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)

T. Y. LIN INTERNATIONAL

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 **T.Y. Lin International** a California corporation (hereinafter referred to as "Consultant"), whose principal address is 201 Alhambra Circle, Suite 900, Coral Gables, Florida 33134.

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:

T. Y. Lin International
201 Alhambra Circle, Suite 900
Coral Gables, Florida 33134
Attn: Francisco Alonso, Associate 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: Francisco J. Alonso

Title: Associate Vice President

WITNESSES:

By: Cindy E. Santana

Print Name: Cindy E. Santana

By:

Print Name: Carmen Porcel

EXHIBIT A

CONTINUING ENGINEERING, SURVEYING, AND LANDSCAPING ARCHITECTURAL SERVICES (918-42, 918-89, 906-56)

ORIGINAL

CITY OF DELRAY BEACH
RFQ# 2017-048

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CHAPTER 1
LETTER OF INTENT

T·Y·LIN INTERNATIONAL

engineers | planners | scientists

May 30, 2017

City Clerk
City of Delray Beach
100 NW 1st Avenue
Delray Beach, Florida 33444

Re: Continuing Engineering, Surveying, and Landscaping Architectural Services
(918-42, 918-89, 906-56)
RFQ #2017-048

Dear City of Delray Beach:

T.Y. Lin International (TYLI) is pleased to respond to the City of Delray Beach's (City) Request for Qualifications for Continuing Engineering, Surveying, and Landscaping Architectural Services (918-42, 918-89, 906-56). Our team understands that the City is soliciting qualifications from professional engineering and architecture firms to provide planning, design, and construction management services for projects throughout the City with a full service and multi-disciplined approach. Our team stands to ready provide these services. To successfully perform this work, TYLI has structured a team of in-house personnel and consultants whose members are experts in their respective fields and who approach their work with innovation, state-of-the-art technology and fresh ideas. Our teaming partners have extensive local experience working with Counties and Cities in South Florida and have successfully partnered with TYLI on past endeavors. Our team includes:

- Bermello & Ajamil
- Carollo Engineers
- Engenuity Group, Inc.
- McMahon Associates
- Traffic Survey Specialists, Inc.
- GFA Engineering
- The Merchant Strategy

TYLI is a full-service engineering firm located in Fort Lauderdale, enabling a quick response to the City's needs. For over 70 years, our firm has provided civil, structural, mechanical, and electrical engineering as well as environmental services for infrastructure improvement projects throughout South Florida, and particularly in support of local municipalities. The firm has provided professional services for the Cities of Fort Lauderdale, Miami, Miami Shores, Sweetwater, West Miami, North Miami, South Miami, and Homestead, as well as Miami-Dade County Public Works, Monroe County, and the Florida Department of Transportation and South Florida Water Management District. This brings the depth of experience necessary to successfully complete all tasks arising from this contract.

T·Y·LIN INTERNATIONAL

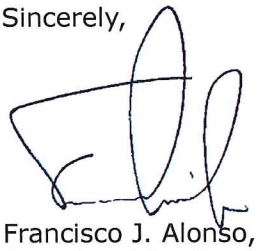
engineers | planners | scientists

The firm's proposed Project Manager, Francisco J. Alonso, PE, has the technical, planning, and organizational expertise to assure that tasks under this contract are completed on schedule, within the established budget, and to the complete satisfaction of the City. Mr. Alonso has successfully managed capital improvement programs and general engineering contracts for various South Florida municipalities and counties. His technical expertise covers the full scope of projects anticipated as part of this contract. In addition Mr. Alonso is well versed in key municipal issues such as funding, grant administration and compliance, and is knowledgeable in the planning and construction of municipal facilities.

Our team is committed to providing its professional services on time, within budget, and to your complete satisfaction. It is this commitment the firm wishes to extend to the City.

Mr. Francisco J. Alonso, PE is authorized representatives to make representations on behalf of T.Y. Lin International.

Sincerely,



Francisco J. Alonso, PE
Associate 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: T.Y. Lin International

Street Address: 201 Alhambra Circle, Suite 900, Coral Gables, Florida 33134

Mailing Address (if different from Street Address):

Telephone Number(s): 305.567.1888

Fax Number(s): 305.567.1771

Email Address: francisco.alonso@tylin.com

Federal Identification Number: 94-1598707

Acknowledged by:

T.Y. Lin International
Firm Name

Signature

5/18/2017
Date

Francisco Alonso, PE, Associate 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)

CHAPTER 2
PROPOSER'S STATEMENT OF ORGANIZATION

PROPOSER STATEMENT OF ORGANIZATION

TYLI has structured a team for this contract whose members are not only experts in their respective fields but who approach their work with innovation and state-of-the-art technology.

T.Y. Lin International (TYLI) is a full-service, professional engineering firm focused on the planning, design, and construction of infrastructure solutions for public and private clients worldwide. The firm is an internationally recognized pioneer in solving the most difficult engineering challenges.

TYLI is a Corporation headquartered in San Francisco, California for over 60 years, TYLI has more than 2,500 professionals throughout the Americas and Asia.

Corporate Headquarters:
345 California Street, Suite 2300
San Francisco, California 941404
415.291.3700

Local Office (Primary Contact)
James Kanter, PE
500 W. Cypress Creek Road, Suite 330
Fort Lauderdale, Florida 33309
954.491.5556

Secondary Representative
Francisco Alonso, PE
201 Alhambra Circle, Suite 900
Coral Gables, Florida 33134
305.567.1888

TYLI IS CONSISTENTLY RANKED BY ENGINEERING NEWS-RECORD AMONGST THE TOP 500 DESIGN FIRMS:

- #50 — The Top 500 Design Firms
- #31 — The Top 100 "Pure" Designers
- #26 — The Top 50 Designers in International Markets
- #12 — The Top 50 in Transportation
- #12 — The Top 25 in Bridges
- #11 — The Top 25 in Mass Transit and Rail
- #17 — The Top 25 in High

T.Y. Lin International

Principals

- Ahmad Hammoud
- Colin Henderson
- Juan Nunez
- Max Fajardo
- Mariano Valle
- Gino Valderrama
- Richard A. Waters
- Michael Miller

Officers

- Alvaro J. Piedrahita
- Robert A. Peterson
- W. Mark Ashley
- Heather Gaffney
- Robert J. Radley
- Mariano O. Valle
- Marwan Nader
- Jeffrey Andrews
- Dennis J. Jang
- James Moreno
- W. David Goodyear
- Atiq Alvi
- Veronica Fennie
- John FLint
- Max Fajardo
- F.R. Clark Fernon
- Daniel Heller
- Douglas Jakalski
- Donald Jakesch
- Dennis Kennelly
- Joesph Tognoli
- Richard A. Waters
- Joseph Yesbeck
- John Young
- William K. Harnagel
- Richard Garcia

Owners

- Man-Chung Tang
- Alvaro J. Piedrahita
- Robert A. Peterson
- W. Mark Ashley
- Heather Gaffney
- Robert J. Radley
- Mariano O. Valle
- Marwan Nader
- Jeffrey Andrews
- Dennis J. Jang
- James Moreno
- Sajid Abbas
- John Flint
- Darin Bryant
- Charles Deeb
- F.R. Clark Fernon
- Daniel Heller
- Tien-Hung (Tom) Ho
- Douglas Jakalski
- Donald Jakesch
- Michael Miller
- Miroslav Olmer
- Joseph Tognoli
- Richard A. Waters

Board of Directors

- W. Mark Ashley
- Heather Gaffney
- Marwan Nadar
- Robert A. Peterson
- Alvaro J. Piedrahita
- Rodert J. Radley
- Bashar Rihani
- Tala Shair
- Man-Chung Tang
- Mariano O. Valle

T.Y. Lin International

Litigation Disclosure for

City of Delray Beach, RFQ No. 2017-048

As with any national professional service organization the size of T.Y. Lin International (the "Company"), it is, from time to time, involved in lawsuits, administrative actions or litigation. At any one time, the Company may have multiple lawsuits pending, alleging a variety of legal theories and involving a number of types of parties, including, in some cases, owners or otherwise. However, the Company has substantial liability insurance to protect itself from litigation liabilities. Although the outcome of the Company's legal proceedings cannot be predicted with certainty and no assurances can be provided, based on the Company's previous experience in such matters, the Company's management does not believe that any of these legal proceedings, individually or collectively, are likely to exceed established reserves or insurance coverage. Notwithstanding the foregoing, the company makes the following disclosure: The Company has had the following arbitration or litigation proceedings during the past five (5) years. Some of these matters may involve claims or allegations of the Company's deficient performance under a contract

CASE NUMBER	PARTIES	DESCRIPTION	STATUS	COURT NAME
Case # - CACE 13-027283	Burke Construction Group Inc. v. The School Board of Broward County	Contractor claims against owner and others. Third Party Complaint filed against designer TYLI.	Ongoing	Circuit Court for the 17th Judicial Circuit in and for Broward County, Florida
Action No. S-140978	Kiewit/Flatiron General Partnership, Mc Nary Bergeron & Assoc LLC., Sani Engineering Ltd, International Bridge Technologies Canada Inc., International Bridge Technologies Inc.	Subrogation claim by property insurer of Kiewit/Flatiron General Partnership. Claim for amounts spent to effect repairs to property.	Ongoing	British Columbia Supreme Court - Vancouver Registry
Index 515167/2015	Robert S. Wise / MTA/NYCT/TYLI	Contractor's employee personal injury claim against TYLI and others	Ongoing	City of NY Supreme Court, Kings County
37-2016-00010131-CU-PO-CTL	Joseph Moisant, SANDAG, TYLI, Shgabram Elihu dba Blue Pacific Engineering & Construction, Soes 1-25	Bicycle accident on bikeway designed by TYLI	Ongoing	Superior Court of CA, County of San Diego, Central Division

T.Y. Lin International

Litigation Disclosure for

City of Delray Beach, RFQ No. 2017-048

CASE NUMBER	PARTIES	DESCRIPTION	STATUS	COURT NAME
151357/13	Darlene L. Pawlikowski and Alred E. Pawlikowski, her spouse, vs Barbara M. Hicks, WAL-MART STORES, INC., WAL-MART STORES EAST, INC., WAL-MART STORES EAST, LP and WAL-MART REAL ESTATE BUSINESS TRUST, Benderson Development Company Inc.,	Auto accident in Wal-Mart parking lot where TYLI performed site design	Ongoing	Supreme Court of The State of New York County of Niagara
16CV298747	Skanska-Shimmick-Herzog JV v. LAN/TYLIN JV; Lockwood, Andrews & Newnam, Inc., TYLI	Contractor claims against design joint venture and related cross-claims related to the design and construction of a San Francisco Bay Area transit project	Ongoing	Superior Court of the State of California (Santa Clara County)
BUR-L-4048-11	South State, Inc. v. State of NJ Dept. of Transportation, et al.	Contractor claim against owner and designers (including TYLI) related to a NJ roadway realignment and construction project	Ongoing	Superior Court of New Jersey (Burlington County)
112730/2015	James J. Morris and Dorothy A. Morris, Individually and as Administrators with Letters of Administration with Limitations, of the Estate of Kristy L. Morris a/k/a Kristy Louise Morris v. Ontario County, New York, et. al.	Alleged professional design negligence on roadway project. Personal injury/death of driver of vehicle.	Ongoing	State of New York Supreme Court (Ontario County)

Form **W-9**
(Rev. December 2014)
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.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.
T.Y. Lin International

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification; check only **one** of the following seven boxes:
☐ Individual/sole proprietor or single-member LLC ☑ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate
☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____
Note. For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner.
☐ Other (see instructions) ▶

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):
Exempt payee code (if any) _____
Exemption from FATCA reporting code (if any) _____
(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.)
345 California Street, Suite 2300

Requester's name and address (optional)

6 City, state, and ZIP code
San Francisco, CA 94104

7 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 line 1 to avoid backup withholding. For individuals, this is generally 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 instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

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

or

Employer identification number
9 4 - 1 5 9 8 7 0 7

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); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

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 3.

Sign Here Signature of U.S. person ▶ [signature] Date ▶ January 9, 2017

General Instructions

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

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at *www.irs.gov/fw9*.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See *What is backup withholding?* on page 2.

By signing the filled-out form, you:

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, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.

CHAPTER 3
MINIMUM QUALIFICATIONS DOCUMENTATION

State of Florida
Department of State

I certify from the records of this office that T.Y. LIN INTERNATIONAL is a California corporation authorized to transact business in the State of Florida, qualified on June 12, 1975.

The document number of this corporation is 834521.

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 February 9, 2017, and that its status is active.

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

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

Ken Detzner

Secretary of State

Tracking Number: CU7471826467

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

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

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

T. Y. Lin International
345 CALIFORNIA STREET
SUITE 2300
SAN FRANCISCO, CA 94104

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

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

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

State of Florida

Board of Professional Engineers

Attests that

T. Y. Lin International

FBPE
FLORIDA BOARD OF PROFESSIONAL ENGINEERS

Is authorized under the provisions of Section 471.023, Florida Statutes, to offer engineering services to the public through a Professional Engineer, duly licensed under Chapter 471, Florida Statutes.

Expiration: 2/28/2019
Audit No: 228201905350 R

CA Lic. No:
2017

BROWARD COUNTY LOCAL BUSINESS TAX RECEIPT

115 S. Andrews Ave., Rm. A-100, Ft. Lauderdale, FL 33301-1895 – 954-831-4000

VALID OCTOBER 1, 2016 THROUGH SEPTEMBER 30, 2017

DBA:
Business Name: JAMES M KANTER PE

Receipt #: 315-628
Business Type: ENGINEER (ENGINEER)

Owner Name: TY LIN INTERNATIONAL
Business Location: 500 CYPRESS CREEK RD STE 330
FT LAUDERDALE
Business Phone: 954-491-5556

Business Opened: 10/08/1997
State/County/Cert/Reg: 44005
Exemption Code:

Rooms	Seats	Employees	Machines	Professionals
		3		

For Vending Business Only

Number of Machines: **Vending Type:**

Tax Amount	Transfer Fee	NSF Fee	Penalty	Prior Years	Collection Cost	Total Paid
30.00	6.00	0.00	0.00	0.00	0.00	36.00

THIS RECEIPT MUST BE POSTED CONSPICUOUSLY IN YOUR PLACE OF BUSINESS

THIS BECOMES A TAX RECEIPT

WHEN VALIDATED

This tax is levied for the privilege of doing business within Broward County and is non-regulatory in nature. You must meet all County and/or Municipality planning and zoning requirements. This Business Tax Receipt must be transferred when the business is sold, business name has changed or you have moved the business location. This receipt does not indicate that the business is legal or that it is in compliance with State or local laws and regulations

State of Florida

Board of Professional Engineers

Attests that

Francisco Javier Alonso , P.E.

FBPE
FLORIDA BOARD OF PROFESSIONAL ENGINEERS

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes

Expiration: 2/28/2019

Audit No: 228201925452 R

P.E. Lic. No:
66918

State of Florida

Board of Professional Engineers

Attests that

Mariano Onat Valle , P.E.

FBPE
FLORIDA BOARD OF PROFESSIONAL ENGINEERS

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes

Expiration: 2/28/2019

Audit No: 228201911185 R

P.E. Lic. No:
48223

CHAPTER 4
PROPOSAL RESPONSE REQUIREMENTS

EXECUTIVE SUMMARY

T.Y. Lin International (TYLI) congratulates the City of Delray Beach on its mission of pursuing the highest quality of life for its residents. To support your efforts, we have structured a team of engineers and architects who have the experience and practical knowledge necessary to provide professional engineering and architectural services that are aligned with the City's endeavor of promoting a safe, sustainable, and livable environment for its residents and the working community.

With five offices throughout Florida, TYLI is a full-service infrastructure engineering firm with in-house multi-disciplined capabilities. The firm maintains a staff of over 200 professionals in Florida, giving the City depth of resources to perform multiple tasks concurrently. In effect, TYLI is as a "one-stop-shop resource of professional services." We are proud of our local workforce and are firmly committed to providing our clients with project excellence. For over 60 years, our firm has provided civil, structural, mechanical, and electrical engineering as well as environmental services specializing in the planning, design and construction of civil and infrastructure improvement projects throughout South Florida, and particularly in support of local municipalities.

T.Y. LIN INTERNATIONAL – FORT LAUDERDALE, FLORIDA

Our Fort Lauderdale office was established in 1997, and since that time we have completed scores of projects for the cities throughout South Florida and otherwise assisted our municipal client base in advancing their transportation programs. The Fort Lauderdale office in charge of carrying out the work prescribed by the City.

MUNICIPAL ENGINEERING

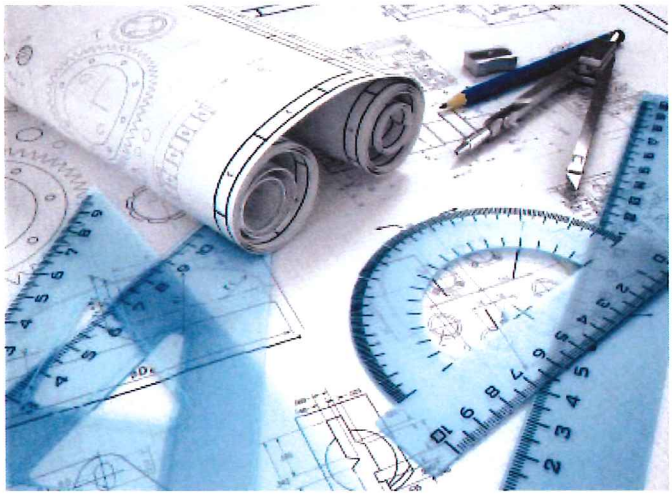
TYLI has proudly participated in many marquee local and national projects such as the Hoover Dam Overpass, Oakland Bay Bridge, Port of Miami Tunnel, Miami International Airport Consolidated Rental Car Facility, the N.W. 25th Street Viaduct, and recently the I-395 Signature Bridge project for FDOT. Still, our practice is firmly rooted in the infrastructure needs of local municipalities. With a staff of over 100 professionals in South Florida, TYLI has a team of engineers dedicated to local municipalities. This has been the cornerstone of TYLI's excellent reputation for engineering services in South Florida, and we are very proud of our accomplishments in projects of different sizes and complexities. TYLI serves as the City Engineer and Building Department for the City of West Miami and currently holds multiple continuing services contracts with the City of Miami, the City of North Miami, the City of Sweetwater, Miami Shores Village, and Monroe County. In addition, TYLI's extensive list of local clients includes the following:

PROJECT APPROACH & MANAGEMENT

TYLI has established an impressive track record not only with project specific work scopes but also with general engineering and miscellaneous contracts such as this RFQ. TYLI has successfully completed contracts for many municipal clients involving site development, transportation engineering, roadway and site development, building engineering, plans review, ADA compliance, storm water drainage improvements, traffic engineering, environmental mitigation and permitting, water-sewer, general utility projects, and construction management services.

DESIGN APPROACH

TYLI understands that the vast majority of municipal infrastructure projects are driven by a recognized need to improve the public's level of service due to natural disasters (e.g. hurricanes and flooding), land use changes, changes in traffic patterns, population growth, infrastructure deterioration, or other related causes. Recognizing this, TYLI's design philosophy for municipal engineering projects focuses on early identification of key project stakeholders, and then working with and incorporating feedback from the stakeholders throughout the design process. During the initial planning stages of a project, this philosophy is often implemented by conducting design charrettes, where a wide range of stakeholders representing both technical and non-technical project disciplines meet, brainstorm and share ideas in order to identify key project issues and establish sound planning fundamentals for the project.



After the initial planning effort, TYLI moves forward with project execution paying particular attention to coordination with the applicable regulatory agencies (SFWMD, FDOT, FDEP, USACE, EPA, FKAA, etc.) design standards and permit requirements. TYLI has recently completed design on several large infrastructure municipal improvement projects, and as such has established strong working relationships with regulatory staff, which helps to reduce the overall time required for obtaining critical project permits. In addition, TYLI typically leads ongoing public information workshops for larger infrastructure projects, in order to assure that the public is aware of upcoming neighbor construction, and the long term benefits that such projects provide.

During construction, attention to the impact of public works projects on residents as construction progresses is a primary concern. TYLI proactively addresses this concern by providing "public friendly" field staff and/or "complaint coordinators" to insure that inconveniences to the public (dust, debris, access obstruction, incidental damage, etc.) which typically occur during construction are minimized, and addressed promptly before such matters are elevated to County staff or elected officials.

TYLI attributes its corporate longevity and success in the municipal engineering field to the unique ability of our technical staff to combine engineering expertise and sound judgment with recognition of the importance of ongoing stakeholder involvement and public awareness in municipal engineering projects.

Recognition and execution of this design philosophy has repeatedly resulted in successful completion of municipal projects on time and on budget, jointly benefiting our Clients, our employees and TYLI.

AGENCY COORDINATION AND PERMITTING

Coordination with all regulatory agencies will be essential to meeting project needs. Several regulatory agencies may be involved in the permitting and approval of the various project assignments. It is essential to get the applicable agencies on board early on in the process and keep them informed throughout the process. This allows issues to be identified and addressed quickly and effectively. Therefore, early and consistent regulatory coordination would be essential to streamlining the approval process and successfully completing assigned projects within appropriate timeframes.

TYLI's professionals have vast experience in municipal infrastructure improvements requiring permitting for pollution prevention, drainage, environmental impacts and utility relocation. TYLI's staff has performed extensive permitting services

throughout South Florida and have an in house team of environmental scientists that can perform the full range of environmental services from Phase I assessments to full EIS and NEPA documentation. Consequently, TYLI staff is well respected among the regulatory community and has an excellent with representatives from agencies such as the Florida Department of Transportation, Florida's Turnpike Enterprise, South Florida Water Management District (SFWMD), Miami-Dade County Department of Regulatory and Economic Resources (RER), Florida Department of Environmental Protection (FDEP), USACE, NMFS, and FKNMS.

TYLI understands that construction projects are time sensitive and a time delay can result in a significant cost for contractors. As part of development projects and design build teams, TYLI has frequently been called upon to provide fast track services. For example, as part of a design build team for The City of North Miami, TYLI designed, permitted, and constructed 22 seawalls in less than one year. This included performing biological assessments, developing compensatory mitigation, and securing environmental permits from all regulatory agencies.

MANAGEMENT APPROACH

At TYLI quality control is a process that is implemented and carried out continuously throughout the development of all our projects. This process provides assurance to the City of our commitment to the highest level of quality for the execution of any assignment. The process will be managed by our team's Quality Control Officer Charles K. Deeb.

After the team kick-off meeting and assignment distribution, six (6) key project controls will be set in motion, as illustrated in the adjacent figure. Our experience has shown that these controls are vital to the success of any project. Our project manager, Francisco Alonso, PE, will be responsible for monitoring these six elements and assuring that the project controls are carried throughout the life of each project.


T. Y. LIN INTERNATIONAL
ISO 9001:2008
Engineering, Consulting and Design Services for the Transportation Industry
ANAB

In 2009, the firm was awarded ISO 9001certification. This further validates the firm's commitment to proactively and continuously strive for quality improvements.

SPECIALTY SERVICES

Grant Writing – Agency Coordination – Specialized Application Assistance - TYLI understands that municipalities must be creative and aggressive when it comes to funding sources. As a result TYLI provides specialty services to our clients such as grant writing/application assistance for grant funding programs such as the FEMA Hazard Mitigation Grant Program (HMGP), the FEMA Pre-Disaster Mitigation program (PDM), CDBG, FRDAP, and any Federal/State Appropriation grant programs. We are well versed in Benefit-Cost Analysis and can support our clients with competitive grants requiring this level of justification.

For example, as the result of a "No-name" storm that occurred in South Florida causing record rainfall and flooding to the Cities of Miami, West Miami and Miami Shores Village, the firm was retained by these municipalities to provide professional engineering services for design/construction projects on an as-needed basis. In the aftermath of this storm, TYLI assumed the role of assisting these municipalities in their respective applications for FEMA grant funding programs such as the FEMA Hazard Mitigation Grant Program (HMGP) and the FEMA Pre-Disaster Mitigation program (PDM) to improve storm-water infrastructure. The HMGP program provides grants to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The Pre-Disaster Mitigation (PDM) program provides funds to states, territories, Indian tribal governments, communities, and universities for hazard mitigation planning and the implementation of mitigation projects prior to a disaster event.

TYLI assisted the City of Miami, West Miami and Miami Shores Village with over 18 applications including grant writing, engineering analysis and conformance to the FEMA program criterion. This effort resulted in a combined $15,000,000 in FEMA funding assistance for the municipal improvement projects.

Most recently TYLI participated as the lead consultant to Florida International University (FIU) in their grant writing efforts to secure a highly coveted TIGER grant from USDOT. TYLI was instrumental in the ultimate award of the 2013 TIGER grant for the UniversityCity Prosperity project for FIU, in which nearly $12,000,000 was awarded to reinvent what transit oriented development in South Florida for the 21st Century looks likes. TYLI was later retained to prepare the NEPA compliance documents, conceptual designs, and RFP for the LAP compliant Design-Build procurement through FIU, in coordination with FDOT D6.

In addition to assisting with funding, TYLI assists our municipal clients with compliance. TYLI has successfully assisted six local municipalities with their Local Agency Certification Qualification Agreement and their Local Agency Program (LAP) Project Certification, allowing them to secure infrastructure funds from the American Recovery and Reinvestment Act of 2009. Our staff includes former FDOT staff well versed in the LAP process, and we have excellent working relationships with FDOT District 6 staff to ensure expeditious LAP compliance, if needed.

Emergency Response - TYLI has the ability to mobilize field teams on very short notice. Through the years, TYLI has gained significant experience in the management of emergency situations, having the ability to mobilize individual units of field staff to provide services under unforeseen circumstances. One example is our work for the FDOT and DERM following Hurricane Irene and the "No-name Storm". TYLI coordinated a team of 27 firms to provide services as part of Miami-Dade County's Project Impact and Local Mitigation Strategy effort.

