



Florida Department of Transportation

**RICK SCOTT
GOVERNOR**

605 Suwannee Street
Tallahassee, FL 32399-0450

**MIKE DEW
SECRETARY**

July 6, 2018

Manuel A. Benitez, PE, President
METRIC ENGINEERING, INC.
13940 SW 136th Street, Suite 200
Miami, Florida 33186

Dear Mr. Benitez:

The Florida Department of Transportation has reviewed your application for prequalification package and determined that the data submitted is adequate to technically prequalify your firm for the following types of work:

- Group 2 - Project Development and Environmental (PD&E) Studies
- Group 3 - Highway Design - Roadway
 - 3.1 - Minor Highway Design
 - 3.2 - Major Highway Design
 - 3.3 - Controlled Access Highway Design
- Group 4 - Highway Design - Bridges
 - 4.1.1 - Miscellaneous Structures
 - 4.1.2 - Minor Bridge Design
- Group 6 - Traffic Engineering and Operations Studies
 - 6.1 - Traffic Engineering Studies
 - 6.2 - Traffic Signal Timing
 - 6.3.1 - Intelligent Transportation Systems Analysis and Design
 - 6.3.2 - Intelligent Transportation Systems Implementation
 - 6.3.3 - Intelligent Transportation Traffic Engineering Systems Communications
 - 6.3.4 - Intelligent Transportation Systems Software Development
- Group 7 - Traffic Operations Design
 - 7.1 - Signing, Pavement Marking and Channelization
 - 7.2 - Lighting
 - 7.3 - Signalization
- Group 9 - Soil Exploration, Material Testing and Foundations
 - 9.1 - Soil Exploration
 - 9.4.1 - Standard Foundation Studies

- Group 10 - Construction Engineering Inspection
 - 10.1 - Roadway Construction Engineering Inspection
 - 10.3 - Construction Materials Inspection
 - 10.4 - Minor Bridge & Miscellaneous Structures CEI
 - 10.5.1 - Major Bridge CEI - Concrete
 - 10.5.2 - Major Bridge CEI - Steel

- Group 13 - Planning
 - 13.4 - Systems Planning
 - 13.5 - Subarea/Corridor Planning
 - 13.6 - Land Planning/Engineering
 - 13.7 - Transportation Statistics

Your firm is now technically prequalified with the Department for Professional Services in the above referenced work types. The overhead audit has been accepted, and your firm may pursue in the referenced work types with fees of any dollar amount. This status shall be valid until June 30, 2019 for contracting purposes.

Approved Rates

Home/ Branch Overhead	Field Overhead	Facilities Capital Cost of Money	Premium Overtime	Reimburse Actual Expenses	Home Direct Expense	Field Direct Expense
156.01%	106.64%	0.090%	Excluded	No	5.75%	26.25%*

*Rent and utilities excluded from field office rate. These costs will be directly reimbursed on contracts that require the consultant to provide field office.

Should you have any questions, please feel free to contact me by email at carliayn.kell@dot.state.fl.us or by phone at 850-414-4597.

Sincerely,

Carliayn Kell
Professional Services
Qualification Administrator



Raul Driggs, Ph.D., PE

Senior Engineer

TECHNICAL EXPERTISE

Traffic Engineering
Transportation Planning and
Environment Studies
QA/QC

YEARS OF EXPERIENCE

46 Years

PROFESSIONAL REGISTRATION

Florida P.E. #17218 (1973)

EDUCATION

PhD, Transportation Engineering,
University of Miami (1994)
M.S.C.E. (Traffic), Villanova
University (1971)
B.S.C.E., University of Miami (1966)

OFFICE LOCATION

Miami, FL

PROFESSIONAL PROFILE

Mr. Driggs has directed or actively participated in numerous projects in the fields of Traffic Engineering, Transportation Planning and Environment Studies. He currently serves as Metric's QA/QC Manager.

REPRESENTATIVE PROJECTS

SR 874 (Don Shula Expressway) Ramp Connector PD&E Study for Miami-Dade Expressway Authority in Miami-Dade County: PD&E Study (2.5 miles) to evaluate a potential new ramp connection from SR 874 (Don Shula Expressway) to SW 128th Street. This new ramp connection would provide an additional expressway access and mobility to the area. The study identified potential corridors and alignments as well as potential environmental impacts to Florida Forever Conservation lands.

