Florida's Warmest Welcome

CITY OF POMPANO BEACH
REQUEST FOR QUALIFICATIONS
E-16-18

DESIGN AND CONSULTING SERVICES FOR FIVE BRIDGES WITHIN CITY LIMITS

MANDATORY PRE-PROPOSAL CONFERENCE:
OCTOBER 2, 2018, 3:00 P.M.
PUBLIC WORKS CONFERENCE ROOM
1201 NE 5TH AVENUE
POMPANO BEACH, FLORIDA 33060

RFQ OPENING: OCTOBER 26, 2018, 2:00 P.M.
PURCHASING OFFICE
1190 N.E. 3RD AVENUE, BUILDING C (Front)
POMPANO BEACH, FLORIDA 33060

September 26, 2018

CITY OF POMPANO BEACH, FLORIDA

REQUEST FOR QUALIFICATIONS (RFQ)
E-16-18
DESIGN AND CONSULTING SERVICES FOR FIVE BRIDGES WITHIN CITY LIMITS

Pursuant to Florida Statutes Chapter 287.055 "Consultants' Competitive Negotiation Act" the City of Pompano Beach invites professional firms to submit qualifications and experience for consideration to provide professional consulting services to the City for the planning and design of five bridges within City limits.

The City will receive sealed proposals until **2:00 p.m. (local), October 26, 2018**. Proposals must be submitted electronically through the eBid System on or before the due date/time stated above. Any proposal received after the due date and time specified, will not be considered. Any uncertainty regarding the time a proposal is received will be resolved against the Proposer.

MANDATORY PRE-PROPOSAL CONFERENCE
A mandatory pre-proposal conference will be held on October 2 2018 beginning at 3:00 p.m. (local) in the Engineering Large Conference Room, 1201 N. E. 5th Avenue, Pompano Beach, Florida 33060. Proposals will not be accepted from firms that do not attend the pre-proposal conference.

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

A. Scope Of Services

The City of Pompano Beach Engineering Department (CITY) has identified major projects and programs within the CITY boundaries with the goal to make the City more attractive to residents, visitors and tourists and promote economic growth and activity as detailed in the City's Strategic Plan.

The intent of this Request for Qualifications (RFQ) is to select the most qualified firm(s) based on selection committee recommendations and City Commission approved ranking, consisting of professional design and consulting services for bridges at SE 5th Avenue, Terramar Drive, McNabb Road, the Palm Aire bridge to the Herb Skolnick Center, and the Palm Aire bridge spanning the C-14 canal. Work to be accomplished under this contract is related, but not limited to design and replacement of multiple bridges in Pompano Beach for which combined design and construction costs are expected to exceed $2,000,000.00 subject to Staff's recommendations and City Commission's approval.

The City intends to issue a single contract to an engineering, planning, architecture, landscape architecture firm to provide professional consulting services to the City for the planning and design of five bridges within City limits. The City reserves the right to issue multiple contracts and select more than firm.

The CITY, as part of the City's Capital Improvement Program and Strategic Plan, are providing for the replacement and upgrade of bridges throughout the City. The proposed improvements include, but are not restricted to, demolition of existing structures; realignment of bridge approach; installation/upgrade/replacement of utilities (drainage, water, sewer and irrigation), if necessary; new decorative lighting on or near the bridges; American with Disabilities Act (ADA)-compliant walkways; pavement (driveways/access roads); landscaping (trees, palms, groundcovers, etc.); possible conversion of existing overhead utilities (e.g. electric, telephone and cable TV) to underground distribution; alarm system, if applicable; full structural design and construction administration services for the replacement of bridges; and, other improvements outlined in the final construction plans. The proposed improvements may not occur at the same time, and the City may wish to phase construction efforts as necessary.

The Scope of Services may include, but is not limited, to the following:

Prepare preliminary design reports, project schedules, feasibility analyses, site plans and/or design alternative recommendations and preliminary cost estimates. Identify any design restrictions resulting from lack of right-of-way or unusual roadway approach configurations. Confirm right-of-way availability to complete designs in accordance with desirable bridge and roadway cross-sections.

Identify any tests that may be necessary to carry out a sound design including soils, concrete strength, permeability/percolation, density, pot-holing, etc.

Prepare a detailed cost estimate at the 30%, 60% and 90% design intervals to confirm initial budget allocations and/or to seek City's advice before proceeding with final designs. The firm will be responsible for cost controls throughout the design and construction project except for design and construction elements added or deleted by an expressed City directive.

Conduct presentations to elected officials, advisory boards, staff, and the public.

Prepare all required bidding and construction documents for the projects. This will include preparing surveys, design plans, supplementary contract requirements, technical specifications, cost estimates, responses to requests for Information (RFIs). The firm(s) will be expected to provide Construction Administration services and certified the project(s).

Prepare plans for review and approval by Development Review Committee (DRC); Planning and Zoning (P&Z); Architectural Appearance Committee (AAC); City's Building Department; Broward County Traffic Engineering; Broward County Water Resources; Florida Department of Health (HRS); Florida Department of Environmental Protection (FDEP); Florida Department of Transportation (FDOT); U. S. Army Corps of Engineers (USACE); U.S. Coast Guard; and/or, any other government agency or City Department having jurisdiction or requiring plan review and approval.

Attendance at City Commission, Advisory Committee meetings, pre-design, design, bidding and bid award meetings will may be required.

Firms and/or any sub-consultants must have previous experience in infrastructure projects, and must be licensed to practice Professional Engineering, Architecture, Landscape Architecture, Electrical Engineering, and Irrigation in the State of Florida.

Compliance with all state and local codes, laws and ordinances, including but not limited to the CITY, OSHA, Federal and State ADA Standards for Accessible Design, Broward County Building Department, and the latest edition of the Florida Building Code, including the latest amendments to these codes is mandatory. Incorporation of the CITY's security and information technology requirements may be required.

B. Eligibility

Due to the requirement that the Contractor needs to be readily available for meetings, discussions and tours within the areas of responsibility, it will be necessary for any proposers to have an office physically located within the tri-county areas of Miami-Dade, Broward, and Palm Beach County. This office must be an active facility from which consultant services are routinely provided and not merely a post office box or other type of mail drop, nor can it be the office of simply a representative agent. The CITY reserves the right to inspect any facility designated by the proposer to insure that it complies with this section.

Each partner of joint ventures must individually meet the conditions of the Professional Designer's Evaluation. Designer's License may not have been suspended, put on probation or revoked at any time in the last five (5) years.

Limited Liability Corporations (LLC) will be required to comply with a Guaranty of Obligations.

C. Local Business Program

On March 13, 2018, the City Commission approved Ordinance 2018-112, establishing a Local Business Program, a policy to increase the participation of City of Pompano Beach businesses in the City's procurement process.

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

1. **TIER 1 LOCAL VENDOR.** POMPANO BEACH BUSINESS EMPLOYING POMPANO BEACH RESIDENTS. A business entity which has maintained a permanent place of business within the city limits and maintains a staffing level, within this local office, of at least ten percent who are residents of the City of Pompano Beach or includes subcontracting commitments to Local Vendors Subcontractors for at least ten percent of the contract value. The permanent place of business may not be a post office box. The business must be located in a non-residential zone, and must actually distribute goods or services from that location. The business must be staffed with full-time employees within the limits of the city. In addition, the business must have a current business tax receipt from the City of

Pompano Beach for a minimum of one year prior to the date of issuance of a bid or proposal solicitation.

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

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

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

The City of Pompano Beach is **strongly committed** to insuring the participation of City of Pompano Beach Businesses as contractors and subcontractors for the procurement of goods and services, including labor, materials and equipment.
Failure to meet Local Vendor Goal commitments will result in "unsatisfactory" compliance rating. Unsatisfactory ratings may impact award of future projects if a sanction is imposed by the City Commission.

The required percentage for local sub-contractor participation will addressed in the construction phase each bridge project, but local preference percentage described below shall apply to this solicitation.

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

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

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

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

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

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

D. Required Proposal Submittal

Submission/Format Requirements

Sealed proposals shall be submitted electronically through the eBid System on or before the due date/time stated above. Proposer shall upload response as one (1) file to the eBid System. The file size for uploads is limited to 100 MB. If the file size exceeds 100 MB the response must be split and uploaded as two (2) separate files.

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

Title page:
Show the "Request for Qualifications" project title, project number, the name of the Respondent firm, address, telephone number, name of contact person and date.

Table of Contents:
Clearly identify the section, topic, and page number.

Letter of Transmittal:
A Letter of Interest, signed by an authorized representative of your firm, expressing your understanding of the project and expressing a positive commitment to provide the services described herein. In the letter, include:

- complete corporate name of the primary firm responding
- applicable Federal Tax Identification Number
- address
- telephone and fax numbers
- name, title, and email of the person to contact regarding your submission

Please limit this section to two pages.

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

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

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

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

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

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

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

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

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

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

Minority Business Enterprises:
It is the intent of the City of Pompano Beach to encourage minority and women owned firms to participate in the process. The methods by which this is accomplished should be developed and presented by the respondents in their submissions.

For any member of your team that is a certified Minority Business Enterprise (as defined by the State of Florida) you must include copies of their certifications for them to be considered toward Item 5 in the evaluation criteria. Complete Exhibit I and include all certificates in your electronic submittal.

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

City Forms:
Responses should include Essential Requirements Questionnaire, Organization Performance/Declarations form, and all other City forms as stated above. Required forms must be completed and submitted electronically through the City's eBid System.

E. Insurance

CONTRACTOR shall not commence services under the terms of this Agreement until certification or proof of insurance detailing terms and provisions has been received and approved in writing by the CITY's Risk Manager. If you are responding to a bid and have questions regarding the insurance requirements hereunder, please contact the CITY's Purchasing Department at (954) 786-4098. If the contract has already been awarded, please direct any queries and proof of the requisite insurance coverage to CITY staff responsible for oversight of the subject project/contract.

CONTRACTOR is responsible to deliver to the CITY for timely review and written approval/disapproval Certificates of Insurance which evidence that all insurance required hereunder is in full force and effect and which name on a primary basis, the CITY as an additional insured on all such coverage.

Throughout the term of this Agreement, CITY, by and through its Risk Manager, reserve the right to review, modify, reject or accept any insurance policies required by this Agreement, including limits, coverages or endorsements. CITY reserves the right, but not the obligation, to review and reject any insurer providing coverage because of poor financial condition or failure to operate legally.

Failure to maintain the required insurance shall be considered an event of default. The requirements herein, as well as CITY's review or acceptance of insurance maintained by CONTRACTOR, are not intended to and shall not in any way limit or qualify the liabilities and obligations assumed by CONTRACTOR under this Agreement.

Throughout the term of this Agreement, CONTRACTOR and all subcontractors or other agents hereunder, shall, at their sole expense, maintain in full force and effect, the following insurance coverages and limits described herein, including endorsements.

A. Worker's Compensation Insurance covering all employees and providing benefits as required by Florida Statute, Chapter 440. CONTRACTOR further agrees to be responsible for employment, control and conduct of its employees and for any injury sustained by such employees in the course of their employment.

B. Liability Insurance.

(1) Naming the City of Pompano Beach as an additional insured as CITY's interests may appear, on General Liability Insurance only, relative to claims which arise from CONTRACTOR's negligent acts or omissions in connection with Contractor's performance under this Agreement.

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

	Type of Insurance	**Limits of Liability**		
GENERAL LIABILITY:		Minimum $1,000,000 Per Occurrence and $2,000,000 Per Aggregate		
* Policy to be written on a claims incurred basis				
XX	comprehensive form	bodily injury and property damage		
XX	premises - operations	bodily injury and property damage		
__	explosion & collapse hazard			
__	underground hazard			
XX	products/completed operations hazard	bodily injury and property damage combined		
XX	contractual insurance	bodily injury and property damage combined		
XX	broad form property damage	bodily injury and property damage combined		
XX	independent contractors	personal injury		
XX	personal injury			
__	sexual abuse/molestation	Minimum $1,000,000 Per Occurrence and Aggregate		
__	liquor legal liability	Minimum $1,000,000 Per Occurrence and Aggregate		
AUTOMOBILE LIABILITY:		Minimum $1,000,000 Per Occurrence and Aggregate. Bodily injury (each person) bodily injury (each accident), Property damage, bodily injury and property damage combined.		
XX	comprehensive form			
XX	owned			
XX	hired			
XX	non-owned			
REAL & PERSONAL PROPERTY				
__	comprehensive form	Agent must show proof they have this coverage.		
EXCESS LIABILITY			Per Occurrence	Aggregate
__	other than umbrella	bodily injury and property damage combined	$1,000,000	$1,000,000

PROFESSIONAL LIABILITY	Per Occurrence	Aggregate
XX * Policy to be written on a claims made basis	$1,000,000	$1,000,000

(3) If Professional Liability insurance is required, Contractor agrees the indemnification and hold harmless provisions set forth in the Agreement shall survive the termination or expiration of the Agreement for a period of four (4) years unless terminated sooner by the applicable statute of limitations.

CYBER LIABILITY	Per Occurrence	Aggregate
__ * Policy to be written on a claims made basis	$1,000,000	$1,000,000

__ Network Security / Privacy Liability
__ Breach Response / Notification Sublimit (minimum limit of 50% of policy aggregate)
__ Technology Products E&O - $1,000,000 (only applicable for vendors supplying technology related services and or products)
__ Coverage shall be maintained in effect during the period of the Agreement and for not less than four (4) years after termination/ completion of the Agreement.

C. Employer's Liability. If required by law, CONTRACTOR and all subcontractors shall, for the benefit of their employees, provide, carry, maintain and pay for Employer's Liability Insurance in the minimum amount of One Hundred Thousand Dollars ($100,000.00) per employee, Five Hundred Thousand Dollars ($500,000) per aggregate.

D. Policies: Whenever, under the provisions of this Agreement, insurance is required of the CONTRACTOR, the CONTRACTOR shall promptly provide the following:

(1) Certificates of Insurance evidencing the required coverage;

(2) Names and addresses of companies providing coverage;

(3) Effective and expiration dates of policies; and

(4) A provision in all policies affording CITY thirty (30) days written notice by a carrier of any cancellation or material change in any policy.

E. Insurance Cancellation or Modification. Should any of the required insurance policies be canceled before the expiration date, or modified or substantially modified, the issuing company shall provide thirty (30) days written notice to the CITY.

F. Waiver of Subrogation. CONTRACTOR hereby waives any and all right of subrogation against the CITY, its officers, employees and agents for each required policy. When required by the insurer, or should a policy condition not permit an insured to enter into a pre-loss agreement to waive subrogation without an endorsement, then CONTRACTOR shall notify the insurer and request the policy be endorsed with a Waiver of Transfer of Rights of Recovery Against Others, or its equivalent. This Waiver of Subrogation requirement shall not

apply to any policy which includes a condition to the policy not specifically prohibiting such an endorsement, or voids coverage should CONTRACTOR enter into such an agreement on a pre-loss basis.

F. Selection/Evaluation Process

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

The Committee will rank responses based upon the following criteria.

	Criteria	Point Range
1	**Overall approach, methodology**: Explain the firm's approach to these types of projects from initial involvement through the final construction phases. Include methods used during construction to monitor similar projects and resolve issues as well as methods of sequencing and coordination among the firm's trades to minimize conflict and errors.	0-20
2	**Prior experience** with projects of similar size and scope. Familiarity with City of Pompano Beach standards. a. Number of similar projects b. Complexity of similar projects c. References from past projects d. Safety record	0-40
3	**Qualifications of personnel**: The general and specific project related capability of the in-house office and field support, including previous experience with similar projects. This includes reasonable commitment from assigned personnel throughout the project. a. Number of technical staff b. Qualifications of technical staff: (1) Number of licensed staff (2) Education of staff (3) Experience of staff	0-25
4	**Scheduling/Cost Control**: A description of the Firm's general project management, scheduling, and cost controls indicating functions and capabilities, with emphasis on the Firm's ability to prevent cost overruns or change orders.	0-10
5	Is the firm a certified minority business enterprise as defined by the Florida Small and Minority Business Assistance Act of 1985? (include sub-consultants)	0-5

Total Points 0-100

Additional 0-5% for Tier1/Tier2 Local Business will be calculated on combined scoring totals of each company.

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

The Committee has the option to use the above criteria for the initial ranking to short-list Proposers and to use an ordinal ranking system to score short-listed Proposers following presentations (if deemed necessary) with a score of "1" assigned to the short-listed Proposer deemed most qualified by the Committee.

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

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

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

G. Hold Harmless and Indemnification

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

H. Right to Audit

Contractor's records which shall include but not be limited to accounting records, written policies and procedures, computer records, disks and software, videos, photographs,

subcontract files (including proposals of successful and unsuccessful bidders), originals estimates, estimating worksheets, correspondence, change order files (including documentation covering negotiated settlements), and any other supporting evidence necessary to substantiate charges related to this contract (all the foregoing hereinafter referred to as "records") shall be open to inspection and subject to audit and/or reproduction, during normal working hours, by Owner's agent or its authorized representative to the extent necessary to adequately permit evaluation and verification of any invoices, payments or claims submitted by the contractor or any of his payees pursuant to the execution of the contract. Such records subject to examination shall also include, but not be limited to, those records necessary to evaluate and verify direct and indirect costs (including overhead allocations) as they may apply to costs associated with this contract.

For the purpose of such audits, inspections, examinations and evaluations, the Owner's agent or authorized representative shall have access to said records from the effective date of this contract, for the duration of the Work, and until 5 years after the date of final payment by Owner to Consultant pursuant to this contract.

Owner's agent or its authorized representative shall have access to the Contractor's facilities, shall have access to all necessary records, and shall be provided adequate and appropriate work space, in order to conduct audits in compliance with this article. Owner's agent or its authorized representative shall give auditees reasonable advance notice of intended audits.

Contractor shall require all subcontractors, insurance agents, and material suppliers (payees) to comply with the provisions of this article by insertion of the requirements hereof in any written contract agreement. Failure to obtain such written contracts which include such provisions shall be reason to exclude some or all of the related payees' costs from amounts payable to the Contractor pursuant to this contract.

I. Retention of Records

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

a. Keep and maintain public records required by the City in order to perform the service;

b. Upon request from the City's custodian of public records, provide the City with a copy of requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes or as otherwise provided by law;

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

d. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by

law for the duration of the contract term and following completion of the contract if the Contractor does not transfer the records to the City; and

e. Upon completion of the contract, transfer, at no cost to the City, all public records in possession of the Contractor, or keep and maintain public records required by the City to perform the service. If the Contractor transfers all public records to the City upon completion of the contract, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of the contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City's custodian of public records in a format that is compatible with the information technology systems of the City.

J. Communications

No negotiations, decisions, or actions shall be initiated or executed by the firm as a result of any discussions with any City employee. Only those communications, which are in writing from the City, may be considered as a duly authorized expression on behalf of the City. In addition, only communications from firms that are signed and in writing will be recognized by the City as duly authorized expressions on behalf of firms.

K. No Discrimination

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

L. Independent Contractor

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

M. Staff Assignment

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

N. Contract Terms

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

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

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

O. Waiver

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

P. Survivorship Rights

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

Q. Termination

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

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

R. Manner of Performance

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

Proposer agrees that the services provided under the contract resulting from this RFQ shall be provided by employees that are educated, trained and experienced, certified and licensed in all areas encompassed within their designated duties. Proposer agrees to furnish the City of Pompano Beach with all documentation, certification, authorization,

license, permit, or registration currently required by applicable laws or rules and regulations. Proposer further certifies that it and its employees are now in and will maintain good standing with such governmental agencies and that it and its employees will keep all license, permits, registration, authorization or certification required by applicable laws or regulations in full force and effect during the term of this contract. Failure of Proposer to comply with this paragraph shall constitute a material breach of contract.

S. Acceptance Period

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

T. RFQ Conditions and Provisions

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

Proposer's response shall not contain any alteration to the document posted other than entering data in spaces provided or including attachments as necessary. By submission of a response, Proposer affirms that a complete set of bid documents was obtained from the eBid System or from the Purchasing Division only and no alteration of any kind has been made to the solicitation. Exceptions or deviations to this solicitation may not be added after the submittal date.

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

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

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

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

U. Standard Provisions

a. Governing Law

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

b. Licenses

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

c. Conflict Of Interest

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

d. Drug Free Workplace

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

e. Public Entity Crimes

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

f. Patent Fees, Royalties, And Licenses

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

g. Familiarity With Laws

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

h. Withdrawal Of Proposals

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

i. Composition Of Project Team

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

j. Invoicing/Payment

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

k. Public Records

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

    a. Keep and maintain public records required by the City in order to perform the service;

    b. Upon request from the City's custodian of public records, provide the City with a copy of requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes or as otherwise provided by law;

    c. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the Contractor does not transfer the records to the City; and

    d. Upon completion of the contract, transfer, at no cost to the City, all public records in possession of the Contractor, or keep and maintain public records required by the City to perform the service. If the Contractor transfers all public records to the City upon completion of the contract,

the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of the contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City's custodian of public records in a format that is compatible with the information technology systems of the City.

2. Failure of the Contractor to provide the above described public records to the City within a reasonable time may subject Contractor to penalties under 119.10, Florida Statutes, as amended.

PUBLIC RECORDS CUSTODIAN

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

CITY CLERK
100 W. Atlantic Blvd., Suite 253
Pompano Beach, Florida 33060
(954) 786-4611
RecordsCustodian@copbfl.com

V. Questions and Communication

All questions regarding the RFQ are to be submitted using the Questions feature in the eBid System. Questions must be received at least seven (7) calendar days before the scheduled solicitation opening. Oral and other interpretations or clarifications will be without legal effect. Addenda will be posted to the RFQ solicitation in the eBid System, and it is the Proposer's responsibility to obtain all addenda before submitting a response to the solicitation.

W. Addenda

The issuance of a written addendum or posting of an answer in response to a question submitted using the Questions feature in the eBid System are the only official methods whereby interpretation, clarification, or additional information can be given. If any addenda are issued to this RFQ solicitation the addendum will be issued via the eBid System. It shall be the responsibility of each Proposer, prior to submitting their response, to contact the City Purchasing Office at (954) 786-4098 to determine if

addenda were issued and to make such addenda a part of their proposal. Addenda will be posted to the RFQ solicitation in the eBid System.

X. Contractor Performance Report

The City will utilize the Contractor Performance Report to monitor and record the successful proposer's performance for the work specified by the contract. The Contractor Performance Report has been included as an exhibit to this solicitation.

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

PROJECT TEAM

RFQ NUMBER _____

Federal I.D.#_____

PRIME

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

SUB-CONSULTANT

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

(use attachments if necessary)

Exhibit – Contractor Performance Report

City of Pompano Beach, Purchasing Division
1190 N.E. 3rd Avenue, Building C
Pompano Beach, Florida, 33060

CITY OF POMPANO BEACH
CONTRACTOR PERFORMANCE REPORT

1. Report Period: from _____ to _____

2. Contract Period: from _____ to _____

3. Bid# & or P.O.#: _____

4. Contractor Name: _____

5. City Department: _____

6. Project Manager: _____

7. Scope of Work (Service Deliverables): _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Exhibit – Contractor Performance Report

CATEGORY	RATING	COMMENTS
1. Quality Assurance/Quality Control - Product/Services of high quality - Proper oversight - Communication	Poor =1 Satisfactory =2 Excellent =3	
2. Record Keeping -Accurate record keeping -Proper invoicing -Testing results complete	Poor =1 Satisfactory =2 Excellent =3	
3. Close-Out Activities - Restoration/Cleanup - Deliverables met - Punch list items addressed	Poor =1 Satisfactory =2 Excellent =3	
4. Customer Service - City Personnel and Residents - Response time - Communication	Poor =1 Satisfactory =2 Excellent =3	
5. Cost Control - Monitoring subcontractors - Change-orders - Meeting budget	Poor =1 Satisfactory =2 Excellent =3	
6. Construction Schedule - Adherence to schedule - Time-extensions - Efficient use of resources	Poor =1 Satisfactory =2 Excellent =3	
SCORE	_____	**ADD ABOVE RATINGS/DIVIDE TOTAL BY NUMBER OF CATEGORIES BEING RATED**

RATINGS

Poor Performance (1.0 – 1.59)*: Marginally responsive, effective and/or efficient; delays require significant adjustments to programs; key employees marginally capable; customers somewhat satisfied.*

Satisfactory Performance (1.6 – 2.59)*: Generally responsive, effective and/or efficient; delays are excusable and/or results in minor program adjustments; employees are capable and satisfactorily providing service without intervention; customers indicate satisfaction.*

Excellent Performance (2.6 – 3.0): *Immediately responsive; highly efficient and/or effective; no delays; key employees are experts and require minimal direction; customers expectations are exceeded.*

Would you select/recommend this contractor again? _____ Yes _____ No

Please attach any supporting documents to this report to substantiate the ratings that have been provided.

Ratings completed by (print name)	Ratings completed by signature	Date
Department Head (print name)	Department Head Signature	Date
Vendor Representative (print name)	Contractor Representative Signature	Date

Comments, corrective actions etc., use additional page if necessary:

COMPLETE THE ORGANIZATIONAL PERFORMANCE FORM ON THE ATTACHMENTS TAB IN THE EBID SYSTEM. PROPOSERS ARE TO COMPLETE THE FORM IN ITS ENTIRITY AND INCLUDE THE COMPLETED FORM IN YOUR PROPOSAL THAT MUST BE UPLOADED TO THE RESPONSE ATTACHMENTS TAB FOR THE RFQ IN THE EBID SYSTEM.

ORGANIZATION, HISTORY, ORGANIZATIONAL PERFORMANCE, COMPLIANCE WITH CIVIL AND CRIMINAL LAWS

A. Current Organization and Structure of the Business

For Firms That Are Corporations:

1a. Date Incorporated: _____

1b. Under the laws of what state: _____

1c. Provide all the following information for each person who is either (a) an officer of the corporation (president, vice president, secretary, and treasurer), or (b) the owner of at least ten per cent of the corporation's stock.

Name: _____

Position: _____

Years with Company: _____

% Ownership: _____

Social Security #: _____

1d. Identify every construction firm that any person listed above has been associated with (as owner, general partner, limited partner or officer) at any time during the last five years.

NOTE: For this question, "owner" and "partner" refer to ownership of ten percent or more of the business, or 10 percent or more of its stock, if the business is a corporation.

Person's Name: _____

Construction Firm: _____

Dates of Person's Participation with Firm: _____

For Firms That Are Partnerships:

1a. Date of formation: _____

1b. Under the laws of what state: _____

1c. Provide all the following information for each partner who owns 10 per cent or more of the firm.

Name: _____

Position: _____

Years with Company: _____

% Ownership: _____

Social Security #: _____

1d. Identify every construction company that any partner has been associated with (as owner, general partner, limited partner or officer) at any time during the last five years.

NOTE: For this question, “owner” and “partner” refer to ownership of ten per cent or more of the business, or ten per cent or more of its stock, if the business is a corporation.

Person’s Name: _____

Construction Firm: _____

Dates of Person’s Participation with Firm: _____

For Firms That Are Sole Proprietorships:

1a. Date of commencement of business.

1b. Social security number of company owner.

1c. Identify every construction firm that the business owner has been associated with (as owner, general partner, limited partner or officer) at any time during the last five years.

NOTE: For this question, “owner” and “partner” refer to ownership of ten per cent or more of the business, or ten per cent or more of its stock, if the business is a corporation.

Person’s Name: _____

Construction Firm: _____

Dates of Person’s Participation with Firm: _____

For Firms That Intend to Make a Bid as Part of a Joint Venture:

1a. Date of commencement of joint venture.

1b. Provide all of the following information for each firm that is a member of the joint venture that expects to bid on one or more projects:

Name of firm: _____

% Ownership of Joint Venture: _____

B. History of the Business and Organizational Performance

1. Has there been any change in ownership of the firm at any time during the last three years?

NOTE: A corporation whose shares are publicly traded is not required to answer this question.

____Yes ____No

If “yes,” explain on a separate signed page.

2. Is the firm a subsidiary, parent, holding company or affiliate of another construction firm?

NOTE: Include information about other firms if one firm owns 50 percent or more of another, or if an owner, partner, or officer of your firm holds a similar position in another firm.

____Yes ____No

If “yes,” explain on a separate signed page.

3. Are any corporate officers, partners or owners connected to any other construction firms?

NOTE: Include information about other firms if an owner, partner, or officer of your firm holds a similar position in another firm.

____Yes No

If “yes,” explain on a separate signed page.

4. State your firm’s gross revenues for each of the last three calendar years:

2017_____2016_____2015_____

5. How many years has your organization been in business in Florida as a contractor under your present business name and license number? ___ years

6. Is your firm currently the debtor in a bankruptcy case?

____Yes ____No

If “yes,” please attach a copy of the bankruptcy petition, showing the case number, and the date on which the petition was filed.

7. Was your firm in bankruptcy at any time during the last five years? (This question refers only to a bankruptcy action that was not described in answer to question 7, above)

____Yes ____No

If “yes,” please attach a copy of the bankruptcy petition, showing the case number and the date on which the petition was filed, and a copy of the Bankruptcy Court’s discharge order, or of any other document that ended the case, if no discharge order was issued.

C. Licenses

1. List all Florida construction license numbers, classifications and expiration dates of the Florida contractor licenses held by your firm:

_____

_____

_____

_____

_____

_____

2. If any of your firm’s license(s) are held in the name of a corporation or partnership, list below the names of the qualifying individual(s) listed on the Contractors State Licensing Board (CSLB) records who meet(s) the experience and examination requirements for each license.

_____

_____

_____

3. Has your firm changed names or license number in the past five years?

____Yes ____No

If “yes,” explain on a separate signed page, including the reason for the change.

4. Has any owner, partner or (for corporations) officer of your firm operated a construction firm under any other name in the last five years?

____Yes ____No

If “yes,” explain on a separate signed page, including the reason for the change.

5. Has a State of Florida license(s) held by your firm been suspended within the last five years?

____Yes ____No

If “yes,” please explain on a separate signed sheet.

D. Disputes

1. At any time in the last five years has your firm been assessed and paid liquidated damages after completion of a project under a construction contract with either a public or private owner?

____Yes ____No

If yes, explain on a separate signed page, identifying all such projects by owner, owner’s address, and the date of completion of the project, amount of liquidated damages assessed and all other information necessary to fully explain the assessment of liquidated damages.

2. In the last five years has your firm, or any firm with which any of your company’s owners, officers or partners was associated, been debarred, disqualified, removed or otherwise prevented from bidding on, or completing, any government agency or public works project for any reason?

NOTE: “Associated with” refers to another construction firm in which an owner, partner or officer of your firm held a similar position, and which is listed in response to question 1c or 1d on this form.

____Yes ____No

If “yes,” explain on a separate signed page. State whether the firm involved was the firm applying for pre-qualification here or another firm. Identify by name of the company, the name of the person within your firm who was associated with that company, the year of the event, the owner of the project, the project and the basis for the action.

3. In the last five years has your firm been denied an award of a public works contract based on a finding by a public agency that your company was not a responsible bidder?

____Yes ____No

If “yes,” explain on a separate signed page. Identify the year of the event, the owner, the project and the basis for the finding by the public agency.

NOTE: The following two questions refer only to disputes between your firm and the owner of a project. You need not include information about disputes between your firm and a supplier, another contractor, or subcontractor.

4. In the past five years has any claim against your firm concerning your firm's work on a construction project been filed in court or arbitration?

____Yes ____No

If "yes," on separate signed sheets of paper identify the claim(s) by providing the project name, date of the claim, name of the claimant, a brief description of the nature of the claim, the court in which the case was filed and a brief description of the status of the claim (pending or, if resolved, a brief description of the resolution).

5. In the past five years has your firm made any claim against a project owner concerning work on a project or payment for a contract and filed that claim in court or arbitration?

____Yes ____No

If "yes," on separate signed sheets of paper identify the claim by providing the project name, date of the claim, name of the entity (or entities) against whom the claim was filed, a brief description of the nature of the claim, the court in which the case was filed and a brief description of the status of the claim (pending, or if resolved, a brief description of the resolution).

6. At any time during the past five years, has any surety company made any payments on your firm's behalf as a result of a default, to satisfy any claims made against a performance or payment bond issued on your firm's behalf, in connection with a construction project, either public or private?

____Yes ____No

If "yes," explain on a separate signed page the amount of each such claim, the name and telephone number of the claimant, the date of the claim, the grounds for the claim, the present status of the claim, the date of resolution of such claim if resolved, the method by which such was resolved if resolved, the nature of the resolution and the amount, if any, at which the claim was resolved.

7. In the last five years has any insurance carrier, for any form of insurance, refused to renew the insurance policy for your firm?

____Yes ____No

If "yes," explain on a separate signed page. Name the insurance carrier, the form of insurance and the year of the refusal.

E. Criminal Matters and Related Civil Suits

1. Has your firm or any of its owners, officers or partners ever been found liable in a civil suit or found guilty in a criminal action for making any false claim or material misrepresentation to any public agency or entity?

____Yes ____No

If "yes," explain on a separate signed page, including identifying who was involved, the name of the public agency, the date of the investigation and the grounds for the finding.

2. Has your firm or any of its owners, officers or partners ever been convicted of a crime involving any federal, state, or local law related to construction?

____Yes ____No

If "yes," explain on a separate signed page, including identifying who was involved, the name of the public agency, the date of the conviction and the grounds for the conviction.

3. Has your firm or any of its owners, officers or partners ever been convicted of a federal or state crime of fraud, theft, or any other act of dishonesty?

____Yes ____No

If "yes," identify on a separate signed page the person or persons convicted, the court (the City if a state court, the district or location of the federal court), the year and the criminal conduct.

F. Bonding

1. Bonding capacity: Provide documentation from your surety identifying the following:

Name of bonding company/surety: _____

Name of surety agent, address and telephone number:_____

_____

2. If your firm was required to pay a premium of more than one percent for a performance and payment bond on any project(s) on which your firm worked at any time during the last three years, state the percentage that your firm was required to pay. You may provide an explanation for a percentage rate higher than one percent, if you wish to do so.

_____

_____

_____

3. List all other sureties (name and full address) that have written bonds for your firm during the last five years, including the dates during which each wrote the bonds:

_____

_____

_____

4. During the last five years, has your firm ever been denied bond coverage by a surety company, or has there ever been a period of time when your firm had no surety bond in place during a public construction project when one was required?

____Yes ____No

If yes, provide details on a separate signed sheet indicating the date when your firm was denied coverage and the name of the company or companies, which denied coverage; and the period during which you had no surety bond in place.

G. Compliance with Occupational Safety and Health Laws and with Other Labor Legislation Safety

1. Has the Occupational Safety and Health Administration (OSHA) cited and assessed penalties against your firm for any "serious," "willful" or "repeat" violations of its safety or health regulations in the past five years?

NOTE: If you have filed an appeal of a citation, and the Occupational Safety and Health Appeals Board has not yet ruled on your appeal, you need not include information about it.

____Yes ____No

If "yes," attach a separate signed page describing the citations, including information about the dates of the citations, the nature of the violation, the project on which the citation(s) was or were issued, the amount of penalty paid, if any. If the citation was appealed to the Occupational Safety and Health Appeals Board and a decision has been issued, state the case number and the date of the decision.

2. Has the federal Occupational Safety and Health Administration cited and assessed penalties against your firm in the past five years?

NOTE: If you have filed an appeal of a citation and the Appeals Board has not yet ruled on your appeal, or if there is a court appeal pending, you need not include information about the citation.

____Yes ____No

If "yes," attach a separate signed page describing each citation.

3. Has the state or federal Environmental Protection Agency (EPA) or any Air Quality Management District or any Regional Water Quality Control Board cited and assessed penalties against either your firm or the owner of a project on which your firm was the contractor, in the past five years?

NOTE: If you have filed an appeal of a citation and the Appeals Board has not yet ruled on your appeal, or if there is a court appeal pending, you need not include information about the citation.

____Yes ____No

If "yes," attach a separate signed page describing each citation.

4. How often do you require documented safety meetings to be held for construction employees and field supervisors during the course of a project?

_____

5. Within the last five years has there ever been a period when your firm had employees but was without workers' compensation insurance or state-approved self-insurance?

____Yes ____No

If "yes," please explain the reason for the absence of workers' compensation insurance on a separate signed page. If "No," please provide a statement by your current workers' compensation insurance carrier that verifies periods of workers' compensation insurance coverage for the last five years. (If your firm has been in the construction business for less than five years, provide a statement by your workers' compensation insurance carrier verifying continuous workers' compensation insurance coverage for the period that your firm has been in the construction business).

_____

_____

_____

H. Prevailing Wage and Apprenticeship Compliance Record

1. Has there been more than one occasion during the last five years in which your firm was required to pay either back wages or penalties for your own firm's failure to comply with the state's prevailing wage laws?

NOTE: This question refers only to your own firm's violation of prevailing wage laws, not to violations of the prevailing wage laws by a subcontractor.

____Yes ____No

If "yes," attach a separate signed page or pages, describing the nature of each violation, identifying the name of the project, the date of its completion, the public agency for

which it was constructed; the number of employees who were initially underpaid and the amount of back wages and penalties that you were required to pay.

SURETY AND BONDING REQUIREMENTS

A. Attach a notarized statement from the bonding company your firm proposes to use indicating their commitment to provide a Performance and Payment Bond for the full amount of the contract.

B. List the names of the Bonding firms utilized by your organization in the last five (5) years, for projects over $3,000,000.

Name of Bonding Company No. 1

_____

Address: _____

Telephone:

Contact Name: _____ _____

Project Name: _____

Amount Bonded: _____ % _____

Completed _____

Name of Bonding Company No. 2

_____

Address: _____

Telephone:

Contact Name: _____

Project Name: _____

Amount Bonded: _____ % _____

Completed _____

_____

INSURANCE REQUIREMENTS

Each policy of insurance carried by the successful bidder for this project shall be issued by an insurance company licensed to do business in the State of Florida with a rating of “A” or better and a financial size category of “V” or better according to the latest edition of “Bests”.

A. Attach a notarized statement from the Worker’s Compensation carrier specifying organization’s current Experience Modification rating for Worker’s Compensation in the State of Florida.

B. List the names of the insurance firms utilized by your organization in the last five (5) years, for projects over $3,000,000.

Name of Insurance Company No. 1 _____

Address: _____

Contact Name: _____ Telephone

Project Name: _____

Amount Bonded: _____ % _____

Completed _____

Name of Insurance Company No. 2

_____

Address: _____

Contact Name: _____ Telephone: _____

Project Name: _____

Amount Bonded: _____ % _____

Completed _____

Failure to provide all these attachments may be cause for disqualification for this project.

Attachment 1 – Certificate of Accountant Attachment 1A General Statement of Bank Credit
Attachment 2 – Notarized Statement from Bonding Company
Attachment 3 – Notarized Statement from Worker's Compensation Insurance Carrier
Attachment 4 – Current Copy of Organization's Florida Contractor's License(s)
Attachment 5 – Certification declaring that the applying Organization has not had a surety company finish work on any project within the last five (5) years.
Attachment 6 – Certification declaring that the applying Organization, in the last five (5) years has not been found by a judge, arbitrator, jury, or a nolo contendere plea to have submitted a false or fraudulent claim to a public agency
Attachment 7 – Certification declaring that the applying Organization has not been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of violations of law or a safety regulation, pursuant to Public Contract Code section 10162

DECLARATION

1. Acknowledgement and Release. By signature and date on this page, prospective bidder authorizes any financial institution, credit reporting agency and/or service, legal firm or any other type of business, agency or individual named within this document to release to the City (or City's designated representative) any and all information as that information relates, or could relate, to their ability to evaluate the background, stability and general worthiness of this bidder to perform current or future construction activities if Pre-Qualified and awarded a contract by the City.

a. A photocopy of this page shall be deemed as valid as an original document.

b. This Acknowledgement and Release shall remain in effect until such time as the bidder, in writing, requests that the City cease any attempt to evaluate himself/herself/themselves as potential Pre-Qualified bidder for construction work on City of Pompano Beach properties.

c. Reserved Right. The City reserves the right, for the sole purpose of evaluating a potential Pre-Qualification candidate (bidder), to make other inquiries as permitted by law. Furthermore, the City reserves the right to reject any or all Pre-qualification applications.

AFFIDAVIT

I, the undersigned, certify and declare that I have read all the foregoing answers to this prequalification questionnaire and know their contents. The matters stated in the questionnaire answers are true of my own knowledge and belief, except as to those matters stated on information and belief, and as to those matters I believe them to be true. I declare under penalty of perjury under the laws of the State of Florida, that the foregoing is correct.

Dated: _____

_____
(Signature)

_____

REQUESTED INFORMATION BELOW IS ON THE MINORITY BUSINESS ENTERPRISE PARTICIPATION FORM ON THE BID ATTACHMENTS TAB. BIDDERS ARE TO COMPLETE FORM IN ITS ENTIRITY AND UPLOAD COMPLETED FORM TO THE EBID SYSTEM

EXHIBIT A

MINORITY BUSINESS ENTERPRISE PARTICIPATION

RFQ #_____

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

Name of Firm	Certificate Included?

City of Pompano Beach, Purchasing Division
1190 N.E. 3rd Avenue, Building C
Pompano Beach, Florida, 33060

October 11, 2018

ADDENDUM #1, RFQ E-16-18

DESIGN AND CONSULTING SERVICES FOR FIVE BRIDGES WITHIN CITY LIMITS

To Whom It May Concern,

The following changes have been made to RFQ E-16-18:

Addition of “E-16-18 pre-proposal sign-in sheet” to the Attachments Tab.

Addition of Exhibit-F “G-O Bond Project Prioritization List” to the Attachments Tab.

Addition of Financial Statement Requirements to Response Attachments Tab (See requirements below).

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

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

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

The City reserves the right to request additional information to ensure the proposer is financially solvent and has sufficient financial resources to perform the contract and shall provide proof thereof of its financial solvency. The City may as at its sole discretion ask for additional proof of financial solvency, including additional documents post proposal opening, and prior to evaluation that demonstrates the Proposer’s ability to perform the resulting contract and provide the required materials and/or services.

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

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

NOTE: Financial statements that are required as submittals to prequalify for a solicitation will be exempt from public disclosure; however, financial statements submitted to prequalify for a solicitation, and are not required by the City, may be subject to public disclosure
The remainder of the solicitation is unchanged at this time.

Sincerely,

Jeff English, Purchasing Agent

CITY OF POMPANO BEACH
MANDATORY PRE-PROPOSAL CONFERENCE

SIGN IN SHEET

RFQ NUMBER: **E-16-18**

RFQ NAME: **Design and Consulting Services for Five Bridges within City Limits**

DATE: 10/02/18

ATTENDEES NOTE: Furnish complete information.

Name CARA PASQUALE Title Company You Represent MILLER LEGG

Company Mailing Address 5747 N. ANDREWS WAY, Ft. Lauderdale 33309
City State Zip Code

Telephone Number (954) 628-3609 Fax Number (954) 493-6539

Email Address cpasquale@millerlegg.com

Name BRIAN RHEAULT VICE PRESIDENT Title Company You Represent WGI

Company Mailing Address 2035 VISTA PARKWAY FL. 33411
City State Zip Code

Telephone Number (561) 687-2220 Fax Number ( )

Email Address brian.rheault@WGINC.com

Name CHRIS LAFORTE Title Company You Represent WGI

Company Mailing Address 2035 VISTA PARKWAY, WEST PALM BEACH, FL 33411
City State Zip Code

Telephone Number (561) 687-2220 Fax Number (561) 687-1110

Email Address chris.laforte@wginc.com

Name ALAN KLEVENS, PRINCIPAL Title Company You Represent TRANSYSTEMS

Company Mailing Address 3230 W. COMMERCIAL BLVD. SUITE 450, Fort Lauderdale, FL 33309
City State Zip Code

Telephone Number (954) 200-8235 Fax Number ( )

Email Address gaklevens@transystems.com

CITY OF POMPANO BEACH
MANDATORY PRE-PROPOSAL CONFERENCE

SIGN IN SHEET

RFQ NUMBER: **E-16-18**

RFQ NAME: **Design and Consulting Services for Five Bridges within City Limits**

DATE: 10/02/18

ATTENDEES NOTE: Furnish complete information.

Name MATTHEW FURSETTER Title Company You Represent KIMLEY-HORN

Company Mailing Address 1920 WEKIVA WAY City WEST PALM State FL Zip Code 33411

Telephone Number (561) 845 0665 Fax Number ( ) _____

Email Address MATTHEW.FURSETTER@KIMLEY-HORN.COM

Name Sybille Bayard Title Company You Represent Infrastructure Engineers, LLC

Company Mailing Address 10651 N Kendall drive City FL State 33176 Zip Code

Telephone Number (305) 345-7386 Fax Number ( ) _____

Email Address sbayard@go-iei.com

Name TONY BEVILACQUA Title Company You Represent KIMLEY-HORN

Company Mailing Address 1920 WEKIVA WAY City WEST PALM BCH State FL Zip Code 33411

Telephone Number (561) 840-0806 Fax Number (-) —

Email Address anthony.bevilacqua@kimley-horn.com

Name Alan Gerwig Title Company You Represent Alan Gerwig & Assoc. Inc.

Company Mailing Address 12798 W. Forest Hill Blvd, Suite 201 City Wellington State FL Zip Code 33414

Telephone Number (561) 792-9006 Fax Number (561) 792-9904

Email Address agerwig@aga-engineering.com

CITY OF POMPANO BEACH

MANDATORY PRE-PROPOSAL CONFERENCE

SIGN IN SHEET

RFQ NUMBER: **E-16-18**

RFQ NAME: **Design and Consulting Services for Five Bridges within City Limits**

DATE: 10/02/18

ATTENDEES NOTE: Furnish complete information.

Name Raj Krishnasamy / President Title Company You Represent TSF

Company Mailing Address 2765 Vista Parkway, WPB City FL State 33411 Zip Code

Telephone Number (561) 687-8536 Fax Number ( )

Email Address Raj@Tierrasf.com

Name Stan Delmas / Geotechnical Engineer Title Company You Represent H2R Corp

Company Mailing Address 1900 NW 40th Ct City Pompano Beach State FL Zip Code 33064

Telephone Number (561) 972 75 70 / 561 400 7748 Fax Number ( )

Email Address Ydelmas@h2rcorp.com

Name LAKDAS JAYAKKARA Title PRESIDENT Company You Represent LAKDAS YOHALEM ENGINEERING Inc

Company Mailing Address 2211 DE 54th St City Ft Lauderdale State FL Zip Code 33308

Telephone Number ( ) 954 771-0630 Fax Number ( ) 954 771 0519

Email Address LYE@LYEENGINEERING.COM

Name Roberto Vasquez Title Company You Represent Keith & Schnars

Company Mailing Address 5835 Blue Lagoon Drive, suite 303 City Miami State FL Zip Code 33126

Telephone Number (305) 477 7667 Fax Number (305) 477-4474

Email Address rvasquez@ksfla.com

CITY OF POMPANO BEACH
MANDATORY PRE-PROPOSAL CONFERENCE

SIGN IN SHEET

RFQ NUMBER: **E-16-18**

RFQ NAME: **Design and Consulting Services for Five Bridges within City Limits**

DATE: 10/02/18

ATTENDEES NOTE: Furnish complete information.

Name WINSOR C. POZO Title Company You Represent RADKE INTL.

Company Mailing Address 4152 West Blue Heron Blvd Suite 114 West Palm Beach City 33404 State Zip Code

Telephone Number (561-841-0103 Fax Number ( ) _____

Email Address Winsor.Pozo@Radusa.net.

Name VILAS JAIN Title Company You Represent T.Y. Lin International

Company Mailing Address 500 W. Cypress Rd, Ste 330, Ft. Lauderdale FL 33309 City State Zip Code

Telephone Number ( ) 954-308-3353 Fax Number ( ) _____

Email Address vilas.jain@tylin.com

Name Oscar J. Cruz Title Company You Represent HW Lochner

Company Mailing Address 8750 NW 36 Street Miami FL 33178 City State Zip Code

Telephone Number (305) 503-9873 Fax Number (305) 503-9882

Email Address OCruz@hwlochner.com

Name Sahila Sadough Title Company You Represent ASA Consultants, Inc

Company Mailing Address 514 shotgun Rd, suite 402 Sunrise FL 33326 City State Zip Code

Telephone Number (754) 216-2027 Fax Number ( ) N/A

Email Address SSadough@ASAConsultants.us

CITY OF POMPANO BEACH

MANDATORY PRE-PROPOSAL CONFERENCE

SIGN IN SHEET

RFQ NUMBER: **E-16-18**

RFQ NAME: **Design and Consulting Services for Five Bridges within City Limits**

DATE: 10/02/18

ATTENDEES NOTE: Furnish complete information.

Name ERIC HUSKEY Title Company You Represent STANLEY CONSULTANTS

Company Mailing Address 1641 Worthington Road Suite 400 West Palm Beach FL 33409
City State Zip Code

Telephone Number (561) 689-7444 Fax Number (561) 689-3003

Email Address huskeyeric@stanleygroup.com

Name MICHAEL D. CONNER Title SENIOR LANDSCAPE ARCHITECT Company You Represent CALVIN, GIORDANO & ASSOC., INC.

Company Mailing Address 1800 ELLER DRIVE SUITE 600 FT. LAUDERDALE, FL. 33316
City State Zip Code

Telephone Number (954) 266-6469 Fax Number (954) 921-8807

Email Address MCONNER@GGASOLUTIONS.COM

Name Freddie A. Vargas Title Company You Represent CPC

Company Mailing Address 814 S. Military Trail, Deerfield FL 33442
City State Zip Code

Telephone Number (954) 972-3959 Fax Number ( )

Email Address fvargas@CPC-ENG.COM

Name JESS SOWARDS PARTNER Title Company You Represent CURRIE SOWARDS AGUILA ARCHITECTS

Company Mailing Address 185 NE 4TH AVE STE 101 DELRAY BEACH, FL. 33483
City State Zip Code

Telephone Number (561) 276-4951 Fax Number (561) 243-8184

Email Address JESS@CSA-ARCHITECTS.COM.

CITY OF POMPANO BEACH

MANDATORY PRE-PROPOSAL CONFERENCE

SIGN IN SHEET

RFQ NUMBER: **E-16-18**

RFQ NAME: **Design and Consulting Services for Five Bridges within City Limits**

DATE: 10/02/18

ATTENDEES NOTE: Furnish complete information.

Name Millie Radzikhovsky Title Sr. Environmental Scientist Company You Represent BMA-Consulting Engineering

Company Mailing Address 1803 Pembroke Pines Suite 201, FL 33029
City State Zip Code

Telephone Number (954) 744-4691 Fax Number (954) 404-6155

Email Address mradzikhovsky@bma-ce.com

Name _____ Title Company You Represent _____

Company Mailing Address _____
City State Zip Code

Telephone Number ( ) _____ Fax Number ( ) _____

Email Address _____

Name _____ Title Company You Represent _____

Company Mailing Address _____
City State Zip Code

Telephone Number ( ) _____ Fax Number ( ) _____

Email Address _____

Name _____ Title Company You Represent _____

Company Mailing Address _____
City State Zip Code

Telephone Number ( ) _____ Fax Number ( ) _____

Email Address _____

EXHIBIT F

City of Pompano Beach

Proposed G.O. Bond Project Prioritization List

Phase I: Represents design and construction project costs to be funded with the 2018 G.O. Bond sale proceeds

Phase II: Represents construction project costs to be funded with the 2021 G.O. Bond sale proceeds

Project Name		Phase I	Phase II	Comments	Project Description
McNair Park Renovations	$10,647,000	$10,647,000		Design and construction - Phase I	Expand, renovate and equip this multi-functional facility to include lighted synthetic football/soccer field, running track, tennis court, basketball court, playground with water features to include splash pad, meeting rooms, concession and senior center.
Centennial Park Improvements (Sample McDougal House site)	$1,100,000	$137,500	$962,500	Design in Phase I and construction in Phase II	Construct an open-air facility for special events, including City-sponsored and resident events, such as weddings, quinceañeras, bar/bat mitzvah's, parties, anniversaries, receptions, fundraisers and family reunions.
Kester Park Improvements	$1,452,000	$181,500	$1,270,500	Design in Phase I and construction in Phase II	Modernizing this 26-year old park by expanding the playground, open fields, ball fields, replacing dug outs and installation of perimeter fencing.
Mitchell Moore Park Improvements	$1,396,000	$1,396,000		Design and construction - Phase I	Upgrades to this facility built in 1991 will include replacement of a grass field with synthetic (field turf), a new scoreboard, additional bleachers and shade structures over the bleacher area.
North Pompano Park Improvements	$3,190,000	$3,190,000		Design and construction - Phase I	Upgrades to football/soccer field, playground and park, including land acquisition for expansion.

Senior Citizens Center	$8,000,000	$8,000,000		Design and construction - Phase I	Construct new senior citizens center to handle increased demand for senior programs in the northwest sector of City. An upscale building will be constructed on property that needs to be acquired.
Ultimate Sports Park	$4,521,000	$1,431,000	$3,090,000	Design funds and adequate funding to construct skate park component in Phase I. Phase II will include construction of remaining components of the park	A new skate park, soccer/football field and concession/restroom building to be located adjacent to Apollo Park at 1580 NW 3rd Ave.
Fire/Emergency Ops Center	$18,810,000	$1,726,200	$17,083,800	Design in Phase I and construction in Phase II	Construct a new Fire Rescue and Logistics Complex to include an Administrative Center, Emergency Operations Center, and a Fire and EMS distribution center with storage space for emergency apparatus, along with land acquisition for a public parking garage to be located in the Downtown Pompano Transit Oriented Corridor (DPTOC).
Public Safety Complex	$6,600,000	$825,000	$5,775,000	Design in Phase I and construction in Phase II	Renovate interior space of Public Safety Complex located at 100 SW 3rd Street and 120 SW 3rd Street.
A1A Improvements	$16,940,000	$8,470,000	$8,470,000	Project divided in 2 phases. Start from Terramar to Atlantic Boulevard. Phase I to include design and construction of about 50% of the project. Phase 2 to include construction of	Undergrounding overhead utilities on A1A from Hillsboro Inlet to Terra Mar Drive to reduce power outages during storms and improve the aesthetics of the corridor. Improvements to include widening sidewalks, bike lanes, traffic calming, lighting and other streetscape improvements.

				remaining component	
Collier City Neighborhood Improvements	$3,000,000	$3,000,000		Design and construction - Phase I	This project entails analysis, topographic surveying, procurement of necessary easements, design, and installation of light fixtures throughout the Collier City area. This 450-acres neighborhood with approximately 5100 residents and is in need of additional street/pedestrian lighting. The proposed lighting will not only serve to beautify this section of the City, but will also provide for improved safety conditions. In 2010, the Community Redevelopment Agency conducted a survey and 90.6% of survey respondents requested improvements to street lighting due to safety concerns (over 72% of the residents participated in the survey). This initiative will address lighting deficiencies and populate areas that lack tree canopy.
McNab Road Improvements	$10,805,375	$1,225,000	$9,580,375	Design in Phase I and construction in Phase II	Replace functionally obsolete bridge on McNab Road and beautifying McNab Road corridor between Federal Highway and South Cypress Creek Road, paving, related drainage improvements, sidewalks, bus shelters and benches, lighting, landscaping, street furniture and other streetscape improvements.