PROPOSED PROJECT MANAGER

The firm's proposed Project Manager, Francisco Alonso, PE, has the technical, planning and organizational expertise to ensure that tasks under this contract are completed on schedule, within the established budget and to the complete satisfaction of the City and its residents. Mr. Alonso has over 14 years of experience in management, planning, design, permitting and construction management of municipal engineering projects in South Florida. His role as the firm's Lead Engineer and Project Manager for municipal clientele has exposed Mr. Alonso to a myriad of engineering challenges and has provided him with the extensive background needed to meet the unique needs of municipal clients such as the City of Delray Beach. His specific areas of expertise include roadway and site civil engineering; water and sewer design and permitting; stormwater master planning and design, modeling and permitting; traffic calming; and general roadway design.

Mr. Alonso has provided professional engineering services as a consultant managing capital projects for various municipalities including the City of Miami, Monroe County, the City of South Miami, Miami Shores Village, the City of Sweetwater, the City of North Miami and the City of West Miami, for whom TYLI serves as the City Engineer.

Mr. Alonso understands that for successful project delivery, a well coordinated team is a must. He has a long-standing working relationship with all of the subconsultants and members of the proposed team, so no learning curve will be required. In addition to providing internal coordination for the team, he will be responsible for external coordination with the City, regulatory agencies and the general public.

Furthermore, in his capacity as a Lead Engineer and Project Manager for many municipal projects, Mr. Alonso has gained a keen understanding of the nuances encountered on such projects. Key areas of focus that he deems as critical for successful project delivery in a municipal environment include:

- Early stakeholder involvement
- Affected Residents and Businesses
- State and Local Agencies

- Elected Officials
- Extensive utility coordination during design
- Public Involvement

This may include the need for one-on-one interaction with project stakeholders, which can include anyone from a state agency, to a City resident affected by construction, to the City Commission. It may also include extensive public outreach and community involvement, a task that Mr. Alonso embraces as a critical step in successful municipal projects. In the capacity of Project Manager, Mr. Alonso has led many public forums for municipal clients and understands clearly that our role often extends beyond that of consultant into that of a representative of the City. Consequently, Mr. Alonso's experiences have truly fostered an appreciation for municipal government and a passion for assisting administrators and City staff in successfully executing their often challenging projects.

Mr. Alonso has overseen nearly $100M of municipal infrastructure and facility construction projects. These projects have ranged from locally to federally funded and from conventional design-bid-build procurements to Alternate Delivery Methods such as Design-Build. Amongst his most successful projects while in the capacity of Project Manager for TYLI are:

- Flagami-Westend-Fairlawn Citywide Storm Sewer Improvements, City of Miami, Florida
- Durham Storm Sewer Improvements, City of Miami, Florida
- Overtown Greenway, City of Miami, Florida
- Lummus Park Redevelopment, City of Miami, Florida
- NW 14th Street Health District Roadway Improvements, City of Miami, Florida
- NW 8th and 14th Court Roadway and Drainage Improvements, City of Miami, Florida
- SW 16th Avenue, 17th Street, and 17th Terrace Roadway Improvements, City of Miami, Florida
- Mary Brickell Village Storm Sewer Improvements, City of Miami, Florida
- Citywide Drainage Improvements Phases I-IV: City of West Miami, FL; Project Manager
- Citywide Traffic Calming Improvements, City of West Miami, Florida
- Rebecca Sosa Recreational Center, City of West Miami, Florida
- Mayor Roscoe Warren Park, City of Homestead, FL
- Biscayne Bay Flood Relief Project, Village of Miami Shores, Florida
- Downtown Low Pressure Sewer System Design Criteria, Village of Miami Shores, Florida
- Citywide Drainage Improvements, Village of Miami Shores, Florida
- SW 66th Street Traffic Calming Improvements, City of South Miami, Florida
- Citywide Watermain Improvements, City of South Miami, Florida
- Citywide Drainage Improvements Phase IV, City of South Miami, Florida
- Stock Island Roadway and Drainage Improvement, Monroe County, Florida
- FIU UniversityCity Property TIGER Project Design Criteria, FIU and City of Sweetwater, Florida
- City of Sweetwater ARRA Roadway Improvement Project, City of Sweetwater, Florida

TYLI is confident that Mr. Alonso possesses the skill set required for the project management of successful municipal infrastructure improvement projects for the City of Delray Beach.

RESPONDENT'S PAST EXPERIENCE

The TYLI team has vast experience providing services similar to what will be required of this contract. Below includes some relevant past experience and references from TYLI.

Project	Client	Description	Contract Value / Duration	Contact	Role	Results
T.Y. Lin International						
City of Miami General Engineering Consultant	City of Miami	General engineering services in to fulfill specialized engineering tasks. Services include roadway engineering, drainage design, civil engineering, traffic and environmental engineering, LAP/ARRA conformance, and construction services.	$1,000,000 to date 2008-Present	Jose Lago, PE (305) 416-1252	Prime	Tasks to date completed on time
South Miami General Engineering Consultant	City of South Miami	General engineering services in to fulfill specialized engineering tasks. Services include roadway engineering, drainage design, civil engineering, traffic and environmental engineering, LAP/ARRA conformance, and construction services.	$250,000 to date 2010-Present	Grizel Martinez (305) 663-6350	Prime	Tasks to date completed on time
Monroe County, General Engineering Consultant	Monroe County	General engineering services in to fulfill specialized engineering tasks. Services include roadway engineering, drainage design, civil engineering, traffic and environmental engineering, LAP/ARRA conformance, and construction services.	$500,000 2012-Present	Judith Clark, PE (305) 295-4329	Prime	Tasks to date completed on time
City of West Miami – General Engineering Services	City of West Miami	General engineering services in to fulfill specialized engineering tasks. Services include roadway engineering, drainage design, civil engineering, traffic and environmental engineering, LAP/ARRA conformance, and construction services.	$300,000 to date 2008-Present	Juan Pena (305) 266-4214	Prime	Tasks to date completed on time
City of Sweetwater General Engineering Services	City of Sweetwater	General engineering services in to fulfill specialized engineering tasks. Services include roadway engineering, drainage design, civil engineering, traffic and environmental engineering, LAP/ARRA conformance, and construction services.	$500,000 to date 2010-Present	Eric Gomez (305) 553-5457	Prime	Tasks to date completed on time
City of North Miami General Engineering Services	City of Miami Beach	Construction Inspection Services and ARRA reporting / compliance services for the rehabilitation of Henedon Avenue Bridge from Daytonia Road to Cleveland Road and Sunset Drive Bridge.	$250,000 to date 2011-Present	Wisler Pierre-Louis, P.E. (305) 895-9830	Prime	Tasks to date completed on time
City of Miami Beach – Bridge Construction Inspection and ARRA Compliance Services	City of Miami Beach	Construction Inspection Services and ARRA reporting / compliance services for the rehabilitation of Henedon Avenue Bridge from Daytonia Road to Cleveland Road and Sunset Drive Bridge.	$125,000 2011	Jose Rivas (305) 673-7080	Prime	Completed on-time

Project	Client	Description	Contract Value / Duration	Contact	Role	Results
General Engineering Services, Village of Miami Shores	Village of Miami Shores	General civil engineering services in order to fulfill specialized quick response tasks for the Village. Services included roadway engineering, drainage design, civil engineering, traffic and environmental engineering, LAP/ARRA conformance, and construction services.	$750,000 to date 2007-Present	Scott Davis (305)795-2210	Prime	Tasks to date completed on time
City of Sweetwater -Roadway Enhancement Projects S.W. 114h Avenue ARRA- Construction Inspection Services	City of Sweetwater	The project along the SW 114th Avenue included asphalt overlay between 7TH Terrace and W. Flagler Street as well as the associated repairs to existing pavement markings. In addition the corridor will be improved to meet current ADA standards through the implementation of sidewalk repairs and retrofits of detectable warning surfaces at all curb ramps along the corridor.	$86,000 2013	Eric Gomez, PE (305) 455-6585	Prime	Tasks to date completed on time
South Florida Water Management District-Construction Management Services	SFWMD	Permitting services in support of the construction and operations of the Everglades Restoration Project.	$300,000 2007-Present	Jayne Bergstrom (561) 242-5520	Prime	Completed on-time
Citywide Water Main Extension – Area 1 / City of	City of South Miami	Design, Construction Plans, Permitting and Construction Observation for Water main extensions along six local streets within the City of South Miami.	$60,000 2007	W. Ajibola Balogun, RM (305) 663-6350	Prime	Completed on-time
SR-5 Brickell Avenue Roadway and Drainage Improvements,	FDOT D6	Design and post-design services for the pavement reconstruction project proposed for 1.7 miles of an existing four-lane divided highway on SR-5 (Brickell Avenue)	$900,000 2007 - 2009	Judy Solaun, PE (305) 470-5207	Prime	Completed on-time
Districtwide Operations and Traffic Safety Studies, Miami-Dade and Monroe Counties	FDOT D6	Operations and Traffic Safety Studies.	$750,000 2010-2014	Khalil Maarouf (305) 470-5100	Prime	Completed on-time
Claude Pepper Park 1255 NW 135 Street North Miami, Fl 33167	City of North Miami	Environmental services for the pre-construction of a park facility.	$41,000 2007	Aleem Ghany, PE (no longer with City of North Miami)	Prime	Completed on-time
UniverCity: FIU-Sweetwater Tiger Grant	Florida International University	Development of project concepts (including a signature cable-stayed pedestrian bridge), preparation of the TIGER Grant documentation, benefit-cost analysis, and cost estimates.	$450,000 2015-2016	John Cal (305) 348-4014	Prime	Tasks to date completed on time
SR 826 / Palmetto & Tropical Park Multi-Use Trail	FDOT District 6	Landscape Architecture	$150,000 2010	Craig James, RLA (305) 470-5100	Prime	Completed on-time

Project	Client	Description	Contract Value / Duration	Contact	Role	Results
NE 13th Street Complete Streets Design	City of Fort Lauderdale	Traffic and civil engineering assistance to develop full design plans and appropriate permit services for the Fiscal Year 2015 NE 13th Street Complete Street Project in the City of Fort Lauderdale.	$189,000 2016	Christine Fanci, PE (954) 685-9898	Prime	Completed on-time
Doctor's Charter School Safe Routes to School Project, NW 5th Avenue from 112th Terr. To NW 115th St.,	Village of Miami Shores	As the CEI and LAP Compliance Specialist for the Village, TYLI staff oversaw the implementation and construction of this Safe Routes to School funded project.	$20,000 2014	Scott Davis (305) 795-2210	Prime	Completed on-time
Mary Brickell Village Roadway and Drainage Improvements	City of Miami	master-planning, design, and post-design phase services for the reconstruction of the Mary Brickell Village interior streets including a major reconfiguring of the drainage system and new pump station serving the entire neighborhood.	$300,000 2013	Jose Lago (305) 416-1252	Prime	Completed on-time
Citywide Traffic Calming Planning Studies and Final Design	City of South Miami	I was tasked with performing the Traffic Studies, Planning, and Final Design Implementation of 3 traffic circles in the City of South Miami	$80,000 2008-2009	Grizel Martinez (305) 663-6350	Prime	Completed on-time
Overtown Greenway	City of Miami	Master Planning, Final Design and Permitting, and Construction Documents	$300,000 2011	Hector Badia (305) 416-1236	Prime	Completed on-time

(4) CIVIL ENGINEERING

CIVIL ENGINEERING EXPERIENCE AND BACKGROUND

TYLI has established an impressive track record on major local and international Civil Engineering projects. Our practice is firmly rooted in municipal civil infrastructure projects. As a matter of fact, most of our successes in this discipline have been as part of general engineering and miscellaneous professional services contracts such as this RFQ. TYLI has successfully completed contracts for many of the municipalities in South Florida. These contract have included all of the aspects of Civil Engineering including:

- Roadway and site Civil engineering
- Right-of-way and site geometry and development
- Paving/grading plans
- Pavement design
- Traffic engineering and Traffic Studies
- Traffic calming measures
- Maintenance of traffic
- Building site engineering (ingress/egress)
- Site plan reviews for public works
- ADA design and compliance
- Storm water master planning
- Pond Siting Analysis
- Pond Design
- Canal Design and embankment protection
- Coastal systems (seawalls, rip-rap embankments, docks, and boat ramps)
- Recreational Park Planning and Design
- Roadway and Site Storm water drainage design and improvements
- Storm water Pump Station planning and design
- Potable Water transmission and distribution planning and design
- Sanitary Sewer collection and transmission planning and design
- Sanitary Sewer Pump Station planning and design
- Funding management included LAP (Local Agency Program) compliance services for federally and State funded projects.
- Complete Construction Permitting for above mentioned project types
- Complete in-house Environmental mitigation and permitting staff (Local, State, and Federal)
- Construction management and Construction Engineering Inspection services of all above mentioned project types

SIMILAR EXPERIENCE

Over our last 70 years in South Florida, TYLI has successfully carried out this design philosophy and management approach on thousands of projects. Some of the most notable projects will be discussed in this section.

CIVIL SITE ENGINEERING

TYLI has full in house staff of Civil engineering professionals specializing in the development of designs and construction documents for our municipal clients. TYLI has provided complete services for various site development projects, particularly Park development and re-developments project as follows:

Mayor Roscoe Warren Park in the City of Homestead and brownfield conversion to a full municipal park and recreation center.

Lummus Park Waterfront redevelopment for the City of Miami including improvements to the

seawall along with a new Dock structure and upland improvement and amenities to the park.

Rebecca Sosa Recreational center in the City of West Miami included a new 7000 sq.ft. recreational center along with a complete renovation of the park and its many amenities.

City of Miami Environmental remediation projects for the environmental remediation of contaminated soils and subsequent redevelopment of the park areas including Douglas Park, Southside Park and others.

CIVIL ROADWAY ENGINEERING

At TYLI, Civil roadway engineering projects are our "bread and butter" projects for our municipal clients. From RRR projects, simple milling and resurfacing projects, to full roadway reconstruction and new construction, TYLI is well versed in the development of these projects and the implementation of all accepted standards. In addition TYLI strives to implement aspects of ADA and Complete Street philosophies in all of our designs. The following are some marquis examples:

Brickell Avenue Reconstruction for the FDOT included a full reconstruction of concrete and asphalt pavement, sidewalk/ADA improvements complete drainage system overhaul including a new storm water pump station.

NW14th Street Improvements for the City of Miami was a RRR project along the bustling medical district along Jackson Memorial hospital. The project was completed on time and on budget and included new medians and landscaping, drainage and ADA improvements.

NE 13th Street Complete Street Improvements for the City of Ft. Lauderdale included a complete street design of this major City corridor included sustainable drainage improvements, and equal use for all modes of transport.

City of Miami General Civil Contract including RRR projects along the following roadways:

- NW 8th and 14th Court Roadway and Drainage Improvements
- SW 16th Avenue, 17th Street, and 17th Terrace Roadway Improvements
- NW 11th Street Improvements
- NW 62nd Street Improvements and Landscaping
- Brickell Avenue Landscape Median and Sidewalk Improvements
- Brickell Bay Drive Improvements
- Durham Terrace Roadway and Drainage Improvements
- NW 35th Street Roadway Improvements

STORMWATER MANAGEMENT SYSTEMS ENGINEERING

Along with any Civil design comes the need to address Storm water management. TYLI has full in-house staff of professional capable of full hydrodynamic modeling with all the current industry standards of software and development final design documents and permitting. From modeling to final design, we are a one-stop shop. The following are some of our key projects:

Flagami-Westend-Fairlawn Master plan and Final Design for the City of Miami included a complete analysis of this 3 square mile neighborhood and resulted in the installation of over 6 miles of large diameter drainage pipes and force mains, and 5 stormwater pump stations. All analysis and permitting was completed in house and the project has been fully functional since 2012.

City of West Miami Stormwater Masterplan and final design included a compete of analysis and modeling of the entire City system and resulted in the installation of over 2 miles of large diameter drainage pipes and forcemains, 2 stormwater pump stations. The project was construction over 4 phases and has served the City since 2012.

Citywide Drainage Improvements for the City of South Miami included exfiltration trench improvements throughout the City.

Citywide Drainage Improvements for the City of North Miami included exfiltration trench

improvements throughout the City including the Breezeswept neighborhood

Bayshore Drive Drainage improvement project for Miami Shores Village included a complete installation of a new drainage system to provide a resilient infrastructure to tidal and coastal flooding. The project included a new stormwater pump station and outfall to Biscayne Bay.

Stock Island Roadway and Drainage Improvement project for Monroe County included a resilient design approach to raise residential roadways and design a new drainage system to address tidal and coastal flooding throughout the Stock Island neighborhood.

CIVIL TRANSPORTATION ENGINEERING

As a complement to our Transportation Engineering Services, TYLI provide full Civil engineering implementation of those design and concepts. TYLI has a proven track record in the implementation of traffic control projects including the following:

Citywide Traffic Calming project for the City of West Miami included the implementation over the last 10 years of the City's masterplan. This plan included over 18 locations for traffic circles and has been funded and completed through aggressive grant writing efforts and expedited designs.

Mango Terrace, Manor Lane, and Pincrest Village traffic calming improvements for the City of South Miami included full traffic studies and planning effort to implement traffic calming measure in the residential neighborhoods. Final design included a mixture of speed tables, one-way conversions, street closures, and traffic circles.

CIVIL UTILITY ENGINEERING

Similar to Stormwater Management, Utility improvements are typically included in Civil infrastructure projects or in some cases create the need. Again, TYLI has full in house staff to design and implement these projects. The following are some our key utility projects in South Florida.

City of South Miami Watermain Extensions included over 8000lf of water main extensions throughout the City to address undersized and aged mains.

City of West Miami Potable Water Masterplan was recently completed to address the City's undersized and crumbling mains. This project was completed through an FDEP grant and the City will continue seeking funds to begin implementation.

City of West Miami Sanitary Pump Station improvements projects have included upgrades to the City's 4 sanitary pump stations.

Downtown Low Pressure Sewer and Watermain Improvements project for the Village of Miami Shores include the planning and preliminary design for the Design-Build procurement of this innovative system to address the sanitary sewer needs of the Village downtown district. TYLI was also retained as the owner's representative during final design and construction and we oversaw the implementation of new 12" water mains, 25 low pressure grinder pump stations, and a regional MDWASD Pump Station and 10" force main.

CIVIL COASTAL ENGINEERING

In recent years, TYLI has developed a strong practice in Coastal resilient engineering practices. TYLI in South Florida has the Civil and Structural engineering staff to address any and all municipal Coastal needs. We also have full in house staff of environmental scientist and that understand and have successfully completed the complex permitting required of these projects. Some of our recent experience included the following:

Lummus Park Redevelopment for the City of Miami included a new Seawall and dock structure to complement the upland park improvements along the Miami River.

Pallot Park and Virginia Key Seawall projects for the City of Miami included the replacement of rip-rap shorelines with resilient concrete pile and panel seawall systems and bulkheads.

City of North Miami Seawall improvements included the design and permitting of over 30 seawall repairs throughout the City.

Dinner Key Dinghy dock for the City of Miami included a new Dinghy dock for tender boats serving the mooring field.

Legion Park Boat Ramp and Seawall Improvements for the City of Miami included reconstruction of the aging boat ramp as well as replacement of existing rip-rap seawall with a resilient concrete pile and panel system.

Morningside Dock improvements included the design and permitting of a new floating dock for the City of Miami.

Blimp Road boat ramp for Monroe County include a new boat ramp to serve Monroe County residents.

TYLI believes it is clear from our recent body of work that the institutional knowledge of over 70 years in the South Florida allows us to serve our Municipal client with unparalleled professionalism and effectiveness. In addition to the core Civil Engineering services required of this RFQ, TYLI has a full in house staff of complementary services in our South Florida offices including the following:

- Mechanical, Electrical, and Plumbing Engineering
- Full Structural Engineering from complex bridges to simple structures
- Environmental Scientific and Geological staff
- Construction Management and Construction Engineering Inspectors and Managers
- Florida Licensed Building Inspectors and Plan Reviewers
- Fueling Systems Engineering
- Transportation Planning and Engineering, and Management
- Aviation Systems Planning, Engineering, and Management

(7) TRANSPORTATION

RELEVANT EXPERIENCE AND TECHNICAL APPROACH

TYLI holds several continuing service contracts with cities throughout South Florida as well as state and regional transportation agencies to provide support to staff as general planning and engineering consultants.

Under our current continuing services contracts, TYLI staff proposed for this job have completed more 30 projects in the past three years from traffic study impact reviews for development projects to neighborhood master plans, lane elimination projects, area-wide parking studies, a streetcar feasibility study, design of pedestrian safety improvements at six downtown intersections, and design of the NE 13th Street Complete Streets project.

A description of TYLI's technical approach to delivering transportation projects to City of Delray Beach to ultimately accomplish its vision follows.

Multimodal Systems Plans

Joe Yesbeck, PE and **Rich Perrin, AICP** have worked extensively on multimodal systems plans throughout the country including transit corridor studies and transit development plans in South Florida. Joe Yesbeck, PE led the ***2035 Broward MPO Long Range Transportation Plan (LRTP)*** titled Transformation. This plan introduced the concept of mobility hubs and premium transit while making strategic highway improvements. The 2035 Broward LRTP was a truly multimodal systems plan. Vikas Jain, AICP, GISP and Joe Yesbeck, PE developed ***Martin MPO's 2014-2023 Transit Development Plan***, which was unanimously approved by all of the MPO Advisory Committees and adopted by the MPO Governing Board.

Approach to Multimodal System Plans:

Our general approach to preparing multimodal system plans is to understand from the outset a community's vision for the transportation system and quality of life. We conduct technical analysis to quantity travel needs and demand as well as identify issue based needs through stakeholder input. For conducting technical analysis, TYLI staff uses state-of-art software applications including Synchro and Vissim for operational analysis, Cube for travel demand forecasts, and so on. Our plans include a comprehensive assessment of not only travel demand, but socio-economic, demographic, Title VI, environmental justice, climate change and environmental factors as well as evolving communication and vehicle technology. We use performance measures to prioritize project and program funds.

Multimodal Corridor/Subarea Plans

Gus Schmidt, PE, Vikas Jain, AICP, GISP and **Joe Yesbeck, PE** have conducted more than 10 major highway and transit corridor studies in the past five years. In addition, we have extensive experience preparing multimodal plans at all geographic levels - from neighborhood to county to region. Some of recent multimodal corridor studies in South Florida include ***US 27 PACE Study*** and ***Oakland Park Boulevard Transit Alternatives Analysis Study*** while our multimodal subarea plans include ***Lake Ridge Neighborhood Mobility Master Plan*** and ***Downtown Boca Raton Transit Feasibility Study.***

Approach to Multimodal System Corridor/ Subarea Plans:

TYLI approach is to balance mobility and accessibility for all users of a transportation corridor while enhancing safety. To that end, TYLI staff develops a well-defined purpose and need statement in case of corridor studies and vision statement for subarea plans. These statements are treated as living documents throughout the project life cycle and adjust as multimodal alternatives are evaluated based on a set of performance measures agreed upon by the project team and key stakeholders. Typically, for these corridor or subarea plans, TYLI staff identifies projects that can be implemented immediately (safety and low cost operational improvements), short-, medium- and long-term

improvements that could be implemented in a phased manner and/or independently as appropriate. We develop planning level cost estimates for prioritizing and programming projects. All our work is vetted throughout the project life cycle with client and general public through a robust public involvement process.

Traffic Impact/Parking Studies

TYLI staff has performed more than 50 traffic and transit impact analysis studies for various projects including transit corridor studies, streetcar, PD&E studies, Development of Regional Impact (DRI) amongst others.

Approach to Traffic Impact/Parking Studies:

The TYLI team brings a combination of conventional and innovative approach to evaluate land use and transportation nexus and impacts. Our conventional approach includes analyzing traffic analysis impacts resulting from population and employment growth using the regional travel demand model – Southeast Regional Planning Model (SERPM 7.0), which is an activity based model. This model is appropriate for determining level of service and capacity needs at a regional or countywide level and will be used accordingly.

While SERPM 7.0 has significantly improved travel demand forecasting capabilities, it still falls short on forecasting transit ridership and does not include bicycle and pedestrian trips explicitly. Modeling Complete Streets improvements short of lane elimination are not well represented in the model. To overcome some of these deficiencies, the TYLI team will use SERPM 7.0 model outputs as a data point and conduct further analysis to accommodate newer modes of transportation including ride-hailing services, car share, bike share, ridesharing as well as tele-commuting. Rather than focus solely on peak hour roadway level of service, we will use additional metrics such as, multimodal level of service (MMLOS). When appropriate, we will advocate using Institute of Transportation Engineer's (ITE) Person Trip methodology.

With regard to parking studies, our approach is to blend industry standards and general practices with latest available research from Urban Land Institute, ITE, and Environmental Protection Agency (EPA) amongst others. This has proven to be very helpful in analyzing parking generation and shared parking for transit oriented development (TOD) and mixed use development (MXD) projects.

Bicycle and Pedestrian Planning and Design

Tom Errico, PE and **Vikas Jain, AICP, GISP** recently completely ***Bicycle and Pedestrian Safety Action Plan (BPSAP)*** for Martin MPO and currently working on ***Broward MPO BPSAP.*** The FDOT has identified pedestrian safety a Planning Emphasis Area (PEA) and TYLI has been instrumental in enhancing safety for all transportation system users including the most vulnerable one using a comprehensive approach described below.

Approach to Bicycle and Pedestrian Safety:

TYLI's overall approach is to identify and recommend appropriate bicycle and pedestrian safety countermeasures based on the 5Es Concept – Engineering, Education, Encouragement, Enforcement, and Emergency Services. Locations for improvements are prioritized based on technical analysis and public input. **Aaron Quesada, GISP** and **Vikas Jain, AICP, GISP** have successfully used ArcGIS software package to identify pedestrian and bicycle hotspot areas coupled with mini Road Safety Audits (RSA) including "Complete Streets at night" to verify ground condition. TYLI staff has used PBCAT to analyze crash data for selected hot spots but our experience is that this is not an effective tool.

Complete Streets Planning, Design, and Implementation

TYLI is deeply committed to the Complete Streets program. TYLI is a national and local leader in the planning and design of bicycle and pedestrian facilities, greenways, and Complete Streets. TYLI is a Gold Partner for the National Complete Streets Coalition. TYLI's goal is to continue to partner with the National Complete Streets Coalition to inform, educate, and advance the goals and objectives of the Complete Streets.