I-395 PD&E Study in Miami-Dade County for FDOT District 6: The PD&E Study entailed the preparation of EIS for a proposal to improve I-395 in Miami-Dade, Florida. The proposed improvement would involve the reconstruction of I-395 from I-95/Midtown Interchange to Biscayne Bay, a distance of 1.2 miles. Improvements to the corridor are considered necessary to provide for the existing and projected traffic demand. Alternatives consideration included elevated reconstruction with ramps at

Midtown Interchange; elevated reconstruction with ramps at Miami Avenue; a tunnel design and an open-cut design (depressed expressway). Due to community opposition, MEI held over 150 meetings with the public and stake holders which led to public approval and LDCA.

SR 836 (Dolphin Expressway) PD&E Study from NW 17th Avenue Interchange to Midtown Interchange in Miami-Dade County for FDOT District 6 (SIS & FIHS Facility) The project involved the potential realignment, capacity and geometric improvements to SR 836, an elevated expressway that traverses approximately 1.4 miles within the City of Miami. More specific improvements potentially involved the provision of a minimum of six continuous mainline lanes and the provision of parallel collector distributor facilities. The project was developed following the ETDM methodology. The project was screened via the EST by the ETAT members; constant communication with them throughout the duration of the study to ensure a buildable and permitable project at the completion of the study.

South Dade Busway Extension, Miami-Dade, Florida – Final design of a new 6.5 exclusive Busway Extension from SW 264th Street to SW 344th Street, plus an additional 1 mile section of bicycle path from SW 344th to US-1, traversing unincorporated Miami-Dade County, and the cities of Homestead and Florida City. The complex nature of the signalized intersections (since there several adjacent intersections next to the Busway's corridor) necessitated close coordination with government agencies.

I-95 from Just South of Donald Ross Road to South of Canal C-18 in Palm Beach County – Final Design plans (including traffic operations) for a new diamond interchange.

Palmetto Expressway at Okeechobee Road and South River Drive, Section 10, Dade County, FDOT District 6 – Final design services for the reconstruction and widening of a 1.9 km section of the Palmetto Expressway including an interchange at South River Drive and Okeechobee Road. Responsible for the preparation of the construction documents for traffic control plans, signing and pavement markings, signalization and roadway lighting.

Suncoast Parkway/SR 589 Section 1A, Hillsborough County, FDOT Turnpike District – Final design of a limited access highway including a system to system connection with the Veteran's Expressway, and partial interchange with Van Dyke Road. Responsible for the preparation of the construction documents for traffic control plans, signing and pavement markings, signalization and roadway lighting.

Polk Parkway - Section 6, FDOT Turnpike District – Final design for a new multi-lane section of approximately 4.26 miles of the proposed Polk Parkway, including two interchanges. Responsible for the preparation of the construction documents for traffic control plans, signing and pavement markings, signalization and roadway lighting.

SR 924/Gratigny Parkway from I-75/SR 826 Interchange to NW 62nd Avenue Design Build, Miami-Dade County for MDX – Widening, milling, and resurfacing; six-laning of existing one-mile long, 4-lane segment including signing & pavement markings, and MOT.

SR 836 from NW 107th Avenue to NW 87th Avenue Design Build, Miami-Dade County for MDX – Final Design of the widening of SR 836's mainlines and improvements to off-system ramps and intersections at NW 107th Avenue and NW 87th Avenue including signalization, signing & pavement marking, MOT, and lighting plans.

Raul Driggs, Ph.D., PE

Senior Engineer

Airport Expressway Connector from Main Entrance to MIA to SR 112 – This project consisted of providing final design for a partly elevated, partly at-grade connector between the SR 112 - LeJeune Road interchange and the main entrance to Miami International Airport, within the airport's clear landing zone; construction was phased in order not to affect the airport's operations and to maintain traffic along SR 112 and LeJeune Road. Complete airport airside and landside interface and coordination services were provided, including glide path obstruction review, airport utilities, airport drainage, lighting, access roads, parking, etc. Responsible for the preparation of the construction documents for traffic control plans, signing and pavement markings, signalization and roadway lighting.

West Flagler Street Form West 42nd Avenue to West 72nd Avenue, Miami, Florida – Complete final design plans for a six lane widening of this important urban arterial in Miami. Services included the provision of signalization, lighting and signing, and pavement marking plans.

Blue Heron Boulevard (SR 708) from Military Trail to I-95, Palm Beach County for FDOT District 4 – Final design of the widening and reconstruction of an urban arterial from a 4-lane to a 6-lane facility. Design services included the preparation of the construction documents for traffic control plans, signing & pavement markings, and signalization plans.

