CITY OF DELRAY BEACH
100 NW 1st AVENUE, DELRAY BEACH, FL 33444

AGREEMENT FOR PROFESSIONAL SERVICES

RFQ 2017-048 (918-42, 918-89, 906-56)

A.D.A. ENGINEERING, INC.

AGREEMENT
FOR
PROFESSIONAL SERVICES (CCNA)

AGREEMENT NO. RFQ 2017-048 (918-42, 918-89, 906-56)

THIS AGREEMENT is made and entered into this 31st day of August, 2017 (the "effective date"), by and between the **City of Delray Beach,** a Florida municipal corporation (hereinafter referred to as "City"), whose address is 100 NW 1st Avenue, Delray Beach, Florida, 33444, and **A.D.A. Engineering, Inc.,** a Florida corporation (hereinafter referred to as "Consultant"), whose principal address is 8550 NW 33 Street, Suite 202, Doral, Florida 33122..

WHEREAS, the City desires to retain the services of the Consultant to provide certain Professional Services in accordance with the City's Request for Qualifications RFQ 2017-048, Continuing Engineering, Surveying, and Landscaping Architectural Consulting Services (918-42, 918-89, 906-56), and the Consultant's response thereto, which are attached hereto and incorporated herein as Exhibit "A".

NOW, THEREFORE, in consideration of the mutual covenants and promises hereafter set forth, the Consultant and the City agree as follows:

ARTICLE 1. INCORPORATION OF REQUEST FOR QUALIFICATIONS

The terms and conditions of this Agreement shall include and incorporate the terms, conditions, and scope of services set forth in the City's Request for Qualifications, RFQ 2017-048, and the Consultant's response to the Request for Qualifications, including all addenda and documentation required thereunder.

ARTICLE 2. SCOPE OF SERVICES

The Consultant shall provide Professional Services to the City, under the following categories of work as defined in the Request for Qualifications:

a. Category(s)

i. Engineering Services
ii. Surveying/Mapping Services
iii. Landscape Architectural Services

The Consultant shall provide the services on an as-needed and project-by-project basis, based on work requests from City departments through the issuance of Service Authorizations.

ARTICLE 3. COMPENSATION

The City shall pay the Consultant for performing the Services based on the Prices and Rates shown in Exhibit "B", which is attached hereto and incorporated herein.

ARTICLE 4. TERM

The term of this Agreement shall be from the effective date until August 30, 2022, unless terminated beforehand as provided for in Article 5. Nothing contained in the Request for Qualifications or this Agreement shall be construed by the Consultant as a guarantee of work from the City. The City reserves the right to extend the Agreement for one, two-year term, providing all terms conditions and specifications remain the same, both parties agree to the extension, and such extension is approved by the City.

At the City's request, the Consultant shall continue services beyond the final expiration date. This extension period shall not extend for more than one year beyond the final expiration date of the Agreement. The Consultant shall be compensated at the rate in effect when this extension period is invoked by the City.

ARTICLE 5. TERMINATION

a. This Agreement may be terminated by the City, with or without cause, upon providing written notice to the Consultant. This Agreement may be terminated by the Consultant upon thirty (30) days' prior written notice to the City. Upon any such termination, the Consultant waives any claims for damages from such termination, including, but not limited to, loss of anticipated profits. Unless the Consultant is in breach of this Agreement, the City shall pay the Consultant for services rendered through the date of termination in accordance with the terms of this Agreement.

b. The continuation of this Agreement beyond the end of any fiscal year shall be subject to both the appropriation and the availability of funds in accordance with Florida law.

ARTICLE 6. LAW, JURISDICTION, VENUE, WAIVER OF JURY TRIAL

This Agreement shall be interpreted and construed in accordance with and governed by the laws of the state of Florida. All Parties agree and accept that jurisdiction of any controversies or legal problems arising out of this Agreement, and any action involving the enforcement or interpretation of any rights hereunder, shall be exclusively in the state courts of the Fifteenth Judicial Circuit in Palm Beach County, Florida, and venue for litigation arising out of this Agreement shall be exclusively in such state courts, forsaking any other jurisdiction which either party may claim by virtue of its

residency or other jurisdictional device. **BY ENTERING INTO THIS AGREEMENT, SECOND PARTY AND CITY HEREBY EXPRESSLY WAIVE ANY RIGHTS EITHER PARTY MAY HAVE TO A TRIAL BY JURY OF ANY CIVIL LITIGATION RELATED TO THIS AGREEMENT. IF A PARTY FAILS TO WITHDRAW A REQUEST FOR A JURY TRIAL IN A LAWSUIT ARISING OUT OF THIS AGREEMENT AFTER WRITTEN NOTICE BY THE OTHER PARTY OF VIOLATION OF THIS SECTION, THE PARTY MAKING THE REQUEST FOR JURY TRIAL SHALL BE LIABLE FOR THE REASONABLE ATTORNEYS' FEES AND COSTS OF THE OTHER PARTY IN CONTESTING THE REQUEST FOR JURY TRIAL, AND SUCH AMOUNTS SHALL BE AWARDED BY THE COURT IN ADJUDICATING THE MOTION.**

ARTICLE 7. ATTORNEY'S FEES

Any costs or expense (including reasonable attorney's fees) associated with the enforcement of the terms and for conditions of this Agreement shall be borne by the respective Parties, however, this clause pertains only to the Parties to this Agreement.

ARTICLE 8. MISCELLANEOUS PROVISIONS

a. Notice Format. All notices or other written communications required, contemplated, or permitted under this Agreement shall be in writing and shall sent by certified United States Mail, postage prepaid, return receipt requested, or sent by commercial express carrier with acknowledgement of delivery, or by hand delivery with a request for a written receipt of acknowledgment of delivery, addressed to the party for whom it is intended at the place last specified. The place for giving notice shall remain the same as set forth herein until changed in writing in the manner provided in this section. For the present, the Parties designate the following:

As to the City:

City of Delray Beach
100 NW 1st Avenue
Delray Beach, FL 33444
Attn: City Manager

With a copy to:

City of Delray Beach
200 NW 1st Avenue
Delray Beach, Florida 33444
Attn: City Attorney

As to the Consultant:

A.D.A. Engineering, Inc.
8550 NW 33 Street, Suite 202
Doral, Florida 33122
Attn: Ivette O. Argudin, Executive Vice President

b. Headings. The headings contained in this Agreement are for convenience of reference only and shall not limit or otherwise affect in any way the meaning or interpretation of this Agreement.

c. The documents listed below are a part of this Agreement and are hereby incorporated by reference. In the event of inconsistency between the documents, unless otherwise provided herein, the terms of the following documents will govern in the following order of precedence:

i. Terms and conditions as contained in this Agreement.

ii. Terms and conditions of RFQ 2017-048.

iii. Consultant's response to RFQ 2017-048 and any subsequent information submitted by Consultant during the evaluation and negotiation process.

(The remainder of this page intentionally left blank)

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date hereinabove first written.

CITY OF DELRAY BEACH, FLORIDA

By: _____
Cary D. Glickstein, Mayor

ATTEST:

By: _____
Katerri Johnson, City Clerk

APPROVED AS TO FORM AND LEGAL SUFFICIENCY

By: _____
R. Max Lohman, City Attorney

CONSULTANT

By: _____

Title: President

WITNESSES:

By: _____

Print Name: Vivian Martinez

By: _____

Print Name: Wendy Gomez

EXHIBIT A

CONTINUING ENGINEERING, SURVEYING, AND LANDSCAPING ARCHITECTURAL CONSULTING SERVICES

RFQ No. 2017-048

A.D.A. ENGINEERING, INC.
Jeffrey Vollat, PE
Project Manager
1800 Old Okeechobee Road, Suite 202
West Palm Beach, Florida 33409
T 561-615-8880
F 561-615-8858
jvollat@adaeng.net

May 30, 2017

TABLE OF CONTENTS

CHAPTER 1

LETTER OF INTENT

1800 Old Okeechobee Road, Suite 202
West Palm Beach, FL 33409
Office: 561-615-8880
Fax: 561-615-8858
www.adaeng.net

May 26, 2017

City of Delray Beach
Theresa Webb, CPPO, CPPB, CPSM, CPM
Chief Purchasing Officer
Purchasing Office
City Hall Lobby Reception Desk
100 NW 1st Avenue
Delray Beach, Florida 33444

Subject: **Continuing Engineering, Surveying, and Landscaping Architectural Consulting Services**
RFQ No. 2017-048

Dear Ms. Webb:

A.D.A. Engineering, Inc. (**ADA**) is pleased to submit its qualifications to provide General Engineering Consulting Services to the City of Delray Beach (City). As requested, we have submitted our proposal electronically via BidSync and have delivered two electronic copies on universal serial bus (USB) portable flash memory card of our proposal to the City. The **ADA** Team is submitting for consideration for five Categories under the Scope of Services: Engineering, Civil, Electrical, Transportation, and Water Resources / Stormwater Management.

ADA is a multi-disciplined, full-service, minority engineering firm with extensive experience on similar type of general engineering consulting services contracts. Over the past thirty-six years, **ADA** has consistently delivered superior quality consulting engineering and construction management services to a wide range of clients. Our firm has worked on numerous municipal projects in Palm Beach, Broward, Miami-Dade, Brevard, Charlotte, Monroe and St. Lucie Counties. **ADA**'s current clientele includes municipalities such as Palm Beach County; Town of Davie; City of Lauderhill; City of Lauderdale Lakes; City of Miami; City of Doral; Miami-Dade County; Florida Department of Transportation (FDOT), Districts 4 and 6; Miami Dade Expressway Authority (MDX); South Florida Water Management District (SFWMD); along with other county, state and federal agencies.

Due to our firm's commitment to responsiveness, quality work, budget fulfillment and on-schedule performance, our management team has developed and maintained an excellent working relationship with these clients. Our understanding of the client's needs has enabled us to represent them well and develop cost-effective solutions to fulfill their engineering or construction needs. This commitment to excellence has helped us maintain over 80 percent of our work from repeat business. **ADA**'s extensive capabilities as well as our previous experience will allow us to apply the necessary resources to successfully complete projects such as the ones that were specified in this RFQ. Above all, **ADA** will ensure rapid response, exceptional staffing, project specific execution and management plans, and superior quality control and assurance, no matter the size and/or complexity of the assignments.

ADA maintains a versatile staff of professionals committed to ensuring that the quality of our services will exceed your expectations. **ADA** can provide the full range of engineering and engineering construction management services required to meet the needs of the City of Delray Beach. It is our goal to maintain the highest industry standards in the most cost-effective manner. **ADA** is ready and eager to support the City on this important contract. We look forward to being shortlisted and further discussing our qualifications with the City of Delray Beach.

Sincerely yours,

A.D.A. Engineering, Inc.

Ivette O. Argudin
Executive Vice President

Form A - Proposal Submittal Signature Page

By signing this Proposal, the Proposer certifies that it satisfies all legal requirements as an entity to do business with the City, including all Conflict of Interest and Code of Ethics provisions.

Firm Name: A.D.A. Engineering, Inc.

Street Address: 1800 Old Okeechobee Road, Suite 202; West Palm Beach, FL 33409

Mailing Address (if different from Street Address): same as above.

Telephone Number(s): 561-615-8880

Fax Number(s): 561-615-8858

Email Address: jvollat@adaeng.net

Federal Identification Number: 59-2064498

Acknowledged by:

A.D.A. Engineering, Inc.
Firm Name

Ivette O. Argudin — May 26, 2017
Signature — Date

Ivette O. Argudin, Executive Vice President
Printed Name and Title

By signing this document, the Proposer agrees to all terms and conditions of this RFQ which includes the Sample Agreement.

THE EXECUTION OF THIS FORM CONSTITUTES THE UNEQUIVOCAL OFFER OF PROPOSER TO BE BOUND BY THE TERMS OF ITS PROPOSAL. FAILURE TO SIGN THIS SOLICITATION WHERE INDICATED ABOVE BY AN AUTHORIZED REPRESENTATIVE SHALL RENDER THE PROPOSAL NON-RESPONSIVE. THE CITY MAY, HOWEVER, IN ITS SOLE DISCRETION, ACCEPT ANY PROPOSAL THAT INCLUDES AN EXECUTED DOCUMENT WHICH UNEQUIVOCALLY BINDS THE PROPOSER TO THE TERMS OF ITS PROPOSAL.

(Remainder of page intentionally left blank)

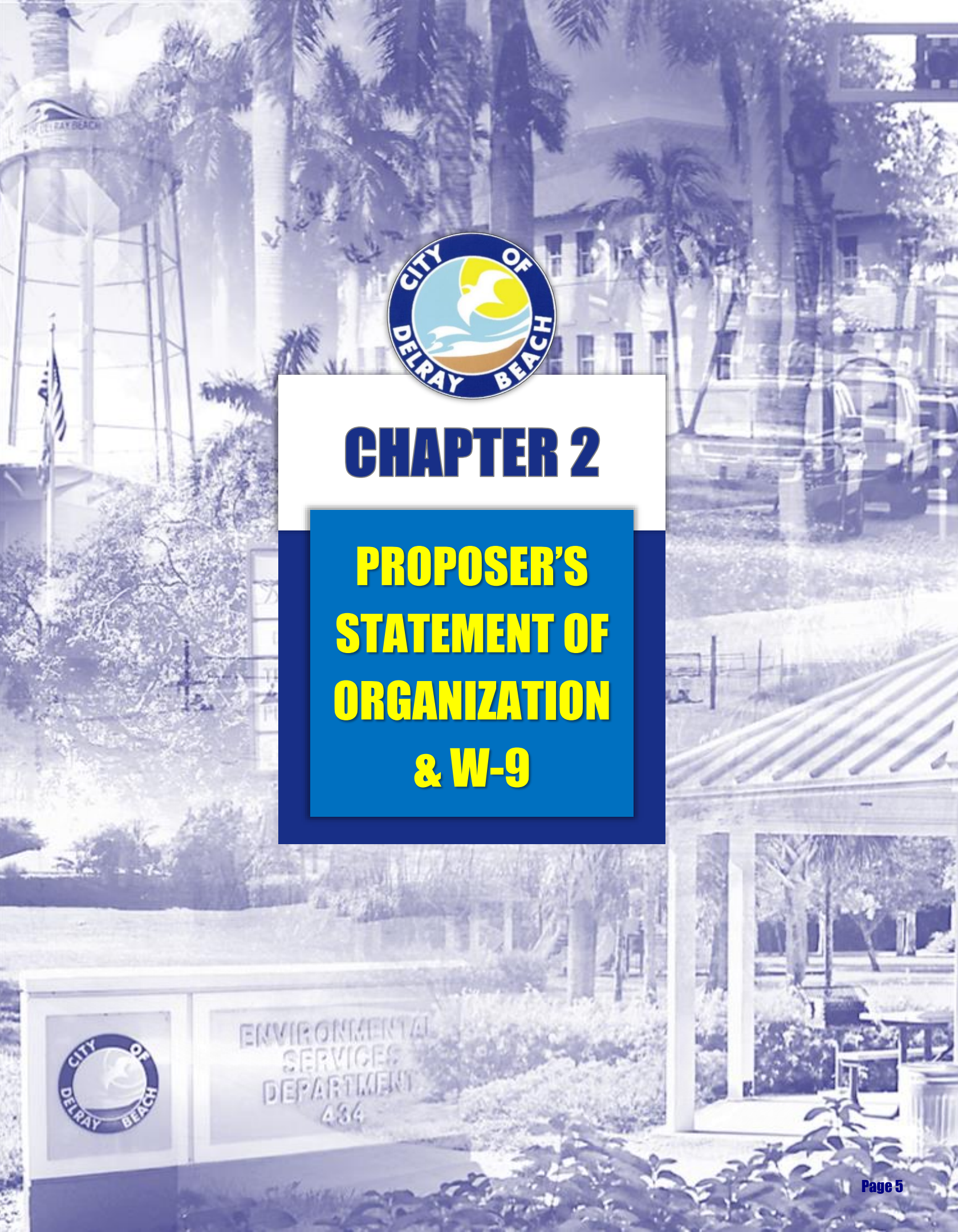
Form A - Signature Authority

Indicate below Proposer's type of organization and provide the required documentation as applicable to demonstrate that the executor of Proposer's Proposal is duly authorized to execute on behalf of, and as the official act of, Proposer.

Select	Type of Organization	Officer Who Signed Proposal Submittal Signature Page	Required Authorizing Documentation
☑	Corporation	President, Vice President, or Chief Executive Officer	None
☐	Corporation	Director, Manager, or other title	Corporate resolution
☐	Limited Liability Company (LLC) – Member-Managed	Member	Articles of Organization or Operating Agreement
☐	Limited Liability Company (LLC) – Manager-Managed	Manager	Articles of Organization or Operating Agreement
☐	Limited Partnership	General Partner	Document demonstrating the legal authority to bind the Limited Partnership
☐	Partnership	Partner	None
		CEO, Director, Manager or other title	Authorizing documentation
☐	Individual	Individual	None

☑ **Documentation is not required.**

☐ **The required authorizing documentation is included with Proposal.**



CHAPTER 2

PROPOSER'S STATEMENT OF ORGANIZATION & W-9

2.A LEGAL CONTRACTING NAME
A.D.A. Engineering, Inc.

2.B STATE OF INCORPORATION
Florida

2.C OWNERSHIP STRUCTURE
Corporation

2.D W-9
A completed and executed W-9 is included at the end of this section.

2.E CORPORATE HEADQUARTERS
Corporate Office
8550 NW 33 Street, Suite 202
Doral, Florida 33122

2.F PROPOSER'S LOCAL OFFICE
West Palm Beach Office
1800 Old Okeechobee Road, Suite 202
West Palm Beach, FL 33409

2.G PRIMARY REPRESENTATIVE DURING RFQ PROCESS
Jeffrey Vollat, PE
Project Manager
A.D.A. Engineering, Inc.
1800 Old Okeechobee Road, Suite 202
West Palm Beach, FL 33409
Phone: (561) 227-9114
jvollat@adaeng.net

2.H SECONDARY REPRESENTATIVE
Alberto D. Argudin, PE, CGC, LEED AP
Principal-in-Charge
A.D.A. Engineering, Inc.
8550 NW 33 Street, Suite 202
Doral, FL 33122
Phone: 305-514-0822
aargudin@adaeng.net

2.I OWNERS, OFFICERS OR PARTNERS

Owner Name	Address	Phone No.
Alberto D. Argudin, PE, CGC, LEED AP	Corporate Office	(305) 551-4608
Ivette O. Argudin	Corporate Office	(305) 551-4608

2.J PENDING LITIGATION
No litigation or regulatory action has been filed against **ADA** over the last five years.

2.K OWNERSHIP CHANGES
ADA has not had any ownership changes in the past three years and does not anticipate any changes in the future.

Form **W-9**
(Rev. December 2011)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

Print or type
See Specific Instructions on page 2.

Name (as shown on your income tax return)
A.D.A. Engineering, Inc.

Business name/disregarded entity name, if different from above
same.

Check appropriate box for federal tax classification:
☐ Individual/sole proprietor ☐ C Corporation ☑ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶

☐ Other (see instructions) ▶

☐ Exempt payee

Address (number, street, and apt. or suite no.)
8550 NW 33rd Street, Suite 202

Requester's name and address (optional)

City, state, and ZIP code
Doral, Florida 33122

List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number
[ ][ ][ ] - [ ][ ] - [ ][ ][ ][ ]

Employer identification number
5 9 - 2 0 6 4 4 9 8

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here Signature of U.S. person ▶ Date ▶ May 16, 2017

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

Cat. No. 10231X Form **W-9** (Rev. 12-2011)

CHAPTER 3

MINIMUM QUALIFICATIONS

3.A STATE OF FLORIDA REGISTRATION / CORPORATE CHARTER

State of Florida
Department of State

I certify from the records of this office that A.D.A. ENGINEERING, INC. is a corporation organized under the laws of the State of Florida, filed on February 17, 1981.

The document number of this corporation is F23071.

I further certify that said corporation has paid all fees due this office through December 31, 2017, that its most recent annual report/uniform business report was filed on March 7, 2017, and that its status is active.

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

Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Seventh day of March, 2017

Ken Detzner

Secretary of State

Tracking Number: CC2219464018

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

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

3.B PROOF OF YEARS IN BUSINESS

ANNE M. GANNON
CONSTITUTIONAL TAX COLLECTOR
Serving Palm Beach County
Serving *you.*

P.O. Box 3353, West Palm Beach, FL 33402-3353
www.pbctax.com Tel: (561) 355-2264

****LOCATED AT****
1800 OLD OKEECHOBEE RD #202
WEST PALM BEACH, FL 33409

TYPE OF BUSINESS	OWNER	CERTIFICATION #	RECEIPT #/DATE PAID	AMT PAID	BILL #
56-0016 ENGINEER BUSINESS	A D A ENGINEERING INC	3212	B16.484583 - 07/22/16	$33.00	B40112325

This document is valid only when receipted by the Tax Collector's Office.

B2 - 41

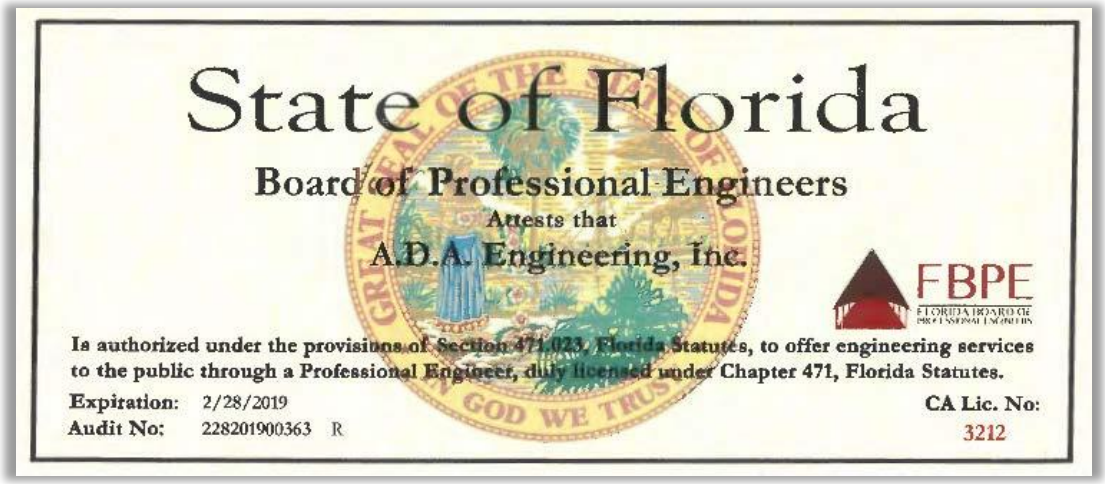
A D A ENGINEERING INC
A D A ENGINEERING INC
8550 NW 33RD ST STE 202
DORAL, FL 33122

STATE OF FLORIDA
PALM BEACH COUNTY
2016/2017 LOCAL BUSINESS TAX RECEIPT

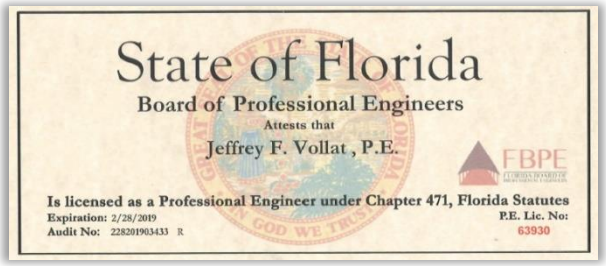
LBTR Number: 200323600
EXPIRES: SEPTEMBER 30, 2017

This receipt grants the privilege of engaging in or managing any business profession or occupation within its jurisdiction and MUST be conspicuously displayed at the place of business and in such a manner as to be open to the view of the public.

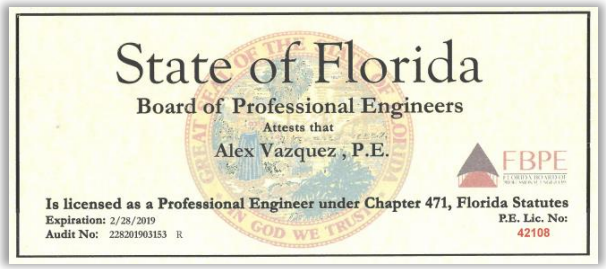
3.C FIRM PROFESSIONAL LICENSES



3.D STAFF PROFESSIONAL LICENSES


State of Florida
Board of Professional Engineers
Attests that
Jeffrey F. Vollat , P.E.
FBPE
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2019
Audit No: 228201903433 R
P.E. Lic. No: 63930


State of Florida
Board of Professional Engineers
Attests that
Alberto Dejesus Argudin , P.E.
FBPE
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2019
Audit No: 228201903619 R
P.E. Lic. No: 23547


State of Florida
Board of Professional Engineers
Attests that
Alex Vazquez , P.E.
FBPE
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2019
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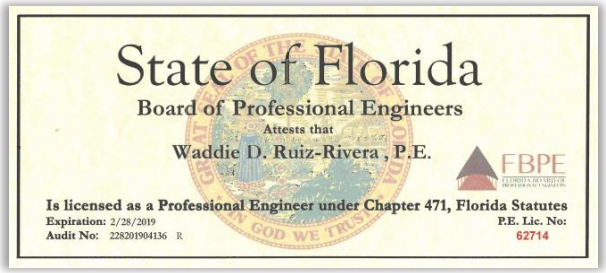
P.E. Lic. No: 42108


State of Florida
Board of Professional Engineers
Attests that
Waddie D. Ruiz-Rivera , P.E.
FBPE
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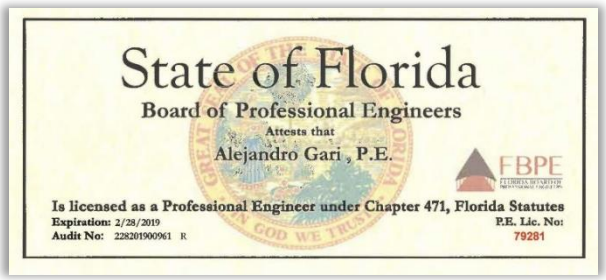
Audit No: 228201904136 R
P.E. Lic. No: 62714


State of Florida
Board of Professional Engineers
Attests that
Alejandro Gari , P.E.
FBPE
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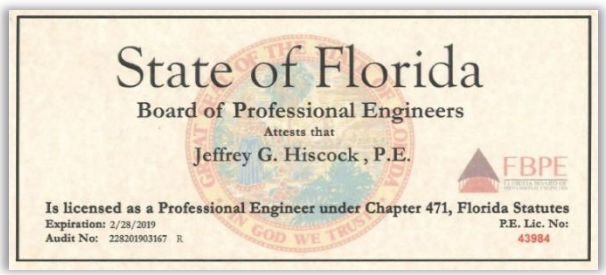
Audit No: 228201900961 R
P.E. Lic. No: 79281


State of Florida
Board of Professional Engineers
Attests that
Jeffrey G. Hiscock , P.E.
FBPE
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
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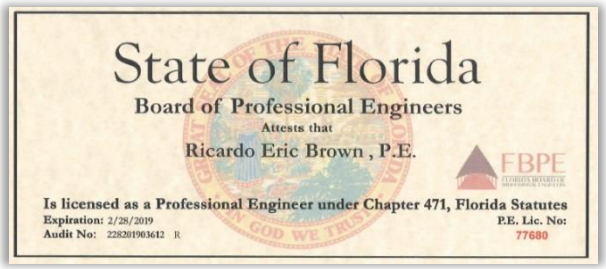
Audit No: 228201903167 R
P.E. Lic. No: 43984


State of Florida
Board of Professional Engineers
Attests that
Ricardo Eric Brown , P.E.
FBPE
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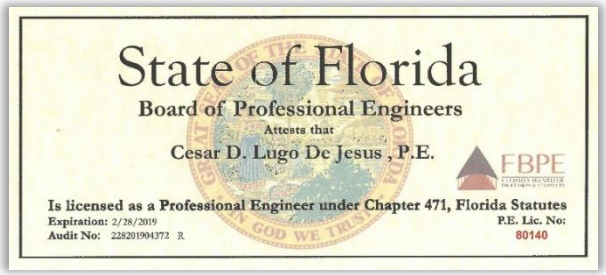
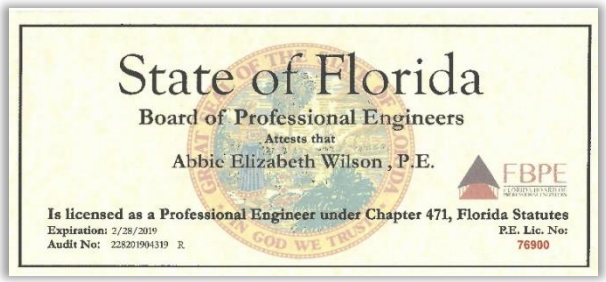
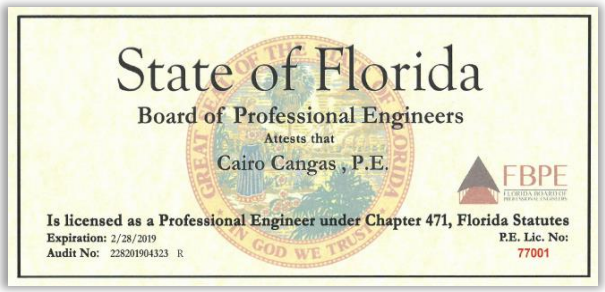
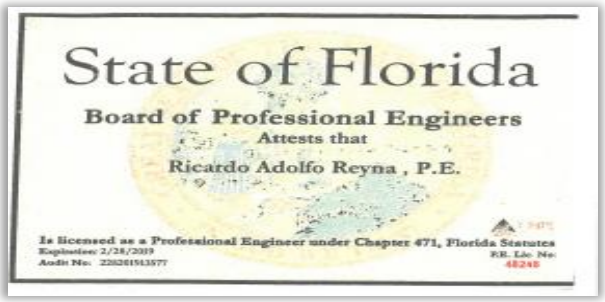
P.E. Lic. No: 77680


State of Florida
Board of Professional Engineers
Attests that
Cesar D. Lugo De Jesus , P.E.
FBPE
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2019
Audit No: 228201904372 R
P.E. Lic. No: 80140

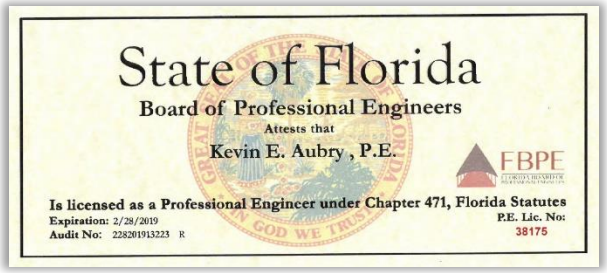

State of Florida
Board of Professional Engineers
Attests that
Abbie Elizabeth Wilson , P.E.
FBPE
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2019
Audit No: 228201904319 R
P.E. Lic. No: 76900


State of Florida
Board of Professional Engineers
Attests that
Stephanie Ann Long , P.E.
FBPE
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2019
Audit No: 228201903640 R
P.E. Lic. No: 78659


State of Florida
Board of Professional Engineers
Attests that
Cairo Cangas , P.E.
FBPE
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2019
Audit No: 228201904323 R
P.E. Lic. No:
77001


State of Florida
Board of Professional Engineers
Attests that
Ricardo Adolfo Reyna , P.E.
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2019
Audit No: 228201913577
P.E. Lic. No:
48245

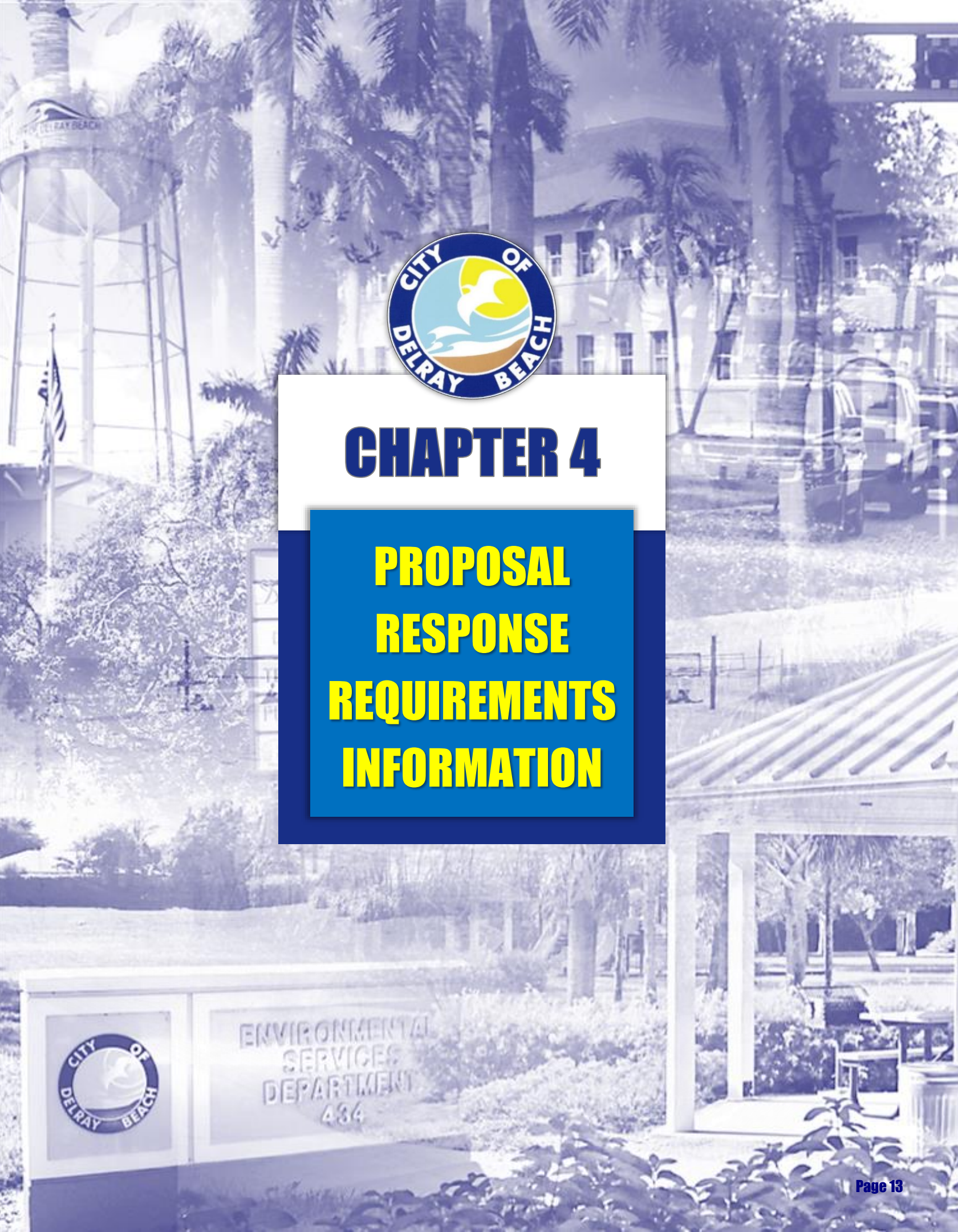

State of Florida
Board of Professional Engineers
Attests that
Maria C. Loinaz , P.E.
FBPE
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2019
Audit No: 228201903486 R
P.E. Lic. No:
68443


State of Florida
Board of Professional Engineers
Attests that
Kevin E. Aubry , P.E.
FBPE
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2019
Audit No: 228201913223 R
P.E. Lic. No:
38175


State of Florida
Board of Professional Engineers
Attests that
Daniel Joseph Marieni , P.E.
FBPE
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2019
Audit No: 228201907227 R
P.E. Lic. No:
78629

3.E CONFLICT DISCLOSURE

ADA has no potential conflicts of interest in relation to this RFQ.