Local staff have completed **Powerline Road Lane Elimination Study, NE 13th Street Complete Streets Design** and **Downtown Walkability** projects for the City of Fort Lauderdale; **Complete Streets Master Plan** for City of Coconut Creek, as well as nationally. TYLI staff proposed for this project are acting as staff to the Chicago DOT for the planning, design and implementation of the City's bicycle program, and also include **Tom Errico, PE**, one of only 20 professionals who have been certified by the National Complete Streets Coalition to instruct agency engineering and planners on the design and application of Complete Streets strategies. Tom conducted a full-day **Workshop on Complete Streets for Palm Beach County MPO** in December 2016.

Our group is reinforced with traffic operations and design engineers, site and civil engineers, and landscape architects. Also, we produce compelling renderings and microsimulation products to support both analyses and design constraints as well as communicated concepts to the general public. TYLI's **Cherry Xiong, PE** has used Viswalk extensively for these purposes.

Approach to Complete Streets:

Complete Streets complements the work that TYLI does to improve the mobility of people and the community's roadway systems. We recognize the need for balancing mobility and accessibility in specific corridors. Our approach will be to plan, design, and implement Complete Streets project using a Context Sensitive Solutions (CSS).

To this end, we will evaluate appropriate bicycle/pedestrian/transit treatments as well as landscape/streetscape and safety needs based on operational analysis and land use context. We will use state-of-the-art tools – Viswalk and Synchro to develop performance measures, such as, multimodal level of service (MMLOS) for intersections as well as the corridor, and cost-benefit analysis to justify investment in bicycle/pedestrian infrastructure improvements. Another critical component of our work will be to ensure recommendations from other plans and projects are integrated appropriately to achieve cost efficiencies.

As it evident from TYLI's project profile, an integral part of our approach is ensure that Complete Streets projects can be not only be planned but advanced further into design and construction to make it a reality.

AVAILABLE FACILITIES, TECHNOLOGIES, AND OTHER RESOURCES

All of the work under this contract will be performed out of TYLI's Fort Lauderdale office. In addition to "industry standard" tools and technology, the TYLI Team will provide the City with access to state-of-the-art and cutting edge equipment and software applications needed for transportation facility analysis, planning, design, programming and implementation. A description of some of the TYLI Team's tools and technologies follows:

CADD Capabilities

TYLI utilizes Computer Aided Design and Drafting (CADD) tools such as MicroStation and AutoCAD—as well as Geopak, Civil 3D, Auto TURN, GuidSIGN and Synchro in design of roadways, maintenance of traffic (MOT) plans, Signing and Pavement markings, and traffic control devices—to develop design deliverables. TYLI also uses ArcGIS to import and export geo-reference data such as traffic volumes, roadway descriptions, aerial, environmental resources, and land uses for analysis, display, and design purposes. TYLI has expertise to process, analyze, and visualize engineering drawings in three dimensions (3D) in real-world situations to better estimate capital costs and improve designs before projects are advanced for implementation and construction.

Traffic and Transportation Engineering Software

Pedestrian and Bicycle Microsimulation: To overcome the limitations of tools traditionally used for conducting traffic operational analysis and evaluate bicycle/pedestrian improvements, the TYLI Team will use the Viswalk pedestrian and bicycle microsimulation software. Viswalk is unique in that it models bicycle and pedestrian behaviors and their interaction with other modes of transportation in real-world situations.

Information and measures of effectiveness produced from Viswalk can be used to inform the design and implementation of Complete Street projects, ADA compliance, bicycle/pedestrian safety projects, and to develop traffic control plans for special events that generate large volumes of pedestrians. **Cherry Xiong, PE (TYLI)** has extensive experience in using Viswalk for analyzing pedestrian flows for large intermodal hubs in China and Europe as well as evaluating the Evanston Street Complete Streets project in Chicago.

Traffic Operational Analysis: The TYLI uses Synchro/SimTraffc and CORSIM microsimulation models as well as the High Capacity Manual (HCM), 2010 Edition and Highway Capacity Software (HCS) 2010 for conducting operational and queuing analysis. Operational and queuing analyses will be performed on mainline segments, ramp merge/ diverge, weaving sections, ramp terminals, intersections and arterial corridors as applicable. The Synchro software uses the HCM methodology to determine intersection capacity and level of service (LOS). Simulation will be performed using the SimTraffc software and/or CORSIM to provide a detailed look at the simulated traffic flow and queue along the intersections and mainline corridors. SimTraffc will be mainly used for data input quality control, quality assurance and visual confirmation of the traffic behavior. Simulation parameters will be used as measures of effectiveness. **Meaghan Capuano, PE (TYLI)** used Synchro and HCM methodology to develop multimodal intersection LOS for the City of Fort Lauderdale's Lake Ridge Neighborhood Mobility Masterplan project.

Transit Operational Analysis: Vissim will be used by the TYLI to simulate transit operations to better understand the impact of transit signal priority, interaction of multiple modes in a given corridor, analyze traffic flow patterns, assess level of service as well as create 3D animations for public presentations.

Rail Operational Analysis: TYLI is one of the few firms in the country that has the Rail Traffic Controller (RTC) software available for simulating freight and passenger rail operations. The RTC is used for developing operating plans, diagnose bottlenecks and recommend schedule changes, evaluate capital improvement scenarios, and assess the impact of adding new trains to a network.

Geographical Information Systems (GIS): The TYLI Team has made a dedicated commitment to embrace Global Positioning System (GPS), Geographic Information Systems (GIS) mapping, and digital imaging technologies, and to stay on the leading edge of new technologies and advancements. Our capabilities in this area include state-of-the-art equipment, image processing software, unique in house databases, and specialized personnel. TYLI has extensive GIS capabilities and access to the latest ESRI software ArcGIS 10.2. We have an extensive library of GIS shapefile, geodatabases, and high resolution aerial imagery available to be used on City projects to increase efficiency in data collection effort. In addition, to preparing GIS maps for visualizing segment and intersection level of service (LOS), we are capable to developing customized applications as well as combining databases such as CARS and RCI to identify the crash "hot spots" at macro-level using cluster analysis.

Vikas Jain, AICP, GISP (TYLI) and **Aaron Quesada, GISP (TYLI)** have developed GIS based models using ArcGIS Extensions, such as, Spatial Analyst, 3D Analyst, and Model Builder for conducting transportation-land use analysis, site suitability studies, safety/crash analysis, and environmental assessment on numerous projects over the past 15 years.

ORGANIZATION AND KEY PERSONNEL

T.Y. LIN INTERNATIONAL LOCAL RESOURCES

Primary Markets Served	
» Aviation » Bridge » Mobility, Planning, and Management	» Facilities » Federal Ports and Marine » Rail and Transit » Surface Transportation
Total Number of Employees	2,500
Current Number of Professionals (local)	89
Civil Engineers	21
Transportation Engineers	11
Construction Managers & Inspectors	11
Electrical Engineers	5
Environmental Engineers	3
Geologist	1
Traffic Engineers	2
Structural Engineers	8
Planners	2
Mechanical Engineers	5
CADD Technicians	20
Years in Business	61 Years

SUBCONSULTANTS

BERMELLO & AJAMIL

B&A's reputation for excellence in the waterfront environment is built on years of experience, working on a variety of projects including the planning and design of marinas and waterfront redevelopments for both public and private clients. B&A is a local firm and our local knowledge provides unique insights to generate viable and creative ideas. We consistently deliver designs that are both cost-effective and capable of withstanding the rigorous marine and costal environments.

B&A has provided permitting and engineering services for ports, harbors, marinas, mixed-use waterfront developments, industrial terminals, water transportation facilities, and public recreation areas. We have extensive experience with in-water construction methods, and waterfront site operations which foster practical strategies for project success. Our Engineering Group has completed several marine engineering projects throughout the State of Florida including:

- Sullian Park - Deerfield Beach,
- Miami Circle Seawall Replacement - Miami, Florida
- Key Haven/SR 5 Seawall and Boat Ramp - Monroe County, Florida,
- Harbourside Marina & Seawall - Jupiter, Florida
- West Drive Community Waterfront Park - North Bay Village, Florida

Location:
900 SE 3rd Ave., Suite 203
Fort Lauderdale, Florida 33316
T: 954.467.1113

CAROLLO ENGINEERS

Carollo is a full-service firm that specializes solely in the planning, design, permitting, and construction of water and wastewater facilities. Carollo's reputation is based upon client service and a continual commitment to quality. We currently maintain 40 offices across the U.S., including our fully staffed office in Palm Beach County, Florida. During our 83-year history, Carollo has successfully completed tens of thousands of projects for public sector clients. Our completed projects range in size from under 1 mgd to over 600 mgd.

Carollo is currently ranked within Engineering News Record's top 100 design firms, and more importantly it's ranked within the top 12 firms for water and wastewater. We are the only firm that provides exclusively water/wastewater and related

infrastructure engineering services. This allows us to attract the best and brightest staff with a personal passion to focus on water. For that reason, the quality and professional standing of our professionals have fostered a reputation for leadership and innovation that is second-to-none.

Carollo's staff numbers nearly 1,000 employees, including more than 430 registered engineers. Our staff includes civil, environmental, electrical, mechanical, chemical, structural, control system, and corrosion control engineers, as well as architects, planners, and specialists in other areas.

Location:
9897 Lake Worth Road, suite 302
Lake Worth, Florida 33467
T: 561.868.6400

ENGENUITY GROUP, INC.

Engenuity Group, Inc. was founded in 1978 to provide professional civil engineering services to the South Florida community. These services included design of paving, grading, drainage, wastewater collection, and water distribution systems, along with permitting, construction observation, and construction administration. Professional surveying services were added in 1984 and GIS Services in 1998.

In 2008 the firm was reorganized. This reorganization allowed us to be designated as a Disadvantage Business Enterprise (DBE), Minority Business Enterprise (MBE), and Small Business Enterprise (SBE).

It is our mission to provide clients with technically proficient, individualized services in a courteous manner. Engenuity Group, Inc. staff includes civil engineers, land surveyors and GIS mappers, offering you the support of an expert consultant in all phases of project development. We will skillfully guide your project from planning through design, permit approval and construction.

Engenuity Group, Inc. is made up of twenty two dedicated employees who have committed themselves to be the best civil engineering, surveying and GIS firm in the area. The firm consists of three owners, C. Andre Rayman, P.S.M., Keith B. Jackson, P.E., and Lisa A. Tropepe, P.E. C. Andre Rayman, P.S.M. joined the firm in 1988 and serves as the company's President. Keith B. Jackson, P.E. joined the firm in 1991 and serves as Vice President. Lisa A. Tropepe, P.E., joined the firm in 1993 and also serves as Vice President.

Engenuity Group project managers are an innovative, resourceful and creative team who possess a sense of urgency and ownership that they bring to each and every project. Our principals and project managers have extensive experience in developing cost effective designs and solving challenging permitting problems. Our use of state of the art electronics in surveying and computer aided design and drafting assures our clients of accurate surveying work and rapid turnaround times.

Location:
1280 North congress avenue, Suite 101
West Palm Beach, Florida 33409
T: 561.655-1151

MCMAHON ASSOCIATES

Since 1976, McMahon Associates, Inc. specializes exclusively in transportation planning, engineering, design and construction services. McMahon has grown from a single transportation engineer to now a valued staff of 150 in 14 offices in six (6) states. The regions where we provide transportation engineering services include Florida, New England, and Mid-Atlantic states. In Florida, McMahon has 11 full-time staff in our West Palm Beach office, with six (6) professional engineers registered in Florida.

Our diversified staff of transportation professionals have expertise in a full range of Transportation Consulting for Program Management, Transportation Planning, Traffic Engineering and Roadway Design. Transportation planning services for municipalities have included long-range corridor studies, updates to Transportation Elements of Comprehensive Plans, Future Land Use Amendments, master plans (including bicycle/pedestrian master plans) and concurrency studies. Some of these studies have required traffic forecast modeling. Traffic engineering experience includes traffic data

collection, traffic operations and safety studies, traffic control evaluations, pedestrian and bicycle safety studies, traffic calming, preparation of Maintenance of Traffic (MOT) plans, Travel Demand Management (TDM), Complete Street implementation plans and lane elimination studies per the FDOT policy. Transportation engineering services include the preparation of roadway design plans. We provide these services to state Departments of Transportation (DOT), counties, and municipalities. Our design services include roadway design, drainage, permitting, utility coordination, lighting/ electrical, structural design, value engineering, and transit engineering. McMahon offers other specialized services such as environmental impact assessments, Geographic Information System (GIS) and public involvement programs. In all of these service areas, McMahon also provides review services.

Location:
2090 Palm Beach Lakes Blvd, Suite 400
West Palm Beach, Florida 33409
T: 561.840.8650

TRAFFIC SURVEY SPECIALISTS, INC.

Traffic Survey Specialists, Inc. was founded in 1994 by Kevin McNally, the current owner/operator. The company's primary business is on demand traffic counts which clients typically need completed within 1 to 2 weeks of notification. We complete about 250 projects a year ranging from 1 count to over 100 counts per project. Services include:

- 24 hour road tube traffic volume, speed and vehicle classification counts
- Complete Streets video counts of vehicles, bicycles and pedestrians
- Intersection turning movement counts (live and video)
- Approach counts
- Parking accumulation studies
- Parking space turnover with tag ID
- Trip generation studies
- Queuing observations
- Gap studies

The company regularly works in Lee, Collier, Monroe, Dade, Broward, Palm Beach, Martin, St. Lucie and Indian River counties in the state of Florida. We have 3 full time employees and 14 part time employees. Our equipment is based in our Delray Beach office and warehouse.

Location:
85 SE 4th Avenue, Unit 109
Delray Beach, Florida 33483
T: 561.272.3255

GFA ENGINEERING

GFA International, Inc. is incorporated in Florida and has been in continuous operation since 1988. We have been in existence in substantially the same form since then and have provided essentially the same types of Environmental, Geotechnical, Materials Testing and Inspection services for the lifetime of the company.

GFA International, Inc. is a privately held Florida S Corporation formed under the provisions and subject to Florida Statutes, section 607.1006. Mr. Frank Frione, is CEO and holds 50% ownership. Mr. Frederick G. Kaub, P.G., L.A.C, is President and holds 50% ownership in the company.

American Vibracore Services, Inc. (AVS) is an affiliated company of GFA International, Inc. by way of common ownership. AVS specializes in onshore and offshore Vibracoring, Geotechnical Drilling, Marine Services, Laboratory Services and Energy Borings for the marine support services industry.

GFA has four offices throughout Florida—Delray Beach, Miami, Port St. Lucie and Fort Myers—and 160 employees. We have provided the following matrix below of personnel in each office broken out by the following categories: professional, managerial, technical staff, and support staff.

Location:
1215 Wallace Drive
Delray Beach, Florida 33172
T: 561.347.0070

THE MERCHANT STRATEGY

The Merchant Strategy, Inc. (TMS) is a woman owned small business operated by the company president – Sharon Merchant, a life-long resident of South Florida and a former State Representative. The organization began serving clients in 2003, incorporating as The Merchant Strategy, Inc. in 2007. Sharon's background provides the necessary skills, relationships, and contacts to work through government red tape.

TMS has a team of professionals that offer extensive expertise in public involvement, government relations, non-profit fundraisers, crisis management and mixed media outreach. The team's technical skills include creative graphics, website design and maintenance, social media, event promotions, and full-scale marketing activities. TMS pursues and develops new events and fundraisers through Dixie Visions, Inc., a non-profit corporation dedicated to providing charitable donations to community organizations.

The TMS client list includes city governments, non-profit agencies, and industry leaders in transportation, architecture, engineering, construction, environmental services, small businesses, utilities, government, energy production and manufacturing. TMS is certified DBE by the Florida Department of Transportation and SBE by Palm Beach County, Florida, the South Florida Water Management District, and the City of West Palm Beach and MBE by the Palm Beach and Broward County School Districts and the State of Florida.

Location:
1804 North Dixie highway, Suite B
West Palm Beach, Florida 33407
T: 561.315.9110

KEY PERSONNEL

Resumes for the following key personnel can be found at the end of this section.

- Mariano Valle, PE
- Charles K. Deeb, PE
- Francisco Alonso, PE
- Xavier Arroyo, PE
- James Kanter, PE LEED AP
- Cherry Xiong, PE
- Thomas Errico, PE
- Meaghan Capuano, PE
- James Molnar, PE
- David Reynolds, PE
- Richard White, PE
- Brian Werner, PE
- James Rosales, PE

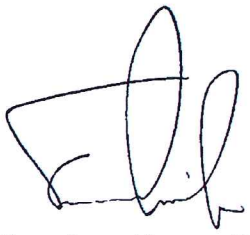
WORKLOAD

Because this is an on-call contract, the exact nature of the work will be undefined until such a task order is issued. Therefore, the ability to quickly provide quality and diverse staffing becomes imperative.

We recognize the importance of workload projections. It is a practice of TYLI to review our workload projections weekly as part of our project management procedures. This review includes evaluating project objectives, scopes, firm personnel resources and type of services to be performed, and its commitment to on-going clients. On a regular basis subconsultant firms will be asked to provide TYLI with a status of their staff projected availability for this contract.

We have no doubt that we have assigned sufficient staff to manage multiple assignments in tandem. In the event that any delay could jeopardize a critical path, TYLI has over 100 South Florida professionals, over 200 statewide from which to draw upon and assign additional staff, if necessary.

T.Y. Lin International commits the availability of personnel and other resources to satisfactorily complete tasks assigned from this contract.



Francisco Alonso, PE
Associate Vice President

NAGER	QA/QC
nso, PE [1]	Charles K. Deeb, PE, LEED AP [1]

CIVIL ENGINEERING

James Kanter, PE [1]
Task Leader

CIVIL ENGINEERING ames Molnar, PE [1] ıvid Reynolds, PE [1] *IDGE STRUCTURES* ımes Rosales, PE [1] *Y & MISC. STRUCTURES* ejandro Salas, PE [1] *ATER RESOURCES* sabel Nayab, PE [1]	*STORMWATER* Richard White, PE [1] *POTABLE WATER* Lyle Munce, PE [3] Lisa A. Tropepe, PE [3] *REUSE WATER* Randy Braley, PE [3] Juan Oquendo, PE [3] *CONVEYANCE / TRANSMISSION* Mark Ludwigson, PE [3]	*HYDROLOGY* Roque Rokovich, PG [1] *TREATMENT* Lyle Munce, PE [3] Chris Reinbold, PE [3] *WATER STORAGE* Elizabeth Fujikawa, PE [3] *COASTAL ENGINEERING* Frank Tejidor, PE [2] Gisela Rey, PE [2]

SUPPORT SERVICES

EYING & MAPPING in M. Peck, PSM [4] nnifer C. Malin [4] *DATA & MAPPING* M. Rayman, PSM [4] dre Rayman, PSM [4] *TRAFFIC DATA* evin McNally [6] *MATERIALS TESTING* erson Tcheou, PE [7] ul Danforth, PE [7]	*GEOTECHNICAL ENGINEERING* Carlos Mercado, PE [7] *LABORATORY MANAGER* David May [7] *ENVIRONMENTAL NATURAL RESOURCES* Colin Henderson [1] *PERMITTING & ASSESSMENT* Lucien Tender [1] Aaron Quesada [1] Roqur Rokovich, PG [1]	*CONSTRUCTION ENGINEERING INSPECTIONS* Charles Serig, RA [1] David Anderson, PMP [1] Marco Lux, PE [1] *SCHEDULING/CONTROLS* Chad Swanson [1] *ESTIMATES* Jennifer C. Malin, PSM [4] Luis Santaliz [4]

MARIANO O. VALLE, PE
Principal in Charge

Registrations:

PE/1994/Civil Engineering/Florida/No. 48223

FICE/FDOT LRFD Certification/1998

Academic Achievements:

MS/1991/Civil Engineering/ Massachusetts Institute of Technology

BS/1989/Civil Engineering/Catholic University of America

Mr. Valle has been active in a variety of site engineering projects including planning, design, value analysis, probable construction cost estimates, life-cycle costing, and inspections. His experience has included public buildings, water/sewer systems, and utilities for parks, institutional facilities, and various buildings. He has over 25 years of experience in project management and throughout his tenure has developed and implemented comprehensive project management plans and appropriate policy directives in concert with the scope of services.

Miami-Dade Parks, Recreation and Open Spaces, Miami, Florida
Principal in Charge for the in-house environmental services, assisting the Department of Parks, Recreation and Open Spaces (PROS) with solid waste and contaminated soil issues at county parks. Responsibilities have included coordination with RER and RER contractors in the implementation of annual monitoring, site assessments, and corrective action plans and the review of studies and report. Projects have included Chapman Field Park site assessment, Larry and Penny Thompson Park site assessment and limited source removal, Zoo Miami limited source removal, Amelia Earhart Park solid waste removal, Colonial Drive site assessment, Country Club of Miami Corrective action plan, and Millers Pond park solid waste assessment.

City of Miami General Environmental Engineering Consultant, Miami, Florida
Principal in Charge for an on-call environmental engineering services contract to fulfill specialized quick response tasks for the City of Miami. Services have included water quality monitoring, contamination assessments and corrective actions, and community impact evaluations. Task assignments included the following projects:

- Wagner Creek TMDL Monitoring
- Billy Rolle Domino Park Contamination Assessment
- Southside Park Contamination Assessment
- Jose Marti Park Engineering Control Plan
- Trolley Garage Air Quality and Noise Impacts
- EMC and Pollutant Load Calculations

Port of Miami Tunnel, Miami, Florida
As part of a technical advisor team supporting the Florida Department of Transportation, Mr. Valle served as a Technical Advisor responsible for engineering review of the project. The Port of Miami is the world's largest cruise port and one of the major cargo ports in the U.S. The Tunnel project would link the Port of Miami with the adjacent Interstate system, thereby improving the passenger and cargo movement to and from the Port.

PortMiami Environmental Oversight, Environmental Compliance Plan (ECP) for the Government Cut Waterway Utilities Relocation – Miami, Florida
Principal in Charge for the development of the Environmental Compliance Plan (ECP), environmental permitting for dredging and all other environmental related issues, including coordination, review and oversight of environmental

plans, records and reports for the replacement of a 20-inch water main from Port of Miami to Fisher Island under Fisherman's Channel and 54-inch sewer force main beneath the Government Cut Waterway near the Port of Miami. In addition, services included monitoring and controlling environmental compliance associated with water quality, protected species and waste management.Crane Electrification

Midfield Vehicular Tunnel Modification: Miami International Airport, Florida
Project engineer responsible for the structural design of the midfield vehicular tunnel extension and modifications. Mr. Valle was the field project engineer responsible for construction inspection, as well as airside safety inspections. The project included 100' extension of the existing tunnel to accommodate the new aircraft Taxiway P over the vehicular tunnel. The tunnel entrance relocation necessitated the installation of 3 new guard booths.

Miami Dade County - Program Management: FEMA Division of Restoration & Mitigation (DORM) Program
Principal in Charge for Miami-Dade County's storm water improvements and county-managed canal dredging projects under the FEMA Division of Restoration & Mitigation (DORM) program. The project objective involved dredging secondary canals to accommodate stormwater volumes and increasing the percolation capacity of current storm drainage systems to minimize flooding impacts. Mr. Nessi oversaw fourteen (14) engineering consultants conducting storm water design and fifteen (15) construction contractors. Mr. Nessi was responsible for verifying cost estimates, obtaining construction permits, overseeing improvements construction at storm-affected sites, and managing close-out phases under FEMA guidelines.

South Florida Water Management District (SFWMD), Compartment C Buildout Pump Station G-508, Hendry County, Florida; Construction Manager
Principal-in-Charge for the construction oversight and management services for a 1,630-cfs pump station as part of a new 8,800-acre Storm Treatment Area (STA) on Compartment C.

United Cargo Building: Miami International Airport, Florida
Project manager responsible for developing complete engineering packages, including construction drawings and technical specifications, for an 118,000sf cargo facility. Engineering design includes site layout, parking, drainage, and the building structure. Bid packages were produced and incorporated construction drawings, specifications, and estimated probable construction cost.

Charles K. Deeb, PE, LEED® AP BD+C

Quality Assurance / Quality Control

Years of Experience

35

Professional Registrations

Professional Engineer:
Georgia #032472 (2007)
Florida #36069 (1985)
North Carolina #25616
South Carolina #30497
Louisiana #37820
Alabama #-33503-E
Arizona #57424
Colorado #48531
Arkansas #16081
Mississippi #26302
Tennessee #119472

LEED® Accredited Professional, July 2008

Certified Crime Prevention Through Environmental Design (CPTED)Professional September, 1998

Academic Achievements

BS, Civil Engineering, University of Miami, May 1981

Training

Federal Aid Highways, National Highway Institute, 2014

Affiliations

ASCE

ASHE

AREMA

Software

Primavera P6, Microsoft Word, Excel, Project

Mr. Deeb has 35 years experience in the planning, design and construction administration of transportation and infrastructure improvement projects. His expertise encompasses management of entire projects from scope determination through design and construction services, supervision of engineering staff, coordination with subconsultants and clients. Mr. Deeb's expertise involves planning, design, bidding, and construction administration services.

I-10 Baton Rouge, LA (01/2015-12/2016): Currently managing TYLI's bridge concept design for this Louisiana Department of Transportation and Development Environmental Assessment project. The project limits are from LA 415 to Essen Lane in Baton Rouge and includes concepts and cost estimates for a new bridge crossing the Mississippi River. The 7.5-mile project includes 3.5 miles of bridges. TYLI is also preparing renderings for signature bridges on I-10 City Park Lake Bridge near the LSU campus and the Nairn Drive Bridge over I-10. The Stage 0 Feasibility Study was completed in December 2016.

I-49 Connector, Shreveport, LA (05/2012-present): Currently managing TYLI's bridge concept design for this Louisiana Department of Transportation and Development project. The project involves obtaining NEPA environmental clearance for a controlled access highway connecting the existing I-49/I-20 interchange to the proposed I-49/I-220 interchange within the city of Shreveport in Caddo Parish, Louisiana. The corridor is approximately 3.8 miles long and the overall project cost estimate is $400 million.

