

RFQ # 2018-01

CITY OF WILTON MANORS

# Water, Sewer, and Stormwater Master Plan



MATHEWS  
CONSULTING   
a BAXTER & WOODMAN company

**Contact:**

Joe Kenney, PE, CFM, Region Manager  
6600 North Andrews Avenue, Suite 100  
Fort Lauderdale, Florida 33309  
954-666-5461  
jkenney@baxterwoodman.com

**Submitted by:**

**Mathews Consulting**  
A Baxter & Woodman Company  
www.baxterwoodman.com

**May 30, 2018**



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*The strength of Mathews Consulting is our people and our purpose. Building community value with every project we do is the force that drives us, and our fundamental core values are the principles we live by . . .*





May 30, 2018

Ms. Faith Lombardo  
City Clerk  
City of Wilton Manors  
2020 Wilton Drive  
Wilton Manors, Florida 33305

**Subject: *City of Wilton Manors - Qualifications for Water, Sewer and Stormwater Master Plan  
RFQ# 2018-01***

Dear Ms. Lombardo and City Officials:

The City of Wilton Manors needs a consultant with experience developing water, wastewater and stormwater master plans in South Florida. The Mathews Consulting team has extensive experience with these types of engineering services. We will provide the depth of resources needed to successfully complete the tasks this project requires, on time and under budget. Our approach is based on achieving success by providing the following:

- Streamlined local operations to facilitate the needed data collection, system modeling, and staff coordination necessary to efficiently assemble your planning documents;
- Recent experience evaluating and preparing water, wastewater and stormwater master plans and hydraulic models for neighboring and local communities of similar size and facilities, such as Tamarac, Lauderdale by the Sea, and Pompano Beach.
- Continuity of project staff throughout the duration of your project; and,
- Responsive service from our nearby Fort Lauderdale office – less than 6 miles away!

Mathews Consulting is prepared to deliver this project to benefit the City's residents, while meeting your technical, budget and schedule needs. This project will be led by Joe Kenney, Region Manager, from our nearby Fort Lauderdale location. Joe is dedicated to serving communities in Broward County and has a wealth of municipal master planning and capital improvement program experience. As a principal of the firm, I (David L. Mathews) certify the contents of our qualifications. Please feel free to contact us if any additional information is needed during the evaluation and selection process.

Sincerely,

MATHEWS CONSULTING, A BAXTER & WOODMAN COMPANY

A handwritten signature in blue ink, appearing to read "David L. Mathews".

David L. Mathews, PE  
Executive Vice President  
477 S. Rosemary Avenue, Suite 330  
West Palm Beach, FL 33401  
Office: (561) 655-6175

A handwritten signature in blue ink, appearing to read "Joe Kenney".

Joe Kenney, PE, CFM  
Region Manager Fort Lauderdale  
6600 N. Andrews Avenue, Suite 100  
Fort Lauderdale, FL 33309  
Office: (954)666-5461; Cell: (786) 858-8545



Mathews Consulting, a Baxter & Woodman Company, provides engineering and consulting services to municipal, county, and state government agencies - we have since 1946. Our team offers expert services that stretch well beyond typical engineering consulting. We are committed to **BUILDING COMMUNITY VALUE** with each and every project we complete.



### *Our approach...*

#### **FIND & FUND**

Finding funding to build your needed improvements.

#### **CONNECT & COMMUNICATE**

Helping build strong relationships and connecting with your community.

#### **SAFE & SECURE**

Keeping you safe and secure, count on us for reliable and responsive service.

### *Our expertise...*

#### **WASTEWATER**

- Facilities Planning
- Sanitary Sewer Evaluation & Rehabilitation
- Conveyance & Treatment Operations
- Pretreatment Programs

#### **TRANSPORTATION**

- Pavement Management Reports
- Intersection Design Studies
- Traffic Signal & Street Lighting Streetscape
- Bicycle/Pedestrian Paths
- MFT Programs
- MAP-21 Study, Design & Construction
- Bridge Engineering

#### **WATER RESOURCES**

- Master Planning & Modeling
- Drainage Studies
- Detention & Retention Basin
- Storm Sewer Systems
- Erosion Control
- Groundwater Monitoring & Studies
- LUST Investigations
- Phase I & II Site Investigation
- Wetlands Delineation

#### **GIS**

- Asset Management
- Development/Training
- Mapping
- Data Collection/Conversion

#### **TECHNOLOGY**

- SCADA/Controls
- Municipal IT
- Security

#### **GENERAL MUNICIPAL**

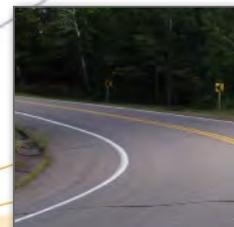
- Grant & Loan Funding
- Plan Reviews
- Comprehensive Land Use Plans
- Capital Improvement Plans
- Park/Recreational Development
- Land Surveying
- Public Relations

#### **WATER**

- Master Planning
- Rate Studies
- Supply, Treatment, & Distribution Operations



Mathews Consulting, a Baxter & Woodman Company continues to be ranked on the Engineering News-Record's Top 500 Design Firms list. We are also recognized by Public Works Magazine as one of the Top 50 leading firms in public works consulting in the nation.



## 3. GENERAL INFORMATION & FORMS

### MATHEWS CONSULTING, A BAXTER & WOODMAN COMPANY

#### MAIN CONTACT:

Joe Kenney, PE, CFM, Region Manager  
6600 N. Andrews Ave., Suite 100  
Fort Lauderdale, FL 33309  
Office: 954-666-5461 | Mobile: 786-858-8545

We are dedicated to being available to the City when you need our assistance. **As your Service Manager, Joe will be available by cell phone 24/7** in addition to regular office hours:

*M-TH: 7:30 a.m. - 5:00 p.m.*

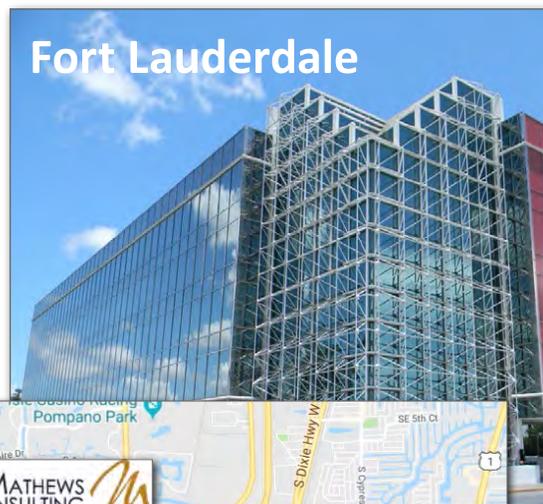
*F: 7:30 a.m. - 12:30 p.m.*

Mathews Consulting is a Baxter & Woodman Company with firm roots in local municipal engineering, specializing in municipal work for clients throughout South Florida. Our parent company, Baxter & Woodman, Inc, is a national firm, founded in 1946 in Illinois. Services will be provided from our nearby Fort Lauderdale office, less than 6 miles from the City. This team is supported by two additional Florida locations and by our staff of 236 professionals firm-wide that specialize in water and wastewater management, stormwater management, transportation, construction management, and technology services.

We help build community value through safe roads and bridges, clean water supplies, and reliable wastewater collection and over 95% of our business is from various forms of government - municipalities, counties, and state agencies.

***Applicable Florida licenses, certifications, and City forms are included on the following pages.***

***We received notice of this RFQ through Onvia.***



# *State of Florida*

## *Department of State*

I certify from the records of this office that BAXTER & WOODMAN, INC. is an Illinois corporation authorized to transact business in the State of Florida, qualified on May 2, 2016.

The document number of this corporation is F16000002059.

I further certify that said corporation has paid all fees due this office through December 31, 2018, that its most recent annual report/uniform business report was filed on January 4, 2018, and that its status is active.

I further certify that said corporation has not filed a Certificate of Withdrawal.

*Given under my hand and the  
Great Seal of the State of Florida  
at Tallahassee, the Capital, this  
the Fourth day of January, 2018*



*Ken DeFries*  
**Secretary of State**

Tracking Number: CU2615746936

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

<https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication>



Florida Board of Professional Engineers  
2639 North Monroe Street, Suite B-112  
Tallahassee, FL 32303-5268

Baxter & Woodman, Inc.  
8678 RIDGEFIELD ROAD  
CRYSTAL LAKE, IL 60012

Each licensee is solely responsible for notifying the Florida Board of Professional Engineers in writing the licensee's current address.

Name changes require legal documentation showing name change. An original, a certified copy, or a duplicate of an original or certified copy of a document which shows the legal name change will be accepted unless there is a question about the authenticity of the document raised on its face, or because the genuineness of the document is uncertain, or because of another matter related to the application.

At least 90 days prior to the expiration date shown on this license, a notice of renewal will be sent to your last known address. If you have not yet received your notice 60 days prior to the expiration date, please call (850) 521-0500, or write, Florida Board of Professional Engineers, 2639 North Monroe Street, Suite B-112, Tallahassee, FL 32303-5268 or e-mail: board@fbpe.org. Our website address is <http://www.fbpe.org>.

# State of Florida

## Board of Professional Engineers



Attests that

**Baxter & Woodman, Inc.**

d/b/a: MATHEWS CONSULTING A BAXTER & WOODMAN COMPANY



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: 228201901016 R

CA Lic. No:  
**31795**



### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
3/6/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Risk Strategies Company 650 Dundee Road Suite 170 Northbrook IL 60062		<b>CONTACT NAME:</b> PHONE (A/C, No, Ext): (847) 412-1414 FAX (A/C, No): E-MAIL: ADDRESS:	
<b>INSURED</b> BAXTER & WOODMAN, INC 8678 RIDGEFIELD ROAD CRYSTAL LAKE IL 60012		INSURER(S) AFFORDING COVERAGE INSURER A: Valley Forge Ins Co NAIC # 20508 INSURER B: Continental Insurance Company INSURER C: Continental Casualty Company INSURER D: INSURER E: INSURER F:	

COVERAGES CERTIFICATE NUMBER: CL17122151265 REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADOL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> primary/non contributory <input checked="" type="checkbox"/> subj to written contract GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO JECT <input type="checkbox"/> LOC OTHER:		6045872351	1/1/2018	1/1/2019	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 15,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COM/POP AGG \$ 2,000,000
A	<b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS		6045872348	1/1/2018	1/1/2019	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB CLAIMS-MADE DED RETENTION \$		6045872365	1/1/2018	1/1/2019	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000
C	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/EMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N/A	6045872379	1/1/2018	1/1/2019	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
C	Professional Liability		AEH591900841	1/1/2018	1/1/2019	Per Claim \$5,000,000 Aggregate \$5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)  
 Re: All Projects of the named insured subject to policy terms & conditions.

<b>CERTIFICATE HOLDER</b>  Baxter & Woodman, Inc. 8678 Ridgefield Rd. Crystal Lake, IL 60012	<b>CANCELLATION</b>  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 Michael Christian/CID <i>MCS Christian</i>
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Water, Sewer and Stormwater Master Plan RFQ # 2018-01

CITY OF WILTON MANORS, FLORIDA

ORDINANCE NO. 2013 – 0013

(Excerpt – Section 3, “Domestic Partner Benefits Requirement”)

Effective October 1, 2013

...

**Section 3:** Section 2-268 of the Code of Ordinances is amended by creating Subsection (v) as follows:

**Section 2-268(v).**

1. For purposes of this Section, the following definitions shall apply:

Domestic Partner shall mean any two (2) adults of the same or opposite sex, who have registered as domestic partners with Broward County, or any other jurisdiction with a domestic partner registry pursuant to state or local law authorizing such registration, or with an internal registry maintained by the employer of at least one (1) of the domestic partners. A Contractor (as hereinafter defined) may institute an internal registry to allow for the provision of equal benefits to employees with a domestic partner who does not register their partnerships pursuant to a governmental body authorizing such registration, or who are located in a jurisdiction where no such governmental domestic partnership registry exists. A Contractor that institutes such registry shall not impose criteria for registration that are more stringent than those required for domestic partnership registration by Broward County, Florida.

Cash equivalent shall mean the amount of money paid to an employee with a Domestic Partner in lieu of providing benefits to the employee’s Domestic Partner. The cash equivalent is equal to the employer’s direct expense of providing benefits to an employee for his or her spouse.

Competent to contract shall mean the two partners are mentally competent to contract.

Dependent shall mean a person who lives within the household of a domestic partnership and is:

- (1) A biological child or adopted child of a domestic partner; or

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(2) A dependent as defined under IRS regulations; or

(3) A ward of a domestic partner as determined in a guardianship proceeding.

**Domestic Partner Benefits Requirement** means a requirement for City Contractors to provide equal benefits for Domestic Partners. Contractors with five (5) or more employees contracting with the City, in an amount of \$20,000 or more ("Covered Contracts"), shall provide benefits to Domestic Partners of its employees on the same basis as it provides benefits to the spouses of employees and/or the dependents of the spouses of employees. The Domestic Partner Benefits Requirement will be included in solicitations. A Domestic Partnership Certification Form will be included in all competitive solicitations and by virtue of the execution of the Domestic Partnership Certification Form, the contractor will certify whether it complies with the Domestic Partner Benefits Requirement.

**Equal Benefits** means the equality of benefits between employees with spouses and/or dependents of spouses and employees with Domestic Partners and/or dependents of Domestic Partners, and/or between spouses of employees and/or dependents of spouses and Domestic Partners of employees and/or dependents of Domestic Partners.

**2. Equal Benefits Requirements.**

A. All solicitations for Covered Contracts which are advertised shall include the requirement to provide equal benefits in the procurement specifications.

B. As part of the solicitation response, the Contractor shall certify that the Contractor:

1. Currently complies with the conditions of this Section; or
2. Will comply with the conditions of this Section at time of contract award; or
3. Will not comply with the conditions of this Section at time of contract award; or
4. Does not need to comply with the conditions of this Section because of allowable exemption.

Water, Sewer and Stormwater Master Plan RFQ # 2018-01

The certification shall be in writing and signed by an authorized officer of the Contractor.

**3. Mandatory Contract Provisions Pertaining to Equal Benefits.** Unless otherwise exempt, every covered contract shall contain language that obligates the contractor to comply with the applicable provisions of this Section by providing the Domestic Partnership Certification Form.

**4. Exception and Waiver.** The provisions of this Section shall not apply where:

- A. The Contractor does not provide benefits to the spouse of an employee or the dependents of employee's spouse.
- B. The Contractor is a religious organization, association, society or any non-profit charitable or educational institution or organization operated, supervised or controlled by or in conjunction with, a religious organization, association or society.
- C. The Contractor is a governmental entity.
- D. The Contract is for the sale or lease of property.
- E. The Covered Contract is necessary to respond to an emergency.
- F. The provisions of this Section would violate grant requirements.
- G. The Contractor provides an employee the cash equivalent of benefits because the Contractor is unable to provide benefits to employees' Domestic Partners despite making reasonable efforts to provide them.
- H. Upon a majority vote, the City Commission may waive compliance of this Section under the following circumstances:
  - 1. Where only one (1) solicitation response is received;
  - 2. Where more than one (1) solicitation response is received, but the solicitation

Water, Sewer and Stormwater Master Plan RFQ # 2018-01

demonstrates that none of the proposed solicitations can comply with the requirements of this Section; or

3. Where the cost of the Bid, as submitted by the lowest responsive bidder which complies with the requirements of this Section, would be at least five percent (5%) greater than the lowest responsive bid submitted by the bidder which does not comply with the requirements of this Section but would otherwise have been responsive if compliance with this Section would not have been listed as a requirement in the Bid specifications.

I. In fiscal Year 2014, for a Covered Contract with a Contractor who provides reasonable assurances that the Contractor will provide benefits to employees' Domestic Partners in Fiscal Year 2014.

5. **Grandfather.** It is the intention of the City Commission that Contractors with existing contracts with the City be exempt from the application of this Ordinance until such contracts are renewed or amended.

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ATTACHMENT C

Page 1 of 2

**NON-DEBARMENT AFFIDAVIT**

David Mathews Being first duly sworn, deposes and says that:  
Executive Mathews Consulting, a  
He/She is Vice President of Baxter & Woodman Company the Proposer ("Respondent") that has submitted the attached Proposal. By offering a submission to this RFP, the Respondent certifies and affirms that to the best of his/her knowledge and belief, that:

- 1. The Respondent is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in any transaction of any Federal, state or local agency; and
- 2. The Respondent has not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records; making false statements; or receiving stolen property; and
- 3. The Respondent is not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 2 of this affidavit; and
- 4. The Respondent has not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default; and
- 5. The Respondent will submit a revised Debarment Affidavit immediately if the status changes.

If the Respondent cannot certify that he/she is not debarred, he/she shall provide an explanation with this submittal. An explanation will not necessarily result in denial of participation in a contract. Failure to submit a debarment affidavit will disqualify the contractor from the award of any contract.