NE 33rd Street Improvements	$5,975,000	$5,975,000		Design and construction - Phase I	Improvements along NE 33rd Street between Dixie Highway and Federal Highway to include but not be limited to overhead to underground utilities conversion, lighting, irrigation, landscaping, traffic calming, brick paver enhancements, curbing, drainage modifications, paths for shared uses, pavement resurfacing, street furniture and other streetscape improvements.
Palm Aire Neighborhood Improvements	$3,850,000	$481,250	$3,368,750	Design in Phase I and construction in Phase II	Improvements at two bridges spanning the C-14 canal and to the Herb Skolnick Center, including lighting, landscaping and sidewalks.
SE 5th Avenue Bridge Improvements	$2,450,000	$2,450,000		Design and construction - Phase I	Improvements to or replacement and raising of SE 5th Avenue Bridge, built in 1959, based on FDOT's Bridge Management System report which includes recommendations for repairs to the deck and superstructure as well as substructure components to be replaced which includes pilings and jackets.
Terra Mar Drive Bridge Improvements	$1,400,825	$1,400,825		Design and construction - Phase I	Improvements to Terra Mar Bridge, built in 1981, based on FDOT's Bridge Management System report which includes repair and replacement recommendations for the deck, superstructure, and substructure.
	$100,137,200	$50,536,275	$49,600,925		

City of Pompano Beach, Purchasing Division
1190 N.E. 3rd Avenue, Building C
Pompano Beach, Florida, 33060

October 24, 2018

ADDENDUM #2, RFQ E-16-18

DESIGN AND CONSULTING SERVICES FOR FIVE BRIDGES WITHIN CITY LIMITS

To Whom It May Concern,

The following changes have been made to RFQ E-16-18:

The Essential Requirements Questionnaire has been removed from the solicitation.

The Organizational Performance form has been removed from the solicitation.

Addendum #2 is posted on the City's eBid website: http://pompanobeachfl.ionwave.net. Acknowledge receipt of this Addendum using the Addendum Attribute on the Attributes tab in the eBid System.

The deadline for receipt of written questions has passed.

The deadline for acceptance of proposals in the eBid system is **2:00 p.m. (local), October 26, 2018.**

The remainder of the solicitation is unchanged at this time.

Sincerely,

Jeff English, Purchasing Agent

cc: website

City of Pompano Beach, Purchasing Division
1190 N.E. 3rd Avenue, Building C
Pompano Beach, Florida, 33060

October 26, 2018

ADDENDUM #3, RFQ E-16-18

DESIGN AND CONSULTING SERVICES FOR FIVE BRIDGES WITHIN CITY LIMITS

To Whom It May Concern,

The following changes have been made to RFQ E-16-18:

Minority Business Enterprise Participation Form Exhibit "I" has been added to the attachments tab. For firms already having submitted their response, the originally attached Minority Business Enterprise Participation Form, which was labeled Exhibit "A" is acceptable.

Addendum #3 is posted on the City's eBid website: http://pompanobeachfl.ionwave.net. Acknowledge receipt of this Addendum using the Addendum Attribute on the Attributes tab in the eBid System.

The deadline for receipt of written questions has passed.

The deadline for acceptance of proposals in the eBid system is **2:00 p.m. (local), October 26, 2018.**

The remainder of the solicitation is unchanged at this time.

Sincerely,

Jeff English, Purchasing Agent

cc: website

E-16-18 Addendum 3
T.Y. Lin International
Supplier Response

Event Information

Number: E-16-18 Addendum 3
Title: Design and Consulting Services for Five Bridges within City Limits
Type: Request for Qualifications
Issue Date: 9/26/2018
Deadline: 10/26/2018 02:00 PM (ET)
Notes: Pursuant to Florida Statutes Chapter 287.055 "Consultants' Competitive Negotiation Act" the City of Pompano Beach invites professional firms to submit qualifications and experience for consideration to provide professional consulting services to the City for the planning and design of five bridges within City limits.

The City will receive sealed proposals until 2:00 p.m. (local), October_26, 2018. Proposals must be submitted electronically through the eBid System on or before the due date/time stated above. Any proposal received after the due date and time specified, will not be considered. Any uncertainty regarding the time a proposal is received will be resolved against the Proposer.

MANDATORY PRE-PROPOSAL CONFERENCE
A mandatory pre-proposal conference will be held on October 2 2018 beginning at 3:00 p.m. (local) in the Engineering Large Conference Room, 1201 N. E. 5th Avenue, Pompano Beach, Florida 33060. Proposals will not be accepted from firms that do not attend the pre-

proposal conference.

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

Contact Information

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

T.Y. Lin International Information

Address: 1501 NW 49th Street, Suite 203
Fort Lauderdale, FL 33309
Phone: (954) 491-5556

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

Darisley Arcia
Signature

darisley.arcia@tylin.com
Email

Submitted at 10/26/2018 8:59:44 AM

Requested Attachments

Solicitation Proposal TYLI Pompano Beach Bridge Rehab Proposal.pdf

Reviewed and Audited Financial Statement TYLI Financials 2017 (reduced size).pdf

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

Bid Attributes

1	**Conflict of Interest** For purposes of determining any possible conflict of interest, all bidders must disclose if any City of Pompano Beach employee is also an owner, corporate officer, or employee of their business. Indicate either "Yes" (a City employee is also associated with your business), or "No". (Note: If answer is "Yes", you must file a statement with the Supervisor of Elections, pursuant to Florida Statutes 112.313.)Indicate yes or no below with the drop down menu. No
2	**Drug-Free Workplace** Whenever two or more bids which are equal with respect to price, quality, and service are received for the procurement of commodities or contractual service, a bid received from a business that certifies that it has implemented a Drug-free Workplace Program shall be given preference in the award process. If bidder's company has a Drug-free Workplace Program as outlined in General Conditions, section 32., indicate that by selecting yes in the drop down menu. Yes

3 **Vendor Certification Regarding Scrutinized Companies Lists (Over $1,000,000.00)**

Section 287.135, Florida Statutes, prohibits agencies from contracting with companies, for goods or services over $1,000,000, that are on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List. Further, Section 215.4725, Florida Statutes, prohibits agencies from contracting (at any dollar amount) with companies on the Scrutinized Companies that Boycott Israel List, or with companies that are engaged in a boycott of Israel. As the person authorized to electronically sign on behalf of Respondent, I hereby certify by selecting the box below that the company responding to this solicitation is not listed on the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or the Scrutinized Companies that Boycott Israel List. I also certify that the company responding to this solicitation is not participating in a boycott of Israel, and is not engaged in business operations in Syria or Cuba. I understand that pursuant to sections 287.135 and 215.4725, Florida Statutes, the submission of a false certification may subject company to civil penalties, attorney's fees, and/or costs.

Certified

4 **Acknowledgement of Addenda**

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

Yes

T·Y·LIN INTERNATIONAL

Architectural Visualization of McNab Road Bridge

pompano beach
Florida's Warmest Welcome

Design and Consulting Services for Five Bridges within City Limits

CITY OF POMPANO BEACH REQUEST FOR QUALIFICATIONS E-16-18

October 26, 2018

T.Y. LIN INTERNATIONAL
500 W Cypress Creek Road, Suite 330 | Fort Lauderdale, FL 33309
(954) 491-5556

Title PAGE

City of Pompano Beach
Request for Qualifications
E-16-18

October 26th, 2018

DESIGN AND CONSULTING SERVICES FOR FIVE BRIDGES WITHIN CITY LIMITS

TY LIN INTERNATIONAL
FEIN No. 94.1598707

500 W Cypress Creek Road
Suite 330
Fort Lauderdale, FL 33309
P: (954) 491-5556
F: (954) 491-6117

Authorized Representative
Joseph Yesbeck, PE
Vice President
Joseph.yesbeck@tylin.com

Table Of Contents

TY LIN INTERNATIONAL

Letter of Transmittal

Letter Of Transmittal

October 26, 2018

Mr. Jeffrey English
Purchasing Agent
City of Pompano Beach
Purchasing Office
1190 NE 3rd Ave, Bldg. C (front)
Pompano Beach, FL 33060

RE: City of Pompano Beach, Request for Qualifications E-16-18
Design and Consulting Services for Five Bridges within City Limits

Dear Mr. English:

T.Y. Lin International (TYLI) is pleased to respond to the City of Pompano Beach's Request for Qualifications (RFQ) for the Design and Consulting Services for Five Bridges within City Limits.

Our team is eager to begin work on this project involving the replacement or if possible, the rehabilitation of five bridges within the City of Pompano: The 5th Avenue Bridge, McNab Bridge, Terra Mar Bridge, Palm Aire Bridge to the Herb Skolnick Center and Palm Aire Bridge over the C-14 Canal. These bridges all have structural deficiencies including but not limited to substandard traffic railings and pedestrian or bicycle facilities. All five bridges are located in residential areas connecting neighborhoods. We understand extensive community outreach and coordination will be required to obtain residents' input to identify their specific concerns and vision for their bridges and adjoining roadway approaches. With these goals in mind to make the City of Pompano Beach more attractive to residents, visitors and tourists and promote economic growth and activity - these bridge and roadway projects will require highly aesthetic features. TYLI is prepared to provide the City this high level of expertise and fusion between beauty and function that is required for this project.

Founded in 1954, TYLI is a full-service engineering firm with offices throughout the nation and Florida offices in Ft. Lauderdale, Coral Gables, Orlando, Tampa and Ft. Myers. For over 60 years, our firm has provided a full complement of professional engineering, planning, environmental, and construction administration services nationally and in South Florida with a focus on local municipalities.

TYLI's is firmly rooted in the design of bridges and is recognized worldwide for excellence and innovation in bridge engineering. This is reiterated by our clients worldwide who consistently rank TYLI among the top 15 Bridge Design firms for nearly a decade in the Engineering News Record rankings. We have designed marquee bridges such as the single-tower Self-Anchored Suspension span of the new San Francisco-Oakland Bay Bridge in California, the innovative Hoover Dam Bypass Bridge in Nevada and Arizona, and the Eller Drive and Intermodal Container Transfer Facility (ICTF) Overpass in Fort Lauderdale for the Florida Department of Transportation (FDOT) District 4.

Many of our bridge designs are of smaller scale, in neighborhood contexts, and focused on accommodating all modes of transportation: motorists, bicyclists, and pedestrians.

Our experienced bridge engineers apply innovation and expertise to promote designs that are a collaboration between the engineer and the community, culminating in definitive and oftentimes artful structures that serve a plethora of uses. We will address the critical need for safety for non-motorized modes of travel (pedestrians and bicyclists) where previously the safety

Letter Of Transmittal

of motorized vehicles was the priority. We will strive to design these bridge crossings to satisfy not only practical requirements, but also equally pressing issues such as promoting a livable and aesthetically pleasing urban environment for Pompano Beach. No longer is it just about getting people from point-to-point on foot. Neighborhood bridges must accommodate all modes and generate community pride serving as landmarks in their own right. TYLI will skillfully design these neighborhood bridges to be not only beautiful, but also structurally efficient and cost-effective, exceeding your objectives and the community's expectations meeting all operational criteria and design standards; and responding to environmental sensitivities, ongoing traffic, and site conditions.

To ensure the project's success, TYLI has selected, Betsy Jeffers, PE, as our project manager to lead the team from our office in Ft. Lauderdale that is just minutes away from the City's offices. An FDOT veteran with 27 years of project management experience, Ms. Jeffers has the technical, planning, and organizational expertise to assure the completion of contract tasks on schedule, within the established budget, and to the City's complete satisfaction. Ms. Jeffers has successfully managed many bridge and roadway projects for the Florida Department of Transportation and local municipalities such as Pompano Beach and Ft. Lauderdale.

TYLI has structured a local team with six sub-consultants whose members are experts in their respective fields and who approach their work with innovation, state-of-the-art technology and fresh ideas. Four of our six-team member firms have local Broward County offices and are located within minutes of the City's offices. The fifth and sixth members, Blot Engineering and HLB Lighting are specialty firms with unique capabilities in underwater bridge inspection and decorative lighting respectively. We commit to 20% City of Pompano local vendor participation on this contract. The entire TYLI Team of six firms can apply their local relevant experience to the successful delivery of any of these five bridges in Pompano. Several of our team members have excellent working relationships having collaborated frequently on past projects:

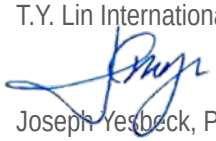
- Keith & Associates (Pompano Beach local vendor)
- DK Architects (Pompano Beach local vendor)
- HR2 Corporation
- Calvin, Giordano & Associates
- Bolt Engineering
- HLB Lighting

T. Y. Lin International will be the primary firm (FEIN No. 94.1598707), located at 500 West Cypress Creek Road, Suite 330, Ft. Lauderdale, Florida 33309. The contact person is James Kanter, PE, the Ft. Lauderdale Unit Manager (james.kanter@tylin.com); Office: (954) 491-5556, Fax: (954) 491-6117, Cell: (954) 997-0371.

Throughout this proposal we will demonstrate our experience with bridge and roadway design. We pledge to the City of Pompano Beach our solid commitment to deliver quality services on time and to exceed your expectations. We appreciate this opportunity to present our qualifications and look forward to serving the City on this important project.

If you should have any questions or require additional information, please contact me.

Sincerely,
T.Y. Lin International



Joseph Yesbeck, PE
Vice President
Joseph.yesbeck@tylin.com

T·Y·LIN INTERNATIONAL

Technical Approach

Technical Approach

Approach to Bridge Design (Engineering and Architecture)

An important factor in judging project success is achieving balance between aesthetic enhancements with functional and constructible solutions.

Objective

Our team is eager to begin work on this project involving the replacement or if possible, the rehabilitation of five bridges within the City of Pompano: The 5th Avenue Bridge, McNab Bridge, Terra Mar Bridge, Palm Aire Bridge to the Herb Skolnick Center and Palm Aire Bridge over the C-14 Canal. These bridges all have structural deficiencies including but not limited to substandard traffic railings and pedestrian or bicycle facilities. All five bridges are located in residential areas connecting neighborhoods. We understand extensive community outreach and coordination will be required to obtain residents' input to identify their specific concerns and vision for their bridges and adjoining roadway approaches. With the goals in mind to make the City of Pompano Beach more attractive to residents, visitors and tourists and promote economic growth and activity - these bridge and roadway projects will require highly aesthetic features. TYLI is prepared to provide the City this high level of expertise and fusion between beauty and function that is required for this project.

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Bridge Engineering

1. Bridge No. 868108 – McNab Road Bridge Over Cypress Creek Canal (C-14)

Roadway

The existing corridor of McNab Road from Federal Highway to South Cypress Creek Road is a two-lane collector road with residential and commercial mixed use. There are sidewalks on both sides of the road throughout most of the roadway segment but no bicycle facilities. The TYLI team proposes to provide a Complete Street Typical which accommodates a variety of transportation modes with two 11' lanes to accommodate buses and service trucks, 6' buffered bicycle lanes, 8' swales and 5' sidewalks. This typical section can be attained by widening 4' in each side. Pinch points at the intersections will be curbed and realigned in order to maintain 5' bicycle lanes. Landscape impacts will be analyzed once the survey is complete and design will be adjusted to minimize impacts to the lavish tree line. Ditch bottom inlets will need to be relocated to accommodate the widening for the bicycle lanes. In the area in front of the shopping center where circulation of the parking lot is within the city's right of way, we recommend bringing in the sidewalk towards the roadway next to the bike lane and adding a drop curb to delineate the pedestrian and bicycle area. This allows the businesses to continue to maintain the same access they currently have. We do not anticipate any impacts to the FPL facilities in the corridor as we will design around them. Locations for midblock crossings will be studied and implemented to better serve the community and provide safe access to businesses along the corridor

Existing Bridge

The existing bridge, constructed in 1959 (59 yrs old), carries EB & WB traffic along McNab Road (SE 15th St) over the Cypress Creek Canal (C-14). It is a 5-span concrete structure with a total bridge length of approximately 153-ft. The superstructure consists of concrete precast panels supported on intermediate pile bents. The bridge width is approximately 42-ft with a roadway width of approximately 28-ft. The bridge roadway section is symmetrical with a traffic lane, 2-ft shoulder, raised curb and sidewalk on each side. The bridge is currently posted for weight restrictions with signs at both approach ends of the bridge. Based on the latest inspection reports the overall condition of the bridge is classified as "Fair" and it structural appraisal is classified as "Somewhat better than minimum adequacy to tolerate being left in place as is". Other key classifications to note are as follows:

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- Status: Functionally Obsolete
- Historic significance: Bridge is not eligible for the National Register of Historic Places
- Deck condition: Fair
- Superstructure condition: Fair
- Substructure condition: Satisfactory

Upon visual inspection, it was noted that the bridge has been subject to some deck and substructure repairs in the past, but there are still signs of distress on the structure. Combination of factors, including age, loading restrictions and current condition of the existing bridge make this bridge a good candidate for bridge replacement.

Bridge Design

Our bridge replacement approach envisions an upgrade on aesthetics for the bridge while remaining conscious of construction budgets and maintenance. Enhancements features can include a reduction on the number of spans for the same bridge length, use of arched fascia beams, and aesthetic railings and lighting poles. The reduction in intermediate piers have the advantage of providing a wider horizontal clearance; hence, a safer traffic of boats under the bridge. The superstructure will be a cast-in-place slab, precast concrete panels, reinforced or prestressed concrete beams. The superstructure type will be dictated by the desired aesthetic enhancements and final span arrangement. Another important aspect of consideration will be the selection of the foundation type, and construction requirements that minimize vibration and settlement of the surrounding structures, especially the existing seawalls.

Architectural Visualization of McNab Road Bridge

The vertical profile of the bridge will be maintained as to minimize impacts to the approaching roads and residences. The bridge cross section will make provisions for a raised sidewalk for safe pedestrians crossing. The use of ABC implementing precast elements will be the upmost consideration with the goal of reducing construction time and minimizing disruption to the community. Bridge design will be based on the most current FDOT practices for structures located in saltwater/corrosive environments with the objective of provide a long-lasting structure.

Constructability

The replacement of the McNab Road Bridge presents a variety of constructability challenges that our team will need to address. There are two options for constructing the replacement of this bridge with each having their respective advantages and disadvantages:

1) Construct the bridge in two phases, or
2) Complete closure of the bridge and construct in one phase.

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1) Construct the Bridge in Phases: Based upon our review of the existing structures, it appears that this 2-lane bridge can be divided in half along the approximate centerline +/- 3-ft to allow for temporary barriers and minimum shoulder. This would allow the contractor to demolish one side of the bridge while one lane reversible traffic is maintained on the bridge itself. In order to control traffic, temporary signals would be installed at each approach to the bridge with a timed signal that would allow traffic only in one direction to cross the existing 1-lane bridge during each signal cycle.

Advantages: Local traffic would not need to be re-routed to access either side of the bridge.
Disadvantages: Overall construction duration would be longer and there would be additional MOT costs associated with the temporary signals.

2) Construct with a Full Bridge Closure: This approach would allow the contractor unobstructed access to the bridge. Demolition would be done in a single phase and then new substructure and superstructure work would follow.

Advantages: Construction duration would be reduced at least by 50 percent. The risk of accidents within the Work Zone would be reduced since the bridge would be completely closed off to vehicular, bicycle, and pedestrian traffic. This alternative would also result in low MOT costs.
Disadvantages: Local residents, such as from the Cypress Club Private Condominiums, and local business would be the most impacted during the full closure. Anticipated MOT routes to the south will be the use of Cypress Creek Road (NE 62nd St). MOT routes to the north will use E. Atlantic Blvd.

Other Constructability Issues: Regardless of which option is chosen to construct the bridge, the actual construction will be difficult due to the lack of available right-of-way for staging of equipment and personnel. More than likely, some construction activities will need to take place from the water on small barges and/or pontoons on the north or south side of the bridge. The waterway connects to the Intracoastal Waterway (ICWW) allowing for transport of equipment and materials. However, it will require blocking of local recreational marine traffic during many of these operations, which will necessitate, at the very least, consultation with the United States Coast Guard (USCG) and possible permit with restrictions on closure times.

Existing utilities that are attached on the north side of the bridge will need to be relocated during the demolition process for either construction option. Utilities may have to be placed on a temporary support structure until the bridge is constructed if the ultimate design calls for placing them on the bridge. However, it may be more effective to relocate them permanently to either subaqueous (under the canal bottom) crossing or with their own permanent structure.

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2. Bridge No. 868101 – Palm Aire Drive West Bridge Over Cypress Creek Canal (C-14)

Existing Bridge

The existing bridge, constructed in 1971 (47 yrs old), carries EB & WB traffic along Palm Aire Drive over the Cypress Creek Canal (C-14). It is a 5-span concrete structure with a total bridge length of approximately 115-ft. The superstructure consists of concrete precast panels supported on intermediate pile bents. The bridge width is approximately 35-ft with a roadway width of approximately 28-ft. The bridge roadway section has a single lane of traffic in each direction, raised curb and railing on the south side and a raised curb with sidewalk and railing on the north side. The bridge is currently posted for weight restrictions with signs at both approach ends of the bridge. Based on the latest inspection reports the overall condition of the bridge is classified as "Good" and it structural appraisal is classified as "Somewhat better than minimum adequacy to tolerate being left in place as is". Other key classifications to note are as follows:

- Status: Functionally Obsolete
- Historic significance: Bridge is not eligible for the National Register of Historic Places
- Deck condition: Good
- Superstructure condition: Good
- Substructure condition: Good

Bridge Design

Prior to commencement of bridge design, a load rating analysis must be performed to best determine whether widening/rehab is feasible or if replacement is required to accommodate roadway improvements to the bridge cross section. The purpose of the load rating is to determine the safe load carrying capacity of the bridge and posting of the bridge when legal loads cannot be safely carried. As indicated in the prior section, the bridge is currently posted and will therefore, most likely not satisfy the widening/rehab rating criteria. For such cases, the bridge can be 1) either strengthened, 2) replaced or 3) apply for a design variation explaining why strengthening is not practical and/or replacement is not warranted.

Our bridge replacement approach envisions an upgrade on the bridge cross section to meet current roadway standards. Proposed enhancements will include addition of lighting on the bridge, railing upgrades, sidewalks on both sides and landscaping on the bridge approaches. The vertical profile of the bridge will be maintained as to minimize impacts to the approaching roads and residences. The proposed bridge will remain as a concrete structure based on cost efficiency and reduced maintenance utilizing members similar to those of the existing structure. The superstructure will be a cast-in-place slab or utilize precast concrete panels. The substructure will comprise of pile bents utilizing prestressed concrete piles. Bridge design will be based on the most current FDOT practices for structures located in saltwater/corrosive environments with the objective of provide a long-lasting structure.

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The bridge widening approach is to widen the structure to accommodate current roadway standards. Proposed enhancements will include the same features as the replacement option. The superstructure and substructure elements will match those of the existing and the design will be based on current FDOT practices as well. However, based on existing conditions and proposed upgrades, full bridge replacement is the recommended option.

Roadway Approaches

The intersections on either side of the bridge will be upgraded to handle pedestrian and bicycle connections to existing trails. Crosswalks will be marked per MUTCD.

Constructability

There are two options for constructing the replacement of this bridge with each having their respective advantages and disadvantages:

1) Construct the bridge in two phases, or
2) Complete closure of the bridge and construct in one phase.

1) Construct the Bridge in phases: Based upon our review of the existing structures, it appears that this 2-lane bridge can be divided in half along the approximate centerline +/- 3-ft to allow for temporary barriers and minimum shoulder. This would allow the contractor to demolish one side of the bridge while one lane reversible traffic is maintained on the bridge itself. To control traffic, flagmen would be installed during construction hours, at each approach to the bridge to allow traffic only in one direction to cross the existing 1-lane bridge. During non-construction work hours, the bridge would be closed.

Advantages: Local traffic would not need to be re-routed to access either side of the bridge.
Disadvantages: Overall construction duration would be longer and there would be additional MOT costs.

2) Construct with a Full Bridge Closure: This approach would allow the contractor unobstructed access to the bridge. Demolition would be done in a single phase and then new substructure and superstructure work would follow.

Advantages: Construction duration would be reduced at least by 50 percent. The risk of accidents within the Work Zone would be reduced since the bridge would be completely closed off to vehicular, bicycle, and pedestrian traffic. This alternative would also result in low MOT costs.

Disadvantages: Although residents from the neighboring apartments, the Herb Skolnick Center and local business would be the most impacted during the full closure, the impact will be minimal. The basis is that the adjacent bridge (868114) is approximately 375 yds to the north. It is important to note that the impact is assumed to be minimal as long as the construction is not concurrent with the construction of the adjacent bridge.

Therefore, our initial recommendation is for full closure of the Bridge while maintaining the adjacent Palm Aire Bridge (868114) open to traffic.

Technical Approach

Other Constructability Issues: Existing utilities that are attached on both sides of the bridge will be need to be relocated during the demolition process for either construction option. Utilities may have to be placed on a temporary support structure until the bridge is constructed - if the ultimate design calls for placing them on the bridge. Additional aesthetic enhancements would be to hide or place the utilities in a subaqueous crossing if feasible.

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3. Bridge No. 868114 – Palm Aire Drive North Bridge Over Cypress Creek Canal (C-14)

Existing Bridge

The existing bridge, constructed in 1980 (38 yrs old), carries EB & WB traffic along Palm Aire Drive over the Cypress Creek Canal (C-14). It is a 5-span concrete structure with a total bridge length of approximately 153-ft. The superstructure consists of concrete precast panels supported on intermediate pile bents. The total bridge width is approximately 47-ft with a roadway width of approximately 40-ft. The bridge roadway section has a single lane of traffic in the eastbound direction and two lanes in the westbound direction, raised curb and railing on the north side and a raised curb with sidewalk and railing on the south side. The bridge is currently posted for weight restrictions with signs at both approach ends of the bridge. Based on the latest inspection reports the overall condition of the bridge is classified as "Good" and it structural appraisal is classified as "Better than present minimum criteria". Other key classifications to note are as follows:

- Status: Functionally Obsolete
- Historic significance: Bridge is not eligible for the National Register of Historic Places
- Deck condition: Good
- Superstructure condition: Good
- Substructure condition: Good

Bridge Design

Refer to the bridge design section for the Palm Aire Drive West Bridge (868101) since these bridges will adhere to the similar design approach.

Constructability

Refer to the constructability section for the Palm Aire Drive West Bridge (868101) since these bridges have similar location, type and proposed enhancement characteristics. Note that existing utilities are currently only on the south side of the bridge.

Similar to the adjacent Palm Aire Bridge (868101), our initial recomendation is for full closure of the Bridge while maintaining the adjacent Bridge open to traffic.

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4. Bridge No. 868109 – SE 5th Avenue Bridge Over Cypress Creek Canal (C-14)

Existing Bridge

The existing bridge, constructed in 1959 (59 yrs old), carries NB & SB traffic along SE 5th Avenue over the Cypress Creek Canal (C-14). It is a 5-span concrete structure with a total bridge length of approximately 98-ft. The superstructure consists of concrete precast panels supported on intermediate pile bents. The total bridge width is approximately 35-ft with a roadway width of approximately 26-ft. The bridge roadway section is symmetrical with a traffic lane, raised curb and sidewalk on each side. The bridge is currently not posted for weight restrictions. Based on the latest inspection reports the overall condition of the bridge is classified as "Fair" and it structural appraisal is classified as "Somewhat better than minimum adequacy to tolerate being left in place as is". Other key classifications to note are as follows:

- Status: Functionally Obsolete
- Historic significance: Bridge is not eligible for the National Register of Historic Places
- Deck condition: Satisfactory
- Superstructure condition: Satisfactory
- Substructure condition: Fair

Upon visual inspection, it was noted that the bridge has been subject to some deck and substructure repairs in the past, but there are still signs of distress on the structure. Combination of factors, including age, existing conditions, substandard roadway characteristics and increase of the vertical clearance for boat traffic make this bridge a good candidate for bridge replacement.

Bridge Design

Our bridge replacement approach envisions an upgrade on the bridge cross section to meet current roadway standards. by providing 6' sidewalks on both sides, 2-12' lanes and bicycle height traffic railings. The key enhancement is to raise the vertical profile of the bridge at midspan to provide an increase in horizontal clearance underneath to boat traffic. Impacts to the approaches and residences on both sides of the bridge will be minimized, as the profile touchdown at the bridge ends will closely match the existing. The proposed bridge will remain as a concrete structure based on cost efficiency and reduced maintenance utilizing members similar to those of the existing structure. The superstructure will be cast-in-place or utilize precast concrete panels. The cast-in-place alternative does offer the advantage of continuity, which will help in increasing span lengths and minimizing the superstructure depth. Increase in the span lengths could provide for a 3-span arrangement, reduce the number of foundations and would provide 10 – 15-ft of additional horizontal clearance for boat traffic. The substructure will comprise of pile bents utilizing prestressed concrete piles. Bridge design will be based on the most current FDOT practices for structures located in saltwater/corrosive environments with the objective of provide a long-lasting structure.

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Roadway approaches

Approaches to the bridge will be upgraded to meet ADA criteria as we connect to existing sidewalks. Special care will be needed as we connect to the driveways immediately next to the bridge and to the collection of storm water within the right of way.

Constructability

There are two options for constructing the replacement of this bridge with each having their respective advantages and disadvantages:

1) Construct the bridge in two phases, or
2) Complete closure of the bridge and construct in one phase.

1) Construct the Bridge in phases: Based upon our review of the existing structures, it appears that this 2-lane bridge can be divided in half along the approximate centerline +/- 3-ft to allow for temporary barriers and minimum shoulder. This would allow the contractor to demolish one side of the bridge while one lane of reversible traffic is maintained on the bridge itself. In order to control traffic, flagmen would be installed during construction hours, at each approach to the bridge to allow traffic only in one direction to cross the existing 1-lane bridge. During non-construction work hours, the bridge would be closed

Advantages: Local traffic would not need to be re-routed to access either side of the bridge.
Disadvantages: Overall construction duration would be longer and there would be additional MOT costs.

2) Construct with a Full Bridge Closure: This approach would allow the contractor unobstructed access to the bridge. Demolition would be done in a single phase and then new substructure and superstructure work would follow.

Advantages: Construction duration would be reduced at least by 50 percent. The risk of accidents within the Work Zone would be reduced since the bridge would be completely closed off to vehicular, bicycle, and pedestrian traffic. This alternative would also result in low MOT costs.

Disadvantages: Although residents from the neighboring homes would be the most impacted during the full closure, they would still have access to their homes without major detours and the overall impact to their routines would will be minimal. There exists a network of local streets that can be used to navigate to and from nearby principal arterial corridors.

Therefore, our initial recommendation is for full closure of the Bridge.

Other Constructability Issues: Existing utilities that are attached on the east side of the bridge will be need to be relocated during the demolition process for either construction option. Utilities may have to be placed on a temporary support structure until the bridge is constructed if the ultimate design calls for placing them on the bridge. It is anticipated that the actual construction will be difficult due to the lack of available right-of-way for staging of equipment.

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5. Bridge No. 864040 – Terra Mar Drive Bridge Over Spanish River

Existing Bridge

The existing bridge, constructed in 1981 (37 yrs old), carries EB & WB traffic along Terra Mar Drive over Spanish River. It is a 4-span concrete structure with a total bridge length of approximately 136-ft. The superstructure consists of concrete precast panels supported on intermediate pile bents. The total bridge width is approximately 38-ft with a roadway width of approximately 30-ft. The bridge roadway section has a single lane of traffic in each direction, raised curb and railing on the north side and 2-ft shoulders on each side. The bridge is currently not posted for weight restrictions. Based on the latest inspection reports the overall condition of the bridge is classified as "Fair" and it structural appraisal is classified as "Equal to present minimum criteria". Other key classifications to note are as follows:

- Status: Functionally Obsolete
- Historic significance: Bridge is not eligible for the National Register of Historic Places
- Deck condition: Good
- Superstructure condition: Good
- Substructure condition: Satisfactory

Upon visual inspection, it was noted that the bridge has been subject to some deck and substructure repairs in the past, but there are still signs of distress on the structure. Combination of factors, including loading restrictions, current conditions and substandard roadway requirements warrant either bridge widening/rehab or bridge replacement. In its current configuration, there are no existing sidewalks approaching the bridge from the east (A1A).

Bridge Design

Prior to commencement of bridge design, a load rating analysis must be performed to best determine whether widening/rehab is feasible or if replacement is required to accommodate roadway improvements to the bridge cross section. The purpose of the load rating is to determine the safe load carrying capacity of the bridge and posting of the bridge when legal loads cannot be safely carried. As indicated in the prior section, the bridge is currently posted and will therefore, most likely not satisfy the widening/rehab rating criteria. For such cases, the bridge can be 1) either strengthened, 2) replaced or 3) apply for a design variation explaining why strengthening is not practical and/or replacement is not warranted.

Our bridge replacement/rehab approach envisions an upgrade on the bridge cross section to meet current roadway standards. Proposed enhancements will include addition of lighting on the bridge, railing upgrades, sidewalks on both sides and landscaping on the bridge approaches. We will coordinate with the City to evaluate the possibility of adding side

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walk at least on the north side of the road to provide safe page for pedestrians approaching from the east. The vertical profile of the bridge will be maintained as to minimize impacts to the approaches and residences. The proposed bridge will remain as a concrete bridge based on cost efficiency and reduced maintenance utilizing members similar to those of the existing structure. The superstructure will be cast-in-place or utilize precast concrete panels. The substructure will comprise of pile bents utilizing prestressed concrete piles. Bridge design will be based on the most current FDOT practices for structures located in saltwater/corrosive environments with the objective of provide a long-lasting structure.

The bridge widening approach is to widen the structure to accommodate current roadway standards. Proposed enhancements will include the same features as the replacement option. The superstructure and substructure elements will match those of the existing and the design will be based on current FDOT practices as well.

Roadway Approach

Terra Mar Drive is the one and only entrance to this water bound community. However, it does not have existing pedestrian facilities. Walkers, bikers and motor vehicles must share the same area. Providing a safe complete street which provides parking, pedestrian and bicycle areas as well as motor vehicle access is a challenge but a worthy goal for this small segment of roadway. To accomplish this goal sidewalk easements maybe needed from adjacent properties. Two 10' lanes with valley gutters and an 8' path on one side would provide a safe area for pedestrians and allow families to walk and bike to the beach in a safer environment and still provide for on-street parking. The 8' path can be enhanced with stamped concrete or brick pavers to provide an aesthetically pleasing entrance to the community.

Constructability

The only option available for the widening/rehab or replacement of this bridge is to perform the construction in two phases. This bridge is the only access from the residents from the Terra Mar Island to Ocean Blvd (A1A). Therefore, full closure of the bridge is not permissible.

1) Construct the Bridge in phases: Based upon our review of the existing structures, it appears that this 2-lane bridge can be divided in half along the approximate centerline +/- 3-ft to allow for temporary barriers and minimum shoulder. This would allow the contractor to demolish one side of the bridge while one lane reversible traffic is maintained on the bridge itself. To control traffic, temporary signals would be installed at each approach to the bridge with a timed signal that would allow traffic only in one direction to cross the existing 1-lane bridge during each signal cycle. The existing access control arms would have to be removed temporarily during construction to allow vehicles to cross the bridge expeditiously during construction.

Other Constructability Issues: Existing utilities that are attached on the south side of the bridge will need to be relocated during the demolition process for either construction option. Utilities may have to be placed on a temporary support structure until the bridge is constructed if the ultimate design calls for placing them on the bridge. It is anticipated that the actual construction will be difficult due to the lack of available right-of-way for staging of equipment.

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Bridge Architecture

Every project is special and different. Fortunately, with decades of bridge-specific architecture experience, TYLI's Bridge Architecture team has developed a time-tested framework to streamline the design process. Whether it's a small pedestrian bridge or a world record span, our approach remains the same.

Architecture Design Philosophy

Our approach to architectural design is focused on two key principles, Context Sensitive Design and Holistic Design.

Context Sensitive Design

Understanding the project context is paramount in every project. From structural constraints to circulation paths, users to view-sheds, budgets to birds, history to future, the context is unique to each project. Understanding and integrating this rich tapestry of elements into one design results in a project that truly celebrates its special place in the world. Architecture is a mixing bowl, and the more ingredients we can include the better. And since no two site contexts are the same, none of our bridge designs are the same either.

Holistic Design

Bridge projects are complex and therefore require a diverse project team of specialists. When the bridge is completed and viewed by the public it is seen as one single entity. Thus, it is imperative that the architectural design unifies all the diverse elements of the project into one cohesive vision. At the outset, we work with the stakeholders to establish a set of core tenets that will universally govern all aspects of the project. Whether it's an architectural style, like historic or contemporary, or a community perspective, like bike-centric or nature-friendly, these guiding principles establish a theme that everything is judged against. Then we continually reference this theme as we develop the project from large to small elements, from structure type all the way down to railing bolts.

Visualizations

As an integral part of our Bridge Architecture services, we have always had world-class visualization capabilities in-house. Accurate imagery is essential to creating the clear project vision that puts the client and the design team on same page and makes the process run smoothly. Furthermore, the public has come to expect nothing but the highest quality visualizations for every project, which is exactly what TYLI strives to deliver.

One of the many advantages of having our visualization resources in-house is that visualizations can run in parallel with bridge concept development. The two are intrinsically linked. This more immediate feedback from bridge designer to graphic designer improves the realism of the presentations and the reliability of communications with stakeholders. We can integrate architectural considerations into the structural development more efficiently by having it all work under a single lead designer.

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Tools: TYLI has a whole suite of state-of the art visualization tools.

- Video animations offer stakeholders essential fly-through perspectives which are of great benefit on complex projects where a still image is not enough.
- 3D printers allow us to generate detailed physical models, quickly illustrating a complex component or showcasing a final design in permanent splendor.
- Integration with smart phone technology allows us to generate augmented reality videos – three-dimensional animations that move as you move your phone. Stakeholders can stand on a street corner and, through their phone, look around at what will soon be built on the site before them.
- Virtual Reality, and finally, what fun would visualization be without a little virtual reality (VR)? We can generate VR experiences which virtually put users on the bridge – looking up through the structure to the sky above and leaning out over the railing to see the river below.

Drawings and Beyond

Technological advances over the last few years have changed the role of drawings and visualizations. What was once the last step in a long design process has now become an integral part of the engineering/architecture work flow. Our advanced 3D computer modeling for visualization capabilities can also benefit the engineering team throughout design development in many ways. Using the same state-of-the-art, parametric 3D modeling software we use to produce amazing images, we can build detailed engineering information in virtual time and space. Like BIM for bridges, we utilize these precision 3D drawing tools to test accuracies, clearance envelopes, component conflicts, and complex geometries of critical details, not to mention produce conventional 2D drawings with utmost efficiency. This enhanced information modeling improves the accuracy of the product, which often leads to cost and scheduling savings further down the line.

Public Engagement Program

Our work plan is designed to ensure forward progress. Bridge aesthetic design is a distinct architectural challenge. Balancing the triple threat of massive public input, with raw structural and technical realities, with the subjective world of artistic creativity can potentially create a slippery slope of endless revision. To keep things moving forward, the architect must be a mediator and motivator as well as a designer. It is essential to establish public trust early on, set out a clear series of steps in the process for all to see, and keep the momentum rolling from one decision to the next.

- Establish a Community Relationship: People feel a strong sense of pride and ownership in civic bridge projects. They want to be a part of the process, and rightly so – it is their bridge. In order for the public to trust us with their bridge, we must first show faith in them. So, in our meetings, presentations, and documents, we trust the community and stakeholders to understand the project constraints and goals – the structural realities, site challenges, budget, etc. We communicate what our process will be, laying out key milestones and future opportunities for feedback. We are transparent about our decisions along the way. We listen to their input, incorporating as much as possible in each iteration. And, of course, we are creative with our solutions.

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- Quantify Discussions: Part of the challenge of discussing aesthetics is that it is subjective. There is often no "right answer." The language used to describe aesthetics is full of adjectives which are difficult to quantify, but to move forward with the design we need to establish a clear direction from the community. Through decades of experience, we have developed techniques to turn discussion into data. For example, on public surveys and questionnaires we prefer using a number-based response system. Rather than asking open ended questions ("tell us what you'd like to see"), we phrase questions as a binary choice ("do you prefer the 1)arch or 2)truss?"), or a numerical vote ("on a scale of 1-5, how important is an iconic structure to you?"). As a result, we can show clear statistical results at the next meeting, illustrating the evidence behind our design decisions.

- Multi-Faceted Outreach: Public meetings and workshops are vital to obtain community feedback, but it doesn't end there. We've had cases of outstanding public turnout where around 150 people attended our first public workshop. But even then, the total community population of 35,000 is vastly underrepresented. We therefore recommend supplementing the public meetings with a secondary means of input. We can collaborate with the city to pass out hundreds more bridge questionnaires at civic buildings, high schools, and senior centers and we can use a web-based response system. The first public workshop presentation can be video recorded and posted online (in the languages predominantly used by the community) with the surveys. After a one-month period, we may have several hundred more online responses submitted.

- More Outreach Means More Data: And with more data everyone wins: the community feels represented and invested, one outspoken meeting-goer or journalist cannot derail the democratic process, plus the cities and the design team have the confidence to move forward knowing our decisions are based on solid footing.

- A Journey Together: The frequency and schedule of how the public interacts with the design process can take many shapes depending on the community. We will tailor the workshop schedule according to the needs of Pompano Beach. We fully understand that designing a public bridge is one long conversation with the community.

Architectural Design Process

The process to take the project from concept to 30% drawings is one of constant refinement. The goal of the design process is to arrange all the decisions in order of size, and then logically step down from refinement to refinement: from many bridge alternatives down to one, and from the overall bridge form down to details like colors and materials.

- Step 1 - Context Research: The first step is to understand the context as much as possible. We perform a thorough due diligence to identify project constraints - site visits, technical reports, and personal interviews. Existing conditions, past history, and future plans. The more immersed we are with Pompano Beach, the community, and the project requirements – the better.

- Step 2 - Theme: The most important step in the process is to choose a style or theme for the project. The purpose is to discover the project's identity and guiding principles. Everyone, together, decides the direction that the project should go toward. What characteristics of their community does the public want reflected in this bridge? What will it say about them? Classically elegant, or outlandishly contemporary? Organic and natural, or futuristic and technological? It can be anything from a single word, a phrase, an object, or a list of items. Importantly, this discussion is indepen dent of the bridge's structure type -- we can make a truss look historical or modern, for example.

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What is important is how the project should feel. In some cases, we can carry more than one theme forward to see how the associated concepts develop in the next step.

At the first public meeting, we introduce the new project team and update the community on the work plan going forward. We discuss the site and project challenges, and then underline the importance of getting their input to help us understand the deeper context of the project – the community values, social history, identity, etc. We present a wide array of precedent images, ranging from bridges and buildings, to artwork, to animals and landscapes.

- Step 3 - Conceptual Design: The next step is to analyze the data we have, and the feedback obtained from the public outreach. At this point we have a lot of ideas and some hints at directions to explore. Combining the theme with the most fitting structure types, we can generate concepts at a large scale. Given the available time, scope, and project complexity we generate between four and ten alternatives. These might all be different structure types, or all the same structure type in all different styles, or a combination thereof. We develop sketches or simplified 3D schematic images of the alternatives.

Once we have developed the four to ten alternatives, we present these to the stakeholders and/or public for comment and get a vote on preference. Ideally, the alternatives are narrowed to the top 2 or 3 concepts.

- STEP 4- Concept Refinement : Next, the remaining two or three concepts are studied in more detail. The designs are refined based on the previous client/stakeholder/public feedback comments. The concepts are modeled in 3D in more detail – showing hints of secondary elements like railings, starting to explore material choices, and showing more developed site backgrounds.

  Once these two or three more developed concepts are ready we go back to the community to present them for client/stakeholder/public review. At this juncture – we facilitate a final vote for the preferred design alternative.

- Step 5- Concept Development: Now knowing the final preferred alternative, we refine it further. We assign materials, colors, and finishes. The secondary features, like railings and light fixtures are developed in greater detail. We develop high quality images that are photo-realistic (using photograph backgrounds). Additionally, we create night images to convey the possibilities of the aesthetic lighting design.

  The preferred alternative is then revealed to the public.

- STEP 6- Final Design: The preferred concept is drafted up for the drawing set (usually at milestones of 30%, 60%, 90%, and 100%). Component details are refined, minor outstanding items are resolved. Materials, finishes, and products will be researched and temporarily specified. Finally, the drawing set and project estimate are complete.

Technical Approach

Aesthetics

Our team understands that the design of landscape/architectural elements are beneficial to the goal of retaining the project area's identity and attitude. As such, we believe that the inclusion of the landscape and architectural design in the engineering and planning process will be key to the success of this endeavor. To this end, TYLI will incorporate bridge features for hardscape and landscape elements that will complement the look and feel for design motifs of adjacent community developments. TYLI priorities in this regard are the safety of the traveling public; stewardship of environmental, cultural, and historical resource; integration of the transportation network into the adjacent landscape; and enhancement of the aesthetic quality of the transportation network.

Streetscape Design

The TYLI team will be responsible for the design and documentation of the area development streetscape for the project. The hardscape documentation will include plans, details, schedules and specifications for paving, rails and bridge appurtenances. Our goal is to provide a design theme expressed using contextual hardscape and landscape elements. Aesthetic streetscape features will be designed with sustainability and aesthetics in mind including local materials and proven construction techniques.

Landscape Planting Design

The TYLI team will be responsible for design and documentation of sustainable landscape planting for the project. The landscape documentation is anticipated to include plans, details, schedules and specifications for tree, shrub and groundcover plantings. These plantings will be specified to be as low maintenance as possible to minimize water consumption and to meet the aesthetic requirements of the project. Our design team will create a strong, consistent and recognizable landscape design theme for each bridge and approaches consistent with each neighborhood context and in harmony with the existing landscape. Plant material selection is important, and we will provide a consistent use of plant materials, trees and other plant materials that have distinctive colors and textures fitting with the existing neighborhood.

The TYLI Team landscape architects will visit each bridge location to review existing conditions, verify presence of existing trees within the right-of-way and find solutions to protect any valuable trees. Coordination with regulatory agencies will be performed to determine required mitigation actions. The landscape plans will include tree protection provisions within the construction area.

Landscape Irrigation Design

The TYLI team will design an automatic landscape irrigation system for the project should the City's Arborist and stakeholders require plantings that require scheduled watering.

Technical Approach

Lighting Design

The TYLI team will assess the existing public lighting in the project area and the desired improvements to the lighting identified during the primary phase. TYLI will prepare a lighting plan that identifies locations, fixture types and design intent for traffic, landscape and pedestrian area lighting.

The roadway and pedestrian lighting will be designed in accordance with the Chapter 231 “Lighting” of the FDOT Design Manual, the AASHTO Roadway Lighting Design Guide and other applicable standards and specifications. We will employ the illuminance method of lighting design with the goal of achieving the following two-fold objectives; traffic and public safety.

Traffic safety objectives:

- To promote safe nighttime use by providing illumination levels that allow motorists, pedestrians, and bicyclists to clearly see the bridge and approach roadway pavements and walkways.
- Improve traffic flow at night by facilitating maneuverability through the bridge and its approaches through enhanced illumination that clearly delineates the roadway approaches, bridge geometry and any obstructions.

Other objectives include:

- Adequate lighting levels on city streets and the bridges help prevent crime. We employ CPTED principals in the design of lighting schemes for roadway and bridge infrastructure.
- Design roadway and pedestrian lighting that enhances the nighttime aesthetic of the bridge structure and the surrounding area.

Technical Approach

Stormwater Management and Environmental Considerations

We have carefully reviewed the project requirements, inspected the site, and contacted resource agencies to gain the best possible understanding of your goals and the environmental and permitting issues surrounding the project. Our goal is to develop a project for the City that minimizes impacts to the environment, that is permittable by the regulatory agencies, and that is beneficial and functional for the City and its residents.

TYLI's professionals and team members have vast marine and coastal infrastructure environmental/permitting experience for dredging, drainage, and utility relocations. TYLI is well versed in environmental laws and regulations and has established relationships with regulatory agencies through years of coordination and permitting.

We will work closely with the following agencies that have regulatory authority over the project: USCG, SFWMD, USACE, Broward County EPGMD, and the Broward County Water Control District #4 for the Palm Aire Bridges. TYLI has been involved with these agencies throughout Florida on a number of roadway and bridge projects and most importantly we understand the regulatory process that leads to a permittable project. It is expected that a General Environmental Resources Permit would be obtained from the SFWMD under 62-330.443, FAC for minor bridge alteration and replacement for municipalities. Likewise, the bridges are expected to qualify for either USACE Nationwide Permit 3 (Maintenance) or 15 (US Coast Guard Approved Bridges) depending if they are located east or west of North Dixie Highway.

Coordination with all regulatory agencies will be essential to meeting project needs. It is essential to get the applicable agencies on board early in the process and keep them informed throughout the process. This allows critical issues to be identified and addressed quickly and effectively. TYLI's basic approach to assist the City in obtaining Federal, State and local regulatory approvals includes:

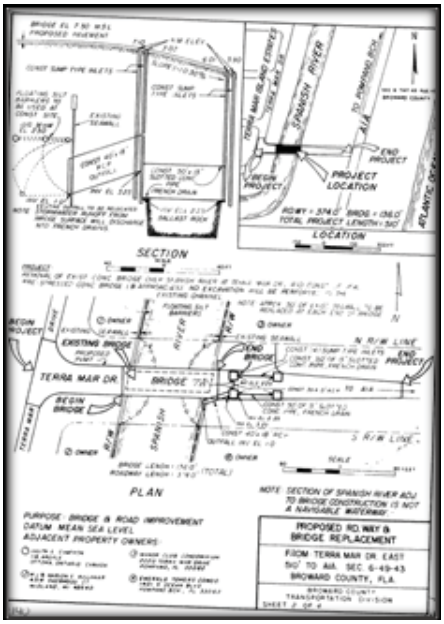
- Site visits to collect pertinent data and identify potential design and permitting issues;
- Pre-application meetings to familiarize the regulatory agencies with the proposed plan, establish permit requirements, and to gain preliminary approvals;
- Develop plans and permit application information accurately and completely;
- Submit permit applications to the regulatory agencies for review;
- Maintain constant contact with the permit reviewers during the review process in order to address concerns quickly without the formal issuance of a Request for Additional Information (RAI).

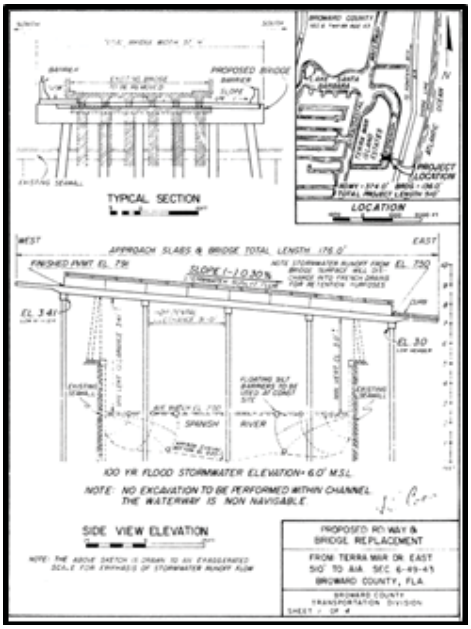
Of the five bridges identified in the scope, preliminary research found that none of the bridges discharge stormwater into Outstanding Florida Waters (OFW). Only the Terra Mar Drive bridge replacement is permitted via SFWMD (Permit #80-00140-S) with stormwater criteria being met via French Drain. All other bridges directly discharge into their respective waterbodies. No SFWMD permits were found for the other bridges. Unless there is bridge widening that increases the vehicular capacity of the bridges, stormwater management will not be required for improvements/repairs. The main factor to take into account-consider will be erosion and sediment control during any construction activities.

Technical Approach

The reviewing agencies will require the submittal of a wetland and/or benthic survey as a component of the permit application packages to determine the areal extent of benthic and other protected resources within the project area, if any. Seagrass surveys will be performed during the summer growing season (June 1 – September 30), in accordance with the NMFS Johnson's Seagrass survey protocol. The project area lies within the USFWS consultation areas of Atlantic coastal plants and piping plover east of I-95 and the snail kite west of I-95. The entire project area is within wood stork core foraging areas and the Intracoastal Waterway and its tributary canals are also frequented by West Indian manatees. Gopher tortoises and Florida burrowing owls may also be found in the project area. Wildlife surveys will be conducted to evaluate the potential wildlife utilization of the project area by manatees and other protected species. Provisions will also be included for contractors to adhere to the "Standard Manatee Conditions For In-Water Work", "Sea Turtle and Smalltooth Sawfish Construction Guidelines", and Indigo snake to protect these species during construction.

To reduce waste and to foster sustainability initiatives, The TYLI team will evaluate the re-use of the demolished bridge's structure rubble for environmental mitigation of impacts using this material to restore ocean reef habitats as coordinated with Broward County.





Technical Approach

Data Collection Activities

To prepare for the design workshop and to familiarize ourselves more with the project area, we will begin collecting available data (e.g., property plats, topographic survey, utility plans, and site and aerial photos).
»» Surveying: At the notice to proceed, we will begin compiling available survey and right-of-way information. Using the collected data TYLI will develop a work scope for the surveyor, underwater inspection of the bulkheads, and develop a geotechnical exploration plan. We anticipate that commissioning additional survey data to verify critical field conditions will be required. To assure efficient survey dissemination we propose to perform the survey in Civil 3-D format. In this project early stage, the TYLI team will make every reasonable effort to collect pertinent project sans unforeseen existing conditions that may not be identified at this stage.

Survey

TYLI Team member KEITH has performed numerous surveys through their general services contract for the City of Pompano Beach. Their experience allows our team to readily pick up/ update or extend a survey quickly. Our team's survey experience and existing data base of surveys brings to the TYLI Team two big advantages; cost and schedule.

Mapping

The analysis work phase will include base information preparation including a site and context base map. Using these base maps, we will develop a site analysis drawing series documenting project area issues for the community and region. The site analysis map illustrates information two types: a) a built features map(s) that documents existing built features (property ownership, buildings, parking areas, pathways, utilities, transportation systems) b) a natural features map(s) that document existing hydrology, topography, vegetation, sensitive environmental areas. These maps will be the basis for further City and public discussions.

Geotechnical

A geotechnical exploration for the design and construction of these five bridges in Pompano Beach will be performed in accordance with the Soils and Foundations Handbook (S&FH) and the RFP requirements. The TYLI Team is familiar with the subsurface geotechnical conditions along the planned project. A review of the USDA Broward County Soil Survey indicated that the predominant surficial soils at the five bridge locations are classified as Paola-Urban Land Complex (Pb) commonly in developed parcels so that the natural soil type is not readily known. These areas have been modified by grading and shaping or generally altered for community development. Paola-Urban Land Complex soils are typically characterized as gravelly sands and sands. Based on available subsurface information and our familiarity with the soils in the general vicinity of the site locations, the anticipated subsurface conditions typically consists of a mixture of sand, silt and gravel underlain by alternate layers of sand, cemented sand, shell fragments, and sandstone. In addition, organic material may be encountered at the site locations.

Once a conceptual geotechnical exploration plan has been developed, we will review our proposed exploration plan with the City Engineer for concurrence. Utility clearance and coordination, as well as applicable ROW permits, will be performed prior to field activities. A laboratory testing program will be conducted to verify soil properties and the data will be incorporated into a 'Cross Section Soil Survey' sheet to provide guidance on soil suitability. Report of Core boring sheets will be prepared for

Technical Approach

all proposed structures. Upon completion of the geotechnical explorations and associated laboratory testing, geotechnical analyses and recommendations will be presented in geotechnical reports in general accordance with the FDOT's S&FH and Structures Manual. Based on a review of the available project information and our experience on similar projects, the primary geotechnical considerations that we have identified for this project are as follows:

- Potential impacts due to proximity of the existing residential and seawall structures to the construction activities will be evaluated in accordance with FDOT PPM Volume I Chapter 34 and Section 108 of the Standard Specifications (Protection of Existing Structures) and RFQ requirements and recommendations for settlement and vibration monitoring will be provided.

- Reduction of vibration levels in the selection of bridge foundation system and construction procedures. In order to minimize the effects of vibrations during pile driving operations, we plan to analyze various foundation options and installation procedures to minimize the impacts such as: steel piles vs. prestressed concrete piles (smaller pile hammer and initial pile sections can be vibrated in), lower capacity 18-inch piles, preforming of pile holes, use of temporary casing to preform pile holes, and performing dynamic testing on all production piles. Alternative foundation systems to be evaluated include augercast piles, and drilled shafts using non-vibratory method for temporary steel casing installation, such as rotary or oscillatory methods.

