CONSTITUT CERTIFICATE HOLDER.		ND OR ALT	ER THE CO BETWEEN T	VERAGE AFFORDED E HE ISSUING INSURER	3Y TH (S), A	e policies Uthorized
l th	terms and conditions of the policy ertificate holder in lieu of such endor	, certain _l	policies may require an e						
	DUCER	semenus	<i>)</i> .	CONTA	ACT			_	
PRODUCER NAME:						FAX			
Risk Strategies Company (Arc. No. Ext): (Arc. No. Ext): 650 Dundee Road E-MAIL						(A/C, No):			
Su:	ite 170			AUUR					NAIC #
Northbrook IL 60062 INSURERA: Valley Forge In							20508		
INSURED INSURER A: Valley Forge This Co							20443		
Ma	thews Consulting,			INSUR					
a I	Baxter & Woodman Inc. Comp	any		INSUR	ER D :				
47	7 S. Rosemary Av., #330			INSUR	ER E :				
Wes	st Palm Beach FL 33	401		INSUR	ERF:				
CO	VERAGES CEF	RTIFICAT	ENUMBER:CL1683181	71			REVISION NUMBER:		
IN C	HIS IS TO CERTIFY THAT THE POLICIES IDICATED. NOTWITHSTANDING ANY R ERTIFICATE MAY BE ISSUED OR MAY XCLUSIONS AND CONDITIONS OF SUCH	EQUIREME PERTAIN,	NT, TERM OR CONDITION THE INSURANCE AFFORD	OF AN ED BY	Y CONTRACT	OR OTHER	DOCUMENT WITH RESPE	ст то	WHICH THIS
INSR LTR	TYPE OF INSURANCE	ADDL SUBP	POLICY NUMBER		POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMIT	s	
	x COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	\$	1,000,000
A	CLAIMS-MADE x OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	\$	1,000,000
	x primary/non contributory		6018314414		5/1/2016	5/1/2017	MED EXP (Any one person)	\$	15,000
	x subj to written contract						PERSONAL & ADV INJURY	\$	1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:					-	GENERAL AGGREGATE	\$	2,000,000
	POLICY X PRO- JECT LOC						PRODUCTS - COMP/OP AGG	\$ \$	2,000,000
_	OTHER:						COMBINED SINGLE LIMIT	\$	1,000,000
	X ANY AUTO						(Ea accident) BODILY INJURY (Per person)	\$	
A	ALL OWNED SCHEDULED		6018314364		5/1/2016	5/1/2017	BODILY INJURY (Per accident)	\$	
	AUTOS AUTOS X HIRED AUTOS X AUTOS						PROPERTY DAMAGE (Per accident)	\$	
					-			\$	
	X UMBRELLA LIAB X OCCUR						EACH OCCURRENCE	\$	5,000,000
в	EXCESS LIAB CLAIMS-MADE						AGGREGATE	\$	5,000,000
	DED RETENTION \$		6018314381		5/1/2016	5/1/2017		\$	
	AND EMPLOYEDS' LIABILITY						X STATUTE OTH- ER		
	ANY PROPRIETOR/PARTNER/EXECUTIVE	N/A	6018314400			5/1/2017	E.L. EACH ACCIDENT	\$	1,000,000
Α	(Mandatory in NH)			5/1/2016	5/1/2016		E.L. DISEASE - EA EMPLOYEE	\$	1,000,000
	DESCRIPTION OF OPERATIONS below			_			E.L. DISEASE - POLICY LIMIT	\$	1,000,000
в	Professional Liability		AEH591900841		5/15/2016	5/01/2017	Per Claim		\$5,000,000
							Aggregate		\$5,000,000
A B DESC	EXCESS LIAB CLAIMS-MADE		6018314400 AEH591900841 D 101, Additional Remarks Schedu	trivita i	5/1/2016 5/15/2016 be attached If mo	5/1/2017 5/01/2017 re space Is requi	AGGREGATE	\$ \$ \$ \$ \$	5,0 1,0 1,0 \$5,0 \$5,0
						1			
CEF				CAN	CELLATION			_	
1. And the second se			al ter	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					
				Mich	ael Chris	tian/JAW	MAC	lu	itin

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