       Check here if an explanation is attached to this affidavit.

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Page 2 of 2

By: *[Signature]*  
 Print Name: David L. Mathews  
 Title: Executive Vice President  
 Date: 5-25-18

STATE OF FLORIDA  
 COUNTY OF PALM BEACH

The foregoing Agreement was acknowledged before me this 25 day of May, 2018, by David L. Mathews, who has affirmed that he/she has been duly authorized to execute the above document. He/she is personally known to me or has produced — as identification.

NOTARY'S SEAL:



*[Signature]*  
 NOTARY PUBLIC, STATE OF FLORIDA

Courtney Marshall  
 Name of Acknowledger, typed, printed, or Stamped

Water, Sewer and Stormwater Master Plan RFQ # 2018-01

ATTACHMENT D

DRUG-FREE WORKPLACE CERTIFICATION

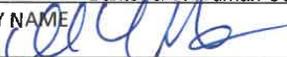
Preference must be given to vendors submitting a certification with their bid/proposal certifying they have a drug-free workplace in accordance with Section 287.087, Florida Statutes. This requirement affects all public entities of the State and becomes effective January 1, 1991. The special condition is as follows:

IDENTICAL TIE BIDS - Preference shall be given to businesses with drug-free workplace programs. Whenever two or more bids which are equal with respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie bids will be followed if none of the tied vendors have a drug-free workplace program, a business shall:

- 1) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
- 2) Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
- 3) Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
- 4) In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
- 5) Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
- 6) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

Mathews Consulting, a  
Baxter & Woodman Company

COMPANY NAME 

VENDOR'S SIGNATURE

Must be executed and returned with attached proposal to be considered.

Water, Sewer and Stormwater Master Plan RFQ # 2018-01

ATTACHMENT E
NON-COLLUSIVE AFFIDAVIT

State of Florida )

County of Palm Beach )

David Mathews being first duly sworn deposes and says that:

- (1) He/she is the Executive Vice President (Owner, Partner, Officer, Representative or Agent) of Mathews Consulting, a Baxter & Woodman Company the Proposer that has submitted the attached Proposal;
(2) He/she is fully informed respecting the preparation and contents of the attached Proposal and of all pertinent circumstances respecting such Proposal;
(3) Such Proposal is genuine and is not a collusive or sham Proposal;
(4) Neither the said Proposer nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, have in any way colluded, conspired, connived or agreed, directly or indirectly, with any other Proposer, firm, or person to submit a collusive or sham Proposal in connection with the Work for which the attached Proposal has been submitted; or to refrain from proposing in connection with such Work; or have in any manner, directly or indirectly, sought by agreement or collusion, or communication, or conference with any Proposer, firm, or person to fix the price or prices in the attached proposal or of any other Proposer, or to fix any overhead, profit, or cost elements of the Proposal price or the Proposal price of any other Proposer, or to secure through any collusion, conspiracy, connivance, or unlawful agreement any advantage against (Recipient), or any person interested in the proposed Work;
(5) The price or prices quoted in the attached Proposal are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the Proposer or any other of its agents, representatives, owners, employees or parties in interest, including this affiant.

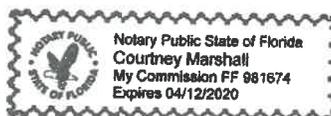
By: [Signature]
Title: Executive Vice President
Company: Mathews Consulting, a Baxter & Woodman Company

STATE OF FLORIDA
COUNTY OF PALM BEACH

Sworn, to and subscribed before me this 25 day of May, 2018,
by David Mathews

X Personally known, or
Produced Identification
Type of ID Produced

Signature of Notary Public
Courtney Marshall





PROJECT APPROACH

## 4. PROJECT APPROACH

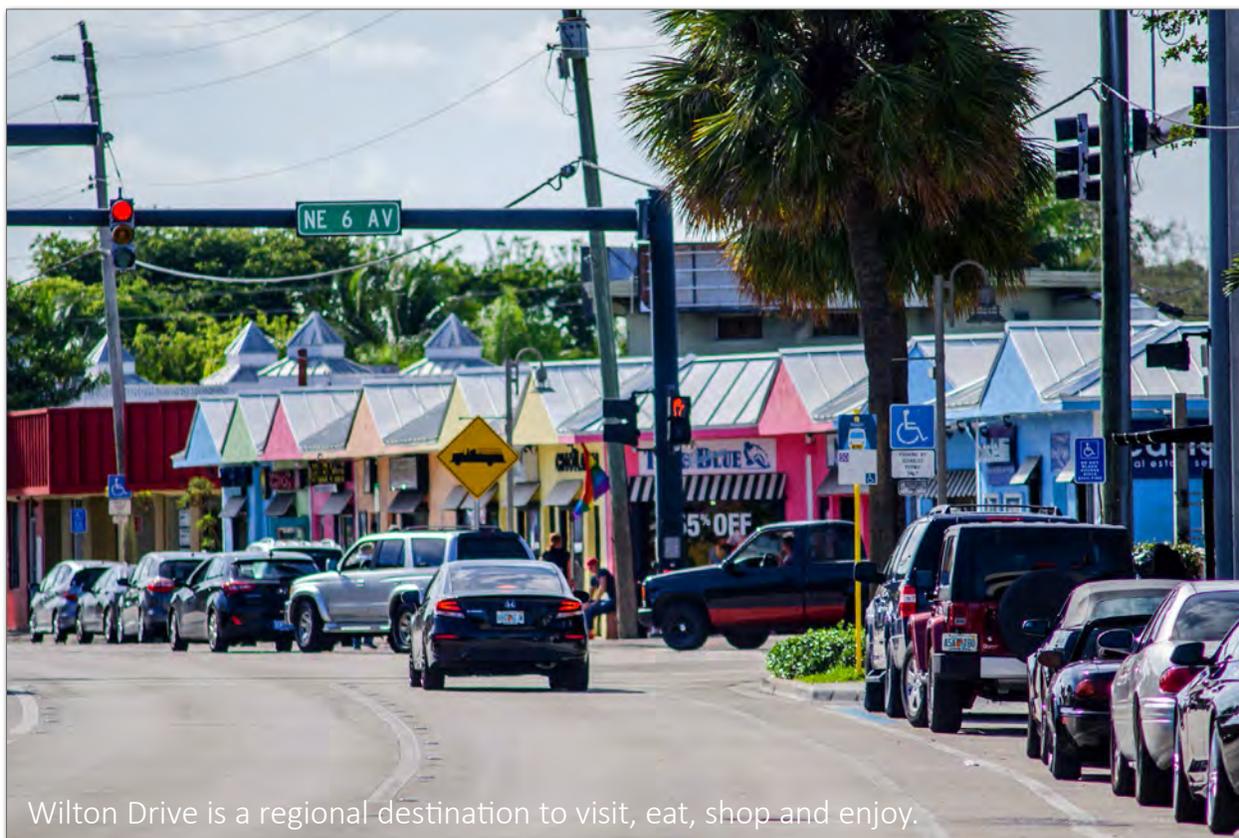
### BACKGROUND

Wilton Manors is a thriving community in northern Broward County encompassing about 2 square miles, 12,000 residents and 4,300 utility accounts. The City is continuing to experience modest growth and Wilton Drive in the City's Downtown is a vibrant area for arts and entertainment.

The City provides water distribution, wastewater collection and stormwater collection services for the City's residents and businesses. The utilities are comprised of both gravity and force main systems of various size and materials. With treatment provided by the City of Fort Lauderdale, these distribution and collection systems are the City's primary utility responsibility.

### CITY GOALS

The City has been successful in managing growth and providing services for their utilities and at this time is looking for an engineering consultant to develop a new water, wastewater and stormwater master plan. The new master plan will allow the City to continue to successfully manage growth and provide the City's residents and businesses with great service for the next twenty-five years. Mathews Consulting, a Baxter & Woodman Company ("Mathews") has the background, experience and wherewithal to successfully deliver this project for the City.



Wilton Drive is a regional destination to visit, eat, shop and enjoy.

## APPROACH

Mathews has been providing utility master planning services in South Florida for the last twenty years. This includes the same services for other communities in northern Broward County including Pompano Beach, Tamarac and Lauderdale by the Sea. For each of these long-term clients and others, our master planning efforts have provided both short-term and long-term maintenance plans for their utility systems. In many cases, our team guides communities full circle through infrastructure maintenance and improvements, from master planning through design, and construction. This experience provides us with confirmation that our planning initiatives yield successful results. Our goal is to provide high quality services to all of our clients as part of a long-term commitment.

We will take an integrative approach to this project to ensure that we provide the most cost-effective plan with the least amount of resident impacts. Mathews integrated approach will allow the City to perform neighborhood improvement programs for the water, wastewater and stormwater systems together. This provides economy of scale and improves resident outcomes and expectations that their street will only be “dug-up” once. This approach along with Capital Improvement Program (CIP) recommendations will also improve the City’s ability to properly budget and plan for future expenditures and provide City residents and businesses with an easy to follow schedule of City-wide initiatives.

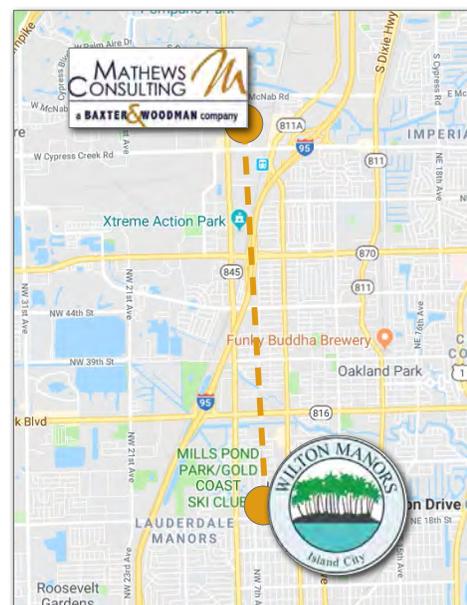
### Kick-off Meeting-

Within two weeks of a Notice-to-Proceed (NTP), a kick-off meeting will be scheduled and hosted locally with key City stakeholders. Included as part of this meeting’s agenda and follow-up will be the anticipated schedule including key milestone dates. We’ll also confirm City staff’s goals and expectations for the project and will reflect our start to successful communication throughout the project.

Beyond the kick-off meeting, our staff will be available locally throughout the project to discuss progress and work-through any project issues as they arise. This project will be managed out of our Fort Lauderdale office which is a “stone’s throw” from the City – less than 6 miles – we are local, responsive and ready-to-go.

**LIFE’S JUST BETTER  
HERE!**

**This project is not a report document, it’s your plan for the future. We look-forward to supporting the City in implementing your VISION with improvements that promote long-term benefits and help maintain high quality of life for your residents.**



### Plan Submittals-

During the project, our team will submit draft plans to the City at 50% and 90% project completion. This will allow City staff to review and add, delete or change items to the master plan. As part of the 50% and 90% plan submittals we will present to the City our initial findings, issues and concerns for City input and comment. These meetings will include key Mathew's staff members to ensure that we handle issues once and City staff knows who is responsible for each project scope. Our team brings long-term experience to utility master planning efforts. Our Water-Wastewater Project Manager, Jason Pugsley, and Stormwater Project Manager, Jeff Hiscock, each bring extensive master planning project success and will be directly available to City staff as needed.

### **PROMOTE THE BENEFITS!**

**Success will be measured by your operations staff, administrators, and the public. Considering their perspectives and providing a summary that clearly identifies their benefits will be critical.**

At the completion of the project a Draft Master Plan will be provided, and presented, to City staff for final review including any input and comments. Upon addressing staff issues, a Final Master Plan will be developed for the City including a presentation for the City Commission. This presentation will focus on project findings, recommendations and short- and long-term CIP projects. Our Project Director, Joe Kenney, has been responsible for developing and delivering municipal CIPs for the last decade and looks forward to briefing all stakeholders on the benefits and opportunities within the Master Plan.

***The City will benefit from our experience guiding communities full circle through infrastructure maintenance and improvements, from master planning through design, construction, and witnessing successful results.***

After completing Lauderdale by the Sea's stormwater master plan in 2010, the Town has since contracted with Mathews to complete multiple project designs and construction administration. One such project was the Basin Drive stormwater improvements (completed in 2015 and shown right).



**Data Collection and System Review-**

After the NTP, Mathews will provide City staff with a complete list of relevant data required to start the project. This data collection and analysis will be the baseline for the master planning process and will determine what additional local testing and data collection is required. Historically, we have worked as an extension of City staff during this process and have the ability to keep the project moving forward. This could include workshop meetings with operations staff, GIS technicians or City management.

We will also complete local field investigations for your systems including the installation of temporary wastewater flow meters to confirm local flows. Our team will work in tandem with City staff to determine the best locations and times for this work. We assume a minimum of two (2) weeks of dry weather flow monitoring and at least four (4) significant events for wet weather monitoring. Mathews also has the ability to complete lift station assessments, corridor studies and distribution system facility reviews to ensure a complete final report to meet all of the City’s planning needs.



**GIS TECHNOLOGIES**

**Mathews can help apply the latest GIS technology to efficiently manage assets and save TIME, ENERGY, RESOURCES, and MONEY through proactive maintenance programs.**

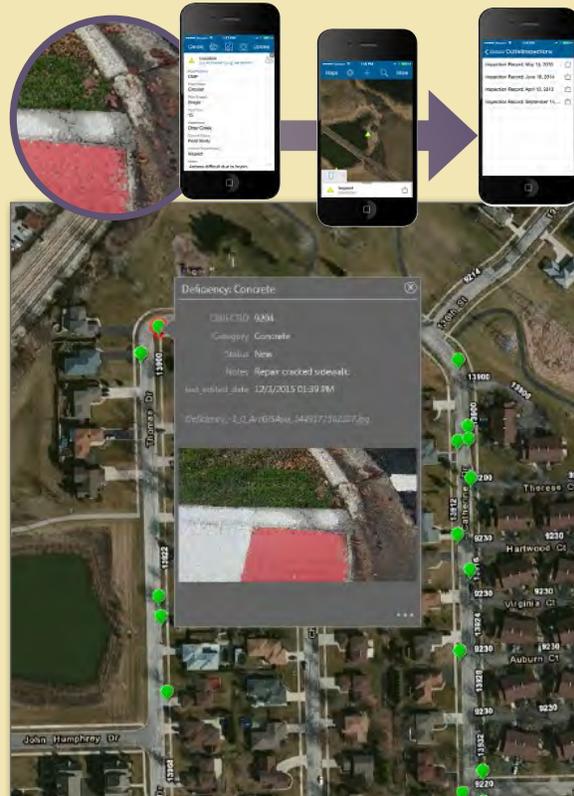
**Benefits of GIS:**

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

The ability to prioritize/rank improvements across systems. Easily coordinate underground utility repairs with the City’s annual road improvements.

Web-based mobile applications allow the contractor and the City to easily track punch list items. This provides real-time, two-way communication synced to your GIS system.

Utilize GIS/GPS technology to collect the locations and other desired features of the upgraded street lighting, detector loop locations, handholes, signage, and more for incorporation into the City’s system. The GIS data can also be used to update the as-built documents.



### Future Demands-

This project will look at existing water, wastewater and stormwater demands on the local collection and distribution systems. Anticipated future demand scenarios will also be developed for each of the systems. This includes a review and update of population projections and land use for 10-year and 25-year planning horizons. Close coordination with City planning staff and all available documents will be critical in this effort.

### Modeling-

Mathews will develop a calibrated hydraulic model for each of the City's systems. Our team has experience with multiple current water, wastewater and stormwater modeling software and will work with the City to select the software best suited for this project. Mathews recommends the City use Bentley WaterGEMS and SewerGEMS for the water and wastewater systems, respectively. This software will allow the City staff to update, modify, run, test and use the model into the future.

**Key to the Scope:** the water/wastewater model outputs selected should be provided to the City upon completion for future updates.

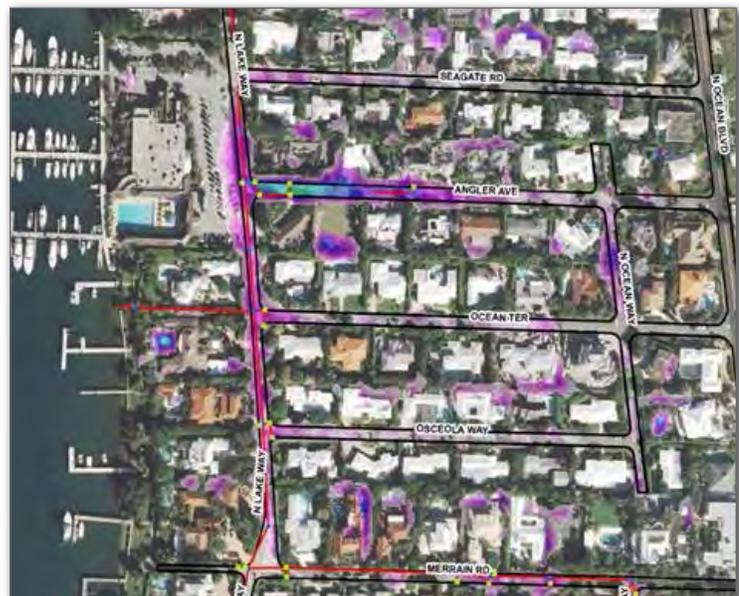
### TRAINING AND SUPPORT!