- Mitigation of potential deformations due to roadway compaction operations may include use of static compaction instead of vibratory compaction. We will evaluate use of non-vibratory methods for installation of temporary sheetpile walls, if needed, such as the Press-in method, which utilizes static loading to penetrate the sheets instead of vibration.

- Areas of unsuitable soils encountered during the geotechnical exploration will be delineated and recommendations will be provided in accordance with Standard Index Nos. 500 and 505. Potential soil relaxation/loss of piles capacity, which typically occurs after the installation of piles in dilative soils, will be evaluated during the design and construction phases of the bridges. Based on our experience with the area, dilative soil conditions have been previously encountered on the eastern portion of Broward County.

Underwater Inspection Services

TYLI shall provide a qualified dive team to assess the current conditions of all substructure elements from the high watermark and/or top of the marine growth down to the groundline in water greater than three feet (3 ft.) deep on various structures. In addition, any observed scour conditions around the underwater elements and/or debris build-up will be noted. The inspection crew will produce an inspection report in BrM format to include deficiencies and photos, as appropriate.

Pre-dive procedures, including performing operational checks on necessary inspection equipment, safety equipment, and underwater photography equipment will be performed by the underwater inspection crew. Unusual on-site safety hazards will be identified, and safety/emergency procedures verified. To abide by OSHA and ADC regulations, a three (3) person crew minimum is required for SCUBA diving or surface supplied diving projects.

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Utility Coordination

The utility coordination team will work diligently to identify potential utility conflicts during the early stages of design, in an effort to resolve and/or mitigate utility concerns. We will determine if these utilities lie within easements along the Right of Way and if it is determined that they are there by permit, reimbursement will be required. We will work with affected utilities and assist them in the development of utility work schedules to relocate them prior to or during construction and minimize the lead time for the engineering and replacement of the existing wood poles for new facilities. As the utility coordinator, our goal will be to ensure that all utilities are either in no-conflict or relocated in accordance with the utility work and construction schedule. We will coordinate with FPL on any potential undergrounding of the existing facility understanding that consensus from the local residents will have to obtained before the City of Fort Lauderdale can move forward with this type of initiative.

To achieve the best results to meet the Utility Certification date, our team's utility coordination services follow the same Federal Highway Administration (FHWA) mandates and guidelines, regarding utility relocation and reimbursement procedures under which the Florida Department of Transportation (FDOT) must operate. Mr. Daniel Checchia and Mrs. Aracely Andollo Soto have been providing Utility Coordination for over 30 years. This experience offers the team a knowledgeable staff that understands the specific processes and procedures related to utility coordination required by the FDOT as well as the ability to mitigate proposed alternatives that are working in other areas and may benefit the City's utility operations.

TYLI and its team members believe that meeting the schedule date of Utility Certifications is of the utmost importance. The timely completion of the utility process is a critical path item in the overall project's production schedule. We know that obtaining utility submittals (i.e. plans, schedules and agreements) is very challenging, but our team is more than capable of meeting that challenge. Our team's Utility Coordinators will perform utility coordination / negotiations for this project. This will include identifying involved utility agencies, providing project plans to each of the utility companies at appropriate submittal phases and meeting with them to identify and resolve potential conflicts with the project design. In addition, a comprehensive conflict matrix will be created to assist in the conflict resolution/negotiations as well as identify the need for possible test holes to verify potential conflicts. Our team will coordinate all proposed relocation plans with the appropriate Utility and City staff for review and approval.

Subsurface Utility Engineering (SUE)

We understand how important providing accurate and timely survey and SUE services are to the success of a project. Existing utilities will be identified up front accurately at the design stage and not later during construction, when unknown utility conflicts can cause major delays and unforeseen expenses.

A design and utility coordination team to provide Subsurface Utility Engineering (SUE) support has been assembled for this project that will use the ASCE Standard 38-02 – "Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data" during the field and office operations for all project utility exploration and engineering. This support will come in different forms such as Records Research, (Quality Level "D"), Mapping (Quality Level "C"), Utility Designation (Quality Level "B") and Utility Locates (Quality Level "A").

Technical Approach

PROJECT CONTROLS

Approach to Project Management

TYLI has developed a streamlined Project Management approach to many of its projects that will be utilized for this particular contract. The key to success starts with one point of contact for communications between TYLI and the City of Pompano Beach's Project Manager. In order to effectively manage and control the multiple numbers of specialties on this project, TYLI's Project Manager Betsy Jeffer, PE will be assisted by Task Managers for all critical disciplines, who in turn will provide technical direction to the various sub consultants and their associated tasks. TYLI employs company-wide Project Management Guidelines which allow our approach to consistently deliver to the client a quality project, on schedule and within budget. To achieve these projects' goals, it requires effective and proactive leadership and a proven quality control plan. We rely on our Project Manager and the support of a senior-level quality assurance staff to provide this leadership.

Within 10 days after receiving Notice to Proceed (NTP), Betsy will provide the City's Project Manager a detail Project Work Plan (PWP) and project schedule. Once approved, this PWP will be updated throughout the duration of the project as necessary. The project schedule will be updated after every progress meeting to reflect actual progress of the project and any milestones achieved. Meeting minutes will be distributed within three working days after the meeting for any additions, deletions or corrections.

Team Coordination and Communication

TYLI will hold meetings with our team members as necessary throughout the life of each task order. These meetings will include all assigned staff, including subconsultants. Interim reports and updates will be sent by email or by use of our FTP sites, which will be made available to all the assigned staff. Each subconsultant project manager will provide weekly progress reports to TYLI's Project Manager. Minutes of all progress meetings will be distributed for comment. Coordination is a critical element for a successful project and we recognize that keeping the City informed of project issues will lead to resolutions that are more effective. We propose to conduct monthly progress meetings with your Pompano Beach Project Manager to review project status, prepare for upcoming meetings, identify data and coordination needs, review comments, and other project elements that could potentially impact project development. Regular communication will be essential to proactively identify and address any possible delays to the schedule or impacts to the budget and ensure that the deliverables meet your goals. We will provide you with monthly project progress reports that document our progress, future activities and other critical project items. In addition, there will likely be required coordination between our team members and consultants involved in other City projects. We will fully cooperate with the other City consultants to ensure that overall City objectives are met in a timely manner. With all of our projects, we disseminate and exchange information via email, websites, FTP sites, and interactive websites. All activities are identified in the Work Plan that will be prepared for this project that is coupled with the task schedule and continuously monitored, so that assignments are completed in an efficient and timely manner.

Technical Approach

Approach to Project Quality

Quality is essential on all engineering projects. TYLI is committed to delivering work products that meet or exceed industry standards and the City's expectations. To accomplish this, we begin each project with the preparation of a Quality Management Plan (QMP). This is a company policy. While the most obvious purpose of the QMP is to ensure the quality of the work product, the QMP also serves as a tool for regulating the internal processes that result in quality products being delivered on time and on budget. Said QMP will be tailored specifically to each individual project and will be formally submitted to the City within 14 days of NTP.

The QMP is built on three foundational elements:

- Communication
- Commitment of all the individual team members and,
- Clear Expectations

Regarding the first element, we employ a variety of tools to maintain real-time communications amongst the team members regarding project progress and issue resolution. These tools include face-to-face meetings, e-mail, web conferencing, and the use of shared file spaces such as our internal Project Wise.

With regards to the commitment of each team member, we strive to maintain a culture of accountability where each team member is invested in the overall project outcome. We encourage team members to be proactive and not to take anything for granted. We also strive for team continuity throughout a project.

Clear expectations are the last foundational element. This is what is typically called the Quality Assurance/Quality Control (QA/QC) Plan. QC is the step-by-step plan for maintaining the desired level of quality and QA is the oversight ensuring that the plan is implemented.

Technical Approach

Approach to Public Outreach

We believe that nurturing client and community involvement and understanding is the first step in the successful implementation of these bridge projects. We reach out to involve the client and the constituent community in every aspect of the planning and design of the bridge. We welcome input throughout the process because that input educates us on the issues, facts and realities we might otherwise have missed. This participation builds a strong ownership of the plan and ultimately of the built environment.

For a bridge replacement to be successful, all interested groups need to feel that their interests are being met even though each has a different agenda. Our role will be to identify commonalties and conflicts – maximizing the former, minimizing the latter.

The approach TYLI proposes acknowledges the importance of open collaboration and communication between the City, business interests, its residents and the consultant team. From our experience on similar projects, such as the Venetian Causeway Bridge, we strongly believe that inviting all interested parties early on in the project to share information and ideas is the best way to achieve consensus plan.

A public outreach plan (POP) will be prepared tailored to the specific needs of each bridge project and at each phase of project development. This public outreach plan will comply with minimum requirements established by the City of Pompano Beach referencing the processes and procedures established by the Florida Department of Transportation.

The ultimate goal of the public outreach plan is to maintain an open line of communication that will encourage cooperation from the community, ensure responsiveness to community needs and help mitigate disruptive impact to stakeholders in both the Design Phase and Construction Phase. Key goals include to:

Enhance public confidence and support of the improvement project.

- Implement an inclusive public communication effort that addresses the needs and concerns of affected residents, local businesses, visitors, and other interest groups while meeting the project goals.
- Provide factual and clear information to impacted target audiences.
- Provide multiple, convenient ways for stakeholders to obtain updates as well as convey any concerns or questions.

Key Audiences

The TYLI team will work collaboratively with the City to develop an inclusive stakeholder list of residents, businesses and other relevant entities. The initial focus will include but not be limited to the following key audiences:

- Residents in surrounding communities (Cypress Harbor, Palm Aire, Terra Mar-Island,)
- Local organizations and businesses (i.e. Herb Skolnick Community Center, Shopping Centers, Gas Stations, etc.)
- Other interest groups (i.e., Homeowner's and Condominium Associations, Churches, Synagogues, etc.)

Technical Approach

Outreach Approach

Our outreach approach centers on inclusion. We begin with a comprehensive and inclusive list of all stakeholders that could potentially be affected by the project. We then follow through with meaningful and ongoing communication through the term of the project.

For these bridge projects, we recommend a two-phased public outreach strategy – Phase one during the Design stage and Phase two during construction implementation.

Phase One - Design Phase

As the team develops the plan and design options for the project, it is imperative to engage and incorporate feedback from affected stakeholders. During the design phase, we typically encourage stakeholders to participate in small-group workshops that are structured to promote candid, in-person conversations that would inform them of our planning process. We believe this helps build trust in the community with our team and reinforces the goodwill of the City. The comments, opinions and suggestions gathered through the sessions are factored into our thinking for design options.

We envision a series of three community workshops during the planning and design phase:

- Workshop 1: Planning & Analysis - Prior to the beginning design, a workshop will be held to provide stakeholders a chance to share their thoughts and concerns with the design team. The format will promote a free exchange of ideas and the chance to discover important dynamics that will inform our design process.

- Workshop 2: Design Exploration - Midway through the design process, a second interactive workshop will be held to validate initial findings and to measure reactions to initial design options. Feedback will be captured and evaluated as part of the process to finalize the design recommendations.

- Workshop 3: Design completion - Once the design process is complete, a third meeting will be held to share the final design option with stakeholders. This will also be an opportunity to convey what stakeholders can expect during the construction phase and how they can remain informed.

Phase Two – Construction Phase

Once construction begins, the focus of the public outreach will be to inform stakeholders of what they can expect during implementation. Our team will leverage multiple communication methods to notify stakeholders of the progress of construction; alert them of any traffic impacts, and ensure accessibility should residents need to communicate any concerns. Communication tools that we intend to leverage include but are not limited to: dedicated concern hotline, social media, text alerts, email alerts, signage, direct mail and continued participation at neighborhood association meetings. Additionally, we will work closely with the City's public information office to post pertinent information via City communication channels, including the City website and social media accounts.

Technical Approach

Sustainability

As a general reaction to global environmental issues and the net effect of sustainable design to simply improve the efficiency of rapidly increasing impacts, TYLI is committed to sustainable approaches for all our designs and have LEED Accredited Professionals on staff to promote close cooperation for environmentally conscious designs. In addition, the firm is a member of the U.S. Green Building Council.

Ability to Meet Time and Budget Requirements

Our experience over the past 60 plus years working with local municipalities has given us a keen understanding and ability to perform work efficiently; getting it right the first time. We know exactly the resources that need to be involved to produce the results our clients want and need. We pride ourselves on managing our schedules effectively and that working for public clients is to be entrusted with the taxpayers' dollars, a responsibility we take very seriously. We pledge to the City that once we agree on the project schedule and budget we will perform to exceed your expectations.

Project schedule, scope and budget are interlinked and actively tracked once a task has been undertaken. TYLI will track project expenditures versus the agreed upon schedule. This, combined with the Project Manager's knowledge of the project progress, provides a snapshot of how the schedule is progressing compared to the project budget. This proactive approach for project control allows the Project Manager to monitor progress and take action to avoid overruns well in advance of the situation becoming critical. In the even there are unavoidable budgetary issues, we will develop a mitigation plan and take action to address budget issues.

As projects are engineered, we will control construction budgets by evaluating the constructability and construction cost of the project elements assigning a separate team to perform value engineering assigned based on the scope and magnitude of the project. This effort will be performed once the project attains a certain milestone of completion. We propose a value engineering be performed on the project immediately following the City's approval of each recommend alternative and before we begin the development of final plans and construction documents. At this juncture the project is con figured and detailing begins. Before the design team continues to finalize the project, we will verify the feasibility of easier and cheaper alternatives. We have been very successful at controlling cost on our projects employing this on-going method-learned through our extensive design-build project experience. A formal value engineering process approach is, of course, very beneficial for large-scale projects; however, a scaled down approach at the right time in project development will help keep this bridge replacement project within budget.

Technical Approach

Approach to Risk Mitigation

A detailed method to address cost overruns, schedule delays, and scope creep is to develop a Risk Register. A risk register is prepared when developing the project scope and is used to focus on the key scope items that might present a risk to the scope, schedule or budget.

A matrix is developed showing in rows A-E the likelihood of an event occurring, ranging from an almost certain occurrence to a rare occurrence. The "consequences" columns indicate the severity of consequences if the event occurs with a range from "minor" to "catastrophic".

In the upper right area are extreme events (shown in red) that are highly likely to occur with major or catastrophic consequences. The lower left area indicates low levels of likelihood with lesser consequences.

Developing the register is somewhat subjective, but based on past experiences; reasonable assumptions can be made for likelihood and consequences. An example is a hurricane; which can be somewhat predictable in terms of frequency of occurrence, and based on past experiences its impact can be major to catastrophic.

A risk register is useful in preparing contract document language to address these potential conditions and prepare an Action Plan for each condition. The action plan is used to mitigate excessive costs or time delays for each consequence.

Technical Approach

Current Workload and Available Resources

Staffing Plans

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 sub-consultant 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 perform successfully on this project. In the event that any delay could jeopardize a critical path.

TYLI has 108 transportation professionals in its South Florida offices, with 13 staff in our Fort Lauderdale office, and the support of 740 individuals around the country to bring support and expertise on an as-needed basis . In addition, our subconsultant partners provide you with access to more than 100 additional technical professionals in South Florida ready to serve the City on this contract. With the TYLI Team's depth and resources, we are fully able to assign sufficient staff to manage the concurrent assignments required by this bridge replacement project to meet the City's needs.

Current Workload

We are currently available to start work immediately on this assignment. The TYLI Team brings depth of staff and resources sufficient to provide you with the full range of services required by this project. Our team's project manager can focus on the successful completion of this bridge replacement project. In addition, the TYLI Team has sufficient capacity to undertake the various assignments described in the scope of services. Though each member firm on our team has its assigned role for this contract, we have overlapping capabilities among the team members that allow us to draw from the team's resources to address contingencies that may arise during the project's development. In addition to the TYLI Team providing depth and redundancy in skillsets, team members are expected to have ample availability to accomplish their assignments through the contract period.

Available Facilities, Technologies, and Other Resources

Project management and a major portion of the work for this bridge replacement contract will be performed out of TYLI's Fort Lauderdale office, supported by Coral Gables and other offices in Florida. The work performed by our subconsultants will be performed from their Pompano Beach, Fort Lauderdale, New York and Coral Springs locations.

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:

Technical Approach

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 georeferenced data such as traffic volumes, roadway descriptions, aerial, environmental resources, and land uses for analysis, display, and design purposes. TYLI has expertise in Revit 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 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 verify the design and implementation of ADA compliance, bicycle/pedestrian safety, and to develop traffic control plans.

Traffic Operational Analysis: The TYLI Team uses Synchro/Sim Traffic 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. We anticipate performing these analyses at the intersections of neighborhood streets as appropriate. The Synchro software uses the HCM methodology to determine intersection capacity and level of service (LOS). Simulation will be performed using the SimTraffic software and/or CORSIM to provide a detailed look at the simulated traffic flow and queue along the intersections and mainline corridors. SimTraffic 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.

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.

Infrastructure Design and Planning Tools

Structural Design: TYLI's software and hardware capabilities are numerous and provide us with the resources necessary to tackle any structural design. The software list includes LeapBridge, MDX, SAP, FB Pier, MIDAS, ET Culvert, and FDOT programs, Lpile, ENERCALC, Merlin Dash, CSI Bridge, TANGO and MathCAD. TANGO is time-dependent analysis software used by complex bridge engineering firms around the world. This wide variety enables the correct tool to be used for the design or analysis of all elements of a structure — girders, piles, piers, bearings, decks, etc. These tools allow for a load rating analysis to a more intricate one like finite element modeling, which is often used to determine the behavior of an entire structural system or individual members. The software available is not just limited to bridge structures but is also used for pole foundations and sign structures. The hardware used includes computers to process quickly the design or analysis.

Technical Approach

Electrical: TYLI uses the SKM Power*Tools for Windows (PTW) for electrical engineering used to create one-line diagram system models and to run various studies on them to check their performance, safety and manageability. The program has the capability to be used in many types of electrical studies, such as:

- Performing load flow analysis to calculate the voltage drop on feeder and transformer branches, voltage on each bus, projected power flow, and losses in the power system;
- Performing electrical coordination studies;
- Arc Flash Evaluation where the incident energy and arc flash boundary for each location in a power system is calculated.

Lighting Design: For lighting design, TYLI will use AGi32 Lighting Analysts Illumination engineering software. AGi32 is an industry standard software tool that can be used to predict the photometric performance of selected luminaries or daylight penetration in a simulated environment. AGi32 is capable of a number of lighting specific computations aside from the basic incident illuminance (fc/lux) on any real or imaginary surface including evaluating different types of fixtures to improve energy efficiency and increase sustainability. The software can also compute pavement luminance for roadway and bridge applications per IESNA-RP-8-2000, RP-22-2011 and several international standards; Glare Rating and Unified Glare Rating (CIE metrics for discomfort glare evaluation); and Daylight Factor on any real or imaginary surface.

Stormwater/Drainage Calculations: We will prepare drainage calculations and associated hydraulic modeling using the Interconnected Pond Routing (ICPR) model by Streamline Technologies, Inc. and/or the Automated Storm Sewer Analysis & Design (ASAD) software by Hiteshew Engineering Systems, as applicable.

The latest generation of ICPR, released in 2014, includes fully integrated 2D surface water and groundwater flow with an emphasis on interactions between surficial aquifer systems and surface water bodies.

- Traditional 1D H&H
- 2D Overland Flow
- 2D Groundwater Flow
- Single Event Simulation
- Continuous Simulation
- Georeferenced Graphic System
- All Modules Fully Integrated

The combination of integrated surface water – groundwater flow and continuous simulation makes possible its use to for many water resources applications and analyses, such as: wetland hydro-period assessments, wetland restoration, impacts of sea level rise on groundwater tables, consumptive water use, stormwater reuse, water sustainability, irrigation demands, and construction dewatering.

ASAD automatically computes pipe lengths and sizes, as well as inlet/manhole elevations and drainage areas. Storm sewer design is tied to the roadway geometry, so that recovery from roadway alignment changes (vertical and/or horizontal) takes seconds instead of hours if performed manually. Because ASAD lets the user change the storm sewer configuration quickly, the user can try numerous "what-if" scenarios to optimizer for cost, hydraulics, outfall locations, inlet spacing, or any combination of these. ASAD uses standard state DOT-defined drainage structures (inlets/manholes/ditch bottom inlets) for both hydraulic analysis and CAD drafting. The user also can create other non-standard structures as needed.

TY LIN INTERNATIONAL

SCHEDULE

Schedule

Approach to Project Schedule

Our experience over the past 60 plus years working on bridge projects with local municipalities as given us a keen understanding and ability to perform work efficiently; getting it right the first time. We pride ourselves on managing our schedules effectively and that working for public clients is to be entrusted with the taxpayers' dollars, a responsibility we take very seriously. We pledge to the City that once we agree on the project schedule and budget we will perform to exceed your expectations.

The project schedule is one of the most important tools in the Project Manager's toolbox and if correctly managed, results in a successful project that is on time within budget. The key is to ensure the following:

- The overall sequence of events has a logical progression, from beginning to end
- Milestones are clearly laid out
- The critical path items control the schedule
- Review time provided is realistic and works with the critical path
- Ample float time is provided in the schedule as a safety valve in the event unforeseen issues arise later on in the project.

This ensures that the overall project schedule agreed upon by the City and TYLI is achievable.

We will maintain control of the project schedule from the NTP to submittal of final deliverables and will conduct biweekly meetings with all personnel involved in the project. TYLI uses Microsoft Project and Primavera as our primary scheduling tools. In some instances, and/or with certain staff and assignments, simple Excel spreadsheets and progress reports are appropriate. At the onset of a task, we will develop a schedule in accordance with your requirements and objectives for your review. Once the task is underway, the schedule will be reviewed regularly by our Project Manager and Task Managers to ensure the project stays on track. The schedule will be adjusted as needed to accommodate the City's needs. We will optimize the time needed to accomplish the project by allocating resources according to the demands imposed by the schedule and addressing critical path items in a logical sequence. A mitigation plan and take action to address budget issues.

TYLI will control the schedule at two levels:

- the firm's overall project schedule including required staff for on-going projects, and
- the firm's specific task level including required staff for a given assignment.

To ensure the accuracy of tasks contained in TYLI's project schedule, the following will be investigated:

- Critical Path-Actual required staff Aval lability vs. performed work
- Resources/Utilization - Actual expended staff-hours versus anticipated
- Milestones - Deliverable dates
- Schedule Feedback - Collectively evaluated by discipline leaders
- Potential Delays - Identify potential delays and assess additional staff requirements
- Evaluate Completion - Percentile figure based on staff-hours to complete

Schedule

Our concept schedule for a typical bridge project is presented on the following pages. The schedule was developed using Microsoft Project based on business days, i.e., 20 business days is equal to one month. The schedule is divided in two parts:

- Data Collection and Project Development,
- Design,

During the first two phases the critical path items are: public outreach, environmental data collection, analysis and permitting together followed by the City's approval of the preferred alternative for each bridge, preparation of the final plans and construction phasing. Environmental permitting is routinely a long lead activity with a high risk for delay. The TYLI Team will pay particularly close attention to expediting the environmental permitting process to ensure these are in place prior to contract award and notice-to-proceed with construction. One tactic we will employ is to schedule concept review meetings, if possible, with environmental agencies to confirm requirements and introduce these stakeholders to the project.

Our final schedule will include bid/award/post design phases of the project.

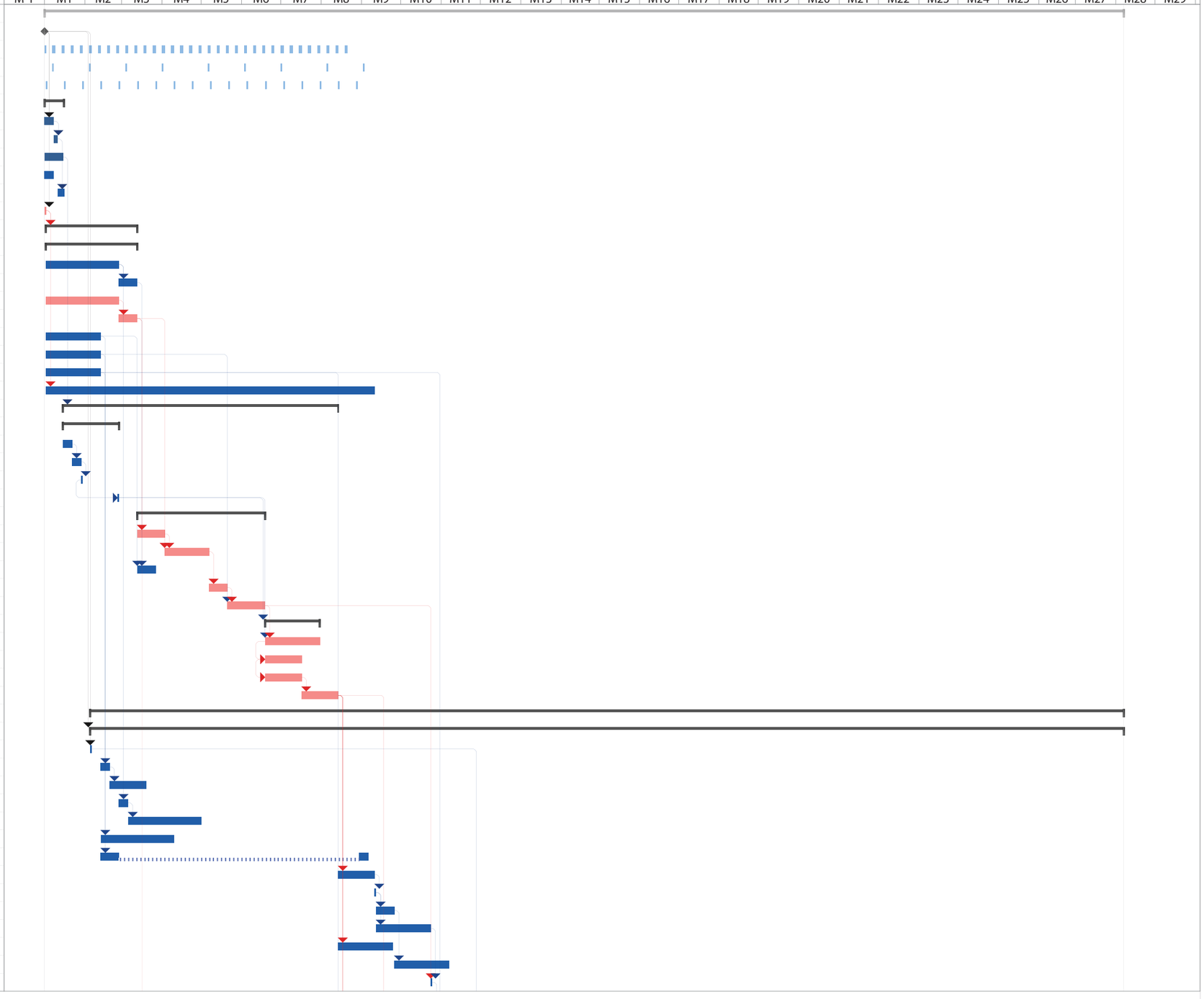
Another long-lead item is the utility relocations. The critical path could shift to the utility coordination and relocations of those utilities currently connected to the existing bridges. This would occur if the total time to negotiate an agreement, engineer (by others), and install/relocate these utilities should lengthen beyond our estimate. Work on this task will commence as soon as possible, once all data collection and preliminary work program are identified.

The following is a sample schedule showing the critical activities and timeline necessary to complete a bridge replacement. The project specific schedule will be submitted for the awarded bridge projects immediately following NTP.

Schedule

Pompano Bridge Concept Schedule

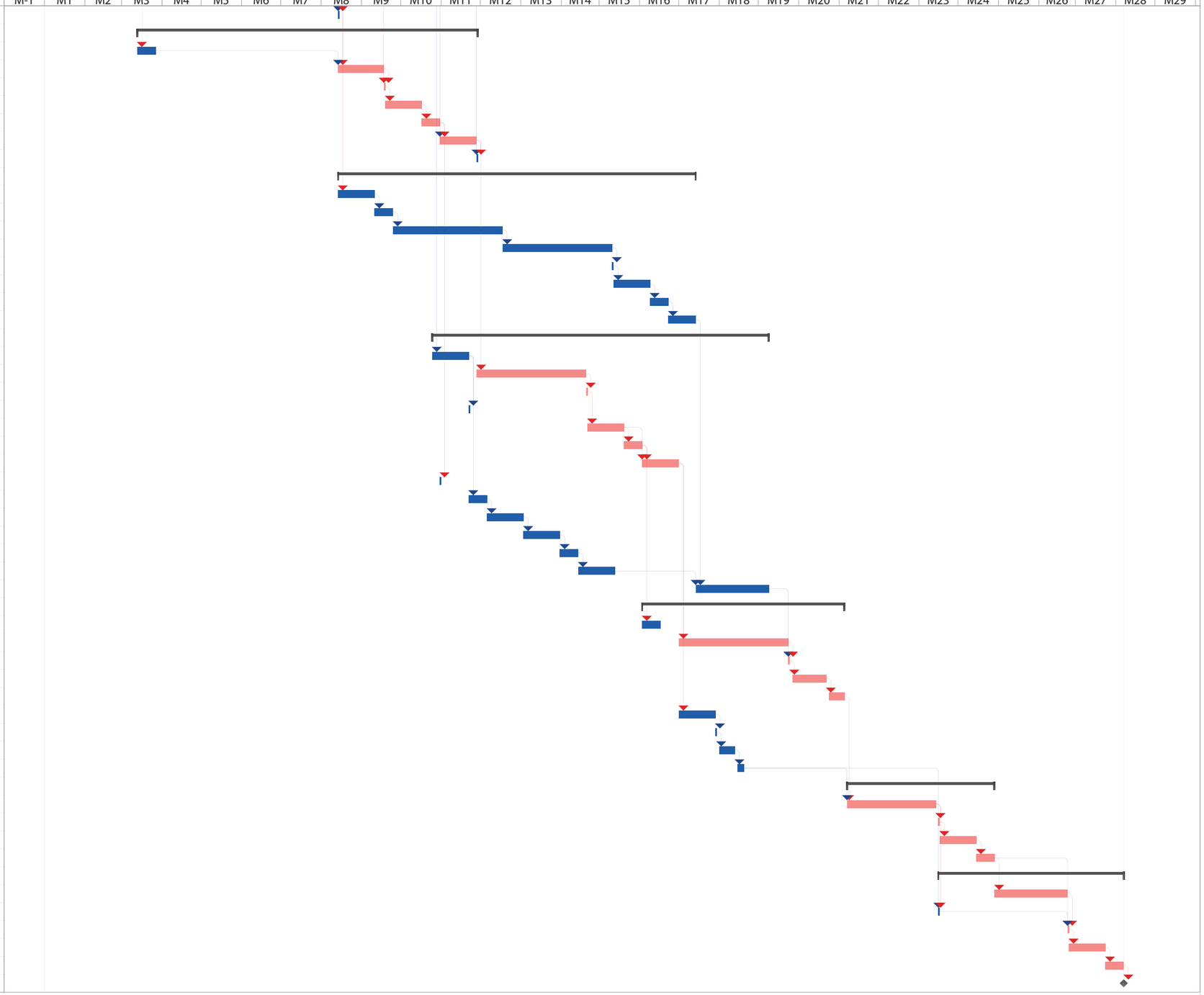
ID	Task Name	Duration
0	Typical Prompano Bridge Concept Schedule	591 days
1	Notice-to-Proceed	0 days
2	Project Coordination Meetings	485 days
70	Monthly Progress Meetings	171 days
80	Team Meetings	171 days
99	Initial Activities	11 days
100	Project Work Plan	5 days
101	Quality Control Team and Plan	3 days
102	Public Outreach Program	10 days
103	Project Schedule	5 days
104	Geotechnical Exploration Plan	3 days
105	Project Kick-off Meeting	1 day
106	(1) Data Collection & Project Development	50 days
107	Data Collection Activities	50 days
108	Control Survey	40 days
109	Site Base Maps	10 days
110	Geotechnical Data Collection	40 days
111	Draft Geotechnical Engineering Report	10 days
112	Underwater Inspection Data	30 days
113	Environmental Data	30 days
114	SUE Data	30 days
115	Utility Coordination	180 days
116	Public Outreach Program	151 days
117	Phase One - Design Phase POP	31 days
118	Key Audiences	5 days
119	Programming	5 days
120	Workshop 1: Planning & Analysis	1 day
121	Workshop 2: Design Exploration	1 day
122	Preliminary Alternative Analysis	70 days
123	Foundation Studies	15 days
124	Bridge Concept Development	24 days
125	Roadway and Support Infrastructure Concepts	10 days
126	Constructution Phasing Plan Concept	10 days
127	Environmental Analysis	21 days
128	Final Alternative Analysis and Selection of Preferred Alternative	30 days
129	Preferred Bridge Alternative Concept Plans	30 days
130	Preferred Roadway and Support Infrastructure Plans	20 days
131	Preferred Construction Phasing Plan	20 days
132	City Approval of Recommended Alternative	20 days
133	(2) Final Design and Construction Documents	566 days
134	Final Design Start-Up Activities	566 days
135	Receive Sunshine 811 Design Ticket	1 day
136	Prepare Base Clearance Water Elevation Report	5 days
137	City Review of Bcwe Report	20 days
138	Obtain Control Survey From City	5 days
139	Design Survey	40 days
140	Preliminary Sue Information	40 days
141	Establish Wetland Boundaries/Surface Waters	15 days
142	Prepare Typical Section Package & Variations	20 days
143	Submit Typical Section Package & Variations	1 day
144	Prepare Design Report	10 days
145	City Review & Approval of Typical Package	30 days
146	Pavement Package	30 days
147	City Review & Approval of Variations	30 days
148	Preliminary Permit Coordination (Pre-Application Meeting)	1 day



Schedule

Pompano Bridge Concept Schedule

ID	Task Name	Duration
149	Utility Kick-off Meeting	1 day
150	Phase I (30%) Roadway Design Plans	187 days
151	Phase I Geotech Roadway Report	10 days
152	Prepare Phase I Roadway Plans	25 days
153	Submit Phase I (30%) Roadway Design Plans	1 day
154	City Review Phase I (30%) Roadway Design Plans	20 days
155	Respond To Phase I Comments	10 days
156	Phase I Utility Coordination Meeting	20 days
157	Receive Utility Markups	1 day
158	Phase I BDR/30% Structures Plans	196 days
159	Draft Geotech Structures Report	20 days
160	Prepare MOT Concept Report	10 days
161	Prepare BDR/30% Structure Plans	60 days
162	Prepare Bridge Hydraulics Report (BHR)	60 days
163	Submit BDR/30% Structure Plans	1 day
164	City Review BHR & BDR/30% Structure Plans	20 days
165	Respond To BHR & BDR/30% Structure Plans	10 days
166	City Approval of BHR & BDR	15 days
167	Phase II (60%) Design Plans	184 days
168	Prepare Permit Application	20 days
169	Prepare Phase II Roadway Plans	60 days
170	Submit Phase II Roadway Plans	1 day
171	Submit Permit Application For City Review	1 day
172	City Review Phase II (60%) Design Plans	20 days
173	Respond To Phase II (60%) Design Plans	10 days
174	Phase II Utility Coordination Meeting	20 days
175	Workshop 3: Design Completion	1 day?
176	Submit Permit Application To Agencies	10 days
177	Agency Review of Permit	20 days
178	Request For Additional Information	20 days
179	Respond To RAI	10 days
180	Obtain Permits	20 days
181	Prepare Bridge Load Rating	40 days
182	Phase III (90%) Roadway And Structures	111 days
183	Final Geotech Structures Report	10 days
184	Prepare Phase III (90%) Roadway And Structures	60 days
185	Submit Phase III (90%) Roadway And Structures And Load Ratin	1 day
186	City Review Phase III Roadway & Structure Plans And Load Ratir	20 days
187	Respond To Phase III Comments	10 days
188	Phase III Utility Coordination Meeting	20 days
189	Receive Utility Markups & Schedules	1 day
190	Utility Review/Resolve Conflicts	10 days
191	Utility Work Schedules Executed	5 days
192	Phase Iv (100%) Roadway And Structures	81 days
193	Prepare Phase IV (100%) Roadway And Structures	50 days
194	Submit Phase IV (100%) Roadway And Structures	1 day
195	City Review Phase IV (100%) Roadway And Structures	20 days
196	Respond To Phase IV (100%) Roadway And Structures	10 days
197	Final	102 days
198	Prepare Final Plans	40 days
199	Utilities Certified	1 day
200	Submit Final Plans	1 day
201	City Review Final Plans	20 days
202	Respond To Final Plans	10 days
203	Final Submittal	0 days



TY LIN INTERNATIONAL

Project Team Form

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

PROJECT TEAM

RLI NUMBER E16-18

FEDERAL I.D. # 94-1598707

PRIME

Role	*Name of Individual Assigned to Project*	*Years of Experience*	*Education, Degrees*
Principal-In-Charge	James Kanter, PE	32	BMA, BS, Civil/Arch Engineer
Project Manager	Betsy Jeffers, PE	25	BS, Civil Engineering
QA/QC Manager Plans Review	Atiq Alvi, PE	20	MSCE, Civil Engineering
Bridge Design Lead	Dennis Martinez, PE	15	MS, Civil Engineering
Bridge Design	James Rosales, PE	23	MS, Stuctural Engineering
	Boon Chong, PE	27	ME, Struct. Civil Engeering
	Farzin Zafaranian, PE	20	MBA, Civil Engineering
	Evan Sinn, PE	9	M.Eng., Civil Engineering
Lead Bridge Architect	Noel Shamble, AIA, NCARB, EIT	10	M.Arch, BS, Struct Eng.
Environmental	Colin Henderson	30	MS, Environmental Eng.
	Sara Gutekunst	5	BS, Marine & Atmospheric Sc.
Roadway/Complete Streets	Betsy Jeffers, PE	25	BS, Civil Engineering
	Ramfis Morales, PE	24	BS, Civil Engineering
	Vikas Jain, AICP	15	Master's of City and Planning
Lighting	Enrique Sosa, PE	25	MS, Nuclear Engineering
	Juan Avila, PE	25	BS, Electrical Engineering
Drainage/Permitting	Isabel Nayab, PE	24	MS, Civil Engineering
	Francisco Alonso, PE	15	BS, Mechanical Engineering
Utilities	Jim Molnar, PE	30	MBA, Civil Engineering
Construction Service	Jose Anadon	19	BS, 1997

SUB-CONSULTANT

Role	*Company Name and Address of Office Handling This Project*	*Name of Individuals Assigned to the Project*
Surveying	Keith & Associates 301 E Atlantic Blvd, Pompano Beach, FL	Lee Powers, PSM; Daniel Checchia; Aracely Andollo-Soto
Landscape Architect / Traffic Engineering	Calvin, Giordano & Associates 1800 Eller Dr, Ste 600, Ft Lauderdale, FL 33316	Gianno Feoli, Tammy Cook-Weedon, Michael D. Conner, Eric Czerniejewski, Diana White
Geotechnical	H2R Corporation 1900 NW 40th Ct, Pompano Beach, FL 33064	Yves-Stanley Delmas, PE; Dan Hart, PE; Johnny Marin; Thai Nguyen; Dave Rancman, PE
Public Involvement	DK Architects 24 NE 24th Ave, Pompano Beach, FL 33062	Andre Capi
Underwater Inspections	Bolt Underwater Services 7930 62nd St N Pinellas Park, FL 33781	Dion C. Qualls
Lighting	HLB LIghting 3250 NE 1st Ave, Ste 305, Miami, FL, 33137	Kenneth A. Douglas, FIALD, IES, LC, LEED AP

(use attachments if necessary)

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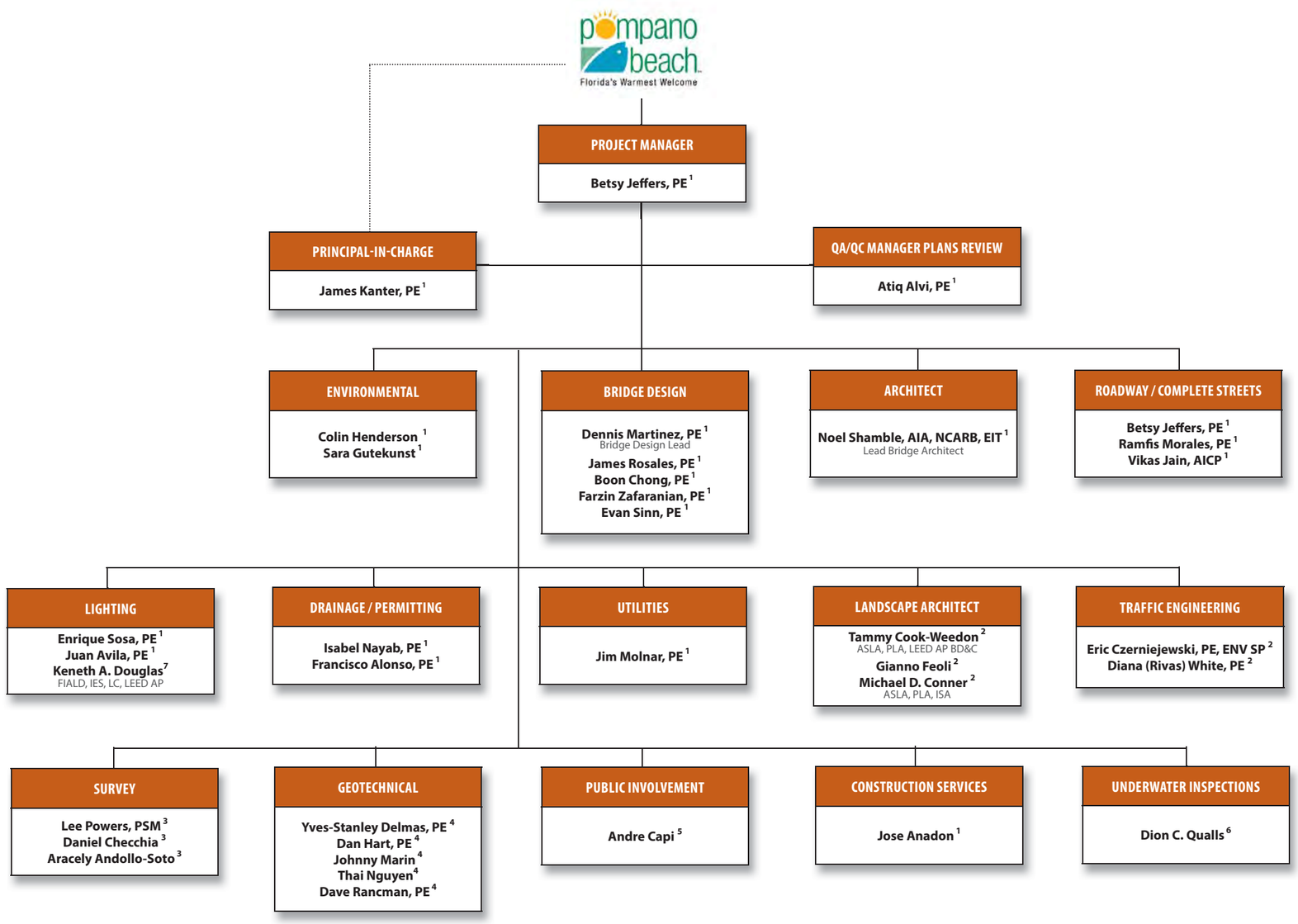
Organizational Chart



FIRM

1 T.Y. Lin International
2 Calvin, Giordano & Associates
3 Keith & Associates
4 H2R Corporation
5 DK Architects
6 Bolt Underwater Services, Inc.
7 HLB Lighting

TY LIN INTERNATIONAL

STATEMENT OF SKILLS AND EXPERIENCE OF PROJECT TEAM

Statement of Skills and Experience of Project Team

T.Y. Lin International congratulates the City of Pompano 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 technical staff who have the experience and practical knowledge necessary to provide professional engineering services required from this contract to design the rehabilitation or replacement of five bridges within the City.

What began in 1954 as a two-person firm created by our founder, Professor T.Y. Lin, has since grown into an internationally renowned network of top engineering talent with the ability to draw upon worldwide resources and expertise.

T.Y. Lin International is ranked among the Top 50 Designers in International Markets by Engineering News-Record and is also ranked 12th among the Top 25 Bridge designer firms in the country. With industry leaders in offices across the globe, each of our clients benefit from the personal attention of our organization's worldwide experts (2,500 staff in North America and Asia), delivering quality services and state-of-the-art technical solutions on a variety of local infrastructure projects led by respected and world-renowned experts.

TYLI's practice is proudly rooted in the design of bridges, and our firm's hallmark of engineering excellence and creativity continues to thrive at the heart of our practice. From short span to long span — from conventional to complex — TYLI has the experience, personnel, and technology necessary to deliver top bridge designs in virtually every corner of the world. In partnership with transportation officials, community leaders and contractors, we create and help build unique structures for every landscape while emphasizing constructability, value, and schedule.

Our history and innovation in both design and construction engineering, combined with advanced technology, and top professionals in the business, assure that our clients receive designs that are safe, efficient and economical. In addition to extensive experience in the United States, TYLI has also designed major bridge structures all over the world.

Throughout the state of Florida, TYLI has offices in Ft. Lauderdale, Coral Gables, Tampa, Orlando and Ft. Myers. We have been the lead designer on several recent FDOT design-build contracts, with four successful wins in the last three years.

We have earned multiple design industry awards, including:

- 2016 Major Project Award from FICE/FDOT (Eller Drive ICTF),
- 2015 ACEC Grand Conceptor Award (Oakland Bay Bridge New East Span, Oakland, CA),
- 2012 Design-Build Institute of America, Florida Project of the Year, Transportation
- (SR 826/ Palmetto Expressway, Section 2),
- 2012 FTBA Best in Construction, Major Bridge (NW 25th St Viaduct) and
- 2011 FTBA Best in Construction, Interchange Category (SR 826/Palmetto Expressway,
- Section 1)

BRIDGE SERVICES

Planning/Concepts
Design
Construction Engineering
Construction Support/Services
Program Management
Rehabilitation and Repair
Seismic Retrofit
Design-Build

BRIDGE TYPES

Arch
Segmental
Suspension
Cable-stayed
Conventional
Pedestrian
Specialty

Statement of Skills and Experience of Project Team

I-395 Corridor Reconstruction Miami, Florida

Eller Drive/ICTF Overpass
Fort Lauderdale, Florida

Oakland Bay Bridge
San Francisco, California

NW 25th Street Viaduct
Miami, Florida

The TYLI team has the capabilities to a myriad on professional services with its in-house staff. These services include:

▪ Structural Engineering	▪ Transportation Engineering
▪ Civil Engineers	▪ Architecture
▪ Stormwater Drainage Design and Masterplans	▪ Envinronmental Services
▪ Electrical Engineers	▪ Geotechnical Services
▪ Site Civil	▪ ADA Compliance
▪ Planning & Feasibility Studies	▪ Construction Inspections
▪ Roadway Design	▪ Construction Management
▪ Threshold Inspections	▪ Land Use / Zoning
▪ Drainage Design	▪ Grant Writing Services

TYLI is as a “one-stop-shop resource of professional services.” We are proud of our South Florida workforce and are firmly committed to providing the City of Pompano 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 roadway and infrastructure improvement projects throughout South Florida, and particularly in support of local municipalities. The firm’s extensive list of local clients includes the following:

Statement of Skills and Experience of Project Team

Staffing

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 our commitment to on-going clients. On a regular basis, subconsultant firms will be asked to provide TYLI with a status of their projected staff 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 professionals in South Florida from which to draw upon and assign additional staff, if necessary.

The entire team assigned to this project has the availability to complete all of the required services.

Statement of Skills and Experience of Project Team

James Kanter, PE
Principal-In-Charge

Mr. Kanter is a FL-registered professional engineer and LEED® accredited transportation engineer with more than 32 years of professional consulting experience involving highways, bridges, complete streets, intermodal and multi-modal facilities, transit systems, airports and seaports. He has a keen understanding of the project delivery process – from planning through construction administration having successfully managed multi-disciplinary teams on transportation infrastructure projects for the FDOT; Broward, Miami-Dade, Palm Beach, and Monroe Counties; and several municipalities. He has consistently demonstrated an ability to overcome unique project challenges while delivering projects on time and on budget. He is dedicated to high quality service, ethical standards and effective client relationship building.

Professional references for Mr. Kanter include:

Ms. Alice Bravo, PE Director Miami-Dade County Department of Transportation and Public Works (305) 375-2960 alice.bravo@miamidade.gov Ms. Bravo collaborated with Mr. Kanter on the FDOT District 6 Historic Steel Bridge Preservation Study while a consultant.	Ms. Christine Fanchi, PE Transportation Engineering Design Manager City of Ft. Lauderdale Transportation & Mobility Department (954) 828-5226 cfanchi@fortlauderdale.gov NE 13th Street Complete Streets Project	Mr. Jorge C. Soto Director of Utilities Town of Medley, Florida (305) 889-1915 ext.224 jsoto@townofmedley.com W 116th Way Bridge over C-6 Canal (Bridge No. 876301) Design-Build for Misc. Maintenance Repairs Project

Statement of Skills and Experience of Project Team

Proposed Project Manager

Betsy Jeffers, PE has over 25 years of roadway design experience with the Florida Department of Transportation (FDOT) District 4 Design office. She is well versed in FDOT design criteria and standards, as well as AASHTO guidelines, specifications, typical section, variance and exception review, and quality control in the daily plans production environment. She spent 12 years as an In-house Design Section Leader with FDOT and served as the Design Project Manager and Engineer of Record for a variety of projects with construction budgets ranging from $300,000 to upwards of $65 million. For the last five years at D4, Betsy served as the Program Manager for the Broward Mobility Initiative, working together with the Broward MPO to program over $200 million in bicycle and pedestrian projects, which became the Broward MPO Complete Streets Program. As a FDOT Project Manager and Engineer of Record, Betsy has worked and coordinated with a variety of Cities and Counties in order to deliver quality projects on schedule. Betsy understands that for successful project delivery, a well coordinated team is a must. 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.

Some of these projects include:

- Andrews Avenue Extension from Atlantic Blvd to NW 15th Street, Pompano Beach, FL
- SR 811 Dixie Highway resurfacing/lane elimination from McNab Road to Atlantic Boulevard, Pompano Beach, FL
- Veteran's Memorial Bridge- New Bridge construction, Stuart, & Palm City, FL
- SR5/US 1 from SR 713 to South of Oslo Road Bridge Replacement, widening and reconstruction, Vero Beach, FL
- Jensen Beach Causeway Bridge Replacement, road reconstruction, Jensen Beach, FL
- CR 714 widening and reconstruction from Turnpike to Mapp Road, Martin County, FL
- US 27 resurfacing from SR 80 to Hendry County Line, South Bay, FL
- Sunset Strip Complete Streets Project from Nob Hill Road to Sunrise Boulevard, Sunrise, FL
- SR A1A resurfacing/Complete Street from Monroe Street to Sheridan Street, Hollywood Beach, FL
- Hollywood Boulevard Complete Streets Project from City Hall Circle to Dixie Highway, Hollywood, FL

Professional references for Ms. Jeffers include:

Mr. Scott Peterson, PE Roadway Design Engineer FDOT District 4 954-777-4416 Scott.peterson@dot.state.fl.us Jensen Beach Causeway Bridge Replacement	Mr. Steve Braun, PE District Design Engineer FDOT District 4 954-777-4416 Steve.braun@dot.state.fl.us Veteran's Memorial Bridge	Mr. Howard Webb, PE District Director of Transportation Operations FDOT District 4 954-777-4416 Howard.Webb@dot.state.fl.us Andrews Avenue Extension

Statement of Skills and Experience of Project Team

Dennis Martinez, PE
Lead Bridge Engineer

The firm's proposed Lead Bridge Engineer, Dennis Martinez, PE, has the technical, planning and organizational expertise to ensure that the contract is completed on schedule, within the established budget and to the complete satisfaction of the City and its residents. Mr. Martinez has over 15 years of experience in management, planning, design, permitting and construction management of structural engineering projects in South Florida. His role as the firm's Lead Engineer has exposed Mr. Martinez 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 Pompano Beach. His specific areas of expertise include the design of miscellaneous structures, major bridges, rail bridges, bridge ramps, bridge restoration, bridge extension and widening projects, and bridge load ratings.

Most recently, Mr. Martinez served as the Project Manager and Structural Engineer for the Design/Build project involving the development of conceptual plans and RFP design criteria package for the reconstruction of the I-395 corridor. This required extensive coordination with the FDOT and other project stakeholders.

Furthermore, in his capacity as a Lead Engineer and Project Manager, Mr. Martinez 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
    - o Affected Residents and Businesses
    - o State and Local Agencies
    - o Elected Officials
- Extensive utility coordination during design
- Public Involvement

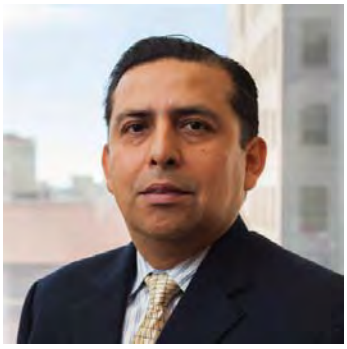
Professional references for Mr. Martinez include:

William E. Junkin, PE VP Engineering 1428 Brickell Avenue Suite 700 Miami, Florida 3313 PH: 305.371.5228 wjunkin@glfusa.com	Maria Perdomo, PE Project Manager FDOT – D6 Design 305-640-7186 maria.perdomo@dot.state.fl.us I395 Reconstruction	Jason Chang, PE Senior Project Manager FDOT – D6 Design 305-640-7400 Jason.chang@dot.state.fl.us NW 25th St

Statement of Skills and Experience of Project Team

Assisting Betsy and Dennis will be highly experienced bridge engineers who have been involved in some of TYLI's most notable bridge projects as well as hand picked local sub-consultants to complete a well rounded team.

James Rosales, PE - Bridge Engineer



Mr. James Rosales, PE has over 25 years of structural engineering experience on projects ranging from minor to complex design for roadways, and bridges; utility infrastructure, pavement design, miscellaneous structures; and specialty structures such as noise abatement walls, sign structures, retaining walls, tunnels and seawalls. His experience also extends beyond design encompassing services such as bridge inspection, due diligence assessment, and repair/rehabilitation investigations. Mr. Rosales has led the inspection efforts of more than 200 bridges.

Amongst his most successful projects while in the capacity of Project Manager and/or Lead Structural Engineer have been:

- FDOT District Six, I-395 Corridor Reconstruction, Miami, Florida
- Keystone Point Community, Design-Build Seawalls, North Miami Florida
- SR 826/Palmetto Expressway Section 2 Design-Build (from SW 68th Street to SW 33rd Street), Miami-Dade County, Florida
- City Hall Remodeling and Addition, City of West Miami, Florida
- Port of Miami Tunnel, Owner's Representation Services, Miami, FL
- Design/Build Noise Abatement Barrier Wall (along NW 36th Street) - Miami International Airport, Florida

Professional references for Mr. Rosales include:

Mr. Juan Pena, PE Director of Public Works City of West Miami 305 266-4214 juanpena@cityofwestmiami.org	Jason Chang, PE Project Manager FDOT District Six 305.470-5331 jason.chang@dot.state.fl.us	Henry Oaikjena, PE Project Manager FDOT District Four 954.414.4167 Henry.oaikhena@dot.state.fl.us

Statement of Skills and Experience of Project Team

Boon Chong, PE - Bridge Engineer

Mr. Chong has 28 years of structural engineering experience. He has been responsible for the overall conceptualization, production, and quality assurance for a wide variety of structural design projects. As Senior Structural Engineer, he actively participates in technical issues and monitors major projects. Mr. Chong's experience focuses on the design of highway bridges and tunnels as well as transit facilities and special structural design. He has been responsible for the design of more than 70 bridges, with spans ranging up to 280 feet; the design of more than 50 retaining walls; the production of conceptual reports for an additional 40 bridges; and the design reviews of more than 200 bridges for various authorities.