Sample Road (SR 843) from Powerline Road to Military Trail, Broward County for FDOT District 4 – Final design phase of the reconstruction of Sample Road from a 4-lane facility to a 6-lane facility. Design services included the preparation of the construction documents for traffic control plans, signing and pavement markings, signalization and roadway lighting.

SW 137th Avenue/Tallahassee Road/Speedway Boulevard from SW 336th Street to HEFT/ SR 821 Interchange, Miami-Dade County for the City of Homestead in conjunction with FDOT District 6 and Dade County Public Works – Final Design of a four-mile two-lane rural arterial to a four-lane urban section with future capacity for a six-lane section. The project runs parallel to the Homestead Air Force Base and the new Homestead Motorsports Complex, just south of SW 336 Street. Responsible for the preparation of the construction documents for traffic control plans, signing and pavement markings, signalization and roadway lighting.

Florida's Turnpike Interchange at Commercial Boulevard PD&E Study (SR 870) in Broward County for FDOT Turnpike District: Involved the revamping of an existing substandard trumpet interchange serving a highly congested major arterial facility. Over 30 different interchange configurations were generated and evaluated including the provision of a "system concept" with contiguous collector-distributor and additional interchange facilities. **Florida's Turnpike Interchange at Forest Hill Boulevard in**

Palm Beach County for FDOT Turnpike District – PD&E study for limited access toll facility and replacement of substandard bridge over Turnpike. Study included the analyses and reporting of traffic, safety, engineering, and environmental impacts as well as preliminary highway plan preparation and a comprehensive public involvement program)

Florida's Turnpike Interchange at Southern Boulevard (SR 80) in Palm Beach County for FDOT Turnpike District – PD&E study for limited access toll facility and replacement of Turnpike bridges over SR 80. Study included the analyses and reporting of all environmental issues including permit coordination, noise and air quality, and contamination documentation as well as a comprehensive public involvement.

SR 836/I-395 Widening and Reconstruction from just West of NW 17th Avenue to the MacArthur Causeway Bridge in Downtown Miami for FDOT District 6 – Study required a comprehensive PD&E analysis for widening SR 836 and I-395. Along I-395, several interchange alternatives were considered including an open-cut tunnel section at Biscayne Boulevard in Downtown Miami. The project also included potential interchange modifications at I-95 and other minor interchange locations along the SR 836 and I-395 corridors. Reports included a traffic technical memorandum, existing conditions report, alternatives considered report and preliminary engineering report. The project involved a very dynamic public involvement program including active coordination with local government planning agencies, civil activist groups and affected community representatives.



ALEXANDER M. GORGAS, PE

Project Manager

PROFESSIONAL PROFILE

TECHNICAL EXPERTISE

Highway Design
Project Management

YEARS OF EXPERIENCE

20 Years

PROFESSIONAL REGISTRATIONS

Professional Engineer – FL#
69946 (2009)

ASSOCIATIONS

Member - American Society of
Civil Engineers

EDUCATION

B.S.C.E., Florida International
University (1996)

Mr. Gorgas serves currently as Metric's South Florida Roadway Manager. Mr. Gorgas has significant experience in the design of major engineering projects, and has lead the plans production efforts on several of these projects. His experience includes complex roadway design, project management, and QC on over 10 major roadway projects including I-595, HEFT/SR 874, and SR-968.

REPRESENTATIVE PROJECTS

Districtwide Traffic Engineering Support Services Consultant, FDOT District 6: Perform miscellaneous Maintenance of Traffic (MOT) support services within work zones including, but not limited to (1) providing real time traffic monitoring and traffic data collection (2) implementation of smart technologies and concepts (3) signal timing support (4) reviewing MOT Plans and determining the need of the detailed analysis of MOT impacts (5) analysis of MOT alternatives (6) Traffic simulation and modeling of MOT alternatives (7) Coordination with traffic signal maintaining agencies, FDOT offices, and other public agencies (8) providing the data collection and analysis of traffic prior to the beginning of project construction (9) Miscellaneous activities to support the District traffic operations office such as traffic operations studies, coordination with municipalities and other agencies. This TWO based contract was initially utilized to develop travel time thresholds and monitor travel times for the SR 826 / I-75 Express Lanes Design Build Project. Additional tasks under this contract have included review of: PD&E

Traffic Analysis Methodology, Interchange Justification Report MLOU, Signalization & Signing & Pavement Marking Plans, Traffic Control Plans, Roadway Plans, PD&E Preliminary Engineering Reports; and Final Field Inspections related to Traffic Control. *Client: FDOT District 6, Contact: Jacques Defrant, PE (305) 470-5385, Begin/End Dates: October 2013 – October 2018, Role: Design Engineer, Plans Review*