After completion of this project, our team will continue to be available to the City to support model updates and train City staff.

Inter-connected Pond Routing (ICPR4) will be used to model the stormwater system. Our team is highly experienced with both the 1-D and 2-D versions of this model which is widely used in South Florida. An Existing Conditions Model (ECM) will be set up and calibrated to serve as a base line for modeling future scenarios that involve changes in land use, king tide events as well as rising sea level predictions. The model will also be used to assess the current roadway Level of Service (LOS) and design alternatives to improve the LOS.

*Sophisticated modeling and evaluation tools will assist in planning and prioritizing improvements to your storm sewer system.*

This is an example of 2-dimensional modeling using ICPR4, showing flooding depths for study area. Your Stormwater Project Manager, Jeff Hiscock, specializes in these evaluations.



**Master Plan, Capital Improvement Program (CIP) and Inventory-**

An important first step in developing a short- and long-term CIP is capturing an accurate local inventory of system components – pipes, structures, services, lift stations, etc. – including sizes, age and materials. Capturing this inventory will be completed early within the project and be the basis for the required modeling and ultimately the CIP.

**Key to the Scope:** a primary goal for this project is to develop a CIP that is justifiable, transparent and guides City operating and capital funds in an efficient manner to assist with annual budgeting, scheduling and prioritization of projects.

The inventory of all systems, including their age and expected life-cycle, will provide the City with an initial snapshot of the depreciation schedule of the systems. This depreciation schedule, along with modeling recommendations and local break and complaint history, will allow for an all-encompassing CIP to be developed.

**Key to the Scope:** the system review will include an inventory of City-owned facilities which can include a remaining useful life expectancy evaluation for each of the systems.

The City has asked for both short-term (1 – 10 years) and long-term (11 – 25 years) CIP recommendations including projects and costs. In addition, Mathews recommends an extremely detailed five year CIP – year by year starting with 2019 (Year 0) – to be a part of the recommendations and published as part of the final report. Local priorities and other influences could require future adjustments to the long-term CIP; however, generally a five-year plan will include the highest priority local improvements with more accurate cost estimates and ensure that the highest local priorities get addressed quickly. Annually publishing a five-year CIP will also provide City residents and businesses with the opportunity to look-ahead to projects benefitting their neighborhoods.

With delivery of the draft and final master plan, the Mathews team will review current and anticipated future regulatory components that could impact the local systems. We will also coordinate, as necessary, with outside agencies including the City of Fort Lauderdale who provides both water and wastewater treatment services for the City. Close coordination with regulatory agencies and regional stakeholders will be included as part of the project. This plan will ensure that the City continues to meet and exceed all minimum State and County requirements.

**COLLABORATE WITH AGENCIES!**

**The plan must consider current and future regulations. We have extensive experience with regulatory agencies in South Florida, including Broward County, SFWMD, Florida DEP and more.**

**Related Master Plan Activities-**

Our team has extensive experience in each of the utility systems and will be available to complete other related services deemed necessary by the City. In addition, as part of our scope, we will closely review and include the following items:

- Potable water loss and unaccounted for water use
- Review water service backflow prevention (and testing) policies and pending regulations
- Local wastewater lateral policies
- Utility models compatible with GIS
- Review existing system operating and maintenance (O&M) schedules, procedures and costs and recommend improvements, as available
- Review, consider and recommend Green improvements for the systems including energy saving options, sustainable technologies and green stormwater infrastructure
- Administer Mathews QA/QC procedure throughout the project to ensure best practices and cost-effective recommendations
- Business case analysis, when warranted, for City consideration of O&M or other process improvements

**TENTATIVE SCHEDULE:**

Our team is ready to start work with issuance of the NTP and meet the City’s published six-month project completion goal. We propose the following tentative schedule:

**COMPLETE IN 6 MONTHS!**

**We are ready to begin immediately to meet your schedule goals.**

Item:	Date:
<b>Start work:</b>	<b>July 16, 2018</b>
50% Review – All Modeling Complete:	September 21, 2018
90% Review – Alternative Analysis:	November 2, 2018
100% Review – First Draft:	December 15, 2018
Final Draft Presentation To City Commission:	January 2019
<b>Final plan presentation to City Commission:</b>	<b>January 2019</b>



EXPERIENCE  
&  
QUALIFICATIONS

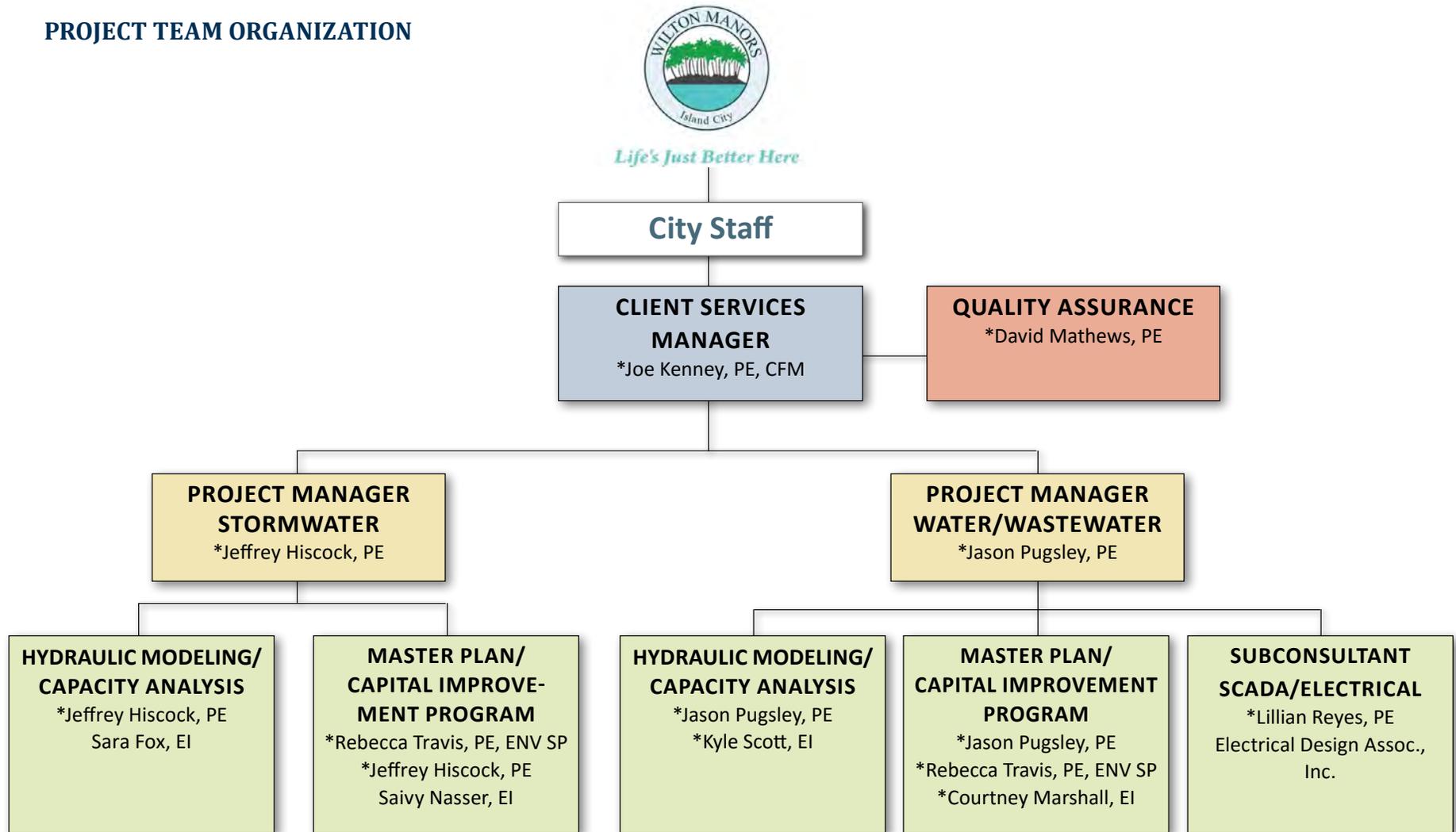
## 5. EXPERIENCE AND QUALIFICATIONS

Founded in Illinois with firm roots in municipal engineering, our parent company, Baxter & Woodman, Inc., has been serving municipalities in the midwest for 73 years. Mathews Consulting, was founded in West Palm Beach and has been serving municipalities in Southern Florida for 20 years. We currently hold over 20 local, multi-year engineering services contracts for the communities listed below. In the following section we have provided information on our qualifications:

- Team organization chart, staff bios, and key staff resumes
- Relevant Services for Water, Wastewater, and Stormwater Engineering
- Project references and examples for 5 relevant communities (\*marked)

COMMUNITY	CONTRACT	DATE
City of Boca Raton	General Water, WW, Reclaimed Water Consultant	2000-2021
City of Delray Beach CRA	General Engineering	2016-2020
Florida Keys Aqueduct Authority	General Engineering Services	2006-N/A
Florida Keys Aqueduct Authority	CIP Engineering Services	2006-N/A
Town of Highland Beach	General Engineering	2016-2024
<b>Town of Lantana*</b>	<b>General Engineering</b>	<b>2001-2021</b>
City of Delray Beach	General Engineering & Construction Management	1999- 2022
<b>City of Lake Worth</b>	<b>Continuing Contract for Professional Services</b>	<b>2014- 2022</b>
Loxahatchee River Env. Control District	Continuing Engineering Contract – Wastewater Collections including Construction Management and Inspections	2001-2020
Palm Beach County Water Utilities Department	General Engineering & Construction Management/ Inspection	2002-2020
<b>City of Pompano Beach*</b>	<b>General Water &amp; Reclaimed Water Treatment &amp; General Civil</b>	<b>2010- 2020</b>
City of West Palm Beach	Professional Engineering and Consulting Services for Small Projects for the East Central Regional Wastewater Treatment Facility	2012-2022
<b>City of West Palm Beach*</b>	<b>General Engineering &amp; Construction Management</b>	<b>2014-2019</b>
Town of Lauderdale by the Sea	Professional Services for Municipal Construction, Repair & Maintenance Projects	2011-2022
City of Lauderhill	Miscellaneous Professional Services	2017-2020
City of Marathon	Continuing Engineering Services Agreement	2017-2022
Martin County	Engineering Services Related to Utilities and Solid Waste	2017-2022
City of Pompano Beach CRA	General Engineering	2015-2020
City of Riviera Beach	General Engineering	2015-2020
Solid Waste Authority of PBC	General Engineering Services for Water/Wastewater and Electrical Utility Systems	2017-N/A
<b>City of Tamarac*</b>	<b>General Engineering</b>	<b>2001-2021</b>

**PROJECT TEAM ORGANIZATION**



\* Key Staff - resumes enclosed

## KEY PERSONNEL AVAILABILITY & EXPERIENCE

Mathews Consulting is committed to serving our existing clients and we carefully monitor the current and projected workload for each of our employees. We understand the importance of being responsive to our clients' needs, and we always consider the impact an awarded project will have on the workload of our staff.

Workload responsibilities of all proposed team members have been reviewed, and the team presented in this statement can fully accept the responsibility of your project. We are confident that – with our resources, experience, and manpower – we will provide you with successful, efficient, and cost-effective engineering services that are completed on time and within budget.

### JOE KENNEY, PE, CFM - CLIENT SERVICES MANAGER

- 20 years of experience
- B.S., Civil Engineering, Marquette University
- MBA, Lake Forest Graduate School of Management
- Located in Broward County office



Joe joined our firm after an almost 20-year career serving the Village of Glenview, one of Chicago's premier suburbs. During his tenure, Joe served in various roles spanning engineering, capital project planning, and community development. His municipal experience includes developing capital programs, allocating funds to support millions of dollars of annual roadway and utility infrastructure improvements, and establishing partnerships with neighboring communities to bring immeasurable value to the Village and residents.

**Joe is developing the Town of Gulf Stream's 10-year Capital Improvement Program, which is prioritizing improvements to public infrastructure and recommending a program that will provide the Town with cost estimates and projected timelines for their capital maintenance for the next 10 years.**

### DAVID MATHEWS, PE - QUALITY ASSURANCE

- 28 years of experience
- Located in West Palm Beach office
- B.S., Civil Engineering, University of South Florida



Dave is an Executive Vice President and the Florida Division Manager. He has over 28 years of experience in the planning, design, permitting, construction and management of wastewater and water projects. His broad experience covers water and wastewater facilities planning and design; utility infrastructure improvements; wastewater pumping stations; construction management; and regulatory compliance.

**Dave has provided Quality Assurance on numerous Master Plans and Updates including in Pompano Beach, Tamarac, Delray Beach, Boca Raton, West Palm Beach, Palm Beach County, and Loxahatchee River District.**

#### **JEFFREY HISCOCK, PE - PROJECT MANAGER - STORMWATER**

- 32 years of experience
- Located in Broward County and West Palm Beach offices
- B.S., Civil/Mechanical Engineering, University of Florida



Jeff has extensive experience in project management, permitting, design, and construction of numerous stormwater pumping stations and stormwater projects. He has focused experience with watershed assessments and detailed basin flood-routing analyses using computational hydrology and hydraulics computer modeling and GIS.

**Jeff has served as Engineer of Record/Project Manager on a Master Plan for the City of West Palm Beach. The Plan addressed the short and long-term stormwater improvements needed, along with a recommended Capital Improvement Plan.**

#### **JASON PUGSLEY, PE - PROJECT MANAGER - WATER/WASTEWATER**

- 17 years of experience
- Located in Broward County and West Palm Beach offices
- B.S., Civil/Environmental Engineering, Florida State University



Jason has extensive experience in project management, permitting, design, and construction of numerous water/wastewater facilities, infrastructure and environmental projects. His experience with multiple disciplines makes him uniquely qualified to design, construct and manage projects that are multi-pronged and that typically require the coordination of multiple staff.

**Jason has served as Project Manager/Senior Project Engineer on Master Plan Updates in Pompano Beach, Loxahatchee River District, West Palm Beach, and Delray Beach. The Pompano Beach updates were to a Wastewater Master Plan and to a Reuse Water System Master Plan.**

**REBECCA TRAVIS, PE - SENIOR PROJECT ENGINEER**

- 33 years of experience
- B.S., Civil Engineering, Iowa State University
- Located in our Broward County and West Palm Beach offices



Rebecca has over 33 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.

**Rebecca has served as Project Manager for numerous Master Plans and facility assessments for Tamarac, Delray Beach, Gulf Stream, Loxahatchee River District, Boca Raton, Boynton Beach, and Palm Beach County.**

**KYLE SCOTT, EI - PROJECT ENGINEER**

- 4 years of experience
- B.S., Environmental Engineering, University of Central Florida
- Located in our Broward County and West Palm Beach offices



Kyle has 4 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.

**Kyle has served as Project Engineer for Master Plans for Tamarac, Delray Beach, Gulf Stream, Loxahatchee River District and for two Master Plans in Pompano Beach.**

**COURTNEY MARSHALL, EI - PROJECT ENGINEER**

- 4 years of experience
- B.S., Environmental Engineering, University of Florida
- Located in our Broward County and West Palm Beach offices



**Courtney assists with engineering design for stormwater management systems, roadway and infrastructure improvements, potable water systems, reclaimed water systems and wastewater collection and transmission systems.**

**LILLIAN REYES, PE - SCADA/ELECTRICAL ENGINEER**

- 28 years of experience
- B.S., Electrical Engineering, Florida Atlantic University
- Located in Broward County



Lillian is experienced in the design of electrical power distribution for municipal systems, water and wastewater treatment facilities, and above and below ground distribution systems. She has served as project manager for various projects with the private and public sector.

**Lillian has served as Engineer of Record or Project Engineer for electrical designs of municipal and County facilities that included evaluations of electrical and Instrumentation systems.**

**ADDITIONAL STAFF**

The project team is supported by Sara Fox, EI (Hydraulic Modeling/Capacity Analysis) and Saivy Nasser, EI (Master Plan/Capital Improvement Program).

They are also supported by our 230+ multi-disciplined staff who are available to assist if needed.