CHAPTER 4

PROPOSAL RESPONSE REQUIREMENTS INFORMATION

4.A EXPERIENCE, BACKGROUND & REFERENCE FEEDBACK

4.A.i ADA Background and Experience

For over 36 years, A.D.A. Engineering, Inc. (**ADA**) has been providing consulting engineering, planning and construction management services as either a prime consultant or in association with other professional firms. Our clients have included municipalities, county, state and federal agencies, and the private sector. **ADA**'s success in delivering high-quality service to our client's is a direct result of a highly-qualified staff of engineers, planners, technicians, construction managers and administrators. **ADA**'s current clientele includes agencies such as:

- City of Coral Gables
- City of Doral
- City of Hallandale Beach
- City of Lake Worth
- City of Lauderdale Lakes
- City of Lauderhill
- City of Miami
- City of South Miami
- Florida Department of Transportation (D4 & D6)
- Miami Dade Expressway Authority
- Miami-Dade County Department of Environmental Resources Management
- Miami-Dade County Public Works Miami-Dade Water and Sewer Department
- Miami-Dade Water and Sewer Department
- Monroe County
- Palm Beach County Engineering and Public Works
- Palm Beach County Water Utilities Department
- South Florida Water Management District
- Town of Davie
- Town of Miami Lakes
- Town of Palm Beach
- Town of Surfside
- Village of Pinecrest

By applying the latest design technology and information, our engineers combine proven principles and innovation into the execution of projects. Our staff understands the need of having knowledge of the local standards and conditions to adapt our designs to fit the specific requirements of each project. We take pride in our high-caliber technical and administrative staff and the proven ability of successfully providing cost-effective solutions to our client's needs. Below are the services **ADA** has successfully provided:

- Civil Engineering
- Construction Engineering Inspections (CEI)
- Contract Administration and Project Management
- Electrical Engineering and Lighting Studies
- NPDES Regulatory Compliance Plans
- Environmental Studies
- Pollution Prevention Plan (PPP) Preparation, Implementation and Monitoring
- Utility Location and Coordination Plans
- Capital Improvement Plan Preparation Including Cost Estimating and Scheduling (Primavera, MS Project)
- Hydrologic, Hydraulic and Hydrogeologic Modeling
- Roadway and Right-of-Way Designs
- Maintenance of Traffic (MOT) Design, Permitting and Monitoring
- Local, Regional and Federal Permitting (USACE, SFWMD, FDOT, BCDERD)
- Plans Review and Permitting
- Stormwater Management and Drainage Systems Models, Master Plans, Studies and Designs
- Transportation Engineering Design
- Water and Wastewater Systems Design
- Water Quality Modeling
- Pavement Management Programs Using Automated Data Collection & Computer Models
- GIS Based Asset Inventories and Condition Assessments

- ***Awards, certifications, or other related recognition***

ADA has an excellent reputation for producing quality technical engineering and construction management services for private and public clients. This team's commitment to clients and communities is best demonstrated by our past performance, the number of projects successfully completed and satisfied clients. **ADA** has successfully completed hundreds of projects for private and public clients. As a result, **ADA** has developed an excellent reputation for producing

cost-effective engineering solutions. Past performance with respect to quality of work and compliance with performance schedules is indicated by repeat business from customers. Over 80 percent of **ADA**'s fees are derived from repeat business. Included below are also past evaluations from key clients which further demonstrate **ADA**'s exemplary performance.

City of Lauderdale Lakes

City of Lauderdale Lakes
Department of Public Works & Engineering Services
4300 NW 36th Street • Lauderdale Lakes, Florida 33319
Tel (954) 535-2825 • Fax (954) 535-0799 • www. lauderdalelakes.org

September 20, 2010

Town of Cutler Bay
10720 Caribbean Boulevard, Suite 105
Cutler Bay, Florida 33189

REFERENCE: REFERENCE FOR A.D.A. ENGINEERING, INC. DRAINAGE INFRASTRUCTURE MAPPING - ENGINEERING SERVICES CONTINUING CONTRACT

To Whom It May Concern:

From July 2009 to January 2010, A.D.A. Engineering, Inc. (ADA), under its Professional Engineering Services Continuing Contract, provided services to the City of Lauderdale Lakes for the Drainage Infrastructure Mapping project.

The City of Lauderdale Lakes was in need of developing a detailed inventory database of the City's stormwater drainage infrastructure to aid in maintaining drainage system annual maintenance programs, assisting in infrastructure location, and for National Pollutant Discharge Elimination System (NPDES) permit reporting. The City's stormwater infrastructure was composed of 759 catch basins, 195 outfalls, and 52 culverts.

As part of the City's Stormwater Management Master Plan (SMMP) development by ADA, ADA prepared preliminary catch basin and outfall GIS shapefiles based on drainage map provided by the City. ADA also developed an underlying database framework to cor pertinent data required by the City for their maintenance program as well as addition information that was vital in future stormwater master planning activities. The resulti preliminary shapefiles did not include drainage pipe data and elevations but provided for the subsequent field surveying and inventory efforts undertaken by ADA.

ADA used its subconsultant TBE, Inc. for the field survey component of this project. equipment used included Real Time Kinematic (RTK) GPS equipment that helped ex data collection process as well as standard total station data collectors to collect sur horizontal and vertical information. Additionally, field survey crews collected pipe siz invert, and location/direction of all conduits leaving the structures surveyed as well a stamp information and photographs of each structure. ADA then used the collected data to develop spatially accurate GIS shapefiles for all known catch basins and outf the City. The collected pipe data was then used to develop the connectivity of the C stormwater infrastructure.

Mayor Barrington A. Russell, Sr. • Vice Mayor Benjamin Williams, Sr. • Deputy Vice Mayor Gloria Le
Commissioner Edwina Coleman • Commissioner Eric L. Haynes • Commissioner David W. Shome
Commissioner Patricia Hawkins-Williams • City Manager Anita Fain Taylor

City of Lauderdale Lakes
Department of Public Works & Engineering Services
4300 NW 36th Street • Lauderdale Lakes, Florida 33319
Tel (954) 535-2825 • Fax (954) 535-0799 • www. lauderdalelakes.org

As an additional deliverable, ADA collected additional data from the SMMP project such as canal centerline data, canal cross sections, and water body limits and included this data in the deliverables with revised databases that fit the framework already developed for the other components.

ADA linked all available photographs to each applicable GIS object so that the structure can be viewed within GIS. ADA also developed Metadata for all shapefiles and geospatial databases developed as part of this project. The Metadata provided documentation of the spatial data, describing content, quality, conditions, and other characteristics of the data sets.

ADA's work was provided in a professional and responsive manner. They proved to be exceptionally knowledgeable in infrastructure mapping and adhered to quality, budget constraints and all timeline requirements.

ADA is a highly qualified firm that has provided excellent services to the City of Lauderdale Lakes – and the work provided under this project was no exception. We look forward to continuing to work with ADA on future projects.

Sincerely,

City of Lauderdale Lakes

Phil Alleyne
Public Works Director

Mayor Barrington A. Russell, Sr. • Vice Mayor Benjamin Williams, Sr. • Deputy Vice Mayor Gloria Lewis
Commissioner Edwina Coleman • Commissioner Eric L. Haynes • Commissioner David W. Shomers
Commissioner Patricia Hawkins-Williams • City Manager Anita Fain Taylor

City of Doral

Compiled by Williette Nyanue

2013 Top Storm Water & Erosion Control Projects

Brought to you by *Storm Water Solutions*

Storm Water Solutions (*SWS*) is proud to celebrate the best of storm water and erosion control projects with the sixth annual installment of its Top Storm Water & Erosion Control Projects awards.

Each year, the *SWS* editorial staff recognizes new facilities and projects, as well as innovative upgrades and notable storm water and erosion control solutions.

Application & Selection Process

From June through August 2013, *SWS* encouraged project leaders to submit entries showcasing projects in the design or construction phase within the previous 18 months.

The editorial staff selected 10 winners based on the obstacles that were faced and overcome, and final goals achieved. Although they vary in size and scope, the winning projects shared main objectives: meet population and regulatory demands, address aging infrastructure needs, and implement cost-efficient technologies and best practices.

We would like to thank all of the project leaders and representatives who submitted projects and photos, and congratulate the owners, engineers, contractors and designers whose projects are honored in this special feature.

For more information, contact the *SWS* editorial staff at swseditor@sgcmail.com, write in 803 on this issue's reader service form on page 38, or visit www.estormwater.com.

Storm Water Solutions' Top Projects section is sponsored by:

CONTECH CONSTRUCTION PRODUCTS INC.

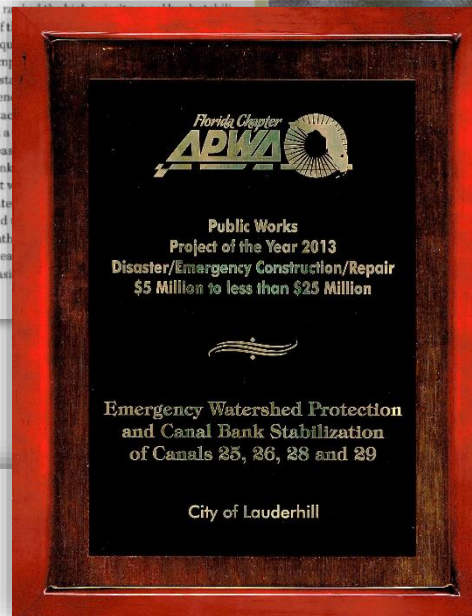
Thirsty Duck

EAST COAST erosion control

City of Doral Year 2 Canal Bank Stabilization

Many of the drainage canals throughout Doral, Fla., were built 40 to 50 years ago.
...y have experienced significant bank erosion due to high-flow
...g flood events, canal stage fluctuation, wave action and many
...eas, the erosion was occurring near existing roadways and pri-
...mpromised the structural efficacy of these facilities. In addition,
...reated unsightly conditions within the canal right-of-way and
...f many sections of the canal.
...ssues, the city developed a 10-year Canal Bank Stabilization
...n that identified and ra...
...out the city. As part of t...
... where there was adequ...
...on, A.D.A. Eng. Inc. im...
...mited right-of-way, a st...
...gh-density polyethylen...
...lled with stone and stac...
...mented. This created a...
...al and stable. For areas...
...ay, a sloping canal bank...
...membrane sheets that w...
...atter—was implemente...
... city council increased...
...uilding shared-use path...
...nd the project has crea...
...s that are safer and eas...

...t Inc.



Florida Dept. of Transportation, District 6

```
1                                     FLORIDA DEPARTMENT OF TRANSPORTATION
                                      PROFESSIONAL SERVICES - GRADE REPORT
+
-CONTRACT #  :  C8M05  FINANCIAL MGT NUMBER:  41143313202
 DESCRIPTION :  D/W DRAINAGE DESIGN & PLAN REV
 CONSULTANT  :  A.D.A. ENGINEERING, INC.
 ADDRESS     :
   8550 NW 33rd Street, Suite 101
   Doral, FL 33122
 DOT PROJ MGR:  Salazar, Ricardo F
-                                     SUMMARY OF CONTRACT GRADES ASSIGNED
+
0SELECTED FIRM
 TYPE OF
 WORK    QUAL SCHD MGMT COMP DATE GRADED  GRADE TYPE  ENTERED BY            REVIEWED BY        UPDATED BY
+
 3.2     4.8  5.0  4.8   4.8 09JAN2008    INTERVAL    RICARDO SALAZAR       RICARDO SALAZAR
 3.2     4.8  4.8  4.9   4.8 24MAR2009    INTERVAL    RICARDO SALAZAR       RICARDO SALAZAR
1
0              QUALITY GRADES FOR CONTRACT: C8M05  GRADING TYPE: INTERVA
0WORK TYPE: 3.2   FIRM GRADED: A.D.A. ENGINEERING, INC.
0TEST                                                        SCORE RANGE
+
01. Compliance with Project Scope.                           5     1-5
+
 2. Typical Section Package.                                 5     1-5
+
 3. Phase Submittals.                                        5     1-5
+
 4. Variations and Exceptions.                               5     1-5
+
 5 Geometrics/Engineering Reports.
+
 6. Pavement Design Package.
+
 7. Roadway Drainage Design(Exercised good judgem
 according to criteria in the Drainage Manual, PP
 Standards, Drainage Handbooks, District Drainage
+
 8. Stormwater Management Facility Design & WMD P
+
 9. Environmental Permitting Services(Corps of En
 USCG, Local Permits, etc.).
+
 10. Bridge Hydraulics Report, including Scour Ca
 Deck Drainage.
+
 11. Earthwork and Soils.
 12. Utility Coordination/Adjustments(Timely Phas
 and Review).
```

```
+
 13. Utility Agreements and Work Schedules.                     5    1-5
+
 14. Traffic Control Plans/Maintenance of Traffic.              5    1-5
+
 15. Miscellaneous Structures Plans.                            4    1-5
+
 16. Right of Way Requirements and Coordination.                5    1-5
+
 17. Local Agency Coordination and Public Meetings.             5    1-5
+
 18. Pay Items and Quantities.                                  4    1-5
+
 19. Overall Content, Format and Assembly of Roadway Plans.     5    1-5
+
 20. Maintain and Update Construction Cost Estimates.           5    1-5
+
 21. Specifications.                                            5    1-5
+
 22. Electronic Delivery.                                       4    1-5
+
-(Total of Test Scores/Sum of Maximum Score Range) *5 =     QUALITY4.8
1
0              SCHEDULE AND MANAGEMENT GRADES FOR CONTRACT:  C8M05
               GRADED FIRM:  A.D.A. ENGINEERING, INC.
0SCHEDULE GRADE SECTION
+
-
0                                         PERFORMANCE RATING SCALE
 1              2                3         4                5
 Sorely Lacking Sometimes misses Meets the Sometimes exceeds Sets the standard/
 Would not      the mark/Does    standard/ standard/Shows    Exemplary
 recommend      well enough to   does a    some extra effort performance
                get by           good job
 Note: An overall score of 3 is considered satisfactory performance.
 The maximum score attainable is 5.
-1. Project Phase Submittals(40%)                                5
+
 2. Project Milestones(20%)                                      5
+
 3. Status Reports/Schedule Updates(20%)                         5
+
 4. Other Project Deliverables(20%)                              5
+
-Overall Schedule Evaluation for Interval:                       5.0
+
-
```

5 out of 5 Rating

Name of Project: SR 836 Eastbound Shoulder Use Project (Misc. Design Services Contract) (MDX)

Scope of work: Design of improvements to convert SR 836 eastbound shoulder into part of the roadway.

Value of project: $ +/- 800,000 Value of Design Services: $76,130

Delivery method: ■ Design-Bid-Build ☐ CM@Risk ☐ Design-Build ☐ Other (_____)

Design completed on time & within budget: ☑ Yes ☐ No Date completed: _____

If no, was the Consultant at fault or contribute to the delay(s) or increased cost? ☐ Yes ☐ No

Quality of Design: ☑ Above expectations ☐ Average ☐ Below Expectations

Errors & Omissions: ☑ Above expectations ☐ Average ☐ Below Expectations
(Above expectations means there were fewer errors & omissions than anticipated)

Did Errors & Omissions result in increased construction cost? ☐ Yes ☑ No

Did Consultant provide Construction Administration services? ☐ Yes ☑ No ☐ limited scope

Was the Consultant responsive to the Owner & Contractor?: ☑ Yes

Comments:
Team expedited the project and came in before anticipated schedule.

Name of individual completing this form: Alfred Lurigados, PE

Signature: _____ Title: Director of Er

Telephone: (305) 637-3277 E-mail: alurigados@

Miami-Dade Expressway Authority

Name of Project: FP&L W. County Facility Reclaimed Water Main Dsgn.Support - PBC Water Utilities Dept.

Scope of work: Pipeline design support (36-inch reclaimed water main) for FPL West County Facility

Value of project: $ 66 million Value of Design Services: $98,900

Delivery method: ☑ Design-Bid-Build ☐ CM@Risk ☐ Design-Build ☐ Other (_____)

Design completed on time & within budget: ☑ Yes ☐ No Date completed: _____

If no, was the Consultant at fault or contribute to the delay(s) or increased cost? ☐ Yes ☐ No

Quality of Design: ☑ Above expectations ☐ Average ☐ Below Expectations

Errors & Omissions: ☑ Above expectations ☐ Average ☐ Below Expectations
(Above expectations means there were fewer errors & omissions than anticipated)

Did Errors & Omissions result in increased construction cost? ☐ Yes ☑ No

Did Consultant provide Construction Administration services? ☐ Yes ☐ No ☑ limited scope

Was the Consultant responsive to the Owner & Contractor?: ☑ Yes ☐ No

Comments:
Fast-Tracked major project, outstanding effort by A.D.A. Engineering assisting our in-house designers

Name of individual completing this form: Brian Shields, PE Date: 12/14/2012

Signature: _____ Title: Deputy Director

Telephone: (561) 493-6000 E-mail: bshields@pbcwater.com

Palm Beach County Water Utilities Dept.

Name of Project: Little River Business District Roadway Improvements (City of Miami

Scope of work: Roadway improvements as well as 9 gateway signs throughout the Litt

Value of project: $ 2,000,000 Value of Design Services: $2

Delivery method: ☐ Design-Bid-Build ☐ CM@Risk ☐ Design-Build ■ Other (JOC)

Design completed on time & within budget: ■ Yes ☐ No Date completed: _____

If no, was the Consultant at fault or contribute to the delay(s) or increased cost? ☐ Yes ☐ No

Quality of Design: ■ Above expectations ☐ Average ☐ Below Expectations

Errors & Omissions: ■ Above expectations ☐ Average ☐ Below Expectations
(Above expectations means there were fewer errors & omissions than anticipated)

Did Errors & Omissions result in increased construction cost? ☐ Yes ☐ No

Did Consultant provide Construction Administration services? ☐ Yes ☐ No ■ limited scope

Was the Consultant responsive to the Owner & Contractor?: ■ Yes ☐ No

Comments:
Consultants were professional and responsive.

Name of individual completing this form: John de Pazos Date: 12/3/2012

Signature: _____ Title: Project Manager

Telephone: (305) 416-1094 E-mail: jdepazos@miamigov.com

City of Miami

South Florida Water Management District

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Contractor Performance Evaluation

Instructions:
Performance evaluations shall be completed by the Project Manager for the following: (1) all Contracts; (2) all Individual Work Orders with a term of 6 months or more. At a minimum, the Project Manager shall complete performance evaluations at the mid-point of the project term or at more frequent intervals as required by the Work Order/and at the time of Work Order or Contract completion.

It is especially important for the Project Manager to contact a Procurement representative to advise of any performance issues so that Procurement can assist with efforts to bring performance back to acceptable standards. It is equally important to complete this form whenever any of the performance indicators are either "marginal" or "unsatisfactory" even when this is not within the normal review cycle. In the event the Average Rating Score is "marginal" or "unsatisfactory" even after reasonable efforts have been taken by the District to improve performance, the Project Manager shall coordinate with Procurement to determine what action needs to be taken under the circumstances.

When completed, forward the evaluation form to Procurement. Procurement will keep track of the Average Rating Scores (Line 11) for all evaluations completed for the entire term of the Contract/Work Order. The completed Performance Evaluation form will be retained in Procurement and will be available as a record of current performance for use in the evaluation process of future solicitations released by the District. The completed evaluation is available to the contractor upon a Public Records request pursuant to Chapter 119, F.S.

Contract/Work Order No.	Contractor	Evaluation Period	
4600000957/WO04R2	ADA Engineering, Inc.	100%	☐ Interim ☒ Final
Project Title		If evaluating under a work order contract, specify type (i.e., GEPS, STS, IT, SAP, etc.)	
STA 1W Expansion Project Hydraulic Study		GEPS	

Check the appropriate ratings for Lines 1 through 8.
Sum the individual ratings, by column, to produce the Individual Column Ratings on Line 9.
Sum the Individual Column Ratings in Line 9 to produce the Total Rating Score on Line 10.
Divide the Total Rating Score in Line 10 by the number 8 (the number of performance indicators in Lines 1-8) to produce the Average Rating Score in Line 11.

	Performance Indicators	Rating Unsatisfactory	Marginal	Satisfactory	Very Good	Exceptional
1.	Planning & Approach	☐ 1	☐ 2	☐ 3	☐ 4	☒ 5
2.	Staff Capability	☐ 1	☐ 2	☐ 3	☒ 4	☐ 5
3.	Staff Effectiveness	☐ 1	☐ 2	☐ 3	☒ 4	☐ 5
4.	Flexibility in Meeting District Goals	☐ 1	☐ 2	☐ 3	☐ 4	☒ 5
5.	Promptness of Deliverables/Milestones/Reports	☐ 1	☐ 2	☐ 3	☒ 4	☐ 5
6.	Report Quality	☐ 1	☐ 2	☐ 3	☒ 4	☐ 5
7.	Quality of Work Completed	☐ 1	☐ 2	☐ 3	☒ 4	☐ 5
8.	Contract Under or at Budgeted Cost and Invoicing Procedures	☐ 1	☐ 2	☐ 3	☐ 4	☒ 5
9.	Individual Column Rating (Total lines 1-8.)	0	0	0	20	15
10.	Total Rating Score (Total row 9.)	35				
11.	Average Rating Score (Divide line 10 by the number 8.)	4.38				

(4.375)

Form 1129 (06/2012) Page 1 of 2

In Lines 12 through 21, provide any additional detail, as deemed necessary, to support the ratings given in Lines 1 through 8 as well as any additional comments regarding SBE utilization on Line 20. Additional space is available on Line 22 if needed.

Current tasks completed and/or deliverables received? If no, reason:	☒ Yes ☐ No
Current work completed ahead/on schedule? If no, number of days late: _____ and reason:	☒ Yes ☐ No
Contract currently under/at budgeted cost? If not at budget, specify amount over $ _____ and reason:	☒ Yes ☐ No
Contractor strengths: Flexibility on meeting the District's goals. ADA's staff is very capable in Hydraulic Modeling.	
Contractor weaknesses: Not observed.	
Specific problems incurred*: No	
*Problems concerning loss of keys to District structures/controlled areas should be included in this section. Contact Mary Margaret Mahon for detailed history at extension 6238. Repeated loss of keys may lead to deeming a contractor as non-responsible in conjunction with future solicitations.	
How may these have been prevented? NA	
Additional comments/recommendations: NA	
Comments on SBE utilization:	
Currently recommend firm for future contracts/work orders of this type? If "No" or "Possibly", an explanation must be provided in Line 22 below.	☒ Yes ☐ No ☐ Possibly

Project Manager (sign) — Date 02/05/14 — Section Administrator (sign) — Date 2-6-14

Please indicate any additional comments corresponding to Performance Indicators (Lines 1-8) on Page 1 – explain marginal/unsatisfactory performance; if either "No" or "Possibly" apply to Question 21, an explanation must be provided here. Additional sheets may be attached if necessary.

Number	Remarks
4, 8	Refer to attached page for comments

CONTRACT MANAGEMENT/PROCUREMENT & SBE SECTION USE ONLY

Please indicate any additional comments corresponding to the numbered question on Page 1 and/or Page 2.

Number	Remarks

Evaluation Number/Score: — SBE Compliant: ☒ Yes ☐ No — Comments: SBE Prime Contractor

Evaluating Average Score:

Procurement Representative (sign) — Date 2/6/14 — SBE Representative (sign) — Date 2/6/14

1129 (06/2012) Page 2 of 2

Attachment to Contractor Performance Evaluation

Contract/Work Order no. 4600000957/WO04R2

#1 – Planning & Approach

ADA has been exceptional in helping the District through this complex STA 1W Expansion alternative selection process. They have gone beyond what was requested from them in the SOW without requesting any additional money. Although they were supposed to participate in 5 meetings, they have participated in 12 official meetings and a numerous informal meetings and conference calls. They have always been a step ahead recommending approaches in this alternative selection process and even have gone through additional steps that are not in SOW to make sure the report is to SFWMD satisfaction. These additional steps include developing 26 alternative configuration sketches, in lieu of 12 to get SFWMD feedback and shortlist to 12. Then they added 5 configurations for Area no. 2. That was not part of the Work Order but they felt it was necessary and did not request additional compensation.

#4 – Flexibility in Meeting District Goals

ADA has been exceptional being as flexible as possible in order to meet District Goals since the beginning of the Work Order in February 2012 to the end. When the District decided to stop Work due to the litigation regarding the land, there was a 5 month hiatus. Due to this hiatus, HESM re-evaluated the 1D calibration after being approved and they requested changes 5 months later. ADA accepted to recalibrate the 1D and later the 2D in order to satisfy the District HESM group. Also, ADA suggested changing the order of deliverables in order to meet schedule dates. By performing the 1D long term modeling before the 2D model, schedules were met. Another request from the District was to run the 1D long term models for 4 alternatives with both truncated and non-truncated flows. This request resulted in additional runs and evaluation.

All these and many other actions without any change to the original cost of the Work Order reflect their interest on satisfying District Goals.

#8 – Contract Under or at Budgeted Cost and Invoicing procedures

As a result of all additional work ADA has done beyond the original SOW terms, it is expected for the original budgeted cost to increase. Nevertheless, all the SFWMD requests, work stoppages, etc... have been as fluid as possible with ADA. They have never suggested that they need any additional compensation for any of these actions and have been fully invested in getting this important part of the STA 1W project completed to SFWMD satisfaction.

4. A.ii ADA Relevant Past Experience

Detailed below is a narrative description documenting the **ADA** Team's experience in the professional services included as part of this RFQ. We are exceptionally prepared and experienced to provide all of the services.

■ ENGINEERING

ADA Engineering is a multi-faceted engineering company with expertise in: civil, water resources, electrical, transportation, and environmental / natural resources. The **ADA** Team can accomplish any task the City may require, and do it with expertise and cost effectiveness.

■ CIVIL

ADA has an impressive track record in all aspects of civil engineering. Our civil engineers provide consulting and design services for both the private and public sectors. Our civil engineering capabilities include:

- Site planning
- Paving, grading and drainage design
- Roadway rehabilitation and reconstruction design
- Drainage studies and design
- Water distribution system analysis and design
- Wastewater collection system analysis and design
- Sanitary and stormwater pump station design
- Community redevelopment
- Civil engineering inspection and construction administration services
- Site and drainage permitting
- Urban design

ADA is currently or has been the prime contractor on numerous miscellaneous civil engineering services contracts similar in scope to the work anticipated under this contract. Some of the miscellaneous civil engineering services contracts **ADA** has worked on include:

- Miscellaneous Drainage and Civil Engineering Services - County of Lauderhill
- Stormwater Master Plans – City of Miami, City of Doral, City of South Miami, Village of Pinecrest, City of Lauderdale Lakes, City of Belle Mead, and others
- General Civil Engineering Services – City of Coral Gables
- General Engineering Services (Civil Engineering and Structural Engineering Services) – South Florida Water Management District (SFWMD)
- Miscellaneous Civil Engineering Special Project Consultant (SPC) - Miami-Dade County Public Schools (MDCPS)
- Miscellaneous Civil Engineering Continuing Services – City of Miami
- General Civil Engineering Services Consultant – City of Doral
- Miscellaneous Civil Engineering Services - Miami-Dade County Aviation Department (MDAD)
- Civil Engineering Services for the New Miami Art Museum – Miami Art Museum
- Civil Engineering Services for the New Miami Science Museum – Miami Science Museum

■ ELECTRICAL

ADA has worked on a variety of projects that include electrical engineering design. Key services include:

- Roadway Lighting Design / Photometric Analysis
- Electrical Service to Pump Stations / Control Buildings/Flood Control Structures
- Signalization Design
- SFWMD Spillway Structures and Control Buildings
- Wastewater Treatment Plants

Past project experience includes:

- S-351 and S-354 Lifting Mechanisms for Manatee Protection Barriers
- S-40, S-41, and S-44 Flood Control Structures Rehabilitation
- SCADA Stilling Wells
- SR 934 Lighting and Signalization
- SR 94 Lighting and Signalization
- District Wide Roadway Lighting Retrofit Project
- Section 5 SR 836/826 Interchange Roadway Lighting and Bridge Up-lighting
- Central District Waste Water Treatment Plant Effluent Pump Station Power System Analysis
- Miami Dade County Roadway Lighting Design Criteria & Standards

■ TRANSPORTATION

ADA has been providing transportation consulting services for over 30 years and has established itself as a leader in roadway, highway, drainage, lighting and transit design. Serving an assortment of clients, **ADA** is proficient in:

- Urban and Regional Transportation Planning
- Mass and Rapid Transit Planning
- Highway Design
- Traffic Analysis
- Construction Inspection Services
- Construction Management

Some of our significant transportation projects include:

- SR-7/US-441/NW 2nd Avenue from NW 176th Street to NW 215th Street – Florida Department of Transportation, District 6
- Reconstruction of South Bayshore Drive – City of Miami
- Districtwide Minor Roadway Design – Florida Department of Transportation, Districts 4 & 6
- SW 97th Avenue from SW 72nd Street to SW 40th Street Master Plan Development and Roadway Reconstruction and Widening – Miami-Dade County Public Works Department
- NW 87th Avenue from NW 162nd Street to NW 170th Street – Miami-Dade County Public Works Department
- NW 56th Avenue Roadway Improvements – County of Lauderhill

■ WATER RESOURCES/STORMWATER MANAGEMENT (INCLUDES STORMWATER, POTABLE WATER, REUSE WATER, CONVEYANCE, SUPPLY, TRANSMISSION, TREATMENT, STORAGE)

ADA's extensive watershed and stormwater management expertise covers the full spectrum of projects including planning, assessment, design, peer review, permitting, and program management. The diversity of our staff provides our clients with the flexibility to develop, prioritize, fund and implement capital improvement programs to address watershed flooding, water quality and permitting. The firm has been effectively providing services in Stormwater Management, Regional Water Supply, Groundwater Analysis, Water Control Conveyance and Structures, Site and Field Investigation and Operations and Maintenance.

Additional services are shown in the following table:

- Stormwater Management/ Master Planning
- Environmental Resources Permitting

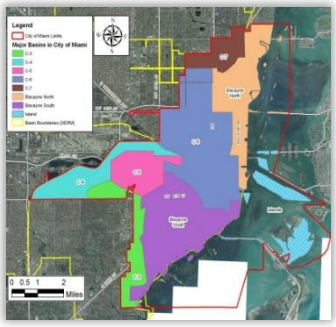
- Drainage Master Plan
- Flood Control
- Flood Plain Studies & Mapping
- Hydrologic, Hydraulic and WQ Modeling
- Basin Hydrologic Studies
- Water Quality Modeling & Pollutant Loading
- Field Facility Inventory and Assessment
- NPDES Permitting
- Best Management Practices
- Operations & Maintenance
- Low Impact Development Master Planning
- Regional Stormwater Facility Design
- Soil Erosion & Sediment Control
- Canal Dredging
- Stormwater Utility Development & Implementation
- Hydro-Period Analysis
- Embankment Stabilization
- Groundwater Analysis
- Construction Management
- Water Supply Master Planning & Analysis
- Design of Conveyance, Detention/Retention, Pump Stations and Water Quality Control Structures

Typical software utilized by **ADA** (but not limited to) is as follows:

- XP-SWMM
- XP-SWMM EXTRA
- HEC-RAS
- HEC-MS
- HEC-HMS
- HEC-1
- HEC-2
- HEC-4
- HEC-6
- MIKE-SHE/MIKE 11
- ICPR
- AdICPR
- SEDCAD
- MODFLOW
- MT3D
- WaterCad
- Flow Master
- CORMIX
- HSPF
- WASP -5
- SWAN FLOW
- SUTRA
- WAM
- MT3D
- UNET
- RMA-2
- RMA_4
- ADCIRC
- Genesis
- ArcGIS
- AutoCad Land Development
- PondPak
- Seep2D
- Winstabl
- DYNHYD
- UNET
- RMA-2
- HSPF
- PLASM
- MOC
- SPSS
- SAS
- WASP EUTRO
- WASP TOXI

Some of our key stormwater/drainage projects include:

- City of Miami Stormwater Master Plan Update – Phases I and II
- Village of Pinecrest Stormwater Master Plan Development and Sea Level Rise Assessment
- City of Doral Low Impact Development Master Plan
- Miscellaneous Drainage and Civil Engineering Services – County of Lauderdale Lakes
- Harding Avenue South Drainage System Pump Station at 88th and 94th Streets – FDOT
- Palm Beach International Airport (PBIA) Taxiway F Drainage Design and Permitting Services – Palm Beach County



- Palm Beach International Airport (PBIA) Conceptual Stormwater Management Master Plan – Palm Beach Department of Airports
- City of Lauderdale Lakes Stormwater Infrastructure Mapping
- Palm Beach International Airport (PBIA) Conceptual Stormwater Management Master Plan – Palm Beach Department of Airports
- Stormwater Management Master Plan Development Feasibility Study – Town of Davie
- NW 36th Street Flooding Assessment – FDOT

4. A.iii Client References

Listed below are five key clients that **ADA** has provided general engineering consulting services in the past five (5) years.

AGENCY / MUNICIPALITY	CLIENT CONTACT PERSON	CONTACT INFORMATION
	Gary Sypek Planning Director	**Palm Beach County Department of Airports** **1000 PBIA, Suite 846** **West Palm Beach, FL 33406-1412** ***Phone:*** **561-471-7474** ***Fax:*** **561-471-7427** ***Email:*** **gsypek@pbia.org**
PALM BEACH INTERNATIONAL AIRPORT – TAXIWAY W DRAINAGE DESIGN AND PERMITTING Duration: 9/2011-Present Fee: $112,780 **ADA** prepared all of the construction plans and technical specifications for the drainage improvements necessary for the extension of Taxiway W. This project helped to accommodate projected aviation demand and maintain a high level of passenger convenience, by increasing airfield capacity and optimizing the existing airfield.		
	David McDermet Project Manager	**South Florida Water Management District** **3301 Gun Club Road** **West Palm Beach, FL 33416-4680** ***Phone*****: (561) 682-6309** ***Email*****: dmcderme@sfwmd.gov**
S-351 AND S-354 LIFTING MECHANISMS FOR MANATEE PROTECTION BARRIERS Duration: 6/2015-Present Fee: $149,905 **ADA** prepared plans and specifications for two steel framing structures on top of the existing operating platforms with mechanical hoists and associated electrical components. The purpose of these structures is to automate the lifting of manatee protection barriers for cleaning. The two structures are located along the Rim Canal south of Lake Okeechobee and experience heavy vegetation loading. In addition, **ADA** designed catwalk platforms for SFWMD O&M staff to use in lieu of a vessel to access the manatee grates. Project is currently under construction.		

	Carmen Olazabal Public Works Department	**Town of Miami Lakes** **6601 Main Street, Suite 208** **Miami Lakes, FL 33014** ***Phone:*** **(305) 364-6100** ***Email:*** **OlazabalC@miamilakes-fl.gov**

CANAL BANK STABILIZATION
Duration: 6/2015-Present
Fee: $148,912
ADA was contracted to produce plans and specifications for Canal Bank Stabilization (Phase 1) in the Golden Glades and Peter's Pike Canal. Stacked geoweb materials were proposed, which was chosen due to its limited intrusion on the existing bank, the tight space from top of bank to right-of-way, and the 1.5:1 (H:V) batter in which the product can be installed (vertical slopes). A Tree Mitigation Plan was required, as well as a Class III Permit from Miami-Dade County Department of Regulatory and Economic Resources (RER). Both were obtained quickly and effectively. Residents were highly pleased with the end product which gave them a stabilized bank and the appearance of more backyard.

	Carlos Arroyo Assistant Public Works Director / Chief of Construction	**City of Doral** **8401 NW 53rd Terrace** **Doral, FL 33166** ***Phone:*** **305-593-6740 ext. 6009** ***Fax:*** **305-593-6617** ***Email:*** **carlos.arroyo@cityofdoral.com**

YEARS 5 AND 6 CANAL BANK STABILIZATION
Duration: 2014-Present
Fee: $524,000
The City of Doral retained **ADA** to produce plans and specifications for canal bank stabilization measures along the Dressel's Canal in the heart of the City. A Class III Permit was required from Miami Dade County DERM, as well as a Tree Mitigation Permit. Along with the stacked geoblock product, ADA designed a 10' shared use bike / maintenance path within the easement along the canal.