Districtwide Miscellaneous Design Consultant, Miami-Dade County, FDOT District 6: This task work order based contract includes several minor design projects in Miami-Dade County. The scope of work included milling and resurfacing (both Pavement Only Projects and Resurfacing, Restoration and Rehabilitation projects), ADA upgrades, signalization, and signing and pavement marking. Metric staff worked closely with FDOT as well as government officials from the affected municipalities. Public involvement was most extensive on our Miami Beach project as the intersection improvements affected several existing on-street parking spaces. *Client: FDOT D6, Contact: Ana Arvelo, PE, P: (305) 470-5210, Begin/End Dates: 2011 – 2018, Role: Project Manager and EOR*

- **Alton Road at Michigan Avenue, Miami Dade County, FL:** Resurface, Restoration and Rehabilitation (RRR), widening to provide paved shoulders, and upgrades to signing and pavement markings and signals. 1.42 miles. *Client: FDOT District 6, Contact: Ana Arvelo, PE, Begin/End Dates: December 2012 – Ongoing, Role: Project Manager and EOR*
- **Districtwide Roadway Plans Review, Miami-Dade County, FDOT District 6:** Responsible for the plan preparation of multiple Signing and Pavement Marking projects for FDOT 6. *Client: FDOT D6, Contact: Harold Desdunes, Phone: 305-470-5355, Length of Corridor: 10.0 miles, Start/End Dates: 2001-2005, Role: Design Engineer*

Districtwide Miscellaneous Design Consultant, Broward, Palm Beach, Martin, and St. Lucie Counties, FDOT District 4: TWOs consisted of the following responsibilities: milling and resurfacing, signing and pavement markings, safety modifications, curb ramp/ADA upgrades, drainage repairs, signalization, ITS, lighting, landscaping, and upgrades, and preparation of Design-Build Criteria Packages.

- **Las Olas Drainage Repair from Isle of Capri to W. of ICWW.** Prepare plans for the drainage repairs. *Client: FDOT District 4, Contact: Thuc Le, PE, Begin/End Dates: October 2012 – Ongoing, Role: Project Manager*

City of Miami Miscellaneous Civil Engineering Services, City of Miami: This task work order base contract involves planning and design services, pavement analysis, surveying, roadway analysis, geotechnical, options evaluations, public meetings, detailed assessments and recommendations, cost estimates, opinions of probable construction cost, review of work prepared by Sub-consultants and other consultants, field investigations and observations, post design services, construction administration, and other related Services. *Client: City of Miami, Contact: Jose Lago, PE (305) 416-1251, Begin/End Dates: April 2014 – Ongoing, Role: Project Manager*

SR 5/US-1/S. Dixie Highway from Riviera Dr. to SW 27 Avenue, Miami-Dade County, FDOT District 6: The purpose of this project is design roadway improvements which include: mill and resurface the existing pavement; upgrade signing and pavement markings to meet current MUTCD, TEM, and FDOT standards; upgrade pedestrian ramps and detectable warning devices to meet standards; adjust existing utility manholes and valves; upgrade pedestrian signals; check mast arm offsets and vertical clearance deficiencies; and re-install vehicle sensor loops to extend the service life of the existing highway and enhance safety. *Client: FDOT D6, Contact: Adriana Manzanares, (305) 470-5283, Begin/End Dates: April 2017 – Ongoing, Role: Project Manager*

ALEXANDER M. GORGAS, PE

Project Manager

SR-968 / SW 1st Street from SW 17th Avenue to SW 6th, Miami-Dade County, FDOT District 6: Responsible for plan preparations for reconstruction and milling and resurfacing of SW 1st Street in Miami-Dade County. Reconstruction of a highly-urbanized roadway section through Little Havana in the City of Miami from SW 17th Street to SW 6th Street (MP0.791 – MP1.954) (1.5 miles). *Client: FDOT D6, Contact: Adriana Manzanares, Phone: 305-470-5283, Start/End Dates: 2011 – 2016, Role: Project Manager & Engineer of Record*

Hurricane Wash Out Repairs, Monroe County, FL, FDOT 6: Design Engineer responsible for plan preparations for an emergency contract for storm damage to existing roadway. Including computation book / quantities and cost estimates. *Contact: Mr. Juan Santandreu, Begin/End Dates: 2006-2008, Role: Design Engineer*