**Joseph P. Kenney, PE, CFM**  
Client Services Manager

### Education

MBA Lake Forest Graduate  
School of Management, Lake  
Forest, IL 2014

BS, Civil Engineering,  
Marquette University,  
Milwaukee, WI 1998

Joined Firm in 2017

Years of Experience: 20

### Registrations

Licensed Professional Engineer:  
Florida

Licensed Professional Engineer:  
Illinois

Certified Floodplain Manager:  
Association of State Floodplain  
Managers

### Memberships

American Society of Civil  
Engineers (ASCE)

American Public Works  
Association (APWA)

Association of State Floodplain  
Managers, Inc. (ASFPM)

Joe joined our firm after an almost 20-year career serving the Village of Glenview, one of Chicago's premier suburbs with a population of over 45,000. During his tenure, Joe served in various roles spanning engineering, capital project planning, and community development. His municipal experience includes developing capital programs, allocating funds to support millions of dollars of annual roadway and utility infrastructure improvements, and establishing partnerships with neighboring communities to bring immeasurable value to the Village and residents. Joe served the Village as Community Development Director, Assistant Director of Capital Projects, Plan Review Division Engineer, Civil Engineer, and Engineering Technician.

### Representative Projects

#### City of Delray Beach, FL Osceola Park and SW 4<sup>th</sup> Street Neighborhood Improvements

Provided public outreach assistance for two neighborhood projects that included over 1,300 homes and included: resurfacing/reconstruction of 5.4 miles of roadway, construction of 2.2 miles of new permeable pavement alleyways, temporary traffic calming pilot projects, rehabilitation of water main, sanitary sewers, and storm sewers, area drainage improvements, parkway landscaping, sidewalk improvements, and LED lighting analysis and improvement. These projects included a dedicated project websites created and maintained by our staff.

#### Town of Gulf Stream, FL Ten-year Capital Improvement Plan (CIP)

Analyzed all Town-owned public infrastructure including roadways, alleys, water main, stormwater drainage and related public right-of-way appurtenances to catalog their inventory, current condition and expected lifespan. A ten-year CIP was developed, and approved, prioritizing "worst-first" recommendations for replacement and reconstruction providing the Town with a roadmap for capital maintenance into the future.

#### Florida Floodplain Managers Association (FFMA) Annual Conference 2018 Stormwater Implementation on Steroids

Presented at the FFMA annual conference on a holistic approach to local stormwater management and project implementation including ten lessons learned that can be applied to cities in South Florida.

*While working for the Village of Glenview, IL:*

#### Public Outreach Management

Oversaw public outreach efforts for Village projects, including:

- Tower Road Improvements
- Downtown Glenview Road Improvements
- Glen Town Center Streetscape Improvements

#### Community Development Director

- Managed and provided daily oversight of four divisions- Planning, Engineering, Capital Projects and Inspectional Services which included 17 full-time and seven part-time employees in addition to other contract staff;
- Planning Division responsibilities included managing the Village's elected and

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Joseph P. Kenney, PE, CFM

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appointed Boards and Commissions for private development projects and long-term planning;

- Engineering and Capital Projects Division's responsibilities included delivering the Village's annual Capital Improvement Program (CIP) and regulated private engineering projects including coordination with area utilities;
- Inspectional Services Division responsibilities included building and zoning plan review and inspections along with property maintenance and low-hazard fire and health inspections;
- Developed and managed the Departmental Business Plan and Operating Budget (\$3.5 million annually);
- Developed and delivered the Village's five-year CIP which supported an approximate \$15 million annual investment in the Village's core infrastructure including roadways and utilities;
- In three years secured over \$25 million of outside (grant) funding to support local stormwater and roadway improvement projects;
- Chaired the Construction Committee for the Municipal Partnering Initiative, established in 2011, which jointly bids common projects amongst thirty north and northwest suburban communities;
- As part of the Municipal Partnering Initiative jointly bid supplemental and peak building plan review and inspections with five neighboring communities securing a new regional firm to provide staffing support;
- Expanded customer service outreach with project-level website blogs, updated weekly, and as necessary, on various public infrastructure projects;
- Oversaw the Village's effort through FEMA's Community Rating System (CRS) process to secure a "5" rating which resulted in 25% flood insurance rate reductions for Village residents;
- Coordinated closely with the Metropolitan Water Reclamation District on countywide sanitary sewer and stormwater issues impacting the Village including advocating for regional stormwater projects and sitting on a blue ribbon committee advising on the cost-benefit for a recently adopted countywide stormwater regulatory ordinance;
- Implemented "e-permits" locally in 2016 with ten percent of all new permit applications submitted online with more paying fees and reviewing inspection and plan review reports online.

#### **Assistant Director of Capital Projects**

- Supported development and implementation of the Village's Capital Improvement Program (CIP) and provided day-to-day oversight of 12 full-time and three part-time employees in the Department's Design, Construction and Facilities Management Divisions;
- Managed the Village's stormwater master planning process which included monthly meetings with a 16-member resident Stormwater Task Force; after severe local flooding events in 2007 and 2008, the approved Flood Risk Reduction Program established short- and long-term goals to address the Village-wide issue;
- Reviewed as part of the Village's 2009 Deficit Reduction Plan opportunities for cost savings within the CIP providing Village Board support for \$2 million in project delays; also, completed a managed-competition evaluation for engineering field inspections resulting in three-year cost savings of \$439,000;
- Completed three Federal Legislative Initiatives binders in 2009 to support the Village's attempt to secure outside funding including: 1) "Ready-to-go" Projects, 2) Regional Transportation Projects and 3) a Floodway Buyout Book; and, provided ongoing oversight for grant funding requests.

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**David L. Mathews, PE**  
Quality Assurance

### Education

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

Years of Experience: 28

Joined Firm in 1999

### 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

### Publications/Technical Presentations

*State of the Art Hydraulic Modeling for the City of Delray Beach*, ASCE South Florida Sectional Conference, Boca Raton, Florida, October 1992.

Mathews, David L. and David Laliberte, *Landfill Leachate Management: Combining Biophysical Treatment with Ultrafiltration/Reverse Osmosis*, Florida Water Resources Journal, September 1996.

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Dave is an Executive Vice President and the Florida Division Manager. He has over 28 years of experience in the planning, design, permitting, construction and management of wastewater and water 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

#### **Pompano Beach, FL - Wastewater Master Plan Updates, Randolph Brown, PE, 954-786-4061**

Quality Assurance for the evaluation of the existing wastewater utility system and made recommendations for necessary improvements. Project tasks included the evaluation of historical data; summarization of current and future regulatory requirements, performance of capacity analysis, asset evaluation & assessment; evaluation of City's I&I abatement program; projection of future flows; and development of a hydraulic model.

#### **Pompano Beach, FL - Reuse Water System Master Plan, Randolph Brown, PE, 954-786-4061**

Quality Assurance for the development of a Capital Improvement Program and Master Plan of the Reuse System. A hydraulic model of the reuse distribution system was developed to determine future reuse water demands based on projected future customers, and the final report recommended CIPs for the Reuse Water Treatment Facility, Reuse Water Pumping & Storage Facilities, and Reuse Water Transmission & Distribution Facilities.

#### **Tamarac, FL - Water and Wastewater Master Plans, James T. Moore, PE, 954-597-3758**

Quality Assurance for the development of Master Plans for the Water and Wastewater systems. The Water Master Plan identified future water supply, treatment, and distribution needs for the City by assessing current assets, system capacity, and proposed recommendations for future improvements.

#### **Delray Beach, FL - Reclaimed Water Master Plan, Victor Majtenyi, 561-243-7300**

Quality Assurance for the development of a phased reclaimed water system to allow budgeting and scheduling within a designated time frame. The phasing plan was developed for implementation of the master plan with estimated construction costs for each phase. Also included the development of a draft reclaimed water ordinance.

#### **City of Boca Raton, FL - Wastewater Master Plan QA/QC, Chris Helfrich, 561-338-7300**

Project Manager for the review of the Wastewater Transmission System Master Plan for consistency with the project scope and the goals of the City of Boca Raton. A report was prepared describing recommendations and justification for suggestions and comments.

David L. Mathews, PE  
Page 2 of 2

Mathews, David L., Walter Schwarz, John Feoli, Jim Pierce, Dennis Popoca, *Maximizing Infrastructure Repair Benefits: A Systematic Approach to Lift Station Rehabilitation*, Florida Water Resources Conference, April 1998.

**City of West Palm Beach, FL - Downtown Master Plan, Laura Le, PE, 561-494-1040**

Project Manager for a "buildout" analysis of the Downtown Master Plan area to determine water and wastewater system improvements needed.

**Loxahatchee River District, FL - Whispering Trails Gravity Sewer System, Clint Yerkes, 561-747-5700**

Quality Assurance for the ongoing assessment program that will provide gravity sewer services for the Whispering Trails area. Design elements include 1 new submersible lift station; approximately 1,610 lf of 4-inch force main; approximately 11,216 lf of 8-inch sanitary sewer, manholes and service laterals in the Assessment area, and reconstruction/resurfacing of roadways.

**West Palm Beach, FL - ECRWRF Process Water System Evaluation, Poonam Kalkat, 561-494-1040**

Quality Assurance for the evaluation of viable treatment and delivery methods for process water at the East Central Regional Water Reclamation Facility (ECRWRF). Included are quantifying the current and future process water demands of the facility and the development and evaluation of specific treatment and delivery alternatives including the performance of a net present worth analysis.

**City of Delray Beach, FL - Water Meter AMR/AMI System, Victor Majtenyi, 561-243-7300**

Quality Assurance for the automatic water meter reading (AMR) system evaluation and development of a water meter strategic plan to provide guidance in the replacement of existing water meters and in the installation of new meters with new meter reading technology.

**Palm Beach County Water Utilities Department, FL - Raw Water Master Plan, Maurice Tobon, 561-493-6000**

Project Manager for providing engineering assistance in the preparation of a Raw Water Master Plan for approx. 34 future wells. Services included conducting an environmental assessment of the areas adjacent to the wells; identifying well development requirements for each well site; and corresponding with PBC ERM.

**Palm Beach County Water Utilities Department, FL - Palm Beach International Airport Water and Wastewater Master Plan, Maurice Tobon, 561-493-6000**

Project Engineer in association with another firm for the development of a Water and Wastewater Master Plan for the Palm Beach International Airport and surrounding areas to identify immediate and future needs and improvements for water and wastewater utilities.

**City of West Palm Beach, FL - South Flagler Service Area Improvement Program, Poonam Kalkat, 561-494-1040**

Project Manager for engineering services for the South Flagler Service Area Improvements program. Responsibilities included data collection and computer model analysis for the sanitary sewer system for the southeast portion of the City. Analysis included wastewater flow estimation, sewer capacity analysis, sewer system evaluation surveys, initial sewer rehabilitation design and the development of an improvements plan.

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**Jeffrey G. Hiscock, PE**  
Project Manager-Stormwater

**Education**

B.S., Mechanical Engineering,  
University of Florida, 1986

Years of Experience: 32

Joined Firm in 2018

**Registrations**

Licensed Professional Engineer,  
Florida

Jeff has 32 years of engineering management experience with focus on water management engineering, stormwater pumping station design and Geographic Information Systems (GIS) programming. Jeff is specifically experienced with watershed assessments and detailed basin flood-routing analyses using computational hydrology and hydraulics computer modeling and GIS.

**Representative Projects**

**City of West Palm Beach, FL  
The Renaissance Project**

Served as Project Manager and Engineer of Record for the Renaissance Project, which represented an innovative water diversion plan that includes pumping stormwater from 375 acres of downtown West Palm Beach to the City's water supply lakes where it is treated and used for public consumption. Project included design of a 250 cfs storm water pumping station, alum injection system, five-acre settling basin, five-acre wetland cell and other water diversion structures. Jeff managed all aspects of project including feasibility studies, grant applications, design, permitting and construction administration.

**City of West Palm Beach, FL  
Monroe Drive Stormwater Improvements**

Project Engineer for the design and permitting of drainage infrastructure for Monroe Drive and Georgia Avenue as a subconsultant for Mathews Consulting. This project is one of several recommended in the West Palm Beach Stormwater Master Plan.

**City of West Palm Beach, FL  
Monceaux Road Stormwater Improvements**

Project Engineer for the design and permitting of drainage infrastructure for Monceaux Road as a subconsultant for Mathews Consulting. This project is one of several recommended in the West Palm Beach Stormwater Master Plan.

**City of West Palm Beach, FL  
Stormwater Utility**

Served as Project Manager and Engineer of Record for City's Stormwater Utility for five years. Attended and presented at Storm Water Utility Board and City Commission meetings. Responsibilities included assisting the City with implementation of stormwater projects, permitting, assistance in meeting NPDES requirements, GIS and review of construction drawings.

**City of West Palm Beach, FL.  
Stormwater Master Plan**

Served as Project Manager and Engineer of Record for preparation of the City-wide Master Plan which included recommendations regarding the implementation of stormwater programs and projects throughout the City. The Plan addressed the short-term and long-term stormwater improvements needed in the City along with a recommended Capital Improvement Plan.

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Jeffrey G. Hiscock, PE  
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Jeff has developed stormwater master plans and designed several municipal drainage systems throughout his career. He has performed flood routing analyses, hydraulic pipe sizing with AutoCAD Civil 3D and Level-of-Services assessments, including:

- Stormwater Master Plan for Palm Beach International Airport (1994)
- Stormwater Master Plan for City of West Palm Beach (2000)
- Renaissance Project for City of West Palm Beach (2002)
- Monceaux Road Group I Stormwater Improvements for the City of West Palm Beach (2005)
- Monceaux Road Group II Stormwater Improvements for the City of West Palm Beach (2005)
- Monroe Drive Stormwater Improvements for the City of West Palm Beach (2005)
- Spencer Drive Improvements for the City of West Palm Beach (2006)
- Rutland Boulevard Improvements for the City of West Palm Beach (2008)
- Broadmoor Neighborhood Storm Water and Utility Improvements Review and Oversight for the City of West Palm Beach (2008)
- Palm Beach Gardens High School Redevelopment for the School District of Palm Beach County (2008)
- Esquire Lake Stormwater Improvements for the City of Pompano Beach, (2013)
- Taxiway D & E Drainage Improvements for Palm Beach International Airport (2015)
- Kendall Lake Stormwater Improvements for the City of Pompano Beach, (2016)
- Taxiway W Drainage Improvements for Palm Beach International Airport (2016)
- Southside Redevelopment for Lantana Airport (2016)
- Runway 23/5 EMAS for Boca Raton Airport (2017)
- City of Lake Worth District 3 Stormwater Master Plan Re-evaluation (2017)
- Basin 4 Box Culverts/Canal Replacement for Palm Beach International Airport (2017)

Jeff served as Project Manager and the Engineer of Record for sixteen (16) state-of-the-art stormwater pumping station designs during his career. Most stations included electric submersible pumps and buildings with loading bays, crane hoist systems, backup generators and external aboveground fuel tanks.

- Mirasol Stormwater Pumping Stations and Control Structures for NPBCID (Northern Palm Beach County Improvement District)
- PGA National Central Stormwater Pumping Station Renovation for NPBCID
- Renaissance Project Primary Pumping Station for the City of West Palm Beach
- Ibis Stormwater Pumping Stations for NPBCID
- Ibis Intermediate Pump Station for NPBCID
- East and South Pump Stations for PBC Department of Airports
- Jungle Road Pump Station (D-16) for the Town of Palm Beach
- El Brillo Way Pump Station (D-18) for the Town of Palm Beach
- Breakers Hotel (D-13) Stormwater Pumping Station, Town of Palm Beach
- Village of Wellington 12th Fairway Stormwater Pump Station #5 for ACME
- Hamilton Bay Stormwater Pump Station for NPBCID
- Baywinds Stormwater Pump Stations for NPBCID
- Village of Wellington Pump Station No. 6 for ACME Improvement District
- Stormwater Pump Station Assessments for ACME Improvement District
- Control 2 Pump Station Relocation Feasibility Study for the City of West Palm Beach
- Evaluation of Unit 11A PGA National Stormwater Pumping Stations

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## Jason A. Pugsley, PE

Project Manager-Water/Wastewater

### Education

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

Years of Experience: 17

Joined Firm in 2014

### Registrations

Professional Engineer, Florida

### Associations

American Water Works Association

Jason has extensive experience in project management, permitting, design, and construction of numerous water/wastewater facilities, infrastructure and environmental projects. His experience with multiple disciplines makes him uniquely qualified to design, construct and manage projects that are multi-pronged and that typically require the coordination of multiple staff.

### Representative Projects

#### **West Palm Beach, FL - East Central Regional Water Reclamation Facility, Process Water System Evaluation, Poonam Kalkat, 561-494-1040**

Project Director for the evaluation of viable treatment and delivery methods for process water at the East Central Regional Water Reclamation Facility (ECRWF). The project scope of work included quantifying the current and future process water demands of the facility and the development and evaluation of specific treatment and delivery alternatives including the performance of a net present worth analysis.

#### **Pompano Beach, FL - Wastewater Master Plan Updates, Randolph Brown, PE, 954-786-4061**

Senior Engineer for the evaluation of the existing wastewater utility system and made recommendations for necessary improvements. Project tasks included the evaluation of historical data; summarization of current and future regulatory requirements, performance of capacity analysis, asset evaluation & assessment; evaluation of City's I&I abatement program; projection of future flows; and development of a hydraulic model.