Hillsborough County, CR 579 (Mango Road), Tampa, FL (11/2011-present): Mr. Deeb coordinated the Project Development and Environment (PD&E) Study and completed the final NEPA documentation for this half-mile intersection improvement project. The PD&E involved intense public involvement and coordination with the abutting Flying J truck stop and Lazy Days RV center. The public was heavily involved with the decision making process due to the huge truck volume in the intersection and the required access to the RV center and adjacent businesses. Mr. Deeb coordinated the designers, Hillsborough County, and adjacent property owners to a viable solution for all parties. He also provided quality control reviews for final design and construction administration.

SR 5/US 1 PD&E (Glades Road to Yamato Road), FDOT District Four, Palm Beach County, FL; Project Manager (6/2010- 10/2012): Mr. Deeb managed this 2.8 mile roadway PD&E study to potentially widen US 1 from four to six lanes. The alternatives include multimodal improvements for buses, bicycles, and pedestrians, and safety enhancements. The study also evaluated additional alternatives for the five-leg intersection at NE 20th Street and NE 5th Avenue. TYLI provided full environmental and engineering services for this project.

I-95 PD&E (Glades Road to Linton Boulevard), FDOT District Four, Palm Beach County, FL (5/05-8/10): As a subconsultant, Mr. Deeb managed the planning and preliminary design of 17 bridges for the additional through-lanes on I-95 as well as a new interchange providing access from I-95 to Florida Atlantic University. This included expanding major steel structures, widening existing structures, and full bridge replacements. A major component of this project was to study a pedestrian bridge spanning Yamato Road connecting the Tri-Rail train station and the El Rio Trail. The firm also prepared bridge alternatives, an aeronautical analysis for Boca Airport, and MOT plans.

Districtwide PD&E, FDOT District Four, Project Manager (10/06-10/11): Assignments included:

- **Indian Street Bridge Website**–convert the PD&E website previously created by TYLI to a Design Phase website and provided various project updates.
- **Broward Bridges, Fort Lauderdale, FL:** Prepared preliminary plans and summary report for replacement of three existing low-level fixed bridges at Sunrise Boulevard over the Middle River, Las Olas Boulevard over the Sospiro Canal and Fiesta Way over the Rio de Las Olas Canal. The report became part of the feasibility study prepared by the Department. The Sunrise Bridge Replacement involved a public meeting to satisfy USCG requirement, which over 100 people attended.
- **SR 76 (Kanner Highway) from CR 711 to Cove Road, Martin County, FL:** Prepared a Purpose and Need Statement, Project Description, and Long Range Estimate to prepare this project for ETDM screening and future PD&E Study.
- **CSX Railroad Bascule Bridge over New River, Fort Lauderdale, FL:** Prepared a Purpose and Need Statement, Project Description, and Long Range Estimate to prepare this project for Efficient Transportation Decision Making (ETDM) screening and future PD&E Study.

Districtwide PD&E, FDOT District Four, Project Manager (2000–2005): Responsibilities for this miscellaneous task contract that included many aspects of PD&E work from feasibility studies to preliminary engineering. During the five-year contract period Mr. Deeb managed 54 Task Work Orders on assignments such as:

- High-Level Bridge Feasibility Study
- Movable Bridge Replacement Feasibility Study
- Grade Separation Feasibility Study at FEC railroad
- Navigation Study
- Project Website Creation and Monitoring
- On-Site environmental services
- GIS Mapping
- Noise Evaluations
- Design Traffic Memoranda

Notable projects under this contract were:

- **Feasibility Study for SR-714 at the FEC Railroad and Dixie Highway, Stuart, FL, Project Manager (May 2001):** Responsible for the feasibility study to provide a grade separation for SR-714 over the FEC Railroad Crossing and Dixie Highway. The section of the study was in close proximity to Witham Field. Therefore, the roadway elevation was restricted by the approach surface to the crosswind runway. Mr. Deeb provided the preliminary engineering of alternatives for roadway alignments and right of way determination.
- **Alternatives Feasibility Study for the Flagler Memorial Bridge on SR A-1-A (Loftin Street), Palm Beach County, FL; (March 2004):** The alternatives feasibility study replaced the existing mid-level bascule bridge that spans the

Intracoastal Waterway connecting the Town of Palm Beach and the City of West Palm Beach. The study evaluated preliminary designs of a low-level bascule bridge, a mid-level bascule bridge, and a high-level fixed bridge. In addition, the study evaluated costs for construction, right of way acquisition, maintenance, and operation of the new bridge alternatives.

- **Alternatives Feasibility Study for the North Causeway Bridge on SR A1A over the Indian River, St. Lucie County (Nov. 2003):** Project manager for the alternatives feasibility study to replace the existing bascule bridge spanning the Intracoastal Waterway. The study evaluated preliminary designs for a high-level fixed bridge. In addition, the study compared life-cycle costs for maintenance and operations of the existing bascule bridge compared to construction and maintenance costs of a proposed high-level fixed bridge.
- **SR 707 (Dixie Hwy) PD&E Study from Wright Boulevard to Savanna Road, Martin County, FL; (July 2006):** Assisted the FDOT on this in-house PD&E project by providing engineering support for the roadway typical section, drainage investigation and environmental analysis. Assisted with overall document preparation and cost estimates.

US 27 Multimodal Planning and Conceptual Engineering Study (PACE), FDOT District Four, (05/2011-12/2012): Mr. Deeb managed this planning study to determine the technical and economic feasibility of creating a multimodal corridor along US 27 by including a freight rail component. The project covered 75 miles from northern Miami-Dade County to the Palm Beach County/Hendry County line. In addition to the freight rail component, the study also addressed roadway improvements for the entire corridor to address access to adjacent facilities for the new railroad, intersection improvements, overpasses, and interchange reconfigurations to include the intersecting railroad.

South Florida East Coast Corridor (SFECC) Program Management, FDOT District Four, (12/2010-09/2011): As a subconsultant to Reynolds, Smith and Hills, Mr. Deeb managed TYLI's portion of this 82-mile study to reinstate passenger rail service on the Florida East Coast (FEC) Railway corridor. TYLI's role included conceptual track engineering, railroad bridges, grade separated/elevated railroad segments, and a potential tunnel alternative at the New River Crossing.

Florida East Coast Railway, High-Speed Intercity Passenger Rail Service, Amtrak Service on Florida East Coast Railway, Jacksonville to Miami, FL. (2010) The project involved a new High-Speed Intercity Passenger Rail Service study on the existing Florida East Coast Railroad for Amtrak Service from Jacksonville to Miami. The Federal Railroad Administration required a Project-Level EA per the National Environmental Policy Act (NEPA) for funding to the FDOT.

TYLI, with its partner, CH2M Hill, provided Project NEPA documentation and prepared the final Environmental Assessment document for the FDOT to submit a grant funding application to the FRA, requiring the project to be intensely accelerated to meet the grant application deadline. Mr. Deeb managed this project where the public involvement included 18 public workshops and design sessions in 9 cities where stations or major improvements were proposed. He also directed the entire environmental analysis, station layout concepts, track adjustments, and the preliminary engineering for the project.

FRANCISCO J. ALONSO, PE
Project Manager

Registrations:

PE-Civil Engineering, Florida License No. 66918

Building Code Administrator Florida License No. BU1870

ICC Certified Building Official Certificate No. 8288137

Academic Achievements:

B.S. 2002-Mechanical Engineering-University of Miami

Affiliations:

Member, Florida Engineering Society Miami Chapter

Member, National Society of Professional Engineers

Mr. Alonso is a Professional Engineer with over 14 years of experience in management, planning, design, permitting and construction of municipal engineering projects which include site Civil engineering, vertical facility design and permitting, water and sewer design and permitting, storm-water master planning, storm-water design and permitting, traffic calming, aviation civil design, and general roadway design. In addition he has provided professional engineering services as a consultant managing capital projects for various municipalities including the City of Miami, the City of South Miami, Miami Shores Village, and the City of West Miami where Mr. Alonso's firm serves as the City Engineer and Building Official.

City of West Miami – City Engineer Contract – 2002-present

Mr. Alonso's firm T.Y. Lin International has served as the City Engineer for the City of West Miami since 1998 and the Building Department since February of 2014. Mr. Alonso has worked on this contract in the capacity of designer, engineer, and since 2010 has served as Lead Engineer in charge of the firms responsibilities as City Engineer and since 2014 has been the City's Building Official and Building Code Administrator. Said responsibilities include:

- Building Code Administrator in charge of the building department
- Plan Review and Inspection for the City's Public Works and Zoning Department, where Mr. Alonso has served as the lead reviewer.
- Miscellaneous Design Phase Services for work within the Right-of-Way
- Miscellaneous Construction Administration Services on City Projects

Under this contract, Mr. Alonso has been involved as the engineer-of-record on the Citywide Drainage Improvement Projects, several water main improvement projects, pump station retrofits, as well as the Project Manager for various facility projects including the design, permitting, and construction administration of the City's Recreational Facility and various improvement projects at City Hall and the Police Department. *Several of the key projects performed under this contract are further detailed in this resume.*

City of Miami General Engineering Contract – 2002-present

Mr. Alonso has provided professional engineering services and project management for various projects under the firms Miscellaneous Engineering Contract with the City of Miami. The projects have ranged from horizontal roadway improvement and drainage projects as well as vertical projects involving Architecture, structural, MEP design and permitting. Some of the specific projects have included:

- Lummus Park Improvements
- Bayfront Park Electrical Improvements
- Mary Brickell Village Drainage and Roadway Improvements Project
- Overtown Greenway
- NW 14th Street Roadway Improvements
- NW 8th and 14th Court Roadway and Drainage Improvements
- SW 16th Ave, 17th Street, and 17th Terrace Roadway Improvements
- Dinner Key Marina Harbormaster Trailer
- Virginia Key Weigh Station Project
- Annual FEMA PDM Application Preparation
- Durham Terrace Drainage Improvements Project

- Fairlawn Phase III and Tamiami Storm Sewer Improvements Project Master Plan Improvements
- Fairlwan Storm Sewer Improvements – Phase IIB
- Flagami / West End Storm Sewer Improvements – Phase II
- Fueling Dock: Dinner Key Marina
- Coral Gate Wall

Some of the major projects in this list are described further in this resume.

USDA APHIS Facility at Miami International Airport, Miami, Florida

Mr. Alonso was the Project Manager and Engineer of Record responsible for the site work on the project including water and sewer, paving, grading, drainage, ingress and egress. The project included design, permitting, and construction administration in close coordination with MDAD and County staff.

Miami Beach Senior High School, MDCPS, Miami Beach, Florida

Mr. Alonso was the Engineer responsible for the complete design of the school site in accordance with the schools redevelopment. The design work entailed paving, grading, and drainage for the entire 22 acre site, and included utility design and relocations for water and sewer. In addition, key project functions included coordination with the Architect and MEP engineers on staging, permitting, and construction administration services, as well as off-site coordination with the City and County.

Biscayne Landing Development, Sanitary Sewer System Design, North Miami, Florida

Mr. Alonso was the Engineer responsible for the design of a low-pressure sewer system consisting of grinder pump stations for a new townhome development as well as a conventional pump station to service the grinder pump effluent and the new high-rise apartment building also a part of the project. Mr. Alonso served as the project engineer responsible for the sizing and design of the sanitary pump stations and force-mains throughout the project.

Barry University – School of Graduate Medical Sciences
Miami Shores Village, Florida

Civil designer for the new school of graduate medical sciences on its property on NW 115th Street in Miami Shores Village. The site work included a new 144-space parking lot, drainage, water, sewer, and a pedestrian/tram paved linear park. A sanitary lift station was constructed for the building and was sized to incorporate future buildings on the site. The lift station connected to an existing WASD force main on NW 115th Street. The parking lots also had new lighting. The drainage system will is comprised of exfiltration trenches.

City of Homestead, Mayor Roscoe Warren Park, Homestead, Florida; Project Manager.

Mr. Alonso was the Engineer of Record for the Civil Engineering components of the project. The project included the design of a new 31 Acre Park in the City of Homestead including the full development of interior roads, structures, and utilities. As part of this development a 1500lf gravity sewer system was design to serve the proposed recreational center, restrooms, and gazebos. The new gravity system discharged sewage to a new pump station and force main

which transmits sewage to the City of Homestead system. Also included in the design was a new 12" fire line and 4" water main to service the new park buildings. Francisco was responsible for final construction documents and permitting assistance. This included all of the Civil engineering components of which a key component was the sizing and design of the sanitary sewer collection system, pumps stations and force mains.

City of Miami, Dinner Key Harbormaster Office Trailer, Miami, Florida; Project Manager.

Mr. Alonso was responsible for the design of three trailers for the Dinner Key Harbormaster adjacent to the Coconut Grove Convention Center. The trailers would serve as the temporary Harbormaster Facility during construction of the new Dinner Key Harbormaster Building. The facility is located at the Dinner Key Marina (2649 South Bayshore Drive, Miami, Florida), adjacent to the south side of the Coconut Grove Convention Center. The civil and electrical engineering services consisted of the positioning of three new trailers on the site, as well as the design and permitting assistance for providing domestic water, sanitary sewer, and electrical service to the trailers. Furthermore the project included the design of parking lot with lighting and access to the trailer site and boat ramp.

Citywide Drainage Improvements Phases I-IV: City of West Miami, FL.

Mr. Alonso served as project Manager for the storm-water master plan modeling of the Citywide Drainage Improvements. Mr. Alonso utilized the storm-water modeling software ICPR for Flood Hydrology and Hydraulic Modeling as the basis for the design improvements. Mr. Alonso served as a the design engineer for Phase I of the improvements including modifications to the existing drainage system, design of a storm water collection system, and 2 pump stations, including approximately 9,905-lf of 48" DIP force main with connections to the City of Miami force main and the C-3 Canal. Mr. Alonso also served as Project Manager and Engineer-of-Record for Phases II-IV of the improvements.

Flagami-West End Storm Sewer Improvements/Phase II, City of Miami, Miami, Florida.

Mr. Alonso was responsible for the storm-water modeling and drainage design of the storm-water management systems. Francisco utilized the storm-water modeling software ICPR for hydrodynamic modeling as the basis for the design improvements. The design work included performing preliminary planning services, preparing the design and construction documents, and obtaining permits. The design work included exfiltration trenches, storm sewer collection systems, and the design and sizing of 4 storm-water pump stations and force mains. Pump Station ranged in size from 30 cfs to 100 cfs and system components included over 5 miles of storm sewers and over 1 mile of 48" to 84" D.I.P. force mains. The permitting preparation and regulatory agency coordination included SFWMD, DERM, FDOT, and Miami-Dade County.

Fairlawn Storm Sewer Improvements/Phase II, City of Miami, Florida

Mr. Alonso was the Engineer Responsible for stormwater modeling and drainage design of the stormwater management systems. Francisco utilized the stormwater modeling software ICPR for Flood Hydrology and Hydraulic Modeling as the basis for the design improvements. The design work included

performing preliminary engineering services, preparing the design and construction documents (drawings and specifications), and obtaining permits. The design work included exfiltration trenches; storm sewer collection systems and a stormwater pump station and force main. The permitting preparation and regulatory agency coordination included SFWMD, DERM, FDOT, and Miami-Dade County.

City of Miami, Fairlawn Phase III and Tamiami Storm Sewer Improvements Project Master Plan Improvements, Miami, Florida;

Mr. Alonso was the Engineering responsible for the hydrodynamic model for the interconnected drainage systems of the Flagami, Westend, Fairlawn Phase III, and Tamiami quadrants of the City of Miami. The hydrodynamic model was assembled using the XP-SWMM software package. The resulting general development report was utilized as a master plan for this section of the City and the basis for design of the Fairlawn Phase III and Tamiami Storm Sewer projects. The work included gathering informationb of the existing drainage system, obtaining as-builts, modeling, identifying viable design alternatives, and providing recommendations for the design of an interconnected drainage system discharging to the C-4 Canal.

Citywide Drainage Improvement – Phase IV / City of South Miami, FL.

Mr. Alonso served as the Engineer of Record and the Project Manager for the design work including performing preliminary engineering services, preparing the design and construction documents (drawings and specifications), and obtaining permits. The design work included exfiltration trenches and full roadway reconstruction. The permitting preparation and regulatory agency coordination included DERM, and Miami-Dade County. As Project Manager and Engineer-of-Record for the drainage design, Mr. Alonso was responsible for bidding assistance and shop drawing review of the storm water management system and sidewalk upgrades.

City of South Miami, South Miami Water Main Extension, South Miami, Florida

The project was for general engineering services to fulfill specialized quick response tasks for the City of South Miami. Services included; roadway engineering, drainage design, civil engineering, traffic and environmental engineering and construction services. Mr. Alonso was the civil engineer for the design and construction management of water main extensions, which included fire protection and service lines to each property with meter boxes. Mr. Alonso;s design consisted of 4,164 feet of 8" D.I.P. water main extension.

Miami-Dade Aviation Department, American Airlines Sanitary Pump Station at Miami International Airport, Miami, Florida; Civil Engineer

This project was for the design of a submersible sanitary sewer pump station. The project also included structural, civil, mechanical and electrical disciplines. Mr. Alonso was the civil engineer for the stormwater master plan, modeling and drainage design of the storm water management systems. He utilized stormwater modeling software for drainage studies such as AdICPR and XP-SWMM for Flood Hydrology and Hydraulic Modeling as the basis for the design improvements.

FDOT District Six, SR 5/Brickell Avenue (from South of SE 25 Road to

SE 4 Street), Miami, Florida; Engineer-of-Record. Project consists of the design and construction phase services for a pavement reconstruction proposed for 1.7 miles of an existing four-lane divided highway on SR 5 (Brickell Avenue). The work includes concrete pavement design, maintenance of traffic, access management, lighting, signalization and excessive queues associated with the operations of movable bridge openings at the northern end of the project. Responsibilities for this drainage design included managing the drainage design and coordinating between the different disciplines and sub-consultants.

SR-5/US1 Overseas Highway from MM 103 to MM 107 Resurfacing, Monroe County, Florida; Quality Control Officer. As part of the Florida Keys Overseas Heritage Trail (FKOHT) project the firm was retained to perform professional engineering services which encompassed the milling, resurfacing and pavement marking plans from MM 103 to MM 107 along the US1 Overseas Highway. The project included drainage design, pavement, signals utilities, lighting and MOT plans. Responsibilities included overseeing the drainage design and acting as a quality control officer on said design.

City of Miami, Biscayne Bay Flood Relief Project, Village of Miami Shores, Florida; Design Engineer. Provided professional civil engineering services for the construction of RCP storm sewers, exfiltration trenches, a pump station, DIP and HDPE force mains, inlets, manholes, and pavement repairs. Francisco utilized the stormwater modeling software ICPR for Flood Hydrology and Hydraulic Modeling as the basis for the design improvements. Responsibilities included final construction plans, technical specifications, permitting and bidding assistance, and construction administration.

96 Street Stormwater Improvements, Village of Miami Shores, Florida

Mr. Alonso was the Engineer-of-Record providing professional civil engineering services provided for the construction of exfiltration trenches, inlets, manholes, and pavement repairs. His responsibilities included final construction plans, technical specifications, permitting and bidding assistance, and construction administration.

Central Business District Low-Pressure Sewer System (LPSS) Feasibility Study and Design Criteria Professional, Miami Shores Village, Florida.

The Project Manager responsible for a feasibility study and Design Criteria Package for the installation of an LPSS to meet the level of service requirements of the Village's Downtown area. In addition the study was used to determine if the system could be installed, along with a new 12" water main, within the physical limitations of the alley-ways behind the existing business along the Downtown corridor. The project included preliminary utility coordination efforts to determine conflicts, as well as research for potential design components and implementation of the LPSS with respect to the Village's unique application. As part of the project, preliminary coordination with MD-WASD was performed to determine project feasibility in the context of the MD-WASD system standards.

City of Miami, FEMA Drainage Program, Miami-Dade County, Florida; Civil Engineer.

The project includes 300 work sites in pavement reconstruction, resurfacing and drainage improvement. Francisco collaborated during the design and

construction phases for a drainage program for Miami-Dade County and FEMA.

Ingenco North Dade Landfill Water Main Extension and Aerial Canal Crossing, Miami-Dade County, Florida.

As Engineer of Record, Francisco provided the design, construction plans and permitting assistance through MD-WASD, FDEP, and DERM for a water main extension to serve the Ingenco Cogeneration Plant development at the North Dade Landfill. The project consisted of a new 12" tap and water main extension at the North Dade Landfill. The scope included a Steel/DIP aerial crossing over the existing County canal, hydrants, and new backflow preventers. The firm was responsible for the hydraulic design of the extension, aerial crossing geometry, and structural support system.

Ciudad de Colon Storm-water Masterplan / Colon, Panam; Project Manager

Mr. Alonso served as the Project Manager and Lead Engineer for this expansive Storm-Water Masterplan for the City of Colon located on the Caribbean coast of Panama. The City suffers from uncontrolled development, extremely low elevations in critical areas (1m-2m above sea level), and an antiquated system designed in the 1920's. TYLI was tasked to develop a 2D model of the existing drainage infrastructure and develop improvement alternatives for the entire 16 square mile municipality for a 50 year storm event and taking into account future sea level rise. Tasks included a LIDAR survey of the entire city, collection of system as-builts and field verification, preparation of an existing infrastructure atlas, interviews with local officials, identification of critical areas, development of model utilizing a combination of EPA-SWMM and HEC-RAS, determination of system shortfalls, and finally recommendation for a Capital Improvements Program for a phased deployment of improvements. The project included several large regional axial pump lift stations ranging in size from 100-300cfs, dredging, expansion, and bank stabilization of the major canal systems throughout the City as well as sea wall reconstruction in critically low areas. This aggressive project was completed in early 2014 and took less than one year to complete. The City is currently moving forward with implementation of the recommendations.

Xavier A. Arroyo, PE

Transportation Task Leader

Years of Experience
19

Registrations
Professional Engineer, Florida, #62431, 2005

Academic Achievements
BS, Civil Engineering, University of Central Florida, 1998

Certifications/Training
TCP Certified

FDOT Long Range Estimates

FDOT Contract Estimating System

FDOT Advanced Work Zone Traffic Control Certification

Professional Affiliations
FES, ASCE, ASHE

Software Proficiencies
Primavera

Microstation

Languages
Spanish

Work History
2012-present, T.Y. Lin International

Corzo Castella Carballo Thompson, 2005-December 2012

Inwood Consulting Engineers, Inc. 2002-2005

Wilbur Smith Associates, 2000-2002

Transportation Consulting Group/HDR, Inc., 1997-2000

Mr. Arroyo has 19 years of experience in the transportation engineering field. He has been a roadway project manager and engineer-of-record on a variety of roadway projects ranging from the roadway design of multi-lane limited-access roadways to rural/urban milling and resurfacing projects. He has signed and sealed component sets such as roadway, maintenance of traffic, signing and pavement marking, and signalization plans. Further, he is experienced in traffic design, PD&E studies, and Master Plan Studies.

Tocumen International Airport, Landside Airport Roadways, Civil and Utilities Design, Design Engineer. Xavier provided design services for the airport landside transportation, civil and utility works for the new South terminal expansion project. A new utility and energy center was added on site to consolidate all utility connections, new power substation, water tanks and pump stations for chilled water, fire suppression and communications. Landside drainage works include area wide surface water management and relocation/channelization of 1.2 miles of the Tocumen River.

FDOT District Six, I-395/SR 836 from Midtown Interchange/I-95 to US 41/SR A1A MacArthur Causeway Bridge, Miami-Dade County, Florida; Post-Design Services. TYLI is leading a team serving as the Florida Department of Transportation's consultant for the I-395 Reconstruction Project, a $600 million reconstruction of the existing interstate system from the I-95/Midtown interchange to the MacArthur Causeway Bridge in downtown Miami. The TYLI Team has developed concept plans for the project, as well as the Request for Proposals (RFP) document that will guide the FDOT's procurement of a design-build team to construct the project. Aesthetics is such an important factor on this project that it will account for 30 of the 80 total points in the design-build scoring system. The 1.4-mile corridor will connect downtown Miami to I-95 and provide direct access to the Port of Miami Tunnel. Work includes structural design for a proposed signature bridge and modification of the existing roadway and interchange. Other elements include drainage, utilities, geotechnical engineering, public involvement, environmental permitting, and a complex maintenance of traffic scheme to minimize local impacts. The project also includes reconnecting areas in the historic Overtown neighborhood.

Central Florida Expressway, Orlando, Florida, SR 528/SR 436 Bridge Deck Replacement, Project Manager. TYLI was selected to provide services including final geometric and structural design, load rating and preparation of construction drawings/specifications to remove and replace the existing bridge decks at the following locations: the southbound S.R. 436 bridge over S.R. 528, the southbound S.R. 436 bridge over Ramp M and the northbound S.R. 436 bridge over S.R. 528. The design of temporary bridges for southbound S.R. 436 over S.R. 528 and southbound S.R. 436 over Ramp M for maintenance of traffic purposes is also included. Additional elements include surveying, drainage evaluation and design, permitting, lighting, signing and pavement markings, maintenance of traffic, utility design and coordination, geotechnical analysis, scheduling and project control, progress reporting and other tasks and associated activities. (2016)

FDOT District 3, SR 97 over Sandy Hollow Creek Bridge Replacement, Escambia County, FL; Lead Roadway Engineer. TYLI served as the prime consultant for this rural two-lane bridge replacement project. Our design team implemented the use of the Geosynthetic Reinforced Soil–Integrated Bridge System (GRS–IBS) for the substructure and a Florida Slab Beam (FSB) sys-tem for the superstructure. These design innovations combined to result in a savings for the District of $562,000 over the use of a conventional flat slab bridge. Another innovation was the use of a temporary bridge to facilitate maintenance of traffic during construction. Mr. Arroyo served as roadway design engineer of record for the project. TYLI's design maintained the existing horizontal alignment but raised the vertical profile to allow for a consistent design speed that would match in plan and profile. The cross sectional elements of the roadway (shoulder) were upgraded to meet standards.

SR 23 Toll Road Design-Build from North of Argyle Forest Boulevard to I-10, (North Segment), FDOT District 2, Jacksonville, FL; Deputy Project Manager. This design-build project is approximately 6 miles in length and involves converting the existing SR 23 to a toll facility that includes limited-access interchanges at Argyle Forest Boulevard, SR 134 (103rd Street), SR 228

(Normandy Boulevard), and New World Avenue. The project includes four new prestressed concrete two-span bridges, six permanent and temporary MSE walls, two noise walls, three new box culverts, three box culvert extensions, mast arms, sign structures, and critical temporary walls. Additional improvements include crossroad improvements, installation of four FTE electronic tolling gantries, signalization, lighting, and an ITS system. The ITS included the construction of fiber optic cable along 7.9 miles of I-10 and 33 miles of SR 9 (I-95).