Professional references for Mr. Chong include:

Mr. Douglas Schallmoser, EI Project Manager FDOT District 1 813-612-3384 Douglas.Schallmoser@dot.state.fl.us D1 DW Bridge Engineering Services	Ms. Tara Rodriguez, PE Engineer Section Manager FDOT District 1 813-612-3381 Tara.Rodrigues@dot.state.fl.us D1 DW Bridge Engineering Services	Mr. Timothy Barnard, PE Engineer Section Manager FDOT District 3 850-330-1601 Timothy.Barnard@dot.state.fl.us D3 DW Bridge Engineering Services

Farzin Zafaranian, PE - Bridge Engineer

Mr. Zafaranian has over 20 years of experience in structural design and project management on a variety of structural engineering projects in Florida and the Southeast region of United States. His expertise is in design and construction of precast prestressed and cast-in-place post-tensioned concrete structures. He has been the Engineer of Record (EOR) on over twenty bridge structure projects that include both new structures and rehabilitation of existing structures. Among his recently completed bridge rehabilitation projects is Buckman Bridge in Jacksonville, Florida with a construction budget of $8 million . Farzin's new bridge structure experience includes widening of existing bridges such as the Miami Dade Expressway Authority Operational Capacity and Interchange Improvement project.

Professional references for Mr. Zafaranian include:

Mr. Bronoris Pye, EI FDOT Project Manager FDOT District 7 813-612-3389 bronoris.pye@dot.state.fl.us District 7 Districtwide Bridge Engineering Contract	Mr. Jeff Daugharty, PE FDOT Project Manager FDOT District 2 904-360-5575 Jeff.Daugharty@dot.state.fl.us Buckman Bridge Rehabilitation Project	Mr. Eric Shimer FDOT Project Manager FDOT District 2 (904) 360-5661 Eric.Shimer@dot.state.fl.us I-295 Express Lanes Buckman Signage

Statement of Skills and Experience of Project Team

Evan Sinn, PE - Bridge Engineer

Mr. Sinn has over 10 years of experience in structural engineering and has been involved in a variety of structural projects including the design of new bridges, bridge ramps, bridge widenings, light-rail bridges and the design of a signature bridge, as well as many miscellaneous structures . His recent experience has included bridge design, multi-disciplinary coordination, and Project Management of Construction Services. Most recently he has successfully completed design projects in Miami, Tampa, and Jacksonville.

Professional references for Mr. Sinn include:

Mr. Alfred John, PE Senior Structures Engineer Florida Turnpike (HNTB) 407-264-3584 Alfred.John@dot.state.fl.us SR589 Veterans Expwy Section 4	Mr. Joe Chao, PE Senior Project Engineer Florida Turnpike / CEI (HDR/ICA) 813-918-3260 joseph.chao@hdrinc.com SR589 Veterans Expwy Section 4	Mr. Gus Quesada, PE Senior Project Engineer MDX / CEI (New Millennium) 305-704-5881 Scott.peterson@dot.state.fl.us SR83628 Dolphin Expwy

Atiq Alvi, PE-QA/QC - Quality Assurance/Quality Control

Mr. Alvi is TY Lin International's (TYLI) Technical Director of Bridge Rehabilitation. He has over 27 years of expertise in bridge preservation, which includes bridge inspection; engineer of record for maintenance, repair, and rehabilitation design projects; feasibility studies; life-cycle cost analyses; and service life extension reports. Mr. Alvi started his bridge preservation career at the Florida Department of Transportation (FDOT) and later served as District 7 Structures Maintenance Engineer. Mr. Alvi serves on the Transportation Research Board (TRB) Bridge Preservation Committee and Structural Fiber-Reinforced Polymers Committee. He is also a member of the AASHTO TSP2 Bridge Preservation Partnership.

Professional references for Mr. Alvi include:

Mr. Bronoris Pye, EI FDOT Project Manager FDOT District 7 813-612-3389 bronoris.pye@dot.state.fl.us District 7 Districtwide Bridge Engineering Contract	Mr. Andra Diggs, PE FDOT District Structures Design Engineer FDOT District 1 863-519-2426 andra.diggs@dot.state.fl.us District 1 Structures Design Continuing Services Contract	Ms. April Williams District Structures Maintenance Engineer FDOT District 3 850-330-7652 april.williams@dot.state.fl.us District 3 Districtwide Bridge Engineering Contract

Statement of Skills and Experience of Project Team

Vikas Jain, AICP, GISP - Roadway / Complete Streets

Mr. Jain has 16 years of experience working on several complex transportation and transit projects throughout Florida. In his current role, he manages multi-disciplinary teams to deliver projects to a multitude of clients including FDOT, MPOs, municipal clients as well as private sector entities. He has managed a broad range of assignments from motorized and non-motorized projects such as bikeway/sidewalk, transit feasibility studies, multimodal corridor studies, traffic impact studies, and intermodal hubs. He has extensive experience in developing long-range multimodal transportation/transit system plans, transit service plans, transit operations analysis, and capital cost and O&M cost models. He has effectively integrated GIS and travel demand forecasting software data for socio-economic, land use, and demographic analysis to aid the team in preparing environmental assessments and impact statements under National Environmental Policy Act (NEPA) guidelines. Vikas has profound understanding of Federal Transit Administration's (FTA) project development process including preparing New Starts application. He has led and provided technical support for public outreach efforts, stakeholder and agency coordination.

Professional references for Mr. Jain include:

Beth Beltran MPO Administrator Martin MPO 772.221.1498 bbeltran@martin.fl.us Martin MPO General Planning Consultant	Sheila Rose, AICP Assistant City Manager City of Coconut Creek 954-973-6756 SRose@coconutcreek.net Coconut Creek Complete Streets Master Plan	Christine Fanchi, PE, PTP Transportation Engineering Design Manager City of Fort Lauderdale 954-828-5226 cfanchi@fortlauderdale.gov Uptown Urban Village Traffic and Transit Analysis

Statement of Skills and Experience of Project Team

Noel Shamble, AIA, NCARB, EIT
Lead Bridge Architect

Noel Shamble is a registered architect and graduate structural engineer with experience in the design of landmark bridges. Winner of the 2011 Cavin Design Competition and Research Fellowship, he has experience in the aesthetic and context sensitive design of signature structures worldwide. Locally he and his team were involved in the design of the Pedestrian Bridge Crossing over US-1 for the University of Miami in Coral Gables, and the I-395 Miami Corridor Signature Bridge in downtown Miami.

As the Director of TYLI's Architecture and Visualization Group, Mr. Shamble oversees a team of leading bridge designers who can create several visually appealing structure concepts in very little time using traditional and state-of-the-art tools including 3D printing.

A noted bridge architect and active member of the Transportation Research Board's Bridge Aesthetics committee - Mr. Shamble has presented papers on bridge aesthetics, and his graphic visualizations have appeared in numerous publications nationally.

UM Pedestrian Bridge Crossing Over US-1, Coral Gables

I-395 Miami Corridor Signature Bridge

Professional references for Mr. Shamble include:

Maria Perdomo, PE 305.640.7186 FDOT Disctrict 6 1000 NE 111 Ave Miami, FL 33172 "State Route 836/I-395 Corridor, Miami, FLorida" Federal & State	Kevin Ryan 909.350.6655 City of Fontana 8353 Sierra Avenue, Fontana, CA 92335 "I-10/Cherry Avenue and Citrus Ave Interchanges, Fontana, California" Local Government Association & Federal	Hugo Cisneros 310.732.3508 Port of Los Angeles 425 S. Palos Verdes St, San Pedro, CA 90731 "Avalon Promenade and Gateway, Port of Los Angeles, California"

Statement of Skills and Experience of Project Team

Isabel Nayab, PE - Permitting/Drainage

Ms. Nayab has been involved in projects throughout the State of Florida. Most notably several major state highway programs in Miami, Orlando, Ft. Lauderdale, Vero Beach, and Melbourne. She was lead drainage engineer for the Miami-Dade Expressway Authority's (MDX) $149M SR 836 (Dolphin Expressway) improvements project that spanned 4.89 miles of urban expressway and included the re-configuration of three urban interchanges. She was also the EOR for the storm drainage engineering required for the I-4 (SR 400) Ultimate between Rio Grande and SR 50 in downtown Orlando

Catherine Prince, LEED AP Mobility Project Manager City of Fort Lauderdale Transportation & Mobility Department (954) 828-3794 cprince@fortlauderdale.gov	Ashraf Elmaghraby, PE Roadway Engineer Supervisor FDOT District 5 386-943-5645 ashraf.elmaghraby@dot.state.fl.us	Heather Grubert, PE Consultant Project Manager FDOT District 5 393-943-5444 Heather.grubert@dot.state.fl.us

KEITH

Lee Powers, PSM - Director of Surveying and Mapping

Mr. Lee Powers has over 13 years of experience in land surveying and mapping in South Florida. He has worked with many local municipalities and government agencies to create and/or modernize their GIS Systems. He has also performed construction, right-of-way, control, ALTA, boundary, as-built and topographic (both acreage and coastal) surveys. He has extensive laser scanning experience with a particular emphasis on architectural modeling, historical preservation and infrastructure monitoring. He is well-versed in the scan-to-model workflow. He coordinates our BIM/VDC staff to ensure a quality and accurate model. Mr. Powers has extensive Project Management experience for large-scale projects and continuing service type contracts for both public and private sector clients. He is knowledgeable in the use of a wide range of state-of-the-art surveying equipment and associated computer technologies. He has extensive experience in field crew supervision, quality control and client relations.

Martin E. Murphy, Senior Project Manager Murray Logan Construction, Inc. (561)719-5401 martinm@murraylogan.com Pompano Pier	Horacio Danovich, CIP Engineer City of Pompano Beach CRA (954)786-7834 Horacio.danovich@copbfl.com Pompano Beach Design/Build Pier Parking Garage	John Sfiropoulos, City Engineer City of Pompano Beach (954)786-4060 john.sfiropoulos@copbfl.com SE 8th Court Bridge Replacement

Statement of Skills and Experience of Project Team

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

Eric Czerniejewski, PE, ENV SP - Director of Traffic Engineering

Eric Czerniejewski, PE is the Director of Traffic Engineering for CGA with 20 years of experience in transportation infrastructure design, traffic engineering and transportation planning. Mr. Czerniejewski's role as assistant project manager will be to oversee the traffic planning and engineering team members as well as offer expertise to the design team for the traffic analysis and studies required by the project. Mr Czerniejewski's experience with corridor traffic analysis and complete streets projects provide critical knowledge for the front-end scope of this contract. He and Mrs. Martinetti have worked together in this capacity recently on the Nova Drive project where traffic analysis and roundabout justification reports were required to justify the improvements desired by the Town of Davie.

Mr. Czerniejewski has experience in transportation projects that includes preparation of traffic studies including corridor studies, traffic impact studies, mobility studies and parking utilization and reduction studies. He is also specialized in signalization design, roadway design, managing, designing and permitting select transportation infrastructure engineering projects; planning, developing and coordinating civil engineering design documents; and coordinating construction engineering and inspection. Some of his relevant mobility plan experience includes development of a citywide mobility plan for the City of Fort Lauderdale, preparation of the campus master mobility plans for Florida International University and Florida Atlantic University campuses; as well as, Memorial Health Care Joe DiMaggio Hospital campus. He currently is Project Manager for the Miami Dade TPO SMART Plan Master Plan project for the South Dade Transitway along US-1 between the Village of Pinecrest and Florida City. He is certified to prepare traffic control plans and process LAP projects by FDOT. Mr. Czerniejewski was the Project Manager for the MLK Blvd. Corridor study and MLK Blvd. and NW 27th Avenue signal warrant study in the City of Pompano Beach.

Professional references for Mr. Czerniejewski include:

Maria Tejera City Traffic Engineer Boca Raton Downtown Traffic Study 561-416-3385 bocatraffic@myboca.us	Mark Greenspan Director Memorial Hospital Joe DiMaggio Master Plan Traffic Study Memorial Hospital, Design & Construction Services at Memorial Healthcare System 954-987-2001 mgreenspan@mhs net	Julio Yero Chief of Police Town of Surfside Town of Surfside Townwide Traffic Calming 305.861.4862 jyero@townofsurfside.gov

Statement of Skills and Experience of Project Team

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS

Tammy Cook-Weedon, ASLA, PLA, LEED AP BD+C - Landscape Architect

Tammy Cook-Weedon is a LEED-AP, Florida Professional Landscape Architect with over 30 years of experience. She has valuable experience for a wide variety of project types, including recreational projects, streetscapes, parks, neighborhood improvement projects, community branding, and general landscape architectural components. As the founding Landscape Architect for CGA, Tammy's professional work is supportive of the firm's mission to develop excellent sustainable solutions to enhance the environment and surrounding communities. Her leadership has been exemplified in demonstrating and promoting innovative site development strategies that foster the promotion of landscape ecology, water conservation, and landscapes that promote natural processes and habitat restoration.

Ms. Cook-Weedon has provided landscape architectural services for the Andrews Avenue Complete Streets Project in Oakland Park which is scheduled to go out to bid soon. The construction documents are complete for Tamarind Avenue in West Palm Beach which includes the use of Silva Cells and the development of a sustainable walkable corridor for this community.

Professional references for Ms. Cook-Weedon include:

David Gomez Senior Project Coordinator, Office of Capital Improvements City of Miami Beach- Middle Beach Walk (305) 673-6071 Ext. 6732 1700 Convention Center Dr. Miami Beach, FL 33139	JC Jimenez Asstistant Town Manager Town of Bay Harbor Island Bay Harbor Island Bridge (305) 866-6241 jcjimenez@bayharborislands-fl.gov 9665 Bay Harbor Terrace Bay Harbor Islands, FL 33154	Susan Simpson Assistant City Manager Sunny Isles Beach Government Center Sunny Isles Beach Pedestrian Bridge Sunny Isles Beach 305.947.0606 18070 Collins Avenue Sunny Isles Beach, FL 33160

Statement of Skills and Experience of Project Team

Andre Capi - Public Involvement

Andre Capi has been with the DK Architects since 1989. Mr. Capi received his master's degree at the Tulane School of Architecture, New Orleans, LA. Mr. Capi coordinates our planning, design and design-build projects and is responsible for quality control, facilitated by his extensive knowledge of building codes, Planning and Zoning ordinances and permit processes nationwide. Mr. Capi is LEED Certified and is leading the company's environmental and sustainable initiative.

Louis Friend Engineering Construction Manager 954-786-4023 "North Pompano Park Community Center"	John Sfiropoulos City Engineer Construction Administration of Construction Manager At Risk 954-545-7009 " Briny Avenue Streetscape and Urban Design"	Anthony Alhashemi Engineering Project Manager (954)786-4029 "Lifeguard Towers"

Yves-Stanley Delmas, PE - Geotechnical

With over 10 years of experience as a Geotechnical Engineer, Mr. Delmas's design experience, knowledge geotechnical and conventional field-testing services result in a skill set that combines his knowledge of design intent and the importance of collecting quality field data. Mr. Delmas is responsible for the geotechnical design of civil projects, and the coordination of construction-phase services and inspections for a variety of projects. He is experienced in geotechnical construction projects where mix designs, and in-situ testing is critical to the project's success. In addition, he has significant laboratory engineering experience as he started his career as a laboratory testing technician.

Matthew Gisondi District District Geotechnical Engineer 954.677.7038 Matthew.Gisondi@dot.state.fl.us Bridges of the Isles and Sunrise Key Bridge Replacements, Broward County, FL	Adrian Viala Assistant District Geotechnical Engineer FDOT District 4/6 Materials Office 954.677.7011 Adrian.Viala@dot.state.fl.us Tamiami Trail Road/U.S. Highway 41 with a new 2.6-mile-long bridge, Miami-Dade County, FL	Wing Heung Lead Turnpike Geotechnical Engineer 954.934.1154 Wing.Heung@dot.state.fl.us S.R. 821 Widening from North of S.W. 72nd Street to North of S.W. 40th Street, Miami- Dade County, FL / FDOT, Florida's Turnpike Enterprise

Statement of Skills and Experience of Project Team

Supporting TYLI will be the following specialty subconsultants.

H2R Corp.

H2R Corp.(Pompano Beach based local vendor) proudly provides a wide range of geotechnical engineering and construction services to a diverse portfolio of public and private clients. Their passion drives their focus to provide a superior client experience through exceptional quality, speed of delivery, communication, responsiveness, resourcefulness and integrity. They develop and maintain strong, personal relationships, and they understand their clients' needs and serve as their advocates. H2R is a certified and registered small business enterprise SBE located in Pompano Beach, FL. H2R provides state-of-the-art Geotechnical Engineering and Quality Control Testing and Inspection Services to today's increasingly sophisticated client. This goal is being achieved through the dedication and commitment of the entire H2R organization.

Supporting their professional staff, their fleet of investigative equipment is one of the most versatile found in Florida. Located in-house and mounted on an array of carriers, their fleet provides access into virtually any drilling location. From their Electronic Cone Penetrometer to their custom-built aluminum barge and work boat, they are a premier subsurface investigative group. Accurate subsurface data is critical in designing projects that are "constructable" from a foundation-cost perspective. H2R maintains in-house, the most extensive array of drilling and sampling equipment available in Florida, ranging from portable tri-pod rigs to their state-of the-art remote controlled track rig.

H2R is one of the leading geotechnical firms when it comes to bridges and major transportation projects. They have worked on hundreds of bridge projects, ranging in sizes. They partner with their clients to develop the right solutions to their challenges, utilizing their combination of technical expertise, innovative thinking, and state-of-the-art equipment and technologies. They develop action plans based on their clients' needs and expectations through field reconnaissance, research and analytics. Founded in 1972 as Williams & Associates, transitioning to Williams Earth Sciences to Gannett Fleming to H2R Corp, the firm is now led by Dave Rancman, PE, Craig Ruda, FLGC and Dan Hart, PE. Through their transitions, their continuity of service has never changed as they continue the original vision of serving their clients and community.

Calvin, Giordano & Associates, Inc

Calvin, Giordano & Associates, Inc. (CGA) is a multi- disciplinary consulting firm with over 350 employees and ongoing working relationships with numerous municipalities in Broward County. They have also worked with various governmental agencies including the FDOT, BCTED, BCHCED, ACOE, SFWMD, FDEP, and FEMA. Their team is fully capable of delivering all the services necessary for surveying, roadway design, signing and pavement marking, traffic engineering and transportation planning, urban design, lighting, permitting, and construction services for this roadway project. Specifically, their expertise incorporates complete street enhancements to improve the rideability for drivers, pedestrian walkability and safe passage for bicyclist. With great design, the CGA Team believes that they can offer infrastructure improvements while supporting future urban planning and design. An added and unique benefit of CGA to the City is their multi-disciplinary approach, where they combine creative planning solutions with economic development, capital improvements, transportation issues, community input and sustainable design solutions.

Statement of Skills and Experience of Project Team

Keith & Associates

Keith and Associates, Inc. (KEITH, Pompano Beach based local vendor) was incorporated as a Florida corporation in 1998. As a mid-size closely-knit firm, they provide civil engineering, traffic engineering, surveying and mapping, subsurface utility engineering, planning, landscape architecture, construction management and virtual design and construction services. The firm was founded on the principal of achieving success by combining the latest technology with client oriented business practices, and a staff of experienced and talented professionals.

The firm's team of experts has extensive past and ongoing experience with both large-scale private and public sector projects. Their staff combines the technical work experience of over 100 professionals, each with an extensive working knowledge of local and regional projects. This convergence of experience has resulted in the development of a tremendous database of knowledge and information concerning local, past and ongoing projects, which is an invaluable asset they can provide to their clients.

The expertise of their Land Surveying staff is evidenced by Ms. Dodie Keith-Lazowick, Mr. Lee Powers, Mr. Eric Wilhjelm and Mr. Timothy Gray's combined South Florida surveying experience of over 100 years. This experience has resulted in a tremendous database of knowledge and information. The ability to offer in-house surveying and mapping capabilities provides for a more comprehensive unified team. Services include boundary, topographic, control, wetland, mitigation, route, aviation, bathymetric, GIS, GPS, as-built, American Land Title and coastal surveys, legal descriptions, right-of-way mapping, design base sheets, title review, DTMs, differential leveling, construction stakeout, platting, expert witness surveying, and mapping services.

Subsurface Utility Engineering (SUE) provides accurate mapping of existing underground utilities, eliminating the need to "find out the hard way" that plotted utility information was inaccurate. Performed during the project design process, Subsurface Utility Engineering can help utility owners, designers, engineers and contractors avoid conflicts or project delays. To avoid these issues, many clients turn to KEITH, a recognized leader in Subsurface Utility Engineering. KEITH's staff has the expertise required to deliver accurate utility information needed by clients, engineers, contractors and designers to make informed decisions. Using KEITH's' SUE services will result in the enhanced accuracy of project designs and cost estimates by collecting and mapping underground utility data that was primarily unknown.

Their team of experts also includes utility coordination managers with extensive experience in working with facility owners, design teams and agencies to mitigate conflicts between existing facilities and proposed designs. Their relationships with area utility agencies serve to facilitate negotiations, expedite requests for available records and ultimately the successful certification of each project.

Design Kollaborative Architects/Planners, Inc

DK Architects is a diversified architecture firm with a rich history of collaboration with Pompano Beach since 1978. The entity, a certified Community Disadvantaged Business Enterprise and Small Business Enterprise provides design services for both the City of Pompano Beach and the Pompano Beach Community Redevelopment Agency by way of Continuing Services Agreements. As the most tenured active design firm in the Pompano community, DK Architects brings an unparallel level of continuity and commitment to this community: Andre Capi, Director has worked in Pompano Beach for over twenty (20) years, participating in numerous public / private partnerships and philanthropic endeavors.

Statement of Skills and Experience of Project Team

HLB Lighting

Horton Lees Brogden Lighting Design is a women owned (WBE) internationally recognized architectural lighting design firm with offices in New York, San Francisco, Los Angeles, Boston, Miami, Denver, and Austin. Founded in 1968, HLB specializes in interior and exterior electric lighting, controls, and daylighting integration. Our dynamic team offers backgrounds in architecture, interior design, theater, and engineering, allowing us to create extraordinary solutions to the most complicated design challenges. We infuse our core values of artistry, legacy, curiosity, balance, and integrity into every project. We are driven by our curiosity, inspired by the artistry of light, and compelled to produce designs with integrity, leaving a legacy of design that respects its environment. We thrive with intriguing projects that engage us conceptually and challenge us technically. As specialists, we concern ourselves with a holistic approach to the visual environment by integrating electric light and daylight into the overall design approach. We immerse ourselves in the design process of our projects, uncovering the challenges, untangling the facts, and delivering intelligent and elegant lighting solutions that add value and make sense.

Bolt Underwater Services, Inc.

Bolt Uunderwater Services, Inc. was founded and incorporated in 1996 providing commercial diving services with a focus on underwater structural inspections. Since its inception, Bolt has averaged over 1300 inspections per year throughout Florida and Puerto Rico for the Department of Transportation, numerous Engineering Firms, City Municipalities, Railroad Owners, Florida Fish and Wildlife Conservation Commission, Greenways and Trails, Florida Department of Environmental Protection, Southwest Florida Water Management District and other structure owners.

Their Team consists of a Professional Engineer and Certified Bridge Inspectors with a combined experience of 145 years conducting Routine, Initial, Interim, Construction Engineering Inspections, Debris Surveys, Vessel Impacts and Scour Inspections. Their key personnel have extensive history and intimate knowledge gained from having repeatedly inspected many structures since 1996. This experience creates an unmatched database for future inspections, and an unrivalled understanding of structures, maintenance and environment that provides their Clients with quality inspections.

LICENSES

State of Florida

Board of Professional Engineers

Attests that

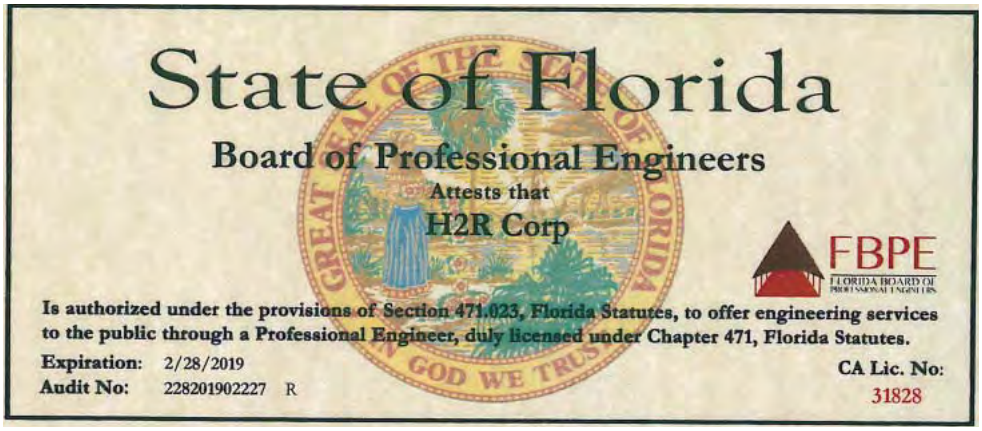
T. Y. Lin International

FBPE

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



State of Florida

Board of Professional Engineers

Attests that

H2R Corp

FBPE

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: 228201902227 R

CA Lic. No: 31828

State of Florida

Board of Professional Engineers

Attests that

Calvin Giordano & Associates, Inc.

FBPE

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: 228201902481 R

CA Lic. No: 514

LICENSES

Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500

License No.: **LB6860**
Expiration Date February 28, 2019

Professional Surveyor and Mapper Business License

Under the provisions of Chapter 472, Florida Statutes

KEITH AND ASSOCIATES INC
301 EAST ATLANTIC BLVD
POMPANO BEACH, FL 33060-6643

ADAM H. PUTNAM
COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.

RICK SCOTT, GOVERNOR KEN LAWSON, SECRETARY

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
BOARD OF ARCHITECTURE & INTERIOR DESIGN

LICENSE NUMBER
AAC000554

The ARCHITECT CORPORATION
Named below IS CERTIFIED
Under the provisions of Chapter 481 FS.
Expiration date: FEB 28, 2019

DESIGN KOLLABORATIVE
ARCHITECTS, PLANNERS, INC
24 NE 24 AVE STE 1
POMPANO BEACH FL 330625206

ISSUED: 12/04/2016 DISPLAY AS REQUIRED BY LAW SEQ # L1612040001408

BROWARD
Tax Receipts

BROWARD COUNTY LOCAL BUSINESS TAX RECEIPT

115 S. Andrews Ave., Rm. A-100, Ft. Lauderdale, FL 33301-1895 – 954-831-4000
VALID OCTOBER 1, 2018 THROUGH SEPTEMBER 30, 2019

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	0.00	0.00	0.00	0.00	0.00	30.00

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.

Mailing Address:

JAMES M KANTER
500 W CYPRESS CREEK RD #330
FORT LAUDERDALE, FL 33309

Receipt #WWW-17-00163408
Paid 08/08/2018 30.00

2018 - 2019

BROWARD COUNTY LOCAL BUSINESS TAX RECEIPT

115 S. Andrews Ave., Rm. A-100, Ft. Lauderdale, FL 33301-1895 – 954-831-4000
VALID OCTOBER 1, 2018 THROUGH SEPTEMBER 30, 2019

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		

Signature

For Vending Business Only
Number of Machines: **Vending Type:**

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

Receipt #WWW-17-00163408
Paid 08/08/2018 30.00

POMPANO BEACH
Tax Receipts

pompano beach
Florida's Warmest Welcome

CITY OF POMPANO BEACH
BUSINESS TAX RECEIPT
FISCAL YEAR: 2018 - 2019

THIS IS NOT A BILL

Business Tax Receipt Valid from: October 1, 2018 through September 30, 2019

9/5/2018

4441589
KEITH AND ASSOCIATES INC
301 E ATLANTIC BL

POMPANO BEACH FL 33060

THIS IS YOUR BUSINESS TAX RECEIPT. PLEASE POST IN A CONSPICUOUS PLACE AT THE BUSINESS LOCATION.

BUSINESS OWNER: KEITH AND ASSOCIATES INC
BUSINESS LOCATION: 301 E ATLANTIC BL POMPANO BEACH FL

RECEIPT NO:	**CLASSIFICATION**
19-00065569	**PROFESSIONAL OFFICE (SEE REQUIREMENTS)**

NOTICE: A NEW APPLICATON MUST BE FILED IF THE BUSINESS NAME, OWNERSHIP OR ADDRESS IS CHANGED. THE ISSUANCE OF A BUSINESS TAX RECEIPT SHALL NOT BE DEEMED A WAIVER OF ANY PROVISION OF THE CITY CODE NOR SHALL THE ISSUANCE OF A BUSINESS TAX RECEIPT BE CONSTRUED TO BE A JUDGEMENT OF THE CITY AS TO THE COMPETENCE OF THE APPLICANT TO TRANSACT BUSINESS. **THIS DOCUMENT CANNOT BE ALTERED.**

BUSINESS TAX RECEIPTS EXPIRE SEPTEMBER 30TH OF EACH YEAR

Public License Information

Renew

License Number:	19-00075194	**Location ID:**	000022420
Business Control:	4449806		

Business Information

Business Name:	DESIGN KOLLABORATIVE ARCH. PLANNERS		
Business Address:	24 NE 24 AV POMPANO BEACH FL 33062		
Mailing Address:	24 NE 24 AVE POMPANO BEACH FL 33062		
Owner Name:	DESIGN KOLLABORATIVE ARCH.	**Date Opened:**	11/30/2012
Business Phone:	(954) 941-3329	**Contractor Flag:**	
Federal Tax ID:	591866951	**Type of Ownership:**	CP
Status:	Active		

Business Officers

Name	Title	Address 1	Address 2	City,State,Zip	Phone	Email ID
CAPI, ANDRE SCHOFIELD	VP	481 NE 1 ST		POMPANO BEACH FL 33060	954-294-6807	

Showing 1 to 1 of 1 entries

License Information

Classification:	143-000 - PROFESSIONAL OFFICE (SEE REQUIREMENTS)
License Status, Date:	ACTIVE, 07/20/2018
Application Issue Date:	07/18/2018, 09/05/2018
License Valid Thru Date:	09/30/2019

Statement of Skills and Experience of Project Team

As requested in the RFQ, below is a detailed description of comparable contracts which the firm has either on-going or completed in the past 5 years.

Statement of Skills and Experience of Project Team

Smokehouse Bay Bridge

Marco Island, Florida

Client	City of Marco Island Timothy Pinter, PE (Senior Project Manager) 570 N. Collier Blvd., Marco Island, FL 34145 239.389.5018	Key Personnel	Jim Molnar, PE James Rosales, PE Boon Chong, PE
Completion Date	2016		

Description

TYLI was selected as prime on the $8.0M Smokehouse Bay Bridge replacement project. The City of Marco Island (jewel of the Florida Gulf Coast and located adjacent to the City of Naples) invited fi ve companies to present design concepts for replacement of the current Smokehouse Bay Bridges. The two bridge structure that were in place reached the end of their useful life in 2013. The TYLI concept removed the center piers to allow more navigable space for boaters while increasing the mean high water elevation clearance to 13.7 feet, the highest clearance submitted by any competitor. The additional clearance allowed for the creation of an inviting space under the bridge for pedestrians, bicyclists, and fi sherman. Parks on both sides of the bay are now connected via safe pedestrian paths both above and below. Construction was completed in September 2016.

Statement of Skills and Experience of Project Team

SR 97 Over Sandy Hollow Creek Bridge Replacement

Escambia County, Florida

Client	FDOT, District Three Sandra Lamb, PE Orlando, Florida 850.277.1411	Key Personnel	Atiq Alvi, PE Boon Chong, PE
Completion Date	2016		

Description

T. Y. Lin International 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) system 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 traffi c during construction.

Statement of Skills and Experience of Project Team

Chokoloskee Bridge Replacement

Everglades City, Florida

Client	Collier County DOT Marlene Messam 2885 Horseshoe Dr S., Naples, FL 34104 239.252.5773	Key Personnel	Jim Molnar, PE Boon Chong, PE Colin Henderson
Completion Date	2016		

Description

TYLI was selected to replace the 57-year-old, 200-foot long Chokoloskee bridge on the causeway connecting Chokoloskee Island, the southernmost community on the west side of Florida, with Everglades City. Chokoloskee Bridge is the only means of surface transportation to residents and therefore it is their only hurricane evacuation route and the client required that two-way traffic and pedestrian access be maintained at all times during construction. An ACROW 3000 Series temporary bridge with sidewalk will be utilized to allow for the removal and replacement of the existing bridge in a similar horizontal alignment while maintaining safe pedestrian and vehicular flow.

This bridge crosses environmentally sensitive Chokoloskee Bay which is habitat to protected species including red and black mangroves, manatees, and smalltooth sawfish. Utility coordination required the design and permitting of a replacement water main and pile design to avoid conflicts with the existing subaqueous sewer mains. Full replacement of the bridge will provide improved vertical clearance for boats, improved pedestrian safety and facilities, and installation of scour protection to insure that the bridge and adjacent roadway can withstand the 100 year storm event.

Services for this project included roadway, bridge, utility, flexible pavement, transportation, scour control, and drainage design services in addition to environmental engineering and permitting services.

Permitting for this project involves the US Coast Guard, South Florida Water Management District, Florida Department of Environmental Protection, US Army Corps of Engineers, US Fish and Wildlife Services, and the National Marine Fisheries Service.

Statement of Skills and Experience of Project Team

FDOT – District Seven, District Wide Bridge Engineering Contract

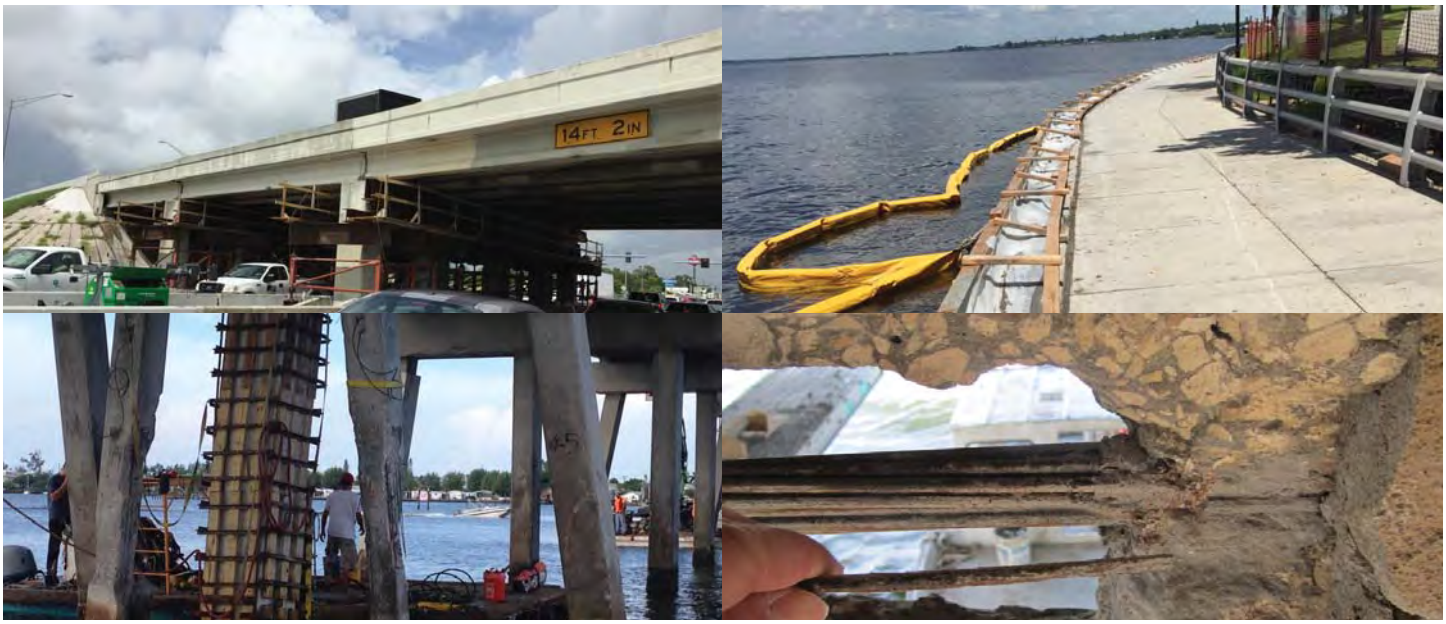
Tampa, Florida

Client	FDOT District Seven Bronoris Pye, PE 813.975.7589	Key Personnel	Atiq Alvi, PE Boon Chong, PE Farzin Zafaranian, PE
Completion Date	2017		

Description

T.Y. Lin International (TYLI) is serving as the Prime Consultant to the Florida Department of Transportation (FDOT) District One and Seven Structures Maintenance Offi ce (DSMO). Responsibilities on this $1.5 million on-call contract include providing in-house engineering support, bridge inspections, load ratings, condition assessments, structural strengthening, bridge rehabilitation designs and post-design services.

Statement of Skills and Experience of Project Team



FDOT – District One, District Wide Bridge Engineering Contract

Tampa, Florida

Client	FDOT District One Douglas Schallmoser, PE 2916 Leslie Road, Tampa, FL 33619 813.612.3384	Key Personnel	Boon Chong, PE Farzin Zafaranian, PE Atiq Alvi, PE
Completion Date	2009-current		

Description

T.Y. Lin International (TYLI) is serving as the Prime Consultant to the Florida Department of Transportation (FDOT) District 1&7 Structures Maintenance Office (DSMO). Responsibilities on this $1.5 million on-call contract include providing in-house engineering support, bridge inspections, load ratings, condition assessments, structural strengthening, bridge rehabilitation designs and post-design services.

US 41 over US 301 Bridge Elevation (Completed 2015): Bridge jacking and increase vertical clearance, reconstruct roadway profile.

SR 684 Cortez Draw Bridge Rehabilitation (Completed 2015): PT-tendon repair, cathodic pile jacket, control house repair, mechanical and electrical upgrade, spall repair.

Hernando Desoto Bridge Repair (Completed 2017): Concrete deck overlay, Cathodic Pile Jacket, Spall Repair for bulkhead, pier, deck, prestressed concrete beam, fender and catwalk repair.

Statement of Skills and Experience of Project Team

Sunshine Skyway Bridge Corridor Engineering Services

Pinellas and Manatee Counties, Florida

Client	FDOT, District Seven Steve Womble, PE 2916 Leslie Road, Tampa, FL 33619 813.612.3362 Steve.Womble@dot.state.fl.us	Key Personnel	Atiq Alvi, PE Farzin Zafaranian, PE Boon Chong, PE
Completion Date	February 2017		

Description

TY Lin International provides technical support services including: general structural, electrical, segmental, and cable-stayed engineering design, maintenance of traffic, drainage and geotechnical services for minor and major repairs or rehabilitation of bridges and sign structures along the Sunshine Skyway Corridor and other bridges as assigned throughout District 7. Deliverables typically provided to FDOT include: Technical Special Provisions (TSPs), cost estimates, plans and calculations. Specifi c Task Orders may be general in nature such as on-call Engineering Support; or specific for a rehabilitation. The FDOT Sunshine Skyway Corridor Engineering Services Contract is valued at $5M and is a 5-year contract.

Sunshine Skyway Corridor Corrosion Mitigation Project (Completed 2017): was designed to extend the service life of the bridge corridor tilizing cathodic protection on main pylons as well as methcrylate on the deck. Sunshine Skyway Aesthetic Lighting Project (Under Construction): Conceptual development of alternatives including renderings and animations. Final plans and specifi cations for the dynamic color changing LED lighting system. Sunshine Skyway Trestle Span & Dolphin Repairs (Under Design): Design Carbon Fiber Reinforced Polymer (CFRP) to strengthen the low level AASHTO Type IV beams. Enhancement of the current dolphins by the installation of a sacrifi cial anode to mitigate corrosion. Sunshine Skyway Fishing Piers Rehabilitation (Under Design): Design of rehabilitation plans and specifi cations for beams, caps, piles & decks by preparing innovative solutions to stretch FDOT funding to limit bridge posting and extend service life.

Statement of Skills and Experience of Project Team

SR 862/Eller Drive ICTF Overpass from West of US1 / SR5 to East of McIntosh Road

Fort Lauderdale, Florida

Client	FDOT, District Four Morteza Alian, PE 3400 W. Commercial Blvd Fort Lauderdale, FL 33309 954.777.4449	Key Personnel	James Rosales, PE Ramifis Morales, PE Colin Henderson Dennis Martinez, PE
Completion Date	2010		

Description

T.Y. Lin International completed design and construction administration on this complex interchange for express lanes from I-595 into Port Everglades. The project eliminated two at-grade intersections between the end of I-595 and Port Everglades, and provided grade separation for the railroad serving the proposed Intermodal Container Transfer Facility (ICTF) at Southport. The project involved the design of five bridges, elevated mainline roadways, frontage roads, parallel railroad spur lines, and three railroad crossings all within a ½ mile segment of roadway. There were modifications to the connector ramps from Fort Lauderdale-Hollywood International Airport, as well as connections to local City streets and Port roadways. The final construction cost was over $45million.

Specific tasks included:

- Final engineering for 5.4 miles of new roadway
- Design of five bridges and retaining walls
- Full environmental investigations
- New double-track railroad spur lines to serve the Port Everglades future container yard
- Maintenance of Traffic Analysis

Statement of Skills and Experience of Project Team

Bridge Rehabilitation/Bridge Repair and Inspection Specialty Services

City of Marco Island, Florida

Client	City of Marco Island Timothy Pinter, PE(Public Works Director) Marco Island, Florida	Key Personnel	Jim Molnar, PE Boon Chong, PE
Completion Date	June 2016		

Description

The City of Marco Island has fi fteen bridges that are annually inspected by the FDOT and which must be maintained for operational and structural integrity. Two of the bridges have been recently replaced and a third is currently under construction. The remaining twelve are all approaching the end of their design life and are in need of either repairs and/or upgrades or complete replacements. The work may include the design of bridges and the structural design of other highway-related structures such as guardrail, concrete box culverts and retaining walls. The work includes all structural and electrical requirements and may include construction engineering inspection services for various bridge designs. The work may include performing routine bridge inspection services, underwater bridge inspections or bridge load rating analyses, making recommendations of repair for existing bridges, bridge scour analyses and the design of scour counter measures.

The scope of work may also include stormwater permits, environmental permits, USCG permits, subsurface utility engineering (SUE), maintenance of traffic plans, bridge closure plans, temporary bridge plans, bridge lighting, and other appurtenances. Engineering studies and analysis required for the work may include value engineering or development of Project Development and Engineering Reports, Bridge Development Reports or Bridge Hydraulic Reports.

Generally, the following types of designs may be included in this contract: box culverts, retaining walls, cast-in-place or pre-cast stressed short span slab type bridges, simple span pre-stressed concrete beam bridges, bridges over navigable waters; pedestrian bridges, rehabilitation, repair or widening of any of these bridges.
There are currently fifteen (15) bridges on Marco Island, with repair/replacement costs estimated between $50,000.00 and $15,000,000.00

Statement of Skills and Experience of Project Team

Bridge Construction Inspection and ARRA Compliance Services

Miami Beach, Florida

Client	City of Miami Beach Jose Rivas 305.673.7080 jrivas@miamibeachfl.gov	Key Personnel	Francisco Alonso, PE Jose Anadon
Completion Date	October 2010		

Description

TYLI was retained by the City of Miami Beach to provide Construction Inspection Services and ARRA reporting / compliance services for the rehabilitation of Henedon Avenue Bridge from Daytonia Road to Cleveland Road, Sunset Drive Bridge from 20th Street to 21st Street and Sunset Drive Bridge from 22nd Street to 21st Street. The scope of the construction consisted of repairs of the following bridge elements: approach roadway, asphalt resurfacing on the bridge top deck, deck underside and substructure repairs, sidewalk repairs, bridge railing repairs, signage, and placing appropriate traffic pavement markings.
Services included:

- Preconstruction meetings.
- Respond to contractor's Requests for Information (RFI).
- Review of Shop Drawings.
- Perform daily site inspections during construction.
- Daily report logs
- Conduct construction meetings
- Review Contractor pay requests and change orders
- Prepare record drawings based on contractor's surveyed as-built plans.
- Local Agency ARRA Reporting Support
- EEO and Construction Compliance Support

Statement of Skills and Experience of Project Team

Keystone Bridge Inspections and ARRA Compliance Services

North Miami Beach, Florida

Client	City of North Miami Mr. Aleem Ghany 305.787.1004	Key Personnel	Jose Anadon
Completion Date	2010		

Description

The firm was retained by the City of North Miami to provide Construction Inspection Services and American Recovery and Reinvestment Act (ARRA) reporting / compliance services for the Work under this Contract consists of furnishing all supervision, labor, materials, equipment, tools and performing all operations necessary to complete the bridge repairs as delineated within the FDOT Bridge reports attached and as required by the City of North Miami. This work includes proper coordination and placement of a complete and acceptable MOT, repairs to: the superstructure, the substructure, the embankments, the slopes, the approaches, the handrails, the sidewalks, the roadway, the slope protection, and other bridge elements in a professional and timely manner.

Statement of Skills and Experience of Project Team

Bridge Development Report, SR 80/1st Street over Billy's Creek (Bridge #120001)

Lee County, Fort Myers, Florida

Client	City of Fort Myers Saeed Kazemi 2200 Second Street, Fort Myers, Florida 33901	Key Personnel	Jim Molnar, PE Boon Chong, PE
Completion Date	April 2008		

Description

TYLI served as Subconsultant to Pitman Hartenstein & Associates to develop a Bridge Development Report for the movable bridge option for the replacement of Billy's Creek Bridge, SR80. This Bridge Development Report (BDR) presents the engineering evaluation performed to determine the most cost effective and functional structure for the bridge replacement on State Road 80/1st Street over Billy's Creek.

In order to accommodate the increasing traffi c demand from the redevelopment occurring in the downtown area, the City of Fort Myers has initiated a project to improve the State Road-80 corridor. The project is intended to provide an improved roadway network system to mitigate the impacts of the new development. One key to the project will be to replace the existing bridge on SR80/1st Street over Billy's Creek for the increased width of proposed roadway and sidewalks and to improve sight distance.

The existing structure is a three span bridge over a navigable waterway, in which the center span was originally designed as a lift span, however it is no longer used as such. This bridge is a rare example of a vertical hydraulic lift span. There may only be 2 or 3 similar structures in the U.S. Therefore, the bridge will qualify as a historically signifi cant structure and as such will have to comply with the requirements of the National Historic Preservation Act. The proposed bridge type will need to maintain the existing navigable waterway clearances for the passage of vessels.

Statement of Skills and Experience of Project Team

Description (continued...)

This Bridge Development Report, in addition to evaluating different structural systems, develops the preliminary arrangement of these systems and makes recommendations for the system confi guration to be advanced to fi nal design. The Bridge Development Report is intended to "establish all the basic parameters that will affect the work done in the Design and Plans Preparation phase." The project is located in Lee County, Florida in the City of Fort Myers. The bridge is located on SR-80/1st Street over Billy's Creek, which is approximately 220' northeast of the intersection of SR-80 and Palm Avenue.

Proposed Improvements

The proposed bridge will be 124'-0" long with a 40'-0" bascule center span, which will provide adequate clearances for the navigable channel, with concrete deck on prestressed concrete beams approach spans. This will greatly improve the condition of the existing lift bridge that no longer functions to allow vessel passage. A 24-hour notice will be required to schedule the removal and replacement of the center span, which will take approximately 2 hours to complete.

To accommodate the improved roadway cross-section the bridge width will be 50'-0", which includes a 36'-8" roadway and two 6'-8" wide sidewalks. The existing deck for the center span is open steel grating for the roadway and steel plating for the sidewalks. Shor comings of this type of deck include slick surfaces after rain events and noise produced from vehicle passage. The proposed new bridge deck consists of a steel plate with an epoxy concrete wearing surface that eliminates these problems.

Currently, passing vehicles cause large defl ections that can be unsettling to pedestrians walking on the center span. The proposed span is designed for a live load defl ection limit of 1/1000 that will reduce these defl ections signifi cantly. Also, a longer vertical curve and flatter rising and falling grades are provided with the proposed alignment. This will meet desirable stopping-sight distances and improve driver's safety.

Another improvement will be to replace the existing fender system consisting of timber piles and wales. These exhibit 50% to 100% loss of section in certain areas that has produced loss of strength and excessive defl ection. A new fender systems will be installed comprised of 14" square prestressed concrete piling with 10"x10" plastic wales.

Statement of Skills and Experience of Project Team

Ringling Causeway Bridge

Sarasota County, Florida

Client	FDOT, District One Albert Rosenstein 801 North Broadway, Bartow, Florida 33831 863.519.2300	Key Personnel	Boon Chong, PE
Completion Date	April 2004		

Description

T.Y. Lin International, along with RS&H Construction Services, is providing the construction engineering and inspection services for this design-build segmental bridge replacement for an existing two-lane bridge. The CEI team and design-build team utilized the newly implemented QC 2000 specifi cations, making this a pilot project for future FDOT construction projects.

To maximize economy and speed of construction, the team has chosen to precast the box girder. With the fi nal deck width of 107 feet, the segments are cast in halves with a longitudinal closure in both the top and bottom slabs being cast-in-place, making it the fi rst of its kind. Pier segments are 16.5 feet deep and typical segments transition down to 8.2 feet deep from the pier. Eleven spans are approximately 300 feet long.

The erection of the precast segments, which is based on balanced cantilever erection with a crane, is proceeding on two piers simultneously in order to comply with the new Florida Department of Transportation grouting requirements. The design-build team also provided design and analysis of the erection equipment for the segments. Both half-segments are being erected simultaneously. Once adjacent cantilevers are complete, the mid span closure joints will be cast.

In all, when the project is completed, it will be recognized as the widest pre-cast segmental bridge in America, and, with the addition of new innovative construction techniques, will help project the Segmental Bridge Industry into the future.

Statement of Skills and Experience of Project Team

S.R. 90 (Tamiami Trail) 2.6-Mile Bridges

Miami-Dade, FL

Client	Florida Department of Transportation Miami-Dade, FL	Services Provided	Construction Engineering Inspection Support
Completion Date	2019		

Description

As part of the Comprehensive Everglades Restoration Plan (CERP), The Florida Department of Transportation and the National Park Service replaced a portion of the Tamiami Trail Road/U.S. Highway 41 with a new 2.6 mile-long bridge. The elevated stretch of bridges will allow the natural flow of water from north to south in Everglades National Park, considered a key step to Everglades restoration, restoring the movement that Tamiami Trail has impeded since its paving in 1928. As the geotechnical firm for the Construction, Engineering & Inspection team, H2R is responsible for overseeing all geotechnical related tasks for this project and ensure that the bridges are constructed according to the design plans and the Florida Department of Transportation's specifications.

Statement of Skills and Experience of Project Team

AIRPORT RUNWAY EXPANSION

Fort Lauderdale, Florida

Client	Broward County Aviation Department Fort Lauderdale, Florida Hollywood International Airport	Services Provided	Geotechnical Engineering Design Foundation Testing Construction Materials Testing
Completion Date	2014		

Description

H2R (then Gannett Fleming, Williams Geotechnical Group) provided the geotechnical design engineering and analysis, turnkey intelligent transportation systems (ITS) design, construction services and construction inspection services for the runway expansion project at the Fort Lauderdale – Hollywood International Airport (FLL) starting with the expansion of the southern runway, 9R-27L runway, to accommodate larger commercial aircraft. This project was designed to meet increasing travel demands, improve the air traffic system and to accommodate larger passenger aircrafts.

At the FLL, a mechanically stabilized mountain supports a pair of massive concrete bridge structures. The bridge structures were designed to safely carry the world's largest passenger aircraft over active roadways that include U.S. 1, East Perimeter Road and the Florida East Coast Railway (FECR). There are six parallel tunnels, topped with a 500,000-square foot runway deck capable of handling the rough landing of a fully loaded 747 or an Airbus A360. This engineering feat is only the second-of-its-kind in the U.S., following a similar configuration at the world's busiest airport, Atlanta Hartsfield-Jackson International.

The project included significant earthwork, walls, drainage, roadway realignment, vehicle bridge, runway bridge, and a taxiway bridge. Our firm's geotechnical services included standard penetration test borings, auger borings for mechanically stabilized earth (MSE) walls, embankments, roadway, 24-inch pile bridge foundations, high-mast lighting drilled shaft foundations, water retention areas, stone columns, and signal poles at the Griffin Road intersection.

Statement of Skills and Experience of Project Team

Description (continued...)

Our geotechnical design engineering was a key component in the development and construction of the bridges and associated runway expansion. This work required significant resources and expertise to meet the technical challenges associated with the difficult soil's conditions. Multiple contractors and design teams added to the complicated nature of this project, and it required all members to fully coordinate their efforts for a successful project outcome.

The project's successful outcome was enhanced by the use of several best practices that our firm developed, based on experiences from previous design-build projects.

- Constructability Reviews - The construction managers and lead-system integrators engaged early in the design to obtain feedback through plans reviews.
- Strong Working Relationships. The turnkey approach forged a solid working relationship between our design team and construction team.
- Post Design Coordination. By working closely with the construction team early in the design, post-design concerns were minimized, providing a smooth transition from design, to construction, to integration.

Statement of Skills and Experience of Project Team

S.R. 821 (HEFT) FROM KILLIAN PARKWAY TO BIRD ROAD

Miami-Dade County, FL

Client	Florida Department of Transportation (Turnpike) Miami-Dade County, FL	Services Provided	Geotechnical Engineering Foundation Testing Geotechnical Subsurface Exploration Construction Materials Testing Vibration Monitoring
Completion Date	2019		

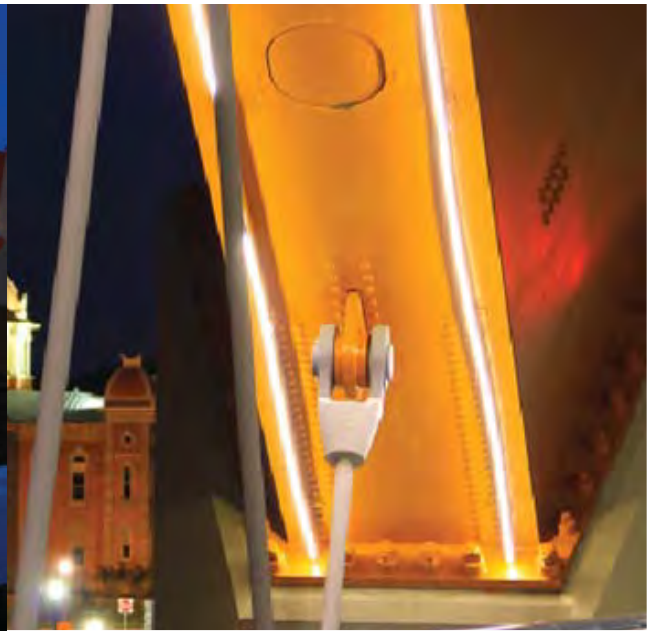
Description

H2R performed dynamic pile testing services, vibration monitoring, construction inspection and subsurface exploration for this Interstate Widening Project along the Florida's Turnpike from north of Sunset Drive/Southwest 72th Street to north of Bird Road/Southwest 40th Street in Miami-Dade County, FL. This corridor provides a direct connection to Palm Beach International Airport and includes a total of five bridges, MSE walls, sound walls, and significant earthwork. During the preconstruction condition survey, H2R documented the condition of residential and commercial structures, walkways, driveways, and other features that are visible from the exterior, including photographic and video graphic documentation, vibration monitoring, and crack surveys. The monitoring program was developed with baseline noise and vibration levels, with studies to define vibration attenuation over distance to further protect the Owner at the areas of interest.