#### **Pompano Beach, FL - Reuse Water System Master Plan, Randolph Brown, PE, 954-786-4061**

Project Director and Senior Engineer for the development of a Capital Improvement Program and Master Plan of the Reuse System. A hydraulic model of the reuse distribution system was developed to determine future reuse water demands based on projected future customers, and the final report recommended CIPs for the Reuse Water Treatment Facility, Reuse Water Pumping & Storage Facilities, and Reuse Water Transmission & Distribution Facilities.

#### **Loxahatchee River District, FL - Whispering Trails Gravity Sewer System, Clint Yerkes, 561-747-5700**

Project Director and Lead Designer for the ongoing assessment program that will provide gravity sewer services for the Whispering Trails area. Design elements include 1 new submersible lift station; approximately 1,610 lf of 4-inch force main; approximately 11,216 lf of 8-inch sanitary sewer, manholes and service laterals in the Assessment area, and reconstruction/resurfacing of roadways.

#### **City of West Palm Beach, FL - Downtown Master Plan, Laura Le, PE, 561-494-1040**

Senior Engineer for a "buildout" analysis of the Downtown Master Plan area to determine water and wastewater system improvements needed. The purpose of the analysis is to develop planning level cost estimates for the recommended

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Jason A. Pugsley, PE  
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system upgrades to calculate a unit cost of upgrades based on a standard development unit of measure.

**City of Delray Beach, FL - Water Meter AMR/AMI System, Victor Majtenyi, 561-243-7300**

Senior Engineer to conduct an automatic water meter reading (AMR) system evaluation and to develop a water meter strategic plan to provide guidance in the replacement of existing water meters and in the installation of new meters with new meter reading technology. Jason is also assisting with bidding and construction administration services with the AMI system materials supplier and with the meter and system installation contractor.

**City of Pompano Beach - Area D Sanitary Sewer System, Randolph Brown, PE, 954-786-4061**

Project Director for the design of a new conventional gravity sewer system to serve "Area D" an un-sewered area which occupies approximately 21 acres along Martin Luther King Boulevard, east of the Turnpike and west of NW 27<sup>th</sup> Avenue. The design elements included: one (1) new packaged 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.

**\*City of Port St. Lucie, FL**

**Southport WWTF Permitting**

Lead Engineer for the preparation of a Capacity Analysis Report, Operation and Maintenance Performance Report and permit application documentation required for submission to FDEP for the renewal of the existing facility operating permit.

**\*Village of Wellington, FL**

**WWTF Permitting**

Lead Engineer for the preparation of a Capacity Analysis Report, Operation and Maintenance Performance Report and permit application documentation required for submission to FDEP for the renewal of the existing facility operating permit.

**\*Town of Lake Placid, FL**

**Lake Placid WWTF Reclaimed Water System Upgrades**

Lead Design Engineer for the design and permitting of facility reclaimed water system upgrades. The design incorporated a reclaimed water transfer lift station, 0.5-million gallon storage tank and a reclaimed water pump station with hydropneumatic tank, instrumentation and controls to continuously monitor the treatment facility effluent water quality.

**\*Polk County, FL**

**Polk County Utilities Division-Facilities Evaluation**

Project Engineer for the evaluation of the existing water production facilities located in the Central and Northwest regional service areas. Evaluation included the assessment of the existing facility condition, recommended improvements required to meet the projected potable water demands of the respective service areas and an evaluation of the estimated remaining service life.

\*while with another consultant

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**M. Rebecca Travis, PE**

Master Plan/Capital Improvement Program

**Education**

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

Years of Experience: 33+

Joined Firm in 2003

**Registrations**

Licensed Professional Engineer, Florida

LEED Green Associate

Envision Sustainability Professional Credential

**Associations**

National Association of Women in Construction

Water Environment Federation

American Water Works Association

Florida Stormwater Association

Rebecca has over 33 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.

**Representative Projects**

**Delray Beach, FL – Reclaimed Water Master Plan Update, Victor Majtenyi, 561-243-7300**

Senior Project Engineer for the update to the City’s previous Reclaimed Water Master Plan. Tasks included review of historical flow records of existing customers and quantification of actual reclaimed water demands for existing customers; development of an updated list of future reclaimed water customers; a corridor analysis and field investigations for the proposed future reclaimed water transmission and distribution pipelines to determine which pipeline alignments were the most feasible based on review of existing City utility alignments (water, sewer, drainage) and review of visible above-ground features; update of the Reclaimed Water Hydraulic Model (previously developed using the WaterCad® software platform), input of proposed/existing pipe layouts and reuse customer demands; preparation of 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.

**Palm Beach County, FL – Western Region Operations Center, Mike Rawls, 561-493-6000**

Project Manager for the site planning, preliminary design, ongoing final design, permitting and bidding services for a new 5 MG ground storage tank; administration, operations and customer service office space; warehouse, storage and shop facilities, generator building and personal and fleet parking. The warehouse includes approximately 6,600 sf of storage area; 1,470 sf of shop keeper area; and a 3-bay loading dock. The warehouse 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. Also being designed are a vehicle wash and generator building, storage pavilions for portable generator storage and materials storage, along with paving, drainage, water, wastewater, site electrical, CATV and telecommunications systems. The design is following the Florida Green Building Coalition Commercial Building Standard to address sustainability in design.

**Delray Beach, FL - Osceola Park and SW 4<sup>th</sup> Street Neighborhood Projects, Missy Barletto, 561-43-7000 ext 4104**

Senior Project Engineer for the infrastructure improvements and provides support for public outreach efforts for the two large local neighborhood projects which incorporate over 1,300 parcels. He also supports the City’s installation of multiple

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M. Rebecca Travis, PE  
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traffic calming "pilot" projects to measure results, seek resident input and develop a local toolbox for future implementation.

**Gulf Stream, FL - Ten-year Capital Improvement Program (CIP), Greg Dunham, 561-276-5116**

Senior Project Engineer for the analysis of all Town- owned public infrastructure including roadways, water main, stormwater drainage and related public right-of-way appurtenances to catalog their inventory and current condition. Assisted with the development of a ten-year CIP prioritizing the "worst-first" recommendations for replacement and reconstruction providing the Town with a roadmap for capital maintenance into the future.

**City of Delray Beach, FL - Water Meter AMI System, Victor Majtenyi, 561-243-7300**

Project Manager for the automatic water meter reading (AMI) system evaluation and development of a water meter strategic plan to provide guidance in the replacement of over 20,000 existing water meters and in the installation of new meter reading technology.

**City of Boca Raton, FL - Woodfield Reclaimed Water Pipeline Planning Document, Chris Helfrich, 561-338-7300**

Project Manager for preparing a planning document which identified pipe routing options, easement issues and detailed corridor analysis for new reclaimed water pipeline to serve Woodfield Golf Course.

**Palm Beach County Water Utilities Department, FL - Rezoning of PBCWUD Facilities, Mike Rawls, 561-493-6000**

Project Manager for providing administrative planning and engineering assistance to the Palm Beach County Water Utilities Department (WUD) to rezone WTP #3, WTP #9 and the Southern Region Water Reclamation Facility (SFWRP) to the PO zoning category and for site plan amendment services for WTP #8.

**Palm Beach County, FL - East Central Regional Water Reclamation Facility, Ali Bayat, PE, 561-493-6000**

Project Manager for the site planning, design, permitting and bidding document preparation for a reclaimed water storage and transmission pump station. The 3,750 sq. ft. building includes office and warehouse space.

**City of Delray Beach, FL - Congress Avenue Corridor Utilities Master Plan, Victor Majtenyi, 561-243-7000**

Project Manager for development of sub-area master plan for water, wastewater and reclaimed water improvements needed to serve Congress Avenue re-development area.

**Lake Worth, FL - \$40 Million Neighborhood Road Program, Felipe Lofaso, 561-586-1720**

Project Manager for the design, permitting and construction administration services for various utility and roadway mill and overlay or reconstruction projects as identified and prioritized for the northwestern quadrant of the City. The scope of work for approximately 44,000 LF of roadway improvements, includes water and sewer replacement, sidewalk and ADA compliance, signing, marking, and traffic calming.

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## Kyle Scott, E.I

### Hydraulic Modeling/Capacity Analysis

#### Education

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

Years of Experience: 4

Joined Firm in 2014

#### Registrations

Engineering Intern, Florida, 2013

Kyle has 4 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

##### **City of Pompano Beach, FL - Wastewater Master Plan , Randolph Brown, PE, 954-786-4061**

Project Engineer for developing a new Wastewater Master Plan for the City. Tasks included evaluation of historical wastewater flow data; projection of future population and wastewater flows; evaluation of non-sewered areas; performance of asset evaluation and condition assessment of existing lift stations and wastewater collection system; evaluation of I/I issues; development of hydraulic model and identification of improvements needed to meet future flow conditions; provide cost estimate and recommended schedule for improvements.

##### **Reuse Water System Master Plan**

Project Engineer for the development of a Capital Improvement Program and Master Plan of the Reuse System. A hydraulic model of the reuse distribution system was developed to determine future reuse water demands based on projected future customers, and the final report recommended CIPs for the Reuse Water Treatment Facility, Reuse Water Pumping & Storage Facilities, and Reuse Water Transmission & Distribution Facilities.

##### **Tamarac, FL - Water and Wastewater Master Plans, James T. Moore, PE, 954-597-3758**

Project Engineer for the development of Master Plans for the Water and Wastewater systems. The Water Master Plan identified future water supply, treatment, and distribution needs for the City by assessing current assets, system capacity, and proposed recommendations for future improvements.

##### **City of West Palm Beach, FL - Downtown Master Plan, Laura Le, PE, 561-494-1040**

Project Engineer for a "buildout" analysis of the Downtown Master Plan area to determine water and wastewater system improvements needed. The purpose of the analysis is to develop planning level cost estimates for the recommended system upgrades to calculate a unit cost of upgrades based on a standard development unit of measure.

##### **ECRWF Process Water System Evaluation**

Project Engineer for the evaluation of viable treatment and delivery methods for process water at the East Central Regional Water Reclamation Facility (ECRWF). Included are quantifying the current and future process water demands of the facility and the development and evaluation of specific treatment and delivery alternatives including the performance of a net present worth analysis.

##### **City of Delray Beach, FL - 2016 Reclaimed Water Master Plan Update , Victor Majtenyi, 561-243-7300**

Project Engineer responsible for the update to the City's previous Reclaimed Water Master Plan. Tasks included review of historical flow records of existing customers

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Kyle Scott, E.I  
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and quantification of actual reclaimed water demands for existing customers; development of an updated list of future reclaimed water customers; a corridor analysis and field investigations for the proposed future reclaimed water transmission and distribution pipelines to determine which pipeline alignments were the most feasible based on review of existing City utility alignments (water, sewer, drainage) and review of visible above-ground features; update of the Reclaimed Water Hydraulic Model (previously developed using the WaterCad® software platform), input of proposed/existing pipe layouts and reuse customer demands; preparation of 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.

**City of Delray Beach, FL - Water Meter AMR/AMI System, Victor Majtenyi, 561-243-7300**

Project Engineer for the automatic water meter reading (AMR) system evaluation and development of a water meter strategic plan to provide guidance in the replacement of existing water meters and in the installation of new meters with new meter reading technology.

**Delray Beach, FL - Osceola Park and SW 4<sup>th</sup> Street Neighborhood Projects, Missy Barletto, 561-243-7000 ext 4104**

Project Engineer for the infrastructure improvements and provides support for public outreach efforts for the two large local neighborhood projects which incorporate over 1,300 parcels. He also supports the City's installation of multiple traffic calming "pilot" projects to measure results, seek resident input and develop a local toolbox for future implementation.

**Gulf Stream, FL - Ten-year Capital Improvement Program (CIP), Greg Dunham, 561-276-5116**

Project Engineer for the analysis of all Town- owned public infrastructure including roadways, alleys, water main, stormwater drainage and related public right-of-way appurtenances to catalog their inventory and current condition. Kyle also is assisting with the development of a ten-year CIP prioritizing the "worst-first" recommendations for replacement and reconstruction providing the Town with a roadmap for capital maintenance into the future.

**Loxahatchee River District, FL - Whispering Trails Gravity Sewer System, Clint Yerkes, 561-747-5700**

Project Engineer for the ongoing assessment program that will provide gravity sewer services for the Whispering Trails area. Design elements include 1 new submersible lift station; approximately 1,610 lf of 4-inch force main; approximately 11,216 lf of 8-inch sanitary sewer, manholes and service laterals in the Assessment area, and reconstruction/resurfacing of roadways.

**Loxahatchee River Environmental Control District, FL - N.W. Service Area Wastewater Hydraulic Study Update, Clint Yerkes, 561-747-5700**

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.

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**Courtney K. Marshall, EI**  
Master Plan/Capital Improvement Program

<p><b>Education</b> B.S., Environmental Engineering University of Florida, 2013</p> <p>Years of Experience: 4</p> <p>Joined Firm in 2014</p> <p><b>Registrations</b> Engineering Intern, Florida, 2013</p>	<p>Courtney assists with engineering design for roadway and infrastructure improvements, stormwater management systems, potable water systems, reclaimed water systems and wastewater collection and transmission systems.</p> <p><b>Representative Projects</b></p> <p><b>City of Delray Beach, FL</b> <b>Lake Ida Drainage Improvements</b> 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.</p> <p><b>City of Lake Worth, FL</b> <b>2nd Avenue South Roadway Improvements</b> Project Engineer for 2nd Avenue South (Dixie Highway to Federal Highway) Roadway Improvements Project. The project is located within the City of Lake Worth’s Community Development Block Grant (CDBG) target area. CDBG funding was provided for the project through Palm Beach Department of Economic Sustainability.</p> <p><b>City of Lake Worth, FL</b> <b>Neighborhood Road Program (4 years)</b> <b>District 2- Year 1</b> – Project Engineer for the design, bidding and construction engineering services for roadway reconstruction mill/overlay; selective sidewalk and curbing replacement (ADA compliant); roadway striping and signage; stormwater; and sanitary sewer improvements for residential roads. <b>District 2 – Year 2</b> – Project Engineer for the design, bidding and construction engineering services for roadway reconstruction; selective sidewalk and curbing replacement (ADA compliant); roadway striping and signage; water main and stormwater improvements for residential roads.</p> <p><b>City of Delray Beach, FL</b> <b>Delray Shores - Phases 3&amp;4, City of Delray Beach, FL. Delray Shores Phase III</b> Project Engineer for the design, permitting, surveying, geotechnical investigations, and utility locates (e.g. soft digs) for the Delray Shores Water Main Replacement (Phase III). Master Lift Station No. 1 Rehabilitation, City of Delray Beach, FL.</p> <p><b>Town of Lauderdale-by-the-Sea, FL</b> <b>Basin Drive Stormwater Improvements</b> 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.</p> <p><b>City of Pompano Beach, FL</b> <b>Esquire Lake Stormwater Improvements</b> Design Engineer for stormwater improvements within the Esquire Lake Neighborhood to address roadway flooding and standing water issues after rainfall</p>
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Courtney K. Marshall, EI  
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events. The improvements included replacement of existing facilities with new 42-inch exfiltration trench, manholes and inlets.

**City of Riviera Beach, FL**

**Avenue O Infrastructure Improvements**

Design Engineer for the infrastructure improvements to the Avenue O Neighborhood. Specific project components consist of: full roadway reconstruction within the 30-foot 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.

**City of Riviera Beach, FL**

**Avenue T Infrastructure Improvements**

Design Engineer for the infrastructure improvements to the Avenue T Neighborhood. Specific project components consist of: full roadway reconstruction within the 50-foot 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.

**City of Boca Raton, FL**

**A.1.A. Area Wastewater Infrastructure Improvements**

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.

**City of Delray Beach, FL**

**Reclaimed Water Expansion Area 12B**

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.

**City of Delray Beach, FL**

**Tropic Palms Water Main Improvements, Phases I&II**

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.

**Town of Lantana, FL**

**Intracoastal Waterway Water Main Replacement**

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.

**Town of Lantana, FL**

**S. Atlantic Drive Water Main Replacement**

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.

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LILLIAN REYES, P.E.  
Principal

Electrical Design Associates, Inc.

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#### QUALIFICATIONS SUMMARY

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:

##### **Reuse Master Plan, Pompano Beach, FL**

Ms. Reyes was the Project Engineer for the Reuse Master Plan. EDA conducted a field investigation and condition assessment of City's existing 7.5 MGD Reuse Water Treatment Facility. The facility includes: Filter feed pump station; 7.5 MGD Filters; Filter Transfer Pumps; Chlorine Contact Basin; 2 Reclaimed Water Storage tanks with recirculation pumps; High pressure distribution pump station; Low pressure distribution pump station; Backwash/sanitary pump station; Liquid polymer feed system; Hypochlorite system; and Flowmeters and misc. instrumentation and control system. Our evaluation included the electrical and instrumentation items associated with the facility. The information was incorporated into a condition assessment table and R&R cost estimates for improvements over the next 10 years.