	Ricardo F. Salazar, Jr., PE Chief Drainage Engineer	**Florida Department of Transportation (FDOT), District 6** **1000 NW 111 Avenue** **Room 6218** **Miami, Florida 33172** ***Phone:*** **305-470-5264** ***Fax:*** **305-470-5293** ***Email:*** **ricardo.salazar@dot.state.fl.us**

DISTRICTWIDE DRAINAGE DESIGN AND PLANS REVIEW CONSULTANT SERVICES – FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT), DISTRICT 6 (ONGOING)
Duration: **ADA** was selected as the first District 6 Districtwide Drainage Design and Plans Review Consultant in 2002 and was reselected in 2005, 2008, 2011, and 2014.
Fee: $1,500,000
ADA served as the design and plans review consultants for the FDOT performing a variety of engineering assignments. These assignments involve all aspects of Drainage Analysis and Design Services, Retrofitting Existing Drainage Systems, Permit Compliance, Hydrologic/Hydraulic Modeling, Bridge Hydraulics, Scour Analyses, Retention/Detention Pond, French Drain, Drainage Well Analyses and Design, Drainage Studies, and Urban & Rural System Design.

4. A.iv Key Personnel

ADA has assembled a group of knowledgeable and experienced professionals to assist the City in developing innovative solutions to all City projects. The project assignment of all key **ADA** Team staff members are outlined in the organizational chart included in **Section 4.D**. Full resumes are also included at the end of this Chapter. The matrix below also highlights the overall experience and capabilities of our proposed team.

KEY PERSONNEL	ROLE	YRS. OF EXP.	Engineering	Civil Engineering	Electrical Engineering	Transportation	Water Resources / Stormwater Mngmt.	Geotechnical (Subconsultant Services)
Jeffrey Vollat, PE	*Project Manager*	16	■	■			■	
Alberto Argudin, PE, CGC	*Principal-in-Charge*	40	■	■			■	
Alex Vazquez, PE	*Quality Control*	32	■	■			■	
Jeffrey Hiscock, PE	*Stormwater / Mechanical*	35	■	■			■	
Waddie Ruiz, PE	*Sr. Project Eng. / Construction Manager*	19	■	■		■	■	
Cairo Cangas, PE	*Roadway Engineer*	10	■	■		■		
Cesar Lugo, PE	*Sanitary Sewer / Mechanical*	16	■	■			■	
Alejandro Gari, PE	*Electrical Engineering*	10	■		■			
Abbie Wilson, PE	*Stormwater / Water Resources*	10	■	■			■	
Ricardo Reyna, PE	*Roadway Engineer*	25	■	■		■		
Ricardo Brown, PE	*Project Engineer*	14	■	■			■	
Stephanie Long, PE, PhD	*Water Resources Engineer*	5	■	■			■	
Maria Loinaz, PE, PhD	*Sr. Water Resources Engineer*	17	■	■			■	
Albert Argudin, Jr., CGC	*Construction Manager*	13	■					
Vamsee Tirunagari, EI	*Engineer*	8	■	■		■		
Olga Casadevall, EI	*Engineer / Estimating*	27	■	■			■	
Misael Ramirez	*CAD Engineering Tech.*	26	■		■		■	
Kevin E. Aubry, PE	*Senior Geotech. Engineer*	36						■
Daniel Marieni, PE	*Project Geotech. Engineer*	7						■

4.B APPROACH TO PROJECT MANAGEMENT

The **ADA** Team is committed to meeting the schedule and budget requirements for any project assignment under this contract. In order to meet established deliverable dates, **ADA** will develop a detailed schedule in Microsoft Project or Primavera. The schedule is developed after the scoping meeting by the **ADA** Team Project Manager, task leaders, and senior management in collaboration with the City's Project Manager.

In order to meet funding constraints, the right balance must be achieved between the project scope and available funding. There must also be a good definition and understanding of the scope of work coupled with accurate budget estimating procedures. Once the scope of the work is adequately defined, budget estimates are prepared and compared to the

available funding budget. Each successful **ADA** project begins the same way: we listen intently to staff's expectations and goals for the project so that we begin with the end product or result in mind. We then implement our proven project management system to deliver the expected results in a cost-effectively and timely manner. We do this consistently, because we utilize efficient processes and comprehend the appropriate regulations required to navigate through the myriad of agency approvals needed to execute any project.

Accurate data enhances the quality of the plans and helps maintain the project on schedule by avoiding unknown conditions. **ADA** will begin collecting available information immediately after receiving the notice to proceed. Data to be collected could include specifications, right-of-way maps, utility company maps, City staff reports, photographs, agency regulations, and applicable design criteria. Our staff will then perform a field review to assess the location, extent, size and condition of the project. **ADA** will furnish the City staff with documentation of the project area and point out design considerations and concerns.

4.B.i Project Execution Plan (PEP)

As part of the Project Execution Plan for roadway, civil, drainage and land development engineering projects, a detailed Scope of Work is developed, in close coordination with the City, once **ADA**'s Project Manager is contacted by the City's Project Manager with a project assignment. The Scope of Work will outline the background information on the project, purpose of the project, project objectives, work breakdown structure, **ADA** and City staff responsibilities, list of all project deliverables, and payment and deliverable schedules. Once the Scope of Work is approved, **ADA**'s Project Manager will implement the Project Execution Plan, which is comprised of six essential tasks:

I. Project History
II. Data Collection and Evaluation
III. Preliminary Design
IV. Initial Permitting
V. Final Design
VI. Final Permitting

I. Project History: The project past history will be evaluated to determine all previous planning decisions and criteria established for the project. Readily available information and data will be used and evaluated to document relevant project history, which will help frame the overarching goals for the project.

II. Data Collection and Evaluation: Obtaining the necessary information and data is one of the most important phases of any project. Our team will begin to collect available information and data for an assigned project immediately after receiving notice to proceed. For critical projects, our team can begin this effort with verbal approval from the City's Project Manager.

ADA will first perform an evaluation of all existing information to determine the extent of actual field data collection required. As part of the data collection task, key design team members will perform a site reconnaissance to evaluate the existing conditions of the project. If necessary, interviews with City staff members, local residents, and land owners will be performed to determine the existing design deficiencies and site constraints to meet the ultimate project end users' needs. **ADA** will then evaluate the available information to determine the extent of data to be collected and develop a data collection plan to supplement the available data.

III. Preliminary Design: Once the field data has been collected and site reconnaissance completed, **ADA**'s Project Manager will conduct an in-house "brainstorming" session with the task leaders, senior staff members, and designers assigned as part of the Project Management Plan, to evaluate and develop an optimal solution to the project. This session serves to identify fatal flaws, value analysis issues, and compatibility between disciplines. This approach has been followed on many of our projects, and it has enabled us to supply the client with well-documented recommendations before proceeding with the preparation of construction contract documents (i.e. construction drawings and specifications).

IV. Initial Permitting: Prior to proceeding with the final design, pre-application meetings are performed with all the permitting agencies having jurisdiction for the project. For projects within the City of Delray Beach, the typical agencies that have jurisdiction include the City of Delray Beach Environmental Services Department, which includes approval from Engineering and Public Utilities Divisions, South Florida Water Management District, Lake Worth Drainage District (if applicable), Florida Department of Transportation, Florida Department of Environmental Protection and US Army Corps of Engineers. The intent of these meetings is to obtain input and consensus on key elements and criteria of the design and regulatory requirements. As part of this task, preliminary meetings and field reviews with City staff will also be performed. Input and consensus from these meetings are then documented and used to define project-specific design criteria and determinations.

V. Final Design: Once the initial permitting is finalized and documented, the final design is initiated. The final design will be comprised of 60, 90 and 100 percent construction contract documents including plans, specifications, cost estimates and schedule.

VI. Final Permitting: The final permitting phase primarily includes preparation and submittal of the associated permitting packages to the required agencies, using the calculations, plans and details of the coordinated final design. Typically, 60 to 90 percent design plans can be used with the permit applications, as long as these plans are signed and sealed by a Florida-registered professional engineer.

4.B.ii PROJECT EXECUTION PLAN (PEP) ■ Construction / Project Management Services

Quality-focused, cost-effective, dispute and injury-free project delivery does not occur without a deliberate commitment and effort to manage the project delivery process. The cost and complexity of today's capital projects, the importance of time, and the need to deal with unanticipated events and unforeseen conditions all support the need for an integrated and managed approach. **ADA** staff members have the proven experience and successful track record with municipalities/agencies such as the City of Lauderhill, City of Lauderdale Lakes, Town of Davie, City of Doral, City of Miami, South Florida Water Management District, Florida Department of Transportation, Miami-Dade Expressway Authority, Miami-Dade County and Broward County. In a combined effort, this team has managed high profile and expedited projects both in South Florida and internationally. The following are key elements of the PEP for construction management and inspection services projects.

Construction Management, Inspections and Certifications

Construction Management services on any construction project should have the same main objective: to manage a project which results in an on schedule, cost-effective, and dedicated representation of the owner's interests free from potential conflicts with regard to the time and cost of the project. This team has the proven track record and accountability from previous related projects to ensure that it can successfully serve the City.

Construction management services PEP will include procedures for the following activities:

- Daily Inspections
- Coordination with the Geotechnical Laboratory
- Document Control
- Project Controls Management
- Review of Contractor's Payment Applications

- Protocols for Communication
- Shop Drawing Reviews

Certifications

It is imperative for onsite inspectors to have the appropriate certifications. **ADA's** inspectors possess key certifications including:

- Troxler Nuclear Density Testing
- Earthwork Level I (FDOT)
- Earthwork Level II (FDOT)
- Advanced Work Zone Traffic Control (FDOT)
- Asphalt Paving – Level I (CTQP)
- Asphalt Paving – Level II (CTQP)
- Conflict Management (MDCPS)
- Intermediate Maintenance of Traffic (FDOT)

Some of **ADA's** inspectors also possess Certified General Contractor licenses.

4.B.iii Budget and Cost Control

In today's economy, the City typically has limited budget to implement needed improvement projects. Funding constraints may apply to capital costs, operation and maintenance costs, or both. In order to meet these constraints, the right balance must be achieved between the project scope and the available funding. There must also be a good definition and understanding of the scope of work coupled with accurate cost estimating procedures. Once the scope of the work is adequately defined, cost estimates will be prepared and compared to the available funding budget.

The key to a successful cost estimate is the thorough understanding of the intended scope of work. To communicate and coordinate this scope, **ADA** generates a Basis of Estimate and Assumption/Exception List for each estimate. As part of this approach, **ADA** uses professional estimators and systems to generate the estimates. **ADA** implements Timberline Estimating, MCACES, and Excel spreadsheets, if required. To ensure accurate pricing, **ADA** also incorporates an internally developed and maintained construction cost database, which can supplement the Florida Department of Transportation current construction cost database. The **ADA** estimating staff consists of individuals with construction and estimating experience involving small and large infrastructure improvements projects. **ADA**'s capability and experience includes evaluation of engineer and contractor estimates, constructability reviews, and value engineering analysis. **ADA** implements internal value engineering to find alternate means to achieve the project scope at a lower cost.

The Project Management Plan also includes protocols to monitor the project budget to assure that the project design funding constraints are also met. **ADA** has in place financial systems, including Vision to govern financial accountability of each team member, invoicing, cost control and monitoring, and procurement. This approach is implemented for each project, and **ADA**'s successful project performance is a testament to the effectiveness of these protocols.

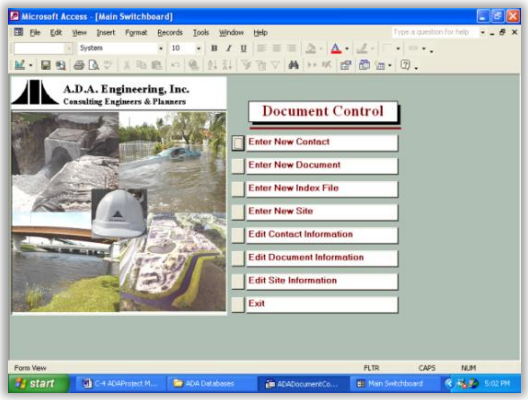
4.B.iv PROJECT CONTROLS

ADA is committed to meeting the schedule and budget requirements of any project. **ADA** has a proven track record of providing schedules on critical General Engineering Services Contracts. In order to meet established deliverable dates, **ADA** develops a detailed schedule for each assigned project in Primavera P3E and is incorporated as part of the project PMP. The schedule is developed after the scoping meeting by **ADA**'s Project Manager, task leaders and senior management in collaboration with the City's Project Manager.

Each project schedule is based on task and milestone delivery dates anticipated for the project and will identify the critical path issues and tasks that drive the final deliverable dates. To facilitate timely execution and progress monitoring of each task, responsibility codes are added to identify members of the project team and/or City staff with primary responsibility for timely completion of each task. The Project Manager will be responsible for:

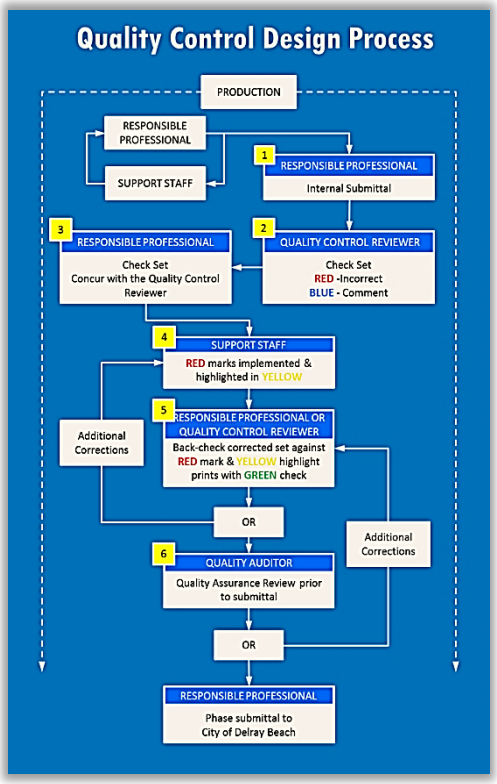
- Tracking the schedule throughout the project,
- Preparing monthly progress reports
- Updating the schedule monthly, and
- Taking appropriate corrective actions to maintain the defined deliverable and key project completion dates.

4.B.v Document Control



Document control throughout the project is also one of the key elements of the PMP. Our project document control program for this contract will be consistent with the City's document control system. The purpose of this plan is to ensure the right mechanisms are in place to keep track of all documents and files related to the project. All project files and documents will be kept in a central location at **ADA**'s project office. Upon project completion, the files will be transmitted to the City's Project Manager for inclusion into the City's filing system. Sensitive project information will only be released at the request of the City Project Manager. Every task will have a document control plan and a distribution list that will be circulated to the project team and City Project Manager.

4.B.vi Quality Control Plan (QCP)



ADA strongly believes that we are solely accountable and responsible for the quality of our deliverables and designs. To ensure that we achieve a high degree of excellence in our planning, design, and construction plans preparation, our proven QCP will be implemented for all project assignments. **ADA**'s Quality Control Plan provides the **ADA** team with management tools to efficiently execute each task in accordance with the City's guidelines, technical expectations, schedule and budget. The plan includes:

- Team Organization and Responsibilities
- Communication Protocols
- Management Systems/Procedures
- Cost and Schedule Control Procedures
- Document Control Protocols
- QA/QC Plan Processes

Our intent is to check all draft milestone deliverables ourselves before it is delivered to the City to minimize the City's staff time in reviewing the project documents. **ADA**'s Quality Control process promotes complete, legible, and easy to understand documents, plans and specifications to minimize contractor requests for clarifications or change orders.

ADA's Quality Control process also includes:

- Document control system that assigns a unique ID for each piece of written communication;
- Constructability reviews prior to submittal of each milestone deliverable;
- Schedule updates with each milestone delivery with recommended corrective actions, if necessary;
- Evaluating long lead items to determine how it might affect the construction schedule;
- Bid-ability review prior to 100% plans and specifications completion;
- Cost opinions based on current market values from our database of South Florida bid prices; and

- Financial systems that monitor accounting charges, invoicing and contract cost control.

4.B.vii Communication Protocols

In order to execute a General Engineering Services Contract project successfully within the available schedule and budget, it is essential to have effective communication and coordination with team members, the City Project Manager, technical staff and governmental and private stakeholders. These protocols are defined in the PMP to guide the communications and interactions throughout the project duration. Communication and coordination will be accomplished through regular bi-monthly or monthly progress reports, workshops, regularly scheduled meetings, and electronic communications (e-mail, phone, fax, web conferencing), as appropriate. Progress reports are the preferred method to communicate with the City for such issues as:

- Schedule performance updates
- Summary of activities completed in the past reporting period
- Activities to be initiated or completed the following reporting period
- Action items that may be necessary to bring the project back on schedule, if applicable.

Once the project is awarded, the **ADA** Project Manager will serve as the principal point of contact between the City and the team. **ADA**'s management team and key technical staff will be presented at the project initiation meeting. **ADA** will also present the communication and coordination protocols defined in the PMP for the project.

4.C PROJECTS FOR SIMILAR SERVICES

The **ADA** Team has performed and is currently performing work on projects similar in scope and magnitude to those projects anticipated under this contract. Some of these key projects include:

CIVIL ENGINEERING SERVICES

OCEAN OUTFALL ABANDONMENT

Duration	2016-Ongoing
Fee	Task Order Basis
Status	Design
Client	Town of Palm Beach Jeff Sanon, PE 951 Old Okeechobee Rd, Suite A West Palm Beach, FL 33401 Phone: (561) 227-7024 Email: JSanon@TownofPalmBeach.com

Scope

The Town of Palm Beach (Town) selected **ADA** to provide design services for the abandonment of ten (10) drainage outfalls to the beach. Each outfall identified represents a location where runoff is discharged to the beach through either a stormwater pipe or an open overland connection in a manner that promotes sand erosion. The purpose of this project was to develop a modification to the existing infrastructure to redirect the discharges away from the beach. Options for the re-direction will include tying into other existing drainage infrastructure or installing new exfiltration trenches. As part of this project, **ADA** is conducting field services to collect relevant data including topographic survey for drainage and improvement layout considerations, and geotechnical data to measure hydraulic conductivity of underlying soils for exfiltration trench design considerations. The project has been bid and awarded and construction has commenced.

AMERICANS WITH DISABILITIES ACT TRANSITION PLAN

Duration	2015-2/2016
Fee	$65,962
Status	Complete
Client	City of Lake Worth Felipe Lofaso Department of Public Services 1749 4rd Avenue South Lake Worth, Florida 33460 Phone: (561) 586-1720 Email: flofaso@lakeworth.org

Scope

At the request of the City of Lake Worth, **ADA** prepared a Transition Plan which detailed the compliance of City-owned facilities with the Federal requirements of the American Disabilities Act. This project consisted of three primary tasks:

1. To assess the compliance of 21 City owned facilities with the requirements of the American Disabilities Act.
2. To assess the sidewalk network within City owned right-of-way with respect to connectivity and accessibility at curb ramps.
3. To develop cost estimates for all of the necessary repairs and compile an America Disabilities Act Transition Plan document that describes the recommended budgetary approach to bring the City into compliance.

AS-BUILT LOOK-UP TOOL AND COMBINING EXISTING STORMWATER DATA WITH CITY-WIDE GIS

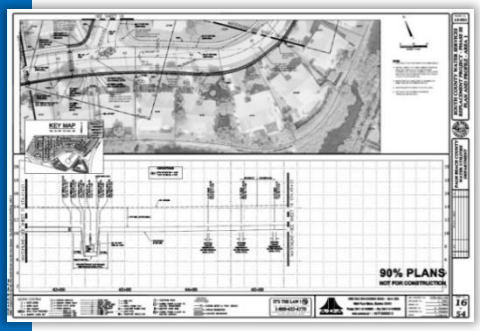
Duration	5/2015-8/2015
Fee	$24,897
Status	Complete
Client	City of Lake Worth Michael Bornstein 951 Old Okeechobee Rd, Suite A West Palm Beach, FL 33401 Phone: (561) 227-7024 JSanon@TownofPalmBeach.com

Scope

As part of this project, **ADA** created a look up tool to provide access to as-built drawings through ArcGIS. Stormwater Master Plan GIS datasets were modified to be compatible with existing stormwater GIS datasets and the datasets were merged together.

SOUTH COUNTY WATER SERVICES REPLACEMENT – PHASE III

Duration 2013-2015
Fee $169,135
Status Complete
Client Henry Melendez, PE
Assistant Director
PBC Water Utility Dept. (PBCWUD)
8100 Forest Hill Boulevard
West Palm Beach, Florida
Phone: (561) 493-6000
Email: hmelendez@pbcwater.com



Scope

Under this task work order, which is part of **ADA**'s Utility Distribution & Collection Systems contract with the Palm Beach County Water Utilities Department (PBCWUD), **ADA** designed the replacement of 376 water service lines, 1,750 linear feet of 4-inch asbestos cement (AC) water main and 7,300 linear feet of 6-inch AC water main with all fittings, and appurtenances within three (3) separate residential areas in southwest and northwest Boca Raton.

The existing water services frequently leak as the communities were built in the 1970's. Also, the asbestos cement pipes are a hazardous material, so PBCWUD has moved forward with systematically replacing AC pipe throughout their network. The location for the new 8" ductile iron (DIP) water main for Area 1 was proposed underneath the existing sidewalk on the opposite side of the street from the existing watermain. This way the existing watermain would feel minimal vibration effects during installation of the new watermain. Also, this location avoids existing trees, mailboxes, driveways, and power poles located within the grassed swale during construction.

8" WASTEWATER FORCE MAIN REPLACEMENT PROJECT JOG ROAD

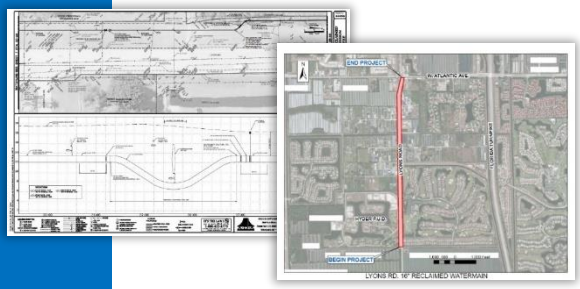
Duration 2013-2014
Fee $24,897
Status Complete
Client Henry Melendez, PE –
Engineering Section
Palm Beach County Water Utility Department (PBCWUD)
8100 Forest Hill Boulevard
West Palm Beach, Florida
Phone: (561) 493-6120
Email: hmelendez@pbcwater.com

Scope

Palm Beach County Water Utilities Department (PBCWUD) retained A.D.A. Engineering, Inc. (**ADA**) to provide water distribution and wastewater collection system design for the entire County. Under this contract, **ADA** designed the replacement of an existing 8" PVC force main that serves as the effluent flow from Lift Station 0332. This line leads underneath Jog Road from west to east encased in 20" Ductile Iron Pipe (DIP). This stretch of pipe that leads north to the LWDD L-35 Canal junction has leaking problems. 200 linear feet of 10" high density polyethylene (HDPE) pipe was proposed to replace the existing pipe that will be grouted and abandoned in place. The proposed pipe was installed via open cut across Jog Road and tied into existing 16" ductile iron forcemain flowing to the north and ultimately to the Southern Region Water Reclamation Facility. Extensive planning took place to minimize the impacts to existing PBC Traffic ITS Fiber Optic Poles during excavation. Also part of the design process was disconnecting the existing 8" forcemain downstream and tying influent lines into the active 16" forcemain, which required creative solutions within a tight space. Finally, Jog Road was milled and resurfaced for the full width of the road 100' north and south of the proposed open cut in cooperation with the PBC Roadway Division.

LYONS ROAD 20" RECLAIMED WATER MAIN EXTENSION FROM W. ATLANTIC AVE. TO HYDER P.U.D.

Duration 4/2014-3/2015
Fee $163,000
Status Complete
Client Henry Melendez, PE – Engineering Section
Palm Beach County Water Utility Department
8100 Forest Hill Boulevard
West Palm Beach, Florida
Phone: (561) 493-6120
Email: hmelendez@pbcwater.com



Scope

ADA designed approximately 8,000 LF of 20" DIP reclaimed watermain (RCWM) along western R/W boundary of Lyons Road from Quiet Vista Circle to W. Atlantic Ave. Two crossings are proposed via over the LWDD Canal L-35 and L-36. Coordination is required with another firm performing road widening design to Palm Beach County Engineering at the same time to ensure proposed cross drains did not conflict with 20" RCWM. Connection will be made underneath Atlantic Avenue to an existing 20" reclaimed line. The proposed pipeline is also designed to avoid conflicts with existing gas lines, driveways, headwalls, utility poles, and fences. Permitting through LWDD and PBC Land Development are required.

In addition, the design of 2,000 LF of 12" DIP watermain along the eastern R/W and 150 LF of 8" DIP forcemain across Lyons Road were added to this project.

GENERAL CONSULTANTS FOR ENGINEERING AND ARCHITECTURAL SERVICES

Duration 2007-2011
Fee $700,000
Status Complete
Client City of Doral
Carlos Arroyo
8401 NW 53rd Terrace
Doral, FL 33166
Phone: (305) 593-6740
Fax: (305) 406-6737
Email: carlos.arroyo@yofdoral.com

Scope

ADA was contracted by the City of Doral to perform miscellaneous planning, design and construction management projects on a work order basis. The scope of work includes roadways, drainage, structural, bridge, electrical, mechanical, traffic engineering, civil/site planning, water and sewer, environmental assessments and engineering, land use and zoning, architectural design and space planning, construction management, and project management. Under this contract, **ADA** worked on the projects listed below.

- **Canal Bank Stabilization Assessment Report** – Project included the development of the report documenting the existing conditions of the canal banks maintained by the City of Doral. **ADA** developed a 10-year Canal Capital Improvement Plan (CCIP).
- **Canal Embankment Restoration Project Fiscal Year 1 and 2 Design** – The scope of work entailed the development of 100 percent design drawings, specification, and construction cost estimates for the canals showing high levels of erosion under Fiscal Years 1 and 2 of the City of Doral's CCIP. **ADA** also assisted the City in obtaining all required permits for construction. ***The Year 2 project received a "Project of the Year" Award from the American Public Works Association.***
- **Canal Embankment Restoration Project Fiscal Year 1 and 2 Construction Administration Services** – **ADA** has reviewed shop drawings and addressed Request for Clarification from the Contractor.

ADA has held three consecutive contracts for General Engineering & Architectural Services.

MISCELLANEOUS CONTINUING SERVICES

Duration	2010-2013
Fee	$1,000,000
Status	Complete
Client	City of Miami John de Pazos 444 SW 2nd Avenue, 8th Floor Miami, FL 33130 Phone: (305) 416-1094 Fax: (305) 416-1019 Email: jdepazos@ci.miami.fl.us

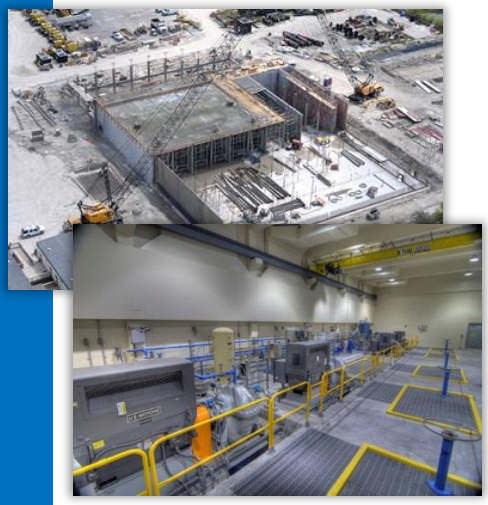
Scope

ADA was contracted to provide Civil Engineering Services for Miscellaneous Projects in the City of Miami. As part of this contract, **ADA** has provided miscellaneous professional engineering services on numerous projects including:

- **NW 14th Street Streetscape (CIP Project No. B-30518)– ADA**'s scope of work entails streetscape improvements such as pavement reconstruction, widening, milling and resurfacing, streetscape | landscape and damaged curb and gutter replacement, damaged sidewalk replacement, new ramp construction and existing ramp correction and American Disability Act compliance, drainage improvements, as required, swale rehabilitation (regrading and sodding of adjacent areas), utility coordination, permitting, signing and pavement markings, and decorative roadway lighting.
- **Silver Bluff Drainage Improvements – ADA**'s scope of services included drainage improvements, minor milling & resurfacing and roadway reconstruction, safety upgrades & pavement marking.
- **Bayhomes Drive Drainage Improvements – ADA**'s scope of services included preparation of drainage report with preferred alternatives and conceptual plans of the selected alternative. The preferred alternative included the preliminary design of a pump stations that discharge to deep wells.

CONSTRUCTION MANAGEMENT SERVICES FOR SOUTH MIAMI HEIGHTS WATER TREATMENT PLANT

Duration	2009-2013
Fee	$1,724,000
Client	Brian Trujillo, PE Miami-Dade Water & Sewer Department 11800 SW 208 Street Miami, Florida Phone: (305) 275-3165 Email: btruj01@miamidade.gov



Scope

South Miami Heights Water Treatment Plant (SMHWTP) facility will encompass a 20 million gallon per day (MGD) nano-filtration membrane softening plant, including but not limited to, a 5 MGD water reservoir, high service pump station, post treatment chemicals, degassifier contact basin, electrical switch gear, electrical rooms, generators, membrane process equipment, pretreatment strainers and building structures. A.D.A. Engineering, Inc. (**ADA**) was responsible for the construction management of the project. The construction management (CM) services included full integration of consultant staff with MDWASD staff to develop a seamless team and provide complete CM coverage commencing with pre-bid services (contract review) through construction closeout.General activities during construction included daily inspections and reporting, maintenance of a daily log, review and approval of construction schedules and schedule of values, responding to Request for Information (RFI's), processing and authorizing progress payments including allowance accounts, change orders as well as performance/oversight of plant start-up, review of Operations and Maintenance manuals and certification of the water treatment plant, pipelines and well-field projects. Proliance will be integrated to track all construction documents and interface activities with the design engineer of record, contactor and other entities.

MISCELLANEOUS CIVIL ENGINEERING SERVICES FOR TOWN OF MIAMI LAKES

Duration	2013-Ongoing
Fee	$197,143
Status	Design
Client	Town of Miami Lakes Gregory Netto, PE Director of Public Works 15150 NW 79th Court Miami Lakes, Florida 33016 Phone: (305) 512-7129 Email: NettoG@miamilakes-fl.gov

Scope

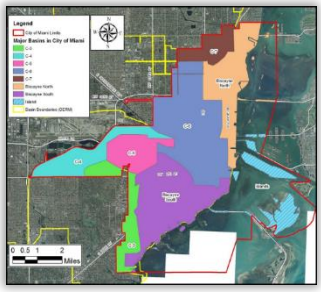
ADA was contracted by the Town of Miami Lakes to provide Miscellaneous Civil Engineering Services for the Town. As part of this contract, **ADA** has worked or is working on the projects below.

- **Town of Miami Lakes Section 4** – As part of this project, **ADA** is providing roadway milling and resurfacing, limited drainage improvements, Americans with Disabilities Act ramps, & decorative sidewalks for Lake Martha single family and townhomes Section 4.
- **Sidewalk and Street Lighting Assessment** – **ADA** is digitizing the Town's roadways and developing inventory and assessment report of the street lighting system.
- **NW 143rd Street Photometric Plan** – **ADA** is developing photometric analysis and calculations along with a photometric plan for NW 143rd Street from 87th to 89th Avenue.

WATER RESOURCES

CITY OF MIAMI STORMWATER MASTER PLAN

Duration	10/2009-2/2012
Fee	$623,000
Status	Complete
Client	City of Miami Mr. Jose Lago, PE Capital Improvements Department 444 S.W. 2nd Avenue, 8th Floor Miami, Florida 33130 Phone: (305) 416-1252 Fax: (305) 416-2153 Email: jlago@ci.miami.fl.us



Scope

ADA was responsible for the development of the City of Miami's Phase I and II Stormwater Management Master Plan update. This project involved data collection from local, state, and federal sources; the development of a digital topographic model; the development and analysis of hydraulic and hydrologic models; the development and a future impact analysis of potential projects for high risk sub-basins; the development of planning level cost estimates; and the development of a capital improvement plan to guide the City in defining and prioritizing future projects. Phase I of the update included the mainland areas of the City encompassed within the C-3, C-4, C 5, C-6 and C-7 basins (approximately 21 square miles). Phase I was developed using the existing XP-SWMM hydrologic/hydraulic models and information developed by Department of Regulatory and Economic Resources (DRER) for these basins. This data was refined using available infrastructure data from the City. The Phase II update required the development, calibration, and verification of XP-SWMM hydrologic/hydraulic computer models to establish current and future flood protection levels of services for the defined basins. Established procedures previously develop by DRER and approved by FEMA and FIMA were used to develop XP-SWMM models and perform the required analyses. The findings from Phase II were summarized in the City of Miami Phase II Stormwater Management Master Plan Report (Feb. 2012).

STA-1W EXPANSION PROJECT WATERSHED HYDRAULIC STUDY AND CONCEPTUAL DESIGN

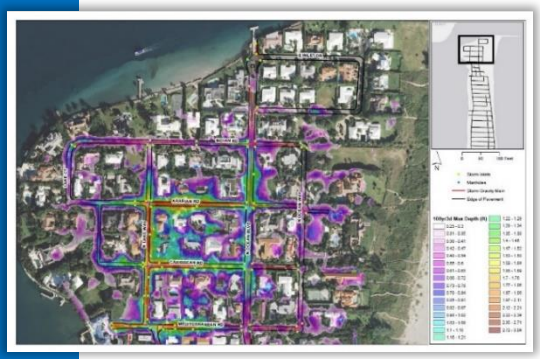
Duration 2/2013-8/2013
Fee $494,113
Client South Florida Water Management District
Alexis San Miguel, PE/Project Manager
3301 Gun Club Road
West Palm Beach, FL 33416-4680
Phone: (561) 682-2546
Email: asanmigu@sfwmd.gov

Scope

In 2012, the State of Florida and the U.S. Environmental Protection Agency reached a consensus on new strategies expanding water quality improvement projects to achieve compliance with the State of Florida's numeric phosphorus criterion in the Everglades Protection Area. Under these strategies, the District began implementing several projects including the expansion of the existing Stormwater Treatment Area (STA)-1W facility by 6,500 acres. The expanded STA is intended to work in conjunction with a Flow Equalization Basin (FEB) in the S 5A Basin with approximately 45,000 acre-feet (ac-ft) of storage. In order to determine the most optimal and cost effective configuration of the STA expansion **ADA** prepared a study of various alternatives for configuring the expansion areas and provided a detailed evaluation of the three top performing configurations. **ADA** analyzed a suite of twelve(12) configuration alternatives for the expansion area within the one-dimensional (1D) model for three different hydrologic conditions: high, normal and low inflow. **ADA**'s final recommendation included conceptual plans and a planning-level cost estimate for each of the three (3) optimal STA-1W Expansion configurations with respect to treatment efficiency and cost effectiveness. The planning-level design plans included conceptual design of inflow and outflow canals, containment and interior levels, and inflow and outfall control structures.

D-2 TO D-9 DRAINAGE BASIN INTERCONNECT ASSESSMENT STUDY

Duration 2016-Ongoing
Fee $82,000
Status Design / Study
Client Town of Palm Beach
Jeff Sanon, PE
951 Old Okeechobee Rd, Suite A
West Palm Beach, FL 33401
Phone: (561) 227-7024
JSanon@TownofPalmBeach.com



Scope

ADA is providing professional engineering services associated with a hydrologic/hydraulic modeling study to evaluate the potential for significant improvements to flood protection with an effective interconnection between the D-2 and D-9 Drainage Basins which are located in the northern 160 acres of the Town of Palm Beach. The Inter-Connected Pond Routing (ICPR) model version 4 was chosen for this analysis, which includes two-dimensional (2-D) simulation capabilities by incorporating topographic surfaces for a more realistic representation of aboveground routing and storage than models limited to one-dimensional (1-D) routing. Virtually every pipe, inlet and manhole were entered into the model along with the capacities and operating schedules of two of the Town's major stormwater pumping stations. Recommendations included upgrading certain stormwater pipes on Palmo Way adjacent to pump station.