HEFT/SR 874 Design-Build Project for Florida's Turnpike, Miami-Dade County, FDOT District 6: Design and plans preparation on Segment 4 of the HEFT/SR 874 DB project. Roadway improvements consisted of widening of SW 117 Ave, SW 152 St and the Northbound and Southbound Frontage Roads to accommodate additional turn lanes as part of the improvements at the HEFT interchange with SW 117 Ave and SW 152 St. Additional services included drainage (French drain designs), signing and pavement markings, and signalization. Coordinated with various agencies including FDOT District 6, Miami-Dade Public Works, Miami-Dade Transit and the South Florida Water Management District. *Client: BCC Engineering, Inc., Contact: Anthony Jorge, (305) 670-2350, Begin/End Dates: November 2014 – Ongoing, Role: EOR*

South Roosevelt Boulevard (US 1) from Bertha Street to Sta. 41+10, City of Key West: Responsible for the preparation of the roadway and signing and pavement markings plans for this 0.9-mile project which includes a complete roadway reconstruction with new drainage and lighting for a major four lane facility in the City of Key West. This project includes the design of a new shared used path. *Client: City of Key West, Contact: Mr. Roland Flowers (305) 809-3975, Begin/End Dates: April 2005-Ongoing, Role: Project Engineer*

I-95 and Spanish River Boulevard Interchange, Palm Beach County, FDOT District 4: Responsible for plan preparation for 2 level Interchange at Spanish River Blvd & I-95 in Boca Raton, FL. This project includes the construction a new interchange, modification 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). This improvement will provide connectivity between FAU, Tri-Rail and I-95 to daily congestion as well as event traffic generated during events held at the newly constructed FAU stadium. *Client: FDOT D4, Contact: Ron Wallace, Phone: 954-777-4641 Length of Corridor: 3.5 miles Start/End Dates: 2011 – 2013, Role: Project Engineer*

I-595/SR 862 from I-75/SR93 to I-95/SR9 & SR91 (Florida Turnpike) from Griffins to Peters Rd. Interchange, Design/Build, Broward County, FDOT District 4: Horizontal Alignments, Vertical Alignments, Graphic Grades, Super Elevations, and Special Profiles for Zones 3, 8a, and 8b. *Client: Broward County Engineering, Contact: Joe Borello, Phone: 954-777-4197 Length of Corridor: 10.5 miles Start/End Dates: 2009 – 2011, Role: Discipline Engineer Reviewer.*

SR 5 (US 1) from Sample Road to Hillsboro Blvd., Broward County, FDOT District 4: Responsible for milling and resurfacing of approximately three miles of municipal highway from Sample Rd. to Hillsboro Blvd. Responsibilities included Plans Preparation, computation book preparation, signal and PTMS design. *Client: FDOT D4, Contact: Sonny Abia, Phone: 954-777-4300, Length of Corridor: 3.0 miles, Start/End Dates: 2006 – 2008, Role: Design Engineer*

SR 7 (US 441) from Orange Drive to I-595, Broward County, FDOT District 4: Responsible for milling and resurfacing of approximately one mile of municipal highway from Orange Drive to I-595. Responsibilities included Plans Preparation, computation book preparation, signal and PTMS design. *Client: FDOT D4, Contact: Leslie Wetherell, Phone: 954-777-4300, Length of Corridor: 1.0 miles, Start/End Dates: 2007-2009, Role: Design Engineer*

Florida Turnpike from Boca Raton Interchange to Delray Interchange, Palm Beach County, FDOT District 4: Responsible for roadway and drainage design for the 5.3 mile widening improvement from four to six lanes. Responsibilities included drainage design, highway geometric and estimate of quantities. *Client: FDOT D4, Contact: Jay Nagle, Phone: 954-934-1276, Start/End Dates: 1998 – 2000, Role: Civil Engineer*

SR-5 / US 1 from South Street to Magnolia/Shangri-La Drive, Volusia County, FDOT District 5: Responsible for the roadway improvements which include milling and resurfacing, construction of missing sidewalk on both sides of the roadway, connections to boarding and alighting areas at the bus stops, the addition of designated bike lanes with key holes at right turn lane, TMS reconstruction, and upgrading or replacing of guardrails on the rural roadway section on SR 5/ US 1 from South Street to Magnolia/Shangri-La Drive (approx. 8.1 miles). *Client: FDOT D5, Contact: Leonel Cortes, Phone: 386-740-3408, Start/End Dates: 2015 – 2016, Role: Project Manager*