Our geotechnical approach to this project during the design and construction was important the successful completion of all the five bridges. To limit inconvenience to the motoring public, an accelerated schedule was required. Due to the existing high volume of traffic, the MOT scheme for the geotechnical field exploration so there are no lane closures on the turnpike. Lane shifts was also kept to a minimum. This section of the turnpike is over capacity (carrying over 50,000 vehicles per day through Miami-Dad County) and experiences frequent traffic backups.

HLB

Statement of Skills and Experience of Project Team



HASTINGS BRIDGE

Hastings, Minnesota

Awards	Illuminating Engineering Society Award of Merit	Key Personnel	Kenneth Douglas
Completion Date	2014		

Description

The town of Hastings, Minnesota is located along a scenic stretch of the Mississippi River and, as with many such towns, the river and its crossings are integral to the city's history and civic identity. For their new signature bridge, Hastings residents wanted a nighttime image that reflected the quiet beauty of their environment while continuing to serve as a signature landmark for the city. At night, elegant LED "strokes" of light trace the dramatic tied arch structure against the night sky, while simultaneously grazing the plane of hanger cables. This simple effect creates an illuminated gateway to the city for drivers crossing the span or boaters navigating under it.

HLB

Statement of Skills and Experience of Project Team

CYPRESS AVENUE BRIDGE

Redding, CA

Contact	Michael Fitzpatrick | Bridge Architect Michael.Fitzpatrick@hdrinc.com 213.239.5851	Key Personnel	Kenneth Douglas
Completion Date	2011		

Description

The rewidening of Cypress Avenue and its bridge over the Sacramento River offered an opportunity to the City of Redding to carry their creative vision into the design of this new bridge. The structure itself is a series of elegant arches, illuminated to connect the bridge to the landscape and create a soft glow across the length of the superstructure. But the main aesthetic feature of this bridge is the custom-designed, internally illuminated 18' high lanterns with cast and dichroic glass enclosures. The design of these lanterns was a collaboration between the glass designer, bridge architect, structural engineers and HLB, whose lighting system helped bring these lanterns to life at night.

HLB

Statement of Skills and Experience of Project Team

LOWRY AVENUE BRIDGE

Minneapolis, MN

Contact	Michael Fitzpatrick | Bridge Architect Michael.Fitzpatrick@hdrinc.com 213.239.5851	Key Personnel	Faith Baum
Completion Date	2012		

Description

The design of the replacement of a beloved local bridge required sensitive solutions that would galvanize and excite the community. HLB worked closely with the design team to develop a lighting solution that brightens the twin basket handle arch bridge with color-changing LED's. A custom-designed valance at the top of the arch ribs contain and obscure the view to the fixtures themselves. Static and kinetic lighting scenarios give the community the ability to celebrate a variety of events and holidays throughout the year. The pedestrian path is illuminated with custom-designed LED steplights mounted in the vertical support rails along the path, allowing an unhindered view out to the river.

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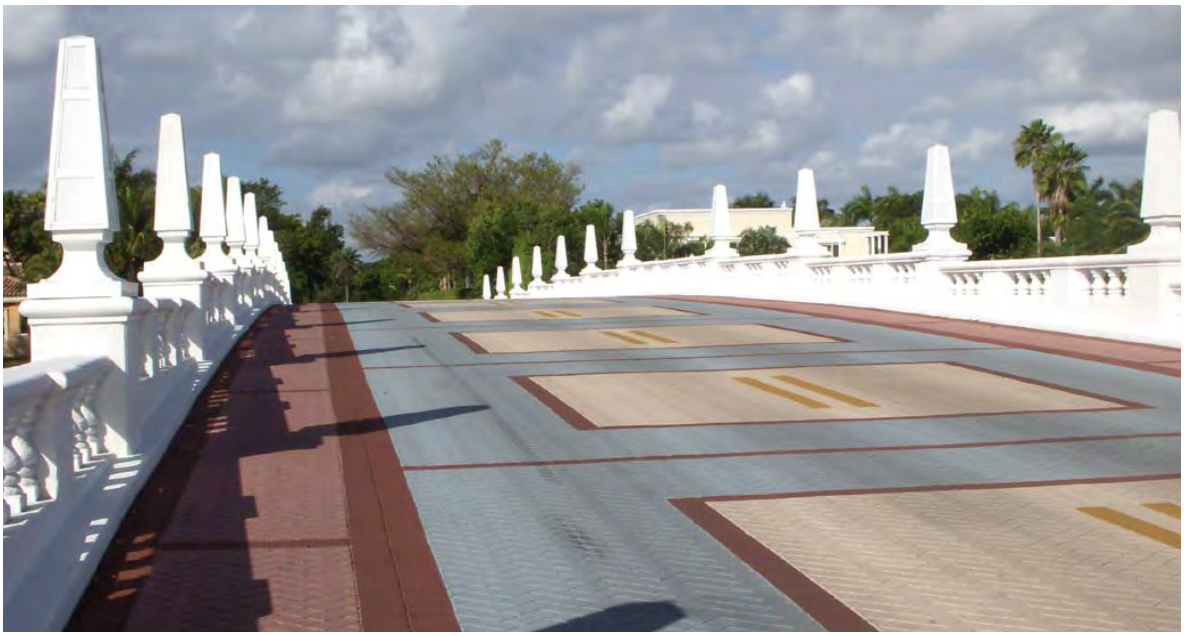
Statement of Skills and Experience of Project Team



BRIDGE BEAUTIFICATION

Indian Creek, FL

Role	Prime Consultant	Services Provided	Urban Design Construction Administration
Client	Village of Indian Creek Mr. Samuel Kissinger Village Manager Indian Creek Village 9080 Bay Drive Miami, Florida 33154		
Completion Date	2006		

Description

The exclusive Town of Indian Creek requested design concepts by CGA for the Bridge Beautification Project. The final layout included stamped asphalt with painted design elements per the Town's direction. This bridge is the primary entry point into this secluded island destination for only the elite residents of Indian Creek. This serves as the gateway feature to further enhance this island retreat.

Calvin, Giordano & Associates, Inc.
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Statement of Skills and Experience of Project Team

Sunny Isles Beach North Bay Road Bridge

Sunny Isles Beach, FL

Role	Prime Consultant	Services Provided	Landscape Architecture Engineering Design Structural Design Permitting Contract Document Preparation Construction Engineering CEI
Client	City of Sunny Isles Beach Elka Linton-Dorsett CIP Program Manager (305) 792-1939 edorsett@sibfl.net		
Completion Date	2018		

Description

CGA was retained by the City of Sunny Isles Beach to survey, design, permit, and administer the construction of the North Bay Road Bridge, spanning a canal between 174th St. and 172nd St. along North Bay Road. The principal function of the bridge is to provide pedestrian access across the canal, as well as it is designed to provide access to emergency vehicles as a bypass to Collins Ave. during periods of heavy traffic congestion. The CGA team approached the project first as a 'place' and a pedestrian amenity, and second as an emergency access last. The design was centered on creating a park-like setting with planting and seating that would appeal to pedestrian use and would promote lingering. A strong branding strategy was embedded within the hardscape design that reinforced the concept of using infrastructure as a recreational asset and in turn has established it as a landmark within the City.

The project included several work efforts adjacent to the bridge, including the construction of an observation deck in Town Center Park, located at the eastern end of the canal, and a boardwalk connecting the deck to the North Bay Road bridge. Associated drainage, roadway, utility, and hardscape improvements were made along 174th St. and 172nd St. to account for the increased drainage and other impacts to the surrounding infrastructure. The project involved intensive coordination with regulatory agencies, utilities, government entities, and local stakeholders. The CGA team was able to procure all necessary permits to conduct the work on schedule.

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS℠

Statement of Skills and Experience of Project Team

Davie Road Phase II Complete Streets Corridor Enhancement Project

Davie, FL

Role	Prime Consultant	Services Provided	Survey, Roadway Design, Signing and Marking, Traffic, Lighting, Landscape and Irrigation plans, Post Design Services
Client	Laura Borgesi, PE, PSM Laura.Borgesi@citrusbocc.com		
Completion Date	2018		

Description

CGA provided professional survey, civil engineering, traffic engineering, landscape architecture, and electrical engineering services for the roadway improvements to Davie Road from SW 39th Street to Nova Drive for the Town of Davie. This project was partially funded by a FDOT Local Agency Program (LAP) to provide enhancement to the roadway as part of the Broward County Metropolitan Planning Organization (MPO) in the complete streets initiative. The roadway improvements included milling and resurfacing of the entire corridor, remove existing two-way turn lanes in the middle of the roadway and replacing them with landscape medians and dedicated turn lanes, sidewalk improvements to meet current ADA standards, designated bike lanes, signalization at two intersections, pavement markings and signage for a four lane divided road, and roadway lighting.

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS™

Statement of Skills and Experience of Project Team

Andrews Avenue Complete Streets Poject

Oakland Park, FL

Role	Prime Consultant	Services Provided	Survey, Paving, grading and drainage, Signing and Marking Traffic, Landscape, and Lighting
Client	Lori Douvris lorid@oaklandparkfl.gov		
Completion Date	Ongoing		

Description

CGA provided professional survey, civil engineering, landscape architecture and electrical engineering services for the roadway improvements to Andrews Avenue from Oakland Park Blvd to Prospect Road for the City of Oakland Park, FL. This project was partially funded by a FDOT Local Agency Program LAP to provide enhancement to the roadway as part of the Broward County Metropolitan Planning Organization (MPO) in the complete streets initiative. The roadway improvements included milling and resurfacing of the entire corridor, removing existing two-way turn lanes in the middle of the roadway and replacing them with landscape medians and dedicated turn lanes, sidewalk improvements to meet current ADA standards, mid-block crossing, designated bike lanes, pavement markings and signage for a four lane divided road, and roadway lighting.

Calvin, Giordano & Associates, Inc.
EXCEPTIONAL SOLUTIONS™

Statement of Skills and Experience of Project Team

Weston Roundabout at Regional Park

Dania Beach, FL

Role	Prime Consultant	Services Provided	Traffic Engineering, Public Outreach, Construction Documents, Permitting, Bidding Assistance, Construction Management
Client	Denise Barrett DBarrett@westonfl.org		
Completion Date	2006		

Description

CGA provided professional survey, civil engineering, landscape architecture, electrical engineering, and construction administration services for the roadway improvements at the intersection of South Post Road and Saddle Club Road for the City of Weston, FL. The intersection improvements included a roundabout, sidewalk improvements to meet current ADA standards, landscape and hardscape, pavement markings and signage, and roadway lighting.

KEITH

Statement of Skills and Experience of Project Team

Ravenswood Bridge Replacement

Broward, FL

Client	FDOT, Bolton Perez & Associates Mr. Roberto Vasquez, PE (305) 392-3190 Rvasquez@bpamiami.com
Completion Date	2014

Description

KEITH managed the Utility Coordination for this Bridge Replacement project on Ravenswood Rd., North of Griffin Rd. Our Design ticket with Sunshine State One Call of Florida identified twelve Utility Agencies and the Broward County Traffic Engineering Dept. Several Utility Meetings were conducted to clarify the construction phasing and Utility involvement. Five Utility Agencies (MCI/Verizon, Buckeye Pipeline, City of Dania Beach, Level 3, and Florida Gas Transmission) had facilities in the area but were not involved in the Project and we negotiated/coordinated six Non-Reimbursable Utility Work Schedules (AT&T , Comcast, FPL Distribution, FPL Transmission, FPL Fibernet, and TECO Peoples Gas). Broward County Water and Wastewater entered into a “Utility Work by Highway Contractor Agreement” for the Engineering and Design of the relocation/adjustment of the water and sanitary lines that were impacted by this bridge replacement project. Utility Certification was completed on schedule.

KEITH

Statement of Skills and Experience of Project Team

SE 8th Court Bridge Replacement

Pompano Beach, FL

Client	City of Pompano Beach Mr. John Sfiropoulos, City Engineer (954) 786-4060 John.Sfiropoulos@copbfl.com
Completion Date	2016

Description

The project consisted of replacing an existing bridge along SE 8th Court, immediately east of SE 22nd Avenue. The bridge crosses over a leg of the Lake Santa Barbara waterway within the Santa Barbara Shores subdivision in the City of Pompano Beach.

The project included complete design, permitting, bid assistance, coordinated structural engineering for the bridge design, and construction inspection for phased bridge and bulkhead rehabilitation/ replacement. The SE 8th Court bridge carries a two lane roadway (one lane each direction) which is the only means of ingress/egress to the residential island community. This project is very complex as the bridge serves as the only means of access to the island and required extensive coordination to ensure uninterrupted access and utility service throughout the construction. This necessitated the creation of a succinct phasing and detailed maintenance of traffic (MOT) plan, as well as significant coordination efforts with the City and the residents of the island. The project also included complete and total restoration of the impacted irrigation, sod and landscape features to their original condition. Additional services also included design survey, utility investigation, roadway design, preliminary geotechnical testing, utility coordination, and preparation of construction documents.

KEITH

Statement of Skills and Experience of Project Team

Pompano Beach Continuing Contracts

Pompano Beach, FL

Client	City of Pompano Beach Dr. Horacio Danovich, PE, CIP Manager (954) 786-7834 Horactio.Danovich@copbfl.com
Completion Date	Ongoing

Description

KEITH is currently providing general engineering services to the municipality on an as-needed basis on this ongoing continuing services contract. KEITH has served as the General Engineering Consultant for the City for over 16 years. Some of the projects provided under this contract include:

- SE 8th Court Bridge Replacement
- Municipal Reclaimed Water Main Design
- Pompano Beach Sidewalk Construction Program
- Harbor Drive Beautification and Roadway Improvements
- Municipal golf course, cemetery, dog park and pier renovations
- Pompano Beach branch library renovations
- Oceanside Fire Station No. 11
- NE 4th Street Reuse Water Line Expansion
- Condition Assessments for Various City Owned Buildings and Facilities
- Pompano Beach Boulevard Water Main Design
- Municipal Chiller Plant
- Fire Station No. 103 Design
- SW 36th Avenue Sidewalk and Pedestrian Bridge
- Founders Park
- Pompano Air Park Maintenance Building Design

KEITH is currently providing general surveying and mapping services to the municipality on an as-needed basis on this ongoing continuing services contract. KEITH has served as the General Surveying Consultant for the City for over 16 years. Some of the projects provided under this contract include:

- South Cypress Road and SE 15th Court Intersection Design Survey
- Pompano Beach branch library Topographic Survey
- SE 13th Street Force Main Design Survey
- Utility Casting Federal Highway Design Survey
- SR A1A Survey and Subsurface Utility Engineering (SUE) services from Hillsboro Blvd to Terra Mar Drive
- Permanent Emergency Generators Design Survey for City Hall and Public Safety Building
- GIS Mapping Pilot Project
- North Riverside Drive Directional Drill Survey and SUE services
- Briny Avenue Survey and SUE services
- Palm Aire Park Topographic Survey
- SE 9th Avenue Bridge Replacement Design Survey
- Civic Campus/Old Pompano Topographic Survey and Updated Surveys
- Intracoastal Waterway Sign Surroundings Specific Purpose Survey
- Santa Barbara Reuse Water Line Expansion Topographic Survey
- Rustic Bridge Park Design Survey
- NE 4th Street Specific Purpose Survey

design kollaborative
architects / planners, inc.

Statement of Skills and Experience of Project Team

Briny Avenue Undergrounding of Utilities and Streetscape Improvement

Pompano Beach, FL

Client	City of Pompano Beach	Key Personnel	Andre Capi
Completion Date	September 2018		

Description

Briny Avenue is the beach road from East Atlantic Boulevard south to SE 8th Street. The project including both Briny Avenue and the crossing streets to A1A is the first completed Shared Road Complete Streets project in Pompano Beach accommodating pedestrian, bi-cycle, automobile and public transportation as well as beach access points. The recent completion of this project has received accolades from both the City of Pompano Beach and the residents of Pompano Beach.

Monumental Signage – Service Clubs of the City of Pompano Beach

Pompano Beach, FL

Client	City of Pompano Beach	Key Personnel	Andre Capi
Completion Date	June 2013		

Description

DK Architects designed the new monumental signage for the Service Clubs of the City of Pompano Beach. The sign is located at the South West corner of Federal Highway and 14th Street.

TY LIN INTERNATIONAL

Resumes of Key Personnel

RESUMES OF KEY PERSONNEL

BETSY JEFFERS, PE
SENIOR ROADWAY ENGINEER

Betsy has 25+ years of roadway design experience with the Florida Department of Transportation (FDOT) District 4 Design offi ce. She is well versed in FDOT design criteria and standards, as well as AASHTO guidelines, specifi cations, typical section, variance and exception review, and quality control in the daily plans production environment. She spent 12 years as an In-house Design Section Leader with FDOT and served as the Design Project Manager and Engineer of Record for a variety of projects with construction budgets ranging from $300,000 to upwards of $65 million. For the past fi ve years, Betsy served as the Program Manager for the Broward Mobility Initiative, working together with the Broward MPO to program over $200 million in bicycle and pedestrian projects.

The in-house design unit produced construction plans for projects including highway reconstruction, resurfacing, Broward County Mobility, complete streets, safety, and bridge construction. As the manager of In-house Design Section 1, Betsy was responsible for setting goals and objectives for the section; reviewing, employee development, business planning and monitoring, as well as quality control and assurance. District 4 in-house design has been one of the leaders in 3D modeling and worked to incorporate this effort into several test projects early in the Department's implementation process.

CR 714 from Turnpike to Mapp Road | FDOT District 4 | Design Project Manager and Engineer of Record Reconstruction and widening of CR 714 from an undivided 2-lane road to a divided 4-lane urban section. This project was the extension of the Veteran's Memorial bridge project to the Turnpike. It consisted of approximately two miles of reconstruction and widening including on street bike lanes as well as 8-foot sidewalks along the corridor. The project included right of way acquisition and the construction of noise wall.

Veteran's Memorial Bridge | FDOT District 4 | Design Project Manager Construction of a new bridge over the St. Lucie Fork River and the roadway construction from Mapp Road to East of Kanner Highway in Stuart. This award winning project reconstructed a small two-lane residential street to a beautiful four-lane boulevard with linear park along both sides of the roadway. Betsy prepared the RFP and Concept Design for this design-build project.

SR5/US 1 from SR 713 to South of Oslo Rd | FDOT District 4 | Design Project Manager The reconstruction and widening of approximately two miles of SR5/US 1 from a 4-lane rural section to 6-lane suburban section in Indian River County. The project also included a bridge replacement over the FEC railroad. Betsy prepared RFP and Concept Design for this designbuild project.

SR5/US 1 from Oslo Road to 4th Street | FDOT District 4 | Design Project Manager and Engineer of Record RRR project with Interchange improvements in the City of Lantana. The reconstruction and widening of approximately two miles of SR5/US 1 from a 4-lane rural section to 6-lane urban section in Indian River County. Project included the replacement of bridge over the C14 canal and noise walls.

Barber Street Reconstruction | FDOT District 4 | Design Project Manager and Engineer of Record This was an off-system road reconstruction in the Town of Sebastian. Coordination with City staff and Offi cials was critical to the success of this project.

Andrews Avenue Extension from Atlantic Blvd to South of Racetrack Road, Design Consultant Project Manager. This project included the construction of a new alignment as Andrews Avenue was extended in the City of Pompano Beach. The project involved major right

EDUCATION
BS, Civil Engineering, Florida International University, 1991

REGISTRATIONS
Professional Engineer, Florida,#50745

of way acquisition and relocation of tenants. The construction of an urban divided four-lane roadway with bike lanes and sidewalks in both directions. It also included a steel girder bridge overpass at Martin Luther King Blvd and CSX RR. Utility relocations were also necessary including City water lines that could not be left in place under the MSE walls. Retention ponds and French drains were constructed as well.

SR 716 Jensen Beach Causeway Bridge Replacement | FDOT District 4 | Lead Roadway Designer The project included the bridge replacement and roadway reconstruction. Project included the provision of fi shing pier under the new bridge, construction of sea walls in the causeway islands, new sidewalks along the entire crossing and bike lanes on the shoulders. A roundabout was construction at the intersection of Jensen Beach Causeway and A1A.

US 27 from SR 80 to Hendry County Line | FDOT District 4 | Design Project Manager and Engineer of Record The resurfacing of US 27 and bridge replacement over the Miami Canal. This project also included the addition of sidewalk and lighting improvements in the City of South Bay.

I-95 Lantana Road Interchange Improvements | FDOT District 4 | Design Project Manager and Engineer of Record The resurfacing of the interchange, widening of the southbound exit ramp, and replacing traffi c railing on all bridges.

I-95 RRR | FDOT District 4 | Design Project Manager and Engineer of Record Resurfacing of various limits of I-95 in Martin County. Projects included cross slope correction and well as some safety improvements.

SR 7 from Holmberg to Palm Beach County Line | FDOT District 4| Design Project Manager and Engineer of Record Three miles of resurfacing in northern section of SR-7/ US441 in Broward County. Project included providing bike lane thru restriping and ADA ramp improvements.

SR 76 Kanner Highway from Pratt Whitney to Jack James Road | FDOT District 4 | Design Project Manager The reconstruction and widening of SR 76 from a 2-lane undivided roadway to a 4-lane divided suburban section. The project also included a roundabout at the intersection of Kenner Highway and Pratt Whitney Road.

SR 811 Dixie Highway from McNab Road to Atlantic Boulevard | FDOT District 4 | Design Project Manager and Engineer of Record. RRR project in the City of Pompano. The limits on this project are on a section where the road becomes two one-way pair. The City of Pompano proposed lane reduction in the section from 6-lane to 4-lane in in order to accommodate bike lanes and on street parking. The lane elimination was approved and was incorporated into the project thru striping.

Sunset Strip from Nob Hill Road to Sunrise Boulevard | FDOT District 4 | Design Project Manager and Engineer of Record Complete Streets project in the City of Sunrise including over three miles of lane elimination thru restriping and the construction of two roundabouts. The project included widening at the major intersections in order to accommodate the bike lanes in areas where the road needed to remain as 4-lanes.

RESUMES OF KEY PERSONNEL

ATIQ ALVI, PE
QA/QC MANAGER-PLANS REVIEW

Mr. Alvi has over 20 years of experience in bridge engineering, which includes bridge design, preservation, inspection, maintenance, repair, and rehabilitation projects and studies. He manages TY Lin International's (TYLI) Central Florida Operations and serves as Technical Director of Bridge Rehabilitation in TYLI's South Region of the United States. Mr. Alvi has managed over 30 FDOT Task-driven, Districtwide and GEC Contracts in his career so far and has firsthand knowledge of the type of coordination, communication and management skills required to manage the scopes schedules and budgets on multiple assignments.

FDOT District Seven, Districtwide Bridge Engineering Contract C-9D35, Florida; Project Manager. Mr. Alvi is currently serving as project manager, providing leadership and team management to support all DSMO needs under FDOT PM, Mr. Bronoris Pye. This includes managing multiple teams of TYLI Personnel and subconsultants; and serving as an extension of District staff. He also manages scopes, schedules and budget for all tasks in this contract. Tasks include bridge repair and rehabilitation design production projects, engineering reviews, emergency response, special studies and engineering support as an extension of the DSMO. Under this contract, we have performed the Phase I Post-Tensioned (PT) Investigation on bridges with Thixotropic Grout and is currently coordinating with Central Office, State Materials Office and DSMO in the investigation to move on to Phase II. He as also prepared life cycle cost analyses for D7 bridges, performed quality control on production projects and post design services for projects in construction.

FDOT District Seven GEC; Project Manager. Mr. Alvi has been TYLI's Project Manager for this contract for the last five years. It mainly involves providing structural engineering support to FDOT District Seven. Tasks have included plans reviews, determining the service lives of existing structures, HMLP program, life cycle cost analyses, corrosion studies, District Seven Bridge Wave Impact Vulnerability Study, bridge inspection quality assurance and engineering support personnel working at District 7 as an extension of the DSMO.

FDOT District Seven Sunshine Skyway Bridge Corridor Continuous Services Contract C-9H66; Project Manager. Mr. Alvi is currently TYLI's Project Manager for this $5 million/5-year task-driven contract to maintain and preserve the Sunshine Skyway Bridge, Florida's landmark structure. It mainly involves supporting the FDOT's Project Manager, Mr. Steve Womble in the preservation of the Sunshine Skyway Bridge by providing structural engineering services, testing and designing repair/rehabilitation design projects. Under this contract we are currently designing a rehabilitation project and performing testing on the stay cables.

FDOT District Seven, Hillsborough County LAP Project, West Columbus Drive Swing Bridge over Hillsborough; Hillsborough County Florida; Served as Engineer-of-Record and Project Manager. Mr. Alvi was the project manager responsible for all aspects including final signed and sealed plans submittal. This project is a complete rehabilitation-structural, electrical, mechanical and architectural, of a 1926 historic thru-truss bob-tail swing bridge. It involves structural strengthening of the steel members on the main spans and reinforced concrete T-beams on the approach spans to enable the bridge to support current traffic loading criteria. A second story consisting of a glass cube structure was added as the second floor of the bridge tender house and the bridge controls were moved to this room. A new generator room with an independent pile foundation was constructed adjacent to the tender house.

EDUCATION
MSCE, Civil Engineering, with Emphasis on Structures and Thesis on Composite Precast Deck Panel Bridges, University of South Florida, Tampa, FL

BSCE, Civil Engineering, University of South Florida, Tampa, FL

REGISTRATIONS
Licensed Professional Engineer in the State of: Florida #52245

CERTIFICATIONS/TRAINING
Certified FDOT/FICE Project Manager

NHI LRFD Bridge Substructure Design

NBI Fracture Critical Bridge Inspection

NBI Bridge Inspector Refresher Training

NHI Fundamentals of LRFR and Applications of LRFR for Bridge Superstructures

Smart Bridge LRFR Load Rating Training

FDOT Specifications Training

Advanced TCP Design Training

RESUMES OF KEY PERSONNEL

ATIQ ALVI, PE
QA/QC MANAGER-PLANS REVIEW

FDOT District One, Districtwide Bridge Engineering Design Support Services, Florida; Project Manager. Mr. Alvi served as PM for this $1.5 million contract, which involved designing rehabilitation projects and providing engineering services for the District One DSMO. These services also include engineering evaluations, emergency response, project reviews, load ratings and inspection support. The repair projects consist of superstructure and substructure concrete repair, cathodic protection, movable bridge repair, coatings, scour protection and fender repair.

FDOT District Seven, Districtwide Bridge Engineering, Florida; Technical Advisor. Mr. Alvi was fully engaged with our PM, Ms. Beth Steimle on this contract, C-8Y81. He provided engineering support at the DSMO, has prepared the action plan for PT Investigation on bridges with Thixotropic Grout and is coordinating with all parties involved in the investigation, has prepared life cycle cost analyses for D7 bridges, performed quality control on production projects and post design services for projects in construction. This $1.5 million contract involved designing rehabilitation projects and providing engineering support services for the District Seven DSMO. Full-service engineering support was also provided for engineering support, emergency response, quality assurance, load rating analysis, production, work program development, specialized studies, inspection programs, and staff support. The repair projects consist of concrete beam repair, cathodic protection for both superstructure and substructure, movable bridge repair, and coatings.

FDOT District Two, Miscellaneous Bridge Repair, Various locations throughout Florida; Project Manager. This $750,000 stand-alone contract involves engineering services for the repair of 18 Jacksonville bridges in District Two. This includes heavy duty fender system replacement design with composite superstructure and polymeric piles; LED navigational lighting; concrete beam; bent cap and footing repairs; steel bearing repairs; protective coatings; segmental bridge internal lighting; and pedestrian lighting rehabilitation.

FDOT District Seven, Rehabilitation of Bayway Structure “E” Bascule Bridge over Boca Ciega Bay, St. Petersburg, Florida; Served as Engineer-of-Record and Project Manager. Mr. Alvi oversaw the structural steel repairs on movable span and structural concrete repairs, beam strengthening and cathodic protection on fixed spans, structural steel painting, and installation of scour countermeasures.

FDOT District Seven, State Road (SR) 93 Sunshine Skyway Bridge Cable Painting and Lighting Rehabilitation Project, St. Petersburg Florida; Project Manager. Mr. Alvi is replacing the protective painting system of the stay cables and rehabilitation of the lighting system on the two tower cable stayed bridge.

FDOT District Seven, Rehabilitation of Welch’s Causeway Bascule Bridge over Boca Ciega Bay, St. Petersburg, Florida; Served as Engineer-of-Record and Project Manager. This project involves structural steel repairs to movable span and concrete repairs on fixed spans, steel bridge painting (including hazardous materials assessment), complete tender house renovation, including roof replacement and installation of scour countermeasures.

FDOT District Two, SR 9 Dames Point Bridge Cable Painting and Wind Tie Replacement Project, Jacksonville, Florida; Project Manager. Mr. Alvi replaced the protective painting system of the stay cables, sealing the pourbacks and replacement of the wind tie system on the four tower cable stayed bridge.

RESUMES OF KEY PERSONNEL

JAMES KANTER, PE
PRINCIPAL IN CHARGE

Mr. Kanter is a FL-registered professional engineer and LEED® accredited transportation engineer with more than 32 years of professional consulting experience involving roadways with bridge components, complete streets, civil design, modal and intermodal facilities and transit systems. He has a keen understanding of the project delivery process – from planning through construction administration. Mr. Kanter has successfully managed complex multi-disciplinary teams for several municipalities throughout Broward, Miami-Dade and Palm Beach Counties. He has consistently demonstrated an ability to overcome unique project challenges while delivering projects on-time and on-budget with a dedication to high quality service, ethical standards and effective client relationship-building.

W 116th Way Bridge over C-6 Canal (Bridge No. 876301) Design-Build for Misc. Maintenance Repairs Project, Medley, FL Project Manager for owner's representation services for the rehabilitation of a pair of 125-foot 3-span, reinforced concrete bridges. The scope of work included: management of the RFP solicitation process and oversight of CEI/CFM services. These services included attendance of pre-proposal meetings, response to questions, review of D-B proposals and technical support to city staff, review of design submittals' conformance with the contract documents, technical reviews, coordination with the FDOT for design approvals, review of pay requests, and coordination of LAP reporting requirements. Construction-phase services included: attendance of meetings, oversight of CEI/CM Consultant and necessary design adjustments, response to RFIs, review of CEI/CM firm's pay requests, regular construction site visits and reporting, schedule and progress report reviews, change orders and claim reviews, and coordination of on-going project issues with project Engineer of Record, CEI Consultant and Design-Build firm and project closeout. Mr. Kanter also led the development of an emergency response maintenance of traffic plan for this key access across the Miami Canal to and from the City's industrial and commercial warehousing areas to the rest of Miami-Dade County.

Pedestrian-Bicyclist Bridge over the New River at the Henry Kinney Tunnel Alignment Feasibility Study, FDOT District 4, Ft. Lauderdale, FL. Project Manager of a pre-PD&E study that evaluated the feasibility of constructing a new pedestrian/bicyclist crossing of the New River in the vicinity of the Henry E. Kinney Tunnel. The crossing's alignment is proposed to be adjacent to the existing tunnel that conveys US-1 traffic north and south under E. Las Olas Boulevard in downtown Ft. Lauderdale. The driving factor defining the need for the project was pedestrian safety for school age children that currently walk north and south beneath the New River on an existing sub-standard walkway that runs along the east side of the tunnel parallel to the northbound lanes. The analysis included a tiered screening evaluation of several alternative locations and bridge/tunnel types, including: fixed and mechanical bridge concepts, a new pedestrian tunnel, a traffic systems management and operations (TSM&O) evaluation, and a no-build alternative that considered implementing a dedicated water shuttle service. The recommendations made in the final report served as input for the Department to determine whether to proceed with a project development and environmental study.

City of Ft. Lauderdale, NE 13th Street Complete Streets Project, Project Engineer. Project Engineer during the seven month post-design services phase of this complete streets project at NE 13th Street between NE 4th and NE 9th Avenues in the City of Ft. Lauderdale's South Middle River neighborhood. TYLI performed the engineering and construction documents for the project that redeveloped the minor arterial four-lane road into a two-lane complete street replacing the outside travel lanes in each direction with bicycle lanes and on-street parking,

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

B.S. in Architectural Engineering, University of Miami

Master of Business Administration, FL International University

Civil Engineering Studies, Universidad Autonoma de Guadalajara, Mexicó

Architecture Studies, Universidad de los Andes, Bogotá, Colombia

REGISTRATIONS
Licensed Professional Engineer - FL, No. 44005, 1991

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

PROFESSIONAL AFFILIATIONS
Former Member, Miami-Dade MPO Transportation Aesthetic Review Committee

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)

Past Secretary and Vice-President, South FL Branch

replacing an existing signal at the intersection of NE 13th Street and NE 7th Avenue with a roundabout, and introducing landscaped medians, curb extensions and mid-block crossings. The project also added decorative pedestrian lighting along the entire length of corridor and a new landmark sculpture in the center of the new roundabout. To meet the City's sustainability and climate adaptation goals, TYLI also engineered a storm water management design that included bio swales, pave drains, and water catchment systems.

Historic Steel Bridge Preservation Study at NW 54th Street/Curtiss Parkway and Hook Square/East 1st Avenue (PD&E), Miami Springs, FL, FDOT, District 6. 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. The scope of work for this study included the compilation of existing physical, material, and chemical data of the bridges; preparation of detailed as-builts from field measurements and archive records; and the development and evaluation of alternative rehabilitation and/or restoration concepts of the existing bridges at their existing location for a desirable service life of 20 years and/or HS-15 load capacity, with consideration given to historic preservation priorities. Also included was the development of pedestrian provisions, which satisfy the Americans with Disabilities Act that consisted of developing and evaluating alternative concepts to modify the existing bridges or provide a pedestrian bridge, crossing at a new location. This study included development and implementation of a public relations program to communicate to all interested persons, groups, and government organizations information regarding the development of the project. The interim and final evaluation scores for this project were 99 and 98 respectively.

Donald Ross Road Bridge (S.R. 706) over the Intracoastal Waterway, Juno Beach, FL, Palm Beach County Roadway Production Division. Senior Project Engineer for the design of the east and west two-lane approaches to a major bascule-type bridge crossing over the Intracoastal Waterway. Scope of work included horizontal and vertical geometry, storm water management, signing, marking, lighting, and coordination with governmental and environmental agencies. The project also included a control tower access drive and parking facilities.

Site Development, Ground to Rooftop Ramps, and Bridges for Cargo Buildings 2130 and 2134 at Miami International Airport, Miami, FL, MDAD. Project Manager and Civil Engineer responsible for the civil engineering elements of the first cargo building of the airport's Cargo Development Program situated in a heavily contaminated area. Mr. Kanter led the design and construction administration of several key elements of this intermodal cargo center project that included horizontal and vertical geometry of ground to rooftop access ramps and bridges between the two buildings. The scope also included, geometric design of truck parking (on the airside and landside), interface with and between buildings. Other elements where utility coordination, storm water management design (detention/retention and positive storm drainage systems with oil/water separators and grit chambers), pavement design, signing and pavement markings at grade and on the rooftop; demolition plans; construction phasing; traffic control plans and coordination and interface with neighboring utility corridor projects. The scope of work for Airside Access Road also included positive drainage system, fencing, alignment geometry, marking, signing, and utility coordination.

RESUMES OF KEY PERSONNEL

FRANCISCO J. ALONSO, PE

SENIOR CIVIL ENGINEER-DRAINAGE/PERMITTING

Mr. Alonso is a Professional Engineer with over 15 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, 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.

Citywide Drainage Improvements Phases IA-IB: City of West Miami, Florida; Lead Design Engineer. Mr. Alonso served as lead design engineer and later promoted to manager for the storm-water master plan modeling, planning, design, and construction administration of the Citywide Drainage Improvements to alleviate flood prone areas identified by the "No Name Storm" of October 2000. The permitting preparation and regulatory agency coordination included SFWMD, DERM, FDOT, and Miami-Dade County. Mr. Alonso utilized the storm-water modeling software ICPR to develop a joint hydrodynamic Model of the City's system in combination with the City of Miami's system (see Flagami-Westend Project) as the basis for the design improvements. Mr. Alonso served as a the lead design engineer for Phase I of the improvements including modifications to the existing drainage system, design of a robust storm water collection system with nearly 3 miles of RCP pipe, and 2 triplex pump stations with a capacity of 100cfs each. In addition approximately 9,905-lf of 48" DIP force main with connections to the City of Miami joint force main and the C-3 Canal were incorporated. Project was completed on time and on budget with FEMA HMGP funds and the pumps have been successfully in operation since 2007.

FDOT District Four, Eller Drive Intermodal Cargo Transfer Facility (ICTF), Fort Lauderdale, Florida; Engineer-of-Record. The project's intent is to eliminate two at-grade intersections before accessing the Port, and to provide grade separation for the new rail lines serving the Port's ICTF. The project scope includes the design and construction plans for the complex interchange for express lanes from I-595 into Port Everglades. Mr. Alonso's was the Engineer of Record for the drainage design and was in charge of the design of the upgraded storm sewer system including several large interconnected ponds and isolated exfiltration trench systems. Responsibilities included managing the drainage design and coordinating between the different disciplines and sub-consultants.

City of West Miami, Citywide Drainage Improvements/ Phase II, III and IV, West Miami, Florida; Project Manager and Engineer-of-Record. Mr. Alonso Provided stormwater master plan modeling and design services for these stormwater infrastructure improvements. This project was an extension of the phase I improvements and included expansion of the collection system to new areas, localized exfiltration trench systems and permitting with SFWMD, DERM and Miami-Dade County. Project was completed on time and on budget in 2010.

Flagami-West End Storm Sewer Improvements/Phase II, City of Miami, Miami, Florida; Lead Design Engineer. Mr. Alonso served as lead design engineer and later promoted to manager for the storm-water master plan modeling, planning, and design of the Citywide Drainage Improvements to alleviate flood prone areas identified by the "No Name Storm" of October 2000. The permitting preparation and regulatory agency coordination included SFWMD, DERM, FDOT, and Miami-Dade County as well as participation in the C-4 Technical Advisory

EDUCATION

BS, Mechanical Engineering, University of Miami, 2002

REGISTRATIONS

Professional Engineer, Civil Engineering Florida #66918, 2007

Building Code Adminstrator Florida #BU1870

ICC Certified Building Official Certificate No. 8288137

PROFFESIONAL AFFILIATIONS

Florida Engineering Society Miami Chapter

SOFTWARE PROFICIENCIES

Interconnected Pond Routing and XP-SWMM, EPA-SWMM, HEC-RAS, PONDS, Hydraflow, AutoCAD Civil 3D

group to the SFWMD. Mr. Alonso utilized the storm-water modeling software ICPR to develop a joint hydrodynamic Model of the City's system in combination with the City of West Miami's system as the basis for the design improvements. Mr. Alonso served as a the lead design engineer for the improvements including modifications to the existing drainage system, design of a robust storm water collection system with nearly 5 miles of RCP and HDPE storm sewers, four Storm-Water Pump Stations (3 triplex, 1 duplex) ranging in size from 30 cfs to 100 cfs and over 1 mile of 48" to 84" D.I.P. force mains with direct discharge to the C-4 Canal. Water Quality was handled through upland exifiltration trenches and vortex/baffle seperators upstream of the pump stations. The Project was completed on time and on budget with FEMA HMGP funds and the system has been successfully in operation since 2010.

Fairlawn Storm Sewer Improvements - Phase II, City of Miami, Florida; Project Manager and Engineer-of-Record. Mr. Alonso was the Engineer of Record 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; nearly 4 miles of storm sewers and a localized duplex storm-water pump station and force main to serve the lowest elevation areas of the project. The permitting preparation and regulatory agency coordination included SFWMD, DERM, FDOT, and Miami-Dade County and the project has been in successful operation since 2009.

City of Miami, Fairlawn Phase III and Tamiami Storm Sewer Improvements Project Master Plan Improvements, Miami, Florida; Project Manager. Mr. Alonso was the Engineering responsible for the hydrodynamic model development 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 information 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.

City of North Miami, Breezeswept Drainage and Sidewalk System Upgrades, North Miami, Florida. Mr. Alonso was the lead engineering provided stormwater modeling and design services for these stormwater infrastructure improvements. Improvements included localized exfiltration trench systems and permitting with SFWMD, DERM and Miami-Dade County, as well as reconstruction of the roadway and sidewalks. Project was completed on time and on budget.

RESUMES OF KEY PERSONNEL

JOSE A. ANADON
CONSTRUCTION SERVICES

Mr. Anadon has over 19 years of experience performing initial, routine, and emergency inspection services for construction projects such as roadway and infrastructure improvements, signage, new buildings (industrial/commercial), and recreation facilities. He has earned various technical and inspection related certifications through his participation in the Construction Training Qualification Program (CTQP). Mr. Anadon also served as a general contractor for the installation and the construction of various electronic/power facilities. He has been assigned responsibilities on construction projects throughout Florida and the Caribbean. Mr. Anadon is a resident project representative, overseeing materials furnished and maintains quality assurance (QA) of works performed by contractors in conformance with plans, specification and other contract documents for North Terminal Development Apron Completion, American Eagle Regional Commuter Facility Apron Completion and Gate J17 A380 Airbus Modification at Miami International Airport Civil projects. Most recently, he is working as a Project Administrator and Resident Compliance Specialist for American Recovery and Reinvestment Act (ARRA) and Local Agency Program (LAP) projects of the Federal Aid Projects administered in according with the Construction Project Administration.

City of West Miami, Citywide Storm Drainage Improvements Phases 2A and 3, Miami, Florida; Senior Construction Inspector. Construction of approximately 2,108 lf of drainage pipe and 5,355-linear feet of exfiltration trench, catch basins, pavement demolition and restoration, milling and resurfacing, concrete curbs, sidewalks, driveways, MOT and other appurtenant work.

City of Miami, Flagami West End Storm Pump Stations 1, 2, 3, 4, Miami, Florida; Senior Inspector. Construction of four storm sewer pump stations, storm sewer collection system, force mains, treatment units and other incidental work including pavement and site restoration, coordination with utility companies and MOT.

FDOT District Six, Construction and Maintenance Inspections, Marathon, Florida; Inspector. Jose's responsibilities included oversight of all job sites for roadway signs, guardrail inspections, maintenance, and daily schedule updates for all field-testing as per the jobsite QA/QC Plan. He maintained and updated field books, as built, and all logs of present and ongoing job conditions. He provided assistance on all testing including directional bores, trench for utilities, milling, concrete, asphalt inspection, inductive loop detector, signalization, and traffic maintenance, inventory and inspection of ground mounted single and multi-post sign. He observed and monitored densities for pipe backfill, roadway sub-grade, and rock base. He performed concrete testing, and inspected underground pipe/utilities installation utility for BellSouth Company. He also reviewed as built plans, certifications and assisted with project closeouts.

FDOT District Six, SR 7 (US 441/NW 7 Avenue), Miami, Florida; Inspector. Verification and inspection of all MOT setups for correctness with Standard Specifications. He conducted verify and check surveys and on site density tests of all drainage and earthwork. He also sampled all materials and items as per jobsite Job Guide Schedule and monitored the application of temporary hot spray painting traffic stripes and markings.

V.C. Bird International Airport, Saint John, Antigua and Barbuda As part of the overall $ 40 Million airside design improvements, Mr. Anadon was responsible for the onsite construction inspections for the construction/rehabilitation of the existing 2,737-meter runway, 300-meter runway extension, 50,000 square meters of new aircraft parking apron (extension)

EDUCATION
BS, Pontifical Catholic University of Puerto Rico, 1997

CERTIFICATIONS/TRAINING
Certificate of Completion Project Administrator, Construction Academy of Florida Department of Transportation, Tampa, Florida, 2007

Finance Specialist 73C -US Army Reserve 2000-2008

Administrative Specialist - 42L, US Army Reserve 2004-2008

to accommodate additional wide body aircraft positions, aircraft maneuvering areas (taxiway connectors) and new fuel hydrant system.

Miami International Airport, Miami-Dade Aviation Department, North Terminal Development, Miami, Florida; Work Site Construction Services. Developed 47 international/domestic gates for both narrow-body and wide-body aircraft and a regional commuter facility for RJ and ATR gates. Performed day to day on-site inspections for several projects at North Terminal including the Regional Commuter Facility, B-C Apron Project, A-B Apron Completion Project and Gate J17 PLB Modification for A380 Airbus. The work consisted of overseeing the quality of the work and ensuring it is in accordance with the plans and specifications. Documented the daily progress of the work, prepared field reports, and assisted with review of payment applications, schedules, and change orders.

FDOT District Six, Landscaping Maintenance, Key Largo, Florida; Inspector. Tree installations, monitoring the species, quality, quantity, and size indicated by the specifications and FDOT standards for road and bridge construction.

FDOT District One, District-wide Thermoplastic Pavement Marking and Signalization, Bartow, Florida; Inspector.; Monitored all aspects of thermoplastic application and thickness measurements, reflectivity, color, and final measurements. He was responsible for as-built and finalizing jobs; inspection and field-testing compliance with FDOT Specifications and Standards; and examination of all signal equipment, lighting, signing and drainage delivered and installed on site.

FDOT District Six Hurricane Recovery; Office Administrator. Assisted and supervised small staff of inspectors for Hurricane Wilma. Responsibilities included designing a data system for all pay items from field dailies, oversee data input process, technician support, and generate reports of roadway and quantities.

RESUMES OF KEY PERSONNEL

JUAN AVILA, PE
SENIOR ELECTRICAL ENGINEER

Mr. Avila has more than 25 years of experience in the design and construction engineering fields. He is experienced in electrical engineering, including interior and exterior (primary and secondary) power, lighting and controls, lighting protection, communications, emergency power, intrusion detection, access control, and Short Circuit Analysis and Coordination. He has also designed several renewable energy systems, including photovoltaic arrays and CHP units.

Mr. Avila is familiar with NESC, NFPA, NEC, UFC, IBC, PREPA, IECC and IEEE Codes and Standards, and has served as a Government Agency and Utility designated Project Inspector.

City of North Charleston, Pepperhill Sports Complex, North Charleston, SC, Electrical Engineer Provided complete electrical system design for a new parking and soccer fields, as well as the Concession & Community Meeting Building, Storage Building & a Grilling Shelter. A new 208/120V, 600 Amps, 3-phase utility service was provided to a new electrical closet located new the main Community Meeting Building. New distribution panelboards were provided to feed the loads on new building, existing sports lighting and new sports lighting in the fields. Existing and new sports lighting was supplied at 240V single phase via new boost transformer banks. Other building loads such as interior lighting, receptacles, HVAC equipment where supplied at 208V and 120V. New buildings electrical system design included illumination, lighting controls, general purpose power distribution and HVAC equipment power distribution.

Ft. Buchanan, Roadway Lighting Upgrade, Guaynabo, PR, Electrical Design Engineer Designed a roadway lighting upgrade, for the entire site (881 acres of Area). The design included new pole and lighting fixture to be used around the site. Used lighting software to model the existing roadway lighting, and identified the areas requiring more light in order to comply with the ARMY roadway illumination criteria. Evaluated the use of solar powered lighting poles. Provided specification, drawings and construction cost estimate.

Trident Technical College, South Carolina Aeronautical Training Center, Site Development, North Charleston, SC, Electrical Engineer Provided specs for installation of underground telecommunications infrastructure duct bank and Site/Parking area lighting on a 62 acre north main campus Master Plan, Site and Building Programming, and Concept Design for a new 215,000 sf building targeting LEED® Silver. Spaces include 66,000 sf high-tech aviation labs, 35,000 sf of classrooms, 18,000 sf offices, 20,000 sf conference center, and a 40,000 sf open bay hangar accommodating aircraft, large parts, and student training aids.

81st U.S. Army Reserve Center, Diesel Generator Power Plant, Ceibo, PR, Electrical Engineer Designed a 2MW power plant consisting of a building with five (5) 500 KW Prime-rated diesel generators (one spare), including the 480 V paralleling switchgear, ATS, panelboards, oil-type transformer, 15KV low profile metal clad medium voltage (13.2KV) switchgears, site security lighting, indoor LED lighting, power receptacles, fuel pump system power equipment and other distribution equipment. The power was delivered to seven (7) buildings via new underground transmission power lines in the campus style ARMY Reserve installation. The underground transmission line consisted of 3 # 2 AWG XLP/TR copper single conductor feeders in 5" PVC conduit duct bank together with a spare conduit and 8 ft manholes. A total of approx. 3,300 LF of underground transmission line was designed. A new oil-type pad-mounted transformer was provided at the end of each 13.2KV underground feeder to step down the power to each building to the 480V or 208V are necessary. Automatic transfer switches were provided at each building

EDUCATION
BS/1994/Electrical Engineering, University of Bridgeport

REGISTRATIONS
Professional Engineer: FL, PR, SC

TECHNICAL EXPERTISE
Bulk Chemical Facility Design

Pharmaceutical and Biotech Facility Design

Military Facility Design

Wastewater Treatment Facility Design

Construction Management

Medium Voltage (Up to 46KV) Distribution Design

Telecommunication System Design

Federal Facility Design

Solar PV System Design

CHP System Design

to select from the utility company or the standby power source. The design also included the installation of an underground 12 strand Multimode, Fiber Optic line from each building ATS back to the new paralleling switchgear in the Power Plant Building. The power plant building was designed at a location of 100 ft from a nearby sea shore line, thus corrosion resistance equipment was specified for all electrical panels, oil-transformers, switchgears and switchboard located outside.

81st U.S. Army Reserve Center, New Microgrid Power System, Ceibo, PR, Electrical Engineer Designed a 1.1MW Microgrid system consisting of three (3) Diesel generators with on-board paralleling control panels, one 275KW Wind Turbine, a future 500KW PV Solar array system, three (3) ATS, panelboards, oil-type transformer, 15KV low profile load interrupting metal medium voltage (13.2KV) switchgears, site security lighting, power receptacles, fuel pump system power equipment and other distribution equipment. The power was delivered to six (6) buildings via new underground transmission power lines in the campus style installation. The underground transmission line consisted of 3 # 2 AWG XLP/TR copper single conductor feeders in 5" PVC conduit duct bank together with a spare conduit and 8 ft manholes. A total of approx. 3,300 LFT of underground transmission line was designed. Also, new overhead 13.2 KV lines were designed to connected the existing 275KW Wind Turbine to the Microgid system. Approx. 1,500 LFTA of #2 ASCS bare overhead cable was specified. New oil-type pad-mounted transformer was provided at the end of each 13.2KV underground feeder to step down the power to each building to the 480V or 208V are necessary. Automatic transfer switches were provided at each building to select from the utility company or the standby power source.

U.S. Post Office, HVAC Controls and System Upgrade EFMS Project, Charleston, SC, Electrical Engineer Provided electrical design of the power distribution for two (2) new 200-ton chillers, two (2) cooling towers, three (3) new AHUs, four (4) 15-hp chilled water pumps, and seven (7) remodeled AHUs. New THWN type copper cables, new VFDs, new combination magnetic starters, and disconnect switches were specified for this equipment. The existing MCC and MDS were reused as the point of connection for the chillers cooling tower and pumps. Existing 480V and 208V distribution panels were used as the point of connection for the AHU.

81st U.S. Army Reserve Center, Utility Lifecycle Reset and Facility Repairs, Various Locations in Southeast U.S, Electrical Engineer Provided engineering support to facilities located throughout GA, FL, AL, MS, SC, NC, TN and KY. Tasks included visual inspection, identification of deficiencies, and preparation of designs to either replace or repair systems and equipment to "reset" its lifecycle. Included selective demolition of existing systems, new panelboard in mezzanine, new circuit breakers, MCC, disconnect switches, and other devices to be in accordance with NFPA 70E and OSHA 1910.303.

Naval Facilities Engineering Command, Southeast, Joint Base Charleston – Weapons Station, Pier Bravo Fire Protection, Goose Creek, SC, Electrical Engineer Provided electrical design services for the replacement of a fire protection system for the pier, including a diesel fire pump and standpipe system utilizing brackish river water as the supply source. New Pier grounding system was provided.

RESUMES OF KEY PERSONNEL

BOON KIM CHONG, PE
SENIOR BRIDGE ENGINEER

Mr. Chong has 27 years of structural engineering experience. He has been responsible for the overall conceptualization, production, and quality assurance for a wide variety of structural design projects. As Senior Structural Engineer, he actively participates in technical issues and monitors major projects. Mr. Chong's experience focuses on the design of highway bridges and tunnels as well as transit facilities and special structural design. He has been responsible for the design of more than 70 bridges, with spans ranging up to 280 feet; the design of more than 50 retaining walls; the production of conceptual reports for an additional 40 bridges; and the design reviews of more than 200 bridges for various authorities.

Chokoloskee Bridge Replacement, Everglades City, FL, Design Engineer. TYLI was selected to replace the 57 year old 200-foot long Chokoloskee bridge on the causeway connecting Chokoloskee Island, the southernmost community on the west side of Florida, with Everglades City. Chokoloskee Bridge is the only means of surface transportation to residents and therefore it is their only hurricane evacuation route and the client required that two-way traffic and pedestrian access be maintained at all times during construction. Services for this project included roadway, bridge, utility, flexible pavement, transportation, scour control, and drainage design services in addition to environmental engineering and permitting services.

FDOT District Six, SR 826 (Palmetto Expressway) over FEC Railroad and Johnson Drive, Miami, Florida; Project Engineer. Evaluated a skew inverted T straddle bent cap over FEC Railroad Track and Johnson Drive for SR 826 Improvement Program. The Straddle was post-tensioned with clear span of 120 feet. Responsible for the bent cap design, time dependent analysis, anchorage and tendon design.

FDOT District Six, SR 826 Palmetto Expressway Section 2 Design-Build from South of Sunset Drive to North of SW 31st Street, Miami, Florida; Engineer of Record and Structural Engineer. Section 2 involves approximately three miles of expressway and 3 interchanges in the southern reach of the corridor. The project starts from south of the Miller Drive interchange and ends north of the Bird Road Interchange with the SR 874/Don Shula Expressway (a toll road governed by the Miami-Dade Expressway Authority system), terminating in a major interchange midway through the project length. The primary purpose of the project was to widen the mainline from two to three lanes, or from three to four lanes in each direction, add auxiliary lanes between all interchanges, incorporate interchange improvements including surface streets, as well as operational and safety improvements along the mainline and interchange ramps. The project also included drainage, lighting, landscaping, ITS, and signalization improvements. Responsible for all miscellaneous structures and steel curve bridge final plan preparation for the design-build team.

FDOT District 1, Districtwide Bridge Engineering Design Support Services, Florida; Project Manager and Engineer of Record. TYLI is providing structural engineering support and on-call services to the District Structures Maintenance Office (DSMO). These services include bridge repair, engineering evaluation, electronic comments review, emergency response, work program preparation, load rating, bridge inspection, electronic data management, permit review, structures program monitoring, and miscellaneous structural engineering support. Mr. Chong is responsible for managing task work orders and providing engineering support to the DSMO.