HARDING AVENUE SOUTH DRAINAGE SYSTEM PUMP STATION AT 88TH AND 94TH

Duration 5/2004 – 10/2006

Fee $297,000

Client Ricardo Salazar, Jr., PE
1000 NW 111th Avenue, Room 6218
Miami, Florida 33172
Phone: (305) 470-5264
Fax : (305) 470-5293
Email: ricardo.salazar@dot.state.fl.us

Scope

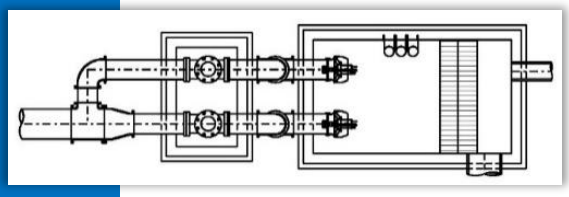
As part of A.D.A. Engineering, Inc. (**ADA**) Florida Department of Transportation (FDOT) District 6 (District) Districtwide Drainage Design and Plans Review Consultant contract, **ADA** was responsible for the design of the Harding Avenue South Drainage System Pump Station at 88th Street and 94th Street. The initial phase of the project included the design and preparation of construction documents including a Drainage Report. This Report presented the hydrologic and hydraulic analysis of the Streamlined Retrofit Alternative recommended for the replacement and retrofit of an existing storm-sewer pump station. The pump stations serve a large area of the Town of Surfside, in Miami Beach. The project included the design of the pump stations with two (2) 15,000 gallons per minute submersible pumps. A variable switch (pressure transducer) was added to prevent the lead pump from turning on at full capacity at the beginning of each storm event in order to prevent possible cavitation. Also included as part of the design were an emergency generator connection, an emergency gravity bypass operation system and an overflow structure with a weir which discharges to the Intercoastal Waterway/Bay. Coordination with the Town of Surfside was an important part of the project. The project scope also incorporated construction drawings including roadway, structural and electrical drawings, quantities computation book estimate of probable construction cost, standard specification and specials provisions. **ADA** is currently assisting the District with post construction services to ensure the project is constructed as designed.

COLLINS AVENUE (SR A1A) AND 23RD STREET STORMWATER PUMP STATION DESIGN

Duration 2005-2005

Fee $49,000

Client Ricardo Salazar, Jr., PE
1000 NW 111th Avenue, Room 6218
Miami, Florida 33172
Phone: (305) 470-5264
Fax : (305) 470-5293
Email : ricardo.salazar@dot.state.fl.us

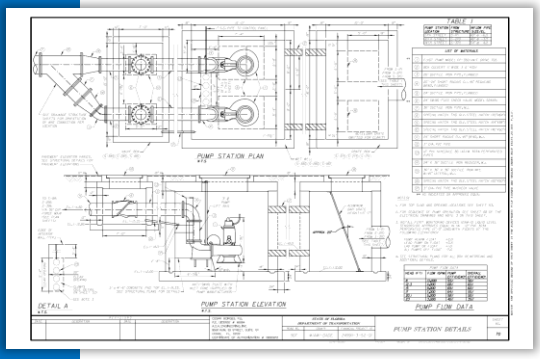


Scope

A.D.A. Engineering, Inc. (**ADA**) was responsible for the stormwater pump station design at Collins Avenue and 23rd Street. The project included the design of the stormwater pump station with two (2) 5,200 gallon per minute submersible pumps. The pump station is connected to a retrofitted existing outfall with direct discharge into Indian Creek. A pollution control structure, to provide water quality volume, was provided downstream of the pump station. The design also included incorporating sluice gates at the three water control structures to allow the flexibility of providing emergency bypass in the event that the pumps or power failed during a major storm event. Coordination with the South Florida Water Management District, Department of Environmental Resources Management and the US Army Corps of Engineers was maintained to ensure proper permitting and due to the location of control structures and the work to the existing seawall at the Indian Creek Waterway.

ALTON ROAD (SR 907) DRAINAGE PUMP STATION DESIGN FROM 5TH ST.

Duration	2/2010-10-2012
Fee	$185,408
Client	Ricardo Salazar, Jr., PE District Drainage Engineer 1000 NW 111th Avenue, Room 6218 Miami, Florida 33172 Phone: (305) 470-5264 Fax: (305) 470-5293 Email: ricardo.salazar@dot.state.fl.us



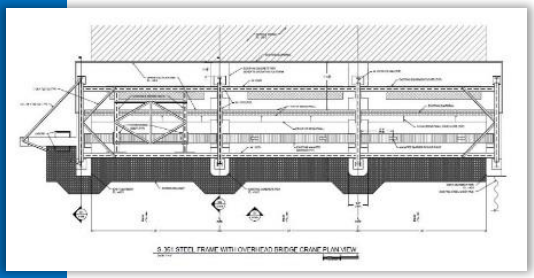
Scope

As part of **ADA**'s current Florida Department of Transportation (FDOT) District 6 (District) Districtwide Drainage Design and Plans Review Consultant contract, **ADA** worked on the drainage design for Alton Road from 5th to Michigan Avenue. This roadway segment spans approximately 8,100 linear feet (1.5 miles) and is an urban multi-lane minor arterial road. The FDOT right-of-way (ROW) encompasses a total area of approximately 18.6 acres. Land uses adjacent to this roadway are a mix of commercial and residential areas. This roadway connects with the MacArthur Causeway at 5th Street and is one of the principal north-south access routes in the Flamingo/Lummus neighborhood. This particular segment of Alton Road is also a historic district as well as a year-round tourist destination. The proposed system design is exceedingly challenging due to the low topographic elevations which are susceptible to spring and high tides, highly developed areas with no available areas for above ground storage, and large contributing areas beyond the FDOT right-of-way. The complexity of the project is exacerbated by the poor soils and the extensive utility conflicts present along the corridor, particularly at the intersections.**ADA**'s role included the design and analysis of a new, controlled stormwater management system designated specifically for this corridor. The proposed system utilizes a gravity collection system to collect and convey stormwater runoff to three separate 23,000 GPM peak capacity stormwater pumps stations, each discharging at different points along the project. The new stormwater management system for Alton Road will provide a significantly higher flood protection level of service than what is currently provided with the added benefit of also freeing additional capacity in the existing system for the remaining portions of the island. Water quality considerations were met and significantly improved through the use of pollution control structures sized for the contributing areas in addition to oversized structure sumps and trash racks in each of the pump stations. The proposed system's performance was analyzed in ICPR using the standard FDOT 10-year, 1-, 8-, and 24-hour design storm events in addition to the 25-year, 72-hour and 100-year, 1-, 8-, and 24-hour design storm event.**ADA** implemented a Project Management Plan (PMP) tailored for this project. The key elements of **ADA**'s PMP included a detailed project approach and deliverable strategy, schedule control, budget and cost control, cost estimating, communication protocols, and a Quality Assurance and Quality Control (QA/QC) Plan. The QA/QC Plan is one of the key elements of each PMP and consists of two major components: insuring a high initial quality by assigning the right team members to each task, and providing a detailed peer review process for reviewing deliverables and end products.

ELECTRICAL ENGINEERING

S-351 AND S-354 LIFTING MECHANISMS FOR MANATEE PROTECTION BARRIERS

Duration 6/2015 – 6/2016
Fee $149,905
Client South Florida Water Management District (SFWMD)
David McDermet, PE, Project Manager
3301 Gun Club Road
West Palm Beach, FL 33406
Phone: (561) 682-6309
Cell: (561) 682-6309
Email: dmcderme@sfwmd.gov Email: tharper@sfwmd.gov



Scope

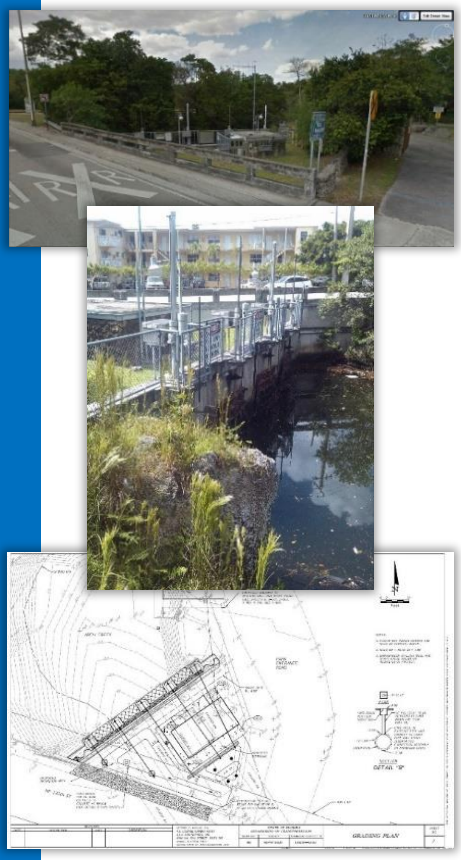
As part of **ADA**'s current Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R) contract with the SFWMD, the **ADA** design team worked on designing a steel framing structure with a mobile 7.5-ton hoist to lift manatee protection barriers out of the water for cleaning vegetative debris that occasionally impedes flow. Catwalks were also proposed to allow for staff to access the grates once lifted. The S-351 and S-354 spillway structures are adjacent to the S-2 and S-3 pump stations, respectively, at the south portion of Lake Okeechobee along the rim canal. The two facilities were built and are owned by the Army Corps of Engineers (ACOE) but are operated and maintained by SFWMD. The previous method for cleaning the debris off the grates included mobilizing a crane and boat with crew members for cleaning. This project provided a more permanent solution. **ADA**'s role included the structural, mechanical, and electrical design. Three preliminary alternatives were introduced to SFWMD staff to agree on a concept before getting too far into detailed design. The chosen alternative had the most functional and least maintenance characteristics. A lot of coordination was required with hoist manufacturers to ensure the hoist was constructible and "off the shelf". Design capacity was 15,000 lbs. Load limiters and slack detectors were included in the design specifications in the case of the grates getting stuck in the framing supports. The steel structure was proposed to be mounted on the operating deck using adhesive anchors and lateral bracing. The manatee grates are placed in the same slots as the dewatering logs, so coordination was required to ensure no conflict with overhead crane operation in the case of dewatering for maintenance. The existing electrical system was utilized for operating the movable hoist. 3-phase, 480 volt. An existing hydraulic system exists on the operating platform, but the logistics of altering that system for use on the hoist proved unfeasible. This project is currently advertised for bid with construction slated for September 2017.

G-58 GATE REPLACEMENT AND REFURBISHMENT

Duration 9/2014 – 7/2015
Fee $338,451
Client South Florida Water Management District (SFWMD)
Tim Harper, PE, Project Manager
3301 Gun Club Road
West Palm Beach, FL 33406
Phone: (561) 682-6289
Cell: (561) 339-5038
Email: tharper@sfwmd.gov

Scope

As part of **ADA**'s current Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R) contract with the SFWMD, the **ADA** design team worked on the replacement of four slide gates, a new marine headwall, a new control / generator building, the addition of two stilling well structures, and associated electrical improvements. This project also involved a joint partnership (Locally Funded Agreement) with Florida Department of Transportation (FDOT) for the slip-lining of the four large culverts (three 72" diameter and one 60" diameter). The G-58 structure is located within Arch Creek park on NE 135th Street in the City of North Miami. The Park is a state-owned facility but



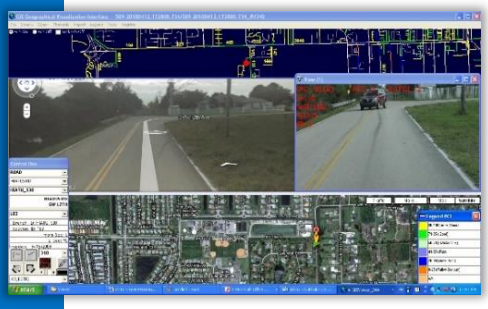
operated and maintained by Miami Dade County. There were many different challenges to this project based on the site constraints. The site had buried archaeological artifacts, the soils were contaminated which required a decanting process during dredging, the site is designated Forest Preserve by Miami Dade County, it is part of a designated historical neighborhood, seagrasses were present, small staging areas, FEC railway interests, and a natural arch bridge that needed to be protected from vibration caused by construction were all aspects to be considered during design. All while keeping the park open as much as possible during normal business hours.

ADA's role included the full design and dual project management (SFWMD and FDOT) of the repair and infrastructure work. Careful consideration had to be taken regarding construction sequencing. Numerous coordination meetings were required to ensure all stakeholders interests were being satisfied by the project. FDOT was the lead agency procuring a contractor for the construction. This meant SFWMD plans had to be translated to FDOT format: standard pay items, technical special provisions, Microstation instead of AutoCAD, etc. so the project could be advertised and bid accordingly. The plans and specifications were run through both the FDOT review process (ERC) and the SFWMD review process (Dr. Checks). The schedule was accelerated for the SFWMD portion of work to align with FDOT's schedule. All in all, the **ADA** Design Team overcame all of these obstacles and challenges and pleased two important clients.

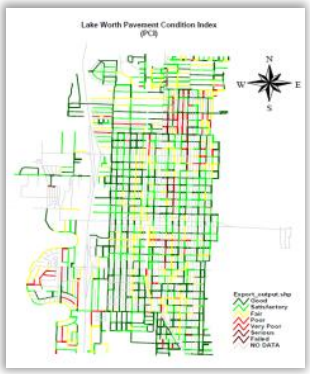
TRANSPORTATION

ROAD AND SIDEWALK MASTER PLAN

Duration	2013-2014
Fee	$69,000
Status	Complete
Client	Jamie Brown, Public Services Director City of Lake Worth 7 North Dixie Highway Lake Worth, FL 33460 Phone: (561) 586-1600



Scope



ADA was contracted to perform a comprehensive study to evaluate pavement and sidewalk conditions in the City of Lake Worth, to provide a system that would allow for the analysis of various funding scenarios and to prepare a City-wide Master Plan for managing these assets. Under the scope of this project, a detailed inspection of the condition of the pavement on all City maintained roads and sidewalks was performed and used to develop an asset management database. This roadway database was developed and provided to the City within the Pavement Management Software MicroPAVER™. The final report describes the condition of the existing roadway network,

the types of repairs available and several scenarios for the future pavement condition based on multiple capital improvement and maintenance budget alternatives. The sidewalk conditions were evaluated based on potential for repair or need for replacement. All condition data for the roadway and sidewalk were provided within the ArcGIS framework along with raw data including digital photographs of each roadway and sidewalk segment evaluated.

SR 90 / SW 8TH STREET AT SW 67TH AVENUE SAFETY IMPROVEMENT PROJECT

Duration	2015-2016
Fee	$173,850
Status	Complete
Client	Ana T. Arvelo, PE Senior Project Manager Florida Department of Transportation - District 6 Adam Leigh Cann Building 1000 N.W. 111 Avenue, Room 6251 Miami, Florida 33172 (305) 470-5210 Ana.Arvelo@dot.state.fl.us

Scope

The main proposed improvements include milling and resurfacing and removal of concrete decorative crosswalk to improve pavement friction, minor cross slope correction, curb ramp reconstruction to meet ADA criteria, pedestrian signalization improvements, and signing and pavement markings including pedestrian warning crossing signs ahead of and at crosswalks. Responsibilities include coordination with the Department's PM and staff and provide assistance to the coordination efforts with other Department projects within the project limits. **ADA** was responsible for the design and development of the specification package, roadway plans, maintenance of traffic plans, signing and pavement marking plans, and signalization plans. Project was submitted to Tally for Letting.

SR 817 / NW 27TH AVENUE FROM NW 165TH STREET TO NW 171ST STREET

Duration	2015-2016
Fee	$240,000
Status	Complete
Client	Bao-Ying Wang, PE Project Management Engineer Supervisor Consultant Management Office Florida Department of Transportation - District 6 1000 NW 111th Avenue, Room 6251 Miami, Florida 33172 Phone: (305) 470-5211 Fax: (305) 640-7558 BaoYing.Wang@dot.state.fl.us

Scope

The main proposed improvements include milling and resurfacing the northbound and southbound approaches to the interchange to convert the innermost thru lane into a left-turn lane to provide dual left-turns, installing three new standard mast arms to accommodate the required signal head alignments, access management restriction by extending traffic separators/landscaped medians, median widening to provide standard left-turn tapers and increase storage, modify overhead signing, and signing and pavement marking improvements. The project included permanent easement purchasing and maintenance map acquisition. Responsibilities include coordination with the Department's PM and staff, specifically, with the District's Traffic Operations Office. **ADA** responsible for the design and development of the specification package, design packages, roadway plans, and maintenance of traffic plans. Project is currently at Post Design.

SW 953 / LEJEUNE RD FROM ALMERIA AVE TO MAJORCA AVE IN THE CITY OF CORAL GABLES

Duration	2016-Ongoing
Fee	$173,850
Status	Complete
Client	Fabiana Gonzalez-Batista, PE Project Manager Florida Department of Transportation - District 6 Consultant Management Adam Leigh Cann Building 1000 NW 111th Avenue, Room 6247 Miami, Florida 33172 305-470-5183 fabiana.gonzalez@dot.state.fl.us

Scope

The main proposed improvements include access management restriction by installing raised landscaped medians, median widening to provide offset distance to left-turn lanes at one signalized intersection, replacement of four mast arms with four new standard mast arms and replacement of existing controller cabinet, drainage improvements taking into account the proposed widening, and signing and pavement markings including pedestrian warning crossing signs at crosswalks. The project includes license agreement, maintenance map, MMOA, DFA, and Off-System Maintenance Agreement coordination/acquisition. Responsibilities include coordination with the Department's PM and staff and provide assistance to the coordination efforts with the local municipality. **ADA** was responsible for the design and development of the specification package, design packages, roadway plans, maintenance of traffic plans, signing and pavement marking plans, and signalization plans. Project is currently at Post Design.

SR 94/SW 88TH STREET/NORTH KENDALL DRIVE RRR AND SAFETY IMPROVEMENTS

Duration	2016-Ongoing
Fee	$250,000
Status	Complete
Client	Jason Chang, PE Senior Project Manager Florida Department of Transportation - District 6 Adam Leigh Cann Building 1000 N.W. 111 Avenue - Room 6251 Miami, Florida 33172 (305) 470-5331 jason.chang@dot.state.fl.us

Scope

SR 94/SW 88th Street/North Kendall Drive is a divided, six-lane east-west corridor located in southeastern unincorporated Miami-Dade County. The road is classified as an Urban Principal Arterial. The contract includes a safety and RRR project. The limits of the safety improvements project are from SW 77th (MP 9.982) Avenue to SR 5/US-1/S. Dixie Hwy (MP 10.700) and the limits of RRR project are from SW 73rd Place (MP 10.249) to SR 5/US-1/S. Dixie Hwy (MP 10.700). The scope of work includes RRR improvements as well as intersections safety improvements requiring: access management, inside widening for positive left-turn offset, mast arm replacements, right of way coordination, signing and pavement marking upgrades, lighting improvements, and drainage improvements. Responsibilities include contract management, coordination with the Department's PM and staff, and provide assistance to the coordination efforts with the public and other stakeholders. **ADA** was responsible for the design and development of the specification package, design packages, and roadway plans. This project is currently at Phase III.

GEOTECHNICAL ENGINEERING

NORTH JUPITER FLATWOODS AREA SEEPAGE STUDY

Duration 2014-2015
Fee $87,803
Status *Complete*
Client Palm Beach County Department of Environmental Resources Management
Jeff Buck
2300 N. Jog Rd., 4th Floor
West Palm Beach, FL 33411
Phone: (561) 233-2466

Scope

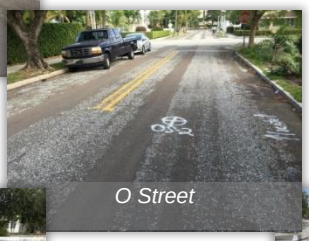
A seepage study was completed, which consisted of the design and construction of a new seepage barrier around the eastern and southern boundaries of the North Jupiter Flatwoods Area. The purpose of the seepage barrier is to reduce the magnitude of seepage from the natural area to the communities located to the east and south. Terracon completed a seepage study focused upon the nature and sequence of the subsurface profile, the permeability of the underground conditions, and the seepage potential for various head conditions, seepage barrier types and depths. The geotechnical engineering evaluation included characterization of the aquifer that underlies the project site, and seepage modeling completed for conditions with and without seepage barriers for the range of anticipated head conditions, and for three depths of barriers in order to check the sensitivity of the seepage with respect to the depth of the barrier. Results of the study and recommendations for design and construction of the seepage barrier were furnished. The firm provided additional geotechnical services including development of detailed plans and specifications, construction oversight, and preparation and certification of as-built drawings for the perimeter berm and liner installation.

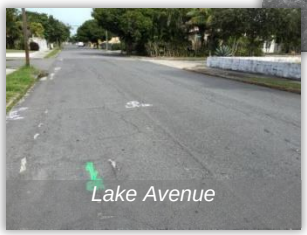
PAVEMENT CORES FOR VARIOUS CITY ROADWAYS

Duration 2015-2016
Fee $43,650
Status *Complete*
Client City of West Palm Beach
Khanh Uyen Dang, PE
401 Clematis Street
West Palm Beach, FL 33402
Phone: (561) 494-3366

Scope

Terracon performed a pavement condition survey in order to classify the existing pavement conditions along five roadways including: Spruce Avenue; Service Road (south of Palm Beach Lakes Boulevard); O Street; Lake Avenue; and Flagler Drive. Additionally, the pavement section along the roadways was explored with pavement cores accompanied by auger borings. Thicknesses of the asphalt, base course and subgrade materials were recorded and samples were visually examined in our laboratory and classified using the AASHTO soil classification system. The Structural Number of the existing pavement section was estimated at each core location based on the pavement section thicknesses and current condition of the pavement. Pavement rehabilitation recommendations were provided based on the results of the fieldwork along with target Structural Numbers provided by the City of West Palm Beach.





ISLAND WAY FORCE MAIN

Duration	2013-2014
Fee	$4,500
Status	*Complete*
Client	Loxahatchee River District Kris Dean, P.E. 2500 Jupiter Park Drive Jupiter, FL 33458 Phone: (561) 747-5700 ext. 110

Scope

The project consisted of the installation of a new force main along Island Way in Jupiter, Florida. The new pipeline was installed using both cut and cover and directional drilling methods. The directional drilling methods were utilized at five locations along the project alignment in order to install the proposed pipeline below the existing intersecting utilities and roadways. Terracon conducted subsurface exploration and groundwater monitoring, and provided geotechnical engineering recommendations for the design and construction of the project. The scope of our services involved drilling Standard Penetration Test (SPT) borings, each to 25 feet deep, along the pipeline alignments at the directional drilling locations, and laboratory examination of samples collected from the field.

4.D. ORGANIZATIONAL STRUCTURE

ADA STAFF COMPOSITION

Engineers (25)
Construction Managers (2)
Inspectors (4)
Technical Support Staff (5)
Administrative Personnel (5)
Total No. of Employees: 41

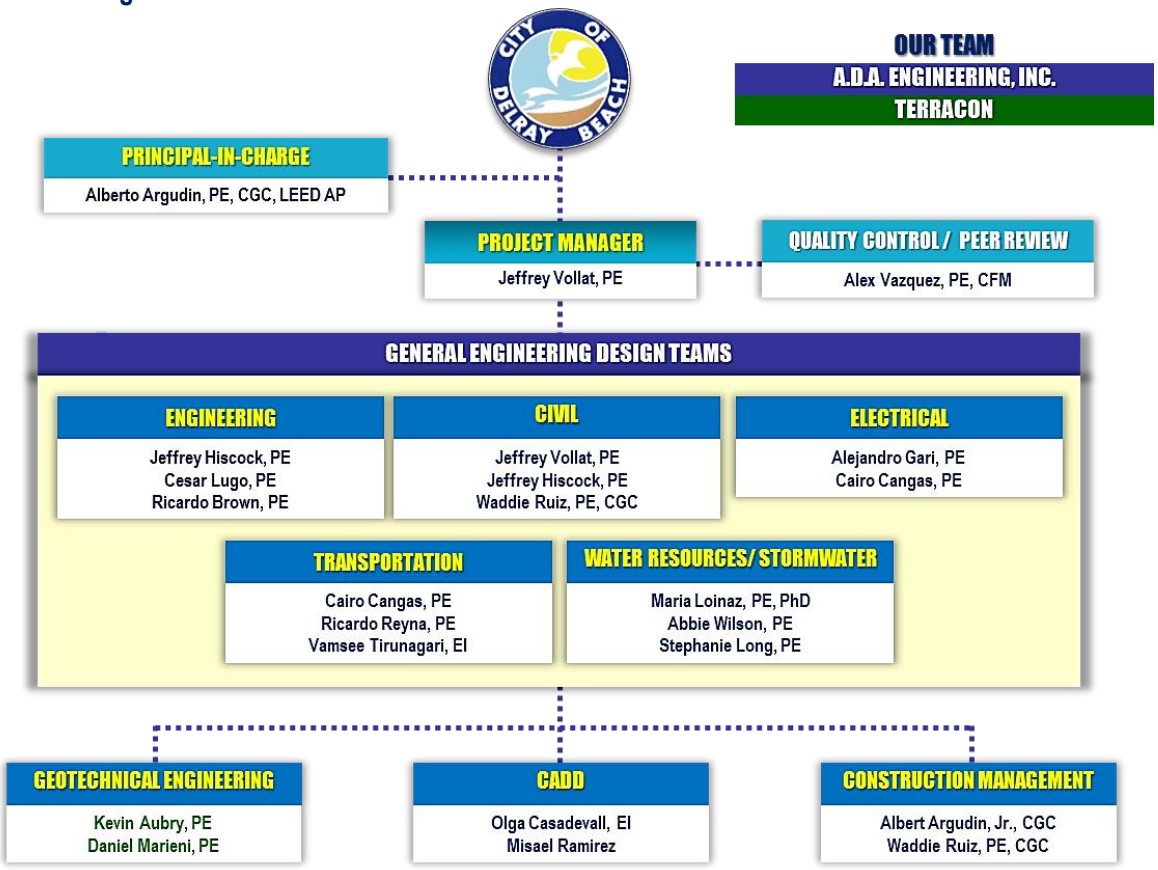
4.D.i About A.D.A. Engineering, Inc.

For over 36 years, A.D.A. Engineering, Inc. (**ADA**) has been providing consulting engineering, planning and construction management services as either a prime consultant or in association with other professional firms. **ADA** is a firm that maintains a focused footprint within the South Florida market and provides a wide-range of consulting services which are tailored to meet the needs of municipal and public sector clients. Our engineers perform tasks ranging from general civil engineering design to specialized modeling and asset management planning. **ADA** has even developed client-specific, GIS-oriented tools that can assist in the management of infrastructure and archived records. By focusing all of our efforts on the public sector in South Florida, **ADA**'s staff understands the benefit of knowing the local standards and conditions. We pride ourselves on an ability to adapt each design or study to fit the specific characteristics of the situation. This approach combined with our high-caliber technical and administrative staff has proven to successfully deliver cost effective solutions that exceed our client's needs.

4.D.ii. ADA Team Subconsultants

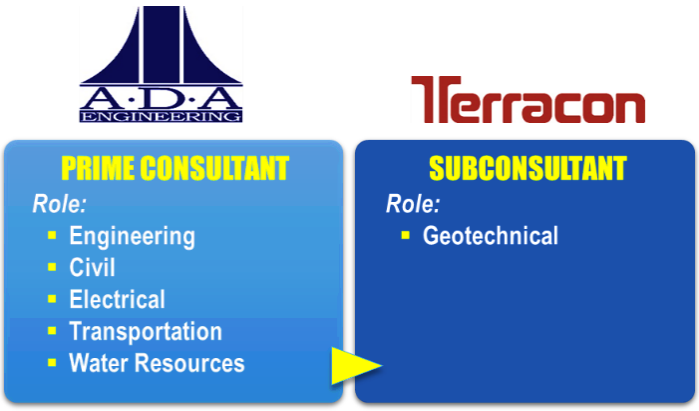
The **ADA** Team includes one sub-consultant, Terracon, which will support any drainage or roadway project that may be issued. Terracon is a successful multi-discipline firm specializing in Environmental, Geotechnical, Facilities and Materials. With more than 3,800 employees in 150 offices and 40 states nationwide, Terracon has a 10-office network in the State of Florida. The firm's success is further evidenced by a current ranking of 32 in Engineering News-Record's 2016 listing of the Top 500 Design Firms, as compared to a ranking of 54 a decade ago. Terracon serves a diverse portfolio of private and public clients. By being responsive, resourceful, and reliable, we strive to exceed our clients' expectations for service, solutions, quality, and speed of delivery. Based on a deep understanding of our clients' needs, Terracon's commitment is centered around these key objectives.

4.D.iii. Organization Chart



4.D.iv. Team Roles and Responsibilities

Our Team's collective experience and relationships with both the governmental agencies and utility providers will allow us to apply the necessary resources to any project regardless of type, size or complexity. We welcome the opportunity to demonstrate our overall capabilities and commitment to the City. However, above all, **ADA** will ensure rapid response, exceptional staffing, project specific execution and management plans, and superior quality control and assurance.



4.D.vi. Key Personnel Availability and Commitment

FIRM	TEAM MEMBERS NAME	PROJECT ROLE	% AVAILABILITY
A.D.A. ENGINEERING, INC.	**Jeffrey Vollat, PE**	Project Manager	**85%**
	Alberto Argudin, PE, CGC	Principal-in-Charge	**60%**
	Alex Vazquez, PE, CFM	Quality Control	**70%**
	Jeffrey Hiscock, PE	Engineering / Water Resources	**65%**
	Waddie Ruiz, PE	Sr. Project Eng. / Construction Mgr.	**75%**
	Cairo Cangas, PE	Roadway Engineer	**75%**
	Cesar Lugo, PE	Sanitary Sewer / Mechanical	**65%**
	Alejandro Gari, PE	Electrical Engineering	**80%**
	Abbie Wilson, PE	Stormwater / Water Resources	**85%**
	Ricardo Reyna, PE	Roadway Engineer	**65%**
	Ricardo Brown, PE	Project Engineer	**65%**
	Stephanie Long, PE	Water Resources Engineer	**75%**
	Maria Loinaz, PE, PhD	Project Engineer	**80%**
	Albert Argudin, Jr., CGC	Construction Management	**65%**
	Vamsee Tirunagari, EI	Engineer	**75%**
	Olga Casadevall, EI	Engineer / Estimating	**75%**
	Misael Ramirez	CAD Engineering Technician	**75%**
TERRACON	**Kevin E. Aubry, PE**	Senior Geotech. Engineer	**25%**
	Daniel Marieni, PE	Project Geotech. Engineer	**45%**

4.D.vi. Primary Office Location and Subconsultant Office Locations

ADA has three offices in Florida providing a wide range of consulting services including engineering, planning, permitting and construction management. From our diverse pool of experts, we are able to assemble highly experienced teams to handle the most complex projects. This contract will be primarily staffed and coordinated from **ADA**'s West Palm Beach office located at 1800 Old Okeechobee Road, Suite 202, West Palm Beach, Florida 33409.

Due to **ADA**'s local experience and commitment to quality work, budget fulfillment and on-schedule performance, our management team has developed and maintained an excellent working relationship with all of our clients. This relationship has contributed to having over 80 percent of our workload being derived from repeat business. Our sole business is to provide superior services utilizing the tools and techniques desired by the City and incorporating its culture, vision and operating principles. **ADA**'s standard is to gain your satisfaction well beyond your expectations. Below are key project office locations for **ADA** and team member firms.

A.D.A. ENGINEERING, INC.
1800 Old Okeechobee Road, Suite 202
West Palm Beach, FL 33409
Phone: (561) 615-8880

TERRACON
1225 Omar Road
West Palm Beach, FL 33405
Phone: (561) 653-9913

JEFFREY F. VOLLAT, PE
Project Manager

Mr. Vollat has 16 years of experience specializing in land development and drainage engineering, as well as construction inspection to certify projects as the Engineer-of-Record. Qualifications include: designing Stormwater Management Systems, water & sewer design, paving design, construction inspection, and project management.

Village at Swinton Square (100 townhouse units). Delray Beach, FL.
As Project Engineer for this project, Mr. Vollat designed the paving, grading, drainage, water and sewer systems. Storm water runoff was designed to be retained completely on-site as connection to City of Delray Beach municipal drainage system was prohibited. Favorable geotechnical conditions at the site allowed for infiltration via retention and depressed swale areas. Internal roads were designed mono-pitch to accommodate the pitch of the existing topography. Water and fire system were looped by making connections to both Swinton Avenue and Reigle Avenue. Gravity sewer was achieved by connection to existing manhole in Swinton Avenue. A lot of consideration was put into City of Delray Beach's concerns regarding minimizing street parking, preserving the existing large banyan tree at the NE portion of the site, and favorable traffic circulation throughout the site.

Old School Square Park. Delray Beach, FL.
Mr. Vollat served as the engineer of record for converting a 2.84-acre parking lot in poor condition into a multi-purpose park space at the foot of the parking garage. Park planning was accomplished by Glatting Jackson with Mr. Vollat providing the grading and drainage design. The project included unique features such as a life-size chess board pieces, moveable chairs and benches, electric handholes for festival vendor use, and a grand lawn for enjoying picnics. To keep with the park theme, nyloplast drainage structures were proposed in lieu of industrial catch basins typically used in roadway projects. This project functions today as a multi-use area that benefits the City in numerous ways.

Spanish River Interchange at I-95 Bridge Hydraulic Report. Florida Department of Transportation (FDOT) District 6.
Mr. Vollat ran HEC-RAS models of the E-4 and E-3.5 Canals in Boca Raton in which proposed overpass pilings and bridge abutments would hinder flow in the canal. The main component analyzed in the report was scour: pier scour, abutment scour, contraction scour, and long term / stream stability scour for the 100-year and 500-year storm events. Surveyed cross sections of the bathymetry of the canal were entered into the existing conditions model. A proposed conditions model was built using proposed bridge geometry. Bridge Hydraulic Recommendation Sheets were created showing design storm stages and peak flows in relation to the proposed low member elevation for each overpass. A report of findings was signed and sealed by Mr. Vollat, in FDOT format, and submitted to the client.

8" Wastewater Force Main Replacement Project – Jog Road from LWDD L-35 Canal to Monaco Boulevard. Palm Beach County Water Utility Department (PBCWUD).
As Engineer of Record for this project, Mr. Vollat designed the replacement of an existing 8" PVC force main that serves as the effluent flow from Lift Station 0332. This line leads underneath Jog Road from west to east encased in 20" Ductile Iron Pipe (DIP). This stretch of pipe that leads north to the LWDD L-35 Canal junction has leaking problems. Approximately 200 linear feet of 8" high density polyethylene (HDPE) pipe is proposed to replace the existing pipe that will be grouted and abandoned in place.

South County Water Services Replacement Project – Phase III. PBCWUD.
Mr. Vollat served as the Project Manager and Lead Design Engineer for this project. This project entails replacing approximately 376 water service lines, 1,750 linear feet of 4-inch AC water main and 7,300 linear feet of 6-inch AC water main with all fittings and appurtenances in 3 separate residential neighborhoods along Lyons Road in southwest and northwest Boca Raton, Florida. The new watermain route was carefully chosen under the sidewalk to avoid existing facilities such as mailboxes and power poles.