SR 23 Toll Road Design-Build from SR 21 (Blanding Boulevard) to north of Argyle Forest Boulevard, (South Segment) FDOT District 2, Jacksonville, FL; Senior Roadway Engineer. Conversion of 7.4 miles of highway to a limited-access toll facility. TYLI is the lead designer for the limited-access mainline facility that includes three interchanges and ten new bridges. Improvements include construction of interchanges at Blanding Boulevard, a single-point urban interchange at Argyle Forest Boulevard, and a half diverging-diamond interchange at Oakleaf Plantation Parkway; slip ramps to the Branan Field Frontage Roads; construction of crossroad improvements; six-lane urban reconstruction of Blanding Boulevard; construction of twin overpass structures over Trail Ridge Road and Old Jennings Road, construction of one new bridge and one bridge widening over the South Prong Double Branch; and construction of electronic tolling gantries, lighting, and an ITS system.

SR 836 Operational and Capacity Improvements Design-Build, Miami-Dade Expressway Authority, Miami-Dade County, FL; Design Project Manager. SR 836 is a major east-west corridor in Miami and is the gateway for drivers to and from Miami International Airport. TYLI is the lead designer for this $149M project to add lanes and provide capacity-related improvements to a 4.89-mile segment of limited-access expressway. TYLI's design team developed several innovative Alternate Technical Concepts that were approved by the Owner and allowed the Contractor to submit a competitive bid and a very aggressive schedule. One approved ATC proposed use of a diverging diamond interchange (DDI), a concept that is fairly new in the US. TYLI will be responsible for all roadway and drainage design elements as well as the design of 31 bridges at 25 locations along the corridor.

I-295 Express Lanes from Buckman Bridge to I-95 South Interchange, FDOT District 2, Jacksonville, Florida; Design Project Manager. This design-build project involving widening approximately 5 miles of an urban freeway/expressway, including full roadway reconstruction and milling/resurfacing/widening of the San Jose Boulevard and Old St. Augustine Road interchange ramps. The project includes bridge widening of I-295 over Scott Mill Road, San Jose Boulevard, and Old St. Augustine Road; extending bridge culverts; design and construction of noise walls; and stormwater management treatment. As lead designer, TYLI is responsible for providing a Traffic Control Plan, utility coordination, signing and pavement markings, lighting, signalization, and ITS/tolling plans.

City of Fort Lauderdale, Powerline Road (SR 845) Lane Elimination Application, Lead Roadway Design Engineer. T.Y. Lin International assisted the City of Fort Lauderdale with its application to FDOT District 4 for lane elimination on Powerline Road (SR 845) between Sunrise Boulevard (SR 836) and NW 19th Street in Wilton Manors. In this 1.7-mile segment, Powerline Road (SR 845) accommodates six lanes of traffic with sidewalks and BCT bus route (#14) and passes three schools. The project would eliminate two traffic lanes and replace them with a striped bicycle lane and a wide buffer channelizing vehicle and bicycle traffic. TYLI prepared the lane elimination application and completed data collection, traffic operational analysis to determine intersection and corridor level of service, and a comprehensive transportation study to evaluate the impacts of eliminating a lane in each direction. This lane elimination application was approved by FDOT District 4 and was being reviewed by the Central Office in late 2014.

FDOT District Five, Wekiva Parkway 4A/4B Design-Build from CR 435 to SR 46, Seminole County, Florida; Project Manager. This project involved two segments comprising about 2.5 miles of this 25-mile tolled expressway. This parkway will provide an alternative to Interstate 4 and relieve US 441, SR 46 and other area roads of traffic congestion resulting from growth and travel between Orange, Lake and Seminole Counties. The 4A/4B segments are located in Orange and Lake counties

from SR 435 (Mount Plymouth Road) to SR 46. Design consists of 2.5 miles of a four-lane divided tolled roadway along with two 800-foot floodplain bridges and an interchange at SR 46. As this is an environmentally sensitive project, environmental survey efforts included the survey and relocation of 200+ gopher tortoises. Miscellaneous features include lighting, ITS, signalization, drainage and toll facility site construction.

FDOT District One, I-75 Airport Access at Southwest Florida International Airport Design-Build, Lee County, Florida; Deputy Project Manager. This design-build project will provide a direct connection from I-75 to the Southwest Florida International Airport (SWFIA) Mid-Field Terminal Facilities in Fort Myers, which serves over 7 million passengers each year and is the second fastest growing airport in Florida. The project involves the construction of 5 miles of a four-lane collector-distributor (C-D) roadway system adjacent to I-75 between Alico Road and Daniels Parkway, with no net increase in the number of access points to/from I-75. It also includes construction of a 1-mile new Terminal Access Road (TAR) with interchanges at I-75 and Ben Hill Griffin Parkway that ultimately ties in to the existing SWFIA Mid-Field Terminal Facility roadway. The trumpet interchange at I-75 provides a single point of entry to SWFIA via the C-D System and slip ramps starting south of Alico Road and ending at Daniels Parkway, while the partial urban interchange at Ben Hill Griffin Parkway provides local access to/from SWFIA. The project also involves a comprehensive landscape and aesthetics design to ensure a lasting first impression to Southwest Florida visitors.

FDOT District Five, SR 50 Design-Build from West of CR 545 (Avalon Road) to SR 429 (Western Beltway), Orange County, Florida; Project Manager and Engineer of Record. This project consists of widening SR 50 from an existing five-lane undivided rural highway to a six-lane urban divided highway with a raised 30-foot median. The construction includes eight signalized intersections interconnected with video detection, a closed stormwater system with four pond sites, decorative concrete intersection and signing and pavement markings. This was one of five projects solicited by FDOT District Five as part of the federal American Recovery and Reinvestment Act 2009 (ARRA 284B). Bid price for project was $16.9 million with a project schedule of 600 construction days. The project included extensive utility coordination, as the majority of Utility Agency Owners had major relocations of their owned facilities along with protecting ITS facilities, and the FDOT's 511 system.

FDOT District Six and the Miami-Dade Expressway Authority (MDX), SR 826/SR 836 Interchange Reconstruction, Miami-Dade County, Florida; Project Engineer. Mr. Arroyo assisted in the roadway design segments and the complex MOT scheme developed to support the reconstruction of this $560 million, four-level interchange in the heart of Miami-Dade County. The project includes the reconstruction of approximately 2 miles of SR 826 from SW 8th Street to NW 25th Street and approximately 3 miles of SR 836 from NW 87th Avenue to NW 57th Avenue to provide five lanes in each direction along the mainline. Eastbound and westbound C-D roads were also provided along SR 836. The job includes the construction of 47 new bridges that include seven steel bridges, 36 Florida I-beam bridges and four segmented bridges. Other improvements included retaining walls, lighting, sound walls, canal relocation, utilities JPA plans, signalization, new signing and pavement markings, new ITS, and special aesthetic features. Extensive stakeholder coordination was required with FDOT, MDX, MDC Water & Sewer, utility owners, the Miami International Airport, CSX Transportation, DERM, and SFWMD, and others.

FDOT District Five, I-95 Widening and Reconstruction between the St. Lucie County Line and SR 60, Indian River County, Florida; Project Engineer. This $54 million design-build project involves the replacement of six bridge structures and the reconstruction of the SR 60 interchange, as well as the addition of one travel lane in each direction in the 6.8-mile corridor.

FDOT District Five, I-95 Widening Design from Malabar Road to Palm Bay Road, Brevard County, Florida; Project Engineer. This design-build project for the widening and rehabilitation of I-95 from the Malabar Road line to north of Palm Bay Road, a total length of 4.167 miles. Mr. Arroyo was responsible for the project management, plans production, construction shop drawings, and RFIs.

JAMES KANTER, PE, LEED® AP

Civil Engineering Task Leader

Academic Achievements

B.S. in Civil Engineering, University of Miami, 1986

B.S. in Architectural Engineering, University of Miami, 1986

Master of Business Administration, FL International University, 1983

Civil Engineering Studies, Universidad Autonoma de Guadalajara, Mexicó, 1980-1982

Architecture Studies, Universidad de los Andes, Bogotá, Colombia, 1978-1980

Professional Registrations

Professional Engineer Florida, No. 44005, 1991

LEED Accredited Professional (Civil) – Green Building Certification Institute, 2009

Training/ Professional Affiliations

Former Member, Miami-Dade MPO Transportation Aesthetic Review Committee, 2000-2009

Former Member, FICE Transportation Committee

Member, American Society of Civil Engineers,

Past Secretary and Treasurer, Miami-Dade Branch, Chi Epsilon, Civil Engineering Honor Society

Past Member, American Association of Colombian Engineers (AACE)

Mr. Kanter is a FL-registered professional engineer and LEED® accredited transportation engineer with more than 29 years of professional consulting experience involving highways, airports, roadway/civil design, intermodal facilities and transit systems. He has a keen understanding of the project delivery process – from planning through construction administration and has successfully managed complex multi-disciplinary teams for the FDOT District 6 and its local agency partners throughout Miami-Dade and Monroe counties. He has consistently demonstrated an ability to overcome unique project challenges while delivering projects on-time and on-budget with District 6 and a dedication to high quality service, ethical standards and effective client relationship-building.

Past assignments have involved leadership role in the districtwide contracts for Districts 6 and 4 including serving: as Principal, Project Manager and Engineer for the District 6 Districtwide Public Transportation Consultant (evaluation scores >90), and as Engineering task-leader for the District Four Office of Modal Development Consultant (evaluation scores >90). Mr. Kanter has also managed or served in a principal-in-charge role on consultant teams on districtwide contracts for transportation statistics, short range planning, and miscellaneous engineering, a FDOT District 6 PD&E Study (with an evaluation score of 99), and several District 6 limited access and principal arterial state roads. The list of local agency clients he has served includes: the Miami-Dade Aviation Department, Miami-Dade Transit, Miami-Dade County Department of Transportation and Public Works, and local municipalities. He has also served private transportation clients operating in Miami-Dade County, including American Airlines and Atlas Air

General Consultant to the Public Transportation Office, FDOT District 6 - Miami, FL. Project Manager responsible for planning and engineering efforts for District 6 rail, bus, aviation, and bicycle facility projects. Coordinated reviews, inspections and other miscellaneous tasks required for Federal grant oversight of infrastructure projects in Miami-Dade and Monroe Counties.

General Consultant to the Office of Modal Development, FDOT District Four - Ft. Lauderdale, FL. Mr. Kanter was responsible for coordinating all planning and engineering efforts associated with District Four rail, bus, aviation, and bicycle facility projects. Lead Engineer for the development of District Four project review checklists and transit design guidelines development for the review of highway plans for transit facility infrastructure throughout District Four.

Districtwide Short Range Planning Consultant, FDOT District 6 - Miami, FL. Mr. Kanter was Principal-In-Charge and Quality Control/Technical Advisor for a consultant team responsible for preparation of scoping reports that assess existing conditions along various on and off-system state roadways in Miami-Dade County based on the requirements of Chapter 25 of the FDOT Plans Preparations Manual (PPM). Assessments were performed of the physical and operational conditions, and safety of the roadway corridors based on field and office reviews. Recommendations for improvements were proposed based on evaluation of alternatives that can most preserve or extend the service life of existing pavements, optimize capacity (without adding through lanes), operating characteristics, improve sight distance, reduce corridor crashes, and made recommendation of general safety modifications for further programming into the Five Year Work Program.

JAMES KANTER, PE, LEED® AP

Civil Engineering Task Leader

Past Secretary and Vice-President, South FL Branch

GIS & Mapping Services General Consultant, FDOT District Six - Miami, FL. Mr. Kanter was the task leader for GIS/IT support staffing as a subconsultant member of a team serving the District 6 Planning Statistics Office. He was involved in organizing FDOT District Six's participation in the annual TranStat conference. He was actively involved in the planning and development of a newsletter and presentation detailing District 6 PSO's activities for the year highlighting the new GIS "Super" Enhanced Straight Line Diagrams process. Other assignments involved database re-structuring and organization of the District's archives, GIS application development and other miscellaneous map development functions.

Atlas Air Maintenance Facility at Miami International Airport, Miami-Dade County, FL. Engineer-of-Record for the late-stage planning, final design and construction administration for civil site work and utilities of this 55-acre aircraft maintenance hangar industrial/commercial site located at the northeast corner of Miami International Airport. Responsible for coordination of civil engineering issues with the Aviation Department, environmental regulatory agencies, the Florida Department of Transportation, and the Public Works Department.

Historic Steel Bridge Preservation Study at NW 54th Street/Curtiss Parkway and Hook Square/East 1st Avenue (PD&E), Miami Springs, FL. Project Manager for the study of the rehabilitation/restoration of two locally historic steel bridges over the Miami Canal, their approaches, abutments, and foundations between the Cities of Miami Springs and Hialeah. Consideration was given to historic preservation priorities. Also included developing and evaluating alternative concepts to modify the existing bridges or provide a pedestrian bridge, crossing at a new location that would satisfy the Americans with Disabilities Act.

PTMS Site Design and Professional Services Consultant, FDOT District 6 - Miami, FL. Mr. Kanter served as Principal-In-Charge for the PTMS Site Design and Professional Services contract. The contract scope involved evaluation of alternative sites and implementation of traffic monitoring sites throughout the District. Other tasks involved on-site support, miscellaneous planning studies and reports.

Supplemental Architectural/Engineering (A/E) Services for Concourse J and H-J Aircraft Aprons, South Terminal Program, Miami International Airport. Principal-In-Charge ultimately responsible for the office's performance in the project. Was involved in quality control and quality assurance related to project management, oversight of project coordination for owner's field representation, and management of the relationship with the A/E of Record assuring that the needs and expectation of the client were met above expectations. Estimated Construction Cost approx. $1 Billion.

QIAN (CHERRY) XIONG, P.E.
Traffic Engineering

Professional Registrations

Professional Engineer, Maryland #36068

Academic Achievements

Master of Science, Civil Engineering specializing in Transportation Engineering, University of Illinois at Chicago, 2002

Bachelor of Science, Civil Engineering, Suzhou University of Science and Technology, P.R. China, 1997

Affiliations

ITE
ICTPA
Committee member, TRB Committee AP025 - Public Transportation Planning and Development
Committee member, TRB Committee AR030- Rail Operating Technologies

Ms. Xiong has more than 18 years of experience in transportation planning and multimodal microsimulation in the US, Canada, UK, and China. Her principal expertise is in travel demand forecasting, transit ridership forecasting and operations planning, transport hub planning and pedestrian modeling, traffic/revenue study and software training.

Ms. Xiong also managed several large scale high-speed rail station transportation planning and design review projects. Microsimulation models were developed to understand design deficiencies under normal condition and emergency evacuation conditions. Ms. Xiong is active in Transportation planning research communities and also published/presented multiple papers.

South Florida Regional Transit Authority (SFRTA) Downtown Boca Raton Transit Feasibility Study, Palm Beach County, FL. Senior Transportation Planner. T.Y. Lin International is currently evaluating the feasibility of transit service in Downtown Boca Raton for South Florida Regional Transportation Authority (SFRTA) and the City of Boca Raton. As part of this study, TYLI staff is preparing alternative transit networks (downtown circulators and downtown-commuter rail connectors), service plans, cost estimates, and ridership forecasts. Ultimately, the TYLI staff will recommend a preferred alternative for the Downtown CRA Board for adoption and implementation purposes.

Oakland Park Boulevard Transit Alternatives Analysis, Fort Lauderdale, FL. TYLI evaluated transit alternatives that incorporate FDOT's policies and program initiatives such as mobility hubs, passenger service, rapid bus/bus rapid transit (BRT), Light Rail and streetcar, and safety improvements to best enhance the transit operating environment in the busiest east-west bus route in Broward County, Florida. Identifying financial resources (FTA, FDOT, and local agencies) were addressed as well. Key issues addressed in the study are as follows:

- Data Analysis
- Understanding travel patterns;
- Understanding and reviewing current bus service and its potential to reduce vehicular travel demand;
- Improving on-time performance;
- Developing short- and long-range solutions; and
- Engaging in public outreach and forming partnerships in order to build consensus.

The preferred alternative was a "business and Tourist" (BAT) lane where only buses, emergency vehicles and right-turning vehicles are permitted. In addition, bus islands which separate bus stops from right turn lanes were incorporated. The recommended BAT lane alternative was endorsed by Broward County Transit and adopted by the Broward MPO.

Downtown Atlanta Bus Circulation Study, Atlanta, GA; Lead network modeler and microsimulation analyst. Ms. Xiong applied a Macro-Micro Integration approach to develop downtown Atlanta sub-area travel demand model from ARC's regional travel demand model. The study area was defined based on the project and zones were disaggregated based on traffic generation/attraction pattern in downtown area. The network was refined and detailed zone connectors were added based on field check and aerial photos. Peak hour demand was calibrated against link and turn counts. Detailed signal

timing information was also integrated into the demand model for micro-simulation preparation purpose. The model was then used for downtown area bus circulation study in a micro-simulation environment. Feedback from simulation results to demand model was used to update macro model settings.

Broward County MPO, Sistrunk Streetcar Ridership Forecasting, Fort Lauderdale, Florida; Ms. Xiong served as transit ridership modeling specialist, developed a spreadsheet model to forecast the extension of the proposed WAVE streetcar Phase I under various alignment and operating scenarios to understand the magnitude of the additional ridership. Tasks performed included: 1) Aggregation of TAZs into districts based on streetcar extension alignment and catchment area, as well as the trip pattern; 2) development of district level trip tables based on the Southeast Florida Regional Planning Model (SERPM) highway and transit demand; 3) calibration of the spreadsheet model; and 4) application of the spreadsheet model to various alternative.

Regional Transit Model Development, Vancouver, Canada; Lead network modeler. Ms. Xiong developed a model that supports decision making and comprehensive analysis for the implementation of the regional transit plan. The tasks performed included the development of the comprehensive regional transit network; calibration/validation of the ridership model; calibration/validation of an operations model including fleet assignment, scheduling, line blockings; formulation and integration of zone-based or distance-based fare structure across all public transportation modes for cost-revenue analysis; development of an automated transit schedule update system for model update purpose; and, applications of the model in various planning and operations scenarios such as operations planning for the future extensions of the rapid transit network and bus service adjustments around new rail lines.

Multimodal Corridor Enhancement TIGER VI Grant Project, Champaign-Urbana, IL; Transit operations/ travel demand model/ micro-simulation specialist. Ms. Xiong provided transit support for improvements in Champaign-Urbana, IL. Used macro-micro integration approach to understand existing and future year travel pattern of all modes in the study area. Performed alternative analysis using high resolution micro-simulation to show how bus-only lanes may improve efficiency and suggested operations improvements at segment and intersection level. Used simulations of vehicles, bikes and pedestrians to support implementation of complete street concept.

Salem Willamette River Crossing EIS, Salem, OR; Lead network modeler. Ms. Xiong developed solutions for crossing the Willamette River in the Salem-Keizer metropolitan Area. A based year multimodal model was developed and its disaggregate trip generation model, destination choice model, and mode choice model were fully calibrated/validated. Future no-build and future alternatives (full demand, reduced demand TSM/TDM) were also developed to provide the client with transportation analysis and modeling support for initial corridor alternative screening and to support future year alternatives analysis.

Thomas A. Errico, PE

Senior Associate and New England Director of Traffic Engineer

Registrations:
Registered Professional Engineer in Maine (6618), 1990; Vermont (6321), 1992; New Hampshire (10096), 1999; Massachusetts (37701), 1993;

Certifications:
Certified Maine DOT Locally Administered Project Manager

Academic Achievements:
M.S., Civil Engineering, Northeastern University, Boston, Massachusetts, 1996

B.S., Civil Engineering, Northeastern University, Boston, Massachusetts, 1985

Professional Activities:
Member, Institute of Transportation Engineers (ITE), 1997-Present; Director of the New England Section, ITE 2010; Institute of Transportation Engineers (ITE), National Committee Member on publishing a Report on Current Practices on Pavement Markings and Signing at Crosswalks, 2010; Member of the National Pedestrian and Bicycle Committee

Thomas Errico joined T.Y. Lin International as a senior associate and New England traffic engineering director. His background in traffic engineering includes access management, corridor studies, traffic operations studies, pedestrian studies, parking studies, safety evaluations, and traffic impact studies. He has significant experience in designing traffic signals, developing and maintaining traffic plans, and determining intersection and roadway design requirements for highway projects, including auxiliary lanes, bicycle and pedestrian facilities, signing, and traffic control. He has worked extensively with traffic engineering software such as SYNCHRO, SimTraffic, HCS, TRANSYT-7F, PASSER, and CORSIM. Project experience relevant to this proposal include:

Complete Streets Design Training Initiative, Statewide, MA - UMass
Project Manager responsible for the development and delivery of approximately 80 training workshops throughout the state of Massachusetts. The workshops attendees will include MassDOT engineers, consultants, and municipal staff.

Complete Streets Technical Presentations. Instructor conducting Complete Streets Training. These have included the following:

- 2014 Maine ACSE Winter Meeting
- 2012 MaineDOT Transportation Conference
- 2012 Maine Active Community Conference
- Bicycle Coalition of Maine Advocates Meetings (January – May 2013)
- 2011 New England Bike-Walk Summit
- 2012 Maine Transportation Safety Council
- New Hampshire MPO Group
- Maine Chapter of the Institute of Transportation Engineers
- Massachusetts Chapter of the Institute of Transportation Engineers

Anderson Street Neighborhood Bicycle Boulevard Project – City of Portland, ME
Project Manager and Lead Traffic Engineer implementing a bicycle boulevard in the East bayside Neighborhood of the City. The design includes streetscape improvements, construction of sidewalks and crosswalks, traffic calming strategies, on-street parking provisions, and bicycle accommodations.

New Auburn Village Center Study – City of Auburn, ME
Project Manager and Lead Traffic Engineer responsible for traffic analysis supporting the transportation and urban design improvements. A key component of the study is the development of a traffic simulation model to assess both one-way and two-way traffic circulation options through this busy village area. The City is struggling with trying to balance the desire to establish a livable village area, while competing with heavy cut-through traffic.

Bath Road Master Plan – Town of Wiscasset, ME / MaineDOT
Project Manager responsible for producing a plan that maximizes development

Member of the Speakers Bureau for the National Complete Streets Coalition.

Member of the Association of Pedestrian and Bicycle Professionals

Awards:

2013 Transportation Engineer of the Year from the New England Section of ITE

opportunities along Bath Road through the strategic coordination of traffic infrastructure improvements, land use policies and design standards. By planning for growth, Bath Road will remain safe, congestion will be minimized and visual character will be preserved and enhanced. Ultimately, this Master Plan is intended to help Wiscasset shape a future for Bath Road and surrounding areas that reflects the needs and values of the community.

Marginal Way Pedestrian and Bicycle Master Plan, Portland, ME – City of Portland. Lead Traffic Engineer responsible for the development of an improvement plan for Marginal Way that incorporates a balanced transportation infrastructure considering all modes including pedestrians, bicyclists, trucks, transit, on-street parking, and streetscape. The plan was based upon a 10-year Bayside Development Plan. The key part of the plan in the conversion of the existing four-lane section to three lanes.

On-Call Traffic Engineering Services, Portland, ME - City of Portland Traffic Engineer responsible for providing technical assistance on a host of traffic related tasks including traffic calming, neighborhood traffic management, traffic control, safety studies, development reviews, traffic support for construction projects, traffic signalization design, and general traffic engineering tasks.

Downtown Traffic and Streetscape Study, Portland, ME - PACTS Project Manager and Lead Traffic Engineer for the preparation of a traffic study that investigated and analyzed traffic access into and within the downtown; evaluated on-street parking; identified strategies to minimize conflicts between pedestrians and vehicular traffic; development of a pedestrian friendly streetscape; and creating stronger linkages between the Old Port and the Congress Street corridor.

Park Avenue / St. John Street Road Diet Projects, Portland, ME – MaineDOT Project Manager that designed improvements that are implementing bicycle lanes and other bicycle facility enhancements on these two urban streets. Work included preparing design plans and specifications that met City of Portland standards and accepted by MaineDOT.

City of Portland Pedestrian Wayfinding System Study
Portland, ME - City of Portland and PACTS
Project Manager and lead Traffic Engineer for a study that planned and designed a fully comprehensive wayfinding signage system to aid visitors and residents alike in experiencing all that Portland has to offer. The intended outcome of the study and design exercise was to establish the policies, criteria, and graphic standards for the pedestrian-focused component of the wayfinding system. It serves as the basis from which the specific criteria for the vehicular focused component will be developed. The first phase of the project (installed) was to implement a pedestrian wayfinding signage system between the Waterfront and Arts District within City.

State Street/High Street Two-Way Feasibility Study, Portland, ME – City of Portland. Project Manager for the feasibility study of converting State and High Streets to Two-way between the Casco Bay Bridge and I-295. Work includes conducting traffic counts, developing a simulation model and

assessing traffic mobility on both roads following the change. In addition, a review of on-street parking impacts and intersection geometry conditions following the conversion will be evaluated.

Route 1 Multi-Use Path / Road Diet Project, Yarmouth (LAP) – Traffic Engineer designing roadway and intersection improvements following the extension of the Beth Condon Path, including removing of a Route 1 southbound travel lane. Conducted traffic analysis in support of a lane reduction on Route 1 to accommodate the design and construction of a multi-use path. Close coordination and approval by MaineDOT was required.

Route One Infrastructure Plan
Town of Falmouth
Project manager and lead traffic engineer in the development of a Plan that is a coordinated investment in, and improvement of, the public right-of-way (ROW) infrastructure of Route One to make it a more attractive, cohesive, functional, and pedestrian-friendly street that strengthens its economic viability and implements the Town's vision.

Outer Congress Street Lane Adjustment Project
Portland, Maine
Lead Traffic Engineer for the development of design plans and Maintenance of Traffic plans for the project. Tom work very closely with City staff and MaineDOT in the implementation of temporary and final pavement marking and signage plans for Congress Street between Stevens Avenue and International Parkway. Tom worked with City staff in making public presentations, identifying appropriate signing and pavement marking details during construction, and overseeing construction in the field.