##### **Wastewater Master Plan, Pompano Beach, FL**

Ms. Reyes was the Project Engineer for the Wastewater Master Plan. EDA performed field investigations of the wastewater system and recorded an assessment of condition for the electrical equipment and associated components. Condition assessments were conducted for visible electrical components only. The evaluation included field investigations of eighty (80) lift stations plus evaluation of the City's portable generators. EDA made recommendations for improvements for the electrical systems at the lift station investigated as part of this scope of work. Included with the recommendations was an estimated opinion of construction costs.

##### **Downtown Water/Wastewater Master Plan Buildout Analysis, West Palm Beach, FL**

Ms. Reyes was the Project Engineer for the Water/Wastewater Master Plan. EDA performed field investigations of four (4) water/wastewater pump stations and recorded an assessment of condition for the electrical equipment and associated components. Condition assessments were conducted for visible electrical components only. The site assessments were limited to four (4) pumping stations.

EDA made recommendations for improvements for the electrical systems at the lift station investigated as part of this scope of work. Included with the recommendations was an estimated opinion of construction costs.

**Tamarac Village Schematic Design, Tamarac, FL**

Ms. Reyes was the Project Engineer for the Tamarac Village Schematic Design project for all electrical design services. Our scope of work included Utility coordination and Lighting and Specialty Systems design. Data collection including existing conditions, overhead utility service location, service availability and capacity. EDA coordinated with the service providers in an effort to underground the existing services as well as establishing the infrastructure for future service point requirements for the proposed Tamarac village. We investigated and met with the cellular carrier regarding the relocation and/or elimination of the monopole tower. EDA prepared preliminary opinion of costs associated with the undergrounding effort and the relocation/elimination of the monopole cell tower.

EDA prepared preliminary photometric plans associated with the proposed roadway lighting improvements along NW 57th Street, originating at NW 94th Avenue and extending east to the west side of Pine Island Road, an approximate length of .5 miles and NW 91st Avenue, originating at the West Commercial Avenue and extending north approximately 660 Linear feet. We investigated and prepared the requirements associated with developing a “Village-Wide” Wi-Fi system that will allow patrons to utilize the service throughout the facility. EDA investigated and prepared the requirements associated with developing a “Village-Wide” CCTV system that will allow for security surveillance throughout the facility; prepared the requirements associated with developing a “Village-Wide” PA/Sound; and prepared preliminary opinion of costs associated with the lighting and specialty systems listed above.

**EDUCATION** Bachelors of Science in Electrical Engineering, Florida Atlantic University, 1988

**REGISTRATION** Professional Engineer – Florida 50780

**PROFESSIONAL SUMMARY**

1998 to Date	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

**SOCIETIES**

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

Our water group is committed to protecting and preserving the water supply. Staffed by recognized experts in the field of water supply, treatment, and source protection, the water group specializes in long-term system planning, design, construction, and operation of water supply, treatment, storage, and distribution systems.

## SUPPLY

Water System Modeling with GIS integration  
Water System Master Planning  
Groundwater Resources Management/  
Investigations  
Source Water Quality Management  
Wellhead Protection  
Test Well Drilling Programs  
Deep and Shallow Aquifer Water Supply  
Wells  
Lake Michigan Water Intakes  
Pilot Studies  
Energy Analysis

## TREATMENT

*Safe Drinking Water Act Compliance and  
Aesthetic Improvements with:*  
Air Stripping and Aeration  
Chemical Coagulation and Flocculation  
Sedimentation and Filtration  
Ion Exchange and Absorption  
Hydrous Manganese Oxide  
Biological Filters  
Membrane Separation  
Chemical Oxidation  
Disinfection  
Radium and Barium Residuals Management

## DISTRIBUTION

Booster Stations  
Transmission and Distribution  
Mains

## TRENCHLESS TECHNOLOGIES

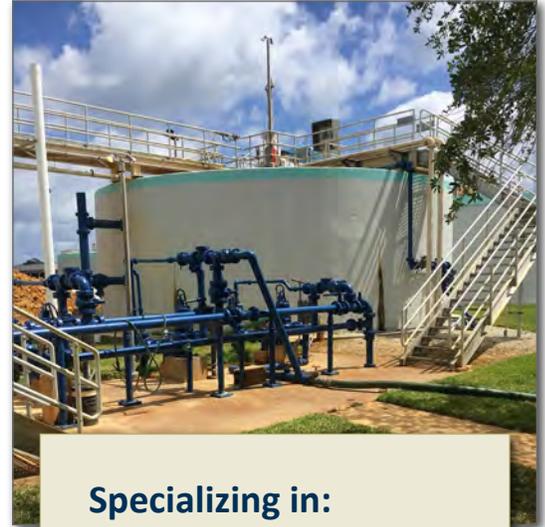
Water Main Lining  
Directional Drilling  
Pipe Bursting

## RESERVOIRS AND ELEVATED STORAGE TANKS

## SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) SYSTEMS

## CORROSION CONTROL

## SECURITY



**Specializing in:**  
Finding Funding  
Promoting Conservation  
Meeting Compliance  
Deadlines  
Protecting Community  
Health



A recognized leader in the field of wastewater collection and treatment in the Midwest and Florida, our expertise focuses on nutrient removal, energy reduction and recovery, and saving money through innovative treatment methods and technologies. From aeration energy analyses to combined heat and power designs, to performance contracting and facility automation – our forward-thinking approaches have saved communities millions of kilowatt hours and hundreds of thousands of dollars.

## Planning

- Aeration Energy Monitoring/Analysis
- HVAC/Geothermal Energy Analysis
- Combined Heat & Power (CHP) Analysis
- User Rate Studies
- Capacity, Management, Operation & Maintenance (CMOM) Programs
- Facilities Management/Asset Management Systems
- Facilities Planning Reports
- Flow Monitoring Programs & I/I Analysis
- Sewer System Evaluation Surveys & Basement Back Up Reductions
- Sewer System Master Plans
- Water Quality Management Plans
- Phosphorous Removal Planning

## Construction

- Bid Openings
- Full and Part Time Inspection
- Final Inspection / Warranty
- Operation and Maintenance Manuals
- Facility Start-up
- Operator Training
- Contract Operations
- Troubleshooting
- Gap Services



## Design

- Aeration Systems (Turbo Blowers, Diffusers & DO Control with Feed Forward Ammonia Sensors)
- Geothermal Heating/Cooling with Effluent
- Combined Heat and Power Facilities
- Performance Contracting
- Biosolids Management
- Wastewater Pumping Stations
- Wastewater Treatment Facilities

## Pretreatment

- Industrial Pretreatment Programs
- NPDES
- Sampling/Compliance
- Significant Industrial Users (SIUs) Compliance Assistance

## Infrastructure

- Sanitary Sewer Extensions
- Sanitary Sewer Rehabilitation Programs
- Sewage Pump Stations & Force Mains



**REFERENCES & PROJECT EXAMPLES**

As stated previously, we currently hold over 20 local multi-year engineering services contracts for South Florida communities. We have included 5 references followed by project experience relevant to Walton Manor (similar size, infrastructure, and/or location within Broward County).

**City of Pompano Beach**

Randolph Brown, Utility Director  
1201 NE 5th Avenue  
Pompano Beach, FL 33060  
954-545-7043  
randolph.brown@copbfl.com

**Town of Lauderdale by the Sea**

Don Prince, Municipal Services Director  
4501 N. Ocean Drive  
Lauderdale by the Sea, FL 33308  
954-640-4232  
DonP@lbts-fl.gov

**City of Tamarac**

John Doherty, Asst. Dir. Of Public Works  
6011 Nob Hill Road  
Tamarac, FL 33321  
954-597-3750  
johnd@tamarac.org

**City of West Palm Beach**

Laura Le, Public Utilities Engineer  
401 Clematis Street  
West Palm Beach, FL 33401  
561-494-1093  
LLe@wpb.org

**City of Lake Worth**

Felipe Lofaso, Asst. Public Services Director  
414 Lake Avenue  
Lake Worth, FL 33460  
561-586-1720  
flofaso@lakeworth.org

# 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 20-year 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
- Summarize grant opportunities for wastewater system improvements
- Review current wastewater system operations and make recommendations for improvements

### HIGHLIGHTS:

**COMPLETION DATE:** April 2012

### 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 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 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 20-year planning period.

Specific tasks completed included the following:

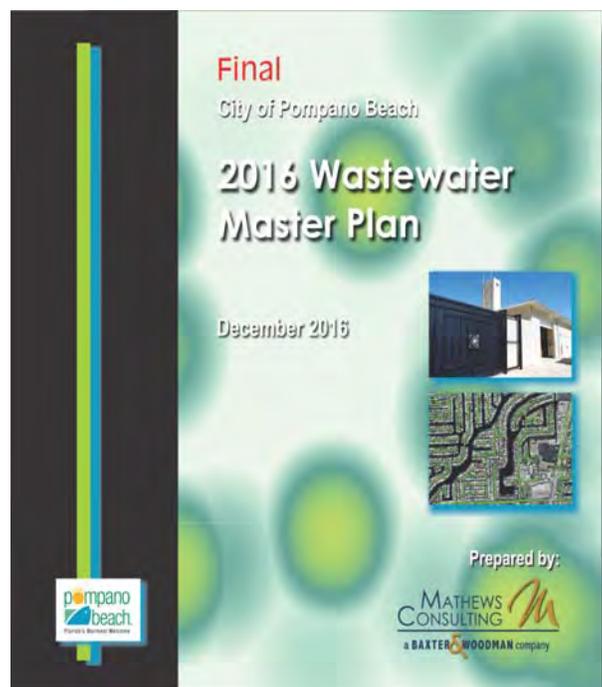
- Evaluated historical data
- Summarized current and future wastewater collection regulatory requirements
- Identified wastewater system goals
- Performed capacity analysis of wastewater system
- Performed asset evaluation and assessment of existing structures and equipment
- Evaluated non-sewered areas
- Evaluated City I&I abatement program
- Projected future wastewater flows
- Developed hydraulic model and evaluate future capacity needs
- Developed recommendation of improvements with associated costs and schedule
- Reviewed current wastewater system operations and made recommendations for improvements

### HIGHLIGHTS:

**COMPLETED: 2016**

### REFERENCE:

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



# CITY OF TAMARAC, FLORIDA

## WATER MASTER PLAN

The City of Tamarac requested professional services from Mathews Consulting, Inc. for the preparation of a Comprehensive Water Master Plan. The purpose of the Master Plan was 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.

Mathews Consulting completed the following tasks for development of the Master Plan:

- Identify City's water treatment & distribution goals, strategies and Level of Service (LOS)
- Conduct an asset evaluation of the Water Treatment Plant
- Evaluate hydraulic and treatment capacity of each water treatment unit process
- Evaluate the capacity and water quality needs of future treatment system
- Conduct an asset evaluation of the water distribution system
- Evaluate the capacity of the distribution system with a computerized hydraulic model
- Evaluate the Unaccounted-for water loss in the water system
- Recommend future improvements to the Water Treatment Plant and the distribution system to meet future needs
- Develop recommendations and capital improvement program

City staff has also asked Mathews Consulting for a scope to complete a Water Master Plan update (Q3 2018)

### HIGHLIGHTS:

**COMPLETED: 2009**

### REFERENCE:

**Mr. John E. Doherty, PE**  
**Assistant Director of Public Services/  
Capital Projects Manager**  
**City of Tamarac**  
**6011 Nob Hill Road**  
**Tamarac, Florida 33321**  
**(954) 597-3706**  
**(954) 597-3710 (Fax)**



# CITY OF TAMARAC, FLORIDA

## WASTEWATER MASTER PLAN

The City of Tamarac 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 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 20-year planning period.

Specific tasks completed included the following:

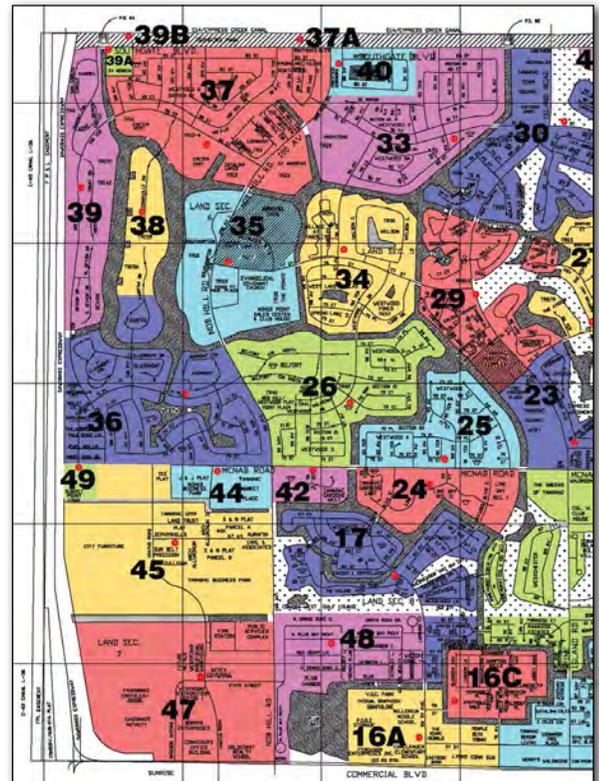
- Evaluated historical wastewater system data
- Summarized current and future wastewater collection regulatory requirements
- Identified wastewater system goals
- Performed capacity analysis of wastewater system
- Performed asset evaluation and assessment of existing structures and equipment
- Conducted non-destructive field testing of force main system to determine pipe condition
- Evaluated City I&I abatement program and conduct financial analysis for I&I reduction cost/benefit analysis
- Projected future wastewater flows
- Developed hydraulic model and evaluate future capacity needs;
- Developed recommendation of improvements with associated costs and schedule

### HIGHLIGHTS:

**COMPLETED: 2013**

### REFERENCE:

Mr. John E. Doherty, PE  
Assistant Director of Public Services/  
Capital Projects Manager  
City of Tamarac  
6011 Nob Hill Road  
Tamarac, Florida 33321  
(954) 597-3706  
(954) 597-3710 (Fax)



# CITY OF POMPANO BEACH, FLORIDA

## REUSE WATER SYSTEM MASTER PLAN

The City of Pompano Beach owned and operated a 7.5 MGD reuse water treatment and distribution system that supplied reuse water for irrigation use to golf courses, community parks, city medians and residential areas. The City was also negotiating reuse water large user agreements with the City of Lighthouse Point and Broward County. The City's reuse water was distributed to the customers through a high pressure piping network system comprised of approximately 32 miles of pipes ranging in size from 4-inch to 30- inch.

The City contracted with Mathews Consulting to develop a hydraulic model of the reuse distribution system to reflect current and future conditions. The purpose of the project was to develop a computerized hydraulic model of the City's reuse transmission and distribution system, input future reuse water demands into the model based on projected future customers, and recommend improvements to the system to meet future reuse water demand conditions.

The "2013 Reuse Water System Hydraulic Model Report" had recently been completed, and the City desired to utilize the results of the model to develop a Capital Improvement Program (CIP) and Master Plan of the Reuse System. The purpose of the Master Plan project was to identify future expansion requirements and to segregate the future improvements into proposed projects and develop CIP budgets and schedules for each project for implementation by the City.

The final report included CIPs for the Reuse Water Treatment Facility, Reuse Water Pumping & Storage Facilities, and Reuse Water Transmission & Distribution Facilities. The final report has been completed.

### HIGHLIGHTS:

**COMPLETED: 2015**

### REFERENCE:

**Mr. Randolph Brown, P.E.**

**Utilities Director**

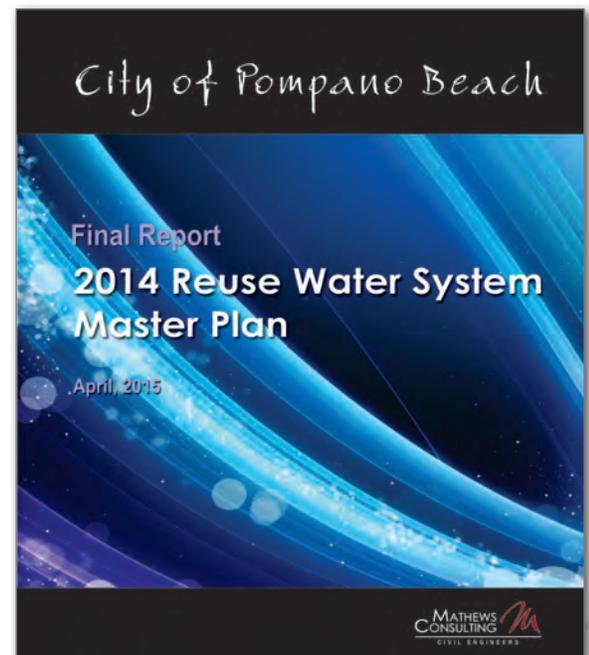
**City of Pompano Beach**

**1201 N.E. 5th Avenue**

**Pompano Beach, FL 33060**

**(954) 786-4061**

**(954) 786-4028 (Fax)**



# CITY OF WEST PALM BEACH, FLORIDA

## DOWNTOWN WATER/WASTEWATER MASTER PLAN BUILDOUT ANALYSIS

The City of West Palm Beach recently completed a City-Wide Water/Wastewater Master Plan which provided a 20-year planning projection (to Year 2035) to identify needed improvements to accommodate future growth and redevelopment within the City.