EDUCATION
B.S., 2001, Civil Engineering, Ohio State University

REGISTRATION
2005, Professional Engineer, Florida (No. 63930)

MEMBER
American Society of Civil Engineers (ASCE), American Public Works Association (APWA)

CERTIFICATIONS
Project Management Methodology, Project Scheduling

SKILLS
ICPR, Cascade, HEC-RAS, SAP Project Systems, AutoCAD, Primavera, Microsoft Office

KEY EXPERIENCE
Water Resources
Land Development
Drainage Design
Water and Sewer Design
Project Management
Construction Management

Lyons Road 20" Reclaimed Watermain Extension from W. Atlantic Ave. to Hyder PUD. PBCWUD.
Mr. Vollat served as the Project Manager and Lead Design Engineer for this project. This project entails designing 8,000 linear feet of 20" DIP reclaimed watermain, 2,500 linear feet of 12" DIP watermain, and 150 linear feet of 8" DIP forcemain. Two aerial crossings over the LWDD L-35 and L-36 canals were required, as well as coordination with numerous private developers adjacent to the project. Also required was coordination with another engineering firm that was simultaneously designing roadway widening plans for Lyons Road from 2 lanes to 4 lanes.

G-58 Gate Replacement and Refurbishment, SFWMD, North Miami, FL.
ADA holds an OMRR&R contract with SFWMD through August 2019 to maintain their aging infrastructure. As Engineer of Record for this joint venture project between SFWMD and FDOT, the project entails: slip-lining 4 large metal culvert pies (three 72", one 60"), replacing 4 sluice gate structures, constructing a new marine headwall, upstream stilling well and walkway platform, new control / generator building, and associated electrical components. This project required an extreme amount of coordination as it sits adjacent to Arch Creek Park, which is owned by the State but operated by Miami Dade County. It also is designated a Historic Preservation area, tidal structure with seagrasses, dredging, ancient artifacts, an iconic natural limestone arch bridge, FEC railroad nearby, and limited staging area for the contractor all made this project a challenge. Construction to commence Summer 2017.

Canals 26, 28, and 29 Bank Stabilization and Debris Removal. City of Lauderhill.
As Engineer of Record for this project, Mr. Vollat designed four different treatment methods for 4,900 linear feet of failing canal banks. Canal slope failures in the South Florida geologic setting are often attributed to undermining of the limestone shelf that exists at relatively shallow depths. This occurs when the canals are excavated below the limestone into an underlying fine sand layer. During the excavation process, the fine sands can mobilize laterally into the excavation, causing the limestone shelf to cantilever above a resulting void. As the limestone weathers over time, it weakens to the point of failing and settling into the underlying void. Each treatment method chosen was tailored to the specific cross section of the applicable canal: sand cement rip rap bags for vertical treatment, stone rip rap for horizontal treatment, geotextile tube installation for aligning washed out canal banks, and an aluminum sheet pile wall for severe slope failure. Transitions between the different methods were detailed to allow contractor easy installation in the field. Pollution prevention plans, survey control plans, and cross sections were also implemented for a thorough set of construction drawings to accompany construction specifications as a bid set.

City of Margate Canal Bank Stabilization. City of Margate.
ADA was contracted to perform design and construction inspection services as part of a design / build team for the City of Margate. ADA's scope of work included the design and development of typical cross sections and specifications for approximately 2,656 L.F. of proposed canal bank stabilization, which also included survey control plans, stormwater pollution prevention plans, and typical details. Mr. Vollat was the Project Engineer for this project.

Boca Raton Airport Administration Building. Palm Beach County Department of Airports (PBCDOA).
As Engineer of Record for this project, Mr. Vollat designed paving, grading, drainage, water, and sewer to accommodate a 7,735 square-foot administration building. Also included in the scope of work for this project was the development of a site plan, and minor landscaping design. Mr. Vollat applied for numerous permits to applicable agencies, and developed an engineer's cost estimate used as a basis for bid tabulation in identifying a low bidder for the construction. Construction administration services were also performed (responding to RFI's, reviewing shop drawings, and attending progress meetings).

Palm Beach International Airport 'Taxiway L Extension' and 'Exit Taxiway C4' Construction Inspection. PBCDOA.
Mr. Vollat fulfilled the role of resident inspector for two separate projects at the airport, both of which Community Asphalt was the General Contractor. Mr. Vollat produced daily progress reports based on quantities accomplished, and coordinated testing efforts with Quality Control laboratories. Reconciling pay applications and providing input at progress meetings were also part of Mr. Vollat's responsibilities.

Everglades Engineering Restoration and Capital Project Resource Area (ERCP) Engineering Support. South Florida Water Management District (SFWMD).
As Project Manager for the Engineering & Construction Bureau, Mr. Vollat managed budget, schedule, and plan and specification development for 12 projects dealing with the preservation and improvement of crucial SFWMD water resources infrastructure. The SAP Project Systems software was used to facilitate the accounting and scheduling needs for each project. The specific type of projects Mr. Vollat worked on included: $60 million pump stations, Stormwater Treatment Areas (STAs), re-roofing projects, design of pre-fabricated metal buildings, trash rake and wing wall replacements, hurricane hardening of existing facilities, lightning protection, telecommunication towers, lake dredging, and dispersed water management pump installation.

ALEX VAZQUEZ, PE, CFM

Quality Control

Mr. Vazquez has over 32 years of engineering consulting and construction management experience. Mr. Vazquez's experience encompasses a wide range of projects including stormwater management master plan development; water resource studies; hydrology, hydraulic and stormwater quality modeling; landfill cover design; stormwater infrastructure analysis and design; roadway design; industrial and commercial site development; design of pavement structures; design of water and wastewater collection and distribution systems, stormwater management and environmental permitting; stormwater National Pollutant Discharge Eliminating System (NPDES) permitting for municipal and industrial clients; evaluation of Best Management Practices (BMPs) performance for surface water disposal projects; construction management; and application of GIS technologies to civil engineering, environmental engineering, and water resources projects.

Stormwater Treatment Area (STA) 1W Expansion Project Watershed Hydraulic Study. South Florida Water Management District (SFWMD).
Mr. Vazquez is currently A.D.A. Engineering, Inc.'s (ADA) Senior Lead Water Resources Engineer for the SFWMD STA 1W Expansion Project Watershed Hydraulic Study. Under this project, ADA is evaluating the approximately 6,500 acres of land areas that have been identified for expansion of STA-1W to optimize the configuration of the STA features and infrastructure associated with the proposed expansion. The configuration of the proposed expansion will optimize utilization of the existing features and topography to provide the treatment necessary to meet the Water Quality Based Effluent Limit (WQBEL), while minimizing implementation costs to the extent possible. For this project there are three primary features of the expansion project: the existing STA-1W facility, Expansion Area #1 (4,500-acre area immediately west of the existing facility) and Expansion Area #2 (1,800-acre area approximately 7 miles south of the existing facility). The objective of the STA-1W Expansion Project Watershed Hydraulic Study is to develop and evaluate a suite of alternative configurations for the primary project features. The final recommendation will define the three (3) optimal STA-1W Expansion configurations with respect to hydraulic and treatment efficiency and cost effectiveness.

Stormwater Management Master Plan Update - Phase I & II. City Of Miami.
Mr. Vazquez was the Project Manager for the City of Miami's Phase I and II Stormwater Management Master Plan update. ADA was contracted to perform Phase I and II of the uupdate, which included the mainland areas of the City encompassed within the C-3, C-4, C-5, C-6 and C-7 basins (Phase I) as well as Coastal Basins (Phase II). As part of this project, ADA used the hydrologic/hydraulic XP-SWMM models developed by Miami-Dade County to evaluate the flood protection effectiveness of the City of Miami Capital Improvement Department flood protection projects completed and under construction. ADA revised the existing and future conditions XP-SWMM models to incorporate key or primary hydraulic and flood protection structural components of projects not incorporated into the initial County models. ADA also was tasked with developing, calibrating, and verifying XP-SWMM models for the Coastal Basins of the City. ADA also incorporated drainage projects into the City's existing stormwater infrastructure GIS shapefiles in order to update the City's stormwater atlas sheets and assisted the City in getting City Commission approval of the Stormwater Master Plan.

Stormwater Master Plan. Village of Pinecrest.
As Project Manager, Mr. Vazquez led the development of a Stormwater Master Plan for the Village of Pinecrest. The Village does not have a previous Stormwater Master Plan, a complete hydraulic and hydrologic stormwater model of its primary stormwater management systems, or an associated capital improvement plan for stormwater management related projects. As part of the SWMP development, ADA also assisted the Village with implementing a Public Involvement plan to inform the residents of the SWMP approach, goals and objectives, and

EDUCATION
B.S., 1984, Civil Engineering, University of Florida

REGISTRATION
1989, Professional Engineer, Florida (No. 42108)
1990, Professional Engineer, Georgia (No. 18875)
Certified Flood Plain Manager

MEMBER
American Society of Civil Engineers
National Society of Professional Engineers
Florida Institute of Consulting Engineers
Florida Engineering Society
Florida Association of Stormwater Utilities
Tau Beta Pi, Engineering Honor Society

CERTIFICATIONS
Advanced Work Zone Traffic Controls
FDOT Plans and Specification Preparation
ICPR V3 and V4 User Training
MIKE SHE/MIKE 11 User Training
XP-SWMM Users Training

KEY EXPERIENCE
Project Management of General Civil and Environmental Engineering contracts

Stormwater infrastructure analysis and design

Stormwater management master plan development

Hydrology, hydraulic and stormwater quality modeling

Water and wastewater collection

solicit input from the public to guide the development of the plan.

Stormwater Management Master Plan Update. City of South Miami.
Mr. Vazquez was the Project Manager responsible for the development of the City of South Miami's Stormwater Management Master Plan update. This update included the areas of the City encompassed within the C-2 basin (approximately 2.3 square miles) and was analyzed using the existing C-2 basin XP-SWMM hydrologic/hydraulic model and information initially developed by Miami-Dade County. This data was refined using available infrastructure data from the City. The models were then re-runned and used to establish the City's current flood protection level of service and to evaluate the flood protection effectiveness of current and future City stormwater management projects. The findings were summarized in the City of South Miami Phase Stormwater Management Master Plan Report, which includes a GIS raster based Digital Elevation Model (DEM) developed from LiDAR (Light Detection And Ranging) based topographic data; GIS based sub-basin delineations; GIS raster based flood plain maps identifying the 5- and 100-year flood plains for the City; and a capital improvement plan that is inclusive of stormwater related capital improvement projects. The comprehensive capital improvement plan will help guide the City in implementing future projects in a systematic approach that will maximize flood protection benefits within the limited available funding.

FEMA H&H Interface Data Model / Geospatial Database. Palm Beach County.
Mr. Vazquez was the Project Manager of the FEMA Palm Beach County Interface Data Model / Geospatial Database. The project's goal was to create a populated ArcHydro H&H Interface Data Model (Geospatial Database) and a FEMA Standard/Enhanced DFIRM Database for Palm Beach County from existing Hydraulic and Hydrologic model data, to supplement the revised FEMA Flood Insurance Rate Maps (FIRM) being produced by FEMA at the time.

Water and Wastewater Master Plan for Palm Beach International Airport and Surrounding Utility Area. Palm Beach County.
Mr. Vazquez was the Project Manager for this contract. His duties included assisting with the development of the Water and Wastewater Plan for the Airport and Surrounding Areas. The project's goal was to identify the immediate and future needs and improvements for water and wastewater utilities as well as providing a Wellfield Abandonment Plan for wells located inside Airport property.

Westside Airfield Development Program (ADP) - Stormwater Management Improvements. Ft. Lauderdale-Hollywood International Airport.
Mr. Vazquez was responsible for the development of the hydrologic/hydraulic model for the preparation of the application of the Environmental Resources Permit (ERP) for the South Florida Water Management District and Stormwater Management License Application (SWM) for the Broward Environmental Protection Department (EPD). The model supported a series of projects to enhance airport operations and to prepare the Westside of the airport for future development. Mr. Vazquez developed the ICPR model to analyze the existing stormwater management system and evaluate the overall performance of the proposed ADP Task 1 stormwater management improvements. Mr. Vazquez prepared and coordinated all aspects of the permit with the SFWMD and EPD and obtained the permits without any Request for Additional Information (RFIs), allowing construction to begin on schedule.

Palm Beach International Airport – Stormwater Management Master Plan
The Palm Beach County Department of Airports (DOA) completed a System-Wide Master Planning Study for Palm Beach International Airport (PBIA). This plan outlines the PBIA Future Airport Layout Plan (ALP) through Year 2013/2025 to accommodate projected aviation demands by undertaking capital improvements that optimize the existing airfield and related out-parcels. In order to accommodate these improvements, A.D.A. Engineering, Inc. (ADA) prepared a Stormwater Management Master Plan (SMMP) defining the drainage and stormwater management facilities needed and insuring compliance with the current stormwater and environmental regulatory requirements of the governing authorities. Mr. Vazquez was the project management for the development of the PBIA 1,900-acre SMMP. Mr. Vazquez lead the efforts associated with formulating the required stormwater management improvements and analyzing these improvement to ensure that they meet application hydrologic, hydraulic and water quality regulatory requirements.

General Consultants for Roadway Improvements. City of Doral.
ADA was selected to provide Roadway Improvements to the City of Doral under the Citywide Roadway Improvement Engineering Design Services contract. Under Mr. Vazquez's direction, ADA is providing design services to address current deficiencies in existing roadway cross sections and drainage. Design services will include roadways, structures, intersections, geotechnical activities, surveys, drainage, ADA compliance, signing and pavement markings, signalization, utility relocation, 3R/4R geometric design, landscaping and irrigation, right or way maps and legal description, maintenance of traffic, cost estimates, technical specifications, environmental permits, and environmental mitigation plans, as required. This work will also require coordination with utility companies, Miami-Dade County

Department of Public Works (DPW) and Department of Environmental Resources Management (DERM). ADA recently completed the design for the intersection improvements at NW 87th Avenue and NW 33rd Street project. As part of this project, ADA worked closely with local/State (FDOT-LAP Program) agencies to address design and permitting constraints.

Coral Springs Improvement District Canal Bank Study and Design – Sites 1-5. Globaltech.
Mr. Vazquez was the Project Manager for this project which entailed providing Canal bank erosion assessment, feasibility report to address canal bank erosion and design services for CSID.

Canal Embankment Restoration Design Project – Fiscal Year 1 and 2. City of Doral.
As Project Manager and Engineer of Record, Mr. Vazquez was responsible for the development of 100 percent design drawings, specification, and construction cost estimates for the canals showing high levels of erosion under Fiscal Years 1 and 2 of the City of Doral's CCIP. Mr. Vazquez also assisted the City in obtaining the required permits from the Miami-Dade County Department of Regulatory and Economic Resources. This project also included design of a bike/pedestrian path at location where right-of-way was available. Mr. Vazquez was also involved during the construction in addressing RFIs and certified the project after completion. *This project received the American Public Works Association 2012 Project of the Year Award.*

Districtwide Drainage Design & Plans Review Consultant Services. Florida Department of Transportation (FDOT) District 6, Florida.
Mr. Vazquez is currently the Project Manager for the Districtwide Drainage Design & Plans Review Consultant Services contract for FDOT District 6. Mr. Vazquez was also the Project Manager for the previous other three Districtwide Drainage Design & Plans Review Consultant Services contracts for FDOT District 6, dating back to 2002. Within these types of Districtwide drainage contracts, ADA is and has been serving as a general consultant for District 6, performing a variety of engineering assignments. The assignments associated with these contracts have involved all aspects of drainage analysis, design and permit review services; retrofitting existing drainage systems; permit compliance; hydrologic/hydraulic modeling; bridge hydraulics; scour analyses; retention/detention pond, exfiltration trench, and drainage well analysis and design; drainage feasibility studies; analysis and design of drainage "Push Button" projects; and urban & rural drainage system analysis and design. ADA's contract responsibilities have also included determining the current status of existing drainage systems resulting from meetings with District 6 staff in addition to field visits. Mr. Vazquez acts as an extension of the District 6 staff and is responsible for addressing critical "Push Button" projects and reviewing drainage plans, drainage reports, and drainage connection permits prepared by other design Consultants and District 6 design staff. Mr. Vazquez has also prepared an Exfiltration Trench Design Handbook and ICPR Applications Manual to standardize analyses and designs of drainage system performed by all Consultants working for District 6.

As part of the current and past District-wide Drainage Design & Plans Review Consultant Services contracts, Mr. Vazquez has successfully executed over 200 task work orders. Sample projects that ADA has completed to date under the direction of Mr. Vazquez include:

- Collins Avenue between Lincoln Road and 26th Street flooding assessments
- NW 84th Street and W 32nd Avenue (I-75 Frontage Road) Drainage Design Analysis and design
- NW 119th Street and N. Miami Avenue (Marathon Gas Station) offsite flooding assessment
- Ives Dairy Road and I-95 noise wall drainage assessment and construction plans preparation
- Collins Avenue at 93rd Street drainage improvements
- Krome Avenue from SW 8th Street to US 27 drainage analysis, design and permitting
- Krome Avenue Drainage Design criteria for Design/Build District Contract
- Collins Avenue Stormwater Pump Station Evaluation Report and Storm sewer pump station design
- Harding Avenue Stormwater Pump Station Evaluation Report and storm sewer pump station design
- Jewfish Creek drainage improvements assessment at the Anchorage Resort and Yacht Club.
- SW 87th Avenue and 104th Street assessment for flooding and construction plans preparation
- Key Colony Beach Drainage Retrofit in Marathon, Florida
- Monroe County NPDES Year 1, 2 and 3 Annual Report compliance report preparation
- Biscayne Boulevard at NW 14th Street pipe replacement design
- SR 5/US 1 drainage complaint feasibility study
- Indian Creek south of West 63rd Street drainage improvement plans preparation
- Sunny Isles Drainage Feasibility Study

ALBERTO D. ARGUDIN, PE, CGC, LEED AP

Principal

Mr. Argudin has over 40 years of experience and has been involved in a variety of projects that include all aspects of site engineering including stormwater management, water distribution, sewage collection and transmission, transportation, and solid waste management; environmental studies and permitting; and construction management. He has also been involved in several major construction management projects that have included airports, roadways, pump stations, storage tanks, solid waste facilities, and buildings.

Civil Engineering Services for Perez Art Museum Miami. Paratus Group.
Mr. Argudin was the Engineer of Record for the civil portion of this project and led the design for the site work for a covered parking garage with gravel surface with the concept of green parking technique and to recharge the ground water. Accessibility, climate, soil type, traffic volume and long term performance were considered along with costs and storm water quality controls when choosing the paving materials. The green parking techniques were implemented to effectively reduce the amount of impervious cover, help protect local surface waters, result in storm water management cost savings, and visually enhance the future museum site. Porous pavement was used to store runoff from the parking garage in the ground. A network of perforated pipes was designed within the porous pavement to collect storm water and to direct it into the exfiltration trenches. Sand filter was used in the trenches as per Miami-Dade County to meet water quality treatment. Runoff disposal was through the use of drainage wells. The site development also included grading and design of the water and sewer systems.

Canal Embankment Restoration Project: Year 1. City of Doral.
Mr. Argudin provided QA/QC support on this project. These canals were identified in the ADA authored Canal Bank Stabilization Assessment Report which identified the conditions of the canal banks within the City, prioritized canal banks based on the level erosion, and outlined recommendations and planning-level costs to address critical erosion areas. The report helped the City of Doral in establishing a Canal Capital Improvement Plan (CCIP). ADA was responsible for the development of 100 percent design drawings, specification, and construction cost estimates for the canals showing high levels of erosion under Fiscal Year 1. This project also included a bike/pedestrian path at locations where right-of-way was available. The City's Canal Capital Improvement Plan was implemented in Fiscal Years 2009 through 2011.

Town of Miami Lakes Canal Bank Stabilization – Phase 1. Town of Miami Lakes.
Mr. Argudin was the Principal-in-Charge for the Town of Miami Lakes Canal Bank Stabilization Project. The project area included the Peter's Pike and Golden Glades Canals along NW 77th Court and NW 170th Street. This project is currently being advertised for bid construction and commencement is slated for September 2016.

Village of Pinecrest Stormwater Master Plan. Village of Pinecrest.
The purpose of this SWMP was to develop an inventory of existing stormwater drainage structures and features in a GIS format, identify the current flood protection level of service within the Village and water quality of stormwater discharges from the Village, and assess the potential impact of sea-level rise on the Village's stormwater management infrastructure. This SWMP also developed a 5-year stormwater Capital Improvement Plan (CIP) that takes into consideration the Village's capital budget for stormwater improvements projects by prioritizing identified stormwater management improvement projects, maintenance activities, and repairs to ensure optimal system performance while maximizing benefits per unit cost. Mr. Argudin was the Principal-in-Charge for this project.

EDUCATION
B.S., 1976, Civil Engineering, University of Florida

REGISTRATION
1980, Professional Engineer, Florida (No. 23547)
2008, Professional Engineer, Louisiana (No. 34299)
2014, Professional Engineer, Massachusetts (No. 51471)
2015, Professional Engineer, New York (No. 094754)
1990, Professional Engineer, Puerto Rico (No. 18803)
1982, State Certified General Contractor, Florida (No. 023790)
1990, Miami-Dade County Certified Engineering Contractor, Florida (No. E98100)

MEMBER
American Society of Civil Engineers
American Consulting Engineers Council
Florida Engineering Society
Cuban-American Engineering Society
National Society of Professional Engineers
Puerto Rico College of Engineers and Surveyors
Miami Dade College Hall of Fame

CERTIFICATIONS
LEED Accredited Professional, Green Building Certification Institute (GBCI)
QC Manager, FDOT
CTQP Maintenance of Traffic, FDOT
Adv. Workzone Traffic Control, FDOT
Asphalt Paving Levels 1 & 2, CTQP

NW 170th Street 36" Water Main Micro-tunneling Design. Miami-Dade Water and Sewer Department (MDWASD).
For this Miami-Dade Water and Sewer Department (WASD) project, Mr. Argudin was the Engineer of Record (EOR) for the micro-tunneling and 36" Ductile Iron Pipe (DIP) WM under I-75. The work he performed included coordination with utilities, FDOT, FDEP, and DRER; design, permitting, and construction phase services. The work also included certification and closeout of the project.

Rehabilitation of 54-inch Diameter Force Main from SW 280th Street to SW 248th Street. MDWASD.
This project is comprised of the rehabilitation of an existing 54-inch force main that leads to the South District Waste Water Treatment Plant. The rehabilitation design includes tapping the existing force main with line stops, insertion and pull pits, new plug valves, and connections to other large diameter force mains. At this time, alternative rehabilitation methods have been proposed by the design team and are being considered by WASD. ADA has prepared conceptual plans, portions of the Basis of Design Report and Permit Matrix, utility coordination as well coordination with the regulatory agencies and is moving forward towards the 30% Submittal milestone. Mr. Argudin is the Principal in Charge responsible for ensuring that ADA has the necessary resources to complete its tasks and performs the QA/QC reviews. He also acts as the liaison between ADA and the Prime Consultant.

New 54" Force Main to Meet WASD's Consent Decree. MDWASD.
As part of the Consent Decree Program, a new 54-inch force main that will run from SW 127 AVE to SW 248 ST will be designed and constructed. ADA has prepared conceptual plans, portions of the Basis of Design Report and Permit Matrix, utility coordination as well coordination with the regulatory agencies and is moving forward towards the 30% Submittal milestone. Mr. Argudin is the Principal in Charge responsible for ensuring that ADA has the necessary resources to complete its tasks and performs the QA/QC reviews. He also acts as the liaison between ADA and the Prime.

Collection and Distribution System General Design Support Services. Palm Beach County Water Utilities Department.
Mr. Argudin is the Principal-in-Charge of this miscellaneous utilities design services contract, which involves several water, wastewater and reclaimed water force main design projects. ADA provided pipeline design and construction administration support for the FP&L West County Facility Reclaimed 36" DIP Watermain. The purpose of the project was to implement facilities necessary to deliver 22 million gallon per day (mgd) (average daily flow) and 27 mgd (peak flow) of reclaimed water to the FP&L West County Energy Center on a daily basis.

Districtwide Minor Projects. FDOT, District 4.
Mr. Argudin is the Principal-in-Charge and QA/QC Manager for this contract which entails the design and preparation of a complete set of construction contract plans for minor projects throughout District 4 in Broward, Palm Beach, Martin, St. Lucie and Indian River Counties. As part of this contract, ADA has worked on or is currently working on several projects including:

- SR 838/Sunrise Blvd Bridge over Middle River Street Lighting – Design services for replacement of roadway lighting due to the re-construction of the SR 838/Sunrise Blvd. Bridge over the Middle River
- SR 7 / US 441 at Riverland Road / SW 20th Street Safety Improvements at signalized intersection – Safety improvements for the intersection of SR 7/US 441 and Southgate Blvd., Broward County, FL. Project includes milling and resurfacing, closing of the median openings on the west leg of Southgate Blvd., installing high emphasis cross walks on all 4 approaches, new mast arm system, variable message LED signs facing right turn traffic in all 4 directions, a queue detection and motorist warning system, pedestrian countdowns, new stand-alone light-poles for the west side of the roadway, new light fixtures on the NE and SE corners of the intersection, and pavement markings
- I-595 Ramp to Ft. Lauderdale/Hollywood Airport High Friction Surface Treatment - Resurfacing of existing I-595 ramp to Fort Lauderdale Airport
- Temporary Assistance to District's Project Management
- Preparation of a Design Criteria Package To Implement an Intelligent Transportation System (ITS) Along SR 25/US 27 From I-75 to SR 80 –
- Scope History for FDOT Broward Projects – Conduct field reviews of ten FDOT roadway projects in Broward County to develop Scope Histories and Long Range Estimates (LREs)

SR 985/ SW 107th Avenue from South of SW 24th Street to the 100 Block. FDOT District 6.
Mr. Argudin was the Principal-in-Charge for this Rehabilitation, Restoration, and Resurfacing (3R) project to extend the service life of the existing pavement, improve pedestrian access in accordance with Americans with Disabilities Act standards, and upgrading the pavement markings and signs. The SR-985/ SW 107th Avenue project is located in Miami Dade County (870270) and extends from SW 24th Street (MP 5.142) to the SW 1100th Block (5.931). ADA's scope included milling and resurfacing 1.5" with Friction Course 12.5 within the project area. Small areas of pavement, at three isolated locations, were reconstructed, due to depressions in the pavement. Closure of median opening and existing driveway just south of SW 17th Street was part of ADA's design.

Districtwide Drainage Design & Plans Review Consultant. Florida Department of Transportation – District 6.
Mr. Argudin is the Principal-in-Charge and QA/QC Manager for this contract. Within this miscellaneous type contract, ADA is serving as a General Consultant for District 6, performing a variety of engineering assignments. The assignments associated with this project involve all aspects of Drainage Analysis and Design Services, Retrofitting Existing Drainage Systems, Permit Compliance, Hydrologic/Hydraulic Modeling, Bridge Hydraulics, Scour Analyses, Retention/Detention Pond, French Drain, Drainage Well Analyses and Design, Drainage Studies, and Urban & Rural System Design. ADA's contract responsibilities also include determining the current status of existing drainage systems resulting from meetings with District 6 staff in addition to field visits. Some of the projects under this contract include:

- Collins Avenue between Lincoln Road and 26th Street flooding assessments
- NW 84th Street and W 32nd Avenue (I-75 Frontage Road) Drainage Design
- Exfiltration Trench Design Handbook and ICPR Applications Manual
- NW 119th Street and N. Miami Avenue (Marathon Gas Station) offsite flooding
- City of Miami Drainage Improvements
- Collins at 93rd Street Drainage Improvements, Miami Beach, Florida
- Krome Avenue Drainage Design criteria for Design/Build District Contract
- Collins Avenue Pump Station Evaluation Report and Storm Sewer Pump Station design
- Harding Avenue Pump Station Evaluation Report and Storm Sewer Pump Station design
- Jewfish Creek Drainage Improvements at the Anchorage Resort and Yacht Club, Florida Keys

Miscellaneous Minor Projects Contract. FDOT, District 6.
FDOT District 6 retained ADA to provide miscellaneous engineering design services within Miami-Dade and Monroe Counties for a period of five years. As Principal-in-Charge and Lead Engineer, Mr. Argudin was responsible for overseeing the roadway design, drainage design, pavement markings/signage, traffic control plans, lighting plans, signalization plans, administrative assistance, construction inspections, and plan examiner services during pre-construction, construction and closeout phases. Under this contract, ADA completed over 15 roadway related design assignments including:

- SR874 and Killian Parkway Ramp Widening – This project consisted of the modifications of the interchange of Killian Parkway with SR 874 (Don Shula Expressway) and SW 107th Avenue. As part of this project, Mr. Argudin prepared Roadway, Lighting, Pavement Markings and Signage & Signalization Plans. The work included the widening of two existing ramps and eliminating a third ramp. The work on the existing ramps included obtaining a design exception since they did not meet current design standards. Mr. Argudin also provided minor redesigns during the construction phase due to unforeseen utility conflicts. This project also included the construction of a new northbound acceleration lane on SR 874.
- SR953/E 8th Avenue/Le Jeune Road from E. 25th Street to E. 49th Street Resurfacing and Lighting Project – As part of this project, Mr. Argudin provided the RRR design for a two mile strip, and the improvement to two major intersections for better turning movements, traffic signal and street lighting design.
- NW 27th Avenue and NW 103rd Street Intersection Improvements / Milling and Resurfacing / Signalization
- SR5/US1 Biscayne Boulevard – Intersection Improvements including Milling and Resurfacing / Signalization
- SR973/ Galloway Road at SW 128th Street – Intersection Improvements / Drainage / Milling and Resurfacing / Signalization

U.S. Highway 27. FDOT, District 4.
This project included the widening from two lanes to four lanes of a rural roadway in Palm Beach County. As Project Manager, Mr. Argudin was in charge of the design for major drainage improvements, including the relocation of the existing Miami Canal, pavement markings and traffic control plans.

JEFFREY HISCOCK, PE

Sr. Engineer

Mr. Hiscock has over 30 years of experience and specializes in in water resource engineering, stormwater pumping station design and Geographic Information Systems (GIS). Mr. Hiscock began his career at the South Florida Water Management District (SFWMD) before joining Mock, Roos & Associates, Inc. in 1989. In his 13 years at Mock, Roos & Associates, Inc., Mr. Hiscock served as the Client Manager for the City of West Palm Beach's Storm Water Utility and oversaw a highly active period of the Utility that included a GIS inventory, a Storm Water Master Plan and an innovative and award winning project known as the Renaissance Project. He also served as the firm's GIS Manager and designed several stormwater pump stations for the Northern Palm Beach County Improvement District (NPBCID). Mr. Hiscock started his own firm as a sole proprietor in 2002. During that time Mr. Hiscock provided engineering services to a variety of clients including municipalities and the SFWMD. Mr. Hiscock also worked directly with ESRI where he spent two weeks in Redlands, CA coordinating with ESRI's ArcHydro developers as part of the team developing ArcWAM, a GIS based water assessment model.

S-351 and S-354 Lifting Mechanisms for Manatee Protection Barriers. South Florida Water Management District (SFWMD)
SFWMD procured ADA to produce design plans and specifications to retrofit two existing spillways (S-351 and S-354) with a structural and mechanical lifting mechanism for the manatee grates at each structure. Vegetation gets caught up in the grates and there is no easy way to currently clean them. Both structures are owned by USACE, but operated by SFWMD. S-351 is a reinforced concrete gated spillway with three (3) vertical lift gates 20-feet wide and 7.5-feet high located in L-D2, the perimeter dike of Lake Okeechobee, at the north end of the Hillsboro and North New River Canals. S-354 is a reinforced concrete gated spillway with two (2) vertical lift gates 23-feet wide and 8.3-feet high located in L-D6, the perimeter dike of Lake Okeechobee, at the north end of the Miami Canal in Lake Harbor. The manatee grates are located on the lake-side of the structures and are secured within slots that were originally intended for stop logs used to allow dewatering of the structure for maintenance. A support structure, catwalk and lifting mechanism allows SFWMD to raise the grates so they can be cleaned by personnel standing on the catwalk. Mr. Hiscock performed the mechanical engineering aspects of the project by laying out how the system would function, selecting the appropriate equipment, and creating a design specification for the mechanism. A dual hook wire hoist was chosen because of the "guided load" configuration which required that the grates be lifted level to avoid being stuck in the slots. Load limiters and slack detectors were also added as safety measures. The hoist can be moved from grate to grate by using a bridge trolley system with motorized endtrucks. The hoist can also be moved perpendicular to the structure with motorized trolleys so that it can be moved to a location where personnel can maintain it. This also allows for the entire system to be move out of the way when the USACE needs to remove the grates and install stop logs for periodic structure maintenance.

Phosphorus Budget and Loading Analysis for the Lake Okeechobee Watershed. SFWMD.
Project Manager and Senior Engineer for the development a Lake Okeechobee Watershed phosphorus budget for the South Florida Water Management District (SFWMD). This project updated a previous phosphorus budget analysis conducted by the University of Florida in cooperation with the SFWMD (Boggess et. al., 1995). The updated budget accounted for all imports and exports, on-site and wetlands storage, and Lake loadings of phosphorus based on more recent data. Identified the data necessary to perform a farm-level and basin-level mass balance, developed land use specific surveys with pertinent questions to acquire this necessary data, and conducted multiple surveys with county agricultural agents and landowners for each significant land use and land management practice. Assumptions developed in the previous study were updated based on current literature review and survey information collected. A Graphical User Interface (GUI) was developed to view input data and budget results using ESRI software. The menu-driven user interface allows the user to manage phosphorus input and output variables and assumptions and view the resulting phosphorus budget results geographically. Mr. Hiscock

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

REGISTRATION
1990, Professional Engineer, Florida (No. 43984)

SKILLS
ICPR4, SWMM, MIKE11/SHE, WAM, CHAN, ArcGIS, ArcObjects, VB/C#.Net, AutoCAD Civil 3D

KEY EXPERIENCE
Project Management
Water Resources Engineering
Watershed Assessments
Stormwater Pump Stations
GIS

has upgraded the GIS GUI on several occasions for SFWMD. The current format is written in C#.Net for ArcGIS 10.2 and also includes a nutrient budget for nitrogen.

Storm Water Pumping Stations

From 1990 to 2002, Mr. Hiscock headed the pump station design department at the consulting firm of Mock, Roos & Associates, Inc. He served as Project Manager and the Engineer of Record for 16 stormwater pumping stations during that period as listed below. Mr. Hiscock also performed the mechanical and civil engineering and oversaw outside SBEs that performed electrical and structural engineering to form a highly effective pump station design team producing state-of-the-art facilities. Most stations included electric submersible pumps and buildings with loading bays, crane hoist systems, backup generators and external aboveground fuel tanks. Under JGH Engineering, Mr. Hiscock has also performed pump station assessments.

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

Watershed Assessments

Mr. Hiscock has been involved in several watershed assessments in the State of Florida that examined the hydrology, hydraulics and water quality assimilation of large scale systems. Beginning in the mid-1990s while employed at Mock, Roos & Associates, Inc. and continuing throughout his tenure at JGH Engineering, Mr. Hiscock has modeled over 25 percent of the State, in most cases, using the hydrodynamic model known as WAM.

- C-51, C-15, C-16 and Hillsboro Canal Basins for LWDD (200 sq mi) [Mock-Roos]
- Western Basins (C-139, Feeder Canal, L-28 and L-28 Tie Back) (750 sq mi) [Mock-Roos]
- Lower St. Johns River Basin for SJRWMD (2,753 sq mi) [Mock-Roos]
- Suwannee River Water Management District Basins for SRWMD (7,640 sq mi) [Mock-Roos/JGH]
- Northern Palm Beach County CERP for FDEP (630 sq mi) [JGH Engineering]
- Hillsborough River Watershed for FDEP (675 sq mi) [JGH Engineering]
- Lake Okeechobee CERP for FDEP/COE/SFWMD (1,437 sq mi) [JGH Engineering]
- Coastal Springs for SWFWMD (1,276 sq mi) [JGH Engineering]
- Lake Hancock for SWFWMD [JGH Engineering]
- Caloosahatchee River (C-43) for FDEP (1,320 sq mi) [JGH Engineering]
- Myakka River Basin (598 sq mi) [JGH Engineering]
- Lake Okeechobee Protection Plan for SFWMD (5,400 sq mi) [JGH Engineering]

Storm Water Utility. City of West Palm Beach.