Downtown Westbrook Streetscape Study - Westbrook, ME - TYLI staff prepared a streetscape plan that recently was adopted unanimously by the City Council. The study had a broad public outreach program that followed the guiding principles of "Context Sensitive Solutions" and as such involved numerous study committee meetings (the committee comprised of business owners, residents, staff, a planning board member, and a city councilor). The study had the following study goals:

- To Promote a Safe, Beautiful & Economically Sustainable Downtown Through a Well-Designed Streetscape Which Includes All Components of the Street, Sidewalks, and Building Facades.
- To Improve the Pedestrian Experience in the Business Core of Downtown While Improving the Ability of Cars to Circulate In, Around & Through Downtown.
- To Promote the Downtown as the Heart of the Community for Residents & Visitors.
- This document is intended to provide guidance to residents, landowners, business owners and decision makers as to the preferred build-out of the streetscape in the downtown business core.

Meaghan L. Capuano, PE

Traffic Engineer

Years of Experience

13

Registrations

Professional Engineer, Florida, #77127, 2014; New York, #089580, 2011

Academic Achievements

BS, Civil Engineering, State University of New York at Buffalo, 2002

Civil Engineering 3+2 Program, SUNY Potsdam, 2000

Awards

Young Transportation Professional of the Year, ITE NY Upstate Section, 2012.

Certifications/Training

Consortium for ITS Training & Education (CITE):

- *Telecommunications & Networking Fundamentals, 2012*
- *Improving Highway Safety with ITS, 2012*

Quick-Starting Your Regional ITS Architecture Update Workshop, 2012

Quick Clearance Program for Incident Management, 2010

Bicycle Facilities Design Workshop, Sprinkle Consulting, 2010

Developing a Pedestrian Safety Action Plan, FHWA, 2009

Traffic Signal Controller Training, 2005

Trafficware Synchro Training, 2004

McTrans Corsim Training Program, 2003

Professional Affiliations

Institute of Transportation Engineers (ITE), Officer, NY Upstate Section, 2009 –

Ms. Capuano has over 13 years of transportation planning and traffic engineering experience working in both the public and private sectors. Her prior experience includes working for the Monroe County Department of Transportation in Rochester, NY, from 2007 to 2013. She became proficient in traffic signal system operations, traffic signal modeling, network coordination, intelligent transportation system (ITS) design, traffic signal design, traffic calming, traffic safety, highway lighting, and traffic signal energy management. In addition, she led the incident management team, managed transportation planning and safety studies, and reviewed traffic signal design plans and traffic impact studies. Her previous consulting experience at FRA Engineering from 2002-2007 included performing traffic impact studies for various site developments, highway, and planning projects for public and private agencies.

Career highlights include being named the Young Transportation Professional of the Year by the Upstate NY Section of the Institute of Transportation Engineers in 2012. She also designed the traffic signal coordination network of Monroe County traffic signals with the NY State Diverging Diamond Interchange (DDI) and was responsible for the corridor traffic signal operations between two centralized traffic signal control systems. She maintained safe and efficient traffic flow through construction and project completion. Meaghan also designed and implemented a unique traffic signal phasing using a leading and lagging left-turn arrow for the same phase to overcome a short storage pocket capacity problem. This was the first time this signal phasing operation was used in Monroe County and resulted with above average operations.

SR 371 (Post Road) from SR 9 (Atlanta Highway) to Kelly Mill Road, Forsyth County; Traffic Engineer. TYLI was selected to provide engineering design services for the widening of SR 371 (Post Road) from SR 9 (Atlanta Highway) to Kelly Mill Road. The project is located west of the City of Cumming in west Forsyth County. The length of the proposed project is approximately 3.8 miles. The proposed design includes two lanes in each direction with a 20-foot raised median. The design speed is 45 mph. The proposed outside shoulder will be a 12-foot urban shoulder on each side containing curb and gutter and 5-foot sidewalks.

On-Call Traffic and Transportation Engineering Services, City of Fort Lauderdale, Florida; Traffic Engineer. TYLI provides on-call traffic and transportation engineering services to the City of Fort Lauderdale. Ms. Capuano has assisted the City on a variety of task orders that have included analysis of traffic impacts from planned developments, parking studies, walkability design, and Complete Streets planning and implementation. She also assisted in development of a Mobility Master Plan for the Lake Ridge community that encompassed the vehicular, pedestrian, and bicycle modes of transportation.

Traffic Engineer, Monroe County Dept. of Transportation, Rochester, NY Sept 2007-October 2013. Primary responsibilities included overseeing the operations of over 600+ traffic signals, operating the County's Transcore centralized traffic signal system, and intelligent transportation systems (ITS). She also maintained the Countywide Synchro traffic simulation models, performed traffic signal capacity analysis, reviewed traffic impact studies, and performed traffic signal design and reviews. Meaghan's additional responsibilities included:

- Designing several in-house new and upgraded traffic signals, including providing oversight of traffic signal construction and final operations.
- Managing planning and safety study projects, which involved being on an advisory committee, writing/reviewing requests for proposals and project scope of work, consultant selection, technical report review and comment, and budget/schedule monitoring.
- Working on several highway reconstruction projects from scope development through construction. She reviewed traffic signal plans, designed traffic signal phasing, designed coordinated traffic signal networks, and designed/implemented temporary traffic signal timings as well as detour routes.
- Serving on the County ITS expansion project team from scope through construction. I designed and reviewed plans for installation of traffic signal conduit, CCTV cameras, dynamic message signs, fiber optic and wireless communication routes, and reviewed product

Current; Chapter President, 2012

Software Proficiencies

Synchro
SimTraffic
Synchro 3D Viewer
HCS+
HCM

Work History

September 2014-present, T.Y. Lin International

2007-2013, Monroe County DOT

2002-2007, FRA Engineering

2001, Malcom Pirnie, Engineering Intern

specifications.

- Supervising day-to-day operations, including leading the incident management team consisting of four operators of the centralized traffic control system. She created incident timing plans for critical corridors that the operators could use during real-time events under her direction. Her team also created procedures for implementing temporary traffic signal timings.
- Overseeing the County's deployment of accessible pedestrian signal devices that included prioritizing locations, device programming per the MUTCD, traffic signal timing modifications, and installation.
- Supervising technical staff in the design, improvement, and maintenance of the traffic signal system.
- Performing various traffic signal studies where I recommended and implemented intersection improvements for improved traffic flow and safety. Daily operations included capacity analyses using Synchro/SimTraffic and HCS+, analyzed real time and historical traffic data trends, and field investigations.
- Preparing state and federal billing/reimbursement statements for the traffic operations department.
- Representing the County at various public meetings and project meetings where she fielded questions from various municipalities and private citizens.

Broad Street Reconstruction (Brown Street to Lyell Avenue), Rochester, NY; Traffic Engineer. Ms. Capuano served as Traffic Engineer responsible for detour route analysis. This analysis looked at the distribution of vehicles on a proposed detour route and determined the signal improvements that would be necessary for the Broad Street Reconstruction project. She also conducted an accident analysis. The project included street reconstruction/rehabilitation as necessary, proposed geometric and drainage improvements, sidewalk replacement with ADA ramp upgrades, new street lighting system, installation of a new water main and services, traffic signal system improvements, and landscaping. The firm completed the Preliminary Plans and Design Report. The construction cost of this project was estimated at $2.45M. (2004)

DestiNY USA Research & Development Park, Syracuse, NY; Traffic Engineer. The firm was retained to complete traffic engineering work for the 325-acre DestiNY USA Research & Development Park. The work included conducting a detailed traffic analysis of the I-81/I-90 Interchange #36 and the surrounding transportation system. Ms. Capuano collected detailed traffic counts during the weekday peak hour (a.m. and p.m. volumes), and analyzed the impact that the proposed development would have on local intersections and Interchange 36 under various build-out conditions. The traffic counts included all NYSTA interchange traffic (inclusive of travel direction). Recommended mitigation included highway/intersection improvements, signal timing modifications, and for the full build-out condition, new I-81 access ramps, and an additional lane (toll booth) at the Exit #36 toll plaza. (2005)

Walnut Street Reconstruction, Batavia, NY; Traffic Engineer. Ms. Capuano served as Traffic Engineer for the Walnut Street Reconstruction Project for the City of Batavia. For this pass-through project, she assisted in preparing the traffic impact study, which included review of existing traffic volumes, accident history, and the development and analysis of improvement alternatives to plan for future traffic flow along the Walnut Street corridor. Among the listed improvements was a recommended roundabout intersection on the Walnut Street corridor at its intersection with South Main Street, Oak Street Extension, and Pearl Street. She also helped develop the traffic simulations and presented this information at a public meeting.

The firm also provided street & civil design services including: a 14-foot lane width that includes a "shared use" lane with a varying lawn area and sidewalk; single-track grade crossing design that includes adequate guards and signals for both pedestrian and vehicle safety, along with highway profile changes required to flatten the approaches; traffic calming measures when approaching the City of Batavia from the south; altered roadway profile to improve drainage; maintenance of the storm drainage system outlet into Tonawanda Creek above the 25-year storm event elevation; Tonawanda Creek hydraulic investigation and bank erosion remediation; installation of new

sidewalks and driveway aprons; and the design of gateway features. (2006)

Route 21 Truck Study, Palmyra, NY; Traffic Engineer. Ms. Capuano served as Traffic Engineer for work that included an evaluation of heavy vehicle traffic flows along NY Route 21 through the Town and Village of Palmyra. Work also included the development of strategies to address heavy vehicle-related air quality, noise, traffic, and safety issues. The study included the collection of existing traffic volume data, the assessment of heavy vehicle traffic flows, identification and evaluation of strategies that could reduce heavy vehicle traffic on Route 21, an assessment of the potential air quality impact of existing traffic volumes, and the development of an action plan to address study recommendations. The firm worked closely with a project steering committee, comprised of local officials, interested parties and residents, and presented study findings at a public information meeting. (2007)

Monroe County Pedestrian Activity Safety Study, Monroe County, NY; Traffic Engineer. The firm was retained by the Monroe County Department of Transportation to complete the first project of its kind for the area. Work was focused on identifying problem areas and providing recommendations to both enhance the pedestrian and bicycle environment throughout the County and eliminate the occurrence of accidents. Ms. Capuano served as Traffic Engineer on this project.

The study area for the project included twenty-five intersections within Monroe County, with the highest occurrence of accidents occurring in the urban areas, specifically the City of Rochester. The study examined accident records acquired from 911 emergency responses to determine the cause and severity of each accident cluster. A specific design analysis was conducted for each significant occurrence location, with the analysis resulting in design recommendations to prevent similar accidents from occurring. (2004 – 2006)

Route 250 Corridor Study, Towns of Webster, Penfield, Victor, and Perinton, and the Villages of Webster and Fairport, NY; Traffic Engineer. Ms. Capuano served as Traffic Engineer responsible for conducting the traffic analysis using HCS and SYNCHRO software on this corridor study. New York State Route 250 is a north-south corridor that spans from Lake Ontario to the expanding commercial development along Route 96 in Ontario County. It traverses the Towns of Webster, Penfield, Victor, and Perinton, and the Villages of Webster and Fairport. The firm was retained to complete a study that would coordinate land use and transportation objectives, enhance community character, help economic development, and ensure the safety of corridor users. Project deliverables included an access management plan, and a clear vision for long-range improvements that would address vehicular, pedestrian, and bicycle safety and mobility. Additional considerations included identification of possible truck routes in future design options.

The Route 250 Corridor also serves as an evacuation route for the Ginna Nuclear Power Facility. Therefore, a portion of the firm's efforts included identifying and developing information technologies to facilitate safe and efficient movement of traffic during an emergency event. (2006)

East Ridge Road Rehabilitation, Irondequoit, NY; Traffic Engineer. Ms. Capuano served as Traffic Engineer responsible for conducting the traffic analysis using HCS and SYNCHRO software on this high-profile rehabilitation project. The rehabilitation services provided by the firm included transportation planning, preliminary engineering, and design services to improve East Ridge Road from the City line to Culver Road. The primary focus of this pass-through project will be safety and efficiency improvements at the intersections, improvements to access management, and establishing a more pedestrian friendly environment throughout the corridor. (2008)

Route 31 Corridor Study, Clay, NY; Traffic Engineer. Ms. Capuano served as Traffic Engineer responsible for conducting the traffic analysis using HCS and SYNCHRO software on this high-profile corridor study along Route 31 and Route 57 in the Town of Clay, NY. These corridors are experiencing tremendous commercial and residential development pressures. The study focused on analyzing traffic implications of the Town's 1999 land use study for the project area, making recommendations for improving future traffic operations through changes in land use and zoning, consideration of new roadway connections, and additional access management practices. The report also prioritized recommendations, provided funding source possibilities, identified lead agencies,

and provided planning level cost estimates to implement the recommendations. (2006)

South Meadow Street Improvement Project, Ithaca, NY; Traffic Engineer. The firm was retained by Benderson Development Company to prepare a traffic impact study and construction documents for the off-site highway improvements associated with the redevelopment of a 200,000-square foot shopping center located at 614 South Meadow Street. The redevelopment of this site included the construction of a 65,000-square foot Tops Market, an 11,000-square foot Eckerd Pharmacy, four new retail establishments, and the refurbishing of seven small retail establishments. The study limits extended from Elmira Road north to South Fulton Street.

Three years later, The firm was retained to perform a follow-up study comparing current traffic volumes to those projected in the original study. For this portion of the work, Ms. Capuano served as Traffic Engineer responsible for obtaining traffic counts, evaluating intersection capacity utilizing SYNCHRO software, and preparing a letter that summarized the findings. (2005)

Rite-Aid Pharmacy and Retail Development Traffic Impact Study, Ithaca, NY; Traffic Engineer. Ms. Capuano served as Traffic Engineer to prepare a traffic impact study associated with the development of a 45,464-square foot retail development and Rite-Aid Pharmacy. The project was located on the northwest corner of Pine Tree Road and Mitchell Street, and included thirteen intersections in the study area. The study examined construction impacts in two phases, as well as a cumulative impacts analysis, which included the impacts of the Cornell University-sponsored Genex Site.

The firm's services included obtaining existing roadway geometrics, signage, etc., organizing traffic counts, and evaluating the capacity of the thirteen intersections in question for existing and future traffic conditions using SYNCHRO traffic modeling software. Other tasks included calculating the number of trips generated by the new development, signal warrant analysis, a pedestrian safety study, and an internal site circulation evaluation. Roadway and pedestrian safety/flow improvements were included in the final study. (2005)

Atlantic Avenue Rehabilitation Project, Rochester, NY; Traffic Engineer. The firm was retained to provide comprehensive planning, traffic analysis and engineering for the Atlantic Avenue Rehabilitation Project, which extended from University Avenue to Winton Road. Ms. Capuano conducted the traffic counts and level of service analysis using HCS for the traffic impact study portion of this project. The design package included street reconstruction, proposed geometric and drainage improvements, sidewalk replacement with ADA ramp upgrades, installation of a new water main and services, traffic signal system improvements, a new street lighting system and landscaping. FRA's work also included investigations into lowering the roadway and utilities under the railroad overpass to improve clearance for large truck access to nearby industrial sites. Comprehensive coordination with the neighborhood/commercial groups, residents, business owners, City school district and utilities/involved agencies was a significant aspect of this street project. (2005)

Ontario County Road 41 Rehabilitation, Ontario County, NY; Traffic Engineer. Ms. Capuano served as Traffic Engineer responsible for completing a traffic impact study for the rehabilitation of County Road 41. The project also included 1,000 linear feet of Brace Road, for possible intersection re-alignment at County Road 41. The firm was retained to provide comprehensive analysis, design and contract documents, including: roadway rehabilitation/reconstruction; bridge replacement design (County Road Bridge over Fish Creek); geometric evaluation and recommended improvements; hydrologic/hydraulic analyses of Fish Creek and selected culverts; drainage improvements; traffic studies (collision and accident diagrams, capacity analyses, travel speed and delay studies); wetland delineation and survey; supplemental survey; environmental screening; engineer's estimates; preparation of a design report ; utility /agency coordination; project coordination, meeting presentations, and administration; preparation of bid advertisement and bid analyses; and contractor recommendation. The project also included ROW Acquisition (appraisals, mapping, and negotiations as necessary). (2004)

Broad Street Tunnel, City of Rochester, NY; Junior Engineer. Ms. Capuano served as Junior

Engineer for this project to rehabilitate a 4,800-foot-long abandoned subway tunnel through Downtown Rochester. Her responsibilities included preparing a level of service analysis using Syncro for existing and future conditions. (2004)

University of Rochester Institutional Planned Development, Rochester, NY; Traffic Engineer. The firm worked with the University of Rochester to rezone approximately 230 acres of University property to an Institutional Planned Development (IPD) in the Town of Brighton. The firm managed the application/DEIS process for the University, which included developing conceptual plans and managing involved sub-consultants. In addition to the role as Project Manager, The firm performed all site related design work, including utility and infrastructure demands, and traffic analysis. The firm was responsible for compiling all data and analysis results and for the preparation of the DEIS document. Ms. Capuano served as Traffic Engineer responsible for performing a level of service analysis using Syncro. She looked at existing conditions, background, and future conditions for a 27-intersection system that took into consideration several buildout scenarios. Ms. Capuano also conducted trip generation/distribution using Genesee Transportation Council's T-Model software, and conducted trip distribution for future NYSDOT improvements from the I-390/I-590/NY 15/NY 15A "Southern Corridor Study." Additionally, she developed mitigation measures for 2008, 2013, and 2023 buildout years with and without NYSDOT improvements in place, and lastly, prepared the entire traffic impact study report. (2003)

Routes 5 and 20 Corridor Study, Lima to Canandaigua, NY; Traffic Engineer. The firm was awarded the 5&20 Corridor Study from Canandaigua to Lima. The project involved assessing the build-out scenario under existing regulations and what impact on transportation that scenario would have; conducting a thorough inventory of natural and cultural resources, scenic views, and other important corridor assets; developing a vision for the corridor along with goals and objectives for future development; providing specific recommendations needed to implement the development vision identified; identifying and developing access and traffic management techniques and improvements that would minimize safety hazards, congestion points, and property access problems; and incorporating the interests of the counties, municipalities, involved agencies, business owners, residents, commuters, and other interested organizations or individuals. Ms. Capuano conducted the traffic counts and level of service analysis using HCS for the traffic impact study portion of this project. (2004)

Tim Hortons, Canandaigua, NY; Traffic Engineer. The firm was retained to provide traffic and site design services for a new Tim Hortons in Canandaigua, NY. Ms. Capuano conducted the traffic counts and level of service analysis using HCS for the traffic impact study portion of this project. As a result of the traffic work that was completed, The firm also designed off-site highway improvements and obtained the required approvals from NYSDOT and Ontario County Department of Public Works. (2004)

Brooks Landing Public Improvement Project, City of Rochester, NY; Traffic Engineer. Ms. Capuano served as Traffic Engineer for this job in which The firm was retained by the Rochester Economic Development Corporation to study the impacts associated with realigning South Plymouth Avenue with Brooks Avenue, abandonment of South Plymouth Avenue from Brooks Avenue to Elmwood Avenue, predict and distribute traffic volumes for the Brooks Landing development, and recommend proposed capital improvements necessary to accommodate any changes in traffic patterns. Specifically, Ms. Capuano prepared future level of service analysis using Syncro. (2004)

Bay Road/Empire Boulevard/Creek Street Area Study, Town of Penfield, NY; Traffic Engineer. The firm worked with the Town of Penfield to conduct the transportation component of the Bay Road/Empire Boulevard/Creek Street Area Plan. FRA's scope of work included conducting a comprehensive traffic impact study, access-management study, pedestrian linkage opportunities, and context-sensitive design elements that would help to create a sense of identity for this portion of the Town. Empire Boulevard (NYS Route 404) is a major east-west connector, carrying approximately 22,000 vehicles per day, which greatly impacted the pedestrian activities along the corridor. Additionally, the Town was looking to several development and redevelopment

opportunities within the study area and was interested in establishing a plan to guide future growth. Ms. Capuano served as Traffic Engineer responsible for conducting the traffic impact study. (2004)

St. Regis Mohawk Tribe Comprehensive Plan, Hogansburg, NY; Traffic Engineer. The firm was retained by the St. Regis Mohawk Tribe, through the Planning and Infrastructure Department, to provide a comprehensive land use and transportation plan that would identify the future growth of the reservation and the improvements to be made to accommodate anticipated growth. Ms. Capuano was responsible for the following traffic engineering tasks on this project: creating collision diagrams, analyzing traffic accidents obtained from accident reports, calculating accident rates, and preparing the final accident report. (2002)

West Ridge Road Carwash Traffic Impact Study, Irondequoit, NY; Traffic Engineer. Ms. Capuano worked on this traffic impact study for a proposed car wash in Irondequoit, NY. Her duties included obtaining the existing roadway geometrics, calculating trip generation and distribution, performing Level of Service analysis using Syncro for the intersections, and preparing the final TIS report. (2002)

Coffeen Street Commercial Development Traffic Impact Study, Watertown, NY; Traffic Engineer. Ms. Capuano worked on this traffic impact study for a proposed Home Depot in Watertown, NY. Her duties included calculating trip generation and distribution, performing Level of Service analysis using Syncro for the intersections, performing a signal warrant analysis, and preparing the final TIS report. (2002)

Newcomb Property Traffic Impact Study, Victor, NY; Traffic Engineer. Ms. Capuano worked on this project that included obtaining existing roadway geometics, calculating trip generation and distribution, Level of Service evaluation using HSC for intersections, and executing a gap analysis. (2002)

Sunoco Traffic Impact Study, Perinton, NY; Junior Traffic Engineer. Ms. Capuano served as Junior Traffic Engineer on this Traffic Impact Study associated with a proposed Sunoco gas station expansion in Perinton, NY. Her duties included obtaining the existing site and roadway geometry, observing the existing internal circulation and parking problems, calculating trip generation distribution, analyzing intersections using Highway Capacity Software (HCS), preparing a Level of Service analysis at the site drive, performing a gap/queue analysis at all site driveways, assessing sight distances at site driveways, and preparing the final TIS report. (2002)

PEPSI / Ormond Street Traffic Impact Study, Rochester, NY; Junior Traffic Engineer. The firm was hired for this project to evaluate the impacts of future building improvements and parking plan scenarios at the Pepsi Bottling Group facility in Rochester, NY. Ms. Capuano's duties included obtaining the existing roadway geometrics, signage, etc., organizing the traffic counts, obtaining the existing internal circulation of the facility, analyzing the redistribution of the employee/visitor parking for three concept plans, analyzing all affected intersections using Syncro, preparing a Level of Service analysis, and preparing the final Traffic Impact Study. (2002)

CVS Traffic Impact Study, Macedon, NY; Junior Traffic Engineer. Ms. Capuano's responsibilities included obtaining the existing roadway geometrics, calculating trip generation and distribution, analyzing intersections using HCS for existing, background, and future conditions, preparing a Level of Service analysis for the intersections, analyzing the queue analysis at driveways, and performing turn lane warrants and turn lane storage lengths. (2002)

Canandaigua Eckerd TIS, Canandaigua, NY; Junior Traffic Engineer. Ms. Capuano's responsibilities included obtaining the existing roadway geometrics, calculating trip generation and distribution, analyzing intersections using HCS for existing, background, and future conditions, preparing a Level of Service analysis for the intersections, analyzing the gap/queue analysis at site driveways, and preparing the final TIS report. (2002)

Lake Road Bridge Replacement, Webster, NY; Junior Engineer. Ms. Capuano's responsibilities on this bridge replacement project included documenting the existing bridges and culverts, calculating flood discharges using regression equations for two-year, 10-year, 25-year, 50-

year, and 100-year recurrence intervals, modeling the existing and future hydraulic conditions using the USACE HEC-RAS computer program. (2002)

Region 4 Safety Studies, Monroe County; Junior Traffic Engineer. Ms. Capuano's responsibilities included conducting a field investigation at the intersections in question, creating collision diagrams at the intersections and roadway sections, analyzing traffic accidents obtained from accident reports, calculating accident rates, and preparing the final report that documented the findings. (2002)

Wal-Mart Traffic Impact Study, Greece, NY; Junior Traffic Engineer. Responsibilities included obtaining existing roadway geometrics and site distances, calculating trip generation and distribution, analyzing the Level of Service at intersections using Syncro, conducting signal warrant and queue analysis, determining turning lane warrants and storage length calculations, and preparing the final Traffic Impact Study report. (2003)

Home Depot Traffic Impact Study, Oneonta, NY; Junior Traffic Engineer. Ms. Capuano's responsibilities included documenting the existing conditions (field edit), calculating trip generation and distribution, analyzing the intersections along the corridor using Syncro, conducting signal warrant analysis at the site driveway, and performing a left- and right-turn lane analysis. (2003)

University of Rochester Parking Garage Expansion, Rochester, NY; Junior Engineer. The firm was retained as the prime consultant for a seven-level, 685-space addition to an existing parking garage. The project was performed under the Construction Manager at Risk project delivery system. This was a fast-track project with the Design Development and Construction Document phases scheduled to be complete within seven weeks. The addition that was designed matches the existing structure and will consist of cast-in-place, post-tensioned concrete slabs and beams supported by concrete columns on spread footings. Specifically, The firm provided over-all project administration services, as well as structural, traffic, site and MEP design services. Ms. Capuano was responsible for documenting the existing conditions and the traffic volumes, determining trip generation/distribution of the garage expansion, using Syncro to model the study area, conducting a queue study at the garage access points, and composing the traffic analysis letter. (2003)

Military Road Retail Complex, Niagara Falls, NY; Junior Engineer. The firm arranged this proposed retail complex that will be constructed on the vacant 53-acre site of the former LaSalle High School on Military Road. The site will be comprised of a Wal-Mart Supercenter, Sam's Club with associated gasoline filling station, two large retail buildings, and three proposed restaurant buildings. Work included preparation of a traffic impact study, all SEQRA documents and all municipal approvals from the City of Niagara Falls and the New York State DOT. Technical work included comprehensive site, utility, grading and landscaping design, plan preparation, water supply report, drainage analysis, and preparation of a comprehensive stormwater management and pollution prevention plan. Also included was the design of off-site highway mitigation improvements. Ms. Capuano was responsible for drafting the follow-up letter about how new vehicle trips would impact the air, comparing the National Ambient Air Quality Standards (NAAQS) to projected emissions of new vehicle trips, and writing the "Impacts on Air" section of the letter. (2003)

James Molnar, PE
Site Civil Engineering

Years of Experience

30

Registrations

Professional Engineer, Florida #49237, 1995
Michigan #35608, 1990

Academic Achievements

MBA, Oakland University, 1991
BS, Civil Engineering, Wayne State University, 1985
AS, Building Construction Technology, Ferris State University, 1981

Professional Affiliations

Institute of Transportation Engineers
Florida Engineering Society
American Society of Civil Engineers

Work History

2002-present, T.Y. Lin International

2000-2002, Banks Engineering

1995-2000, AIM Engineering & Survey

1993-1995, Professional Engineering Associates

1985-1993, Spalding, DeDecker & Associates

Mr. Molnar has more than 30 years' experience in the design, permitting and construction administration of a wide variety of civil engineering projects. His combination of technical and business education coupled with years of practical construction experience has proven invaluable in meeting the needs of clients in today's environment of ever tightening fiscal, environmental and social constraints on major projects.