ARMANDO J. AGUIAR, PE

Roadway Engineer

PROFESSIONAL PROFILE

Mr. Aguiar is experienced in a wide variety of engineering areas. He has seven (7) years of experience working with design procedures utilizing plans, architects sketch, codes, and standards. Proficient with FDOT Plan Preparation Manual (PPM), FDOT Design Standards, and Construction Specifications and Construction Project Administration Manual-CPAM, MDWASD Standard specifications, Florida Building Code, and other state and local municipalities design standards and construction specifications. Developed and prepared contract plans, ensured plans and specifications were in accordance with design criteria, policies and procedures. Prepared and assembled roadway plans, signing and pavement marking plans, typical section packages and utility conflicts-adjustment plans/matrices. Created alignments, profiles, and grades, horizontal and vertical design. Created MOT plans, and itemized quantities and estimates and scopes on different roadway jobs. Experienced with FDOT QC/QA reviews for final estimates process, ERC system, and right of way (ROW) acquisition procedures. Employed programs such as Auto CAD Civil 3D, Micro Station with GEOPAK and has been part of the design team in two 3D modeling jobs. He has his Advanced MOT Certification.

REPRESENTATIVE PROJECTS

Districtwide Traffic Engineering Support Services Consultant, FDOT District 6: Perform miscellaneous Maintenance of Traffic (MOT) support services within work zones including, but not limited to (1) providing real time traffic monitoring and traffic data collection (2) implementation of smart technologies and concepts (3) signal timing support (4) reviewing MOT Plans and determining the need of the detailed analysis of MOT impacts (5) analysis of MOT alternatives (6) Traffic simulation and modeling of MOT alternatives (7) Coordination with traffic signal maintaining agencies, FDOT offices, and other public agencies (8) providing the data collection and analysis of traffic prior to the beginning of project construction (9) Miscellaneous activities to support the District traffic operations office such as traffic operations studies, coordination with municipalities and other agencies. This TWO based contract was initially utilized to develop travel time thresholds and monitor travel times for the SR 826 / I-75 Express Lanes Design Build Project. Additional tasks under this contract have included review of: PD&E Traffic Analysis Methodology, Interchange Justification Report MLOU, Signalization & Signing & Pavement Marking Plans, Traffic Control Plans, Roadway Plans, PD&E Preliminary Engineering Reports; and Final Field Inspections related to Traffic Control. *Client: FDOT District 6, Contact: Jacques Defrant, PE (305) 470-5385, Begin/End Dates: October 2013 – October 2018, Role: Design Engineer, Plans Review*

HEFT/SR 874 Design-Build Project for Florida's Turnpike, Miami-Dade County, FDOT District 6: Design and plans preparation on Segment 4 of the HEFT/SR 874 DB project. Roadway improvements consisted of widening of SW 117 Ave, SW 152 St and the Northbound and Southbound Frontage Roads to accommodate additional turn lanes as part

of the improvements at the HEFT interchange with SW 117 Ave and SW 152 St. Additional services included drainage (French drain designs), signing and pavement markings, and signalization. Coordinated with various agencies including FDOT District 6, Miami-Dade Public Works, Miami-Dade Transit and the South Florida Water Management District. *Client: BCC Engineering, Inc., Contact: Anthony Jorges, (305) 670-2350, Begin/End Dates: November 2014 – Ongoing, Role: EOR*

SR 5/US-1/S. Dixie Highway from Riviera Dr. to SW 27 Avenue, Miami-Dade County, FDOT District 6: The purpose of this project is design roadway improvements which include: mill and resurface the existing pavement; upgrade signing and pavement markings to meet current MUTCD, TEM, and FDOT standards; upgrade pedestrian ramps and detectable warning devices to meet standards; adjust existing utility manholes and valves; upgrade pedestrian signals; check mast arm offsets and vertical clearance deficiencies; and re-install vehicle sensor loops to extend the service life of the existing highway and enhance safety. *Client: FDOT D6, Contact: Adriana Manzanares, Ph: (305) 470-5283, Begin/End Dates: April 2017 – Ongoing, Role: Highway Designer*

South Roosevelt Boulevard (US 1) from Bertha Street to End of Smathers Beach, City of Key West: Responsible for the preparation of the roadway and signing and pavement markings plans for this 0.9 -mile project which includes a complete roadway reconstruction with new drainage and lighting for a major four lane facility in the City of Key West. This project also includes the design of a new shared used path. *Client: City of Key West, Contact: Nathan Pulido, Ph: (305) 470-5207, Begin/End Dates: April 2005-Ongoing, Role: Project Engineer*

TECHNICAL EXPERTISE

Roadway Design
Signing & Pavement Markings
MOT Plans

YEARS OF EXPERIENCE

7 Years

PROFESSIONAL REGISTRATIONS

Professional Engineer – FL # 84075
(2017)

CTQP No.: A260001087

ACI No.: 01253169

CERTIFICATIONS/TRAINING

Intermediate MOT

Advanced MOT

AASHTO Roadside Design

Concrete Field Tech Level 1

Asphalt Paving Level 1

Earthwork Level 1

Troxler Certified Nuclear Density

Gauge Operator

OTHER

Florida Army National Guard CPT
(03)

(Currently serves as Battalion S-3
Current Operations Planner in
charge).