Served as Project Manager and Engineer of Record for City's Storm Water Utility for five years. Attended and presented at the Storm Water Utility Board and City Commission meetings. Responsibilities included assisting the City with implementation of storm water projects, permitting, assistance in meeting NPDES requirements, GIS mapping and review of construction drawings. This five-year contract included several high profile projects including a new Storm Water Master Plan, the Renaissance Project, a storm water utility rate study and GIS/GPS surveying and mapping of storm water, sanitary and water facilities for the eastern half of the City.

The Renaissance Project. City of West Palm Beach.
Served as Project Manager and Engineer of Record. The Renaissance Project represents 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 will be treated and used for public consumption. Project included design of a 250 cfs stormwater pumping station, alum injection system, five-acre settling basin, five-acre wetland cell and other water diversion structures. Managed all aspects of project including feasibility studies, grant applications, design, permitting and construction administration.

PBIA Taxiways D, E and W. Palm Beach County Department of Airports
Mr. Hiscock was the Engineer of Record for the design of drainage improvements within the Palm Beach International Airport in accordance with the future Airport Layout Plan (ALP) and Stormwater Master Plan. Mr. Hiscock was also responsible for permitting the modifications, including dewatering, with the South Florida Water Management District.

Storm Water Master Plan. City of West Palm Beach.
Mr. Hiscock served as Project Manager and Engineer of Record for the Stormwater Master Plan which included recommendations regarding the implementation of stormwater programs and projects throughout the City. The plan addresses the short-term and long-term stormwater needs of the City and includes recommendations regarding specific areas that need improvement as well as broader issues such as the diversion of flows from tide. The Plan integrates the financial aspects of implementation by examining the stormwater utility and identifying additional sources of funding. Projects were specifically earmarked for alternative funding sources based on careful examination of the intended purpose of each potential source. A Capital Improvement Plan was developed within the Master Plan identifying, defining and prioritizing over $29M of stormwater projects throughout the City. Tasks included planning, hydrologic and hydraulic computer modeling, environmental assessment, Capital Improvement Projects (CIPs), financing, cost estimating and support for public workshops.

North Palm Beach County CERP. Florida Department of Environmental Protection
Provided consulting services to assist in setting up the WAM model for the L-8, C-51, WCA, C-17, C-18, Pal Mar and Loxahatchee River basins within northern Palm Beach County and southern Martin County (630 sq.mi.) based on existing conditions. Future phases of the project will include utilizing WAM's GIS interface to model water management alternatives associated with the Comprehensive Everglades Restoration Program (CERP) including potential STAs and storage areas.

Village of Wellington Comprehensive Plan. Village of Wellington.
Provided GIS services to the Village to compile several maps in ARC/INFO including land use, soils, transportation, drainage, topography, recreation, wetlands, etc. Maps were used in Village's first Comprehensive Plan submitted to the Department of Community Affairs. Project was later expanded to include GIS parcel mapping which provided the Village with the first parcel map in Palm Beach County that was linked to the County's tax database. Water and sewer utilities were also added to the Village's GIS.

National Pollutant Discharge Elimination System County-wide Permit. Palm Beach County, FL
Provided miscellaneous services including coordination and GIS for a county-wide NPDES permit covering 40 municipal entities (co-permittees) within Palm Beach County. The EPA regulations required a two-part investigation: Part I required that a drainage system inventory be made and that the character of the discharge be identified in association with rainfall data, runoff volumes, water quality of discharges and dry weather sampling for illicit connections. Part 2 required a wet weather sampling program to estimate the annual pollutant loadings into U.S. waters. Continuous water quality monitoring programs were required for the following five years. With the information obtained, management programs are being established by the municipalities to reduce pollutant loadings and to monitor compliance. An assessment of the proposed programs' effectiveness was also required. The consulting team, led by Mock, Roos & Associates, Inc. provided NPDES educational materials, conducted workshops, provided schedules and coordination with all co-applicants within Palm Beach County. Following finalization of the interlocal agreements in June 1991, the team provided guidance, assistance, uniform computerized mapping, GIS water quality modeling, schedules and application submittals for the group NPDES permit application to the EPA.

Palm Beach International Airport Stormwater Master Plan. Palm Beach County Department of Airports.
Provided water resource engineering and GIS for a study of the existing stormwater management system and update of the stormwater master plan addressing aging facilities, water quality, water quantity, future land use, and costs and phasing.

ALEJANDRO GARI, PE
Electrical Engineer

Mr. Gari has over six years of experience in electrical engineering design and project management. His key areas of expertise include lighting design and furnishing associated cost estimates, lightning protection design, utility coordination and inspections of commercial, industrial and residential facilities. He is also experienced in preparing reports and analyzing electrical systems for facilities.

S-194 Krome Avenue Slide Gate Installation. South Florida Water Management District.
This project consists of designing the electrical components needed for the on and offsite monitoring and control of two slide gates, which regulate the water flow for South Florida's canal system. The electrical scope of work consists on providing 120/240V to a control room. The control room is being equipped with a panelboard, RTU, and four reverse motor starters, which power the actuators located on the gates. The gates are equipped with position sensors which relay the data back to the RTU as well as water level sensors located at two stilling wells, one downstream and one upstream. The site is also equipped with a dual antenna using SCADA to transmit data back to the District's headquarters.

SR-826 / SR-836 Interchange Electrical Lighting Design. Florida Department of Transportation (FDOT), District 6.
The project consisted of several levels of ramps providing proper connections between both expressways. This required a new lighting system for SR-826, from S.W. 4th Street to N.W. 22nd Street, and for SR-836, from N.W. 92nd Avenue to N.W. 57th Avenue. Due to the construction of new on and off ramps, additional lighting was installed on impacted side streets including, but not limited to, Flagler Street and 87th Avenue. The new lighting system consisted of approximately one thousand light poles with mounting heights between fifteen and forty-five feet along both highways and more than one hundred under deck luminaires. The entire lighting system required sixteen load centers and two subpanels with an average of 200 amps each, and was designed to comply with FDOT and MDX criteria. Special conditions and considerations were given to design the section of SR-826 in the vicinity of Miami International Airport to comply with Federal Aviation Authority regulations.

SR-826 Section 2, SR-874 Interchange. FDOT, District 6.
The Project consisted of several levels of ramps providing proper connections between both expressways. This requires a new Lighting System for SR-826, from S.W. 64th Street to S.W. 32nd Street, and for SR-874 on the Interchange. Due to the construction of new bridges, and new on and off ramps, additional lighting was installed on impacted streets, Miller Dr. and Bird Rd. The new lighting system consisted of approximately five hundred lighting fixtures, including light poles with mounting heights between fifteen and forty-five feet along both highways and under deck luminaires. The entire lighting system required four service points with an average of 150 amps each, and was designed to comply with FDOT criteria.

I-395 PD&E from West of Midtown Interchange to Macarthur Causeway Bridge. FDOT, District 6.
The Midtown Interchange serves as a major hub for traffic to the Port of Miami, Downtown, Miami Beach and the Miami International Airport. The I-395 facility is a vital component of the Port of Miami roadway access network. It presently provides a critical network link for Port traffic traveling to and from I-95 and SR-836 via the I-395 and NE 2nd Avenue/NE 1st Avenue/Biscayne Blvd Interchange. I-395 also serves as the link from SR-836 and I-95 to the South Miami Beach area via the MacArthur Causeway. As part of the Lighting Master Plan, Mr. Gari prepared roadway lighting design analysis, conduct field reviews, coordinate the service points with the power company, coordinate with maintaining agencies, present analysis for review to FDOT lighting department and provide temporary lighting, quantities, and cost estimate.

EDUCATION
B.S., 2009, Electrical Engineering, Georgia Institute of Technology

REGISTRATION
2015, Professional Engineer, Florida (No. 79281)

SKILLS
Bentley MicroStation V8i, AGI32 Lighting Software, AutoCAD, MathCAD, Object Oriented C programming, National Instruments Multisim, and Microsoft Office Software

KEY EXPERIENCE
Electrical Engineering Design

Lighting Design

Lightning Protection Design

Utility Coordination

CAIRO CANGAS, PE
Roadway Engineer

Mr. Cangas is a Professional Engineer with over 10 years of experience in transportation design and plans production. He has obtained the skills and the experience required for preparation and design of roadway plans, roadway geometrics, drainage design and documentation, signing and pavement markings, signalization, landscape and utility coordination.

SR 985 / SW 107th Avenue from SW 24th Street to SW 1100 Block RRR Project. FDOT, District 6.
Mr. Cangas served as the Lead Designer for this RRR Project during the design phase. Responsibilities include taking plans from Plans Complete to final sign and sealed plans, and production of project's specifications package. The project included permanent easement purchasing, license agreement and maintenance map acquisition. Current responsibilities during post design includes contract management, shop drawing processing and review, provide response to RFIs, and plan revision processing.

Three Islands Guardhouses and Traffic Calming Project - Master Plan Report. City of Hallandale Beach.
The purpose of the master report was to describe possible solutions in detail (implementation, cost, etc.) for each location. The report listed ADA's recommendations for which improvements would be most beneficial and cost-effective for the City. The main aspects ADA investigated included traffic calming, accessible crosswalks, and lighting improvements at the guardhouses. ADA identified several locations where pedestrian or motorist safety could be improved with additional pavement markings and signage, lighting, signals, drainage, or Traffic Calming Devices (TCDs). Mr. Cangas assisted with the development of the Master Plan report.

SR 934/E 25th Avenue/E 79th Street From E 4th Avenue/NW 47th Avenue to E 12th Avenue/NW 37th Avenue Safety Project. Florida Department of Transportation (FDOT), District 6.
Mr. Cangas currently serves as the Project Manager and EOR for this Safety Project. The main proposed improvements include access management restriction by installing raised concrete median, converting existing permissive signalized left-turn movements to protected only and two intersections, widening toward the existing medians to provide offset distance to the left-turn lanes from the inner thru lanes at three intersections, signalization improvements (mast arm replacement, SOP design, signal loop design, new signal heads, orientation of signal heads, signage on mast arms, etc.) at four intersections, and signing and pavement markings for pedestrian safety and channelization. The project also requires R/W coordination and acquisition as part of the signalization improvements. Responsibilities include coordination with the Department's PM and staff and provide assistance to the coordination efforts with the local municipality. As the EOR, Mr. Cangas is responsible for the design and development of the specification package, roadway, maintenance of traffic, signing and pavement marking, and signalization plans. Project is currently at Phase II.

Districtwide Miscellaneous PE Design Contract C-9442. Florida Department of Transportation (FDOT), District 6.
Mr. Cangas currently serves as contract manager for the FDOT, District 6 Districtwide Miscellaneous PE design contract C-9442. The responsibilities include the preparation and negotiation of individual task work order scope and fee proposals with the client, coordination and negotiation with sub-consultants (four in total) per task work order, task work order project management, and serve as EOR/Technical lead designer for each task work order.

EDUCATION
B.S., 2006, Civil Engineering, Florida International University

REGISTRATION
2014, Professional Engineer, Florida (No. 77001)

KEY EXPERIENCE
Roadway Design
Utility Coordination
Project Management

SR 953/Lejeune Road/SW 42nd Avenue from Almeria Avenue to Majorca Avenue Safety Project. FDOT, District 6.
Mr. Cangas currently serves as the Project Manager and EOR for this Safety Project. The main proposed improvements include access management restriction by installing raised landscaped medians, median widening to provide offset distance to left-turn lanes at one signalized intersection, replacement of four mast arms with four new standard mast arms and replacement of existing controller cabinet, drainage improvements taking into account the proposed widening, and signing and pavement markings including pedestrian warning crossing signs at crosswalks. The project includes license agreement, maintenance map, MMOA, DFA, and Off-System Maintenance Agreement coordination/acquisition. Responsibilities include coordination with the Department's PM and staff and provide assistance to the coordination efforts with the local municipality. As the EOR, Mr. Cangas is responsible for the design and development of the specification package, roadway, maintenance of traffic, signing and pavement marking, and signalization plans. This project is currently at Production.

SR 817/NW 27th Avenue from NW 165th Street to NW 171st Street Safety Project. FDOT, District 6.
Mr. Cangas currently serves as the Project Manager and EOR for this Safety Project. The main proposed improvements include milling and resurfacing the northbound and southbound approaches to the interchange to convert the innermost thru lane into a left-turn lane to provide dual left-turns, installing three new standard mast arms to accommodate the required signal head alignments, access management restriction by extending traffic separators/landscaped medians, median widening to provide standard left-turn tapers and increase storage, modify overhead signing, and signing and pavement marking improvements. The project included permanent easement purchasing and maintenance map acquisition. Responsibilities include coordination with the Department's PM and staff, specifically, with the District's Traffic Operations Office. As the EOR, Mr. Cangas was responsible for the design and development of the specification package, roadway, and maintenance of traffic. Project is currently at Post Design.

SR 90 / SW 8th Street at SW 67th Avenue Safety Improvement Project. FDOT, District 6.
Mr. Cangas currently serves as the Project Manager and EOR for this Safety Project. The main proposed improvements include milling and resurfacing and removal of concrete decorative crosswalk to improve pavement friction, minor cross slope correction, curb ramp reconstruction to meet ADA criteria, pedestrian signalization improvements, and signing and pavement markings including pedestrian warning crossing signs ahead of and at crosswalks. Responsibilities include coordination with the Department's PM and staff and provide assistance to the coordination efforts with other Department projects within the project limits. As the EOR, Mr. Cangas is responsible for the design and development of the specification package, roadway, maintenance of traffic, signing and pavement marking, and signalization plans. Project is currently at Plans Complete.

South Bayshore Drive Roadway Improvements. City of Miami.
Mr. Cangas currently serves as the Project Manager and lead designer for this Improvement Project. The project includes 1.5 mile of reconstruction, drainage improvements, new typical section including: dedicated bike lane in both directions, curb & gutter in both directions, and wide sidewalk along the north bound direction. Project requires aiding the City with right of way acquisition, drainage permitting, and substantial public involvement. Responsibilities include coordination with client and sub-consultant initial engineering, plans production, production of project's specifications package, and post design services once project is let for construction. South Bayshore Drive is designated as a State Historical Highway, modifications to existing conditions require special coordination and documentation/public involvement.

SR5/Biscayne Boulevard Pedestrian Crosswalks - MiMo Project - Seven Crossing. FDOT, District 6.
Mr. Cangas was the Design Engineer in charge of Roadway for this project. The project consisted of the design of raised pedestrian mid-block crossing islands at 6 locations, the design of 2 raised medians at locations of current striped medians, ADA improvements, and addition of pedestrian crossing at the intersection of Biscayne and NE 54th St. His responsibilities included to produce and assemble roadway plans. He assured timely and complete production of Roadway plans and design quantities, coordinated tasks to be done as required by scope between disciplines. Mr. Cangas maintained day-to-day communication with the client as needed during all phases of the design process and analyzed and evaluated design issues critically associated with construction concerns. He aided the department with public involvement issues arising from requests and concerns from regional/municipal organizations.

Spanish River Boulevard Interchange. FDOT, District 4.
For this project, Mr. Cangas' role was that of Technical/Task Manager in charge of Roadway, MOT & Signing & Pavement Marking. This project consisted of the reconstruction of I-95 interchange at Yamato Rd. and Spanish River Blvd. It included roadway reconstruction, alignment and profile design, replacement of existing three lane bridge with two separate two lane bridges, widening, intersection design,

and milling and resurfacing. His responsibilities entailed being in charge of roadway geometric design and Signing and Pavement Markings Plans. He produced and assembled roadway plans and calculations. Mr. Cangas delegated tasks to be done as required by the scope and Request for Proposal between disciplines. He managed hours and technical design quality within the disciplines.

SR-9A/I-95 NB from NW 103 Street to Biscayne River Canal. FDOT, District 6.
Mr. Cangas was the Design Engineer in charge of Roadway. This project consisted of Rigid Pavement Rehabilitation and RRR along 7 ramps, which include ADA, signalization, and signing and pavement marking. His responsibilities included to produce and assemble roadway plans. He assured timely and complete production of Roadway plans and design quantities. He coordinated tasks to be done as required by scope between disciplines. Mr. Cangas maintained day-to-day communication with the client as needed during all phases of the design process. Mr. Cangas analyzed and evaluated design issues critically associated with construction concerns.

SR826-Palmetto Expressway Golden Glades Interchange Various Ramps. FDOT, District 6.
For this project, Mr. Cangas was the Project Engineer in charge of Plans Production and Project Coordination. This project included RRR improvements along freeway ramp connecting I-95 NB and Turnpike, thrie-beam retrofit of two bridges, and guardrail design. Mr. Cangas produced and assembled roadway plans. He assured timely and complete production of Roadway plans and design quantities. Mr. Cangas also coordinated tasks to be done as required by scope between disciplines. He analyzed and evaluated design issues critically associated with construction concerns.

SR-9A/I-95 Northbound and Southbound from NW 79th Street to NW 103rd Street. FDOT, District 6.
Mr. Cangas was the Design Engineer in charge of Roadway. This project consisted of Rigid Pavement Rehabilitation and RRR along 4 ramps, which included signalization, and signing and pavement marking. He produced and assembled roadway plans, assured timely and complete production of Roadway plans and design quantities, and coordinated tasks to be done as required by scope between disciplines. Mr. Cangas maintained the day-to-day communication with the client as needed during all phases of the design process and analyzed and evaluated design issues critically associated with construction concerns.

In-house Consultant. FDOT, District 6.
This contract consisted of traffic engineering, in-house support for the FDOT D6 Internal Design Groups 1 & 2. Mr. Cangas' role was that of FDOT In-house Traffic Engineer in charge of Signing and Pavement Markings and Signalization. He provided Design of Signing & Pavement Marking plans and Signalization Plans for RRR projects. The projects completed as part of this contract included SR 860/Miami Gardens Drive from NE 5th Avenue to NE 15th Avenue (1.4 miles), SR 985/SW 107th Avenue from SW 12th Street to North of West Flagler Street, SR 948/NW 36th Street from West of NW 74th Avenue to West of Lee Drive (3 miles), SR 916/NW 135th Street from NW 27th Avenue to NW 8th Avenue, and SR 997/Krome Avenue from SW 144th Street to Kendall Drive.

SR 7, SR 944, SR 25. FDOT, DISTRICT 6.
The Intersection Safety improvements at SR 7 and SR 25, Miami, FL project consisted of mast arm replacement with signalization improvements, pedestrian island reconstruction, and signing improvements. The Intersection Safety improvements at SR 944 and NW 6th Court, Miami, FL project consisted of four mast arm replacement with signalization improvements, signing and pavements marking improvements, pedestrian safety and ADA improvements, and reconstruction of bulb-out for mandatory right only movements at NW 6th Place. The RRR project along SR 25 project consisted of grade and cross slope correction, new curb and gutter, new sidewalk, pedestrian and ADA improvements, and signing and pavement marking. For these projects Mr. Cangas' role was as Project Designer in charge of Roadway with the tasks of re-scoping project, coordinating significant design issues with the Department's PM and District Design Engineer; designing/calculating vertical alignment, horizontal geometry, and cross slope corrections. His other responsibilities included roadway plan/profile sheet preparation, traffic control plan design and preparation, and the timely submittal for all design documentation. He performed the aforementioned duties from NTP to Phase II Submittal.

ABBIE WILSON, PE
Project Engineer

Ms. Wilson is a Professional Engineer with over 10 years of experience in drainage and coastal engineering including comprehensive drainage reports, detailed designs, and preparation of plans for drainage of small roadways to major interstates, dredging, ecosystem restoration, and shoreline protection projects. She is well versed in performing Bridge Hydraulics studies and has extensive experience with permitting through SFWMD, Miami-Dade and Broward Counties, USACE, and the USCG. Ms. Wilson has experience working for both public and private clients throughout Florida, Louisiana, and Texas.

NW 47th Avenue Drainage Design. Florida Department of Transportation (FDOT), District 6.
Ms. Wilson is a Lead Project Engineer for the NW 47th Avenue Drainage Design project which is part of ADA's FDOT District 6 Districtwide Drainage Design and Plans Review Consultant Contract. She is designing drainage improvements along NW 47th Avenue as part of the roadway design improvements being implemented by FDOT design staff. ADA is using the conceptual ICPR model developed as part of the PD&E study and the latest existing information available for the project to determine the hydraulic capacity of the existing drainage systems and verifying pre-development runoff rates. The analysis of the hydraulic capacity of the existing drainage systems will be performed with ICPR, using the criteria outlined in the ICPR Applications Manual (ICPR-AM). As part of this project, ADA will also revise the Bridge Hydraulic Report (BHR) developed as part of the PD&E study to incorporate applicable changes to the proposed bridge design concept.

SR 924 and NW 32nd Avenue Drainage Improvements. Miami-Dade Expressway Authority.
Ms. Wilson is a Lead Project Engineer for this project performing drainage analysis, detailed design, and permitting of drainage improvements needed at the intersection of Gratigny Road and NW 32nd Avenue. The project is being coordinated with MDX, Miami-Dade County Department of Regulatory and Economic Resources (DRER) and South Florida Water Management District (SFWMD). As part of this task order, drainage improvements will be evaluated to provide an increased flood protection level of service.

Stormwater Improvements Years 2 and 3. City of Doral.
Ms. Wilson is the Lead Project Engineer for this project performing drainage analysis, detailed design, and permitting for multiple sites within the City of Doral with existing flooding issues. Ms. Wilson analyzed the existing drainage conditions and designed individualized drainage improvements for each site utilizing existing drainage systems with additional French drains. Drainage improvements are being made under the maintenance work.

The Residences at the Bath Club – Drainage Improvements Study.
Ms. Wilson was the Project Manager for the Residences at the Bath Club Drainage Study. As part of this project, A.D.A. Engineering, Inc. (ADA) was contracted to evaluate the drainage conditions at the project site located at 5959 Collins Avenue. This project entailed identifying a solution to alleviating the flooding conditions at the north end of the property, and developing construction drawings. To evaluate the drainage system and the flooding conditions, a hydraulic and hydrologic model of the drainage system was developed for multiple storm events. Based on the findings of the drainage study, it was recommended that the system be televised or TVed with video inspection. By TVing the existing drainage system, areas of the stormwater pipes with blockage can be identified and a repair recommendation can be made to alleviate the observed flooding conditions.

EDUCATION
B.S., Ocean Engineering, Florida Institute of Technology, 2006

REGISTRATION
2014, Professional Engineer, Florida (No. 76900)

SKILLS
AutoCAD Civil3D, Microstation, Geopak, HEC-RAS, ASAD, ICPR, ArcGIS, SMS, STW AVE, CEDAS, ACES, and SLOSH
Shore Protection Manual and Coastal Engineering Manual

KEY EXPERIENCE
Coastal Engineering

Drainage Design

Roadway Design

Shoreline Protection

55 Merrick Property Drainage Remediation Plan Design, Permitting and Construction Support Services.
Ms. Wilson was the Project Manager for the 55 Merrick Property Remedial Plan Review project located at 55 Merrick Way in Coral Gables, Florida. ADA was retained to evaluate the drainage conditions of the project area, investigate the cause of the flooding experienced in the parking area on the first floor, and determine if the current design was adequate to meet the required flood protection level of service for the building. In addition, ADA was tasked to make recommendations that would eliminate the flooding currently being experienced with the existing system. ADA's final recommendations included upsizing the pipes connecting the two end grit tanks (A and D) to the wells from 12" pipes to a 24" pipes and performing a detailed elevation survey of the parking area, adjacent areas including the building walk ways, finished flood elevations, elevations of all drainage structures, and pipe inverts to confirm that the drainage systems were construction in accordance with the permitted design plans.

State Road No. 907 / Alton Road Michigan Avenue To 43rd Street – 30% Drainage Report. FDOT, District 6
Ms. Wilson was the Lead Project Engineer for this project. This project consisted of a roadway reconstruction of SR 907 (Alton Road) from Michigan Avenue to 43rd Street, a distance of approximately 8,300 linear feet (1.5 miles). ADA assisted the FDOT, District 6 in performing 30% drainage design related tasks as part of the proposed Alton Road roadway improvements project from Michigan Avenue to 43rd Street. As part of this project, Ms. Wilson assisted the Department in performing 30% drainage analysis, drainage design and permit support tasks for the Alton Road roadway improvements. Although this was a 30% design submittal, the drainage analysis and design level effort at this level of design was more of a 50 to 60 percent design level of effort.

SR 953/Lejeune Road/SW 42nd Ave Safety Improvements. FDOT, District 6.
Ms. Wilson is the Lead Drainage Engineer for this safety project. SR 953/Lejeune Road is a divided four lane, two-way, north-south corridor located in Miami-Dade County, Florida. This road is classified as an Urban Other Principal Arterial. The existing typical section is composed of two lanes in each direction with 11.5' inside lanes, 11' outside lanes, and 12' paved medians for left-turn lane with spot locations containing landscaped raised medians. There are curb and gutters along the outside and in the median and there is a 4.5-foot sidewalk adjacent to the outside curb and gutter in each direction. The posted speed is 40 mph, and the design speed along the corridor is 40 MPH. The improvements along LeJeune Road are classified as a safety project with improvements from Almeria Ave. to Majorca Ave. Ms. Wilson analyzed the intersection improvements at LeJeune Road and Alhambra Circle which required the addition of designated left turn lanes along Alhambra Circle. Ms. Wilson designed independent drainage systems to handle the additional runoff created by the safety improvements. This project is currently in the Production Phase.

South Padre Island Beach Nourishment, Town of South Padre.
Ms. Wilson performed before and after storm beach profile survey comparisons and found depth of closure at South Padre Island using BMAP. She found depth of closure using analytical methods to compare to measured depth of closure. She also designed preliminary beach nourishment of South Padre Island and created ArcGIS maps of area.

Tangipahoa Parish, Tangipahoa River to Pass Manchac Shoreline Protection, LA.
As the Coastal Designer, Ms. Wilson performed analysis and design of approximately 3.5 miles of shore protection along the Lake Pontchartrain shoreline. She also provided assistance to Tangipahoa Parish in securing the Coastal Impact Assistance Program grant for funding the project.

SR A1A (Flagler Memorial Bridge) Design Build From Olive Avenue to Coconut Row. FDOT, District 4.
Ms. Wilson was a Drainage Designer for the construction of the replacement of the existing Flagler Memorial Bridge on SR A1A in Palm Beach County, Florida. Ms. Wilson performed drainage analysis with ICPR for the design of exfiltration trenches, pipe sizes, and inlet placement. Ms. Wilson's tasks and components during the construction phase include: Review of shop drawings, review and response to Requests for Information (RFI)s, Field reviews, and Coordination with all Design Build client and owner representatives.

Districtwide Stormwater Contract. FDOT, District 7.
Ms. Wilson was a Drainage Designer for the disrictwide contract. She provided stormwater management studies, analyses and design in support of the District's work program and drainage unit. Services included preparation of drainage maps, location hydraulics report, stormwater analysis, contract plans, surface water management, bridge hydraulics report and recommendation sheet, FEMA 'No-Rise' certifications, stormwater management design, stormwater inventory and stormwater management design review.

RICARDO BROWN, PE

Project Engineer / Construction Management

Mr. Brown has over 8 years of engineering experience working at the South Florida Water Management District (Operations and Regulations). His past experience has focused on water resources/environmental engineering and includes extensive modeling and data analysis experience as well as a position as a Research Assistant at Florida Atlantic University.

C-44 STA and Reservoir Project.

Mr. Brown is currently working as a Sr. Project Engineer for the C-44 STA and reservoir project. He is providing engineering during construction services for the C-44 STA and reservoir project.

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Miscellaneous Projects for South Florida Water Management District.

- Engineering Specialist (Operations Support Section)
- Duties include operations support, data management and analysis, assist and create reports, reviewing documents from Operations perspective, 298 and local government drainage technical support, and review of the C-44 Reservoir / Stormwater Treatment Area (STA) Project Designs for Operations (SFWMD and USACE).
- Engineering Specialist (Everglades Regulation)
- Duties included Permit Processing, Post-Permit Compliance, development of Source Control Program, and other engineering duties.
- Control System Technician
- Duties included trouble shooting water resources electronic monitoring system remotely using SCADA systems and plotting hydrographs.
- Engineer Intern
- Duties included development and feasibility study of data driven stream flow model.

Senior design project: Re-design of a day care in Ft Lauderdale. Duties included environmental site assessment, site plan, stormwater management and design, building design.
Project Management: Cost estimating, time, money and resource scheduling.
Structural engineering: Structural analysis, concrete & reinforced concrete design, and steel design.
Geotechnical and Foundation Engineering: Soil analysis, labs, consolidation tests, settlement tests, design of different types of foundations.
Dynamic Hydrology: Graduate course analyzing stream flow and developing models for predicting stream flows using Artificial Neural Network and Multiple Regression Model. Watershed and runoff calculations, utilizing WinTr, pipe design and water detention and retention pond design.
Hydraulic Engineering: Hydraulics, calculation of pipe flows, calculation of open channel flows, head loss and pump selection and usage.
Water and Wastewater Engineering: Graduate courses for the design and analysis of wastewater treatment facility. Graduate course for ground/surface water treatment and analysis and design. Planning also involved in course.
Transportation engineering: Traffic analysis, road way design, simulation software.
Water Resource Systems Engineering: Graduate course in optimization, simulation and modeling geared towards water supply.
Environmental Engineering and Environmental Systems Processes: Developing mass balance model, Lab experiments, water and soil sampling, site visits, BOD calculations, learning environmental regulating agencies and producing reports.
Ground Water Hydrology: Graduate course in analysis ground water flows.
GIS application and Programming in GIS: Using GIS tools to create new shapefiles and produce information and reports. Programming, automating and customizing GIS tools and systems for specialized application.

EDUCATION

M.S., 2012, Civil/Water Resources Engineering, Florida Atlantic University
Master's Thesis: Optimization and Inductive Models for Continuous Estimation of Hydrologic Variables

B.S., 2008, Civil Engineering, Florida Atlantic University

REGISTRATION

2014, Professional Engineer, Florida (No. 77680)

SKILLS

HEC DSSVue, ArcGIS, AutoCAD, MATLAB, SCADA monitoring Systems, and other simulation software
Microsoft Office: Word, Excel, PowerPoint, Outlook, Project

KEY EXPERIENCE

Water Resources Engineering
Environmental Engineering

WADDIE RUIZ, PE, CGC
Sr. Project Engineer

Mr. Ruiz has over 19 years of engineering and construction management services experience. His experience includes structural design of housing developments and managing both the design and construction of water and sewer systems, roadways, drainage systems, and land development projects.

Madison & Broadmoor Sanitary Sewer Conversion. Miami-Dade County Public Schools (MDCPS).
As Lead Project Engineer and Project Manager for construction phase services for the Sanitary Sewer Conversion project, Mr. Ruiz provided design services, bidding services and construction administration for the on-site sanitary sewer conveyance system. He attended coordination meetings with Miami-Dade Department of Environmental Resources Management (DERM), WASD and the School Management Staff to address any additional concerns and requirements. The design of the pump station was completed using the compliance requirements of Miami-Dade Water and Sewer Department.

Sanitary Sewer Connection at Sabal Palm Elementary School. MDCPS.
Mr. Ruiz assisted with the development of construction contract documents and the preparation of permit applications. He was responsible for the construction phase services of this project, which included field inspections for quality control, monthly meetings and shop drawing reviews. He was also responsible for reviewing and approving the Contractor's monthly payment requisition.

Sanitary Sewer Connection at West Little River Elementary School. MDCPS.
Mr. Ruiz was responsible for the utilities coordination and permitting. Mr. Ruiz also prepared a maintenance of traffic plan and verified that all bathrooms were connected to septic tanks and identified to which septic tank they were connected to. Dye tablets, dye stained toilet paper and minor excavation work by hand was used to determine this.

New Sanitary Pump Station and Force Main. Jocavi, Inc.
Mr. Ruiz, as the Engineer of Record (EOR), designed the new sewer system and assisted with the development of construction contract documents and the preparation of permit applications for the proposed lift station and the abandonment of the existing septic tank. The proposed improvements also include the connection to an existing 12" force main.

Sanitary Sewer Connection at Biscayne Gardens Elementary School. MDCPS.
Mr. Ruiz assisted with the development of construction contract documents and the preparation of permit applications. The project consisted of a new sewer collection system, abandonment of existing septic tanks, and upgrade to an existing off-site pump station. He was responsible for the construction phase services of this project, which included field inspections for quality control, monthly meetings and shop drawing reviews. He was also responsible for reviewing and approving the Contractor's monthly payment requisition.

West Laboratory Elementary School Abandonment of Septic Tanks and Connection to Public Sewer. MDCPS.
ADA was contracted by Miami-Dade County Public Schools to provide design services, bidding services and construction administration in accordance with the SPC contract for the on-site sanitary sewer conveyance system, pumping station, force main, final connection to the public sewer and abandonment of the existing septic tanks within West Lab Elementary School, in Coral Gables, Florida. Mr. Ruiz was the Lead Project Engineer on this project.

Civil Sanitary Sewer Lift Station for a New Miami Science Museum. Rodriguez & Quiroga.
Mr. Ruiz designed the proposed sanitary lift station and assisted with the development of the construction contract documents, the preparation of permit application and construction phase

EDUCATION
B.S., 1997, Civil Engineering, University of Puerto Rico, Mayaguez Campus

REGISTRATION
2005, Professional Engineer, Florida (No.62714)

2000, Professional Engineer, Puerto Rico (No.16982)

2006, Certified General Contractor, Florida (No.15111731)

MEMBER
Puerto Rico College of Engineers, Architects and Surveyors

CERTIFICATIONS
Advanced Workzone Traffic Control (FDOT
Asphalt Paving Level I (CTQP)
Asphalt Paving Level II (CTQP)
OSHA 10 Construction Industry
OSHA 30 Construction Industry
FDEP Stormwater Erosion and Sedimentation Control

KEY EXPERIENCE
Roadway Design
Water and Sewer Design
Stormwater Management
Drainage Design
Construction Materials Inspection

services including shop drawings review, inspections for quality control and system test certifications. The designed water distribution system included 12" DI WM along Museum Drive, fire hydrants, fire services with double detector check valve assembly and water services with pressure zone backflow preventer. The proposed gravity sanitary sewer system was also designed along Museum Drive and included 10" and 12" C-900 piping and manholes. The Miami Science Museum and Miami Art Museum (its sister project) will be connected to the main gravity sewer system with the proposed laterals.

Districtwide Minor Projects. Florida Department of Transportation (FDOT), District 4.
This contract entails the design and preparation of construction contract plans for minor projects throughout District 4 (Broward, Palm Beach, Martin, St. Lucie and Indian River Counties). As part of this contract, Mr. Ruiz prepared the TCP for the. SR 7 / US 441 at Riverland Road / SW 20th Street Safety Improvements, which includes milling and resurfacing, pavement markings to incorporate a bike lane along the northbound road, signalization improvements, compliance with the American with Disabilities Act requirements among others.

N-17 Canal Bridge Over Orange Drive Bridge Replacement. Town of Davie.
The purpose of this project is to replace the existing bridge with an equivalent culvert that maintain the existing hydraulic capacity of the CBWCD N-17, which discharges to SFWMD C-11 Canal. Mr. Ruiz was the Engineer of record (EOR) of this project that included utilities coordination, design of water main and sewer force main, and permitting.

Collins Avenue and Alton Road Outfall Assessment. FDOT, District 6.
Mr. Ruiz performed field verifications of locations of outfalls to the Intracoastal Waterway and Indian Creek Canal stemming from roadway drainage systems. Mr. Ruiz also is involved within the coordination between the FDOT and the Contractor.

North Dade Maintenance Facility Drainage Improvement Design. FDOT, District 6.
This project entailed assessing the drainage conditions at the North Dade Maintenance Facility and providing drainage design improvements to mitigate the existing flooding. As Engineer of Record for this project, Mr. Ruiz also designed a four (4) foot high perimeter walls and canopy containment area to contain and dispose seepage from sediments collected by the Department's vacuum truck fleet.