Lee County Department of Transportation (LCDOT), Estero Boulevard Improvement Project, Town of Fort Myers Beach, Project Manager. This project entailed conceptual design of the six mile arterial comprising the only continuous route on the island. Plans included implementation of "complete streets" concepts, bicycle friendly lanes and shoulders, mid block pedestrian crosswalk designs, and innovative trolley pulloffs/pullouts and stops.

City of Marco Island, Smokehouse Bay Bridge, Marco Island, Florida, Project Manager. Design of signature arch structure to replace aging parallel functionally obsolete concrete bridges and created a centerpiece for multi-modal transportation of the city's redevelopment efforts. The single span structure was elevated to provide pedestrian and bicycle passage below, increase navigability and provide for recreational use. The single replacement structure was designed to allow half of the deck to be open to traffic before the second arch was erected thereby minimizing disruption on this heavily traveled arterial.

Collier County Transportation Services Division, Chokoloskee Bridge Replacement, Chokoloskee, Florida; Project Manager. This project involved the design of the replacement bridge for an aging coastal structure and was the only means of ingress/egress for barrier island community. The narrow causeway and the need to maintain the only evacuation route led to a delicate demolition plan and phased construction enabling the County to nearly maintain the existing horizontal alignment and minimize impacts to environmentally sensitive land and water.

Wayfinding Signage Mapping System Implementation, Fort Myers, Florida; Project Manager. T Y Lin International provided planning, sign development and design services for the City of Fort Myers Wayfinding signage system. Planners worked with City staff to identify points of interest and prepared routes for mapping. Signage followed FHWA Criteria and permits were secured from the FDOT for placement within State Right of Way.

- Identifying destinations for sign messaging.
- Determining appropriate routing of vehicles to a given destination or City District.
- Prepare site plans for FDOT right-of-way permits
- Assist in locating signs in the field to ensure placement is visible and does not conflict with other signs and street equipment

Lee County Department of Transportation (DOT), Summerlin Road Six-Laning, Cypress to Boy Scout, Lee County, Florida, Senior Project Engineer. Jim managed inspection staff for this widening of a four-lane road to six lanes; a distance of approximately 3.1 miles from Cypress Lake Drive to Boy Scout, and construction of a four-lane overpass at College Parkway. The project consisted of an urban section, signalized intersections, multiple pond construction, and utility relocations. The structure was a four-lane, three-span, CIP concrete deck steel box girder bridge of 735 feet placed on auger cast piles. Jim was responsible for managing the inspection team, drawing interpretation, processing RFIs, and overall project QC.

James Molnar, PE
Site Civil Engineering

Lee County DOT, Queue Jump, Lee County, Fort Myers, Florida; Senior Project Manager. This was a Federal Highway Administration test project to determine if a tolled overpass would relieve congestion at a signalized intersection. Project involved preliminary engineering, environmental, and structures design for the improvement of a congested intersection. Utilized AASHTO criteria reduced right-of-way requirements and avoided a Project Development & Environmental study re-evaluation.

Burnt Store Road from Pine Island Road to Kismet Parkway, Cape Coral, Florida; Senior Project Manager. The project consisted of designing a six-lane, limited access arterial utilizing median cross over u-turns and a frontage road for local traffic. Services included the design of nine new bridges, over four miles of six-lane construction, drainage design and permitting, multi-use paths and pedestrian facilities.

Lee County, Summerlin Road Six-Laning, Fort Myers, Florida; Project Manager. The project involved widening a four-lane road to six lanes for a distance of approximately 4.5 miles from San Carlos Boulevard to Gladiolus Drive and constructing two grade-separated intersections. The TYLI design team developed a typical section for the roadway and water management design that fit within the existing right-of-way. This resulted in avoiding impacts to jurisdictional wetland canals on both sides of the road and the ability to proceed under a Nationwide Corps of Engineers Permit, which was secured at the 60 percent plan stage. Jim managed the environmental inventory, traffic counts and capacity analysis, roadway and bridge design, utility adjustment plans, utility relocation plans, signalization and lighting, signing and pavement marking, and permitting through the South Florida Water Management District, FDOT, HRS, Florida Department of Environmental Protection and the Army Corps of Engineers.

Lee County, Plantation Road Extension, Fort Myers, Florida; Project Manager. Design for a new one-mile alignment on an in-fill county roadway. Jim provided traffic analysis, utility relocations, roadway and drainage design, and permitting. The project utilized a four-lane, divided cross section with signalized intersections at both ends, a combination open/closed drainage system, pond sharing agreements and innovative right-of-way reduction techniques.

Lee County, Veteran's Parkway Access Road, Cape Coral, Florida; Project Engineer. Roadway and drainage design for a new access road from Everest Parkway to Veterans Parkway. The project design and construction was completed in six months on an accelerated schedule.

City of Fort Myers, Winkler Avenue Canal Enclosure/Road Widening, Fort Myers, Florida; Project Manager and Lead Drainage Engineer. This 1.5 mile road runs through a highly developed urban area fronting a regional shopping mall, post office, car dealership and hospital. It required over 1000 feet of cast in place box culvert placed under the new pavement, a new four-lane bridge, a railroad crossing, utility relocations, and high voltage transmission line relocation. The extremely accelerated schedule maintained traffic flow across the project at four major and two minor intersections. The design team was comprised of six local engineering firms.

Hendry County, SR 29/CR 78 Realignment, Labelle, Florida; Project Manager. Included drainage permitting, wetland impacts, off-site mitigation, traffic analysis, and signalization design. Jim managed this intersection relocation project, which resulted in a quarter mile of a new alignment terminating at a signalized intersection with a state highway.

Florida Department of Environmental Protection (FDEP) and Lee County Parks and Recreation Joint Venture, Lovers Key/Carl Johnson State Recreation Area, Fort Myers, Florida; Project Manager and Project Engineer. Restored/enhanced the County's Carl Johnson Park site by removing facilities (including three creosote-treated

tram bridges) and exotic vegetation to return the area to natural conditions. The adjacent Lovers Key facility replaced the park, and included two concrete bridges, public facilities, access roads, parking, ranger housing, and a kiosk on the beach for weddings and other ceremonies.

Hendry County, Roy Brown Canal Crossing of CR 78, Clewiston, Florida; Project Manager. Managed the emergency replacement of a failing drainage structure under a major county roadway. The project required a drainage basin analysis, hydraulic design, concrete box culvert and integral weir design, permitting, maintenance of traffic planning, construction inspection and completion certification, and was fast tracked for safety concerns.

McGregor Baptist Church, School Addition, Fort Myers, Florida; Project Manager and Design Engineer. This project consisted of sitework design for a 120,000-square foot building addition on a 105-acre site. The project included site planning, drainage design, utility improvements and relocations, roadway improvements to Colonial Boulevard and Deer Run Farms Road (additional turn lanes and signalization) and permitting through the South Florida Water Management District, City of Fort Myers, Lee County, FDOT and the Army Corps of Engineers.

Lennar Homes, Legends Golf & Country Club, Fort Myers, Florida; Project Manager. Design, permitting and construction oversight for horizontal infrastructure for this 657-acre master planned residential development. He represented the developer in evaluating major stormwater discharges from the Southwest Florida International Airport expansion, which passed through Legends and neighboring Eagle Ridge. Mr. Molnar reviewed multi-party agreements with developers, Lee County Department of Natural Resources, SFWMD and Lee County Port Authority, as well as the design and permitting of regional control structures.

East County Water Control District, Carlos Waterway, Lee and Hendry Counties, Fort Myers, Florida; Project Manager. Project consisted of 1.5 mile long flood control flow-way to protect Bedman Creek from flooding during major events. Waterway consisted of a 300-foot wide flow-way with weirs to step down to the river and an operable control structure to replicate historic flows in the creek. This project included Permits from the Corps of Engineers, FDEP (Mining Section), SFWMD, FDOT, Lee and Hendry Counties, archaeological and environmental surveys, and court proceedings for acquisition of right-of-way. Duties included hydrologic and hydraulic design, design of a 200 foot long, four barrel 8'x10' concrete box culvert under a State Road, the maintenance of traffic plan to construct, and bid document preparation.

East County Water Control District, Watershed Management Study, Lehigh Acres, Florida; Drainage Engineer. Jim was responsible for computer modeling and calibrating a 100 $mile^2$ regional stormwater management system to predict flood staging, quantify and prioritize capital improvements, and prepare permit modifications. The model was also used for the designing and permitting of the SFWMD's East Lee County Aquifer Recharge Program improvements.

Oakland County, Inflow/Infiltration Study, Oakland, Macomb & St Clair Counties, Michigan; Project Engineer. Analyzed rainfall events and sewer flows to isolate and identify possible system breaks for a multi-county sewer collection system. Duties included collection, analysis, correlation and calibration of both rainfall data and corresponding sewer flows and subsequent identification of possible corrective measures to minimize treatment plant operating expenses by the reduction of both rain and ground water.

Lehigh Corporation, Alternative Sewer Collection Analysis, Lehigh Acres, Florida; Project Engineer. Conducted a comparative analysis of conventional and alternative sewer collection systems to minimize construction costs and impacts to

existing development on septic systems. Performed feasibility study on small diameter, low pressure, sewer collection and transmission system to minimize construction cost and disruption in an existing development with paved streets and driveways.

Miromar Development Corporation, Miromar Factory Outlet Stores Complex; Estero, Florida; Project Engineer. Duties for Phases 4 and 5 for this site at I-75 and Corkscrew Road included; site planning, paving, grading & drainage design, utility and water management design and permitting through the SFWMD, FDEP, HRS, Bonita Springs Utilities, and Lee County. The project utilized an existing water management system, but required an intricate network of pedestrian friendly trench drains to serve the courtyard design concept.

David Reynolds, PE
Site Civil Engineering

Years of Experience:

28

Registrations:

Professional Engineer, Florida #61052
Virginia #0402 032223 (1997)
Maine #12753

Academic Achievements:

BS/1990/Civil Engineering/Virginia Military Institute, Lexington, Virginia

United States Military Academy, West Point, New York

Mr. Reynolds has over 28 years of experience in the design and construction phase services related to transportation projects. His work includes highway/roadway, horizontal/vertical layout, stormwater management, drainage, grading, earthwork, lighting, utility design, erosion-sediment control, maintenance of traffic, right-of-way public involvement, construction estimates, hydrologic and hydraulic analysis, and scour countermeasure design experience. His construction experience includes Inspector and Resident Engineer assignments on highway improvement projects.

SR 5/Brickell Avenue Design, FDOT District 6, Miami, Florida; Project Engineer. Managed the project design engineering and plan production and provided design and construction phase services for pavement reconstruction proposed for 1.7 miles of an existing four-lane divided highway on SR-5 (Brickell Avenue). The work included concrete pavement restoration, maintenance of traffic, pedestrian access management, street lighting, signalization, and public involvement. Mr. Reynolds was responsible for the overall plan production, development of drainage system improvements, and utility coordination.

Low Pressure Sanitary Sewer and Water Main Improvements, Miami Shores Village, Florida; Project Engineer. The Project involved the development of a new low-pressure sanitary force main collection system, regional pump station, sanitary discharge force main, and water main improvements to serve the Village Downtown Central Business District. Mr. Reynolds was responsible for utility coordination, the hydraulic analysis of sewage loads and design and layout of grinder pump and low pressure force main collection systems, design of a new regional sanitary pump station, design of 12" water main improvements, development of preliminary plans, design criteria, and production of RFP documents for advertisement of a Design-Build Contract.

Flood Mitigation Projects, Miami and West Miami, Florida; Project Engineer. Project Engineer for the design of integrated closed storm sewer systems, multiple pumping stations, 36" force main systems, and drainage canal improvements as part of municipal flood mitigation efforts. The design also included mitigation and relocation of numerous water mains, sanitary sewers, and service lines.

Caribou Connector Design-Build, Maine DOT, Caribou, Maine; Project Engineer. Provided Engineering services the Maine Department of Transportation (MDOT) design-build contract for a 2.8-mile segment of the new rural minor arterial. The project included roadway design, bridge design, drainage design, traffic analysis, utility coordination, and design of a new connection to the Interconnected Trail System. Mr. Reynolds was responsible for all utility coordination including mitigation of all utility conflicts with water and sanitary sewer facilities. Mr. Reynolds was responsible for the design and planning of relocations for 460 LF of 8" DIP sanitary sewer, 360 LF of 12" sanitary sewer, and 170 LF of 12" water main to resolve utility conflicts and maintain minimum depths. He also negotiated the inter-agency Utility Agreement between MaineDOT, the Contractor, and the local Utility District.

Open-Ended Utility Design Contract for the VDOT, Nothern Virginia and Culpeper Districts, Virginia; Design Engineer. Design Engineer for six watermain and sanitary relocation design projects in conjunction with roadway widening and improvements. Responsible for the design of 8 to 18-inch watermains, 12 to 24 inch gravity sanitary sewer, and all associated appurtenances as well as the plan production for incorporation into construction bid drawings.

Lower Matacumbe Key Fire Station, Islamorada, Florida; Project Manager. New emergency service facility on 0.36-acre site on Marlin Boulevard. Responsible for the design of conceptual site plan to incorporate 3420 square foot facility, preliminary design of closed drainage system, wetland delineation, and securing "No-Notice" General Permit from SFWMD. Project also included geotechnical investigations and vegetation survey of the site. Client Reference: Zully Hemeyer, (305) 664-2345.

Old Highway, Islamorada, Florida; Project Manager. Roadway improvements and stormwater management systems to mitigate minor flooding conditions on approximately 1.6 miles of urban minor collector from US-1 to Blackwood Road on Upper Matecumbe Key. Responsible for the design of pavement reconstruction, milling, and resurfacing, the design of closed storm sewer systems, and project permitting with SFWMD. The project also involves incorporation of a new public bike path, mitigation of private encroachments into the clear zone, and construction phase services. Client Reference: Zully Hemeyer, (305) 664-2345.

Flagler Avenue Parking Lot, Homestead, Florida; Project Manager. Site development project for the City of Homestead Community Redevelopment Agency to create a new one-acre, 45-space parking facility in the Downtown Business District. Project involves site layout, paving, drainage improvements, and integrated improvements with the adjacent South Dade Busway facility and alleyway. Client Reference: Dan Wick (305) 224-4484

Okeechobee Mainline Toll Plaza Express Lane Conversion, FDOT Turnpike Enterprise, Miami, Florida; Project Engineer. Preparation of final design roadway plans for the reconfiguration of the Okeechobee Toll Plaza, located at Milepost 32.183 of the HEFT. The existing barrier plaza, which has 16 total toll collection lanes, will be divided allowing for the construction of SunPass Express lanes in the center of the current footprint. The existing approaches to the toll plaza will be improved through milling and resurfacing and roadway reconstruction/widening design. The existing toll plaza will be reconfigured to provide three (ultimately four) SunPass Express Lanes and five manual toll collection lanes for each travel direction. The project also involves the reconfiguration of drainage systems, modification or roadside stormwater management swales, and permitting through SFWMD and USACE.

Virginia Key Beach Park, Miami, Florida; Project Manager. Site reconstruction of the 8-acre park site and roadway improvements to Virginia Beach Drive and a circulation road adjacent to beach front and mangrove wetlands. The project included site design for reconstruction of a parking lot, storm-water management improvements, lighting system design, and

permitting. The project also involved construction across Coastal Construction Control Line and impact analysis in a marine turtle habitat environment. Responsible for the design of site grading, open and closed storm sewer systems in accordance with City of Miami, SFWMD, and Miami-Dade DERM criteria as well as project permitting with DERM, FDEP, and USACE. The drainage design involves a closed system of swales, inlets, and exfiltration facilities to mitigate flooding conditions. Client Reference: Maria Lopez, P.E. (305) 416-1206.

NE 71st Street Storm Sewers, Miami, Florida; Project Manager. Roadway improvements to two miles of urban roads and stormwater management systems to mitigate flooding conditions within 35 acres of urban watershed. Responsible for the design of all open and closed storm sewer systems in accordance with City of Miami, SFWMD, and Miami-Dade DERM criteria as well as project permitting with DERM, FDEP, and USACE. The drainage design involves roadside swales, exfiltration facilities, pollution control structures, gravity wells, and multiple discharge points into waters of the United States. Client Reference: Jose Lago, P.E. (305) 416-1252.

Piney Branch Road, Connector Road and US-29: Fairfax County, Virginia. Design Engineer for construction of 0.8 miles of new urban roadway. The project was a proffered public improvement in conjunction with the development of a commercial center and residential subdivision. The four-lane divided roadway project included two new signalized intersections, stormwater management, and coordination with VDOT-planned widening of Route 29. The project also included the design of sanitary and watermain facilities to the new development sites, a new sanitary pump station with a forcemain connection to a local gravity sewer facility, and the installation of approximately 2,000-feet of new watermain through an adjacent subdivision.

Richard White, Jr., PE

Stormwater

Years of Experience

26

Registrations

Professional Engineer, Florida #47754, 1994

Academic Achievements

Master of Divinity, Christian Education and Counseling, SEBTS, 2000

BS, Civil Engineering, The Citadel, 1989

Certifications

Stormwater Management Inspector (FDEP)

Professional Affiliations

Florida Engineering Society

National Society of Professional Engineers

Work History

2005-present, T.Y. Lin International

2004-2005, City of Fort Myers Public Works Department

2003 -2004, First Baptist Church of Bonita Springs

2001-2002, International Baptist Church, Singapore

2001, Environmental Consulting & Technology

1997-2000, Aim Engineering & Surveying

1995-1997, International Mission Board of the Southern Baptist Convention

1990-1995, Lee County Division of Natural Resources

1989-1990, Hole, Montes, & Associates

Mr. White has 26 years of engineering experience with drainage and stormwater management projects of all types. His specific experience includes stormwater master planning; hydrologic and hydraulic modeling; basin studies; Bridge Hydraulic Reports; scour evaluation and design of scour countermeasures; roadway drainage design; stormwater management facilities design; grant application development; local, State and Federal permitting; site development; and other public works projects.

Estero Boulevard, Lee County, Fort Myers Beach, Florida. Drainage EOR for design and permitting of over 3.0 miles of roadway expansion and reconstruction including employment of innovative use of pervious pavement for under-road detention / exfiltration system to provide water quality treatment and attenuation. Project challenges include very limited right-of-way with numerous utility conflicts, phasing the project to maintain traffic throughout construction, high water table, and limited outfalls, maximizing water quality benefits as part of Town/County NPDES program goals.

Colón Drainage, Colón, Panamá. Stormwater master plan for over six square miles of urban watershed in Colón, Panamá. The project included survey and data collection; design of cross culverts, regional collector ditches and canals; chacterization and modeling of approximately 50 basins and sub-basins using SWMM5 and HEC-RAS; flood mapping; development of area specific drainage solutions for numerous identified drainage problem areas; preparation of a report detailing the study methodology and findings; preparation of preliminary plans, quantities, and cost estimates for five large stormwater pump stations, major channel improvements, two major bridges, and other improvements. *The project was conducted under extreme time pressure and was completed in approximately six months.*

Mango Road Intersection Improvements, Tampa, Florida. Drainage EOR for improvements to intersections of Mango Road with Discovery Ln. and E. Sligh Ave. The project required study and modeling of 35 acres of offsite basin area using ICPR and accommodating the offsite flow into the proposed system. Designed complete drainage system with single stormwater pond providing compensating stormwater treatment for project runoff, relocation and reconstruction of offsite pond, permit modification and design of new offsite pond and redesign of existing pond to compensate for right-of-way impacts to existing offsite pond. Project challenges severe limitations for stormwater management facilities, proximity and impacts to superfund site adjacent to project.

US-41 / 22nd Street Causeway, FDOT District 7, Tampa, Florida. Evaluation of an existing roadway, reconstruction, rehabilitation, resurfacing (RRR) Drainage report, and design and permitting of drainage improvements associated with roadway safety improvements and the addition of pedestrian and mass transit facilities.

Tocumen International Airport, Panamá City, Panamá. Drainage EOR for design-build project with accelerated schedule to design new international airport terminal, aprons, taxiways, parking facilities, highway interchange, 1.0 miles of new entrance parkway, relocation of 1.0 miles of existing river, three new bridges, widening of two existing bridges. Performed basin study of 11.7 mi^2 Tocumen River basin 2.2 mi^2 Tapia II River watershed including HEC-RAS modeling of the existing Tocumen and Tapia II rivers and multiple improvement alternatives; bridge hydraulic calculations and reports for two existing and two new bridges including scour analysis and design of scour countermeasures; evaluation and design of seven major cross drains; roadway drainage design, air-side drainage design.

Cinta Costera Bridge, Panamá City, Panamá. Drainage EOR for design-build project with accelerated schedule to design new 1.6 mile bridge. The bridges is over open water exposed to the Pacific Ocean with a typical tide range of over 16'. The design included evaluation of the scour potential of the ocean bottom along the alignment of the bridge, pier scour calculations, preparation of a bridge hydraulic report, design of deck drainage, and QC reviews of construction plans.

15th Street Intersection Improvements, Hillsborough County, Tampa, Florida. Drainage EOR for design and permitting of drainage improvements for 0.4 miles of urban roadway and intersection improvements including regional evaluation of floodplain impacts, modeling of 160

acres offsite basin for design of two major cross drains, and erosion control plans. SWMM4 was employed for basin modeling.

Panamá Metro, Panamá City, Panamá. Drainage EOR for design-build project with accelerated schedule to design 3.0 miles of new elevated train and including five stations; roadway improvements to accommodate viaduct piers and stations including drainage, utility relocations, roadway widening, bus stations, sidewalks and cross walks, intersection improvements, and traffic signals; viaduct drainage including inlets, down drains, and surface outfalls; design reports for all components.

Eller Drive, FDOT District 4, Fort Lauderdale, Florida. Drainage EOR for post design revisions to the bypass drainage system and project stormwater management system including study and modeling (using ICPR) of approximately 200 acres of offsite drainage basin (northern portion of Port Everglades), the existing drainage bypass system, the temporary and permanent systems shown in the construction plans, and numerous bypass system alternatives; preparation of a report and recommendations for revision of the system; plan revisions; several revisions of the project drainage system to accommodate utility conflicts, changes to the railroad design, and changes in the construction sequence.

FDOT District Seven, SR 580/Hillsborough Avenue from Benjamin Road to East of Westshore Boulevard, Tampa, Florida; Drainage Engineer of Record. Evaluation of an existing roadway, reconstruction, rehabilitation, resurfacing (RRR) Drainage report, and design and permitting of drainage improvements associated with roadway safety improvements and the addition of pedestrian and mass transit facilities.

City of Marco Island, Smokehouse Bay Bridge, Marco Island, Florida; Drainage Engineer. The bridge is the main navigable waterway between Smokehouse Bay and the interior of Marco Island, is tidally controlled, and is subject to large storm surges and wave action. Responsible for basin modeling, scour estimation, and design of scour countermeasures for replacement of the existing bridge with a new 108-foot bridge.

Collier County DOT, Chokoloskee Bridge Replacement, Chokoloskee, Florida; Drainage Engineer. The existing bridge has been repeatedly damaged by large storms and tidal scour. The new bridge will improve navigation and be designed to withstand scour and storm damage. Responsible for hydrologic and hydraulic modeling, scour analysis, design of scour countermeasures, and State and Federal permitting for replacement of a 200-foot bridge.

Banks Engineering, North Airport Road Extension, Fort Myers, Florida; Drainage Engineer. Design, modeling, and permitting of impacts to floodplain and floodway resulting from new roadway and bridge crossing of existing canal. Employed HEC-RAS model.

FDOT District One, Districtwide Bridge Rehabilitation, Drainage Engineer. Various projects including scour countermeasures, environmental permitting, emergency repairs, etc.

Granite Construction Company, Monroe Bypass Design-Build Technical Proposal, Monroe, North Carolina; Civil/Drainage Engineer. Work included basin and bridge hydraulic analysis using HEC-RAS, design of all drainage and stormwater management systems, preparation of detailed erosion control plans, analysis and evaluation of design alternatives, and preparation of cost estimates. Richard assisted with the preliminary design and multiple Alternative Technical Concept (ATC) proposals for this 26-mile new interstate highway.

Hillsborough County, Tampa Transportation Task Force (TTF) Projects, Tampa, Florida; Drainage Engineer of Record. Richard is responsible for the investigation of existing conditions and development of stormwater management approaches for various intersection improvement alternatives. The results are incorporated into the Preliminary Engineering Reports (PER) for submission to the TTF. Four projects have been awarded to date: CR 579 (Mango Road), 15 Street and 122 Avenue, 15 Street and 127 Avenue, and Brandon Boulevard at Kings Avenue. PERs were all completed and submitted for all four projects.

City of Fort Myers, South Street "Matthews Drive," Fort Myers, Florida; Project Manager/Engineer of Record. Richard oversaw the design and permitting of 3,200 feet of culvert to enclose an existing canal including study and modeling of an urban watershed of approximately 75 acres using SWMM5, cost estimates, value engineering, preparation of

specifications and construction bid package. The project involved significant utility coordination, restricted right-of-way, and floodplain compensation.