EDUCATION

B.S.C.E., Florida International
University (2009-2012)

A.A.C.E., Miami-Dade College
(2007-2009)

I.B.O.L.C. (Infantry Basic Officer
Leader's Course 01/2013-7/2013)

ARMANDO J. AGUIAR, PE

Roadway Engineer

SR 25 /US-27 / Okeechobee Rd from E. of NW 116 Way (MP 8.146) to E. of NW 87 Ave (9.340) in Miami-Dade County (Sub to BCC Engineering): Reconstruction of SR-25/ US-27/ Okeechobee Road using rigid pavement from MP 8.146 to MP 9.340. Includes design of bridges for grade separation of Okeechobee Rd. over NW 87 Ave., design of left turn lanes flyover bridge from Southbound NW 87 Ave to Eastbound Okeechobee Rd and from Northbound NW 87 Ave to Westbound Okeechobee Rd., construction of a new bridge at NW 106 St over the Miami (C-6) Canal. Metric's role includes the preparation of roadway and signing and pavement marking plans for the reconstruction of NW South River Dr. and NW 87th Avenue. *Client: BCC Engineering, Inc., Contact: Oscar Oliva, Ph: (305) 670-2350, Begin/End Dates: August 2016 – Ongoing, Role: Project Engineer*

NW 2nd Avenue from NW 38th Street to NW 54th Street, City of Miami: Responsible for the preparation of the roadway plans Rework, Restoration and Rehabilitation of swales along NW 2nd Avenue. *Client: City of Miami, Contact: Keith NG, Ph: (305) 416-1298 Begin/End Dates: November 2016 – Ongoing, Role: Project Engineer*

Alton Road from Michigan Avenue to 43rd Street, Miami Dade County, FDOT District 6: Resurface, Restoration and Rehabilitation (RRR), widening to provide paved shoulders, and upgrades to signing and pavement markings and signals. 1.42 miles. *Client: FDOT D6, Contact: Ana Arvelo, PE, Ph: (305) 470-5210 Begin/End Dates: December 2012 – Ongoing, Role: Project Engineer*

Johnson Street from East of N 31st Ave to N 9th Ave, City of Hollywood; (Reconstruction of local road), FDOT District 4: As the lead designer for this project, formulated most of the scope of project along with the City of Hollywood designers. Coordinated utility meetings and created all preliminary designs for this project. Created profiles, alignments, grades, pavement design and utility plans. Large involvement on survey and utility plans, matrix and verification of conflicts. Large part of this project involved developing a design that had the best fit, taking all issues in consideration, which included public need, traffic analysis, emergency route for nearby hospital, major transit route, and right of way acquisition and cost limitations. This project provided a very unique experience which involved three major participants. It was federally funded under Complete Street initiatives, FDOT designed and owned by the City of Hollywood. This Complete Streets project proposed the re-construction of Johnson Street in Hollywood, Florida. The project consisted of new sidewalks, Type F curb and gutter, re-constructed travel lanes with bike lanes on both sides, 9 intersections upgraded to mast arms, conventional lighting, and closed drainage system. ROW acquisition of property located on the north and south side of road. *Client: FDOT D4, Contact: James E. Ford, PE, Ph: (954) 654-5972, Begin/End Dates: Jun 14-July 2017, Role: Lead Designer*

SR-810/Hillsboro Blvd. from Military Trail to SR-5/US-1, (RRR and widening of a State Road), FDOT District 4: In charge of utility coordination and utility plans. Created all utility plans; large number of meetings with utility companies, city and county. Investigated the history of utilities and drainage systems. In charge of Maintenance of Traffic (MOT) design and plans. Assisted in the preparation of roadway plans, pavement design, cost estimates, and drainage design. This was a Resurfacing, Restoration and Rehabilitation (RRR) project with a section been widening. ADA crosswalks and curb ramps updated for compliance with ADA standards. Intersections updated to minimum standards. Signalization updated all mast arms signals with video detection and illuminating signs. Milling and resurfacing, and new pavement markings upgraded to new standards. *Client: FDOT D4, Contact: James E. Ford, PE, Ph: (954) 654-5972, Begin/End Dates: Aug 2011 - Jan 2016, Role: Designer*