Repair projects completed under this districtwide contract include:

EDUCATION
ME, Structural Civil Engineering, University of Florida, 1990

BS, Civil Engineering, Southern University A&M, 1988

Steel Bridge Design Experience

REGISTRATIONS
Professional Engineer, Florida, No. 48156

CERTIFICATIONS/TRAINING
FHWA-NHI "LRFR for Highway Bridges" (2016)

FDOT "Load Rating Summit: LRFR for Florida's Bridges" (2005)

FICE/FDOT "AASHTO LRFD for Structural Engineer" (2004)

Penn State University "Project Management Development Program and Service" (2000-2001)

FHA and NaBRO "Steel Bridge Design and Construction for the New Millennium with Emphasis on High Performance Steel" (2000)

NaBRO "Design of Steel Bridge Using AASHTO LRFD Bridge Design Specification" (2000)

ASCE "Seismic Design of Highway Bridges" (2000)

ASCE "Wind Load Design and Building Code Seminar" (1999)

FICE/FDOT "LRFD Seminar" (1997)

• SR 758 Siesta Key Draw Bridge Rehabilitation: PLC replacement, steel grid deck replacement, bridge painting, electrical system upgrade

• Longboat Pass Draw Bridge Repair: Steel bearing replacement, deck spall repair, beam spall repair

• Hernando Desoto Bridge Repair: Concrete deck resurfacing, steel bearing adjustment, bridge painting, Cathodic Pile Jacket, Spall Repair

• Little Ringling Causeway Scour Countermeasured: Riprap protection

FDOT District 3, Districtwide Bridge Repair; Engineer of Record. TYLI was selected for this multi-year, on-call engineering services contract. The scope covers a wide range of design services related to bridge repair, bridge rehabilitation, and painting of structures to extend their useful service life. Under this contract, TYLI is designing a substructure and bulkhead repair project for the Dupont Bridge in Panama City, FL. We also designed a fast-paced, protective coating project for numerous bridges in downtown Panama City, where we were required to go from 60% Plans to the Final Signed & Sealed submittal in 60 days.

Lee County, Summerlin Road Six-Laning, Fort Myers, Florida; Structural Project Manager and Engineer of Record. Project consisted of continuous twin curve steel plate girder bridges at the interchange of Summerlin Road and Gladiolus Drive. The twin curve steel plate girder bridges have a 573-foot radius with a Texas U turn below the bridges. Both bridges span arrangements are 155'-232.5'-155.' Live load deflection was the design control factor on plate girder depth. Single column hammerheads with 24-inch pile supports were used in the design. Aesthetic facing on the pier was accounted for in the design. Mr. Chong designed the twin steel plate girder bridges, two cantilever signs, two signal mast arms, a ground mounted sign, four luminary pilasters, and two temporary sheet pile walls.

FDOT District Seven, SR 686 (CR 296 from East 40th Street to West of 28th Street), Clearwater, Florida; Design Engineer and Engineer of Record. The bridges in this project span across 34th Street with 30 degrees skew over 118th Avenue and a waste management canal, landfill and Ramp A. Pre-bore piles are used throughout the landfill. The bridges are a composite of hybrid design for steel plate girders and AASHTO prestressed beams. HS 25 loading was used for design. The bridges are in tangent and curve with various girder radii. The girders have a 240-foot span over the canal. With various spacing and girder radii, the bridges have a challenging geometry for spanning over 118th Avenue and the canal. 3D modeling was used to design the curve girder with added sub girder. Divided into five units, the total span length of both bridges equals 1,600 feet. Expansion joints were used in the design to accommodate the curvature expansion. Later, the bridges were value engineered into concrete Florida I-Beams with a 175-foot maximum span length. Mr. Chong was responsible for the design of a cantilever sign and seven temporary sheet pile walls. He was also responsible for preparing tasks from the Bridge Development Report to final plans, quality control, and overall bridge design.

RESUMES OF KEY PERSONNEL

SARA GUTEKUNST
ENVIRONMENTAL SCIENTIST

Ms. Gutekunst has several years of experience working as an environmental consultant in South Florida. A graduate of the University of Miami, Ms. Gutekunst has a strong background in science and research. She has experience in the planning, design, and permitting of environmental projects. Her capabilities include wetland jurisdictional determinations, environmental feasibility studies, benthic resource surveys, environmental permitting, mitigation design and monitoring, endangered and threated species surveys, and GIS analysis. She is experienced in coordination with regulatory agencies and obtaining environmental permits for commercial, residential and roadway projects in sensitive environments.

Pompano Beach Pier Replacement, Pompano Beach: Ms. Gutekunst served as a project biologist and was responsible for conducting turbidity monitoring during the replacement of the Pompano Beach Pier. Ms. Gutekunst performed turbidity monitoring three times daily and was responsible for submitting data for monitoring reports for the regulatory agencies.

Beach Renourishment Segment II, Broward County: The Broward County Beach Renourishment project consisted of the restoration of Broward County's eroding beaches by placing sand along its coastline and enhancing and creating dunes. Ms. Gutekunst served as a project biologist and was responsible for conducting turbidity monitoring three times daily and was responsible for submitting data for monitoring reports for the regulatory agencies.

Port Everglades Turning Notch Expansion, Broward County: Ms. Gutekunst served as a project biologist for the Port Everglades Turning Notch Expansion project. The wetland enhancement project included the creation of a 16.5-acre wetland enhancement area related to the release of a portion of an existing 8-acre conservation easement that will allow Port Everglades to expand the Southport Turning Notch. Ms. Gutekunst was responsible for conducting mitigation monitoring of the wetland enhancement area and preparing monitoring reports for the U.S. Army Corps of Engineers, the Florida Department of Environmental Protection, and the Broward County Environmental and Growth Management Division. The project also included the design and construction monitoring of an artificial reef off the coast of Dania Beach to offset impacts to corals and to create a site for coral relocation. Ms. Gutekunst played an integral role in designing the artificial reef and participated in construction observation during its creation.

Fort Lauderdale Habitat Conservation Plan, Fort Lauderdale: Ms. Gutekunst was responsible for preparing a bid package for the City of Fort Lauderdale's Request for Proposals for the development of a Coastal Habitat Conservation Plan for Fort Lauderdale's beaches. Ms. Gutekunst was responsible for preparing the proposal, coordinating with subcontractors, preparing a narrative of the approach to the scope of work, creating graphics, and submitting the proposal to the City.

Heron Bay Development, Parkland: Ms. Gutekunst served as a project biologist for the Heron Bay Development mitigation project. The Heron Bay Development project included the design, permitting and monitoring of two wetland mitigation areas within a residential community. Ms. Gutekunst was responsible for performing quarterly monitoring and preparing reports for the U.S. Army Corps of Engineers, South Florida Water Management District and the Broward County Environmental Protection and Growth Management Department.

3 Harborage Isle Drive, Fort Lauderdale: Ms. Gutekunst served as a project manager for the permitting of 3 Harborage Isle Drive. The project included the repair and installation of approximately 1,000 linear feet of dock and seawall at a residential property. Ms. Gutekunst

EDUCATION
BS, Marine and Atmospheric Science, University of Miami, Coral gables, FL, 2013

SKILLS / CERTIFICATIONS
AutoCAD LT; Florida Stormwater, Erosion and Sedimentation Control Inspector; Trimble; American Red Cross CPR, AED and First Aid; Microsoft Office; Intuit Quickbooks; Florida Aquatic Species Collection ; NAUI Rescue Diver ; SSI Open Water SCUBA; US Sailing Association Sailing Instructor

was responsible for conducting a benthic resource survey and preparing a report, preparing and submitting applications to the Army Corps of Engineers, Florida Department of Environmental Protection, and the Broward County Environmental Protection and Growth Management Department, and coordinating with the regulatory agencies. Ms. Gutekunst also attended meetings with the Fort Lauderdale Marine Advisory Board and the Fort Lauderdale City Commission for the approval of a waiver to install mooring piles at the property.

Pier 66 Marina, Fort Lauderdale: Ms. Gutekunst served as a project biologist for the Pier 66 Marina project. The project includes dredging the waterways along the marina to support mooring along the facility. Ms. Gutekunst was responsible for conducting a benthic resource survey and preparing a report, utilizing AutoCAD to prepare project design plans, preparing and submitting applications to the Army Corps of Engineers, Florida Department of Environmental Protection, and the Broward County Environmental Protection and Growth Management Department, preparing a mitigation plan, and coordinating with the regulatory agencies. The project also included an analysis on future sea level rise at the property in order to proactively provide practical solutions to future impacts. Ms. Gutekunst was responsible for conducting a site inspection, conducting a GIS analysis, and preparing the sea level rise analysis report.

Hilton Marina, Fort Lauderdale: Ms. Gutekunst served as a project biologist for the Hilton Marina project. The project includes the dredging of the Intracoastal Waterway along Hilton Marina to support mooring along the facility. Ms. Gutekunst was responsible for conducting a benthic resource survey and preparing a report, utilizing AutoCAD to prepare project design plans, preparing and submitting applications to the Army Corps of Engineers, Florida Department of Environmental Protection, and the Broward County Environmental Protection and Growth Management Department, and coordinating with the regulatory agencies.

1638 River Lane, Fort Lauderdale: Ms. Gutekunst served as a project manager for the permitting of a dock and seawall at 1638 River Lane in Fort Lauderdale. The project included the replacement of approximately 230 linear feet of dock and seawall at a residential property. Ms. Gutekunst was responsible for conducting a benthic resource survey and preparing a report, preparing and submitting applications to the Army Corps of Engineers, Florida Department of Environmental Protection, and the Broward County Environmental Protection and Growth Management Department, and coordinating with the regulatory agencies.

407 and 419 North Riverside Drive, Fort Lauderdale: Ms. Gutekunst served as a project manager for the permitting of a residential marina at 407 and 419 North Riverside Drive in Fort Lauderdale. The project included the excavation of uplands and replacement of a seawall for a residential marina. Ms. Gutekunst was responsible for conducting a benthic resource survey and preparing a report, preparing and submitting applications to the Army Corps of Engineers, Florida Department of Environmental Protection, and the Broward County Environmental Protection and Growth Management Department, and coordinating with the regulatory agencies.

RESUMES OF KEY PERSONNEL

COLIN P. HENDERSON
SENIOR ENVIRONMENTAL SCIENTIST

Mr. Henderson has 30 years of experience providing environmental services. He has extensive experience in the planning, design, and construction administration of civil and environmental projects. His work encompasses project management, preparation of assessment and remediation reports, biological monitoring, and permit compliance. He is experienced in construction oversight and coordinating with regulatory agencies and is proficient at obtaining environmental permits for mitigation and construction projects in sensitive environments.

I-395/SR 836 Contamination Screening Evaluation, FDOT 6, Miami, Florida The project included proposed improvements of the 1.2 mile segment of I-395 between the I-95 Interchange and the west bridges of the MacArthur Causeway over Biscayne Bay in the City of Miami. Sr. Environmental Scientist for the update of the Contamination Screening Evaluation Report (CSER) to document any changed conditions that had occurred since the approved FEIS and 2008 CSER. The CSER Update entailed reviewing all previously generated contamination information to determine if changes have occurred that would affect the project, including review of agency records and historic aerials since the 2008 CSER. This evaluation also included a field verification of land use changes that have occurred since generation of all previous contamination screening data.

FDOT District Four, Districtwide Project Development and Environmental Support. Project Manager for this districtwide multitask assignment to provide support to FDOT in developing and reviewing engineering and environmental documents such as corridor studies, feasibility studies, and conceptual designs. Projects have included the Henry Kinney Pedestrian/Bicycle Crossing over the New River Feasibility Study, Peter Cobb Bridge Benthic Survey and Endangered Species Assessment, Boca Inlet Bridge Replacement Feasibility Study, Linton Boulevard Interchange Environmental Support, and SIS Facilities Impact Tracking Tool development.

FDOT District Six, SR 5/Brickell Avenue (South of SE 25 Road to SE 4 Street) PD&E Study, Miami, Florida; Environmental Analyst. Provided environmental impact services including Geographic Information Systems analysis, contamination assessments, wetlands delineation, and wildlife surveys associated with the planning and preliminary engineering study for a reconstruction, rehabilitation and resurfacing project proposed on 1.7 miles of an existing four-lane divided highway on SR 5 (Brickell Avenue).

Venetian Causeway Rehabilitation Design-Build, Miami-Dade Public Works, Miami, FL; Environmental Scientist. TYLI is serving as lead designer on this $12M project that encompasses the complete demolition and replacement of the westernmost 731 feet of the existing Venetian Causeway bridge from Miami's mainland to the outer islands. The replacement bridge is to replicate the existing architecture of the current structure, which is listed on the National Register of Historic Places, and to provide a seamless connection to the remaining bridge.

FDOT District Six, Port of Miami Tunnel Public-Private Partnership (PPP), Miami, Florida; Senior Environmental Engineer. The Tunnel travels under the sensitive environment of the Biscayne Bay Aquatic Preserve. As part of the technical advisory team supporting FDOT District Six, reviewed permitting and environmental compliance. Assisted in maintaining the procurement schedule, development of procurement documents, and review of the prospective concessionaires' proposals.

EDUCATION
MS, Environmental Engineering, Florida International University, 2000

BS, Wildlife and Fisheries Biology, University of California, Davis Campus, 1986

REGISTRATIONS
ENVISION Sustainability Professional

OSHA Hazardous Materials Site Safety Supervisor and Hazardous Materials Emergency Responder

DOT HM-181 Hazardous Materials Handling

FDOT Water Quality Impact Evaluation

FDEP Qualified Stormwater Management Inspector

PROFESSIONAL AFFILIATIONS
South Florida Association of Environmental Professionals-Board Member (2013-2016)

COLIN P. HENDERSON

SENIOR ENVIRONMENTAL SCIENTIST

FIU-Sweetwater UniversityCity Prosperity Project – Miami, FL. Environmental Task Manager for the completion of NEPA documents to satisfy the award of an $8 million TIGER grant from FHWA for the construction of a pedestrian bridge over US 41/Tamiami Trail from the City of Sweetwater to FIU. The project was processed as a Minor Categorical Exclusion (MiCE) and in order to meet strict time requirements, documentation was prepared and approved within a three month time frame. The project was performed through a LAP Agreement with FDOT District 6 and involved extensive coordination with FDOT, FHWA, SHPO, SFWMD, and USFWS to expedite the review process.

FDOT District Four, Eller Drive Overpass ICTF (East of US 1/SR 5 to East of McIntosh Road), Fort Lauderdale, Florida; Environmental Task Leader. Due to the project location and intergovernmental jurisdictional interests this project involved extensive coordination with the SFWMD, Army Corps of Engineers, NMFS, and Broward County to identify acceptable mitigation for unavoidable wetland impacts associated with the improvements. Responsible for the environmental coordination and permitting of the Eller Drive Overpass interchange and bridge improvements

FDOT District Four, SR 5/US 1 PD&E from S of Glades Rd to N of Yamato Rd. Boca Raton, Florida Mr. Henderson conducted the environmental impact analysis for the proposed roadway widening from 4 lanes to 6 lanes for a 2.8-mile section of SR 5 / US 1 in Boca Raton, Florida. This roadway traverses a heavily urbanized area and studies focused on contamination, historic resources, community services, land use impacts, wetlands, water quality, biological impacts, and permitting issues.

Design/Build Seawalls: Keystone Point Community - City of North Miami, Florida Responsible for the permitting of new seawalls at 22 locations within the Keystone Point Community. Environmental permits were obtained through DERM, ACOE, and FDEP to preserve wetland habitat and water quality in the surrounding areas during construction.

Park View Island Shoreline Restoration, City of Miami Beach, Florida Project Manager for the Park View Island Shoreline Restoration Project which will restore and enhance the shoreline along the Park View Island Canal from 73rd Street to 77th Street in Miami Beach. Seawalls and natural shorelines in this area have experienced extensive deterioration and erosion over the years. Restoration of this area will enable the placement of a proposed bike path providing linkage for pedestrians and bicyclists between 71st street and the Biscayne Point Neighborhood as well as one of the only mangrove ecosystems in North Beach. The services to be provided include a Conceptual Design and Environmental Resource Survey.

RESUMES OF KEY PERSONNEL

VIKAS JAIN, AICP

TRANSPORATION PLANNER-COMPLETE STREETS

Mr. Jain has 16 years of experience working on several complex transportation and transit projects throughout Florida. In his current role, he manages multi-disciplinary teams to deliver projects to a multitude of clients including FDOT, MPOs, municipal clients as well as private sector entities. He has managed a broad range of assignments from motorized and non-motorized projects such as bikeway/sidewalk, transit feasibility studies, multimodal corridor studies, traffic impact studies, and intermodal hubs. He has extensive experience in developing long-range multimodal transportation/transit system plans, transit service plans, transit operations analysis, and capital cost and O&M cost models. He has effectively integrated GIS and travel demand forecasting software data for socio-economic, land use, and demographic analysis to aid the team in preparing environmental assessments and impact statements under National Environmental Policy Act (NEPA) guidelines. Vikas has profound understanding of Federal Transit Administration's (FTA) project development process including preparing New Starts application. He has led and provided technical support for public outreach efforts, stakeholder and agency coordination.

FDOT District Four, Pedestrian/Bicycle Bridge over New River along Henry Kinney Tunnel Alignment, Deputy Project Manager. Co-managing a multi-disciplinary team to evaluate engineering feasibility of a pedestrian/bicycle bridge in the City of Fort Lauderdale in the US 1 corridor along the HKT alignment. Primary responsibility includes stakeholder coordination, client management, and coordinating technical analysis to assess alternative bridge location and types, synthesize information for documentation and presentation and deliver the project.

City of Coconut Creek, Florida, Complete Streets Master Plan, Project Manager. Vikas led Developed a complete streets implementation plan for the City of Coconut Creek that will serve the basis on updating the City's comprehensive plan and land development regulations. Under Vikas' leadership staff analyzed the major corridors in the City to identify bike/pedestrian improvement needs and develop proposed typical sections based on Broward County Complete Street Guidelines and "best practices." The Complete Streets Plan identified 23 projects - a total investment of approximately $116 million over the next 25 years for a variety of short-, mid-, and long-term multimodal modal improvements, such as, "Complete Streets" ($73 million); sidewalk ($7.8 million); enhanced transit service ($6.5 million); safety improvements ($0.4 million); bicycle infrastructure ($0.15 million); and greenways improvements ($28.5 million). Vikas coordinated and prepared existing and proposed conceptual typical sections to accommodate Complete Streets design principles as appropriate for 12 major travel corridors in the City.

City of Fort Lauderdale, Powerline Road (SR 845) Lane Elimination Application, Project Manager. 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. Vikas 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.

EDUCATION

Master of City and Regional Planning, Clemson University, 2003

Master of Planning (Specialization in Housing), School of Planning, Center for Environmental Planning and Technology (CEPT), India, 2000

Bachelor of Engineering, Construction Technology, School of Building Science & Technology (SBST), CEPT, India, 1998

REGISTRATIONS

American Institute of Certified Planners (AICP) #020097, 2005

Certified Geographic Information Systems (GIS) Professional #00057880, 2008

PROFESSIONAL AFFILIATIONS

American Institute of Certified Planners

American Planning Association

Member of Indian Society of Geomatics (ISG)

PUBLICATIONS

"Propensity to Use Transit–A GIS based Model," November 2007, GIS in Transit Conference, Tampa, FL

RESUMES OF KEY PERSONNEL

VIKAS JAIN, AICP

TRANSPORATION PLANNER-COMPLETE STREETS

Martin MPO, Bicycle and Pedestrian Safety Action Plan (BPSAP), Martin County, FL. Project Manager. Vikas led TYLI staff to successfully complete a countywide bicycle and pedestrian safety assessment for the Martin MPO that recommended over 60 bike/ped safety countersues based on FHWA's 4Es Concept using a corridor approach. An innovative approach developed by Vikas to identify crash hot spots to optimize project costs and budget included use of ESRI's ArcGIS Spatial Analysis Tool for performing quantitative analysis and blending qualitative analysis gathered through field visits and a robust public engagement process. A key product of this Action Plan included developing an implementation plan to advance projects from planning to design and construction phase in an expedited manner. This Action Plan was adopted unanimously by all of the MPO Advisory Committees, Project Steering Committee, and the MPO Policy Board. In addition, some of the recommended countermeasures have been advanced into the design phase by the MPO and Florida Deportation of Transportation (FDOT)

Sistrunk Boulevard Streetcar Feasibility Study, Fort Lauderdale Florida; Deputy Project Manager. Vikas served as lead analyst and developed overall methodology for forecasting and coordinated with a multi-disciplinary team to incorporate conceptual engineering, cost estimates, operating plans and financing mechanisms in a dossier to help The City of Fort Lauderdale and the Northwest CRA to determine whether a streetcar service – an extension of the Downtown Wave streetcar project that is underway - would be feasible and/or viable. The project involves presenting findings to key stakeholders and elected officials.

City of Fort Lauderdale, Lake Ridge Neighborhood Mobility Master Plan, Fort Lauderdale, FL; Project Manager. Under Vikas' direction and leadership the TYLI project team is developing the Lake Ridge Neighborhood Mobility Masterplan. This Masterplan will create a multimodal transportation improvement plan that is anticipated to include an investment of $26 million over the next 10+ years. Multimodal improvements include operational strategies to improve traffic flow, Complete Streets projects, traffic calming improvements, bicycle and pedestrian mobility and accessibility improvements as well as address safety issues. This effort includes building consensus for project recommendations and help unify the community on transportation related issues and concerns as well as community's vision.

South Florida Regional Transit Authority (SFRTA) Downtown Boca Raton Transit Feasibility Study, Palm Beach County, FL. Project Manager. Evaluated 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, Vikas prepared alternative transit networks (downtown circulators and downtown-commuter rail connectors), service plans, cost estimates, and ridership forecasts. Ultimately, the team recommended a preferred alternative for the Downtown CRA Board for adoption and implementation purposes.

Long Range Transportation Plan (LRTP) 2035 Update, Broward Metropolitan Planning Organization, Florida; Task Manager. Developed an LRTP that includes short- and long-range strategies and actions leading to the development of an intermodal transportation system. The plan encompassed multimodal components that include highways, mass transit, pedestrian facilities, bikeways, waterborne and freight transportation. Vikas was responsible for developing data compilation and review report, the needs plan project list and assessment, and, ultimately, working with stakeholders to build the fiscally constrained cost feasible plan.

RESUMES OF KEY PERSONNEL

DENNIS MARTINEZ, PE
BRIDGE DESIGN LEAD

Mr. Martinez has over 15 years of experience and has been active in a variety of site engineering projects including the design of major bridges, rail bridges, bridge ramps, bridge restoration, bridge extension and widening projects, and bridge load ratings. His recent experience has included a vast amount of bridgework, with a progressing amount of successfully completed project tasks.

Broward County, North New River Canal Bridge Replacement, Broward, Florida; Project/Structural Engineer. Replacement of two bridges traversing the North New River Canal on Commodore Drive and SW 125 Avenue. The new construction Commodore Drive and SW 125 Avenue bridges are two-lane, combination traffic-utility, 5-span bridges, with overall lengths of 118-ft. and 125-ft. The superstructure and substructure on both bridges consist of prestressed solid slabs supported on pile bents. Services included production of design plans, structural computations and quantity computations.

FDOT District Six, Midtown Emergency Bridge Repairs, Miami, Florida; Project/Structural Engineer. The project involved repairing the bridge ramps from southbound and northbound I-95 to westbound SR 836. The end spans of both ramps were subjected to fire damage after a gas fuel tanker went over the barrier railing on the southbound I-95 to westbound SR 836 ramp. Project involved repairing structural concrete members to their original cross-sectional profiles and appearance. Fire affected bearing pads were replaced by constructing steel jacking frames. Services included production of reparation design plans, structural computations, quantity computations and Construction Engineering Inspection (CEI) administration.

FDOT District Six, Emergency Bridge Restoration, Miami, Florida; Structural Engineer. The project involved replacing exterior structural members on Span 3 of SR 91, I-95 ramp to Northbound Turnpike. Failure of an exterior prestressed beam on the eastside of the bridge due to a truck impact resulted in a necessary and immediate bridge restoration. A prestressed concrete beam, reinforced deck slab and concrete barrier were members to be replaced. Services included production of design plans, structural computations and CEI administration.

FDOT District Four, Eller Drive Overpass Intermodal Cargo Transfer Facility (ICTF) from East of US-1/SR 5 to East of McIntosh Road; Miami, Florida; Project/Structural Engineer. Designed elements of five bridges, elevated mainline roadways, frontage roads, parallel railroad spur lines, and three railroad crossings within a half mile segment of roadway. Bridge superstructures included prestressed concrete girders, cast-in-place concrete flat slab and a two-span curved steel plate girder bridge. He was also involved in major modifications to the connector ramps from Fort Lauderdale-Hollywood International Airport, as well as connections to local city streets and port roadways.

FDOT District Six, Load Ratings, Miami, Florida; Project/Structural Engineer. Bridge load ratings for 29 existing bridges throughout Miami-Dade County. The existing structures had construction dates ranging from 1960 to 1980 and included prestressed, steel, cast-in-place and concrete arch superstructures.

Venetian Causeway Rehabilitation Design-Build, Miami-Dade Public Works, Miami, FL; Design Project Manager. TYLI is serving as lead designer on this $12M project that encompasses the complete demolition and replacement of the westernmost 731 feet of the existing Venetian Causeway bridge from Miami's mainland to the outer islands. The replacement

EDUCATION
MS, Civil Engineering, Georgia Institute of Technology, 2001

BS, Civil Engineering, Georgia Institute of Technology, 2000

REGISTRATIONS
Professional Engineer, Florida #69303

AFFILIATIONS
American Institute of Steel Construction

PUBLICATIONS
"Short, Wide and Heavy-Duty," Modern Steel Construction, April 2010

bridge is to replicate the existing architecture of the current structure, which is listed on the National Register of Historic Places, and to provide a seamless connection to the remaining bridge. The superstructure consists of precast arched beams and railings with unique aesthetics. The substructure consists of bents supported on drilled shaft foundations. Due to the need to close the bridge to traffic, an expedited schedule of 9 months must be met by the design-build team. Mr. Martinez is the Design Project Manager, responsible for all design, permitting and approvals in conformance with AASHTO, FDOT and County specifications.

SR826/Palmetto Expressway (Segment 5) from East of NW 42nd Avenue to East of NW 32nd Avenue, Miami-Dade County, Florida; Engineer of Record. The project is for the reconstruction of the SR 826 East-West, on/off ramps and frontage roads located in Miami-Dade County from East of NW 42nd Avenue to East of NW 32nd Avenue along with the bridges at NW 37th Avenue and NW 32nd Avenue. The reconstruction will improve traffic congestion along the SR826/Palmetto Expressway corridor by increasing the number of lanes from 6-total lanes to 10-total lanes (6-general use and 4-express lanes) and replace two (2) existing bridges at NW 37th and NW 32nd Avenues. The reconstruction of the mainline will provide safety and operational improvements including drainage, lighting, signage and ITS.

FDOT District Six, I-395/SR 836 from Midtown Interchange/I-95 to US 41/SR A1A MacArthur Causeway Bridge, Miami-Dade County, Florida; Project Manager/Structural Engineer. For this $800M project, TYLI is serving as the owner's representative for FDOT District 6; developing conceptual plans, a Request for Proposal (RFP) design criteria package, and an aesthetics manual for complete reconstruction of the I-395 Corridor, which is a large complex limited-access roadway in downtown Miami. The new corridor will connect downtown Miami to I-95, MDX 836 and provide direct access to the Port of Miami Tunnel. Work includes structural design for a proposed Signature bridge, approach spans/ramps and modification of the existing roadway and interchange. Other elements include drainage, utilities, geotechnical engineering, public involvement, environmental permitting, lighting, ITS, landscaping, aesthetics and a complex maintenance of traffic scheme to minimize local impacts. The project includes reconnecting areas in the historic Overtown neighborhood and providing extensive public outreach throughout life of project. Additional tasks include supporting Department staff during procurement phase that includes Alternative Technical Concept Review, Signature Bridge Review, and coordination with the Office of General Counsel and RFP addendum development.

MDX 83628, Design-Build from SR 836 from West of NW 57th Ave to NW 17th Ave., Miami-Dade County, Florida; Structural Lead Engineer. The $150M project was for the Design and construction of roadway widening to accommodate additional mainline travel lanes in each direction of SR 836. The proposed improvements involved the widening of 21 bridges and construction of 12 new bridges. Mr. Martinez is the EOR for the steel bridges on the project including 2 new curved bridges and 1 widening. One of the bridges is a new flyover over LeJeune road and the SR 836 mainline. It is sharply curved 2 unit bridge consisting of a total of 5 spans for a total length of 930-ft.

RESUMES OF KEY PERSONNEL

RAMFIS MORALES, PE
SENIOR ROADWAY ENGINEER

Mr. Morales has 24 years of civil engineering experience including the design and evaluation of pavement conditions, drainage design, and construction inspection. Mr. Morales has designed highway and roadway projects in Central Florida, South Florida, U.S. Virgin Islands, Puerto Rico, and Bahamas comprising of a diversity of projects such as street rehabilitation, signalized intersections, CD collector, box culverts, toll plazas, and drainage improvements. Mr. Morales is also experienced in railroad studies, design and design-build, train stations, freight and passenger systems.

SR 589 (Veterans Expressway) Widening and Resurfacing from South of Gunn Hwy. to Sugarwood Mainline Toll Plaza, Florida's Turnpike Enterprise, Hillsborough County; Design Engineer. The Project includes the design and construction of the widening and resurfacing of the Veterans Expressway (SR 589) from south of Gunn Hwy to the Sugarwood AET Mainline Gantry. The project is approximately 1.7 miles in length from MP 9.000 (begin) MP 10.726 (end). Design and construction of roadway widening to accommodate two additional mainline travel lanes in each direction of the Veterans Expressway for a total of 8 lanes (4 northbound and 4 southbound). Other major work elements include drainage, permit modification, traffic control, traffic signals, signing and pavement, lighting, ITS, and utility coordination. Mr. Morales worked on signing/signalization, paving design and post design.

Hillsborough County, 15th Street, Tampa, Florida; Project Engineer. Project involves installing two traffic roundabouts at the intersection of 15 Street and 122 Avenue, and 15 Street and 127 Avenue with roadway improvements between the two intersections. The roundabouts have less ROW impacts than installing a turn signal. The roadway portion between the two intersections will be reconstructed by increasing the profile grade. The area floods due to its existing low elevation and the project will improve drainage. Utility coordination is required due to extensive utilities in the area. Involved in the PD&E study to final design including traffic study, roadway design, ROW impacts, drainage design, stormwater mitigation, survey, geotechnical analysis, and SUE.

FDOT District Four, Eller Drive Intermodal Cargo Transfer Facility (ICTF); Project Engineer. Designer for this complex interchange and express lanes from I-595 into Port Everglades. The project eliminates two at-grade intersections before accessing the Port, and provides grade separation for the double-track railroad serving the Port's ICTF. The project involves four bridges, elevated mainline roadways, frontage roads, parallel railroad spur lines, and three railroad crossings all within a half-mile segment of roadway. At the location where one of the mainline bridges crosses over the railroad, it also passes beneath Florida Power and Light high-voltage transmission lines, which are elevated to accommodate for the new bridge. Specific assignments included final engineering for 5.4 miles of new roadway, five bridges and retaining walls, full environmental investigations, and new double-track railroad spur lines to serve the Port Everglades future container yard. Design controls at US 1, McIntosh, the railroad system, and the Frazer Waterhouse property resulted in right-of-way savings of $15 million. The overall project is estimated at $45 million in construction costs.

FDOT District Six, New Collector/Distributor Roadway System, Miami, Florida; Project Engineer. Responsible for the civil engineering design of a new collector/distributor roadway system connecting Miami International Airport to SR 836. Ramfis designed the roadway system drainage, pavement marking and signage, and prepared the plans.

EDUCATION
BS, Civil Engineering, University of Puerto Rico, 1991

REGISTRATIONS
Professional Engineer, Florida #62065, 2004

CERTIFICATIONS/TRAINING
Track Alignment and Design, AREMA June 2011

MEPDG–Concrete Pavement Training Course, October 2009

Introduction to Practical Railway Engineering, AREMA, January 2007

FICE/FDOT Project Management Conference, August 2007

ISO 14001 Awareness Training, April 2006

Pavement Distress Identification & Techniques for Rehabilitation and Design, Nevada

Repair and Rehabilitation of Concrete Structures, VI Advanced MOT Training/Work Zone Traffic Control, 2005

FDOT Designer Training for Utility Issues, 2004

Environmental Resource Permit Information Manual, Vol. IV 2000

SOFTWARE PROFICIENCIES
Bentley Geopak, Florida Department of Transportation (FDOT) Electronic Delivery (EDI/PEDDS), AutoCAD, Bentley Rail Track Suite, and Microsoft Office.

RAMFIS MORALES, PE
SENIOR ROADWAY ENGINEER

FDOT District Six, SR 985 (SW 107 Avenue), Miami, Florida; Project Engineer. Responsible for resurfacing, restoration, and rehabilitation (RRR) for a five-lane undivided urban road just over one mile long with 14 side streets and one signalized intersection. The project scope was milling and resurfacing, reconstruction of sidewalks and curb-cut ramps to meet ADA standards, new pull boxes in restored sidewalks, reconstruction of curb and gutter, replacement of Permanent Traffic Monitoring Sites (PTMS), and signing and pavement markings. A border width variance was approved.

FDOT District Six, SR 7 (NW 7 Avenue), Miami, Florida; Project Engineer. Resurfacing, restoration, and rehabilitation (RRR) for a five-lane undivided urban road almost two miles long. The corridor encompasses the University of Miami Hospital, a high school, the I-395 overpass and the Tri-Rail commuter rail line. The project comprised of milling and resurfacing of eight signalized intersections, vehicle loop replacement, hardscape pedestrian crossings at the signalized intersections, curb-cut ramps reconstruction, drainage structure modifications, and signing and pavement marking.

FDOT District Six, SR 932 (SW 103 Street), Miami, Florida; Senior Project Engineer. Resurfacing, restoration, and rehabilitation (RRR) of a four-lane divided urban road for 3.2 miles. Phase 1 assessed the conditions of the sidewalks using a methodology similar to the Sidewalk Assessment Process (SWAP). A tabulated report was presented to the project manager identifying all areas of deficiency with design guidelines and ADA requirements. Phase 2 consisted of constructions plans which included new curb-cut ramps, reconstruction of sidewalks, replacing pull boxes, milling and resurfacing, signal loop replacement and signing and pavement marking.

FDOT District Five, I-4 Pedestrian Bridge, Gateway at Lake Ivanhoe, Orlando, Florida; Project Engineer. The project is comprised of a half-mile bicycle trail set in Uptown Orlando, immediately north of the Central Business District. In the immediate vicinity of Lake Ivanhoe there are several environmentally significant areas including Gaston Edwards Park, Lake Ivanhoe Park and Beth Johnson Park, as well as wetlands and 100-year floodplains. A boat ramp provides access to Lake Ivanhoe for water sports and the parks host all kinds of activities. In the near vicinity are Lake Highland Preparatory School, the College Park Neighborhood and the Ivanhoe Village District along Orange Avenue. The study phase of the project included an extensive public involvement component that included agency coordination with City of Orlando, Orange County, and FDOT through the I-4 Design Review Committee (DRC). The DRC has been involved in reviewing architectural compatibility for the entire I-4 reconstruction project. During the agency coordination meetings, the preferred architectural form of the boat pass structure, approaches, shade features, landscaping and lighting was discussed in detail. A rendering from a number of viewpoints along the trail and from Orange Avenue and local neighborhoods was an essential component in the communication plan during small groups and government official meetings.

RESUMES OF KEY PERSONNEL

ISABEL NAYAB, PE

SENIOR CIVIL ENGINEER-DRAINAGE/PERMITTING

Ms. Nayab's experience includes design of open and closed stormwater collection systems, stormwater fi eld investigations, design of stormwater management systems, permit coordination and documentation, highway planning, cost estimating, FDOT plans preparation, and preparation of Pond Siting Reports, Project Development and Environmental Studies, Bridge Hydraulic Reports, review of drainage connection permits, temporary drainage, and the preparation of TCP plans. Additional responsibilities include directly coordinating with clients and subconsultants, managing the drainage design team, developing project scopes, preparing and negotiating manhour estimates, performing Quality Control for drainage component of construction plans, and providing cost effective solutions for RFIs.

SR 836 Operational and Capacity Improvements Design-Build, Miami-Dade Expressway Authority, Miami-Dade County, Florida, Lead Drainage Engineer. SR 836 is a major eastwest 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 involves the design and construction of two diverging diamond interchanges (DDIs) at the NW 27th Avenue and the NW 57th Avenue interchanges. These are among the fi rst implementations of the DDI concept in Florida. TYLI will be responsible for all roadway and drainage design elements and the design of 31 bridges at 25 locations along the corridor. Ms. Nayab is responsible for the design of stormwater conveyance systems, ponds, and stormwater permitting.

I-4 (SR 400) Ultimate, FDOT District Five, Orange County, Florida, Drainage Engineer of Record. Responsible for the design of stormsewer systems and the stormwater management facilities (ponds and exfi ltration systems) for the widening of I-4 between Rio Grande and SR 50 through downtown Orlando, a heavily urbanized corridor. This project was originally to be designed per the PD&E recommendations of utilizing exfi ltration systems underneath I-4 due to right-of-way constraints. During the design, new opportunities for acquiring additional right-ofway enabled the recommended exfi ltration trenches to be substituted by ponds, or allowed the exfi ltration trenches to be relocated from under the I-4 travel lanes. A cost analysis comparing the construction and maintenance cost of the ponds vs. exfi ltration systems resulted in ponds being more economic in the long run. Coordination with SJRWMD was required to obtain a permit. The drainage systems had many confl icts with other existing frontage and sidestreet collection systems requiring confl ict structures and/or rerouting the conveyance.

I-95/Spanish River Interchange, FDOT District Four, Palm Beach County, Florida, Drainage Engineer of Record. Responsible for the design of stormwater management facilities, conveyance systems, plans production, coordination with permitting agencies, and preparation of the Drainage Design Documentation Report for the new three level Spanish River Interchange. Project includes the construction of a new interchange, modifi cation to the existing Yamato Road and I-95 interchange, addition of Auxiliary lanes from Glades Road to Congress Avenue on I-95 and cross street improvements of Spanish River and Yamato Road. This third level interchange includes coordination with FAA, Boca Airport, City of Boca Raton, and Florida Atlantic University (FAU). Improvement will provide connectivity between FAU, Tri-Rail and I-95 to daily congestion and event traffi c generated during events at the new FAU stadium. Project

EDUCATION

MS, Civil Engineering, Florida Institute of Technology, 1994

BS, Civil Engineering, Florida Institute of Technology, 1992

REGISTRATIONS

Professional Engineer FL #54841, 1999

CERTIFICATIONS/TRAINING

Advanced MOT, FDOT Specifi cations

AFFILIATIONS

Florida Engineering Society

was awarded as a design-build after permitting. Ms. Nayab served as design-build reviewer on behalf of District 4.

I-95 Widening, FDOT District Five, Brevard County, Florida, Drainage Engineer of Record. Responsible for the design of stormsewer systems and the stormwater management facilities for the inside widening of I-95 from the Indian River/Brevard County Line to SR 514. To provide the district with a cost saving alternative, the 20 ponds recommended in the PD&E phase was reduced to ten ponds, accomplished by either providing compensating treatment and/or total attenuation for the basins being rerouted to the proposed ponds. Early coordination with SJRWMD allowed for an effi cient permitting process.

SR 417/Seminole Expressway Widening- Florida Turnpike Enterprise (FTE); Seminole County, Florida, Drainage Engineer of Record. Responsible for the inside widening of SR 417 from the Orange/Seminole County Line north to Lake Jesup, including the design of new conveyance systems along the center of the expressway, incorporating existing structures where possible, and insuring the constructability of the systems. Additionally, redesign of existing dry and wet ponds, maintaining the existing right-of-way was required. A permit modifi cation through the Florida Department of Environmental Protection (FDEP) and coordination with St. John's River Water Management District (SJRWMD) was necessary to obtain the permit. At the time this project was originally permitted in the 1980's, different design criteria for water quality were used in different basins. This occurred because the project limits for this project transverse three different sections designed by three consultants. Coordination with FDEP allowed one permit package instead of submitting three different permit modifi cations. The permit modifi cation updated the existing systems to current water quality and quantity criteria. The scope of the project requested a condensed schedule to obtain a FDEP permit as quickly as possible.

I-75 PD&E Study - FDOT District Five, Sumter County, Florida, Senior Drainage Engineer. Responsible for the Pond Siting Report and analysis for the inside widening of I-75 between CR 476B north to SR 44, including data collection, contributing to the Typical Section Alternative Analysis, pond site analysis for 80 stormwater management facilities, coordinating with the client and subconsultants, and attending public meetings. Coordination with the City of Bushnell regarding fl ooding concerns along SR 48 was required. Severe fl ooding impacted an RV park and local residents off SR 48 near I-75. The city requested a SR 48 PD&E Study to investigate the cause and recommend a solution. The PD&E for I-75 coordinated with the city and the consultants for the SR 48 PD&E to ensure the fl ooding was taken into account when analyzing parcels as potential pond sites.

Kendall Drive Ramp Intersection Modifi cation on the HEFT (SR 821) – FTE, Miami-Dade County, Florida, Senior Drainage Engineer. Responsible for the drainage analysis for the interchange improvements. Responsibilities included data collection, design of stormwater management facilities (Ponds and French Drain), and coordination with the permitting agencies.

RESUMES OF KEY PERSONNEL

JAMES R. ROSALES, PE
SENIOR BRIDGE ENGINEER

Mr. Rosales has continually provided structural design and construction phase services for over 23 years on projects ranging from minor to complex design for highways roadways, and bridges; utility infrastructure, pavement design, miscellaneous structures; and specialty structures such as noise abatement walls, sign structures, retaining walls, tunnels and seawalls. His experience also extends beyond design encompassing services such as bridge inspection, due diligence assessment, and repair/rehabilitation investigations. Mr. Rosales has led the inspection efforts of more than 200 bridges including segmental bridges.

SR826/Palmetto Expressway (Segment 5) from East of NW 42nd Avenue to East of NW 32nd Avenue, Miami-Dade County, Florida; Structural Engineer. The project is for the reconstruction of the SR 826 East-West, on/off ramps and frontage roads located in Miami-Dade County from East of NW 42nd Avenue to East of NW 32nd Avenue along with the bridges at NW 37th Avenue and NW 32nd Avenue. The reconstruction will improve traffic congestion along the SR826/Palmetto Expressway corridor by increasing the number of lanes from 6-total lanes to 10-total lanes (6-general use and 4-express lanes) and replace two (2) existing bridges at NW 37th and NW 32nd Avenues. The reconstruction of the mainline will provide safety and operational improvements including drainage, lighting, signage and ITS.

Port of Miami Tunnel, Owner's Representation Services, Miami, FL Structural engineer for the review and analysis of the permanent structures for the construction phase services of the Port of Miami Tunnel. Services included review and analyses of critical details required of the structural system, development and inventory of existing foundation information and studies and evaluations of proposed systems and alternatives for waterproofing systems, slurry wall repair methods and excavation staging alternatives.

SR 826/Palmetto Expressway Section 2 Design-Build (from SW 68th Street to SW 33rd Street), Miami-Dade County, Florida Project engineer for the design of $177M widening of the Palmetto Expressway including total reconstruction of the interchange at SW 40th Street/Bird Road. It also includes new frontage roads from the SW 56th 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. As a subconsultants, TYLI is responsible for the design of 3 bridges including both steel girders and pedestrian bridge with associated ramps and sign structures, MSE walls and temporary critical walls. Mr. Rosales is responsible for the structural design which includes concrete and steel bridges and miscellaneous structures.

FDOT District 6: NW 25th Street Viaduct Structure from NW 82nd Avenue to Miami International Airport Cargo Facilities, Miami, Florida. Project Engineer. The project consists of the design of a new 1.4-mile elevated viaduct structure along NW 25th Street (over the Palmetto Expressway – SR-826) serving as a limited access connection to MIA's Cargo facilities. The project also included an overhead cantilever sign structure. Mr. Rosales was responsible for the design of the steel box straddle bents, end bents, pier columns and foundations for piers 16 thru 21, 2-column bent at pier 39. The design required extensive use of FB-Pier program, STAAD, among other software for analyzing the bridge pier structures composed of pier columns, pile caps and drilled shafts. 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.

FDOT District 6: Long Key Bridge Inspection - Monroe County. Responsible for the interior inspection of the superstructure box girders. Inspection focused primarily upon erosion and

EDUCATION
MS, Structural Engineering, Florida International University, 1995

BS, Civil Engineering, Universidad Nacional de Ingenieria - Lima, Perú, 1990

REGISTRATIONS
Professional Engineer, Florida,

54635

cracking due to wave action and tidal currents along this 12,152-ft, post-tensioned segmental concrete bridge.

Eller Drive Overpass ICTF from East of US-1 / SR-5 to East of McIntosh Road, Fort Lauderdale, Florida. The project is for the final design on a complex interchange for express lanes from I-595 into Port Everglades. T The project involves the design of five new bridges, elevated mainline roadways, frontage roads, parallel railroad spur lines, and three railroad crossings all within a ½ mile segment of roadway. There will be modifications to the connector ramps from Fort Lauderdale-Hollywood International Airport, as well as connections to local City streets and Port roadways. Mr. Rosales was responsible for the preliminary design of the substructure for all the bridges on the project. The preliminary design was performed using AASHTO LRFD Bridge Specifications, and required extensive use of RC-Pier program.

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 27th Avenue corridor from approximately the existing Martin Luther King Metrorail Station to the Miami-Dade/Broward County line. Mr. Rosales 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.

RESUMES OF KEY PERSONNEL

NOEL SHAMBLE, AIA, NCARB, EIT

LEAD BRIDGE ARCHITECT

Noel Shamble is a registered architect with combined experience in structural engineering and architecture of long-span bridges. He has participated in project teams in the United States and worldwide including China, Europe, Africa, and South America. Mr. Shamble has specific experience as an architect and visualization specialist for aesthetic and context sensitive design of signature structures such as the Twin River Bridges in China, the Guojiatuo Bridge also in China, and the I-395 Miami Corridor Reconstruction in the United States.

As the Director of TYLI's Architecture and Visualization Group, Mr. Shamble oversees a team of elite bridge design specialists who specialize in conceiving of and delivering unique structures. In addition to his traditional drafting and hand drawing skills, Mr. Shamble and his group utilize the latest state-of-the-art tools, such as parametric 3D modeling, augmented reality, virtual reality, and 3D printing.

Mr. Shamble is a prominent member of the bridge architecture community and has presented papers on bridge aesthetics at the Western Bridge Engineers' Seminar and the International Bridge Conference in recent years. Noel also authored an article in ASPIRE Magazine about his designs for I-10/Citrus Avenue and Cherry Avenue Overcrossings (Winter 2015 issue), and his graphic visualizations have appeared in numerous publications throughout the country. He is an active member of the Transportation Research Board's Bridge Aesthetics committee with an effort to promote the caliber of bridge aesthetics throughout the US.

In 2011, Mr. Shamble won the Cavin Design Competition and was awarded the Cavin Research Fellowship for which he spent three months in Europe and China studying bridges and infrastructure systems. As a graduate student, he focused on sustainable, structurally expressive design. Additionally, Mr. Shamble worked as a structural engineering research assistant at the UCSD Powell Research Labs where he helped study innovative designs, such as the self-anchored-suspension tower for the new Oakland-San Francisco Bay Bridge. Mr. Shamble's project experience includes:

I-395 Corridor Replacement Design-Build, Miami, Florida TYLI is owner's representative for FDOT on this massive design-build project. Currently serving as the Lead Architect for the entire venture, Mr. Shamble has been a key member of the design team since it began in 2011. The project consists of a 2.2km stretch of elevated highway in downtown Miami, highlighted by a signature span over the booming waterfront arts district. Mr. Shamble designed the iconic signature bridge alternatives (a 182m span Wishbone Arch and a 180m cable stay gateway) in addition to the many km of elevated approach structure. He also developed the innovative landscape designs for the successful future use of the urban spaces below the bridge. His responsibilities have included signature bridge architecture, urban design, landscape design, aesthetic lighting, and approach and mainline structure aesthetics. Mr. Shamble also performed or led all the visualizations efforts, including 3D modeling, renderings, graphics, and animation. These efforts culminated as Mr. Shamble authored the project's Aesthetics Manual and assisted writing RFP language to govern the aesthetics process during design-build procurement. Finally, he recently assisted the FDOT evaluation team in their content reviews of the submitted proposals.

US 1 Pedestrian Overcrossing at University of Miami Lead Bridge Architect for the design and re-design of this pedestrian overcrossing which safely links the neighborhood of Coral Gables to the University of Miami and the University Metrorail Station across the busy US-1

EDUCATION

Masters of Architecture (M.Arch), Sustainable, Structurally Expressive Design, University of Oregon, 2008

BS, Structural Engineering, University of California, San Diego, 2004

REGISTRATIONS

Licensed Architect since 2012
Virginia No. 0401016065

Alabama No. 7589

National Council of Architectural Registration Boards Certificate No. 78906

EIT designation, National Council of Examiners for Engineering, 2004

No. 117321

CERTIFICATIONS

National Council of Architectural Registration Boards Certificate No. 78906

EIT Designation, National Council of Examiners for Engineering, 2004, No. 117321

PROFESSIONAL AFFILIATIONS

American Institute of Architects, 2009 – present

TRB Aesthetics Subcommittee AFF10(2), 2013 – present, Communications Coordinator

Cavin Travelling Fellow, 2011

SOFTWARE

Modeling: Rhinoceros 3D, Grasshopper, SketchUp, SolidWorks, AutoCAD

Analysis: SAP-2000, RISA 2D/3D, Multiframe, Cosmos

Hand Rendering: Graphite, Ink, Watercolor, Model-making

roadway. The signature structure is designed to encouraging students' usage to avoid risking interaction with vehicular traffic, as well as smoothly integrating into the context of the historic Coral Gables community. The structure is made up of two fossilized limestone elevator towers on either side of US-1 supporting a steel truss bridge clad in waving mesh ribbons. The ribbons simulate cool ocean breezes, giving the overcrossing a light, dynamic character.

Avalon Gateway & Promenade Pedestrian Bridge, Los Angeles, California Mr. Shamble serves as the Lead Architect for this redevelopment project to convert existing Port of Los Angeles industrial property into a 10 acre public park, promenade, and pedestrian bridge. Safely and enjoyably connecting the neighborhood of Wilmington to the waterfront, the project provides a welcoming sanctuary from inland Harry Bridges Boulevard to Banning's Landing community center on the water. The large meandering park is book-ended by two key structures. A signature sundial entry gateway creates an iconic gathering place off the street. And the park seamlessly leaps of the rail lines toward the water with a landmark 1,300-foot-long signature pedestrian garden arch structure. Mr. Shamble is overseeing all architectural efforts (landscapes, gateway monuments, and bridge) and has been the face of the project team, presenting the design at numerous public workshops.

Fox River Signature Pedestrian Bridge, Aurora, Illinois Lead Bridge Architect for this signature pedestrian bridge over the Fox River located in the heart of downtown Aurora. This structure will be the central component to the City's RiverEdge redevelopment of the waterfront park. As both a recreational amenity and a key commuter link, this bridge will be a vital component in revitalizing the downtown area. After thorough studies and analyses of many design concepts, an S-shaped architectural beam with cantilevered walking surfaces was ultimately selected. This unique structure will be an iconic and elegant, but cost-effective, piece of the Aurora community.

Peachtree Parkway Pedestrian Bridge, Peachtree Corners, Georgia Lead Architect for this project in the newly formed city of Peachtree Corners. The pedestrian bridge will connect two major town centers across Peachtree Parkway, serving as a vital link in a new regional trail system, and serving as a gateway to the city. The structure seamlessly morphs into welcoming gathering areas on either side of the Parkway, including an amphitheater and connects to a 400m elevated bridge creating a peaceful botanic garden trail.

Wai Kai Pedestrian Bridge, Oahu, Hawaii Lead Bridge Architect for a new pedestrian bridge over a large oceanfront lagoon on Hawaii's island of Oahu. As part of a new major housing, resort, and shopping/retail development, the central iconic structure will draw crowds and lead residents and visitors to the beach.

Rock Creek Park Trail Pedestrian Bridge, District of Columbia Bridge Architect responsible for designing the figurehead structure of the 5.8km trail improvement project. As the key feature of the two miles of trail improvements in downtown D.C.'s Rock Creek National Park, this pedestrian bridge will allow users to cross the historic Rock Creek in the comfort of nature rather than on the busy parkway. The small contemporary bridge is simple yet elegant ensuring it fits within the natural context of the park. The design team worked closely with multiple stakeholders, including the Department of Transportation (DOT), National Park Service (NPS), the National Zoo, and numerous community groups to create the perfect addition to this well-loved part of the City.

RESUMES OF KEY PERSONNEL

EVAN SINN, PE
BRIDGE ENGINEER

Joining T.Y. Lin International (TYLI) in April, 2009, Mr. Sinn is a full-time Bridge Engineer. Mr. Sinn received his B.S. in Civil Engineering from Oregon State University in 2007, and continued his graduate work to receive an M.Eng. in Civil Engineering in 2009, while also serving as an intern with TYLI. Mr. Sinn's TYLI project experience includes:

SR 826/Palmetto Expressway (Segment 5) from East of NW 42nd Avenue to East of NW 32nd Avenue, Miami-Dade County, Florida; Structural Engineer. The project is for the reconstruction of the SR 826 East-West, on/off ramps and frontage roads located in Miami-Dade County from East of NW 42nd Avenue to East of NW 32nd Avenue along with the bridges at NW 37th Avenue and NW 32nd Avenue. The reconstruction will improve traffic congestion along the SR826/Palmetto Expressway corridor by increasing the number of lanes from 6-total lanes to 10-total lanes (6-general use and 4-express lanes) and replace two (2) existing bridges at NW 37th and NW 32nd Avenues. The reconstruction of the mainline will provide safety and operational improvements including drainage, lighting, signage and ITS.

SR 836 Operational and Capacity Improvements Design-Build, Miami-Dade Expressway Authority, Miami-Dade County, FL - 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. Mr. Sinn served as an EOR for 2 of these bridges as well as 39 MSE wall designs and corresponding temporary walls where needed. Mr. Sinn also served as the Project Manager during the post design services phase of the project.

SR 589 (Veterans Expressway) Widening and Resurfacing from South of Gunn Hwy. to Sugarwood Mainline Toll Plaza, Florida's Turnpike Enterprise, Hillsborough County - The Project includes the design and construction of the widening and resurfacing of the Veterans Expressway (SR 589) from south of Gunn Hwy to the Sugarwood AET Mainline Gantry. The project is approximately 1.7 miles in length from MP 9.000 (begin) MP 10.726 (end). Design and construction of roadway widening to accommodate two additional mainline travel lanes in each direction of the Veterans Expressway for a total of 8 lanes (4 northbound and 4 southbound). Other major work elements include drainage, permit modification, traffic control, traffic signals, signing and pavement, lighting, ITS, and utility coordination. Mr. Sinn served as an Engineer of Record for the Rocky Creek II and Bellamy Bridge Widenings, and provided design coordination for the Gunn and Ehrlich bridges. During the post design services Evan served as the Project Coordinator/Deputy Project Manager.

SR 23 Toll Road Design-Build from North of Argyle Forest Boulevard to I-10, (North Segment), FDOT District 2, Jacksonville, FL - This design-build project located outside of Jacksonville is approximately 6 miles in length and involves converting existing SR 23 to a Toll Facility by providing three limited access interchanges at 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

EDUCATION
M.Eng., Civil Engineering, Oregon State University, 2009

B.S., Civil Engineering, Oregon State University, 2007

REGISTRATIONS
Professional Engineer, Florida #80068

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, MEP design for tolling structures, 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). Mr. Sinn provided preliminary design during the proposal phase, and served as the structural coordinator during post design services.

SR 23 Toll Road Design-Build from SR 21 (Blanding Blvd.) South of Argyle Forest Boulevard, (South Segment), FDOT District 2, Jacksonville, FL - The design-build project is to construct 7 miles of SR 23 from SR 21 (Blanding Boulevard) to south of Argyle Forest Boulevard. This project is the second segment that interfaces with the SR 23 North project. The improvements include the construction of a four-lane limited access mainline facility, three interchanges, and ten new bridges. Additional improvements include construction of interchanges at Blanding Boulevard, Argyle Forest Boulevard, and Oakleaf Plantation Parkway; slip ramps to the Branan Field Frontage Roads; construction of crossroad improvements; 2 miles of six-lane urban reconstruction of Blanding Boulevard; construction of twin overpass structures over Trail Ridge Road and over Old Jennings Road; construction of one new bridge and one bridge widening over the South Prong Double Branch; and construction of four all-electronic tolling gantries, lighting system, and ITS with CCTV, MVDS and DMS's. Mr. Sinn provided design of the Argyle and Old Jennings bridges, as well as coordinated and reviewed other bridge and structural related design tasks for this project. During post design, Mr. Sinn coordinated the structural portion of these services.