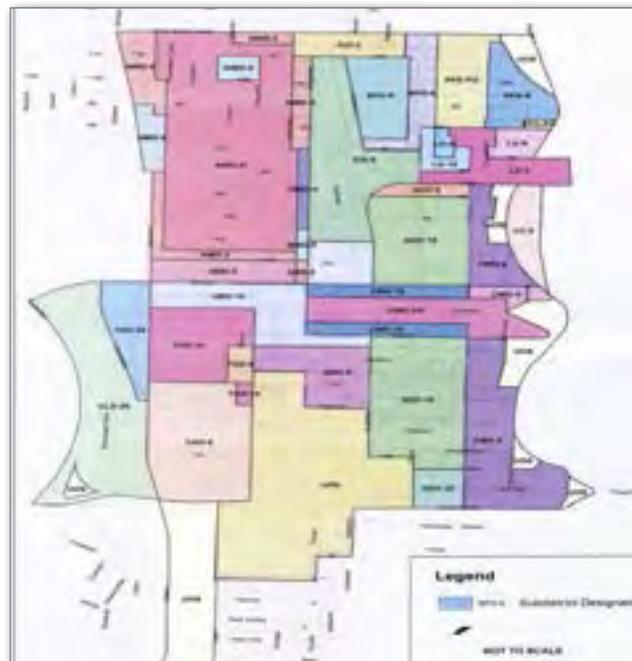
Mathews Consulting conducted a "Buildout" Analysis of the Downtown Master Plan area (plus the LS 20 and LS 40 service areas) to determine water and wastewater system improvements needed to accommodate a buildout condition based on maximum floor-to-area ratios (FARs) and maximum SF/MF unit densities. The purpose of the Buildout Analysis was to develop planning level cost estimates for the recommended system upgrades and to calculate a unit cost of upgrades based on a standard development unit of measure (Equivalent Residential Connection - ERC). The City will consider utilizing the unit cost of upgrades (\$/ERC) as an impact fee charged to developers to cover costs of future water and wastewater system upgrades due to future redevelopment projects.

### HIGHLIGHTS:

**COMPLETED:** In Progress

### REFERENCE:

**Ms. Laura Le, PE**  
Senior Project Engineer  
City of West Palm Beach  
401 Clematis St., 4th Floor  
West Palm Beach, FL 33401  
561-494-1040  
561-494-1116 (Fax)



# CITY OF DELRAY BEACH, FLORIDA

## RECLAIMED WATER MASTER PLAN

As the demand on ground water resources continued to increase throughout South Florida, the availability of future raw water supply became more questionable. Increased ground water withdrawal allocations to meet future demands were becoming more and more difficult for municipalities to obtain from the South Florida Water Management District (SFWMD), unless alternative programs that offset consumptive use demands were utilized. Implementation of reclaimed water use programs is one of the most effective methods recognized by SFWMD to offset consumptive use demands.

In an effort to identify means to achieve reclaimed water use within the City's service area, the City of Delray Beach retained Mathews Consulting to prepare a Reclaimed Water Master Plan. The purpose of the Master Plan was to serve as a planning document for which a reclaimed water system can be implemented. The development of the reclaimed water system is presented in phases so that required capital improvements may be budgeted and scheduled through a designated time frame. The Master Plan also provides a planning tool for use by the South Central Regional Wastewater Treatment and Disposal Board (SCRWWTDB) for timely planning of expansion of the tertiary treatment facilities.

Development of the Master Plan was accomplished in the following tasks:

- Data Compilation - A review of existing data was conducted to collect background and study area information.
- Master Plan Development - Included identification of feasible reclaimed water users, identification of reclaimed water main routing and pipe sizing, and hydraulic modeling of routing alternatives.
- Phasing Plan and Cost Evaluation - A phasing plan was developed for implementation of the master plan with opinion of probable construction costs for each phase.
- Reclaimed Water Ordinance - A draft reclaimed water ordinance was developed to provide the City with appropriate legal authority for implementation of the reclaimed water program.

### HIGHLIGHTS:

**COMPLETED: 2003**

### 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)**



# LOXAHATCHEE RIVER DISTRICT, FLORIDA

## WHISPERING TRAILS GRAVITY SEWER SYSTEM

The Loxahatchee River Environmental Control District has identified Whispering Trails as part of an assessment program that will provide gravity sewer services for that area. The project will consist of providing the Whispering Trails residential neighborhood with a conventional gravity sewer system that will collect the wastewater and convey it to one new lift station to be located in a new traffic round-a-bout within the intersection of Woodlake Road and Trails End Terrace. The lift station force main will pump the wastewater to a new 6-inch force main (by others) to be located at the intersection of Woodlake Road and Loxahatchee River Road. A stub-out will be provided for connection of the Whispering Trails force main on the west side of Loxahatchee River Road. Approximately 181 residential units will be sewered under this project.

The design elements will include the following:

- One (1) new submersible lift station
- Approximately 1,610 LF of 4-inch force main
- Approximately 11,216 LF of 8-inch sanitary sewer, manholes, and service laterals in the Assessment area
- Reconstruction/resurfacing of roadways as required

### HIGHLIGHTS:

**In Progress**

### REFERENCE:

**Mr. Clint Yerkes**

**Deputy Director**

**Loxahatchee River District**

**2500 Jupiter Park Drive**

**Jupiter, Florida 33458**

**P - 561-747-5700**

**F - 561-747-5709**

**email: [clint@loxahatcheeriver.org](mailto:clint@loxahatcheeriver.org)**



The project is currently under construction. The project has an estimated construction cost of \$3,472,570.



# CITY OF DELRAY BEACH, FLORIDA

## WATER METER AMR / AMI SYSTEM

The City of Delray Beach provides potable water service to approximately 20,300 metered connections. Experience has shown that many of these meters do not produce data at desired levels of accuracy. To address this concern, the City elected to develop a water meter strategic plan to provide guidance in the replacement of the existing water meters and in the installation of new meters with new meter reading technology.

The City contracted with Mathews Consulting to conduct a water meter automatic meter reading (AMR) system evaluation and to develop a water meter strategic plan for the City. The goal of the plan was to establish a meter acquisition and replacement strategy that provides efficient and cost effective equipment replacement and maintenance.

Services included the following tasks:

- Assessing current water and reclaimed water metering program.
- Defining water metering program goals of various City Departments.
- Assessing various automatic meter reading (AMR) technologies (including advanced metering infrastructure, AMI).
- Establishing meter reading system benchmark comparisons with other Utilities.
- Performing life cycle cost analysis of metering options.

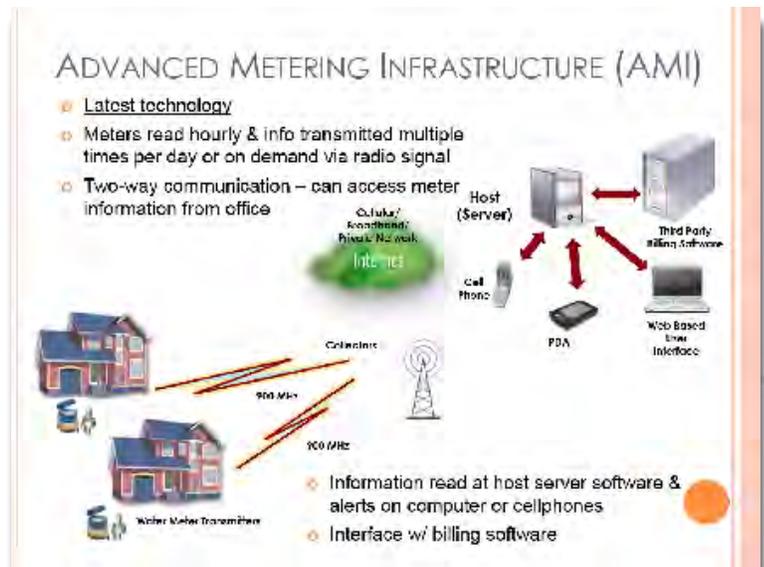
The final strategic plan recommended that the City implement an AMI system for replacement of the City's water and reclaimed water meters over a 5-year deployment period. Mathews Consulting is currently providing bidding and construction administration services with the AMI system materials supplier and with the meter and system installation contractor.

### HIGHLIGHTS:

**COMPLETED: 2013**

### REFERENCE:

**Mr. Victor Majtenyi**  
**Deputy Director of Public Utilities**  
**City of Delray Beach**  
**434 S. Swinton Avenue**  
**Delray Beach, FL 33444**  
**(561) 243-7300**  
**(561) 243-7333 (Fax)**



# CITY OF POMPANO BEACH, FLORIDA

## A.1.A. WATER MAIN IMPROVEMENTS

The City of Pompano Beach has an existing 6-inch cast iron water main along SR A1A (from Dow St. to Bay Dr.) and an existing 6-inch cast iron water main along SR A1A from Beacon St. to Bay Dr. These two water mains also connect to the adjacent side streets from Dow St. to Spring St. The City would like to replace these two 6-inch cast iron water mains with two new 6-inch PVC C900 (DR 18) water mains. The new water mains would also connect to each side street and these connections would need to be restrained along each side street approximately 60 feet.

The City of Pompano Beach contracted with Mathews Consulting to provide engineering design, permitting, surveying, geotechnical investigations, utility locates and bidding services for the A.1.A. Water Main Improvements project.

Project components consist of the following:

- 6" WM along SRA1A (from Dow St. to Bay Dr.); approximately 2,500 ft.
- 6" WM along SR A1A (from Beacon St. to Bay Dr.); approximately 1,500 ft.
- Decommission (i.e. abandon and grout) both 6" water mains along SR A1A.
- Connections will be made to the existing 12" WM at Dow Street and the existing 12" WM at Bay Drive, along with all the side streets in the project area.
- New water services will be installed to the existing meter box's in the project area.
- Based on locations of existing underground utilities the water main will be either installed in the grass areas or in the roadway.
- Fire hydrants and gate valves will be provided as required. The project is currently in the design phase.

The project is currently in the construction phase.

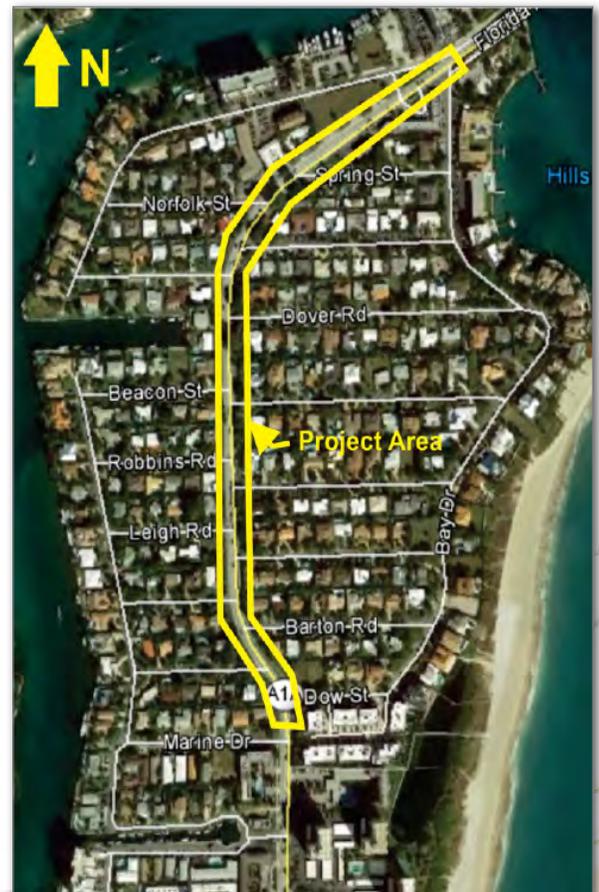


### HIGHLIGHTS:

**COMPLETED: 2017**

### 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 TAMARAC, FLORIDA

## TAMARAC LAKES SOUTH WATER MAIN IMPROVEMENTS

The City of Tamarac's existing water mains (2" thru 6") are undersized and have reached the end of their useful life. Also, some of the water mains are located in the back of the properties. The City contracted with Mathews Consulting for engineering design, permitting and bidding for the proposed water main improvements. The specific project components were as follows:

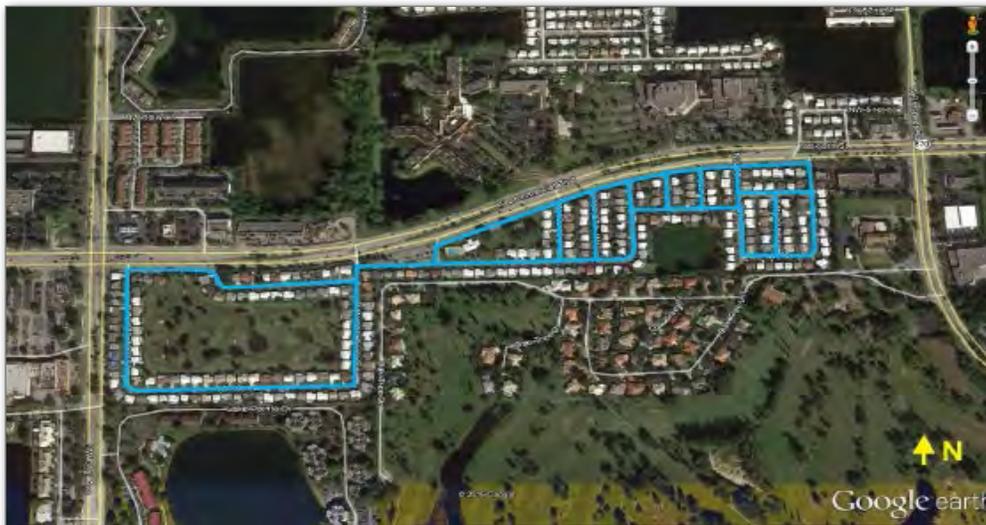
- 8" PVC C900 (DR18) Piping (approx. 11,600 LF) will be installed in the pavement w/ trench repair.
- The City roadways will be 1" milled & resurfaced ( 1" of S-3).
- Fire Hydrants will be replaced as required (300 ft. radius spacing for FH).
- Gate valves will be located a maximum of 1,500 ft.
- All water services (single and double) will be located in front of the properties. All existing backyard water services will be transferred to the front of the property.
- The City will provide the Contractor with the meter box and meter.
- Decommission existing 4" & 6" water mains (grout). Water mains less than 4" will be abandoned in place (cut and cap).
- Connect to existing water mains within the project area.

### HIGHLIGHTS:

**COMPLETED:** In Progress

### REFERENCE:

**Mr. John E. Doherty, PE**  
**Assistant Director of Public Services/  
Capital Projects Manager**  
**City of Tamarac**  
**6011 Nob Hill Road**  
**Tamarac, FL 33321**  
**(954) 597-3706**  
**(954) 597-3710 (Fax)**



# CITY OF WEST PALM BEACH, FLORIDA

## WATER MAIN & FORCE MAIN AERIAL CROSSINGS

Mathews Consulting (MC) provided engineering services for the design and permitting for repair /replacement of sixteen (16) water main and force main aerial crossings.

The work consists of repairing eight (8) aerial crossings, replacing two (2) aerial crossings by the installation of new aerial crossings and replacing five (5) aerial crossings by the installation of new subaqueous crossings by directional drill methods.

Scope of work for the project include the following:

- Collect and review record drawings of the project area
- Conduct soil investigations of project area
- Conduct underground field locates of affected utilities
- Prepare detailed plan and profile design drawings
- Prepare and process permit applications for Palm Beach County ROW Permit, FDOT Utility Permit and Palm Beach County Health Department
- Prepare Technical specifications
- Prepare cost estimates

### HIGHLIGHTS:

**COMPLETED:** February 2014

### 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) 494-1116 (Fax)**



# CITY OF WEST PALM BEACH, FLORIDA

## LIFT STATION 20, 26, 89 AND 100 REHABILITATION

The City of West Palm Beach (City) selected Mathews Consulting (Consultant) to perform engineering design services for the rehabilitation of Lift Stations 20, 26, 89 and 100. The City requested a design of certain mechanical and electrical upgrades to the lift stations. A summary of desired improvements is listed below:

### LS 20:

- Typ. of 4 Pumps (30 Hp): Replace pump discharge piping and valves. Add ARV and Emergency Pump Out Connection.
- Clean wetwell and apply new Spectrashield coating.
- New transformer, emergency generator and ATS. Existing MCC/control panel to stay.