Districtwide Drainage Design & Plans Review Consultant. FDOT, District 6.
This contract entails the design and preparation of construction contract plans for minor projects throughout District 6. As part of this contract, Mr. Ruiz performed field coordination, data collection, drainage design and review, milling and resurfacing, pavement restoration, traffic control plans, specifications, cost estimate, shop drawings review and project management. The projects included under this contract include:

- Drainage Containment Area at the North Dade Maintenance Yard
- Drainage Improvements to Collins Avenue at 26th Street and 43rd Street
- Drainage Improvements to S.R. 968 W. Flagler Street at I-95
- Ditch Pavement at SW 77 Avenue between SW 18th Terrace and SW 16th Street
- Drainage Improvements to the Outfall next to the seawall at Bal Harbour on SR A1A
- Drainage Improvements to Collins Avenue at 77th Street
- Drainage Improvements to North Bay Road at W 52nd Street
- Ditch at NW 215th Street and NW 27th Avenue
- Drainage Improvements to 59001 Overseas Highway at Grassy Key

Arch Creek Structure G-58 Culvert Repair Final Design and Permitting. Florida Department of Transportation – District 6.
Mr. Ruiz was a Project Engineer for the Arch Creek Final Design. As part of this project, ADA revised the "Push-button" design plans prepared under Task Work Order No. 7 for the proposed repairs for the Arch Creek Structure (Structure G-58) culverts, in order to use the final plans for construction letting. Mr. Ruiz also assisted with the Maintenance of Traffic plans for this project.

MARIA LOINAZ, PE, PhD

Sr. Water Resources Engineer

Ms. Loinaz has extensive experience in mathematical modeling of water quality, hydraulic and hydrologic systems, with emphasis on surface water and ground water interactions. Her experience includes studies of a range of environments, from engineered hydraulic systems to natural systems, for many types of water resources applications and at different levels of modeling complexity and numerical solutions. She also has experience and special interest in water quality and aquatic ecosystem modeling. Ms. Loinaz has completed a doctorate in the area of integrated eco-hydrological modeling.

Western Basins Water Resources Evaluation Project. SFWMD.
Ms. Loinaz is a lead hydrologic modeler and project manager in the Western Basins Water Resources Evaluation Project. The project evaluates potential hydrologic and water quality improvements for non-Everglades Construction Project basins, which discharge directly into the Everglades Protection Area without going through a stormwater treatment area. The modeling consists of an integrated surface water/groundwater and phosphorus model of the Western Basin to evaluate improvement measures and the evaluation of the potential impacts of the measures.

STA 1W Expansion Project. SFWMD.
Ms. Loinaz was a lead hydrologic modeler in the SFWMD STA 1W Expansion Project Watershed Hydraulic Study. Hydraulic modeling was conducted to determine the most effective flow patterns to maximize nutrient retention. Both 1D and 2D surface water models were utilized in the analysis. The modeling was used to evaluate configure and design the infrastructure needed for the 6,500 acre expansion of STA-1W.

Lehigh Acres Municipal Services Improvement District.
Ms. Loinaz assisted in the development of an integrated surface water and groundwater model of the Lehigh Acres Municipal Services Improvement District and surrounding areas of Lee County. The model will be used to evaluate various water resources improvement projects to reduce flooding risk, identify surface water storage opportunities in the basin that would attenuate freshwater runoff to estuaries, maximize groundwater recharge, and restore natural flow in wetlands areas.

Cape Coral Stormwater Management Plan. City of Cape Coral.
Ms. Loinaz assisted in the development of an integrated surface water and groundwater model of the City of Cape Coral and its contributing watersheds. The model was used as a tool to quantify sub-basin water budgets and surface water and groundwater interactions, and to evaluate various water management scenarios that address water distribution and flooding issues. The projects evaluated included improvements to the surface water system and enhanced operations of water control structures.

Charlotte Flatwoods Initiative. HDR and Florida Department of Transportation.
Ms. Loinaz conducted a hydrologic modeling study of a 560 square mile area that drains into the Charlotte Harbor and Caloosahatchee River estuaries to identify flow blockages that impede flows from east of I-75 to west of I-75 south of Punta Gorda. This project will improve wetland hydroperiods, enhance upland habitat, reduce excessive wet season freshwater discharges to tide, improve estuarine health, and is anticipated to reduce the overall cost of expanding I-75 from 2 to 3 lanes between Tuckers Grade Road and the Lee County Line.

Tiger Bay-Bennett Swamp Model Update Project. St. Johns River Water Management District.
Ms. Loinaz worked on the development of an integrated surface water-groundwater modeling project for the Tiger Bay/Bennett Swamp to evaluate water management strategies. Responsible for expansion and re-calibration of an integrated surface water-groundwater model for western Volusia County, Florida. The model has been used to evaluate engineering alternatives designed

EDUCATION
Ph.D. Department of Environmental Engineering, 2012, Technical University of Denmark

M.E. Department of Environmental Engineering Sciences, 2005, University of Florida

Post Baccalaureate Department of Environmental Science, 2000, University of Puerto Rico

B.A. in Environmental Studies, 1997, Washington University, St. Louis, MO

REGISTRATION
2008, Professional Engineer, Florida (No.68443)

MEMBERSHIPS
American Water Resources Association

KEY EXPERIENCE
Integrated Surface Water/Groundwater Systems
Watershed Management
Hydraulic Systems
Wetlands Mitigation
Water Quality Analysis
Eco-hydrology
Hydrologic, Hydraulic & Water Quality Modeling

to enhance ground water recharge through use of additional surface water storage, and reduce additional growth related groundwater drawdown.

Wood River Valley and Silver Creek Basin Flow and Stream Temperature Model
Ms. Loinaz developed and calibrated an integrated surface water - groundwater model of the Wood River Valley and coupled the model with a stream temperature and fish model of the Silver Creek Basin in south-central Idaho. A stream temperature model includes heat exchanges with the shallow groundwater was developed and coded in an EcoLab template and coupled to a MIKE SHE/MIKE 11 model. The project addressed the issues of water scarcity, intensive agricultural practices, climate change, high stream temperatures, and fish habitat degradation. The model was used to evaluate several stream restoration scenarios varying different contributing factors of stream habitat deterioration at the catchment scale

Hove Catchment, Denmark Integrated Eco-hydrologic Model
Ms. Loinaz developed ecological modeling approach to evaluate pesticide toxic effects in stream ecology. The model was linked to an integrated hydrological model of a Danish agricultural catchment that routes the pesticide mass loads from the fields to the streams. The output of the model serves to generate stream maps of ecological status as a function of catchment-scale water management strategies, which can be used for river basins water management plans.

Modeling Discharge from an Advanced Wastewater Treatment Facility to Surface Canals for Indirect Potable Use
Ms. Loinaz was manager and modeler in the development of an integrated surface water-groundwater hydrodynamic and advection-dispersion transport model and a water quality model for micro-contaminants using MIKESHE/MIKE 11 and EcoLab. The model was designed for an advanced wastewater treatment (AWT) pilot study to evaluate the impact of discharging reclaimed water to the East Holloway Canal recharging the Old Plantation Water Control District (OPWCD) canals and ultimately the Biscayne Aquifer. The overall objectives of the proposed study were to evaluate the removal of micro-contaminants by AWT, and to model the transport of AWT-treated water to predict reuse discharge transport and reaction, thereby identifying potential water quality impacts to surface canals. The purpose of the model was to establish the hydrodynamic conditions for studying the fate and transport of micro-contaminants from point source discharges in the channel system and subsequent exchanges with the Biscayne Aquifer.

Broward County Integrated Water Resources Management Master Plan
Ms. Loinaz was one of the lead modelers in the development of a baseline integrated surface and groundwater model of Broward County, FL. The model is used to evaluate alternative water resource projects intended to improve use of available surface water and Biscayne Aquifer groundwater resources. The Broward County Floridan aquifer model is used to evaluate use of the Floridan aquifer to reduce the County's dependence on surface water and Biscayne Aquifer water sources. Modeling results are used to develop an integrated water resources management master plan for Broward County to plan future capital improvement projects.

Kissimmee Watershed Hydrologic Assessment, Modeling, and Operations Planning
Ms. Loinaz was a project modeler involved in the following phases of the project: development and calibration of a detailed integrated surface and groundwater model; adaptation of the calibrated model into a future conditions model (which include Kissimmee River restoration projects); development of numerous alternatives using a water budget model (developed in OASIS) to be used as a screening tool; development of selected alternatives in the surface water model; and development of the final alternatives in the integrated surface water-groundwater model. The objective of the project was to assess how existing operating criteria for water control structures can be modified to achieve a more acceptable balance between flood control, irrigation demands, water supply, aquatic plant management, and the natural resource requirements in the watershed.

Four County Corners Project Freshwater Caloosahatchee River Basin
Ms. Loinaz refined an existing integrated surface water-groundwater model of the Four County Corners area in the Freshwater Caloosahatchee River Basin. The model was used to evaluate a number of engineering alternatives to alleviate flooding in the area and potentially improve the hydrology of several impacted sloughs in the area.

Southwest Florida Feasibility Study Regional Integrated Hydrologic Model Project
Ms. Loinaz refined a previously developed regional surface water-groundwater model of the Southwest Florida Feasibility Study area. The regional model was developed from four existing sub-regional models. The calibrated model has been used to develop a natural systems model that will be used to define baseline conditions for the area. The South Florida Water Management District and the United States Army Corps of Engineers plan to use the model to evaluate the regional benefits of Comprehensive Everglades Restoration Projects.

STEPHANIE LONG, PE, PHD

Engineer

Ms. Long has expertise in the areas of environmental and water resources engineering, hydrology, hydraulics, remote sensing, GIS mapping, watershed modeling and investigation, chemical hydrology and water quality, and sustainability. Highlights of her previous experience include:

- Developed and managed interdisciplinary, cross-institutional projects related to the impacts of climate change, pollution loading, ecological restoration efforts, and severe storm events.
- Supported the development of several hydrological numerical models and provided project expertise on water quality.
- Supported business development, prepared proposals, developed training programs, and developed marketing materials including power point presentations.

Development of 2D hydrodynamic model of Stormwater Treatment Area STA 1W. SFWMD.
Supported development of a two-dimensional model of the existing Stormwater Treatment Area STA 1W using MIKE 21, MIKE 11 and MIKE Flood Performed simulations for verification and calibration of the model Prepared GIS maps for vegetation, Manning's parameters, and topography.

Development of a MODFLOW Model of the Proposed L-8 Reservoir. South Florida Water Management District (SFWMD).
Ms. Long helped develop a MODFLOW model of Palm Beach County in the vicinity of the proposed L-8 Reservoir to determine the impact of large water level fluctuations (more than 30 feet) on adjacent rural residential and agricultural operations. The 46,000-acre-foot reservoir is currently under construction, and is intended for use as a flow equalization basin for Stormwater Treatment Area 1W (STA 1W) to reduce peak flows and provide a more stable base flow to enhance nutrient retention.

Joint Use Agreement with FDOT for Segments 3 and 4 of SR 82. Lehigh Acres – Municipal Services Improvement District.
Mrs. Long updated an existing MIKE SHE/MIKE 11 model of LA-MSID with focus on the southern basins that receive discharge from the bordering SR 82. Expansion of SR 82 will cause additional run-off volumes, so various proposed simulations will be run to determine if the major canals can receive the additional run-off during a 25-yr design storm event. Mrs. Long is the Project Manager for this project.

GS-10 Preliminary Engineering Analysis for Water Storage Area and Greenbriar Preserve Rehydration. Lehigh Acres – Municipal Services Improvement District.
Mrs. Long re-built a MIKE SHE/MIKE 11 model of LA-MSID (formerly ECWCD) with focus on updating structure changes and calibration to new data for the 2013 to 2014 period. Calibration focused on the Section 10 (GS-10) and proposed scenarios were analyzed to determine the feasibility of using GS-10 for water storage. Several scenarios were developed and analyzed using the 2-year simulations to determine the best operation to 1) reduce peak flows to the Caloosahatchee, 2) store water in the dry season, and 3) rehydrate Greenbriar Preserve in the wet season.

Hydraulic Modeling in Support of ERP Application for Weir 29 Improvements. City of Cape Coral.
Mrs. Long updated an existing MIKE SHE/MIKE 11 model of portions of Charlotte and Lee County, focusing on the Yellow Fever Creek watershed and the City of Cape Coral. Detailed information was added to the model to better represent structures and channel dimensions in the Yellow Fever Creek watershed and its contributing basins. The updated model was calibrated, design storms were simulated, and areas of flooding were identified. The model results were processed to determine the optimal design for the proposed Structure 29.

EDUCATION
PhD, 2014, Environmental Engineering,
Florida International University

MS, 2009, Environmental Engineering,
Florida International University

BS, 2006, Civil Engineering,
Florida International University

REGISTRATION
2015, Professional Engineer,
Florida

KEY EXPERIENCE
Hydrologic modeling: MIKE SHE/MIKE 11/MIKE 21/MIKE FLOOD/ECOLAB, Groundwater Vistas, MODFLOW, ArcGIS, XP-SWMM

Remote Sensing software: ERDAS/IMAGINE, ENVI/IDL

AutoCAD, MATLAB, COMSOL Multiphysics Modeling

GEMS (Gibbs Energy Minimization Software for complexation of inorganic aqueous constituents)

RICARDO REYNA, PE
Roadway Engineer

Mr. Reyna has over 29 years of work experience encompassing all aspects of highway design including roadway analysis, horizontal and vertical alignments, cross sections, typical section package, pavement design package, long range estimate, design exception/variations, RRR reports, plans preparation, Community Awareness Plan (CAP), Drainage mini-drip, Permit Involvement Form (PIF), Permit Required Memo (PRM), traffic control plans, signing and pavement marking, quantities and cost estimates, specifications, quality control and utility coordination. Proficient with Geopak, FDOT 552, FDOT 554, AutoTurn, Projectwise, Tran*port, Project Suite Enterprise Edition PSEE, Quantity and Computation Manager, Digital Delivery, Microsoft Office, Microsoft Project and some experience in 3D corridor modeling. Mr. Reyna has been roadway team leader in various projects and is highly experienced in preparing staff hour estimates and automated fee proposals.

FDOT District 4, SR-806 / Atlantic Avenue from SR-7/US-441 to West of Lyons Road.
The proposed project consists of the widening and reconstruction of SR 806, generally along its existing alignment, from a two- lane rural arterial to a four-lane divided roadway with provisions for a future six-lane divided roadway. Responsibilities included typical section package, roadway plans, signing and pavement markings plans, traffic control plans, pavement design package and Long Range Estimates. Coordination with adjacent projects.

FDOT District 4, SR-5 / US-1 from North of Hypoluxo Road (MP 17.455) to Waterway Drive (MP 18.749).
Responsibilities included development of roadway plans, curb ramps improvements, signing and pavement markings plans, traffic control plans, pavement design package, typical section package, and Long Range Estimates.

FDOT District 4, SR 9/ 1- 9 5 at Gateway Boulevard Interchange Project.
The scope involves milling and resurfacing, curb ramps improvements, signing and pavement markings, signalization, traffic control plans, pavement design memo, typical section package, job specific quality plan (JSQP), CAP, Drainage Mini-drip, PRM, PIF, Long Range Estimate, Schedule updates, coordination with subconsultants, variation of cross slope and sidewalk width, and quantities.

FDOT District 4, US-1 From Oakland Boulevard to Commercial Boulevard Project, Broward County, FL.
Subconsultant's engineering design services to prime (Erdman Anthony). Responsibilities included design variations of lateral offset, cross slope and stopping sight distance at intersections, Drainage mini-drip, PRM, PIF, drainage structures cross section, and utility coordination.

FDOT District 4, SR 9/1-95 at Linton Boulevard Interchange Project.
This project involves realignment of the interchange ramps and widening of Linton Boulevard from west of Congress Avenue to SW 10th Street to meet the projected traffic levels in 2040. Responsibilities included roadway horizontal and vertical design, cross section, intersection plan details, and overbuild calculations.

FDOT District 4 In House Staffing Support.
Responsibilities included in assisting FDOT PM, Anson Sonnett with the projects under his direction while he was filling in another role at FDOT. Projects managed under this task were classified as PDE, Standard Design, Design Build and Post Design.

FDOT District 5, 1-4 Ultimate Public Private Partnership.
This PPP project consisted of 21 miles of reconstruction extending from Kirkman Rd. to SR 434. Responsibilities included roadway horizontal and vertical design as well as developing the cross

EDUCATION
B.S., Civil Engineering, University of Florida, 1987
M.S., Civil Engineering, Florida International University, 2007

REGISTRATION
Professional Engineer, Florida (No. 48248)

SOFTWARE
Geopak, FDOT SS2, FDOT SS4, AutoTurn, Projectwise, Tran*port, Project Suite Enterprise Edition PSEE, Quantity and Computation Manager,

KEY EXPERIENCE
Roadway Reconstruction and Resurfacing
Water and Sewer
Drainage Improvements
Oversight of Inspectors
Cost Estimating
Scheduling

sections for the 1-4 and Maitland Boulevard Interchange (Segment 4) as well as development of cross sections for the Traffic Control Plans of all phases during the Ultimate Design-Build phase.

Miami-Dade Expressway Authority (MDX); RT Infrastructure Modifications Design Build.
The scope of work included the necessary infrastructure modifications to support the ORT conversion of SR 836 between NW 62nd Avenue and 1-95 and all the civil work necessary to accommodate the System Integrator's ORT tolling equipment while preserving MDX's aesthetic and functional requirements for 11 tolling locations on SR 836. Responsibilities included roadway design, profile design, cross slope corrections, overbuild calculations and details, roadway cross section, roadway plan preparation and traffic control plans.

FDOT District 4, SR 713/Kings Highway from SR 70 at Florida's Turnpike to north of 1-95 Overpass, St Lucie County, FL.
Subconsultant's engineering design services to prime BCC. Responsibilities included design and production of the Signing and Pavement Marking Component of the Contract Plans.

FDOT District 4, SR 808/Glades Road Project Development and Environment (PD&E) Study.
The purpose of this project was to address capacity improvements (including provision for special use lanes), multimodal and premium transit alternatives, bicycle, and pedestrian accommodations. Responsibilities included the development of alternatives, typical sections, roadway plans, signing and pavement makings plans and exhibits.

FDOT District 4, SR 91 Florida's Turnpike, Shoulder Stabilization and Guardrail Mounting Height Correction from MP 117.800 to MP 125.490, FL.
This was a maintenance project; responsibilities included filed review, plans preparation and cost estimate.

FDOT District 6, Port of Miami Tunnel Design-Build Project.
This design-build project involved a 2-lane tunnel connecting Watson Island and Dodge Island (Port of Miami); widening, improvements and reconstruction of MacArthur Causeway and Parrot Jungle Trail; new construction of ramps leading to the tunnel; and a modified roadway circulation plan with grade separated roadways on Dodge Island. Responsibilities included roadway design, plans production, profiles design, roadway cross sections, traffic control plans, site plans, Utility profiles, signing cross sections.

FDOT District 4, SR 9/1-95/Auxiliary Lanes Design-Build RFP Package.
Roadway Project Engineer for development of a Request for Proposal for this design-build project. The project included design of a new interchange south of Yamato Road, widening on 1-95, Glades Road, Yamato Road, and Spanish River Boulevard. Responsibilities included development of the RFP package, and design and construction criteria.

FDOT District 4, SR-716/Port St. Lucie Boulevard from Florida's Turnpike to Petunia Avenue, FL.
Roadway Project Engineer and EOR. This RRR project involved milling and resurfacing, left turn lane extensions and drainage improvements within the city of Port St. Lucie. Responsibilities included roadway plans, computation book, estimates, plans preparation, and post design services.

FDOT District 4, SR A1A / Ocean Drive Resurfacing, St Lucie County, FL.
Project Manager and EOR for this RRR project of SR AlA which limits extended from the Regency Island Dunes Hotel (MP 3.080) to the entrance of Walton Rock Beach (MP 5.805), 2.7 miles. This project included milling and resurfacing of the existing pavement, shoulder rework, minor sidewalk modifications, minor drainage modifications, and signing and pavement making. Responsibilities included roadway design and plans production, signing and pavement markings, traffic control plans, quantities, Trn*port, cost estimate and post design services.

FDOT District 6, SR-5/US-1, Miami-Dade County, FL.
This roadway project located between MP 11.27 and MP 13.94, total distance of 2.67 miles, consisted of reconstructing of the existing rural 2-lane roadway with a typical section that provided a median barrier wall and 12-foot lanes. The project also included an elevated section and bridge above land to allow safe wildlife crossing on SR-5/US 1. Responsibilities included roadway horizontal and vertical design, cross sections, plans production, signing and pavement markings, traffic control plans, quantities and cost estimate.

CESAR D. LUGO DE JESUS, MECE, PE

Mechanical Engineer

Mr. Lugo is a mechanical / environmental engineer with vast experience in the development of water and wastewater infrastructure projects for both private and public sector clients. His work experience includes the planning, design, permits procurement, project management and services during construction. Mr. Lugo has been responsible for the project management and design of public and private sector projects, development of technical and economic proposals, coordination and supervision of sub-consultants, client management, project's quality control and assurance, project's budget and schedule development, tracking and compliance, cost-estimating, bid package and technical specifications development, design services during construction, among others.

Treatment System Design for Potable Water System. Janssen Ortho LLC.
This project entailed the design of a treatment system to remove trihalomethanes and haloacetic acids for the potable water system of Janssen Ortho LLC, in Gurabo, Puerto Rico. The project included new cartridge filters and granular activated carbon filter, along with electrical and control system.

Effluent Reuse Treatment System Design. Janssen Ortho LLC.
The project involved the design of the treatment system that would allow Janssen Ortho LLC, in Gurabo, Puerto Rico, to reuse the effluent of their existing wastewater treatment plant for make-up water in their cooling towers and boilers. The project included new ultra-filtration a!1d reverse osmosis systems, along with pumping systems and ancillary equipment.

Design Modifications Wastewater Treatment Plant. Coca Cola Caribbean Bottlers Trinidad & Tobago LTD.
Mr. Lugo led the design of the modifications to the Coca Cola Caribbean Bottlers Trinidad & Tobago LTD wastewater treatment plant located in Trinidad. The project included replacement of pumping units, installation of new oil skimmer system, replacement of bio filter media, installation of new motor control center and main control panel.

Olay Wastewater Treatment Plant Capacity Evaluation.
This project involved performing a capacity evaluation of the Olay Wastewater Treatment Plant in their facilities in Cayey, Puerto Rico, to determine the improvements required to process the additional wastewater flows projected.

Planning Report of the Sierra Maestra Community Sanitary Sewer and Water Distribution Systems. Puerto Rico Aqueduct and Sewer Authority (PRASA).
For this project, Mr. Lugo was the Project Manager for developing and evaluating feasible alternatives to provide sanitary sewer and water distribution system for the residents of the Sierra Maestra Community located adjacent to the Laguna San Jose in San Juan, Puerto Rico. The planning report included the calculation of population projections and expected flows.

Design of the New Water Distribution System for the Campo Alegre Ward, Sectors 10-1 & 10-2 in Hatillo, Puerto Rico. PRASA.
The project consisted of the construction of a new 178 gpm pump station, and the installation of a new 4-inch diameter distribution water pipeline, 6.1 km long, from the new pump station to the sectors being served by the system. The project included the preparation of the Maintenance of Traffic Plan (MOT) following the requirements of the Puerto Rico Highway Transportation Authority. Mr. Lugo was the Project Manager for this project.

EDUCATION
M.E., 2000, Environmental Engineering, University of Puerto Rico, Mayaguez Campus

B.S., 1997, Electrical Engineering, University of Puerto Rico, Mayaguez Campus

REGISTRATION
Professional Engineer, Florida (No. 80140)

Professional Engineer, Puerto Rico (No. 18122)

Certified Energy Manager (CEM-Cert. # 13689)

Construction Document Technologist (CDT) by the Construction Specifications Institute

SKILLS
Microsoft Office (Word, Excel, Power Point); MS Project; AutoCAD; Biowin

KEY EXPERIENCE
Project Management

Water & Wastewater

Mechanical Engineering

Environmental Engineering

Design of the Improvements to the Rio Arriba Water Treatment Plant Compliance project in Arecibo, Puerto Rico. PRASA.
The project consisted of the installation of a new 8-in diameter raw water pipeline, 6.0 km long, from the Ojo de Agua Well No. 5 to the Intermediate Tank, and equipment and process modifications in the water treatment plant to improve the compliance record of the facility. The project included the preparation of the Maintenance of Traffic Plan (MOT) following the requirements of the Puerto Rico Highway and Transportation Authority.

Design of Improvements to the Sanitary Sewer System of the Covadonga Public Housing Development project in Trujillo Alto, Puerto Rico. PRASA.
The project consisted on relocation of existing gravity sewer lines to eliminate overflows and facilitate maintenance activities.

Mechanical design of the Improvements to the Santa Isabel Wastewater Treatment Plant project in Santa Isabel, Puerto Rico. PRASA.
For the Santa Isabel Wastewater Treatment Plan project, Mr. Lugo, as Project Manager provided design for a new influent equalization basin, modification to the existing sequencing batch reactor tanks, replacement of the existing aeration blowers, new chlorine contact tank and replacement of the existing effluent pumps.

North and Metro Regions Capital Improvement Program. PRASA.
As Deputy Pre-Construction Manager for the PRASA's North and Metro Regions Capital Improvement Program, Mr. Lugo's responsibilities included performing and supervising project management activities of the pre-construction phase of the projects involved, supervision of engineers and client management. The Pre-Construction activities comprised the planning, design, procurement and bidding phase, all of which were performed based on strict scheduling and budget requirements. Some of the projects he managed under this program were:

- Corozal Urbana WTP New Water Distribution Tank in Corozal. (Construction Cost: $1.9M)
- Corozal WWTP Expansion in Corozal. (Construction Cost: $6.0M)
- Enrique Ortega Sludge Treatment System discharge pipe in Toa Alta. (Construction Cost: $1.6M)
- Enrique Ortega WTP Water Hammer Arrest System in Toa Alta. (Construction Cost: $678K)
- Espinosa and Ponderosa Communities Sanitary Sewer System in Vega Alta. (Construction Cost: $5.6M.
- Sergio Cuevas WTP Equalization Basins in Trujillo Alto. (Construction Cost: $7.6M)
- Unibon WWTP Expansion in Morovis. (Construction Cost: $960K)
- Vega Alta Sanitary Trunk Sewer in Vega Alta. (Construction Cost: $2.9M}
- Vega Baja WTP Compliance Improvements in Vega Baja. (Construction Cost: $4.0M)

Construction Management for the rehabilitation of the Pepsico Wastewater Treatment Plant in Cidra, Puerto Rico. Pepsico.
This project included the replacement and modifications of existing treatment units including pumping systems, aeration blowers, clarifier mechanisms and chemical feed system, and the installation of a new plate and frame filter press. Key project activities included supervising and assisting field staff in the development of the scopes of work, assisting Pepsico in the procurement processes, follow up of project schedules, and coordinating field work between the contractor and the Pepsico staff. Mr. Lugo was the Construction Manager for this project.

Water Reuse Master Plan for Janssen Ortho LLP and Century Packing Corp., in Gurabo and Las Piedras,
The project objective was to evaluate and recommend opportunities for water reuse and water consumption reduction throughout the facilities that would result in savings in their water and wastewater bills, and provide acceptable rate of returns once implemented.

Provide Services during Construction for the Caguas Regional WWTP Expansion, the Ciales WWTP Expansion, and the New Morovis WWTP. PRASA.
Mr. Lugo's key tasks as Senior Project Engineer for this project included coordination with local and external sub-consultants, evaluation construction submittals and requests for interpretation (RFI), and construction supervision to confirm that the projects were constructed in compliance with the design intent.

Wastewater Infrastructure Master Plan. PRASA.
Mr. Lugo was the Planning Leader for the Master Plan and was responsible for the island-wide planning of the water infrastructure projects required for a 30 years' period.

ALBERT ARGUDIN, JR., CGC
Construction Manager

Mr. Argudin has over 16 years of experience in the construction and engineering industry. Diversified in horizontal and vertical construction projects, he has proven to have the ability and experience to manage project constraints such as time and cost and deliver projects that comply with the construction documents.

South Miami Heights Water Treatment Plant (SMHWTP) Construction Phase Services for Class V Injection Well, Upper Floridan Test Wells and Finger Canal. Miami-Dade Water & Sewer Department (MDWASD).
Mr. Argudin is the Contract Manager for WASD Contract W-930 and the Closure of the Finger Canal at the South Miami Heights Water Treatment Plant. He is responsible for coordinating with the WASD Project Manager to ensure that the proper level of effort is provided by ADA to complete the project. Contract W-930 is phased in two parts. Part A consists of (1) Class V Injection Well, (1) Dual-Zone Monitor Well and other incidental activities located at the South Miami Heights Water Treatment Plant (SMHWTP) site. The Class V Injection Well will be constructed to a depth of approximately 3,500 feet below land surface (bls) and the Dual-Zone Monitor Well to a depth of approximately 1,850 bls. Part B includes the construction of (3) Upper Floridan Aquifer Test Production Wells and other incidental activities. The test wells will be constructed to an approximate depth of 1,400 feet (bls) at the Roberta Hunter Park, Black Creek Canal site and the SMHWTP. The construction duration for this project is 560 consecutive calendar days from Notice to Proceed (NTP).

Rehabilitation of 54-inch Diameter Force Main from SW 280 Street to SW 248 Street. Miami-Dade Water & Sewer Department (MDWASD).
This project is comprised of the rehabilitation of an existing 54-inch force main that leads to the South District Waste Water Treatment Plant. The rehabilitation design includes tapping the existing force main with line stops, insertion and pull pits, new plug valves, and connections to other large diameter force mains. At this time, alternative rehabilitation methods have been proposed by the design team and are being considered by WASD. ADA has prepared conceptual plans, portions of the Basis of Design Report and Permit Matrix, utility coordination as well coordination with the regulatory agencies and is moving forward towards the 30% Submittal milestone. Mr. Argudin is the Task Manager responsible for ensuring that the production schedule is met as well as utility coordination, and performing constructability reviews.

New 54" Force Main to Meet WASD's Consent Decree. MDWASD.
As part of the Consent Decree Program, a new 54-inch force main that will run from SW 127 AVE to SW 248 ST will be designed and constructed. ADA has prepared conceptual plans, portions of the Basis of Design Report and Permit Matrix, utility coordination as well coordination with the regulatory agencies and is moving forward towards the Final Submittal Submittal milestone. Mr. Argudin is the Task Manager responsible for ensuring that the production schedule is met as well as utility coordination, and performing constructability reviews.

NW 170th Street Water Main. Miami-Dade Water and Sewer Department. MDWASD.
ADA was responsible for designing the micro-tunneling portion of the 36" water main that traversed underneath I-75. The micro-tunneling consisted of a 52" Perma-lok casing with spacers. In addition to the design, ADA was responsible for the permitting of the entire water main through the regulatory agencies including FDOT, inspected the micro-tunneling operation and certified the micro-tunneling portion of the water main. Mr. Argudin was the Project Manager for the services provided by ADA and was responsible for completing the project within budget and on time.

South Miami Heights Water Treatment Plant. MDWASD.
ADA was assigned as the Construction Manager for the noted facility encompassing a 20 million gallon per day (MGD) nano-filtration membrane softening plant, including but not limited to, a 5

EDUCATION
M.S., 2004, Construction Management, Florida International University

B.S., 1999, ESS, University of Florida

REGISTRATION
2005, State Certified General Contractor, Florida (No. 1510041)

CERTIFICATIONS
Intermediate Workzone Traffic Control (FDOT)
Asphalt Paving Level I (CTQP)
Asphalt Paving Level II (CTQP)
QC Manager (CTQP)
Micro-Computer Aided Cost Estimating Second Generation (MII)
Primavera P3E
Florida Stormwater Erosion and Sedimentation Control (FDEP)

KEY EXPERIENCE
Construction Management
Water and Sewer
Drainage Improvements
Oversight of Inspectors
Roadway Reconstruction and Resurfacing
Cost Estimating
Scheduling

MGD water reservoir, high service pump station, yard piping including a 36" DIP water main, post treatment chemicals, degassifier contact basin, electrical switch gear, electrical rooms, generators, membrane process equipment, pretreatment strainers and building structures. Construction management (CM) services will include full integration of ADA's staff with WASD staff to develop a seamless team and provide complete CM coverage commencing with pre-bid services (contract review) through construction close-out. General activities during construction included daily inspections and reporting, maintenance of a daily log, review and approval of construction schedules and schedule of values, responding to Request for Information (RFI's), processing and authorizing progress payments including allowance accounts and change orders. Mr. Argudin provided oversight of ADA's staff as well as contract management.

Preston Water Treatment Plant. MDWASD.
As a sub-consultant, ADA provided a needs assessment for the structural, mechanical and civil components of the water treatment plant. The assessment is comprised of three phases: data collection, facility inspections, and report composition. As part of its report, ADA also provided a budgetary estimate for the items that need to repaired or replaced. ADA is also completing a gap analysis for the plant's existing as-builts. As-builts that are not identified will have to be created based on the existing equipment and assets. ADA was in the process of obtaining building permits and a modification to the plant's ERP with the SFWMD for the new On-Site Chlorine Generating Building that will be constructed on site. A split configuration for the facility is being implemented. The actual building and equipment will be located on the SE corner of the property and the Brine tanks will be located on the NW corner of the plant. ADA was responsible for the paving, grading, drainage and utilities portion of the project as well as the plumbing and HVAC system for both locations. Mr. Argudin was the Project Manager for these projects and was responsible for allocating the necessary resources to complete this task within budget and on schedule.

SCADA – Pump Station Evaluations. MDWASD.
As a sub-consultant, ADA provided a team of Inspectors to evaluate the existing conditions of over 300 pump stations throughout Miami-Dade County. The documentation consisted of the conditions of the wet well, bubbler readings, and depth of wet well to water surface and pipe invert. Mr. Argudin was the Project Manager for this project and was responsible for ensuring that the evaluations were completed within the required schedule.

San Marcos Island Drainage Pump Station and Storm Sewer System. Capital Improvements Program City of Miami.
As part of the General Construction Engineering Observation Contract with the City of Miami (City), ADA provided staff to observe and document the construction of a new stormwater pump station with drainage wells and an overflow outfall to Biscayne Bay. The stormwater system also included French drain and gravity storm sewers. Roadway reconstruction was also included in the project scope. Mr. Argudin was the Project Manager on this contract and was responsible for managing the ADA staff, attending coordination meetings with the City, Contractor, and design professionals, reviewing payment requests, and schedule review.

Biscayne Island Roadway and Drainage Improvements. Capital Improvements Program. City of Miami.
As part of the General Construction Engineering Observation Contract with the City of Miami (City), ADA provided staff to observe and document the construction of a new stormwater collection system. The stormwater collection system is connected to 3 outfalls, which were reconstructed via pipe bursting. Roadway reconstruction and milling and resurfacing were also included in the project scope. Mr. Argudin was the Project Manager on this contract and was responsible for managing the ADA staff, attending coordination meetings with the City, Contractor, and design professionals, reviewing payment requests, and schedule review.

Federal Emergency Management Agency (FEMA) Master Consultant for Miami-Dade County Division of Recovery and Mitigation (DORM). Miami-Dade County Department of Environmental Resources Management (DERM).
Mr. Argudin was the Office Engineer for the FEMA DORM Master Consultant project. The project consisted of countywide roadway reconstruction, roadway resurfacing and drainage improvements. Upon completion of the project, Mr. Argudin and the Construction Engineering Inspection (CEI) team had managed approximately $40 million dollars in construction costs. As the office Engineer, he was responsible for the cost control of the project, generated cost estimates for all the work to be performed at each site, and as part of the Quality Control Process, reviewed the designs to minimize constructability issues that could arise in the field. Periodically, he performed site visits to ensure that operations were going smoothly and verified that the proper traffic control devices were being utilized and that the proper safety measures were being implemented. He was also responsible for providing oversight of the inspectors that were managed by ADA.