Panama Metro, Line 1, Panama City, Panama; Structural Engineer. This design-build project involves the design of a 13.7 km metro rail line. It consists of 7 km of tunnel and 6.3 km of viaduct with 16 stations (11 underground and 5 above ground). The stations are phased to be constructed to accommodate an operational elevated guideway and will accommodate future plans to interconnect a second phase crossing to the elevated rail system and station. The superstructure along the guideway consists of precast prestressed U-girders supported hammerhead pier caps. Mr. Sinn was involved in the design of the superstructure at the crossover locations.

RESUMES OF KEY PERSONNEL

ENRIQUE SOSA, JR., PE
SENIOR ELECTRICAL ENGINEER

Mr. Sosa has over 25 years of experience combined in nuclear engineering and electrical engineer. Specifically, he worked in the electrical industry for over 18 years and has designed, reviewed, and inspected numerous grounding/lightning protection systems for communication towers, light rail viaducts (which include bridge structures), airport fueling farms, as well as systems for standard commercial buildings.

Some of the projects for which Mr. Sosa has performed professional engineering services include:

New Bridge over Saint Laurent River (NBSL), Quebec CA The NBSL bridge is a new large suspension bridge with three decks, two of which are dedicated to automotive traffic with the third deck used for public transportation with provision to carry light rail trains in the future.

Responsibilities: Engineer of Record (EOR), responsible for the design of the new structure grounding system, lightning protection system and designing provisions for a future stray current protection system.

SR 836 Capacity and Operational Improvements, Miami-Dade Expressway Authority, Miami, FL Mr. Sosa served as lighting Engineer of Record for this $149M design-build project to add lanes and provide improvements to SR 836 from West of NW 57th Ave. to NW 17th Ave. Miami-Dade Expressway Authority, Juan Toledo, (305) 637-3277, 2015-On-going. Mr. Sosa is also responsible for the design electrical infrastructure required for three new gantry tolling facilities.

SR 23 Toll Road (First Coat Outer Beltway) Design-Build, South Segment, from SR 21 (Blanding Boulevard) to North of Argyle Forest Boulevard, Jacksonville, FL The project was for the conversion of 7.4 miles of highway to a limited-access toll facility. The South Segment project included the construction of a minimum four-lane limited access mainline facility, three interchanges, and ten new bridges. Mr. Sosa was responsible for the lighting system design, which included new lighting with new power service and integrating with the existing lighting. He was also responsible for the design of the power distribution for the ITS (Intelligent Transportation) system.

FDOT District 4: Plans Review, Broward County, FL As part of an on-call services contract with the FDOT, Mr. Sosa provided electrical engineering plans review for a variety of roadway improvement projects throughout the district.

FDOT District 4: Roadway Lighting for SE 27th Avenue - Vero Beach, FL Mr. Sosa was the electrical engineer responsible for the review of lighting plans for this roadway improvement project.

FDOT District 4: Roadway Lighting for Ocean Boulevard (from SE 12th Street to SE 5th Street) - Vero Beach, FL Mr. Sosa was the electrical engineer responsible for the review of lighting plans for this roadway improvement project.

Electrical Inspections Open Toll Conversion, Florida's Turnpike Enterprise, Miami-Dade County, FL As part of the Open Toll conversion Mr. Sosa was responsible for the inspection of the electrical components associated with these conversions.

EDUCATION
Master Level Courses, Biomedical Engineering, University of Miami, 1994

MS, Nuclear Engineering, North Carolina State University, 1993

BS, Electrical Engineering, Florida International University, 1986

BS, Nuclear Engineering, University of Florida, 1983

REGISTRATIONS
PE, Electrical Engineering, Florida, No. 53885

ENRIQUE SOSA, JR., PE

SENIOR ELECTRICAL ENGINEER

Overtown Greenway, NW 7th Avenue to NW 3RD Street Miami, FL Mr. Sosa served as electrical engineer for the full conversion from a blighted two-lane service road to a beautiful single lane pedestrian and cyclist oriented greenway with high-end hardscape, landscape, lighting, and site furnishings. Full roadway reconstruction and drainage modifications were required to complete the work. Due to location of the project extensive coordination with FDOT, MDCPS, MDC, MDT, CRA, DERM, and community stakeholders was required. Mr. Sosa was responsible for the street and ornamental lighting design including calculations, power distribution design and grounding system design.

Panama Metro, Line 1, Panama City, Panama.The design consists of a 13.7-kilometer (km) long metro rail line in the City of Panama. The project included 7 km of tunnel and 6.3 km of viaduct with 16 stations (11 underground and 5 above ground). Mr. Sosa was responsible of the electrical design of the elevated stations within the viaduct portion of the project. The design included grounding and lightning protection of the 5 above ground station and the 6.3 km viaduct section.

Stray Current Protection System for Green Line – Phase 1 railway, Doha, Qatar Responsible for the design of the Stray Current Protection System (SCPS) for the 3.2 km Green Line – Phase 1 project of the Qatar Railway system in Doha, Qatar. The Green line contains sections of viaduct, as well as bridge, box culvert, ramps, and at grade sections. The design consisted on developing all the required elements of the SCPS needed within all the structures along the line, and integrating the SCPS with the overall earthing (grounding) and lightning protection system. The design followed European norms EN50122-2, and EN50162.

RESUMES OF KEY PERSONNEL

FARZIN ZAFARANIAN, PE, PMP

SENIOR BRIDGE ENGINEER

Mr. Zafaranian has over 20 years of experience in structural design and project management on a variety of structural engineering projects in Florida and the Southeast region of United States. His expertise is in design and construction of precast prestressed and cast-in-place post-tensioned concrete structures. He was the Engineer of Record (EOR) on the recently completed First Coast Expressway Bridge in FDOT District Two as well as the EOR on three new bridges at Burnt Store Road in FDOT District One. Farzin also assists the FDOT District One and Seven Structures Maintenance Office (DSMO) as the Engineer of Record on various Bridge Rehabilitation projects.

Miami Dade Expressway Authority, Operational Capacity and Interchange Improvements, Engineer of Record. Prepared bridge plans and calculation for four bridges on this project. Oversaw the work of other junior engineers. Performed quality control tasks on these and other bridges on this project to ensure highest quality of plans.

FDOT District One, Burnt Store Road Expansion; Engineer of Record. Led the structural design, coordination and plan production of three new bridges. Supervised the work of four junior engineers and managed the QC/QA process.

FDOT District Two, First Coast Expressway, SR23; Structural Engineer. Engineer of Record on the recently completed Trail Ridge Bridge. Prepared bridge plans and calculations, oversaw the work of other engineers as well as led the design coordination with other disciplines.

FDOT District Two, I-295 Express Lanes-Buckman Bridge Signage, Jacksonville Florida; Structural Engineer. Designed the new signage over Buckman bridge that involved modifications to the bridge superstructure in order to support the new signs.

FDOT District Two, Buckman Bridge Rehabilitation Project, Jacksonville Florida; Structural Engineer. Prepared the repair plans and specifications for this $8.9 million bridge rehabilitation project. Handled all the post design reviews and field issues.

FDOT District Two, Mathews Fender Replacement Project, Jacksonville Florida; Structural Engineer. Designed the new fender system at Mathews Bridge. Handled all the post design reviews and field issues.

FDOT District Seven, Districtwide Bridge Engineering Services, Florida; Structural Engineer. Performed load rating analysis on various bridges including the Howard Frankland Bridge. His other tasks include the preparation of a movable bridge operations manual for Districts One and Seven.

FDOT District Seven, Movable Bridge Repair Various Locations Hillsborough County, Florida; Structural Engineer. Performed structural analysis of the lift tower modifications for the lift bridge on Hillsborough Avenue. Assisted the project manager with overall project coordination and preparation of the plans and all technical documents.

FDOT District Seven, Substructure Rehabilitation, Various locations, Hillsborough County, Florida; Structural Engineer. Prepared bridge rehabilitation plans and specifications and managed the post design services that included submittal reviews and addressing field questions.

EDUCATION

MBA, University of South Florida, 2003

MS, Civil Engineering, University of South Florida, 1997

BS, Civil Engineering, University of South Florida, 1994

REGISTRATIONS

Professional Engineer in the State of: Florida #59558, 2003

AFFILIATIONS

Project Management Institute

American Society of Civil Engineers

CERTIFICATIONS/TRAINING

Project Management Professional, PMP 2010

National Highway Institute Bridge Inspection Refresher Course

FDOT Specifications Package Training, 2012

SOFTWARE AFFILIATIONS

MDX; Leap Bridge; BARS; SAP 2000; ADAPT PT; Microsoft Word; Microsoft Excel; Microsoft Project

PUBLICATIONS

Effect of Sulfate Attack on Concrete, Masters Thesis

FARZIN ZAFARANIAN, PE, PMP

SENIOR BRIDGE ENGINEER

Stanley Consultants, Load Rating of Various Existing Bridges, Puerto Rico; Project Manager/Structural Engineer. Performed load rating analysis on various existing bridges that included concrete arch and structural steel truss girder bridges. This work required three dimensional finite element analysis of the bridges due to the complexity of the framing. Was in charge of the overall Quality Control process for this project that included review of other team member's work to ensure highest quality of deliverables. Coordinated all the work with the client to ensure on time delivery of the submittals.

McDonald, Roof Truss Inspection, Grafton, WI; Structural Engineer. Performed structural evaluation of existing roof trusses at McDonald's store in Wisconsin as part of the overall roof truss inspection program for this client. This evaluation included creating two dimensional finite element model of the various truss types, computing their member capacities and determining the utilization ratios for all truss members and their connections.

Turnberry Associates, Destin Commons West Deck and Office, Destin Florida; Project Manager and Engineer of Record. Farzin managed the entire structural design and construction services for this $35 million project that included a six-story office building with over 90,000 square feet of space and a six-story, 855 space parking structure.

Miami-Dade Community College, Wolfson Campus Parking Structure, Miami Florida; Structural Engineer. An 11-story $30 million parking structure design with retail space at the ground level.

Lutgert Companies, Mercato mixed use Development, Naples Florida; Project Manager and Engineer of Record. Oversaw structural design and construction services for the two parking structures in this luxury mixed-use development. One of the parking structures included an amenities level above all the parking levels that included a state of the art gymnasium, an outdoor place for barbecue and a swimming pool. The presence of this amenities level at the top of the structure created several design challenges for the team but the project was completed on schedule and below budget.

Florida Gulf Coast University, Parking Structure No. 1, Fort Myers, Florida; Project Manager and Engineer or Record. Managed the structural design and construction services for this $7 million parking structure.

City of Naples, Naples Jail Center and Parking Structure, Naples Florida; Project Manager and Engineer of Record. Managed the entire structural design and construction services of this $5 million parking structure that serves the courthouse and Jail Center.

Nova Southeastern University, Library Parking Structure, Fort Lauderdale Florida; Structural Engineer. Managed the structural design and construction services for this $15 million parking structure.

Simon Properties, Boca Town Center, Boca Raton Florida; Structural Engineer. Provided structural design and construction services for the two parking structures at Nordstrom's and Saks/Burdines. The project scope included design and coordination of the elevated pedestrian walkways connecting the parking structures to the mall.

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Gianno Feoli

Calvin, Giordano & Associates, Inc.
Project Role Urban Designer

SUMMARY OF QUALIFICATIONS

Mr. Feoli leads the Landscape Department in creative design strategies for urban environments with specialties including urban design, contextual analysis, and branding. He will contribute his experience in coordinating design implementation within built-out urban environments, public outreach, and report preparation, where he will lead the effort in the creation of a graphically-rich, easily legible report. His experience has encompassed a wide array of project-types, and his strengths lie in client responsiveness, project organization, public outreach, connectivity plans, streetscapes and urban interventions, park design, and form-based urban designs and planning strategies.

Education

Master of Landscape Architecture Florida International University (FIU) School of Architecture Miami, Florida

B.A., Architectural Studies Florida International University (FIU) School of Architecture Miami, Florida

Memberships

American Society of Landscape Architects

The Underline - Design Advisory Committee Co-Chair

RELEVANT EXPERIENCE

Doral Boulevard Beautification Master Plan; Doral, FL; Project Manager, Lead Designer, Workshop Facilitator; Client: City of Doral: Responsible for crafting a streetscape and urban design master plan for Doral Boulevard envisioned as the primary emblem of the City. Mr. Feoli was responsible for all landscape and planning components of the project, which created distinct planning 'character' zones that would impact relationships of the built environment with the resultant quality of spaces being generated, the creation of dedicated public realm components and design standards for each, access management design recommendations, signage and gateway features, and identifying architectural relationships to improved sidewalk design and parking design recommendations. This document and its vision has been the guiding document for all areas abutting the Boulevard and has been used by the City as a contributing guide for the development of Downtown Doral, focused on safe, pedestrian-friendly, high-quality environments.

North Shore Open Space Master Plan; Project Manager, Lead Designer, Public Outreach Facilitator Client: City of Miami Beach: Responsible for the development of a future 26-acre waterfront park at the City's northernmost end will create a more inviting, iconic, and safe amenity, serving the City's North Shore community, which will enhance access to the waterfront and preserve large patches of natural beachfront habitat. The team will provide needed improvements including public space design, iconic elements, pedestrian entrances, multi-use spaces, pedestrian beach access, multi-use walkways, branding, lighting and open areas, art-in-public spaces, sustainability standards for development and design, while also integrating it with the surrounding neighborhood.

Lloyds Estate Drainage Park Project, Oakland Park, FL Lead Designer; Client: Oakland Park, FL: Responsible for the programming and design of the project site, conducting the necessary

public outreach to gather Commission approval and coordinating important aesthetic and sustainable improvements with engineering needs of the project. Mr Feoli was responsible for the conceptual design of all material selections and palette, retaining walls, fences, lighting, branding elements, and planting.

Middle Beach Recreational Corridor, Miami Beach, FL; Assistant Project Manager, Lead Designer, Public Outreach Facilitator; Client: City of Miami Beach: Responsible for coordinating all engineering and environmental efforts associated this 2-mile-long linear multi-use trail project on state owned lands, as well as responsible for all planting and hardscape design and public outreach. Mr. Feoli conducted one-on-one meetings with over 39 condominium properties to gather support for the project, responded to residents' concerns, and addressed design restrictions set forth in the Florida Administrative Code and balance those against residents' expectations. Mr. Feoli is also responsible for coordinating all state and local agency permitting processes and negotiating with the FDEP dimensional restrictions on the beach walk's width to meet the directives of the City Commissioners.

Oakland Park Station, Oakland Park, FL; Project Manager, Lead Designer; Client: City of Oakland Park: Responsible for all conceptual design, site, design and construction design detailing of a public plaza at the terminus of the City's culinary district. The design effectively created flexible public environment that could be used as event spaces and could accommodate the needs of City in continuing its adopted branding through the use of elements, furnishings, paver palettes, and lighting. The project's challenging shallow dimensions required innovative solutions to address ADA access to adjacent buildings finished floors while maximizing opportunities for the use of space, addressed through the creation of stage settings that served as landings, while providing the project with much needed opportunities to create users' public real engagement and interactions.

98th Street Park, Bay Harbor Islands, FL; Project Manager, Lead Designer; Client: Town of Bay Harbor Islands: Responsible for all public outreach, site design, construction detailing, material, and planting design of a neighborhood passive park. The park includes a small dog park area, flexible open space, children's play areas, an interactive water feature, and a restroom facility. Mr. Feoli was responsible for all design components of the park project, including guiding and coordinating the design of the restroom facility and all necessary public outreach through both the Parks and Recreation Committee and the Town Council.

92nd Street Park, Bay Harbor Islands, FL; Project Manager, Lead Designer; Client: Town of Bay Harbor Islands: Responsible for all public outreach, site design, construction detailing, and material and planting design of a 2-acre urban community passive park. The park includes a small dog park area, flexible open space, outdoor exercise areas, ample shaded seating, parking, furnishings, and urban plaza and solar- powered security lighting. This project was designed, engineered, detailed, and constructed on a fast-track to meet very restrictive deadlines of grant funding that had been previously secured by the Town.

Beachwalk Master Plan, Surfside, FL; Project Manager, Lead Designer; Client: Town of Surfside: Responsible for the conceptualization and master plan of a 1-mile linear park as a erosion control strategy and connecting all street-end plaza components with access to the beach. This project included dune and turtle habitat restoration, branding sculptures, salt-tolerant plantings, public art branding components, and specialty paving design. Mr Feoli was responsible for all public outreach associated with the project.

Rolling Oaks Park Wayfinding Sign Package, City of Miami Gardens, FL; Branding Designer: Developed a signage and wayfinding package to provide identification and orientation to users. The signage package was developed as an interchangeable modular system that could be easily customized to meet the unique needs of other park and public amenity areas and that could be placed on project sites as well as within the public ROW. The design was heavily influenced by concerns of safety and its ability to withstand graffiti and vandalism.

Dania Cove Park Narrative Signage, Dania Beach, FL; Branding Designer: Developed a series of narrative signs for inclusion in the park design to celebrate the history of the City and the planting selection as a tool to provide an educational component, informing park users on the importance of the flora, fauna, and natural environment's contributions to the City's identity.

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EXCEPTIONAL SOLUTIONS℠

Tammy Cook-Weedon, ASLA, PLA, LEED AP BD+C

Calvin, Giordano & Associates, Inc.

Project Role Landscape Architect/LEED Professional

SUMMARY OF QUALIFICATIONS

Ms. Cook-Weedon leads the Landscape Architectural staff with over 30 years of landscape architectural experience with demonstrated strengths in creative design that meets the sensitivity of each unique place. She leads a staff of twelve which consist of Landscape Architects, Arborist, Environmental Specialist and Inspector's.

Education

B.S., Landscape Architecture, Texas A&M University, College Station, 1987

Professional Registration

Registered Professional Landscape Architect, Florida No. 0001328

Professional Associations

American Society of Landscape Architects, Miami Section Chair, 1997 - 1998

Broward Section Chair, 2003 - 2004

State Conference Sponsorship Chair, 2003

ASLA Executive Committee, 2004 - 2007

Magic of Landscapes
Epcot Flower Show
Board Member, 2006 - 2007

RELEVANT EXPERIENCE

Middle Beach Recreational Corridor, Miami Beach, FL Landscape Architect of Record; **Client**: City of Miami Beach: Leads a team of designers and engineers in the design, engineering, planting, and permitting of a 2-mile stretch of a 15-foot wide ocean-front hardscape pathway connecting Indian Beach Park to Allison Park. The project includes public outreach, existing vegetation assessments, grading and drainage, hardscape design, dune restoration, irrigation design, permitting with various state and local agencies, and construction administration.

North Shore Neighborhood Improvements, Miami Beach, FL Landscape Architect; Client: City of Miami Beach: Led the team's landscape architecture and engineering efforts in the implementation of the City's BODR, which included character neighborhood landscaping, signage and branding, streetscapes, parking, lighting, and ADA access.

North Shore Open Space Master Plan; Landscape Architect of Record; Client: City of Miami Beach: Landscape Architect of Record for the development of a future 26-acre waterfront park at the City's northernmost end will create a more inviting, iconic and safe amenity, serving the City's North Shore community, which will enhance access to the waterfront and preserve large patches of natural beachfront habitat. The team will provide needed improvements including public space design, iconic elements, pedestrian entrances, multi-use spaces, pedestrian beach access, multi-use walkways, branding, lighting and open areas, art-in-public spaces, sustainability standards for development and design, while also integrating it with the surrounding neighborhood.

Firestation Plaza, Delray, FL Landscape Architect; Client: Delray CRA: Led a team of site designers and engineers in the development of a public plaza on a primary threshold into the

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downtown CRA area. The plaza consisted of specialty paver selections, intricate paving design pattern detailing, planting design, historical plaque inserts, lighting, and drainage design.

Joe DiMaggio Children's Hospital Visitor's Clubhouse, Hollywood, FL; Landscape Architect/ Project Manager; Client: Memorial Healthcare System: Responsible for the site and landscape design for a restorative garden with a playground area specifically for the use by children users of the Joe DiMaggio facility. Special attention was made to the creative design process, branding and the selection of equipment, and furnishing and site design details that accommodated for at-grade-level activities for wheelchair-bound users.

Gator Run Park, Weston, FL; Client: City of Weston: Responsible for the site design and planting specifications for a 5-acre community park, including lighting improvements, continuous walking paths, children's play equipment, planting, and irrigation design near an elementary school. The design provided a butterfly garden and shade structures in proximity to and to build strong connections with the adjacent elementary school.

Deering Estate at Old Cutler, Palmetto Bay, FL; Client: Miami-Dade County Park and Recreation Department: Responsible for the historical restoration and landscape design of all park areas. The project included detailed archaeological planting design, habitat restoration and planting design, as well as hardscape design that was consistent with the historical character of the park.

Sombrero Beach Park, Marathon, FL; Client: City of Marathon: Responsible for the park master plan and design for the creation of a beach-front park with dune access, volleyball courts, playgrounds, beach amenities, and dune and turtle nesting habitat restoration.

Corridors Beautification Master Plan, Weston, FL; Landscape Architect; Client: City of Weston: Responsible for the coordination of drainage improvements and roadway design components through the development of a master plan and landscape design for planting and branding along all major thoroughfares of the City, including lighting and gateway features. This master plan set the tone for all subsequent roadway planting for the following 15 years.

Campus Support Facility, Miami, FL; Landscape Architect/Project Manager; Client: Florida International University: Responsible for the design of a public plaza design for passive outdoor uses, including a water feature, bronze sculpture, planting, and irrigation design through careful coordination with the architectural character of the surrounding building.

Oak Grove Park, North Miami, FL; Landscape Architect/Project Manager; Client: City of North Miami: Designed a new site plan for two tennis courts which required the relocation of six large oak and Gumbo Limbo trees. The design included technical specifications for the tree relocations which included one very large oak with a 36-inch DBH and several 12-18" relocations. The scope included all the specifications for the tennis courts, adjacent walkways, and construction administration services.

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Michael D. Conner, PLA, ASLA, ISA

Calvin, Giordano & Associates, Inc.

Project Role Landscape Architect/Arborist

SUMMARY OF QUALIFICATIONS

Mr. Conner has more than 30 years of combined experience in municipal, commercial, and private sector work. As a Registered Landscape Architect and a Certified Arborist, he is also knowledgeable in all aspects of urban and community forestry planning and tree inventory and appraisal – particularly in built-out environments in the South Florida area. His expertise lies in arboriculture, site planning, hardscape and landscape design. He also has successful experience in public space creation and planning, arborist services, contract administration, site inspections, and grant writing.

Education

B.S., Landscape Architecture, Ball State University, Indiana, 1985

B.S., Environmental Design, Ball State University, Indiana, 1985

Ball State Honors College Sigma Lamba Alpha, Landscape Architecture Honor Society

Professional Registration

Landscape Architect, Florida License #LA0001181

ISA Certified Arborist License #FL0777

Professional Associations

American Society of Landscape Architects, Chairperson 1990, Broward Section

Landscape Inspectors Society of Florida

International Society of Arboriculture

RELEVANT EXPERIENCE

ARBORIST, INSPECTION AND TREE MITIGATION PROJECT EXPERIENCE

Peace Mound Park, Weston, FL; Project Manager, Lead Designer; CLIENT: City of Weston: Responsible for the design detailing and construction administration of a waterfront passive park with the purpose of ensuring he celebration of existence of an archaeological Tequesta Indian burial mound. Mr. Connor was responsible for conducting an audit of over 200 existing trees, determining their health and relocation parameters, and coordinating the mitigation of any vegetation that needed to be removed.

Pines Boulevard – Beautification Grants, Pembroke Pines, FL; Project Manager, Lead Designer; CLIENT: City of Pembroke Pines: Prepared detailed construction drawings and specifications for the landscape and irrigation improvements on two segments of Pines Boulevard east of the Florida Turnpike in Pembroke Pines. This included implementing two Florida Highway Beautification Council grants and obtaining all approvals of the plans from FDOT. In addition, a Design Variance was obtained for the preservation of several existing large royal palms in the medians.

Cooper City – City Arborist/Urban Forester – 1990 – 2000: Served as the City's Landscape Architect and City Arborist for ten years and supervised the development and expansion of the City's Urban Forestry Program. Secured numerous Urban & Community Forestry Grants to conduct a tree inventory and prepare an Urban Forestry Master Plan for the City, as well as several tree planting projects and public information seminars to educate the residents on the City's Urban Forestry Program. The tree inventory included over 15,000 trees utilizing a software program from ACRT, Inc. and resulted in the development of a Work Order program for scheduling and tracking tree pruning activities.

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Michael D. Conner, PLA, ASLA, ISA, Page 2

S.R. A1A – Beautification Grant, Fort Lauderdale, FL; Project Manager, Lead Designer; CLIENT: City of Fort Lauderdale: Prepared construction drawings and bid specification for the landscape and irrigation improvements in the medians on S. R. A1A south of East Oakland Park Boulevard. This included implementing a Florida Highway Beautification Council grant and obtaining all approvals of the plans from FDOT. The design intent was to transform this section of S.R. A1A to a more updated look by removing some old existing black olive trees and planting mature coconut palms.

Landscape and Streetscape Design Standards, Oakland Park, Fl.; Project Manager; CLIENT: City of Oakland Park: Developed a complete set of new design guidelines and landscaping standards to replace the City's old, outdated landscape codes and ordinances. This new document included landscape standards for all new development, guidelines for all future projects on City roadways and property, as well as recommendations for homeowners.

Tree Planting Master Plan, Oakland Park, FL; Project Manager; CLIENT: City of Oakland Park: Developed a master plan that identified all of the tree planting sites in the City on public lands and roadways. The plan has become the basis for budgeting in future years for tree planting. In addition, the City is requesting tree canopy trust funding from Broward County to implement Phase One of the project. The development of this plan has also led to the creation of new landscape standards for the branding of the entire day.

Rolling Oaks Park – Pedestrian Trail, Miami Gardens, FL; Project Manager, Lead Designer ; CLIENT: City of Miami Gardens: Designed a 1.5-mile-long pedestrian trail through Rolling Oaks Park. The trail included new L.E.D. site lighting, fitness equipment, and benches. A custom-designed, way-finding signage program was developed for all of the trailhead signs, directional signs, and mileage markers. The design of the trail was carefully laid out so as to not disturb the hundreds of existing like oak trees on the site. CGA's fees: $140,000.

JohnU.LloydStatePark–BoardwalkReplacements, Dania Beach, FL; Lead Designer; CLIENT: Florida Department of Environmental Protection: Prepared detailed design plans and construction drawings for the replacement of four existing wood boardwalks providing beach access at the park. Mr. Conner conducted an extensive inventory of existing trees in the areas adjacent to the four boardwalks and also assisted with the environmental permitting for the project. CGA's fees: $46,000

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Eric Czerniejewski, PE, ENV SP

Calvin, Giordano & Associates, Inc.

Project Role Traffic Engineering and Transportation Planning

SUMMARY OF QUALIFICATIONS

Eric Czerniejewski, P.E., is the Director of Traffic Engineering for CGA with 20 years of experience in transportation infrastructure design, traffic engineering and transportation planning. He has experience in transportation projects that include preparation of traffic studies including corridor studies, traffic impact studies, mobility studies and parking utilization and reduction studies. He is also specialized in signalization design, roadway design, managing, designing and permitting select transportation infrastructure engineering projects; planning, developing and coordinating civil engineering design documents; and coordinating construction engineering and inspection. Some of his relevant mobility plan experience includes development of citywide mobility plan for the City of Fort Lauderdale, preparation of the campus master mobility plans for Florida International University and Florida Atlantic University campuses as well as Memorial Health Care Joe DiMaggio Hospital campus. He is certified to prepare traffic control plans and process LAP projects by FDOT.

Education

Bachelor of Science (BS), Civil Engineering, Southern Illinois University at Edwardsville, Edwardsville, Illinois

Professional Registration

Professional Engineer License (#58002)

ENVISION Sustainability Professional Certification

Advanced Maintenance of Traffic Certification (FDOT)

RELEVANT EXPERIENCE

Andrews Ave Multimodal Improvements, Oakland Park, FL. Consultant prepared traffic study which evaluated the need for mid-block crosswalks along a stretch of Andrews Avenue between Oakland Park Boulevard and Prospect Road. Consultant completed a safety analysis including review of crash history along the corridor using Signal Four Analytics. Consultant evaluated the proposed midblock crosswalk locations based on criteria of the Traffic Engineering Manual and Manual on Uniform Traffic Control Devices per Broward County Traffic Engineering Division. Consultant collected pedestrian traffic data including four-hour pedestrian volume counts at ten (10) proposed mid-block crossing locations and 24-hour bi-directional traffic counts were collected for Andrews Ave between Oakland Park Blvd and NW 38th Street and on Andrews Avenue south of Prospect Road. Consultant also evaluated the traffic operational conditions at the four signalized intersections along Andrews Avenue at Prospect Road, NE 38th Street, and E. Oakland Park Boulevard to determine the appropriate length of future dedicated turn lanes. Design plans were developed for the transportation infrastructure improvements.

Miami Dade SMART Plan, Miami Dade County, FL.- Eric is currently the Project Manager for the Strategic Miami Area Rapid Transit (SMART) Plan for Miami-Dade County. Of the six rapid transit corridors identified by the County, CGA is responsible for the South Dade Transitway Corridor Study; which extends approximately 20 miles from the Dadeland South Metrorail Station south to Florida City. CGA is providing professional traffic engineering, transportation planning and transit planning and design services to supplement the Miami Dade TPO's efforts in conducting the transportation planning process for the SMART Plan. CGA has assisted in developing a Land Use Scenario Plan, conducted transit planning and transportation related technical activities; Charrettes; 3D Modeling; and, public outreach. One of the primary goals of these services is to

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develop transit supportive land use scenarios with the ultimate goal of addressing the overall mobility of Miami-Dade County.

Transportation Manager-City of Fort Lauderdale, Fort Lauderdale, FL: Transportation Manager for the City of Fort Lauderdale Transportation and Mobility Department managing the traffic engineering, transportation planning and traffic design program. Developed the Uptown Link and Route Extensions for the Downtown Fort Lauderdale Transportation Management Associations' Citywide Sun Trolley community bus service, developed and submitted relevant grant applications for transportation and transit projects including TIGER, Transportation Enhancement, EPA Green Streets and FTA New Freedom, developed the key citywide long-range transportation plan including the 2015-2035 comprehensive strategic multimodal program entitled Connecting the Blocks- Creating Options for Moving People, created the City's Complete Streets Guidelines and managed the citywide review of all transportation elements of the Development Review Committee to determine traffic impacts for new development projects in the City.

Parker Avenue Southern Boulevard to Okeechobee Road: Consultant completed roadway analysis for this existing, four-lane section of roadway for the City of West Palm Beach. The City requested the Consultant to research and analyze the viability of the roadway to be converted to a three-lane section, including two through lanes and one two-way left turn lane. The route currently serves as a direct connection to downtown West Palm Beach but due to the highly residential adjacent land uses, the local homeowners and City wanted to look into the possibility of creating a more resident-friendly typical section. In addition, the Consultant completed a safety study along the corridor which identified high crash locations and safety issues associated with each of the high crash locations.

Downtown Boca Raton Traffic Study- Consultant prepared traffic study for the traffic analysis of the intersection of Palmetto Park Road and NE/SE 5th Avenue which examined the safety and the traffic operations of the intersection of Palmetto Park Road and NE/SE 5th Avenue and seven other surrounding intersections and enumerated at least three viable improvement concept plans. Consultant utilized Signal Four Analytics to complete comprehensive safety review of the intersection of Palmetto Park Road and NE/SE 5th Avenue. The alternative analysis included quantitative and qualitative elements such as Safety, Context Sensitivity, Capacity, Benefit Cost and Fatal Flaw analysis as well as the evaluation of bridge preemption and signal coordination with the subject intersection. The traffic study also evaluated neighborhood cut through traffic and possible traffic calming improvements that would mitigate the traffic intrusion.

Monterra Greenway and Bike Path, Cooper City, FL. Designed the greenway/park with a one mile bike trail within the 27 acres of the FPL easement that bisects the Monterra (Waldrep) property as part of the Broward County Greenway System. Transportation design routed the recreational trail/ bike trail, lay-out of fitness stations, tot-lots, shade structures and multi-use courts, parking and access to the trail, security fencing and access gates and landscaping. Planting and irrigation plans, along with miscellaneous hardscape design, were provided. The greenway and bike path connected to each of the residential and commercial phases of the Monterra development and to nearby area schools.

City of Fort Lauderdale Mobility Management: Consultant assisted the City of Fort Lauderdale and the Downtown Fort Lauderdale Transportation Management Association (DFLTMA) with long range system planning for the future upgrades to the Community Bus System. The City of Fort Lauderdale was a sub- recipient of a two-year Federal Transportation Administration's (FTA) New Freedom Grant through the South Florida Regional Transportation Authority (SFRTA). The Consultant conducted an analysis of the City's community bus system which included a review of the current service and development of a comprehensive strategy to create a sustainable, efficient, and customer-centric transit service. Consultants scope of work included the development of a community bus master plan, five-year financial plan, transit needs analysis, operational analysis & route review, security and system safety program plan, fleet replacement plan, staffing plan, and the development of performance measures.

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Diana (Rivas) White, PE

Calvin, Giordano & Associates, Inc.

Project Role Traffic Engineer

SUMMARY OF QUALIFICATIONS

Ms. Rivas has numerous years of experience in Florida as a traffic engineer. Her experience includes analysis and design in traffic signals, traffic operations, Intelligent Transportation Systems, and development of traffic studies. She is knowledgeable of MUTCD, FDOT design standards and specifications, FDOT Design Manual, Highway Capacity Manual, ITE's Traffic Engineering Handbook. She has worked on transportation projects and traffic studies for FDOT Districts 2 and 4, Palm Beach, Broward, Miami-Dade, St. Lucie, Duval, St. Johns, and Alachua Counties as well as various South Florida municipalities.

Education

BS, Civil Engineering, Florida Atlantic University, 2006

Tau Betta Pi

AA, Engineering, Broward Community College, 2002

Professional Registration

Professional Engineer - FL #74568 (2012)

Professional Affiliations

Institute of Transportation Engineers (ITE)

American Society of Civil Engineers (ASCE)

RELEVANT EXPERIENCE

Traffic Engineer, Signal Retiming, Weston, FL, 2014: Performed signal retiming for all signalized intersections within the City of Weston to improve signal coordination along major corridors and overall efficiency of the City's roadway network.

Engineer of Record, Broward County Highway Mast Arms Conversion Groups 1 and 2, 2014-2018: Design build project consisting in the conversion of span-wire supported traffic signals to mast arm traffic signals at 35 intersections within Broward County. The scope of work included installation of underground conduit, interconnect cable, communications and support equipment, installation of traffic monitoring devices, installation of emergency vehicle pre-emption systems, roadway reconstruction, maintenance of traffic, and signing and pavement markings.

Signalization Engineer of Record, Davie Rd. Phases 1 and 2, Town of Davie, Broward County, FL, 2015-2017. Included the widening of Davie Rd from 4 to 6 lanes between SR 84 and Nova Dr. Mast arm conversions at Nova Dr. and Davie Rd, Davie Rd and SW 39 St, signal modifications at Reese Rd. to accommodate dual left turns, replacement of existing school zone flasher beacon with solar overhead mast arm school flasher.

Lead Traffic Engineer and Signalization Engineer of Record Nova Drive Corridor Improvements, Town of Davie, Broward County, FL. 2017 Prepared a traffic feasibility study for the proposed roundabout at the intersection of Nova Dr. and SW 73 Way. Evaluated safety benefits and traffic operational improvements of reconfiguring the intersection from a two-way-stop-controlled intersection to a single-lane roundabout. The operational analysis included data collection, speed data analyses, gap analyses, and crash review. Ms. Rivas was also the signalization engineer of record of the conversion of the span-wire supported traffic signal to mast arm supported traffic signal at Nova Drive. and College Ave; part of this project corridor.

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Signalization Engineer of Record, Martin Luther King Boulevard Corridor Improvements, Pompano Beach, Broward County, FL, 2016. Resurfacing, restoration, and rehabilitation of the corridor from east of the Fl. Turnpike to Power Line Rd. Part of the scope of work included the addition of landscaped medians, street lighting improvements, signing and pavement markings as well as a signal warrant study and design at MLK Blvd. and NW 27 Ave.

Signalization Engineer of Record, Harding Avenue Traffic Signal Improvements, Town of Surfside, Miami Dade County, FL, 2016-2018. Included the addition of traffic signal infrastructure to the intersections of Harding Avenue at 88th Street., Harding Avenue and 93 Street, Harding Avenue 94th Street, Harding Avenue and 95th Street. to improve traffic circulation on the Harding Avenue corridor.

Traffic Engineer, Pembroke Pines, FL, Continuing Services Contract, provides a traffic and transportation engineering services including intersection and signalization analyses and design, roundabout analysis and design, roadway level of service analysis, public school traffic operational analysis, city-wide traffic modeling, corridor signal timing progression analysis, traffic calming and neighborhood traffic mitigation.

Traffic Engineer, Town of Surfside, FL, Continuing Services Contract, provides traffic and transportation engineering services including intersection and signalization analyses and design, roundabout analysis and design, roadway level of service analysis, public school traffic operational analysis, city-wide traffic modeling, signal timing progression analysis, traffic calming and neighborhood traffic mitigation.

Transportation Planning, City of Key West ULDR Update and Complete Streets Manual, Key West, Fl. 2016 Complete rewrite of the City's Land Development Regulations. The key areas included incorporation of new standards and programs, related to Complete Streets, Parking, Transportation Demand Management, Green Building and Adaptation Planning

Traffic Engineer, Downtown Boca Raton Traffic Study, FL. 2016: Evaluated the traffic operations at Palmetto Park Rd and NE/SE 5 Ave and seven other surrounding intersections. Provided quantitative and qualitative analyses such as Safety, Context Sensitivity, Capacity, Benefit Cost and Fatal Flaw elements. Evaluated existing bridge preemption and signal coordination.

Traffic Engineer, Interstate 75 and Pines Blvd. Traffic Mitigation Study, Pembroke Pines, FL. 2014: Evaluated traffic flow improvement strategies and protocols to relieve AM and PM peak traffic congestion at this interchange.

Traffic Engineer, Andrews Ave. Pedestrian Safety Study, Oakland Park, FL. 2016: Evaluated the need for mid-block crosswalks along Andrews Ave between Oakland Park Blvd. and Prospect Rd. Completed a safety analysis and evaluated midblock crosswalk locations.

KENNETH A. DOUGLAS

FIALD, IES, LC, LEED AP

Principal

"Designing with light allows us to define a community's sense of place, an employee's work environment or a city's skyline. All without them ever knowing we were there."

PROFESSIONAL AFFILIATIONS

Fellow of the International Association of Lighting Designers

Illuminating Engineering Society of North America, Member

Lighting Certified by the National Council on Qualifications for the Lighting Profession

LEED Accredited Professional

EDUCATION

Thomas Edison State College,
Bachelor of Arts

Baruch College: Coursework in Business Management

Fashion Institute of Technology: Coursework in Architectural Lighting

State University of New York at Purchase: Theater Lighting Program

AWARDS

IES Award of Merit -
Biloxi Bay Bridge, Biloxi, Mississippi

IES Award of Merit-
Hastings Bridge, Hasting, Minnesota

IES Award of Merit -
Senator Christopher S. Bond Bridge, North Kansas City, Missouri

ABOUT KEN

Ken Douglas is a principal at Horton Lees Brogden Lighting Design, to which he brings his training in theatrical lighting design and more than thirty years of experience in architectural lighting design. Ken's work has received awards from The International Association of Lighting Designers (IALD) and the Illuminating Engineering Society of North American (IESNA), including his designs for The Thomas Jefferson Memorial in Washington, DC and the Biloxi Bay Bridge in Mississippi. He has been invited to speak at numerous conferences, present educational sessions to client groups, and write articles for publication in industry magazines.

In addition to his depth of expertise and experience in lighting design, Ken has the ability to understand and realize complex mechanical and technological details. This skill is apparent in everything he does, from his painstaking details for the Jefferson Memorial to his ability to stay abreast of the ever-evolving technologies that are transforming the lighting industry.

LIGHTING EXPERTISE

Ken is a Fellow of the IALD, where he served as Treasurer on the Board of Directors following two terms as a Director-at-Large. Ken served for four years as chair of the organization's prestigious international awards program and was awarded their Volunteer Service Award for his efforts. Additionally, his work has appeared in Architectural Record, Architectural Lighting and LD+A magazines.

SELECT PROJECTS

St. Lawrence River Crossing, Montreal, Canada | T. Y. Lin International

I-4 Ivanhoe Gateway Pedestrian Bridge, Orlando, FL | T. Y. Lin International

Lafayette Bridge, St. Paul, MN | Parsons International | Touchstone Architecture & Consulting

Dr. Martin Luther King, Jr. Memorial Bridge, Fort Wayne, IN | DLZ Corporation

Marco Island Bridge, Marco Island, FL | HDR

I-4 Ultimate, Orlando, FL | Design/Engineering Joint Venture: HDR and Jacobs | Bridgescape

Hastings Bridge, Hastings, MN | Parsons | Touchstone Architecture & Consulting

YVES-STANLEY DELMAS, PE

GEOTECHNICAL ENGINEER I PROJECT MANAGER

EDUCATION:
Florida Atlantic Univ.
Bachelor of Science
Civil Engineering
2010

REGISTRATIONS:
State of Florida
PE #80352

EXPERIENCE: 8 YRS.

YRS AT H2R: 2

CERTIFICATIONS:
TIN D45297785

PAPERS WRITTEN:
D. Rancman, T. Nguyen, D. Hart, Y.S. Delmas. "Pile Group Effects and Soil Dilatancy at the Fort Lauderdale International Airport, Proceedings of the 2018 International Foundations Congress and Equipment Exposition (FCEE), Orlando, FL

Stan is responsible for the geotechnical design of civil projects, and the coordination of construction-phase services and inspections for a variety of projects. Stan's design and knowledge of both geotechnical and conventional testing field services result in a skill set that combines his knowledge of design intent and the importance of collecting quality field data. He is experienced in geotechnical construction projects where mix designs, and in-situ testing is critical to the project's success. In addition, he has significant laboratory experience.

TAMIAMI TRAIL 2.6-MILE BRIDGE, FL, MIAMI – DADE COUNTY, FL / FDOT D6

As part of the Comprehensive Everglades Restoration Plan (CERP), The Florida Department of Transportation and the National Park Service replaced a portion of the Tamiami Trail Road/U.S. Highway 41 with a new 2.6 mile-long bridge. H2R Corp is responsible to provide geotechnical support to the Construction, Engineering and Inspection team. Responsibilities include oversight of the team performing dynamic pile testing, and review of all geotechnical documents submitted by the design-build team to identify discrepancies and to ensure that the foundations are constructed according to the design plans and the Florida Department of Transportation's specifications.

DISTRICTWIDE GEOTECHNICAL AND MATERIALS TESTING PROJECTS - NASSAU, DUVAL & CLAY COUNTIES, FL / FDOT D2

Project Manager for the districtwide contract that includes soil exploration, geotechnical exploration testing, highway materials testing, construction materials testing, and foundation studies.

I-75 WIDENING PROJECTS - HILLSBOROUGH & PASCO COUNTIES, FL, FDOT D7.

As part of geotechnical engineering and Pile Driving services portion of the I-75 widening project, served as geotechnical engineering services for the CEI. In addition, provided dynamic pile testing services for the corridor which had fourteen bridges. The dynamic pile testing portion implemented the Pile Driving Analyzer (PDA) and the Embedded Data Collector (EDC).

PORT OF MIAMI TUNNEL, MIAMI – DADE COUNTY, FL / FDOT D6

Field engineer for a major construction project in Miami, Florida. The project is a 0.75-mile-long split portal automotive traffic tunnel connecting the MacArthur Causeway on Watson Island and the Port of Miami on Dodge Island, as well as road improvements around the port of Miami. Work on the project involved downhole camera and field permeability testing on the wall of the tunnel. The project also required unconfined strength on soil cement and a triaxial test on soil.

DYNAMIC PILE TESTING SERVICES, MIAMI – DADE COUNTY, FL / FDOT D6

Project Manager for this project that involved performing dynamic pile testing services for construction of the new express lanes on existing I-75 express lane bridge over the Homestead Extension of Florida's Turnpike. Responsible for monitoring the project at appropriate intervals based on the contractor's schedule. Our firm is responsible for monitoring the test piles and providing pile casting length and recommendations. We are developing the pile driving criteria based on subsequent analyses including WEAP/CAPWAP and PDIPILOT.

SR 826/SR 836 INTERCHANGE RECONSTRUCTION, MIAMI – DADE COUNTY, FL / FDOT D6

Field Inspector/Laboratory Technician responsible for construction engineering and inspection services related to foundation installation and testing efforts. This $550 million design-build project includes the replacement or new construction of more than 40 bridges and several miles of limited-access highway construction, along with the associated ramps, embankments, mechanically stabilized earth (MSE) walls, and other miscellaneous structures. Responsibilities also include oversight of the team performing dynamic pile testing, cross-hole sonic logging, embedded data collector testing, and pile integrity testing on foundation elements.

S.R. 821 WIDENING FROM N. OF SW 72ND TO N. OF SW 40TH ST. - MIAMI – DADE COUNTY, FL / FDOT FLORIDA'S TURNPIKE ENTERPRISE

Geotechnical Engineer for this project in design, including 18-inch prestressed-concrete piles and micro-piles along with MSE and sound walls. Vibration and settlement have created issues with shallow foundation supported bridges and certain nearby structures. Improvements include the widening of Homestead Extension of Florida's Turnpike to three general purpose lanes and two express lanes in each direction; replacing the mainline toll facilities with new all-electronic toll; constructing a new northbound, two-lane exit ramp to Bird Road; removing an old bridge and constructing a new bridge; converting a two-lane frontage road with controlled access; and milling and resurfacing the highway. Project Manager for this design-build project during construction phase, providing dynamic pile testing services, cross-hole sonic logging, vibration monitoring, pile driving inspection, noisewall foundation inspection, and drilled shaft inspection for tolling, signage, and miscellaneous structures.

BRIDGES OF THE ISLES & SUNRISE KEY BRIDGE REPLACEMENTS DESIGN-BUILD - FORT LAUDERDALE, FL / FDOT D4

Geotechnical Engineer responsible for the design of four new bridges and one bridge replacement to provide connectivity between the Urmi Isles finger islands, north of Las Olas Boulevard, with S.R. 842 on the mainland. Services included accelerated bridge design and construction in an environmentally sensitive area. The project also involved complex maintenance of traffic, temporary signalization, traffic control plans, extensive utility coordination, geotechnical design, public outreach, and coordination with multiple stakeholders. Also provided construction services oversight, including pile driving inspection, dynamic pile testing and vibration monitoring.

HEFT ALL ELECTRONIC TOLL COLLECTION PHASE 3 DESIGN-BUILD - MIAMI – DADE COUNTY, FL / FDOT FLORIDA'S TURNPIKE ENTERPRISE

Laboratory Technician/Field Inspector on a project that involved the conversion of the mainline and ramp toll plazas on the northern Homestead Extension of Florida's Turnpike (HEFT) to an all-electronic toll facility, including the conversion of tolls to SunPass/E-Pass. Inspector responsibilities involved modifications to mainline toll plazas and 16 ramp toll plazas, including demolition, grading, paving, maintenance of traffic, signing and pavement markings, intelligent transportation systems (ITS) preservation, lighting modifications, drainage modifications, toll plaza fiber-optic connections, toll equipment structure installation, and permitting. Services included field sampling and testing of soils and concrete, nuclear density testing of soils, casting of concrete cylinders, and performing crosshole sonic logging testing on selected drilled shafts.

DAN HART, PE

VICE PRESIDENT I SENIOR GEOTECHNICAL ENGINEER I PROJECT MANAGER

EDUCATION:
Univ. of Florida
BS (1994) & MS (1996)
Civil /Geotechnical / Geotechnical Engineering
Western Governors Univ. MBA 2015

REGISTRATIONS:
FL PE #55438
NC PE #036467
LA PE #39327
VA PE #0402053500
DBIA Professional

EXPERIENCE: 23 YRS

YRS AT H2R: 2

PROFESSIONAL AFFILIATIONS:
Design-Build Institute of America
American Society of Civil Engineers

PUBLICATIONS:
D. Rancman, T. Nguyen, D. Hart, Y.S. Delmas. "Pile Group Effects and Soil Dilatancy at the Fort Lauderdale International Airport, Proceedings of the 2018 International Foundations Congress and Equipment Exposition (FCEE), Orlando, FL

T. Nguyen, D. Hart, & D. Rancman.
"Case Studies – Driving

Pinnacle Limestone"

In 1996, Dan started performing Dynamic Pile Testing and deep foundation engineering and design working for FDOT, seaports, airports, and for agencies such as the South Florida Water Management District. He has spent his twenty-year career primarily working on Florida infrastructure projects, with an emphasis on Design-Build project delivery. He applies his experience to forge successful partnerships with owners and contractors and has accumulated experiences on projects throughout the United States. His engineering responsibilities include providing geotechnical engineering analyses, supervising and overseeing subsurface investigations, performing geotechnical site reconnaissance, interpreting laboratory test results, performing load and integrity testing of deep foundations, preparing vibration and settlement plans, preparing soils and foundation engineering reports and geotechnical reports for a wide variety of transportation and infrastructure projects.

S.R. 80/S.R. 29 BRIDGES – HENDRY COUNTY, FL / FDOT D1

Geotechnical (CEI) Project Manager for construction engineering and inspection (CEI) services for this bridge construction project. Responsibilities included review and approval of contractor's pile installation plan and proposed equipment, supervision of on-site Embedded Data Collector testing, review of driving criteria and production pile length recommendations, and review of foundation installation records for conformance with developed criteria and specifications.

I-95 AT MILITARY TRAIL & PGA BLVD. – PALM BEACH COUNTY, FL / FDOT D4

Project Manager and Senior Geotechnical Engineer responsible for review of contractor's proposed construction means and methods, pile load testing, Embedded Data Collector testing, establishment of production pile lengths, and development of pile installation criteria for these value-engineered bridge replacements over a limited-access facility.

PALM BEACH INTERNATIONAL AIRPORT INTERCHANGE AT I-95 – PALM BEACH COUNTY, FL / FDOT D4

Senior Geotechnical Engineer and Geotechnical Project CEI Manager responsible for providing on-call pile driving analysis services, including recommended pile driving criteria and pile lengths, on this construction engineering and inspection (CEI) contract. Also performed vibration monitoring, recommended vibration reduction methods, and gave foundation construction recommendations. Provided alternate installation techniques for temporary sheet piling and oversight of auger-cast piling for noise walls.

TEQUESTA BRIDGE REPLACEMENT, PALM BEACH COUNTY, FL, / FDOT D4

Project Manager and Senior Geotechnical Engineer responsible for reviewing the contractor's proposed construction means and methods. Additional tasks on the project involve performing pile load testing, monitoring Embedded Data Collector testing, establishing recommended production pile lengths and driving criteria, and providing foundation certifications for this emergency bridge replacement over a navigable waterway due to a scour-critical condition. Our firm is a sub-consultant retained to perform construction engineering and inspection services for this project.

I-95 CORRIDOR HOV LANES, PALM BEACH COUNTY, FL, / FDOT D4

CEI Project Manager for geotechnical inspections and foundation testing. The project included improvements and widening of approximately 25 miles of I-95 within Palm Beach County, adding high-occupancy vehicle (HOV) lanes, improving interchanges, adding regular travel lanes, and providing bridge widening and replacements. As Geotechnical Project Manager for these construction engineering and inspection efforts, responsibilities included foundation testing and inspections; oversight of contractor quality control efforts; review and approval of construction means and methods of foundation construction; performance of field testing, including dynamic pile testing and foundation recommendations; review of value-engineering proposals; and oversight of on-site inspections, including drilled-shaft construction.

SR 80 FROM FLORIDA'S TURNPIKE TO US 441, PALM BEACH COUNTY, FL, / FDOT D4

Project Manager responsible for the post-construction evaluation of the asphalt pavement and construction materials as they related to acceptance of the roadway. Evaluations included laboratory test results, construction means and methods, and testing frequency of various roadway materials. Reference: Tony Grout, 561.718.4580, Project Start and End Date: 2009, Length of Corridor: 2.6 miles

AREAWIDE GEOTECHNICAL AND MATERIALS TESTING AND VERIFICATION, COUNTIES OF MIAMI-DADE, BROWARD, PALM BEACH, INDIAN RIVER, MARTIN, AND ST. LUCIE, FL / FDOT D4, FDOT D6.

Project Manager responsible for oversight of field performance of construction materials testing and asphalt plant inspectors. Also responsible for overall performance of the team on this contract, including client satisfaction, invoicing, and subconsultant management and coordination.

SR 826/SR 836 INTERCHANGE RECONSTRUCTION – MIAMI-DADE COUNTY, FL / FDOT D6

Project Manager and Senior Geotechnical Engineer responsible for construction engineering and inspection services related to foundation installation and testing efforts. This $550 million design-build project includes the replacement or new construction of more than 40 bridges and several miles of limited-access highway construction, along with the associated ramps, embankments, mechanically stabilized earth (MSE) walls, and other miscellaneous structures. Responsibilities also include oversight of the team performing dynamic pile testing, cross-hole sonic logging, embedded data collector testing, and pile integrity testing on foundation elements. Length of Corridor: 8 miles

HEFT ALL-ELECTRONIC TOLLING PHASES 1 & 2 – MIAMI – DADE COUNTY, FL / FDOT, FLORIDA'S TURNPIKE ENTERPRISE

Project Manager responsible for existing asphalt condition survey, pavement evaluation services, geotechnical field exploration, foundation installation inspections, pile load tests, and foundation certification packages. This design-build project consisted of improvements along 20+ miles of this limited-access highway and conversion of the Homestead Extension of Florida's Turnpike (HEFT) into a cashless toll-collection facility in Miami-Dade County.

EDUCATION:
BS, Civil Engineering FL Int'l Univ., 2010

EXPERIENCE: 11 YRS.

YRS AT H2R: 2

CERTIFICATIONS:
TIN No. M65042183
CONCRETE TRANSPORTATION CONSTRUCTION INSPECTOR (2022)
Qualified Sampler Technician (2022)
Asphalt Paving Technician - Level 1 and 2 (2020)
Concrete Field Technician - Level 1 (2021)
Concrete Lab Technician - Level 1 (2022)
Earthwork Construction Inspection - Level 1 (2021)
Pile Driving Inspection (2022)
Final Estimates - Level 1 and 2 (2020)
FDOT Maintenance of Traffic Advanced Training: No. 13860 (2020)
ACI Concrete Field Testing Technician - Grade I (2021)
ACI Concrete Strength Testing Technician (2022)
ACI Aggregate Base Testing Technician (2022)
Nuclear Gauge Safety Certification
Radiation Safety Officer Certification

Continuing Education:
10-Hour OSHA Construction Safety Training, ClickSafety & Lift Truck Safety Course, Pulse America, Inc., 2015

JOHNNY MARIN

SENIOR GEOTECHNICAL INSPECTOR

Geotechnical Inspector for various civil projects, responsible for conducting geotechnical inspections and understanding and working with soil and rock, underground water, site and structural conditions. Has put his numerous qualifications/certifications and experience to good use, working on various projects in water resources, transportation, and specialty geotechnical services such as cut-off wall, deep soil mix, and CSM projects, in the private, state, and federal markets. His attention to detail as resulted in Johnny's services being requested on projects across Florida and outside of the state. Also responsible for laboratory testing services, including sampling, testing, observing, and documenting results

MATERIALS ENGINEERING MANAGEMENT – VARIOUS LOCATIONS, FL / FDOT FLORIDA'S TURNPIKE ENTERPRISE

Performed various inspection services for Florida Turnpike service plazas reconstruction projects. Our firm's CEI scope includes typical construction inspections, soils and concrete materials testing, and soils and concrete quality control as it relates to the site civil construction. The scope also includes performing the standard FDOT materials testing for soils and concrete related to the vertical construction elements of the project. 2010 – ongoing

TURNPIKE SERVICE PLAZAS RECONSTRUCTION MATERIALS ENGINEERING MANAGEMENT VARIOUS LOCATIONS, FL / FDOT FLORIDA'S TURNPIKE ENTERPRISE

CEI Field and Laboratory Technician assisting with construction engineering and inspection services for Florida Turnpike service plazas reconstruction projects.