### LS 26:

- Construct new wetwell adjacent to existing, make deeper to increase storage volume.
- Typ. of 3 pumps (14 Hp): Provide new HDPE riser pipes, hatches and discharge piping, including new above grade DIP check valves and plug valves.
- Add ARV and Emergency Pump Out Connection.
- New transformer, emergency generator and ATS. New MCC, Control Panel and VFDs.

### LS 89:

- Typ. of 3 pumps (20 Hp): Replace pump discharge piping and valves. Add ARV, Emergency Pump Out Connection, and Pipe Supports. Provide two (2) new drop pipes and drop bowls on influent lines.
- Provide new wetwell coating and new coating (Spectrashield) for terminal manhole.
- Provide new Emergency Generator, VFDs, ATS, and Control Panel.

### LS 100:

- Clean and paint valve vault and vault piping.
- Replace main breaker with NEMA 4X with sunshield.
- Add diesel pump backup, bypass piping & valves.
- Provide electrical connections for new diesel backup pump.

The project is in the design phase.

### HIGHLIGHTS:

**COMPLETED:** In Progress

### REFERENCE:

**Mr. Luis Perez**

**Project Engineer**

**City of West Palm Beach**

**401 Clematis Street, 4th Floor**

**West Palm Beach, Florida 33401**

**(561) 494-1071**

**(561) 494-1115 (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 directionally drilled HDPE water main in order to provide redundancy to the existing 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

Construction Cost: \$496,536.00

Contractor: DBE Management, Inc

### REFERENCE:

Mr. Jerry Darr

Director of Utilities

Town of Lantana

510 W. Pine Street

Lantana, Florida 33462

(561) 540-5758

(561) 540-5759 (Fax)



# LOXAHATCHEE RIVER DISTRICT, FLORIDA

## RIVER OAKS/LITTLE OAKS SEWER SYSTEM

The Loxahatchee River Environmental Control District (District) has identified River Oaks and Little Oaks as part of an assessment program that will provide sanitary sewer services for that area. The project will consist of providing the River Oaks and Little Oaks residential neighborhood with a conventional gravity sewer system that will collect the wastewater and convey it to a new lift station. It is anticipated that approximately 78 residential units will be sewered under this project.

The District contracted with Mathews Consulting (MC) for data collection, engineering design services, public participation, permitting, bidding services and construction administration and inspection.

The design elements are assumed to include the following:

- One (1) new submersible lift station. The work will include installing a new wet-well, pump components, piping, valve box, valving, and control panel.
- Electrical design shall be provided for the lift station. This shall include coordination with FPL service planner in providing service to the lift station location.
- Approximately 2,650 LF of 3-inch force main.
- Approximately 4,800 LF of 8-inch sanitary sewer, manholes, and service laterals in the Assessment area.
- Reconstruction/resurfacing of roadways as required. The cul-de-sacs will be milled and resurfaced only.

The project was bid in June 2015 with a construction cost of \$1,548,615. The project is currently being constructed.

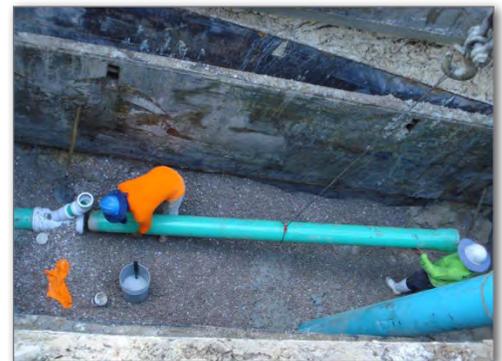
### HIGHLIGHTS:

**KEY PERSONNEL:** Dave Mathews, Aaron Cutler, Jason Pugsley

**CONTRACT VALUE:** \$279,931  
**CHANGE ORDERS:** 1/ -\$38,493  
**FINAL COST (Eng + Con):** \$1,790,052

### REFERENCE:

Mr. Clint Yerkes, Deputy Director  
Loxahatchee River District  
2500 Jupiter Park Drive  
Jupiter, Florida 33458  
(561) 747-5700  
(561) 747-5709 (Fax)



# CITY OF POMPANO BEACH, FLORIDA

## KENDALL LAKE NEIGHBORHOOD DRAINAGE IMPROVEMENTS

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 Scope of Services.

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 preliminary design report has been completed with the construction cost being estimated at \$3,450,000.

### HIGHLIGHTS:

**COMPLETION DATE: Feb 2018**

### 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 POMPANO BEACH, FLORIDA

## ESQUIRE LAKE STORMWATER IMPROVEMENTS

The City of Pompano Beach previously selected Mathews Consulting to prepare a Drainage Preliminary Design Report for the Esquire Lake Neighborhood. 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.

Alternative 3B was the recommended drainage alternative since it provides the most overall benefit in terms of roadway flooding. The design of the proposed improvement includes installation of new drainage facilities (piping, catch basins, manholes, exfiltration trench, outfalls, etc.) swale grading and sodding, roadway reconstruction and pavement resurfacing. Construction also includes clearing and grubbing, dewatering, MOT's, pavement markings and signage, complying with permit conditions, testing and all restoration work for a complete and operating system. 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.

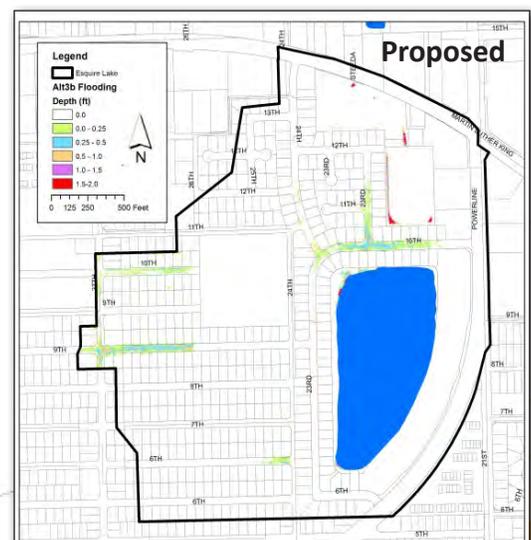
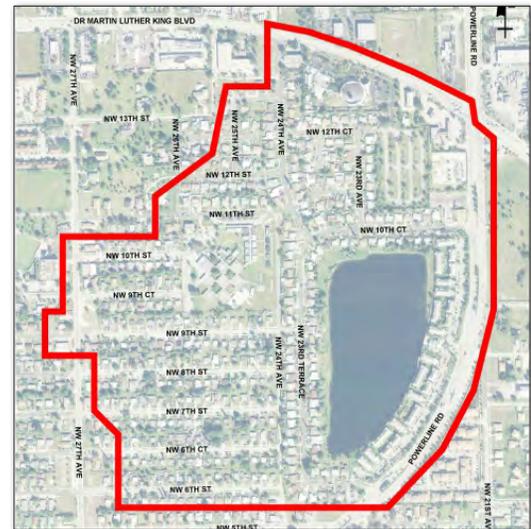
Mathews Consulting is currently providing engineering design, permitting, bidding, public relations, and construction administration services for this project. This project is currently in the 100% Design Stage. The 100% estimated construction cost opinion is \$3,066,000.

### HIGHLIGHTS:

**COMPLETED:** In Progress

### REFERENCE:

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



# CITY OF POMPANO BEACH, FLORIDA

## DIXIE HIGHWAY DRAINAGE MODEL DEVELOPMENT

The City of Pompano Beach has assumed O&M responsibility from the Florida Department of Transportation for Dixie Highway (from the northern to the southern City limits) and for East Atlantic Boulevard between NW 6th Avenue and N. Ocean Boulevard. Mathews Consulting updated the City's Stormwater Model to include the entire existing Dixie Highway and East Atlantic Boulevard drainage systems and to determine if any flooding issues exist for up to two (2) rainfall events.

The hydrologic and hydraulic modeling updates included the following components:

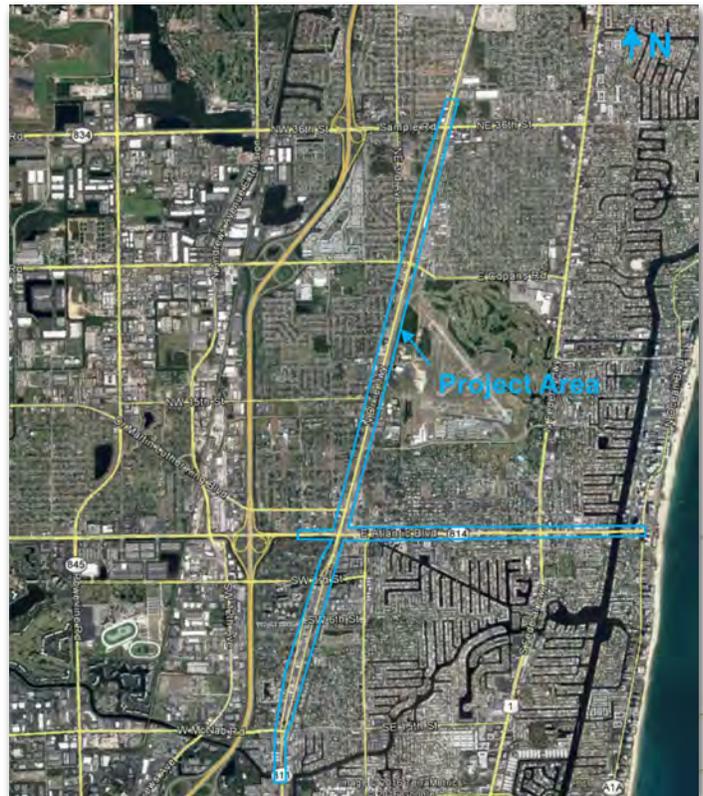
- Update and fine-tune the SWMM model of the subsurface drainage system for Dixie Hwy/East Atlantic Blvd.
- Create surface drainage network in the model for Dixie Hwy/East Atlantic Blvd.
- Modify the datasets in the Stormwater Master Plan model and input hydrologic data.
- Run the model of the project area separately and within the Citywide model for two (2) storm events.
- Determine whether there is additional pipe capacity available.
- Review the proposed addition of a pumped connection to the Dixie Highway drainage system from Kendall Lake.

### HIGHLIGHTS:

**COMPLETED: 2017**

### REFERENCE:

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



# TOWN OF LAUDERDALE-BY-THE-SEA

## BEL-AIR NEIGHBORHOOD DRAINAGE IMPROVEMENTS - PHASE I

The Town of Lauderdale by the Sea contracted with Mathews Consulting to prepare "Bel-Air Neighborhood Existing Drainage Condition Assessment", dated October 2012. The purpose of the Report was to evaluate the physical condition of the drainage piping, via televised video, and perform hydraulic modeling to determine if the existing drainage system has adequate capacity. The Report recommended three phases of improvements: immediate, median and long-term. The Town has decided to design and construct a modified version of the immediate and median improvements. These improvements are considered Phase I. The Town intends to perform the long-term improvements, as Phase II, at a later date. Phase I includes the replacement of six outfalls within the Bel-Air neighborhood.

The Town contracted with Mathews Consulting to perform the following tasks:

- Data Collection;
- Drainage Design;
- Plan Preparation;
- Permitting;
- Bidding;
- Construction Administration; and
- Part-Time Inspections.

Construction of the project was completed in 2014 for a construction cost of \$675,650.



### HIGHLIGHTS:

**COMPLETED: 2014**

### REFERENCE:

**Mr. Don Prince**

**Municipal Services Director**

**Town of Lauderdale-by-the-Sea**

**4501 Ocean Drive**

**Lauderdale-by-the-Sea, FL 33308**

**(954) 776-0576**

**(954) 776-1857 (Fax)**

# TOWN OF LAUDERDALE-BY-THE-SEA, FL

## BEL-AIR NEIGHBORHOOD DRAINAGE CONDITION ASSESSMENT

The Bel-Air neighborhood is located on the north side of Town, bounded by Tropical Isle to the north, Waters Edge to the south, BlueWater Terrace to the west and Bel Air Avenue to the east. There is an existing drainage system in place throughout the neighborhood. This drainage system was installed prior to the neighborhood being annexed into the Town; therefore, minimal modeling and design information is available. The Town was concerned about the physical condition of the existing drainage pipes. Neighboring areas have experienced pipe deterioration which has caused failures in these systems.

The Town contracted with a specialty contractor, TeleVac South, Inc. to clean and video the entire drainage piping in the Bel-Air neighborhood.

Mathews Consulting contracted with the Town to provide an engineering assessment of the physical condition and available capacity of the existing drainage system. The following tasks were performed as part of the assessment:

- Review of drainage videos to assess the physical condition of each pipe segment.
- Review existing record drawings and information for the existing drainage system.
- Perform stormwater runoff calculations for a 3-year and 10-year storm to estimate the storage volume required for the neighborhood.
- Provide recommendations for repair and/or replacement of the existing stormwater system.

The final report identified three levels of improvements; immediate, moderate and long-term.

### HIGHLIGHTS:

**COMPLETED: 2012**

### REFERENCE:

**Mr. Don Prince**

**Municipal Services Director**

**Town of Lauderdale-by-the-Sea**

**4501 Ocean Drive**

**Lauderdale-by-the-Sea, FL 33308**

**(954) 776-0576**

**(954) 776-1857 (Fax)**



# CITY OF TAMARAC, FLORIDA

## 108TH TERRACE DRAINAGE AND PAVING IMPROVEMENTS

The City contracted with Mathews Consulting (MC) to provide engineering design, bidding and construction administration services for the 108th Terrace Drainage Improvements project. The existing four-lane, median divided City roadway is approximately 1.8 miles long and extends from McNab Road to Nob Hill Road in the City of Tamarac. The asphalt on the roadway showed signs of becoming delaminated from the baserock along a majority of the roadway, especially near the center median. Based upon field testing by the City, the problem appeared to be runoff from the grassed median seeping from behind the curb into the baserock and under the asphalt. The City contracted with MC to prepare the design drawings, specifications and permit application for the drainage and paving improvements. Cold In Place Recycle Method was used for the pavement mill and overlay.

### Drainage Improvement Work Included:

- Drainage improvements within each center median with a positive outfall connection to the nearest existing drainage system.
- Reviewed the pilot study design and operation and prepare a letter memorandum of findings and recommendation.
- The proposed drainage system shall consist of perforated PE drainage pipe connected to PE drainage basins.
- Prepared a Pollution Prevention Plan.

### Pavement Replacement Work Included:

- Review and provided recommendations for the use of a mill and recycled asphalted material option for the asphalt replacement on the adjacent roadway.
- Prepared a pavement marking plan for replacement “in kind” of the existing pavement markings.

Construction of both contracts were completed in December 2014.

### HIGHLIGHTS:

**COMPLETED: December 2014**

**DRAINAGE CONTRACT: \$535,135**

**PAVING CONTRACT: \$1,179,370**

### REFERENCE:

**Mr. John Doherty**  
**City of Tamarac**  
**6011 Nob Hill Road**  
**Tamarac, Florida 33321**  
**(954) 597-3706**  
**(954) 597-3710 (Fax)**



# TOWN OF LAUDERDALE-BY-THE-SEA

## BASIN DRIVE STORMWATER IMPROVEMENTS

The Town's Stormwater Master Plan completed in 2010 identified stormwater improvements along Basin Drive and E. Trade Winds Avenue. The new drainage system will consist of piping and catch basins. The roadway will be milled and resurfaced. Some areas will be swaled and other areas will be converted to parking areas.

The Town contracted with Mathews Consulting to provide data collection, engineering design and permitting, construction administration and periodic inspection services for the Basin Drive Stormwater Improvement Project.

The project was completed in April 2016, with a construction cost of \$475,277.

### HIGHLIGHTS:

**COMPLETED: 2016**

### REFERENCE:

**Mr. Don Prince**

**Municipal Services Director**

**Town of Lauderdale-by-the-Sea**

**4501 Ocean Drive**

**Lauderdale-by-the-Sea, FL 33308**

**(954) 776-0576**

**(954) 776-1857 (Fax)**



# TOWN OF GULF STREAM, FLORIDA

## 10 YEAR CAPITAL IMPROVEMENTS PLAN

The Town of Gulf Stream contracted with Mathews Consulting (MC) for the preparation of a 10-year Capital Improvements Plan for the potable water distribution system, the stormwater system and the Town roadway system. MC provided a review of the existing systems, identified required improvements with estimated construction costs and recommended a 10-year planning strategy for scheduling the completion of the work.

### HIGHLIGHTS:

**Completed: May 2018**

### REFERENCE:

**Mr. Greg Dunham**  
**Town Manager**  
**Town of Gulf Stream**  
**100 Sea Road**  
**Gulf Stream, Florida 33483**  
**(561) 276-5116**  
**(561) 737-0188 (Fax)**





Welcome to the City of  
**WILTON  
MANORS**

NATURE BOARDWALK - PAVILLION - REST ROOMS  
←