FDOT District Seven, SR 580 North Dale Mabry Highway RRR, Tampa, Florida; Drainage Engineer. Richard conducted an evaluation of existing drainage system serving 1.75 miles of urban, six-lane state highway. His responsibilities included evaluation of the condition and capacity of the existing system, recommendations for maintenance and improvements, evaluation of drainage impacts of addition of shoulders and turn lanes, design of drainage modifications, and preparation of the Drainage Documentation Report.

Southwest Engineering and Design, Edgewater Drive-Phase II Project, Charlotte County, Florida; Civil/Drainage Engineer. Prepared a bridge hydraulic report for three replacement bridges. The three bridges are tidally controlled and subject to both large storm surges and large river flows from a highly developed, 12-square mile drainage basin. The contributing basins were modeled using ICPR to generate stage and flow hydrographs and HEC-RAS was used for the bridge hydraulic and scour calculations. Scour counter measures were included in the design.

FDOT District One, SR 84/Davis Boulevard Widening, Collier County, Florida; Drainage Engineer of Record. The project was divided into two segments–east and west. The design and permitting of east segment was completed August 2009. Besides permitting for the roadway, permits were also required for modifications to three adjacent developments. The project involved significant environmental impacts and mitigation as well as coordination between Collier County and FDOT. Design of the west segment was completed in 2011. East segment construction began in October 2011. West segment construction began in Spring 2012. Richard's responsibilities for this 3.2-mile widening project include preparation of Pond Siting Reports as part of PD&E update, development of innovative alternatives to traditional wet detention ponds to reduce costs, drainage calculations and hydraulic design, permitting, and preparation of a full Drainage Documentation Report. The project required

City of Sanibel, Lingren Boulevard Box Culvert Replacement, Sanibel, Florida; Project Manager. Permitting, scour analysis and countermeasures design, preparation of construction plans and specifications, utility relocations, and construction engineering and inspection for SFWMD, Corps of Engineers, and U.S. Coast Guard. The bridge is tidally controlled and subject to both large storm surges as well as large river flows. Vehicular, pedestrian and boat traffic had to be maintained throughout construction as well as hydraulic conveyance. Richard managed this project which involved the replacement of an existing box culvert and pedestrian bridge with a unified bridge structure.

Lee County Division of Natural Resources, Popash Creek Preserve Stormwater Improvements, Fort Myers, Florida; Project Manager and Design Engineer. This innovative project for the Lee County, Division of Natural Resources involved stormwater improvements to a 306 acre preserve area in North Fort Myers. The primary objectives of the project were to reduce chronic flooding downstream of the preserve, restore the creek's natural flow path and function, improve water quality and habitat value, increase the annual number of flow days in Popash Creek downstream of the preserve, and improve the usability of the preserve for area residents (especially horse riders.) The large number of project goals and the difficult physical features of the project necessitated careful study and design to produce a workable, permitable, and economical solution. The project also involved large areas of FEMA designated floodplains and floodways and required a "No-Rise" certification. HEC-RAS was used to evaluate the proposed changes. In addition, this project required close coordination with other consultants as Lee County updated the North Fort Myers Stormwater Master Plan concurrently and modeling of the 15 square mile contributing watershed in Charlotte County overlapped with the Master Plan update. Watershed modeling was accomplished using the ICPR model. TYLI permitted the project through SFWMD and produced construction and bid documents, assisted Lee County with the contracting process, and monitored the construction of the project through project certification and close-out. Total construction cost $1.1 million. Challenges of the project included value engineering, stakeholder involvement, and coordination of multiple project objectives.

Lee County DOT, Plantation Road Extension, Lee County, Florida; Drainage Engineer of Record. Services included in this contract were roadway design, traffic engineering and operations studies, traffic operations design, drainage, permitting, and signal design. This project encompassed 1.1 miles of new in-fill county road; four-lane, divided urban section with a combination opened/closed drainage system. TYLI was able to reduce right-of-way requirements through the use of AASHTO standards, a pond sharing agreement and innovative drainage design. Design required analysis of approximately 350 acres of offsite contributing basin using ICPR and routing of all offsite runoff through the project stormwater management system.

Ford Street Sidewalk / Drainage (2007-08) This project was intended to allow construction of a continuous sidewalk along a congested, fully developed, 1¼ miles corridor. The project was driven by concerns for pedestrian safety along this busy arterial street. The project was funded with FDOT LASIP funds and required to conform to FDOT design standards. No funds were available to purchase additional right-of-way, so the required facilities were crafted to fit within the existing right-of-way. This required closure of ½ mile of existing drainage ditch and re-working of the Ford Street drainage system. A street-level drainage study was conducted (including creation of a SWMM5 model of the entire contributing basin) and a complete set of drainage calculations was submitted to FDOT for its review process. Construction plans and bid documents were delivered and TYLI assisted the City through the contracting process. Total construction cost was $528,000.

Environmental Consulting & Technology, Inc., City of Fort Myers Stormwater Master Plan, Fort Myers, Florida; Drainage Engineer. The project included extensive data gathering and development and calibration of a highly detailed SWMM5 model which could be used for developing and permitting system improvements. Richard was responsible for detailed analysis of over 21 square miles of urban watersheds as part of the City's multi-year effort to create a comprehensive plan for surface water management. Extensive field reconnaissance was conducted and combined with surveys of the major waterways and tributaries to create SWMM-5 stormwater models covering most of the City. The models were used to simulate existing conditions, identify problem areas, and develop improvement projects as part of the City's effort to meet NPDES permit goals. The master planning effort allowed the City to win significant matching funds from SFWMD for as many as four water quality retrofit projects. The models were also used to develop the Bridge Hydraulic Report for the Ortiz Avenue Bridge widening over Billy's Creek.

Environmental Consulting & Technology, Inc., Ortiz Avenue Widening, Bridge Hydraulic Report, Fort Myers, Florida; Drainage Engineer. Conducted SWMM-5 modeling to evaluate impacts of proposed bridge widening, production of calculations for BHR.

Environmental Consulting & Technology, Inc., Fort Myers Beach Neighborhood Drainage Improvements, Fort Myers Beach, Florida; Drainage Engineer. Specific projects included creation of new outfalls, retrofit of pipe and inlets, swale grading, and permitting. Richard was responsible for the design and permitting of street level drainage improvements and retrofits.

City of Fort Myers, Dean Park FEMA Grant Application, Fort Myers, Florida; Drainage Engineer. Responsibilities included 404 hazard mitigation grant program applications (FEMA), preliminary design, estimating, and cost/benefit analysis.

City of Fort Myers, National Pollutant Discharge Elimination System (NPDES) Annual Report, Fort Myers, Florida, Project Manager. Managed the City's NPDES compliance program. He prepared the report that included compiling records from the various City departments and programs and presenting them in the FDEP/EPA format. The program also included public involvement, enforcement, and capital improvement planning.

City of Fort Myers, Winkler Canal Rehabilitation, Fort Myers, Florida; Project Manager and Drainage Engineer. Richard was responsible for design and construction of 1000' of storm damaged drainage way employing vinyl sheet piling. HEC-RAS was used to evaluate the existing canal and improvement alternatives.

City of Fort Myers, Riverside Community Center Rehabilitation, Fort Myers, Florida;

Project Manager and Drainage Engineer. Responsible for contract management, grant management, design, and construction of shoreline improvements to rehabilitate hurricane caused damage employing vinyl sheet piling.

City of Fort Myers, Allen Court Neighborhood Drainage Improvements, Fort Myers, Florida; Project Manager and Drainage Engineer. Responsible for one half mile of street drainage improvements in a very congested area with multiple utility conflicts, design, permitting, plans, construction management and CEI.

City of Fort Myers, Polk Street Drainage Improvements, Fort Myers, Florida; Drainage Engineer. Responsible for design and plans for 2500' of street drainage.

East County Water Control District (ECWCD), District Engineering Consultant, Lehigh Acres, Florida; Drainage Engineer. Responsible for preparation of comprehensive annual reports as required by Florida statute for the district board and review and certification of assessment rolls for the district. He was also involved in the study, design, and permitting for the regional drainage way known as Bedman Creek/Carlos Waterway including HEC-RAS modeling of project alternatives.

Hendry County, Mid-County MSBU Drainage Study, Hendry County, Florida; Drainage Engineer. Responsible for analysis, ICPR and HEC-RAS modeling, design and plans for primary drainage system improvements such as canal improvements, culvert replacements, and recommendations for water quality improvement options.

Hendry County, Pioneer Plantation MSBU Drainage Improvements, Hendry County, Florida; Drainage Engineer. Responsible for analysis, ICPR and HEC-RAS modeling, design and plans for primary drainage system improvements such as canal improvements, culvert replacements, and recommendations for water quality improvement options.

Hendry County, Airport Canal Improvements, Hendry County, Florida; Drainage Engineer. Responsible for analysis, ICPR and HEC-RAS modeling, design, and plans for regional drainage system improvements in Hendry County which included 2¼ miles of primary canal.

Hendry County, C-1 Canal Improvements, Hendry County, Florida; Drainage Engineer. Responsible for analysis, HEC-HMS and HEC-RAS modeling, design, and plans for regional drainage system improvements in Hendry County which included 10¾ miles of primary canal.

City of Fort Myers, Winkler Avenue Canal Enclosure, Fort Myers, Florida; Drainage Engineer. Responsible for preliminary hydraulic calculations and HEC-RAS modeling for culverting one mile of regional drainage canal.

Hendry County, Felda MSBU Drainage Study, Hendry County, Florida; Drainage Engineer. Responsible for the development of a stormwater master plan and capital improvement plan for a rural residential, agricultural special drainage district using the ICPR model.

Hendry County, Airport/Sears MSBU Drainage Study, Hendry County, Florida; Drainage Engineer. Responsible for the development of a stormwater master plan for a very large (~21,000 acres) low density residential, industrial, airport, agricultural special drainage district using the ICPR model and HEC-RAS.

Lee County Division of Natural Resources, Canal L Improvements, Fort Myers, Florida; **Drainage Engineer**. This project consisted of contract management, survey, HEC-1 and HEC2 modeling, analysis, design, plans, and construction of regional drainage way improvements. Responsible for contract management, survey, analysis, and design.

Lee County Division of Natural Resources, North Fort Myers Flood Insurance Study, North Fort Myers, Florida; Drainage Engineer. Responsible for preliminary analysis and synthesis of existing stormwater models (HEC-1, HEC-2) and studies to create a comprehensive model for revision of FEMA FIRMs.

Lee County Division of Natural Resources, CIP Budget Development, Fort Myers, Florida; Drainage Engineer. This project included the development of a 10-year capital improvement budget to accomplish improvements recommended in Lee County's Stormwater Master Plan.

Responsible for the development of the 10-year capital improvement budget.

Lee County Division of Natural Resources, Stormwater Master Plan, Fort Myers, Florida; Drainage Engineer. Conducted a detailed analysis of watersheds as part of Lee County's multi-year effort to create a comprehensive plan for surface water management. HEC-1 and HEC-2 modeling, water quality modeling, design and cost estimation for improvements were all included. Richard also reviewed the master plan submittals by consultants as an employee of Lee County.

Lee County Division of Natural Resources, Hancock Bridge Parkway Drainage Improvements, North Fort Myers, Florida; Drainage Engineer. This project consisted of roadway and area-wide drainage improvements. Responsible for contract management, roadway and area-wide drainage improvements.

Lee County Division of Natural Resources, Kehl Canal Weir, Bonita Springs, Florida; Drainage Engineer. This project consisted of plans for a large earthen weir structure with operable bypass structures. Responsible for analysis using HEC-1 and HEC-2, design, and project plans.

Lee County Division of Natural Resources, Popash Creek Culvert Replacement, North Fort Myers, Florida; Drainage Engineer. Responsible for contract management, analysis, design, and construction of large, multi-barreled culvert replacement. Evaluation of alternatives using HEC-2 model.

Lee County Division of Natural Resources, Stroud Creek Culvert Replacement, North Fort Myers, Florida; Drainage Engineer. Responsible for contract management, analysis, design, and construction of large, multi-barreled culvert replacement. Evaluation of alternatives using HEC-2 model.

Westinghouse Communities, Inc., Commerce Lakes Drive, Lee County, Florida; Drainage Engineer. Responsible for the geometric design of a four lane divided roadway.

Various Agricultural Permits, Fort Myers, Florida; Drainage Engineer. Responsible for water management design and SFWMD permitting and pump sizing on several projects located in Lee and Collier Counties.

Westinghouse Communities, Inc., Pinewood Lakes, Fort Myers, Florida; Drainage Engineer. Completed drainage design and permitting for a 59 unit residential subdivision.

Westinghouse Communities, Inc., Devonshire Lakes, Fort Myers, Florida; Drainage Engineer. Completed the design and permitting for a 90-unit residential subdivision.

Brian J. Werner, PE
Roadways & Bike/Ped Path Desgin

Years of Experience

9

Registrations:

Professional Engineer
Florida #77650, 2014

Academic Achievements:

BS, Civil Engineering,
Purdue University, 2009

Software Proficiencies

AutoCAD, Microstation, Microsoft Office, MathCAD, MATLAB, Storm Water Management Model (SWMM), SAP2000, Visual Professional Lighting Software

Work History

2009-present, T.Y. Lin International
June 2008-August 2008
June 2007-August 2007
T.Y. Lin International

May 2006-August 2006,
May 2005-August 2005
Heidt and Associates, Inc.

June 2003-August 2003
Community Engineering Service

Mr. Werner has nine years of experience in planning, design, permitting, and inspecting a wide variety of private and municipal civil engineering projects. He is also knowledgeable conducting inspections, topographical surveys, foundation location surveys and final surveys.

Lee County Department of Transportation (LCDOT), Estero Boulevard Improvement Project, Town of Fort Myers Beach, Roadway Engineer. This project entailed conceptual design of the six mile arterial comprising the only continuous route on the island. Plans included implementation of "complete streets" concepts, bicycle friendly lanes and shoulders, mid block pedestrian crosswalk designs, and innovative trolley pulloffs/pullouts and stops.

City of Fort Lauderdale, Florida, Downtown Walkability Project. Project Engineer. In support of the City's Downtown Walkability CIP, TY Lin is preparing full signed and sealed design plans to improve pedestrian safety at five intersections and one mid-block crossing in Downtown Fort Lauderdale. Permitting and cost estimates are also being prepared. TY Lin is also helping the City coordinate the project with the Downtown Fort Lauderdale Civic Association. Design options under consideration are intended to slow vehicular speeds, enhance pedestrian traffic controls, markings and signage, improve sight distance, raise intersections and crossings, and other strategies where there's a mix of extremely high pedestrian and vehicular volume, such as at Las Olas Boulevard and SE 4th Avenue, NE Third Avenue at NE 2nd Street, SE 2nd Street between SE Third and Fifth Avenues.

City of Fort Lauderdale, NE 13th Street Complete Streets Project, Project Engineer. TYLI is preparing design plans, permitting and construction bid documents for NE 13th Street between NE 4th and NE 9th Avenues in the City of Fort Lauderdale's South Middle River neighborhood. The design redevelops the minor arterial four-lane road into a Complete Street with the following features:

- Reduce to two-lane road
- Replace travel lanes with bicycle lanes and on-street parking
- Introduce a roundabout at the intersection of NE 13th St. and NE 7th Ave. – remove traffic signal
- Provide landscaped medians
- Provide mid-block crossings
- Incorporate native landscaping, tree canopies and statuary in the roundabout, along sidewalks and in curb extensions

To meet the City's sustainability and climate adaptation goals, TYLI is also preparing stormwater management design including bioswales, pave drains, and water catchment systems. TYLI staff participated and facilitated discussion at two public meetings, and four progress meetings with staff from the City's Public Works Department, Sustainability and Development Department., as well as FDOT District Four and Broward County transportation.

City of Marco Island, Smokehouse Bay Bridge, Marco Island, Florida; Civil Designer. Mr. Werner was responsible for creating the U.S. Coast Guard (USCG), U.S. Army Corps of Engineers (ACOE) and South Florida Water Management District (SFWMD) permit plans. He worked alongside the Senior Structural Engineer to draft the 30% structural details and plans. The City of

Marco Island is removing and replacing the bridges on North Collier Boulevard over Smokehouse Bay with 114' single span twin arch bridges. The new bridges will be elevated to allow for a pedestrian path underneath them linking the residential communities to the north to the recreational and shopping facilities to the south. (February 2010 – August 2012)

Lee County, Stormwater Master Plan, Lee County, Florida; Civil Designer. Mr. Werner analyzed watersheds as part of Lee County's multi-year effort to create a comprehensive plan for surface water management. (June 2007 – August 2007)

James R. Rosales, PE

Senior Structural Engineer / Bridge Structures

Years of Experience

17

Registrations

Professional Engineer, Civil Engineering, Florida, #54635, 1998

Academic Achievements

MS, Structural Engineering, Florida International University, 1995

BS, Civil Engineering, Universidad Nacional de Ingenieria, Lima, Peru, 1990

Certifications

FICE/FDOT LRFD

Language

Spanish

Work History

1995-present, T.Y. Lin International

Mr. Rosales has continually provided structural design and construction phase services for over 17 years on projects ranging from minor to complex bridge design for highways and roadways; utility infrastructure, pavement design and miscellaneous structures for major international airport improvement projects; and specialty structures such as noise abatement walls, sign structures, retaining walls, tunnels, and seawalls. His experience also extends beyond design to encompass services such as bridge inspection, due diligence assessment, and repair/rehabilitation investigations.

Miami International Airport (MIA), Miami Intermodal Center (MIC) MIA Connector (Automated People Mover), Miami, Florida; Structural Engineer. The MIA Mover will serve as the rail link between Miami International Airport MIA and the Miami Intermodal Center the major hub facility for multiple transportation modes, including highway, mass transit rail transportation access facility belt. It is intended to link commuter rail (both heavy and light) and public and private bus services, thereby providing needed regional connectivity and improving access to Miami International Airport. The scope of services included guideway structural design/construction drawings, dry utilities and chilled water design/construction drawings, and maintenance of traffic. Provided structural engineering plans review services for the elevated guideway (segmental structure).

FDOT District Six, SR 826/Palmetto Expressway Section 2 Design-Build from SW 68 Street to SW 33 Street, Miami, Florida; Project Engineer. Design of $177 million widening of the Palmetto Expressway including total reconstruction of the interchange at SW 40 Street/Bird Road. It also includes new frontage roads from the SW 56 Street/Miller Road Interchange to Bird Road, a new pedestrian bridge over the Palmetto Expressway just south of the Bird Road Interchange and noise abatement walls. TYLI is responsible for the design of three bridges including both steel girders and pedestrian bridge with associated ramps and sign structures, MSE walls and temporary critical walls. Responsible for the structural design which includes concrete and steel bridges and miscellaneous structures.

FDOT District Six, I-395 Corridor Reconstruction, Miami, Florida; Structural Engineer. This is a $500 million design improvements program for the I-395 Corridor. I-395 is a large, complex limited-access roadway in downtown Miami that serves as a vital link in South Florida's transportation network. The new corridor will connect downtown Miami to I-95 and also provide direct access to the Port of Miami Tunnel. Work includes structural design for a proposed signature bridge and modification of the existing roadway and interchange. Other elements of this project include drainage, utilities, geotechnical engineering, public involvement, environmental permitting, and a complex maintenance of traffic scheme to minimize local impact.

Miami-Dade Transit, North Corridor Metrorail Extension, Miami, Florida; Structures Design Engineer. The project entails the preliminary engineering for the North Corridor Metrorail Extension that includes the existing Metrorail (elevated, heavy rail) line of approximately 10 miles that will operate along the NW 27 Avenue corridor from approximately the existing Martin Luther King Metrorail Station to the Miami-Dade/Broward County line. James performed the preliminary engineering design of the different type of substructures. His design required extensive use of RC-Pier and FB-Pier programs for designing the piers and foundations. He was also involved in the review of the structural computations for the superstructure.

Consorcio Tren Electrico, Tren Electrico, Lima, Peru; Project Engineer. A seismic engineering evaluation for the $400 million Tren Electrico (Electric Train), Lima-Callao Line 1. Lima-Callao Line 1 consists of ballasted dual rail transit guideways, approximately 10.5-kilometers in total length. The new structure features precast girders and reinforced concrete piers on spread footings and, in few cases, on piles.

Typical spans are 20-meters long and made continuous up to six spans by the reinforced concrete deck and post-tensioned cast-in-place diaphragms. Precast girders are also used in modules with spans up to 35-meters. Single-cell post-tensioned concrete haunched box girders spanning up to 45-meters are used over the major avenues and freeways, and where the alignment is on a curve.

Dinner Key Marina, New Fueling Dock, Miami, Florida; Project Engineer. The project encompassed the removal of underground gasoline and diesel fuel storage tanks and the installation of new fuel dispensers with associated piping, fuel management, and leak detection system as well as a point of sale (POS) system. James provided the fuel system foundation designs. Responsible for the structural engineering for a new marine fueling station, which consisted of gasoline and diesel fuel storage and dispensing systems.

Keystone Point Community, Design-Build Seawalls, North Miami Florida; Structural Engineer. The new seawalls were constructed in front of the existing seawalls, which date back to the 1940s. Structural design entailed major elements such as precast wall panels, 14-square inches of prestressed concrete piles, and cast-in-place concrete caps. Responsible for the design and calculations of this Design-Build contract, for which the firm was responsible for the design engineering, preparation of construction drawings, and permitting of new seawalls at 22 locations within the Keystone Point Community.

MIA, Collector-Distributor, Roadway System, MIC, Miami, Florida; Structural Engineer. The project was for the design of a new elevated collector/distributor roadway system connecting MIA to SR 836 expressway. James was responsible for the structural design which included; bridge design and plan preparation for AASHTO beam bridges. The design of substructure encompassed hammerhead and pier type on drilled shaft foundation.

American Airlines Arena, Construction Inspection Services (including Forensic Engineering), Miami, Florida; Field Investigator. The American Airlines Arena is a 21,000-seat, state-of-the-art facility with full amenities for the Miami Heat basketball team. Mr. Rosales was part of the Miami-Dade County oversight site consultant team that provided construction inspection and progress reviews to verify compliance of contractual requirements per plans and specifications. In rapid response to a fire during the early phases of the arena's construction, he conducted a forensic field investigation of the structural-forming fire and the adequacy of a temporary fire suppression system.

FDOT District Six, NW 74 Street Interchange at the Homestead Extension of Florida Turnpike (HEFT), Miami, Florida; Structural Engineer. Design of four new bridges, one bridge widening, approach retaining walls, and sound barrier walls. Mr. Rosales was responsible for the design of the pile bents, abutments, two-column piers with multiple pile footings, and a sound-barrier-retaining wall. His design was performed in accordance with AASHTO LRFD Bridge Specifications and required extensive use of the FB-Pier program among other software for analyzing the bridge pier structures. His task also included design review of superstructure design, production of plans, and quantity computations.

FDOT District Six, NW 25 Street Viaduct Structure from NW 82 Avenue to MIA Cargo Facilities, Miami, Florida; Project Engineer. The project consists of the design of a new 1.4-mile elevated viaduct along NW 25 Street (over the Palmetto Expressway SR 826) serving as a limited access connection to MIA's cargo facilities. James was responsible for the design of the steel box straddle bents, end bents, pier columns, and foundations. He was also involved in the design of the superstructure elements, including the design of the concrete deck for the curved portion of the bridge and the ramps.

CHAPTER 5
FORMS

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.**

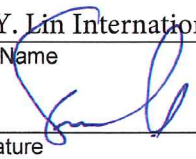
Form B - Public Entity Crimes

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:

T.Y. Lin International
Firm Name



5/18/2017
Signature Date

Francisco Alonso, PE, Associate 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:

T.Y. Lin International

Firm Name

Signature

5/18/2017

Date

Francisco Alonso, PE, Associate 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:

T.Y. Lin International
Firm Name

Signature

5/18/2017
Date

Francisco Alonso, PE, Associate 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

Signature of Proposer's Agent

Associate Vice President
Title

Francisco Alonso, PE
Printed Name

5/30/2017
Date

CHAPTER 6
EVIDENCE OF INSURANCE

Client#: 722 TYLININTE1

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 3/10/2017

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: Nancy Ferrick	
Dealey, Renton & Associates P. O. Box 12675 Oakland, CA 94604-2675 510 465-3090	PHONE (A/C, No, Ext): 510 465-3090	FAX (A/C, No): 510 452-2193
	E-MAIL ADDRESS: nferrick@dealeyrenton.com	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A : Hartford Fire Ins. Co.	19682
INSURED T. Y. Lin International 345 California Street, Ste. 2300 San Francisco, CA 94104	INSURER B : American Fire and Casualty Comp	24066
	INSURER C : Hartford Underwriters Ins. Co.	30104
	INSURER D : Aspen American Insurance Co.	43460
	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 INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT LOC OTHER:	X	X	57CESOF1487	03/01/2017	03/01/2018	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG 	$1,000,000 $1,000,000 $10,000 $1,000,000 $2,000,000 $2,000,000 $
A	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS	X	X	57UENZC1594	03/01/2017	03/01/2018	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) 	$1,000,000 $ $ $ $
B	UMBRELLA LIAB X OCCUR X EXCESS LIAB CLAIMS-MADE DED RETENTION $	X	X	EUA1857169563	03/01/2017	03/01/2018	EACH OCCURRENCE AGGREGATE 	$1,000,000 $1,000,000 $
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N: N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N / A	X	57WBZU5991	03/01/2017	03/01/2018	X PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $1,000,000 $1,000,000 $1,000,000
D	Professional Liability			LRA9P0117	03/01/2017	03/01/2018	$1,000,000 per Claim $1,000,000 Annl Aggr.	

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

General Liability Policy excludes claims arising out of the performance of professional services.

30 Days Notice of Cancellation (10 Days for Non-Payment of Premium).

PROOF OF INSURANCE FOR USE ON PROPOSALS. AN ACTUAL CERTIFICATE WILL BE ISSUED AT THE REQUEST OF THE NAMED INSURED.

CERTIFICATE HOLDER

SAMPLE CERTIFICATE

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

Julie LA Nelson

NMF

EXHIBIT "B"

Category: Transportation 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.