OLGA CASADEVALL, EI
Engineer / CAD Technician

Ms. Casadevall has over 25 years of engineering consulting experience encompassing planning and design of pipelines and pump stations for water and sewer projects, roadways, resurfacing, restoration and rehabilitation, stormwater infrastructure analysis and bridge and culvert structures design.

Pump Station Rehabilitation and Improvements to Pump Stations 0414-0417. Miami-Dade Water and Sewer Department (MDWASD).
As part of this contract, ADA is providing rehabilitation and improvements to pump stations (PS) 0414-0417. Ms. Casadevall is assisting with the design for the civil portion of this project including the conversion of a wet well system to a dry well with suction piping to allow for operation as a booster pump-station.

Verification and Update of MDWASD's Water System Hydraulic Model. AECOM.
Ms. Casadevall participated in the process of updating the database of all water mains throughout Miami-Dade County using the GIS technologies. Ms. Casadevall updated the GIS shapefiles of water systems to be used by MDWASD on hydraulic models.

NW 170th Street Water Main. MDWASD.
ADA was responsible for designing the micro-tunneling portion of the 36" water main that traversed underneath I-75. The micro-tunneling consisted of a 52" Perma-lok casing with spacers. In addition to the design, ADA was responsible for the permitting of the entire water main through the regulatory agencies including FDOT, inspected the micro-tunneling operation and certified the micro-tunneling portion of the water main. Ms. Casadevall assisted with plans preparation for this project.

Rehabilitation of 54-inch Diameter Force Main from SW 280 Street to SW 248 Street. MDWASD.
Ms. Casadevall assisted with the process of data collections, search of existing utilities, analysis of proposed layout & preparation of plans and profiles.

Gulfstream Elementary School Water Line Replacement. Miami-Dade County Public Schools (MDCPS).
For this project, Ms. Casadevall assisted with the performance process of data collections (Document Control-School Board Administration Building and site visits). In addition, she coordinated and performed site verification of existing conditions with a team of surveyors and plumbers; developed construction contract documents and design the proposed water line; prepared specifications package and is managing the permitting process through the Miami Dade Water and Sewer Department, Public Works, Fire Department, Department of Health (DOH) and Department of Environmental Resources Management (DERM).

Civil Engineering Services for New Art Museum. Miami Art Museum (MAM).
Ms. Casadevall assisted with the design of the proposed gravity sewer line and water main. This task consisted of creating sanitary sewer and water profiles, cross sections including the preparation of the details sheets and calculations for Cut-Fill volumes.

The Reserve at Doral East and Doral West Land Development Projects. MasTerra.
For the Doral East and Doral West Land Development projects, Ms. Casadevall assisted with the preparation of plans for the water distribution and sewage collection systems and coordinated the layout of the systems with the proposed grading and drainage plans. Work on these projects also entailed coordinating with survey crews to obtain existing invert elevations at existing

EDUCATION
B.S., 1988, Civil Engineering, Universidad de la Habana

REGISTRATION
2007, Engineering Intern, Florida (No. 1100011855)

SKILLS
ICPR v3.10, AutoCAD 2009, ArcGIS 10.0, 3D Analyst and Spatial Analyst for ArcGIS 9.0, ArcView GIS 9.3, Spatial Analyst for ArcView GIS 3.3, Access 2010, Office 2010

KEY EXPERIENCE
Structural Engineering Design
Stormwater Analysis
Roadway Design
Plans Preparation
Stormwater & Environmental Permitting

sanitary manholes that had been constructed but not yet accepted by Miami-Dade Water and Sewer Department for an adjacent project.

SR 7 (NW 7th Avenue/US 441) Water Main Replacement. Miami-Dade Water and Sewer Department (M-DWASD).
Ms. Casadevall assisted with the performance process of data collections, utility coordination, design & preparation of plans and profiles for this project. The project consists of replacement of asbestos cement pipes with a 12" DIP force main along SR 7.

Palm Beach International Airport Stormwater Management Master Plan Update. Palm Beach County Department of Airports.
Ms. Casadevall assisted with the basin delineation process and the determination of stage area takeoffs using GIS and CAD technologies as necessary to refine the ICPR model for development of PBIA's Stormwater Management Master Plan and ERP application.

C-139 Basin Stormwater Management Plan Development. South Florida Water Management District (SFWMD).
Utilizing ArcGIS Spatial and 3DAnalyst, Ms. Casadevall assisted with developing topographic and land-use datasets to be used in the Watershed Assessment Model (WAM). This task consisted of categorizing land-use data according to both type and management practice with a unique coding system that would correspond to WAM's parameter databases. Ms. Casadevall then created a series of farm-scale maps for each property that was used for QA/QC purposes.

Stormwater Management Master Plan Update Stormwater Infrastructure Mapping. City of Miami.
Mr. Casadevall was responsible for developing an updated GIS shapefiles for portions of the City of Miami's stormwater drainage infrastructure. For this project, ADA collected project plans and electronic files of the most recent City of Miami stormwater improvement projects and developed multipurpose shapefiles and underlying databases for use by the City in their maintenance programs, utility verification requirements, and NPDES permit reporting responsibilities.

City of Lauderdale Lakes Stormwater Infrastructure Mapping. City of Lauderdale Lakes.
Ms. Casadevall utilized GIS in the development of GIS coverages for existing drainage pipes, canal outfalls, and areas needing bank stabilization.

Districtwide Drainage Design and Plans Review Consultant. Florida Department of Transportation (FDOT), District 6.
Mrs. Casadevall has worked on various projects for the FDOT District 6 District-Wide Drainage and Plans Review Consultant Services Contract. She has worked on the plans preparation for Harding Avenue (SR A1A) Pump Station at NE 88th Street and NE 94th Street and the Collins Avenue (SR A1A) Pump Station at 23rd Street.

Braddock Senior High School. MDCPS.
Ms. Casadevall assisted with the design of the proposed breakout package and the preparation of demolition, paving and drainage plans. She also participated in the design of the proposed water line and the preparation of specifications package. Ms. Casadevall also managed the permitting process submitted to Miami Dade Water and Sewer Department, Public Works, Fire Department, Department of Health (DOH) and Department of Environmental Resources Management (DERM).

State School "QQ-1" New K-8 Facility at F.I.U. North Campus. Drainage System Improvements-Phase I. Miami-Dade County Public Schools (MDCPS).
Ms. Casadevall assisted with the preparation of "AS BUILT" plans for the water main, sewage collection system including the sanitary pump station, Stormwater Management System and the layout of the systems with the proposed grading and drainage plans. Work on this project also entailed coordinating with the survey team to obtain existing invert elevations.

Nordica on 8. Astor Development.
Ms. Casadevall has worked on the Nordica on 8 residential building project where her duties included design and preparation of water, sewer and drainage plans, profile and details sheets. She has also been involved in the preparation of the Stormwater Pollution Prevention Plan (SWPPP). Ms. Casadevall also managed the FDOT permitting process to prepare the packages to get the Utility Permit, Drainage Connection and Driveway Connection permits.

VAMSEE TIRUNAGARI, EI
Engineer

Mr. Tirunagari has over 7 years of experience and has been involved in reconstruction, widening, and rehabilitation design for interstate expressways, interchange ramps, and major state routes in urban and rural locations. His project experience encompasses vertical and horizontal roadway alignment, asphalt and concrete pavement design, ADA improvements, safety improvements, signing and pavement marking, drainage, maintenance of traffic plans, utility coordination and layout, and coordination with municipal and state agencies. He also has experience working as an in-house design consultant, as an extension of the Florida Department of Transportation District 6 team. Mr. Tirunagari is proficient with Microstation, Geopak, ASAD, AutoTurn, GuidSIGN, and Florida Department of Transportation electronic delivery.

Sr 934/E 25th Avenue/E 79th Street from E 4th Avenue/Nw 47th Avenue To E 12th Avenue/Nw 37th Avenue Safety Project. Florida Department of Transportation (FDOT), District 6.
Mr. Tirunagari currently serves as the Lead Designer for this Safety project. The main proposed improvements include access management restriction by installing raised concrete median, converting existing permissive signalized left-turn movements to protected only and two intersections, widening toward the existing medians to provide offset distance to the left-turn lanes from the inner thru lanes at three intersections, signalization improvements (mast arm replacement, SOP design, signal loop design, new signal heads, orientation of signal heads, signage on mast arms, etc.) at four intersections, and signing and pavement markings for pedestrian safety and channelization. The project also requires R/W coordination and acquisition as part of the signalization improvements. Mr. Tirunagari responsibilities include production of Roadway, Signing and Pavement Marking plans, and preparation of Design Packages such as Typical Section Package, Pavement Design Package and Design Variations.

Sr 953/Lejeune Road/Sw 42nd Avenue from Almeria Avenue to Majorca Avenue Safety Project. Fdot, District 6.
Mr. Tirunagari currently serves as the Lead Designer for this Safety project. The scope of the project encompasses safety improvements such as access management restriction by installing raised landscaped medians, median widening to provide offset distance to left-turn lanes at one signalized intersection, replacement of four mast arms with four new standard mast arms, drainage improvements and signing and pavement markings including pedestrian warning signs ahead of and at crosswalks. Mr. Tirunagari responsibilities include production of Roadway, Signing and Pavement Marking plans, managing personnel and preparation of Design Packages such as Typical Section Package, Pavement Design Package and Design Variations.

Sr 90/Sw 8th Street at Sw 67th Avenue Safety Project. Fdot, District 6.
Mr. Tirunagari currently serves as the Lead Designer for this Safety project. The main proposed improvements include milling and resurfacing and removal of concrete decorative crosswalk to improve pavement friction, minor cross slope correction, curb ramp reconstruction to meet ADA criteria, pedestrian signalization improvements, and signing and pavement markings including pedestrian warning crossing signs ahead of and at crosswalks. Mr. Tirunagari is responsible for the Roadway, Signing and Pavement Marking plans production and preparation of Design Packages as Typical Section Package and Pavement Design Package.

Sr 817/Nw 27th Avenue from Nw 165th Street to Nw 171st Street Safety Project. Fdot, District 6.
Mr. Tirunagari currently serves as the Lead Designer for this Safety project. The main proposed improvements include milling and resurfacing the northbound and southbound approaches to the interchange to convert the innermost thru lane into a left-turn lane to provide dual left-turns, installing three new standard mast arms to accommodate the required signal head alignments,

EDUCATION
Masters of Science in Civil Engineering, Florida International University, Miami, FL 2008

Bachelor of Science in Civil Engineering, Osmania University, Hyderabad, India 2006

REGISTRATION
Engineer Intern, MI

CERTIFICATIONS
CTQP Certification in Asphalt Paving Technician Level I
CTQP Certification in Asphalt Paving Technician Level II
Maintenance of Traffic Advanced Level Training

KEY EXPERIENCE
Roadway Engineering and Design

Civil Engineering

Utility Coordination

Drainage Design

access management restriction by extending traffic separators/landscaped medians, median widening to provide standard left-turn tapers and increase storage, modify overhead signing, and signing and pavement marking improvements. Mr. Tirunagari is responsible for the Roadway plans production and preparation of Design Packages as Typical Section Package and Pavement Design Package.

Sr-9a-I-95 Nb From Nw 103 St To Biscayne River Canal. Fdot, District 6.
Project Engineer in charge of Preparation of the contract plans of the concrete pavement rehabilitation project. Scope of the project includes the rehabilitation of the Mainline I-95 and eight ramps connecting I-95 between the limits of the project. Responsibilities include but not limited to QA/QC of the plans and design package submittals, coordination with sub consultants and field visits.

Sr-9a/I-95 Northbound and Southbound Rigid Pavement Rehabilitation Project from Nw 79th Street to Nw 103rd Street. Fdot, District 6.
Project Engineer responsible for the preparation of the contract plans of the concrete pavement rehabilitation project. Scope of the project includes the rehabilitation of the Mainline I-95 and eight ramps connecting I-95 between the limits of the project. Executed design of horizontal and vertical geometry, Typical Section Package, Rigid Pavement Design Package, Design Exceptions and Variations and Specifications. Project required extensive coordination with FDOT Traffic Management Center, FDOT Maintenance and FDOT Construction.

Sr-25/Nw 36th Street from Okeechobee Road To Nw 23rd Avenue. Fdot, District 6.
Project Engineer working as in house design consultant in FDOT District Office, responsible for the preparation of the contract plans and design package submittals. Scope of the project encompasses milling and resurfacing, widening and drainage improvements along SR 25/NW 36th Street. Project consisted of existing features which are substandard and are not in compliance with FDOT and AASHTO standards. Therefore, as per RRR practical design guidelines five (5) design variations and two (2) design exceptions have been acquired successfully.

Sr-922/Ne 25th Street from Ne 7th Avenue to West Of Biscayne Boulevard. Fdot, District 6.
Project Engineer working as in house design consultant in FDOT District Office, responsible for the preparation of the contract plans and design package submittals. The objective of the project is to improve the service life of the existing roadway pavement and substandard ADA features. Responsibilities also included coordination with City of North Miami and preparation of Seven (7) design variations.

MISAEL RAMIREZ
Senior Engineering Technician

Mr. Ramirez is proficient in AutoCAD, Autodesk Civil 3D, Microstation, Geopak, and other Computer Aided Design (CAD) systems such as Autodesk Land Development Desktop, Eagle Point, and Softdesk. Mr. Ramirez supports the Engineers with site development designs such as grading, volume calculations, cross-sections, alignments, stationing, and profiles by applying Autodesk Land Development Desktop. He has developed complete construction drawings based on instructions from the Engineers for several projects.

MDX SR 112 Open Road Tolling at 32nd Avenue. Miami-Dade Expressway Authority.
MDX SR 112 will be improved to include Open Road Tolls (ORT) at two locations, one each side (east and west) at the proximity of the bridge over NW 32nd Avenue. ADA provided support for the design and construction documents to include: Gantry Support and Connections Site Plan and Details; Gantry Building Site Plan and Details; RVSS Site Plan and Details; and Electrical conduits and connections. For this project, Mr. Ramirez prepared design drawings for lighting, milling and resurfacing.

NW 87th Avenue from NW 154th Street To NW 186th Street Design. Miami-Dade County Public Works Department.
Mr. Ramirez prepared design drawings, signing and pavement marking, signalization, and drainage for a proposed drainage system that will collect the rainfall through curb inlets placed at both sides of the road and will route stormwater runoff through pollution control baffles before entering the continuous exfiltration trench (French drain) to be treated for water quality.

97th Avenue from S.W. 72nd Street to S.W. 40th Street Master Planning and Roadway Improvements. Miami-Dade County Public Works Department (MDCPW).
Mr. Ramirez has prepared cross sections, drainage structures, volume calculations and plan and profile sheets for the SW 97th Avenue from SW 72nd Street to SW 40th Street project.

Water Main Improvements N.W. 56th Avenue from N.W. 11th Street to N.W. 19th Street. City of Lauderhill.
Mr. Ramirez assisted with the development of construction contract documents for the water main system for N.W. 56th Avenue from N.W. 11th Street to N.W. 15th Street. The water main replacement included replacing approximately 2 miles of 24-inch asbestos cement pipe to 24" ductile iron pipe.

Concourse "H" Terminal Addition, Miami International Airport (MIA). Miami-Dade Aviation Department (MDAD).
For this project, Mr. Ramirez prepared demolition plans, plan and profile drawings of drainage, water and sewer systems, and details. The project scope included coordination with utility companies & adjacent projects, preparation of cost estimates, preparation of stormwater pollution prevention plan, stormwater system (primary) Hydrologic/Hydraulic modeling of the terminal area basin at Miami International Airport using the XP-SWMM Model, preparation of construction plans and specifications, and construction phase services.

Krome Avenue Drainage Criteria. Florida Department of Transportation, District 6 (FDOT-D6).
As Senior CAD Technician, Mr. Ramirez prepared design drawings for proposed drainage systems for the Krome Avenue intersection improvements. The design included a combination of interconnected French drain systems with self-contained retention swales, with the help of MicroStation and Geopak.

EDUCATION
A.A., 1989, Mechanical Drafting,
Los Angeles Trade Tech College

KEY EXPERIENCE
AutoCAD/ Autodesk Civil 3D
MicroStation/ Geopak
Plans and Profiles
Cross Sections
Drainage Structures
Volume Calculations

KEVIN E. AUBRY, PE

Senior Associate/Senior Geotechnical Engineer

Mr. Aubry specializes in the earthwork and underground components of civil engineering projects that range from roads and bridges to dams and water resources. Following receipt of a Master of Science in 1981, he has 36 years of experience as a Geotechnical Engineer. Mr. Aubry, a Senior Associate at Terracon, is responsible for client contact, project management, geotechnical engineering analysis, development of geotechnical engineering recommendations, and report preparation. Mr. Aubry has worked as project manager for geotechnical work for several civil engineering improvement projects, a number of which are listed below.

NE 1st Avenue Improvements - Delray Beach, FL
Senior Geotechnical Engineer. The project consisted of the design and construction of stormwater, water main and streetscape improvements over a one-block area. The firm completed geotechnical engineering services in connection with the improvements project. The scope of work involved drilling exploratory borings and a single pavement core along the project alignment, laboratory examination of samples collected from the field, and an engineering report of our findings with recommendations for the geotechnical aspects of the project.

East Central Regional Water Reclamation Facility (ECRWRF) Improvement Project - West Palm Beach, FL
Senior Geotechnical Engineer. Phase 1 of the ECRWRF improvement project includes the design, permitting, bidding services and construction of biosolids improvements required to meet a total annual average treatment capacity of 70 million gallons per day (MGD). Terracon (fdba Dunkelberger Engineering & Testing) conducted geotechnical engineering services in 2014. The firm provided exploration, results of field and laboratory testing, and geotechnical engineering recommendations related to the project.

Western Region Operations Center (WROC) - Belle Glade, FL
Senior Geotechnical Engineer. Palm Beach County Water Utilities wanted to expand the Water Treatment Plant (WTP) No. 11 facility located on the south side of Hooker Highway. Terracon (fdba Dunkelberger Engineering & Testing) completed geotechnical engineering services that included drilling exploratory borings, laboratory examination and testing of samples collected from the field, and recommendations for the geotechnical aspects of the project. Terracon provided plans and specifications for the demucking contract. The firm also prepared a dewatering permit application and developed a dewatering plan for potential off-site discharges for the site.

Tropic Palms Water Main Replacement Project, Phase 2 - Delray Beach, FL
Senior Geotechnical Engineer. The City of Delray Beach wished to construct a new 6-inch diameter water main to replace an existing water main within the residential neighborhood known as Tropic Palms. The new pipeline will be installed using conventional cut and cover methods with a minimum cover depth of 3 feet. The new pipeline will be installed beneath existing asphalt pavement. We expect the pipe cuts will be completed with trench repair. The firm provided subsurface exploration services and geotechnical engineering recommendations for the proposed construction.

Loxahatchee Slough Natural Area - Palm Beach County, FL
Senior Geotechnical Engineer. The project entails the construction of two wildlife observation platforms, a "T" shaped fishing pier, and a parking lot. Terracon provided subsurface exploration, laboratory testing, and geotechnical engineering recommendations for the proposed structures and pavement. The scope of work completed in 2016 included three Standard Penetration Test (SPT) borings and four auger borings drilled at the site, groundwater measurement, and laboratory testing of the samples recovered from the borings. An updated draft of the report was provided in to our client in 2017.

EDUCATION
Master of Science, Civil Engineering, Utah State University, 1981

Bachelor of Science, Civil Engineering, Clemson University, 1975

REGISTRATIONS
Professional Engineer: Florida, No. 38175

AFFILIATIONS
American Society of Civil Engineers

Florida Engineering Society

Association of State Dam Safety Officials (ASDSO)

PUBLISHED ARTICLES
"C-43 West Basin Storage Reservoir - Design of Embankment Gated Discharge Structures Considering Soil Bentonite Cutoff Wall", Association of State Dam Safety Officials, September 2008.

"Lessons Learned from the Failure of a Geotextile-Stabilized Haul Road", Co-author, Geosynthetics: Lessons Learned from Failures, J.P. Giroud, K. L. Soderman, and G.P. Raymond, Editors, 1999.

DANIEL J. MARIENI, PE
Project Geotechnical Engineer

Mr. Marieni is a project engineer and Geotechnical Department Manager, in the West Palm Beach office, who specializes in the practice of geotechnical engineering including soil mechanics, foundation engineering design, and pavement design. He has performed subsurface studies throughout the east coast of Florida for the construction of various structures including buildings (single story to mid-rise), bridges, roadways, water/wastewater plants, and commercial developments. With over 7 years of experience, Mr. Marieni has also been involved in construction materials testing and earthwork observation activities on numerous projects.

East Central Regional Water Reclamation Facility (ECRWRF) Improvement Project - West Palm Beach, FL
Staff Geotechnical Engineer. Phase 1 of the ECRWRF improvement project includes the design, permitting, bidding services and construction of biosolids improvements required to meet a total annual average treatment capacity of 70 million gallons per day (MGD). Terracon (fdba Dunkelberger Engineering & Testing) conducted geotechnical engineering services in 2014. The firm provided exploration, results of field and laboratory testing, and geotechnical engineering recommendations related to the project.

Palm Beach County Water Treatment Plant (WTP) No. 11 - Belle Glade, FL
Project Geotechnical Engineer. The new construction project will consist of a 25 foot by 35 foot by 24-inch thick mat foundation that will support two 12-foot diameter tanks, each weighing 60,000 pounds when full. The area of the proposed construction has been excavated to remove previously existing muck and replaced with structural backfill. A subsurface exploration and geotechnical engineering recommendations for the proposed construction were provided. The scope of work included drilling exploratory borings and laboratory examination and testing of samples collected from the field. Recommendations related to geotechnical design criteria for the mat foundation.

Tropic Palms Water Main Replacement Project, Phase 2 - Delray Beach, FL
Staff Engineer. The City of Delray Beach wished to construct a new 6-inch diameter water main to replace an existing water main within the residential neighborhood known as Tropic Palms. The new pipeline will be installed using conventional cut and cover methods with a minimum cover depth of 3 feet. The new pipeline will be installed beneath existing asphalt pavement. We expect the pipe cuts will be completed with trench repair. The firm provided subsurface exploration services and geotechnical engineering recommendations for the proposed construction.

Loxahatchee Slough Natural Area - Palm Beach County, FL
Project Geotechnical Engineer. The project entails the construction of two wildlife observation platforms, a “T” shaped fishing pier, and a parking lot. Terracon provided subsurface exploration, laboratory testing, and geotechnical engineering recommendations for the proposed structures and pavement. The scope of work completed in 2016 included three Standard Penetration Test (SPT) borings and four auger borings drilled at the site, groundwater measurement, and laboratory testing of the samples recovered from the borings. An updated draft of the report was provided in to our client in 2017.

Lake Ida Area Drainage Improvements - Delray Beach, FL
Staff Engineer. The project consisted of the design and construction of drainage improvements within the Lake Ida Area of the City of Delray Beach, Florida. The firm provided subsurface exploration and geotechnical engineering recommendations for the proposed construction. The scope of work included SPT borings drilled at the site and percolation tests completed in accordance with South Florida Water Management District Usual Open Hole Test Method.

EDUCATION
B.S., Civil Engineering, University of Connecticut, 2009

REGISTRATIONS
Professional Engineer, Florida #78629 (2015)

CERTIFICATIONS
OSHA 29 CFR Parts 1910.120, 2010

FDEP Certified-Stormwater Erosion and Sedimentation Control Inspector

Red Cross First Aid CPR/AED

AFFILIATIONS
American Society of Civil Engineers

CHAPTER 5

CITY OF DELRAY BEACH FORMS

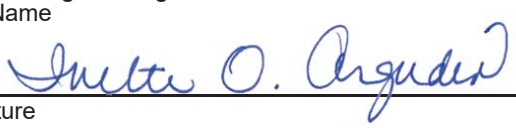
Form B - Public Entity Crimes

NOTIFICATION OF PUBLIC ENTITY CRIMES LAW

Pursuant to Section 287.133, *Florida Statutes*, you are hereby notified that a person or affiliate who has been placed on the convicted contractors list following a conviction for a public entity crime may not submit a proposal on a contract to provide any goods or services to a public entity; may not submit a proposal on a contract with a public entity for the construction or repair of a public building or public work; may not submit proposals on leases or real property to a public entity; may not be awarded or perform work as a contractor, supplier, sub-Proposer, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017 [F.S.] for Category Two [$35,000.00] for a period of thirty-six (36) months from the date of being placed on the convicted contractors list.

Acknowledged by:

A.D.A. Engineering, Inc.
Firm Name



Signature

May 26, 2017
Date

Ivette O. Argudin, Executive Vice President
Printed Name and Title

Form C - Drug-Free Workplace

In the event a tie exists at the conclusion of evaluations, preference will be given to the supplier(s) who certifies it has a drug-free workplace program in accordance with Section 287.087, Florida Statutes. The drug-free workplace preference is applied as follows:

TIE: Whenever two or more proposals are equal with respect to scoring for the evaluation criteria (e.g., price, experience, quality, service) are received for the procurement of commodities or contractual services, a proposal received from a supplier that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing a tie will be followed if none of the tied suppliers have submitted this Form C and/or have a drug-free workplace program.

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

1) This firm publishes 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) This firm informs 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) This firm gives 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), this firm notifies 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 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) This firm imposes a sanction on or requires 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) This firm will continue to make a good faith effort to maintain a drug-free workplace through implementation of this section.

Acknowledged by:

A.D.A. Engineering, Inc.
Firm Name

Ivette O. Argudin
Signature

May 26, 2017
Date

Ivette O. Argudin, Executive Vice President
Printed Name and Title

Form D - Conflict of Interest Disclosure

The award of the agreement is subject to the provisions of Chapter 112, Florida Statutes. All Proposers must disclose within their Proposal, the name of any officer, director, or agent who is also an employee or relative of an employee of the City of Delray Beach.

Furthermore, all Proposers must disclose the name of any City employee or relative(s) of a City employee who owns, directly or indirectly, an interest in the Proposers firm or any of its branches.

The purpose of this disclosure form is to give the City the information needed to identify potential conflicts of interest for key personnel involved in the award of this contract.

The term “conflict of interest” refers to situations in which financial or other personal considerations may adversely affect, or have the appearance of adversely affecting, an employee’s professional judgment in exercising any City duty or responsibility in administration, management, instruction, research, or other professional activities.

Please check one of the following statements and attach additional documentation if necessary:

☑ To the best of our knowledge, the undersigned firm has no potential conflict of interest as defined in Chapter 112, Florida Statutes and Section 2-443, Palm Beach County Code of Ordinances.

☐ The undersigned firm, by attachment to this form, submits information which may be a potential conflict of interest due to other Cities, Counties, contracts, or property interest for this RFQ.

Acknowledged by:

A.D.A. Engineering, Inc.
Firm Name

Ivette O. Argudin
Signature

May 26, 2017
Date

Ivette O. Argudin, Executive Vice President
Printed Name and Title

Form E - Acknowledgment of Addenda

The Proposer hereby acknowledges the receipt of the following addenda, which were issued by the City and incorporated into and made part of this RFQ. It is the sole responsibility of the Proposer to ensure that all addenda have been received and receipt of each has been acknowledged. Failure to submit acknowledgement of each addendum issued may result in the Proposer being deemed non-responsive.

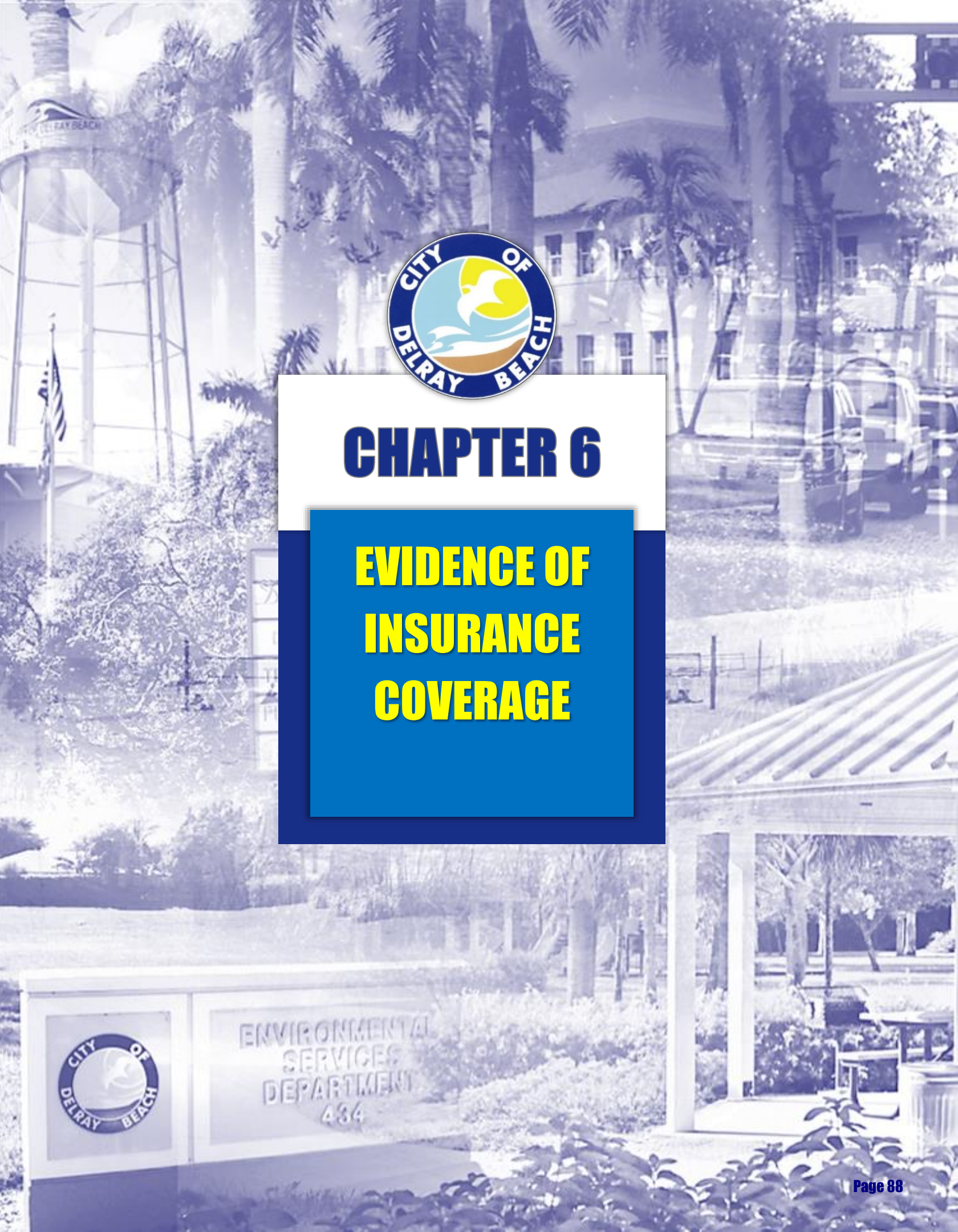
ADDENDA NUMBER	ADDENDA DATE
1	4/24/2017
2	4/27/2017
3	5/4/2017
4	5/10/2017
5	5/10/2017
6	5/18/2017
7	5/19/2017

Ivette O. Argudin — Executive Vice President

Signature of Proposer's Agent — Title

Ivette O. Argudin — May 26, 2017

Printed Name — Date



CHAPTER 6

EVIDENCE OF INSURANCE COVERAGE

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
09/15/2016

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

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

PRODUCER	CONTACT NAME:
Marsh Sponsored Programs a division of Marsh USA Inc. PO Box 14404 Des Moines IA 50306	PHONE (A/C, No, Ext): 800-338-1391 FAX (A/C, No): 888-621-3173 E-MAIL ADDRESS: acecclientrequest@marsh.com

INSURER(S) AFFORDING COVERAGE	NAIC#
INSURER A: Hartford Accident & Indemnity Co	22357
INSURER B: Twin City Fire Insurance Co	29459
INSURER C: Hartford Underwriters Insurance Co	30104
INSURER D:	
INSURER E:	
INSURER F:	

INSURED
A.D.A. Engineering, Inc.

8550 NW 33 St., Suite 202
Miami, FL 33122

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

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

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY			84SBWCG2118 Prof. Liab. Excl.	11/01/2016	11/01/2017	EACH OCCURRENCE	$1,000,000
	X COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$1,000,000
	CLAIMS-MADE X OCCUR						MED EXP (Any one person)	$10,000
							PERSONAL & ADV INJURY	$1,000,000
							GENERAL AGGREGATE	$2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$2,000,000
	POLICY X PRO-JECT LOC							$
C	AUTOMOBILE LIABILITY			84UEGPQ2064	11/01/2016	11/01/2017	COMBINED SINGLE LIMIT (Ea accident)	$1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS / NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
A	X UMBRELLA LIAB X OCCUR			84SBWCG2118	11/01/2016	11/01/2017	EACH OCCURRENCE	$4,000,000
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$4,000,000
	DED X RETENTION $ 10,000							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y / N	N / A	84WEGBM4348	11/01/2016	11/01/2017	X WC STATU-TORY LIMITS OTH-ER	
							E.L. EACH ACCIDENT	$1,000,000
							E.L. DISEASE - EA EMPLOYEE	$1,000,000
							E.L. DISEASE - POLICY LIMIT	$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER	CANCELLATION
	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Bianka Viruet

ACORD 25 (2010/05) The ACORD name and logo are registered marks of ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 10/6/2016

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

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

PRODUCER	CONTACT NAME: Rick Hansen
Hansen Insurance, LLC 4590 N. Meridian Avenue Miami Beach, FL 33140 A307619	PHONE (A/C, No, Ext): (305) 674-9998 FAX (A/C, No): (305) 674-9998 E-MAIL ADDRESS: rick@hanseninsurancefl.com
	INSURER(S) AFFORDING COVERAGE — NAIC#
	INSURER A: RLI — 13056
INSURED A.D.A. Engineering, Inc. 8550 NW 33 Street, Suite 202 Doral, FL 33122 305 551-4608	INSURER B:
	INSURER C:
	INSURER D:
	INSURER E:
	INSURER F:

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

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

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$
	CLAIMS-MADE OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
							MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$
	POLICY PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$
	OTHER:							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS / NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$
	DED RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N						PER STATUTE OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? N/A (Mandatory in NH)						E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$
A	Professional Liability			RDP0026532	10/18/16	10/18/17	$2,000,000 each claim $2,000,000 annl. aggr.	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

FOR PROPOSAL PURPOSES

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE Rick Hansen

ACORD 25 (2014/01) The ACORD name and logo are registered marks of ACORD

EXHIBIT "B"

Category: Civil Engineering, Transportation Engineering, Water Resources Engineering	**Hourly Raw Salary Rate**
Principal Engineer	$ 53.42
Project Manager	$ 33.06
Senior Engineer	$ 34.61
Engineer I	$ 20.00
Engineer II	$ 24.52
Senior Engineering Tech	$ 25.21
Senior CADD Designer	$ 21.75
CADD Designer	$ 20.00
Construction Manager	$ 30.00
Senior Inspector	$ 22.00
Office Support	$ 18.68

PRICE ADJUSTMENTS BASED ON GOVERNMENTAL PRICE INDEX

Prior to the completion of the first year of the Contract term, and every 12-month anniversary thereafter, the City may consider an adjustment to prices based on the most recent 12 month change in the following pricing index: Bureau of Labor Statistics, Employment Cost Index, Private Industry Workers, Total Compensation, Management business and financial occupations, Not Seasonally Adjusted, CIU2010000110000A.

It is Consultant's responsibility to request any pricing adjustment under this provision. For any adjustment to be considered, the Consultant's request for adjustment should be submitted at least sixty (60) days prior to the anniversary date. The adjustment requested shall not be in excess of the relevant pricing index change. If a timely adjustment request is not received from the Consultant, the City may exercise its Option to Renew the Contract for another Term without any pricing adjustment.

PRICE ADJUSTMENTS BASED ON GOVERNMENTAL PRICE INDEX

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