MATERIALS TESTING & CONSTRUCTION SUPPORT – VARIOUS LOCATIONS, FL / FDOT D2, D4, D6

Field and Laboratory Geotechnical Technician providing asphalt plant verification testing and construction materials testing services, as well quality assurance of deep foundation on bridges founded on both drilled shafts and pilings.

BRIDGES OF THE ISLES & SUNRISE KEY BRIDGE REPLACEMENTS DESIGN-BUILD - FORT LAUDERDALE, FL / FDOT D4

Engineer responsible for the collection and analysis of dynamic pile test data and analysis using a Pile Driving Analyzer for several bridges in Fort Lauderdale. Also performed vibration monitoring and pile inspection services.

NORRIS CUT TUNNEL – MIAMI-DADE COUNTY / NICHOLSON CONSTRUCTION

Performed services for the MDWASD's Norris Cut Tunnel Project, working as a geotechnical subconsultant. Supported both soil mix design and DSM execution which is required to construct the TBM exit pit at Fisher Island. Tasks for this phase of work includes specialty geotechnical engineering and field services including soil-cement coring, laboratory testing, and other services including construction quality control and in-situ permeability testing. Acted as field engineer, logging the drilling activities, performing in-situ permeability tests, and downhole camera imaging.

FORT LAUDERDALE – HOLLYWOOD INTERATIONAL AIRPORT RUNWAY 9R/27L EXTENSION – FORT LAUDERDALE, FL / BROWARD COUNTY AVIATION

Field inspector and Laboratory Technician assisting with pile driving inspection for the Runway 9R/27L expansion design-build project. The runway extends 8,000 feet and cross over U.S. Route 1, Florida East Coast Railway, and Perimeter Road. The foundations for the bridges associated with this project include approximately 3000 driven piles. This project is a critical component of the Fort Lauderdale-Hollywood International Airport's $791 million expansion program, which is aimed to increase airport capacity, improve the air traffic system, and accommodate larger passenger aircrafts.

THAI NGUYEN

SENIOR GEOTECHNICAL ENGINEER

EDUCATION:
M.S. Civil Engineering,
University of Florida
Gainesville, Florida, USA, 2001
B.S. Civil Engineering,
Hanoi University,
Hanoi, Vietnam, 1996

EXPERIENCE: 20 YRS

YRS AT H2R: 2

REGISTRATIONS / CERTIFICATIONS:
Professional Engineer, Florida No. 66551, 2007
Master on PDA and CAPWAP proficiency, PDI/PDCA, 2012, 2014
CTQP Pile Driving Inspection, 2006
SmartPile Embedded Data Collector System User No. 020FL0046-13, 2011

PUBLICATIONS:
"Evaluation of Existing Deep Foundation Performance Using the FDOT Database to Improve Current Design Methodologies." *McVay, Michael, Marc Hoit, Erica Hughes, Mark Styler, and Thai Nguyen FDOT 2005.*

"National Cooperative Highway Research Program Report 507: Load and Resistance Factor Design (LRFD) for Deep Foundations." *Paikowsky, Samuel G., et al. Transportation Research Board, 2004.*

Thai Nguyen has extensive knowledge in geotechnical engineering, specifically involving foundation systems for tunnels, bridges, buildings, dams, and other structures. Mr. Nguyen's technical experience in foundation testing includes Pile Driving Analysis (PDA), Static Load tests, Crosshole Sonic Logging (CSL), Embedded Data Collector (EDC), and Pile Integrity Tests (PIT). He is additionally skilled in engineering data management, soil structure interaction, earth retaining structures, slope stabilities, construction methodologies, ground improvement techniques, establishment and monitoring of geotechnical instrumentation, design of shallow and deep foundation systems, QA/QC during the installation of auger cast-displacement piles, drilled shafts, driven piles, and tie-down anchors, vibration monitoring programs, forensic engineering, and condition surveys for pre- and post-construction phases.

GEOTECHNICAL CONSULTANT SERVICES, DESIGN-BUILD OF I-4 OVER REEDY CREEK, ORLANDO, FL / FDOTD5
Project Engineer. Responsible for subsurface exploration, design calculations for driven piles, PDA testing, and development of production pile length and driving criteria recommendations. 2011 to 2012.

SR 35 AND SR 44 OVER CSX RAILROAD, SUMTER COUNTY, FL FDOT D5
Project Manager. Responsible for subsurface exploration, design calculations for driven piles, PDA testing, and development of production pile length and driving criteria recommendations. The project involved providing engineering, testing, and other services, including pile dynamic load testing, pile-driving inspection, and foundation certification. 2010 to 2011.

PILE DRIVING ANALYSIS TESTING AND VIBRATION AND TILTMETER MONITORING FOR I-75 WIDENING, SARASOTA COUNTY, FL / FDOT
Project Engineer. Provided geotechnical testing at four bridges over River Road, Jackson Road, Havana Road, and Jacaranda Boulevard. $90,000, 2008 to 2009.

I-75 WIDENING PROJECTS, HILLSBORO AND PASCO COUNTIES, FL, FDOT D7
Review Engineer for geotechnical engineering and PDA services portion of the I-75 widening project. Responsible for reviewing PDA data. In addition, provided dynamic pile testing services for the corridor which had fourteen bridges. The dynamic pile testing portion implemented the Pile Driving Analyzer (PDA) and the Embedded Data Collector (EDC). 2015

OVERLAND BRIDGE REPLACEMENT, JACKSONVILLE, FL / FDOTD2
Project Engineer/ Assistant Project Manager. Responsible for reviewing Pile Installation Plan submittal from Contractor and performing PDA verification testing for the design-build project. 2013-2014.

PILE DYNAMIC TESTING, I-75 WIDENING, HILLSBOROUGH AND PASCO COUNTIES, FL / ATKINS & FDOT
Project Manager. Responsible for hammer evaluation, PDA and EDC testing on 80 test piles, and development of production pile length and driving criteria recommendations**.** 2011 to 2012.

PILE DYNAMIC TESTING, SR 682 PINELLAS BAYWAY, PINELLAS COUNTY, FL / STANLEY CONSULTANTS & FDOT
Project Manager. Responsible for hammer evaluation, PDA testing on 10 test piles, and development of production pile length and driving criteria recommendations. 2011 to 2012.

PILE DYNAMIC TESTING, COURTNEY CAMPBELL CAUSEWAY TRAIL BRIDGE (DESIGN-BUILD), HILLSBOROUGH AND PINELLAS COUNTIES, FL / FDOT
Project Engineer. Responsible for driven pile design, hammer evaluation, PDA testing on 10 test piles, and development of production pile length and driving criteria recommendations. 2011 to 2012.

PILE DYNAMIC TESTING, SR 72 OVER MYAKKA RIVER DETOUR BRIDGE, SARASOTA COUNTY, FL / FDOT
Project Manager. Responsible for hammer evaluation, PDA testing, and development of production pile length and driving criteria recommendations for steel pipe piles. 2011 to 2012.

PORT OF MIAMI TUNNEL FOR NICHOLSON CONSTRUCTION COMPANY, MIAMI-DADE COUNTY, FL, FDOT
Analyses and data management for Triaxial, Unconfined Compression, and Permeability tests. 2010 to 2012.

HEFT ALL-ELECTRONIC TOLL COLLECTION PHASE 3 DESIGN-BUILD, MIAMI-DADE COUNTY, FL / FDOT FLORIDA'S TURNPIKE ENTERPRISE
Review Engineer for project that involved the conversion of the mainline and ramp toll plazas on the northern Homestead Extension of Florida's Turnpike (HEFT) to an all-electronic toll facility, including the conversion of tolls to SunPass/E-Pass. Responsible for reviewing PDA data on urgent requests. Embankment slope stability analyses. 2015-2017

FLORIDA TURNPIKE VETERANS EXPRESSWAY WIDENING, HILLSBOROUGH COUNTY, FL FDOT FLORIDA'S TURNPIKE ENTERPRISE
Project Engineer. Responsible for PDA testing and Vibration Monitoring. 2013-2014.

GEOTECHNICAL CONSULTANT SERVICES, WINTER GARDEN AND ORLANDO, FL / FLORIDA'S TURNPIKE ENTERPRISE
Project Engineer. Provided CSL testing, vibration monitoring services, and pile-driving analysis testing for the SR 50 ramps at Florida's Turnpike and a portion of the Turnpike between I-4 and the Orlando service plaza. 2011 to 2012.

WEIKIVIA, SR429, A^2 GROUP, INC. CENTRAL FLORIDA EXPRESSWAY AUTHORITY
Review Engineer responsible for reviewing PDA data. 2015-2016

PILE DYNAMIC AND EMBEDDED DATA COLLECTOR TESTING, VARIOUS CLIENTS, STATEWIDE, FL
Project Engineer/Project Manager. Responsible for PDA testing, verification testing, and EDC testing for the following: Homestead Extension of Florida's Turnpike Toll Plaza, Florida's Turnpike Enterprise, Miami-Dade County**;** I-95 Widening Bridges, FDOT District 4, Palm Beach County; I-95 Widening Bridges, FDOT District 6, Miami-Dade County; SR 826/SR 836 Improvements, FDOT District 6, Miami-Dade County; Raymond Road Bridge Replacement, Sarasota County; Matlacha Bridge Replacement, Lee County; US-19 over Bryan Dairy Road, 102nd Avenue, and 49th Street Bridges, FDOT District 7, Pinellas County; Western Beltway Turnpike Bridges, Florida's Turnpike Enterprise, Orange County; I-4 bridges Widening, FDOT District 7, Hillsborough County; I-275 Widening over Cypress Creek, FDOT District 7, Hillsborough County; Palatka Boardwalk Bridge, FDOT District 5, Flagler County; C.R. 305 over Bull Creek, Bunnell, FDOT District 5, Flagler County; US-301 Widening over Tadpole Creek and Bullfrog Creek, FDOT District 7, Hillsborough County; I-275/SR 686 Bridges, FDOT District 7, Pinellas County; SR 56 Ramp at I-75 and I-275, FDOT District 7, Hillsborough and Pasco Counties; I-75 Widening Bridges, FDOT District 1, Lee and Collier Counties; SR 80 over the Okaloacoochee Branch, FDOT District 1, Hendry County; CR 901 over Cocohatchee Canal, FDOT District 1, Collier County; Treasure Island Bridge Replacement, FDOT District 7, Pinellas County $1,200,000, 2005 to 2011.

DAVE RANCMAN, PE

CEO, SENIOR GEOTECHNICAL ENGINEER I PROJECT MANAGER

EDUCATION:
Bachelor of Science
Civil Engineering
Case Western Univ. 2002

REGISTRATIONS:
FL PE #70413
PA PE #PE076115

EXPERIENCE: 14 YRS

YRS AT H2R: 2

PROFESSIONAL AFFILIATIONS:
Deep Foundations Institute
American Society of Civil Engineers
American Concrete Institute

PUBLICATIONS:
Rausche, F., L. Liang, R. Allin, & D. Rancman. "Applications and Correlations of the Wave Equation Analysis Program GRLWEAP." Proceedings of the Seventh International Conference on the Application of Stresswave Theory to Piles 2004, Petaling Jaya, Selangor, Malaysia, August 9, 2004.

D. Rancman, T. Nguyen, D. Hart, Y.S. Delmas. "Pile Group Effects and Soil Dilatancy at the Fort Lauderdale International Airport, Proceedings of the 2018 International Foundations Congress and Equipment Exposition (FCEE), Orlando, FL

T. Nguyen, D. Hart, & D. Rancman.
"Case Studies – Driving Concrete Piles in Florida Pinnacle Limestone"

Dave Rancman began his career working on foundation projects across the United States and Caribbean. Through a variety of research projects, he developed unique foundation quality assurance testing equipment and methods that have now become industry standard. With a diverse portfolio, Dave works with clients across a variety of market sectors. He has successfully implemented innovative practices to efficiently manage company assets, including web-based preventative maintenance applications for complex assets, and internally developed staff and equipment management tools. Dave has also developed quality relationships with public entities such as FDOT, in addition to engineering consultants, and contractors, who partner with H2R to provide quality services.

DYNAMIC PILE TESTING SERVICES, I-75 WIDENING PROJECT, SEGMENTS AB, BROWARD COUNTY, FL, FDOT. [2015-present][60110]
Geotechnical Engineer providing dynamic pile testing services for several bridges which had sensitivities to hard and unpredictable surficial limestone. Wave equation analyses, recommended pile lengths, and pile driving criteria were provided. [P049]

I-75 WIDENING PROJECT, HILLSBOROUGH COUNTY, FL, FDOT. [2011-2013][54803]
As part of the geotechnical engineering and pile driving analysis services portion of the I-75 Widening Project, provided geotechnical engineering services for the construction engineering and inspection. In addition, provided dynamic pile testing services for the corridor, which had 14 bridges. The dynamic pile testing portion implemented the PDA and the Embedded Data Collector. [P045]

BRIDGES OF THE ISLES AND SUNRISE KEY BRIDGE REPLACEMENTS DESIGN-BUILD SERVICES CONTRACT, FORT LAUDERDALE, BROWARD COUNTY, FL, FDOT D4. [2013-present][57216]
Geotechnical Engineer responsible for this project to design four new bridges and one bridge replacement to provide connectivity between the Nurmi Isles finger islands, north of Las Olas Boulevard, with S.R. 842 on the mainland. This project incorporated accelerated bridge construction techniques through the use of precast superstructure and substructure elements. Services included accelerated bridge design and construction in an environmentally sensitive area with sea grass within the project site. The project also involved complex maintenance of traffic, temporary signalization, traffic control plans, extensive utility coordination, geotechnical design, public outreach, and coordination with multiple community and agency stakeholders. Also provided construction services oversight, including pile driving inspection, dynamic pile testing, and vibration monitoring. [P042]

S.R. 821 WIDENING FROM NORTH OF SW 72ND STREET TO NORTH OF SW 40TH STREET, MIAMI-DADE COUNTY, FL, FDOT, FLORIDA'S TURNPIKE ENTERPRISE. [2014-2016][59271]
Senior Geotechnical Engineer for this project in design, including 18-inch prestressed-concrete piles and micropiles along with MSE and sound walls. Vibration and settlement have created issues with shallow foundation supported bridges and

certain nearby structures. Improvements include the widening of Homestead Extension of Florida's Turnpike to three general purpose lanes and two express lanes in each direction; replacing the mainline toll facilities with new all-electronic toll; constructing a new northbound, two-lane exit ramp to Bird Road; removing an old bridge and constructing a new bridge; converting a two-lane frontage road with controlled access; and milling and resurfacing the highway. Project Manager for this design-build project during construction phase, providing dynamic pile testing services, cross-hole sonic logging, vibration monitoring, pile driving inspection, noisewall foundation inspection, and drilled shaft inspection for tolling, signage, and miscellaneous structures. [P047]

VOINOVICH PARK PEDESTRIAN BRIDGE, CLEVELAND, OH, OHIO DEPARTMENT OF TRANSPORTATION (ODOT).

Civil Engineer involved in ODOT's project development process (PDP) for the proposed pedestrian bridge from the Finger Pier to Voinovich Park in Cleveland's North Coast Harbor, adjacent to the Rock and Roll Hall of Fame. This included completing tasks in the minor PDP steps and being responsible for utility coordination for the project in its preliminary stages. [P029]

C.R. S-32 ALIGNMENT AND BRIDGE REPLACEMENTS, ABBEVILLE COUNTY, SC, SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION (SCDOT).

Geotechnical Engineer involved in the design, analyses, and reporting of geotechnical aspects in regard to the roadway realignment and replacement of four bridges. This entailed slope stability analyses and foundation design pertaining to the axial and lateral considerations of non-redundant drilled shafts. [P024]

BRIDGE CONSTRUCTION AND RENOVATION, STATEWIDE NC, NORTH CAROLINA DEPARTMENT OF TRANSPORTATION.

Structural Engineer involved in the determination of unknown bridge foundations for statewide bridge construction and renovation in North Carolina. This included the investigation and compilation of data from archived files in the form of antiquated standard drawings, documentation, microfiche, and/or any other relevant data. An NDT program was subsequently developed, which included sonic logging, low-strain dynamic tests, and other NDT methods. [P007]

LONG SHOALS ROAD (NC ROUTE 146) IMPROVEMENTS, ASHEVILLE, NC, NORTH CAROLINA DEPARTMENT OF TRANSPORTATION.

Geotechnical Engineer involved in providing plan and subsurface profile sheets, foundation and construction recommendations, and boring/coring laboratory results to the NCDOT pertaining to the improvements of NC Route 146. This included MSE and soil-nail wall recommendations, culvert geotechnical considerations, pile analyses for the I-26 bridge over the roadway in both axial and lateral capacities, and other geotechnical-related issues pertaining to roadway widening and improvements. Also provided support during the construction phase. [P020]

DEMOLITION OF THE FORT STEUBEN BRIDGE, JEFFERSON COUNTY, OH, OHIO DEPARTMENT OF TRANSPORTATION.

Engineer assisting in the construction cost estimating for several different complex methods of deconstructing this historic suspension bridge over the Ohio River. This included input into phasing, explosives, and the application of NDT methods to assess strength of aging bridge elements for the purpose of pairing deconstruction methods. [P014]

STOPGATES FOR JAMES RIVER BRIDGE AND HAMPTON ROADS BRIDGE TUNNEL, ISLE OF WIGHT, NEWPORT NEWS, HAMPTON, AND NORFOLK, VA, DEPARTMENT OF HOMELAND SECURITY.

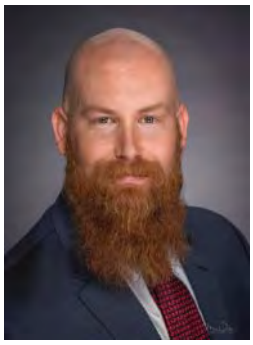
Geotechnical Engineer involved in the task management and geotechnical recommendations provided for the construction of barrier arms for these Department of Homeland Security projects. The barriers will halt the flow of traffic to the bridges and tunnels when there is an elevated terror threat and are designed to absorb impacts. As a subconsultant, geotechnical design values and construction recommendations were provided to the consultant for the foundation of the barriers. Additionally, arranged traffic control and monitored fieldwork. [P022]

PINELLAS TRAIL, PINELLAS COUNTY, FL, PINELLAS COUNTY. [2009-2010][52119]

Geotechnical Engineer for work that involved providing borings for the Fred E. Marquis Pinellas Trail in Pinellas County, Florida. Work involved performing a subsurface investigation, providing deep foundation recommendations for a pedestrian bridge over Joe's Creek, conducting laboratory testing as appropriate, and preparing a report with recommendations for bridge foundation and retaining wall, fill, and pavement construction. [P035]

LEE POWERS, PSM

Director of Surveying & Mapping



Mr. Lee Powers has over 13 years of experience in land surveying and mapping in South Florida. He has worked with many local municipalities and government agencies to create and/or modernize their GIS Systems. He has also performed construction, right-of-way, control, ALTA, boundary, as-built and topographic (both acreage and coastal) surveys. He has extensive laser scanning experience with a particular emphasis on architectural modeling, historical preservation and infrastructure monitoring. He is well-versed in the scan-to-model workflow. He coordinates our BIM/VDC staff to ensure a quality and accurate model. Mr. Powers has extensive Project Management experience for large-scale projects and continuing service type contracts for both public and private sector clients. He is knowledgeable in the use of a wide range of state-of-the-art surveying equipment and associated computer technologies. He has extensive experience in field crew supervision, quality control and client relations.

Years of Experience
13

Education
B.S. Land Surveying & Geomatics Engineering, Purdue University, West Lafayette, Indiana 2005

Professional Registrations
Registered Professional Surveyor & Mapper, State of Florida, #6805 (2010)

Professional Affiliations
BIM Smart Foundation Member

Florida Society of Professional Surveyors & Mappers
American Resort

Certifications
Transportation Worker Identification Credential (TWIC)

FDOT Maintenance of Traffic

RELEVANT PROJECT EXPERIENCE

SE 8th Court Bridge Replacement, Pompano Beach, FL: Mr. Powers was the Project Surveyor for this design and reconstruction project including right of way and design survey, utility location and bathymetric survey for the replacement of an existing substandard municipal bridge. The specific survey work associated with this project included hydrographic, topographic and design survey associated with the proposed design of the replacement bridge and seawall as well as as-builting the required improvements upon completion of construction to provide the necessary final certification documentation to the designer.

FDOT D4 Ravenswood Bridge Replacement Broward County: Mr. Powers served as the project surveyor for this replacement of the Ravenswood Bridge over the Dania Cut-Off Canal. As a subconsultant to Bolton Perez & Associates, KEITH handled the Survey and Utility Coordination for this Bridge Replacement Project on Ravenswood Rd., North of Griffin Rd.

City of Pompano Beach Miscellaneous Surveying Services, Pompano Beach, FL: KEITH is currently providing general surveying and mapping services to the municipality on an as needed basis on this ongoing continuing services contract since for over 16 years. Some projects provided under this contract include: SE 8th Court Bridge Replacement Survey, SE 9th Avenue Bridge Replacement Design Survey, Hillsboro Bay Foot Bridge Design Survey.

Engineering Consultant Services for Highway Construction and Engineering Design, Broward County, FL: As a subconsultant to Atkins, KEITH provided surveying and subsurface utility engineering support for various county-wide transportation and general civil engineering projects. Typical services included design surveys, topographic surveys, water crossing surveys, 3D laser scanning, utility designation, locating and mapping to support project designs as well as post-construction services associated with new traffic signals, signal conversions, mast arm installations, evaluations of existing utilities, roadway widening, bridge rehabs, intersection improvements and school zone improvements among others.

FDOT D4 SR 80 at Forest Hill Blvd, Palm Beach County, FL: This project entails intersection improvements at Southern Boulevard SR 80 and Forest Hill Boulevard, including the widening of the bridge over the C-51 canal. As a subconsultant to Inwood Engineers, KEITH is providing surveying, utility designation and coordination and landscape architecture services. The survey includes a topographic survey of the roadway, subsurface utilities, canal cross sections and a detailed bridge survey that resulted in a comprehensive 3D model.

DANIEL CHECCHIA

Vice President of Location Services

Mr. Checchia has over 21 years of experience in transportation engineering, surveying, civil design and construction related fields, with expertise in Subsurface Utility Engineering (SUE), including Utility Coordination. His duties are to oversee the day-to-day operations of all Subsurface Utility Engineering and Coordination projects for our firm. Mr. Checchia is responsible for assisting clients with utility research, identification, data management and coordination. Besides having developed a strong rapport with local utilities and municipalities, his knowledge and experience in the Subsurface Utility Engineering process allows him to easily recognize utility conflicts during design and construction. He has been involved on a variety of projects such as design, design build and private sector work. Mr. Checchia's understanding of the Quality Levels in the ASCE Guidelines enables him to manage a project from pre-design to post construction, negotiating to minimize utility impacts and suggesting and implementing cost effective timely resolutions for utility conflicts. Mr. Checchia is fully knowledgeable of the FDOT Utility Coordination process, with eight years of involvement working on multiple types of transportation projects.

Years of Experience
21

Education
AS of Applied Science in Construction Technology, Suffolk County Community College, 2008

Professional Affiliations
Founding Board of Director-SUE Association

Transportation & Expressway Authority Membership of Florida (TEAM FL)

Florida Utility Coordination Committee (FUCC)

Certifications
FDOT Maintenance of Traffic

Issues Affecting SUE

Risk Management and Professional Liability in SUE

Rebuilding America's Infrastructure

SAFE PIPES Act and Related Legislation

RELEVANT PROJECT EXPERIENCE

SE 8th Court Bridge Replacement, Pompano Beach, FL: Mr. Checchia provided utility location support for the design of the bridge. Utility designation (Quality Level B) and locates (Quality Level A) were performed to assist the design team in identifying existing utilities within the proposed footprint.

FDOT D4 Ravenswood Bridge Replacement, Broward County, FL: KEITH managed the Utility Coordination for this Bridge Replacement project on Ravenswood Rd., North of Griffin Rd. Our Design ticket with Sunshine State One Call of Florida identified twelve Utility Agencies and the Broward County Traffic Engineering Dept. Several Utility Meetings were conducted to clarify the construction phasing and Utility involvement. Five Utility Agencies had facilities in the area but were not involved in the Project and we negotiated/coordinated six Non-Reimbursable Utility Work Schedules Broward County Water and Wastewater entered into a "Utility Work by Highway Contractor Agreement" for the Engineering and Design of the relocation/adjustment of the water and sanitary lines that were impacted by this bridge replacement project. Utility Certification was completed on schedule.

Replacement of Little Blue Heron Bridge & Little Lake Worth Bridge, Palm Beach County, FL: KEITH provided Utility Coordination for the design-build of the replacements for the bridges over Little Blue Heron and Little Lake Worth. Subsurface Utility Engineering (SUE) was also required, designating (ASCE Quality Level B) and locating (ASCE Quality Level A) services were used to map the precise position of existing underground utilities within the anticipated bridge footprints.

FDOT D6 Districtwide Utility Location Services for Atlantic Avenue, Miami-Dade County, Florida: KEITH is responsible for providing designating, location, and surveying services for this bridge foundation verification task work order located at the Atlantic Isle Lagoon. KEITH is tasked with providing eight physical locates to identify the limits/intersection of the existing bridge foundations east and west side along Atlantic Avenue. KEITH will also perform a survey of the physical locates.

FDOT D4 St. Lucie West Interchange Improvements, St. Lucie, County, FL: The improvements entail a proposed new 3-lane concrete bridge at the interchange of I-95 at St. Lucie West Boulevard. Within the limits of the project, there are eight Mast Arms and two Overhead Structures, an extensive number of overhead transmission lines to the West of the bridge and seven identified UAOs. As a subconsultant to HDR Engineering, KEITH will provide utility coordination services. Mr. Checchia is managing the utility coordination efforts.

ARACELY ANDOLLO-SOTO

Utility Coordination Manager

Ms. Andollo-Soto has 22 years of experience in the area of utility coordination, for both design-build and traditional design-bid-build projects. She has worked predominantly with FDOT Districts 4 and 6, Turnpike Enterprise, MDX and Miami-Dade County. She has extensive experience in permitting through municipal and governmental agencies such as Water & Sewer Departments, Department of Environmental Resources Management, South Florida Water Management District, Florida Department of Environmental Protection, Department of Health and other State and federal agencies. Ms. Andollo-Soto has also managed the construction phase of a project including RFI's, review and processing shop drawings and coordination among clients, contractors and Engineers of Record.

RELEVANT PROJECT EXPERIENCE

FDOT D4 Districtwide Utility Coordination Production Support, Broward County, FL: This project involved utility coordination for various roadway projects within FDOT District 4. Ms. Andollo-Soto served as the Lead Utility Coordinator, supervising tasks including all phases of negotiation and relocation of electric, telecom/cable, water/sewer and gas/fuel utilities impacted by FDOT projects. She provides these services in accordance with FDOT's standards, policies and procedures; and is familiar with FDOT's utility agreements with vendors and utilities such as: Florida Power & Light Distribution, Transmission and FiberNet; Comcast, AT&T/Bellsouth, Verizon, Level 3 Communications, Qwest Communications, Sprint/Nextel, Broward County Water & Wastewater, Indian River County Utilities, Martin County Utilities, Palm Beach County Utilities, St. Lucie County Utilities, City of Ft. Lauderdale, City of Oakland Park, City of Pompano Beach, City of Port St. Lucie, City of Riviera Beach, City of St. Lucie, City of Sunrise Water & Sewer, City of Tamarac, City of Wilton Manors, City of Vero Beach Water & Sewer, Florida Gas Transmission, Crown Castle, Fiberlight, Hotwire, Windstream, XO Communications and others.

FDOT D6 SR-907 (Alton Road) at the Intersections of 5th, 10th and 14th Street, Miami-Dade County, FL: This 3-phase project (a strung project) was part of the overall lead reconstruction project of SR 907 (Alton Road) from 5th Street to Michigan Avenue). This project encompassed drainage improvements (including pump stations and bulkhead outfalls) with relocations for facilities owned by Florida Gas Transmission, TECO Peoples Gas, FP&L (Distribution) and City of Miami Beach. Ms. Andollo-Soto provided Utility Coordination for the District and worked with the aforementioned UAOs, in addition to coordinating with AT&T Florida, Atlantic Broadband and Verizon Business.

FDOT D6 SR-968 (W Flagler Street) from W 27th Avenue to W 2nd Avenue, Miami-Dade County, FL: This 3-phase project consists of roadway full reconstruction and extensive excavation for lighting, signalization and landscaping with relocations for facilities (including joint-use poles and duct banks). Ms. Andollo-Soto is providing Utility Coordination for the District and working with AT&T Florida, Comcast Cable. FP&L, FiberNet, MD-WASD, and TECO Peoples Gas.

FDOT District 6 Utility Coordination Services for US-27/SR-25 Okeechobee Road, Okeechobee, FL: KEITH was retained by the department to provide utility coordination services for the proposed reconstruction of US27/SR25 Okeechobee Road from East of NW 116 Way to East of NW 87th Avenue. KEITH is tasked with completing utility coordination efforts for the design project FPID#423251-4-52-01, US27, Hialeah Gardens/Medley. KEITH's services include utility coordination services in compliance with the contract standards as well as submitting final deliverables to the Department in the approved format.

Years of Experience
22

Education
B.S. Civil Engineering, Florida International University, 1998

Associate in Arts, Miami-Dade College, 1993

Professional Certifications
Utility Coordination Certification, Florida Utility Coordination Committee (FUCC) 2014

-FUCC "Utility Coordination Certification – Design" Module
-FUCC "Utility Coordination Certification – Cost Estimating & Billing" Module
-FUCC "Utility Coordination Certification – Coordination" Module

American Public Works "Introduction to Damage Prevention and Safety"

FDOT "Advanced Work Zone Traffic Control"

FDEP "Storm Water, Erosion, & Sedimentation Control Inspector"

Professional Affiliations
APWA, member since 1998
ASCE, member since 1998

BOLT Underwater Services, Inc	DION C. QUALLS, Senior Underwater Certified Bridge Inspector #00470
	Mr. Qualls has 35 years of experience conducting inspections/construction inspections (both above and below water) in Florida, Districts 1, 2, 4, 5, 6 and 7; and numerous structures with the Virginia Department of Transportation. The structures include Fixed, Movables, Culverts and Dams. Mr. Qualls also has experience in the construction of bridges, repairs/replacements, rehabilitations and pile jacket installation.

Years of Experience: 35 TIN No. Q420-163-61-099-0	Related Experience 2015 - Current:
Office Location: 7930 62nd Street North Pinellas Park, FL 33781	District One Underwater Bridge Inspection and Construction Inspection, 2009 – Current Infrastructure Corporation of America – Robert Little – 813-699-4992
Certifications: ➢ Commercial Diver Certification (1982/Ocean Corporation) ➢ Bridge Inspector State of Virginia (1992 & 1997 University of New Mexico/University of Maryland) ➢ Safety Inspection of In-Service Bridges (1997/NHI No. 130055) ➢ Florida Certified Bridge Inspector Certification (2009/00470) ➢ Stream Stability and Scour at Highway Bridges (1998/NHI No. 130047) ➢ Inspection and Maintenance of Ancillary Highway Structures (2011/NHI No. 130087) ➢ Bridge Inspection Refresher (2015/NHI No. 130053) ➢ Aspen 62 Bridge Inspection Truck Operator (2013) ➢ Intermediate Work Zone Safety Control (2014) ➢ First Aid and CPR Training ➢ TWIC Certified	District Seven Underwater Bridge Inspection and Construction Inspection, 2009 – Current Infrastructure Corporation of America – Robert Little – 813-699-4992 District One, Five, Six and Seven Underwater Bridge Inspection QA/QC Compliance of Structures, 2009 – 2014 Infrastructure Corporation of America – Robert Little – 813-699-4992 District 6, Card Sound, Inspection Assessment, Structural Repair, Installation of Cathodic Protection Jackets, 2007 - 2009 L&S Concrete – 813-684-4218 Sunshine Skyway Bridge, Evaluation Inspections and Repairs, 2007 - 2009 L&S Concrete – 813-684-4218
Prior Experience: ICA|HDR 2009 through 2015: Conducted Bridge Inspection Services throughout the State and QA/QC Management, Underwater QA Supervision. Experience prior to 2009 is available upon request.	

design kollaborative
architects / planners, inc.

Andre Capi

Director of Architecture and Owner, received his Master Degree in Architecture at Tulane University, New Orleans. With more than 24 years experience and excellent communication skills he coordinates planning design and design- build projects. He provides complete project services, overseeing all aspects of the

Architecture firm from evaluation through design, quality control and construction of commercial, industrial, historical and residential projects. Permitting is facilitated by his extensive knowledge of building codes, planning and zoning ordinances and approval processes nationwide. As well as being LEED Certified and Leading the Company's Environmental and adaptive re-use efforts. Sustainable initiatives, Mr. Capi is a member of Florida Trust Historical Preservation and Leads the companies restoration, renovation and

Education

- Master of Architecture, Tulane School of Architecture, New Orleans, LA 1988
- Graduate Cardinal Gibbons H.S. Ft. Lauderdale, FL

Professional Memberships

FL Trust of Historic Preservation

US Green Building Council

American Inst. Of Architects

Construction Spec. Institute

Qualifications

LEED AP Certified Extensive knowledge of Building Codes and Planning and Zoning ordinances and permit processes nationwide Experienced in site evaluation (Due Diligence reports/ site feasibility studies for Ground up Construction, remodels, site planning. Office management skills consist of contracts, billing, scheduling and time tracking.

Relevant Experience

Historic Building/ Bailey Hotel Rehabilitation
Ali Cultural Center
Ali Block Development Site plan
165 Kitchen
CRA Office Remodel
Urban Farm
North Pompano Park Multi-Purpose Building Alteration
Briny Avenue Utility Underground and Streetscape Improvements
Sample McDougald House
Pompano Pier Renovation
East CRA Master Plan Design Survey
NW Neighborhood Sidewalks project
Old Pompano Civic Association Entrance Monument

TY LIN INTERNATIONAL

REFERENCES

REFERENCES

Venetian Causeway Bridge Rehabilitation Design-Build

Miami, Florida

Client	GLF Construction	Key Personnel	Dennis Martinez, PE
Reference	William E. Junkin, PE VP Engineering GLF Construction 1428 Brickell Avenue, Suite 700 Miami, Florida 3313 PH: 305.371.5228 wjunkin@glfusa.com	Completion Date	2016
		Construction Cost	$12.5 Million

Description

T.Y. Lin International (TYLI) was the lead designer on this $12M design-build project that encompasses the complete demolition and replacement of the westernmost 731 feet of the existing Venetian Causeway bridge from Miami's mainland to the outer islands. The project included the removal and disposal, in an artifi cial reef, of the bridge's westernmost superstructure and substructure, including the first abutment, existing bulkhead and the expansion joint at the end of the cantilevered beams and replacing these with a new complete bridge superstructure, substructure, approach roadway and lighting.

The replacement bridge replicates the architecture of the original structure, which is listed on the National Register of Historic Places, and to provide a seamless connection to the remaining bridge. The superstructure consists of precast arched beams and railings with unique aesthetics. The substructure consists of bents supported on drilled shaft foundations. Due to the need to close the bridge to traffic, an expedited schedule of nine months was met by the design-build team.

REFERENCES

UM Pedestrian Bridge Crossing Over US-1

Coral Gables, Florida

Client	Miami-Dade Transit	Key Personnel	Dennis Martines, PE Enrique Sosa, PE James Rosales, PE Jose Anadon
Reference	Isabel Padrón, P.E., Chief Miami-Dade County Department of Transportation and Public Works Design and Engineering Division Overtown Transit Village 701 N.W. 1st Court, Suite 1500, Miami, Florida 33136 Office: (786) 469-5260 Fax: (786) 469-5575 Isabel.Padron@miamidade.gov	Completion Date	March 2013
		Construction Cost	$3.8 Mlillion

Description

TY Lin was responsible for the management and coordination of the complete design of the new pedestrian overpass located along U.S. 1 at the University Metrorail Station. The development of the project advanced from the initial conceptual study phase (2006), and included design, public involvement activities, construction documents, technical specifications and preparation of the engineer's estimate of probable construction cost. TY Lin held up front architectural concept coordination meetings with Miami-Dade Transit (MDT) and the City of Coral Gables to develop and ultimate receive approval on both the details of the bridge supports as well as the Wave feature integrated into the span across congested 6-lane US-1 corridor. The scope of work included coordination with both the lead agency, MDT, as well as other affected agencies which included, Miami Dade Public Works (PWD), Miami-Dade Building Department, Florida Department of Transportation (FDOT), City of Coral Gables, the University of Miami and other local permitting agencies.

Elements of the work included design services for structural, mechanical, electrical and civil engineering, architecture, surveying, right of way issues, soils investigation, utility identification and relocation, lighting, and maintenance of traffic. Safety during construction as well as the ultimate safety of the final crossing was the key factor throughout the design, coordination, and implementation of the project. The specific design features of the structure included context sensitive design, by incorporation of quality of life, livability and sustainability considerations. The cultural environment, architectural styles, natural environments, and open space character of the neighborhoods surrounding the structure were also taken into consideration.

REFERENCES

I-395 Reconstruction– Engineering Design Serv. (Financial Proj. No. 251688-1-32-01)

Coral Gables, Florida

Client	FDOT, District Six	Key Personnel	Noel Shamble, PE Dennis Martinez, PE
Reference	Maria I. Perdomo, PE Project Manager, FDOT District 6 Adam Leigh Cann Building 1000 NW 111 Avenue Room 6251 Miami, FL 33172 305.640.7186 (work) Maria.Perdomo@dot.state.fl.us	Completion Date	April 2017
		Construction Cost	$802 Million

Description

T.Y. Lin International (TYLI) was awarded the contract to perform preliminary engineering design services and Request for Proposal development for the new $600 million design-build-fi nance (DBF) reconstruction to the I-395 corridor in Downtown Miami. This segment of I-395 is a large, complex limited-access freeway built in the early 1960s. The I-395 project lies within one of the most unique areas of Miami. It transects two historically significant neighborhoods as well as the Arts and Entertainment District and provides a direct connection to I-95, the City of Miami, the City of Miami Beach, and the Port of Miami. I-395 serves as a principal evacuation route for South Beach residents. From a transportation perspective, the existing I-395 corridor has become obsolete and highly congested, and the FDOT has recognized the need for the modernization of this corridor.

The DBF project will increase capacity, improve traffi c fl ow, enhance the safety of the traveling public, and enhance connectivity to Downtown Miami, I-95, and the PortMiami Tunnel. The project will also feature a signature bridge spanning US 1/Biscayne Boulevard; contributing an iconic structure to the modern-day aesthetics that have already transformed the Miami skyline.

TYLI's scope of work consists of the preliminary bridge design for all approach structures, widened bridges at the interchange, and the signature bridge. TYLI also developed the aesthetic guidelines and requirements for the signature bridge and corresponding streetscape urban design. Extensive community outreach and coordination was performed during conceptual development to guide the overall aesthetics of the project. An Aesthetics Manual was developed that provides the baseline aesthetics required on the corridor while demanding innovation and creativity of the potential design build teams to provide aesthetic enhancements. Other elements of this project include roadway, drainage, utilities, geotechnical engineering, public involvement, environmental permitting, and a complex maintenance of traffi c scheme to minimize disruptions to the community and the traveling public.

TY LIN INTERNATIONAL

Office Locations

Office Locations

T. Y. Lin International (TYLI) understands that being in close proximity to our clients and active projects is paramount to providing quick, convenient, and reliable service. This contract will be serviced from TYLI's Fort Lauderdale office, located at 500 W. Cypress Creek Road, Suite # 330, Fort Lauderdale, Florida 33309. Less than a mile from the Pompano Beach city limits and only five minutes from city hall -- we are readily available to serve on a moment's notice.

A key strength of our local team is the ability to tap into the combined resources of our Ft. Lauderdale, Coral Gables, and other state offices to provide the necessary expertise required for the bridge projects. Our proven ability to leverage resources assures that the City will always have at its disposal the best team for every phase of the projects' development.

Total Number of Employees	2,000
Professional and Technical Staff-South Florida	101
Civil Engineers	26
Surface Transportation Engineers	10
Construction Managers & Inspectors	6
Electrical Engineers	2
Drainage Engineers	6
Mechanical Engineers	3
Traffic Engineers	1
Structural Engineers	11
Planners	4
Architects	1
Designers/Technicians	23
Clerical	8

TYLI has had a continuous presence in South Florida since 1947 that was further expanded with the opening more than fifty years ago of our Coral Gables office. We opened our Fort Lauderdale office in 2005 after decades of continuous service to Broward County government agencies, municipalities, and the Florida Department of Transportation District 4. Led by the Ft. Lauderdale team, and supported by our staff in Coral Gables, we have successfully completed a myriad of municipal projects in Broward County and between the two locations, we have over 100 professionals committed to your project's success.

TYLI is committed to local participation and is pleased to have assembled a team that includes the following Pompano Beach survey, engineering, geotechnical, and architecture firms. We have made this effort to employ local businesses and comply with the City's Local Business Program Ordinance.

To the left is a breakdown of our South Florida Offices' Staff.

T·Y·LIN INTERNATIONAL

Minority Business Enterprises

BIDDERS ARE TO COMPLETE FORM AND UPLOAD COMPLETED FORM TO THE EBID SYSTEM

EXHIBIT A

MINORITY BUSINESS ENTERPRISE PARTICIPATION

RFQ # E-16-18

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

Name of Firm	Certificate Included?
Bolt Underwater Services, Inc	**Yes**
H2R Corporation	**Yes**
HLB Lighting Design, Inc	**Yes**

State of Florida

Woman Business Certification

Bolt Underwater Services, Inc.

Is certified under the provisions of
287 and 295.187, Florida Statutes, for a period from:

03/13/2018 to 03/13/2020

Erin Rock, Secretary
Florida Department of Management Services

office of supplier DIVERSITY

Office of Supplier Diversity • 4050 Esplanade Way, Suite 380 • Tallahassee, FL 32399 • 850-487-0915 • www.dms.myflorida.com/osd

st.petersburg
www.stpete.org

THE CITY OF ST. PETERSBURG
SMALL BUSINESS ENTERPRISE CERTIFICATION

This certificate is awarded to

H2R Corp

Federal Identification Number: 81-2654817
SBE Certification Number: 1017-19425

Certification is Applicable in:

Geotechnical Engineering- Construction Services (CEI), Materials Testing & Inspection Services, Drilling/Subsurface Investigation, Foundation Testing & Inspection Services

Certified: October 4, 2017
Expires: October 4, 2020

Signature

October 4, 2017
Date

Claude S. Williams,
Economic Development Coordinator
The Greenhouse

GREENHOUSE
GROWING BUSINESS IN ST. PETERSBURG

SBE Small Business Enterprise

In accordance with the City of St. Petersburg's Small Business Enterprise Ordinance #789-G, your business is certified as a Small Business Enterprise by the City of St. Petersburg. You will need to show proof of your new Occupational License each year, as well as, renew your certification with this agency every two years in order to maintain your certification with the City of St. Petersburg. However, if at anytime the composition of the SBE status of your firm changes you need to complete another SBE affidavit. The City of St. Petersburg Government reserves the right to terminate or cancel this certification at anytime when it is found that the composition of the Organization has changed and no longer meets the definition established for SBE certification.

CITY OF ORLANDO

December 1, 2017

Ms. Barbara Horton
Horton Lees Brogden Lighting Design Inc.
38 E. 32nd Street
11th Floor
New York, NY 10016

e-mail: ecantavella@hlblighting.com

SUBJECT: CITY OF ORLANDO M/WBE CERTIFICATION AWARD LETTER

Dear Ms. Horton:

We are pleased to inform you that Horton Lees Brogden Lighting Design Inc. has been certified as a WBE by the City of Orlando. This certification is valid until 11/30/2019. This Certification is specifically for the approved line(s) of business specified and does not automatically certify your company in any other commodity or service. Horton Lees Brogden Lighting Design Inc. will be listed in the City of Orlando's MWBE Directory with the certified line(s) business listed on the following page. The directory can be accessed via the City's internet at link provided below.

https://cityoforlando.mwdbe.com/directory.asp

As a condition of continued certification you must file a Re-Certification Application not less than sixty (60) days prior to the date of expiration of the existing certification. Failure to file this application will result in the termination of your certification. However, if at any time the ownership, control, location and/or minority/women-owned business status of your firm changes, the City of Orlando MBE Official should be notified immediately of the changes.

Please be advised that all M/WBE provisions of Chapter 57, Articles II & III of the Code of the City of Orlando must be maintained in order for your firm to retain its M/WBE Certification status. Be advised that failure to maintain compliance with the above noted requirements will result in termination of certification.

Your firm's participation on City of Orlando contracts will be credited only toward WBE goals for the certified line(s) of business listed. While your participation on City of Orlando contracts is not limited to your certified line(s) of business, credit towards WBE goals will be given only for work done in the area(s) which your firm is certified for.

Thank you for your continued interest in the City of Orlando's program.

Sincerely,

Bruno Portigliatti

Bruno Portigliatti, Chairman Certification Board

EXECUTIVE OFFICES • MINORITY BUSINESS ENTERPRISE AND BLUEPRINT DIVISION
Orlando City Hall · 400 South Orange Avenue · Eighth Floor
PO Box 4990 · Orlando, FL 32802-4990
P 407.246.2623 · F 407.246.0000 · cityoforlando.net

TY LIN INTERNATIONAL

LITIGATION

As with any national professional service organization the size of T.Y. Lin International (the "Company"), it is, from time to time, involved in litigation and administrative actions. At any one time, the Company may have multiple proceedings pending, alleging a variety of legal theories and involving a number of types of parties. However, the Company has substantial liability insurance to protect itself from such proceedings 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 been involved with the following claims and litigation during the past five (5) years.

Date Filed	Parties	Project	Claim Reason	Court Name	Final Outcome
09/18/18	Kenneth Jackson v Sidney Thomas et al	McDonalds, McCalla Alabama	Wrongful death caused by alleged failure to maintain premises in safe condition	Circuit Court of Jefferson County, Alabama	Ongoing
08/14/18	Multhomah County (Fourth-Party Plaintiff) v T.Y. Lin International	Sellwood Bridge	Alleged defects in design and work related to Sellwood Bridge.	Circuit Court of the State of Oregon, County of Multnomah	Ongoing
02/26/18	Frances C. Hinnant vs. RTM Operating Company	Arby's Restaurant, Durham, NC	Slip and fall; alleged design negligence	Durham County General Court of Justice, NC	Ongoing
11/16/17	Christopher Mendoza v. City of Chicago, etc., et al.	Streets for Cycling	Personal Injury allegedly caused in part by TYLI's negligence, errors and omissions.	Circuit Court of Cook County, State of Illinois	Ongoing
08/09/17	Edyta Tucharski, Individually and as Independent Administrator of the Estate of Konrad Tucharski v. T.Y. Lin International Group	Sewer project for Chicago Department of Water Management.	Work site fatality on project for Chicago Dept. of Water Management	Circuit Court of Cook County, State of Illinois	Ongoing
01/09/15	Kiewit/Flatiron General Partnership, Mc Nary Bergeron & Assoc LLC., Sani Engineering Ltd, International Bridge Technologies Canada Inc., International Bridge Technologies Inc.	Port Mann Bridge	Subrogation claim by property insurer of Kiewit/Flatiron General Partnership.	British Columbia Supreme Court (Vancouver Register)	Settled

Date Filed	Parties	Project	Claim Reason	Court Name	Final Outcome
02/02/2017	Riverside County Transportation /Maria Vera	I-10 / Jefferson Street	Fatal vehicle accident; alleged negligence	Riverside Superior Court – Palm Springs, CA	Dismissed
11/04/2016	Darlene L. Pawlikowski and Alred - 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.,	Walmart	Fourth Party Complaint against TYLI alleging breach of contract and negligence	Supreme Court of The State of New York County of Niagara	Ongoing
04/25/2016	Joseph Moisant, SANDAG, TYLI, Shgabram Elihu dba Blue Pacific Engineering & Construction, Does 1-25	SANDAG East Harbor Drive Bayshore Bikeway	Bicycle accident due to alleged inappropriate repair, maintenance or design of cycling track	Superior Court of CA, County of San Diego, Central Division	Ongoing
04/01/2016	Robert S. Wise/ MTA/NYCT/TYLI	Stillwell Avenue Flood Repairs	Personal injury on work site; alleged negligence	City of NY Supreme Court, Kings County	Ongoing
02/01/2016	Sherod Hill v. The city of Newark, PSE&G, New Community Corp., English Paving Company, Inc., T.Y. Lin, John Does 1-5, XYZ Corp. 1-5	Newark Avenue Streetscape Improvements	Personal injury; alleged negligence	Superior Court of New Jersey	Settled
05/06/2015	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	County of Ontario	Fatal motor vehicle accident involving an allegedly hazardous and improper guide rail system.	State of New York Supreme Court (Ontario County)	Ongoing
04/17/2015	Burke Construction Group Inc. v. The School Board of Broward County	Sheridan Tech Center	Contractor claims against owner and others. Third Party Complaint filed against TYLI.	Circuit Court for the 17th Judicial Circuit in and for Broward County, Florida	Settled

Date Filed	Parties	Project	Claim Reason	Court Name	Final Outcome
04/09/2015	Mark Carter v. T.C. Construction Company, Inc.; Scott Wyckoff, et. al.	Woodside Ave. flood control improvements	Personal injury of pedestrian walking in construction zone; alleged negligence	Superior Court of California (San Diego County)	Dismissed
09/03/2014	Skanska-Shimmick-Herzog JV V. LAN/TYLIN JV; Lockwood, Andrews & Newnam, Inc., TYLI	BART Silicon Valley Berryessa Extension	Alleged design negligence	Superior Court of the State of California (Santa Clara County)	Ongoing
08/29/2013	Christopher and Lori O'Rourke, City of North Tonawanda, DiMarco Contractors LLC, T.Y. Lin International Engineering Architecture & Land, American Paving & Excavation Inc., Wal-Mart Realty Company, and Wal-Mart Stores Inc.	Walmart, City of North Tonawanda	Personal injury; alleged negligence		Dismissed with prejudice
02/07/2013	Allied Aviation LLC, Allied Aviation Fueling of Miami, Advanced Fire Systems Inc., AON Fire Protection Engineering Corp., DFG Consulting Engineers, Inc., Dynalectric Company, Hansa consult of North America, Underground Construction Company Inc.	MIA Cargo Drain Line	Fire at MIA Tank Farm – design emergency shutdown system	Circuit Court of the 11th Judicial Circuit in and for Miami-Dade County, Florida	Dismissed with prejudice
11/12/2012	Lunda Construction, McNary Bergeron & Ass.	Lowry Avenue Bridge	Alleged delays and Inefficiencies.	N/A	Resolved
09/15/2014	Arthur Beauchamp; Jacqueline P. Brown v. Medina Consultants, et al	Passaic Valley Water Comm	Compensation demand for corrupt management of watershed and water delivery system of City of Newark by NWCDC	N/A	Resolved
06/19/2015	Dragados USA/FDOT	State Route 23	Alleged damages suffered and incurred by DUSA as a result of TYLI's delayed delivery of design services	N/A	Ongoing
10/15/2015	SEMA Construction	Veterans Expressway	Delays on Construction due to alleged design issues causing stacking of	N/A	Ongoing

Date Filed	Parties	Project	Claim Reason	Court Name	Final Outcome
			bridge/roadway work.		
02/26/2016	Lusail Real Estate Development Company	Lusail Bridge	Damaged cables on 4A Bridge	N/A	Ongoing
05/22/2017	Kiewit Infrastructure West Co, Kiewit-Hoffman East Link Constructors (JV) and Designer: TYL	OTC Parking Garage – Kiewit-Hoffman JV	Damaged cables on 4A Bridge	N/A	Ongoing
02/28/17	Arizona Dept. of Transportation (ADOT)	Maryland Avenue Bridge	Alleged design errors	N/A	Resolved
11/22/2017	Flatiron-Zachry	I-85 and I-385 Bridge Interchange	Alleged design errors	N/A	Ongoing

TY LIN INTERNATIONAL

City Forms

CORPORATE AUTHORIZATION

Josseph Yesbeck, Vice President of T.Y. Lin International (the "Corporation"), a California corporation, is a duly elected and appointed officer of the Corporation and holds full corporate authority to enter into any contracts and execute Bid Forms on behalf of the Corporation.

In witness whereof, I have caused this instrument to be executed and the corporate seal to be hereunto affixed on the 5th day of February 2018.

T.Y. LIN INTERNATIONAL

By: _____
Veronica Fennie
Assistant Secretary

ACORD®

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 10/23/2018

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

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

PRODUCER Dealey, Renton & Associates License # 0020739 P. O. Box 12675 Oakland CA 94604-2675	**CONTACT NAME:** Nancy Ferrick **PHONE (A/C, No, Ext):** 510-465-3090 **FAX (A/C, No):** 510-452-2193 **E-MAIL ADDRESS:** nferrick@dealeyrenton.com
INSURED TYLININTE1 T. Y. Lin International 345 California Street, Ste. 2300 San Francisco CA 94104	**INSURER(S) AFFORDING COVERAGE** / **NAIC #** **INSURER A :** National Fire Insurance Co of Hartford 20478 **INSURER B :** Continental Insurance Company 35289 **INSURER C :** Valley Forge Insurance Company 20508 **INSURER D :** Aspen American Insurance Company 43460 **INSURER E :** **INSURER F :**

COVERAGES **CERTIFICATE NUMBER:** 1481463621 **REVISION NUMBER:**

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

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X **COMMERCIAL GENERAL LIABILITY** [ ] CLAIMS-MADE [X] OCCUR X Contractual Liab X Cross Liab. GEN'L AGGREGATE LIMIT APPLIES PER: [ ] POLICY [X] PRO-JECT [ ] LOC [ ] OTHER:	Y	Y	6056538518	3/1/2018	3/1/2019	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 $
B	**AUTOMOBILE LIABILITY** X ANY AUTO [ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS X HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY [ ]	Y	Y	6045854867	3/1/2018	3/1/2019	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 $	Y	Y	6056538549	3/1/2018	3/1/2019	EACH OCCURRENCE AGGREGATE [ ]	$ 5,000,000 $ 5,000,000 $
A C	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** Y / N ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? [N] **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below	N / A	Y	6056808508 6056809061	3/1/2018 3/1/2018	3/1/2019 3/1/2019	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			LRA9P0118	3/1/2018	3/1/2019	$1,000,000 $1,000,000	per Claim Annual Aggregate

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

FOR PROPOSALS. An Actual Certificate will be issued upon the request of the Named Insured.

CERTIFICATE HOLDER

****SAMPLE CERTIFICATE****

CANCELLATION 30 Days Notice of 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

Ted 15

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