CR 510 PD&E Study from CR 512 to 58th Avenue, Indian River County, FDOT District 4: Project Development and Environment (PD&E) Studies (CAT EX Type II) (5.3 miles) to improve the capacity along CR 510 from CR 512 to 58th Avenue by widening from two to four lanes and implementing a raised median. CR 512 currently serves as the main artery in northern Indian River County connecting I-95 to US 1 and A1A. Tasks include preparation of Design Traffic Technical Memorandum (DTTM), lead the noise data collection, analysis and documentation efforts as well as support preparation of other environmental documents. *Client: FDOT D4, Contact: Maria Formoso, PE, Ph: (954)777-4677, Begin/End Dates: February 2016 - Ongoing, Role: Designer*

Kingfisher Waterway Bridge. BRDG #867211 City of Lighthouse (Bridge Replacement), FDOT District 4: Worked as the designer in charge of this project while in the construction. Represented the project manager during construction meetings with issues that caused changes to the design. Created all revisions for the project while in construction. Revision included, extremely detailed grading plans, and roadway profiles corrections. Structure details, 3D drainage details, and MOT plans. *Client: FDOT D4, Contact: James E. Ford, PE, Ph. (954) 654-5972, Begin/End Dates: Jan 2011 – Jan 2016, Role: Designer*



TECHNICAL EXPERTISE

Highway/Roadway Design
Maintenance of Traffic
QC/Constructability

YEARS OF EXPERIENCE

25 Years

PROFESSIONAL REGISTRATIONS

- Professional Engineer –
FL#49524 (1995)

CERTIFICATIONS

- FDOT Traffic Control Plan
Design Training
- FDOT Bicycle Facilities
Design Course

EDUCATION

- B.S., Civil Engineering,
University of Florida –
1990

C. BRIAN FULLER, PE

Senior Engineer

PROFESSIONAL PROFILE

Mr. Fuller has served Metric Engineering as a Project Manager and Senior Highway Engineer since 1996 and has a strong background in all aspects of roadway design. Mr. Fuller was employed by the FDOT for 5 years as a Roadway Project Design Engineer. He is responsible for the complete assembly of roadway construction plans on complex, major, and minor projects. His experience includes roadway design, traffic control design, utility coordination, and quality computations. His recent responsibility is to maintain project schedules and budgets without compromising safety, environmental concerns, constructability, or Federal and State standards and policies. He is CES & LRE certified and has completed the Departments specifications and traffic control training programs.

REPRESENTATIVE PROJECTS

DW ITS Consultant Contract / DMS Replacement Task Work Order (TWO) #01 & #02, Florida's Turnpike Enterprise: As a TWO #01 under our DW ITS consultant contract, this project is to prepare construction plans and a specification package to replace the existing Dynamic Message Signs (DMS) along SR 91, SR 417 (Southern Connector), SR 417 (Seminole Expressway), SR 570 (Polk Pkwy.), and SR 589 (Suncoast Pkwy.) in Central Florida. TWO #02 provides the same services in South Florida including SR 821 (HEFT), SR 869 (Sawgrass), and SR 91 (Turnpike Mainline). Other services include traffic & crash data, drainage, environmental permitting, roadway, and S&PM improvements.

Okeechobee Mainline Toll Plaza Express Lane Conversion, Florida's Turnpike Enterprise: Preparation of final design roadway plans were developed for the reconfiguration of the Okeechobee Toll Plaza, located at Milepost 32.183 of the HEFT. The existing barrier plaza, which had 16 total toll collection lanes, was divided, allowing for the

construction of SunPass Express lanes in the center of the current footprint. The existing approaches to the toll plaza were improved through milling and resurfacing and roadway reconstruction / widening design. The existing toll plaza was reconfigured to provide three, ultimately four, SunPass Express Lanes and five manual toll collection lanes for each travel direction. A concrete median barrier wall will separate the opposing travel lanes. Metric provided post-design services.

Suncoast Parkway (SR 589) Sections 1A, 1B, and 2A, Florida's Turnpike Enterprise: Final design for 5.1 miles of a multi-lane (4 lanes expandable to 6) limited access toll road on a new alignment from south of Van Dyke Road in Hillsborough County to north of SR 54 in Pasco County. The project included 1 Systems Interchange (Veteran's Expressway) and 3 Service interchanges (Van Dyke Rd., Lutz Lake Fern Rd., SR 54) 10 bridges, and 6 ramp plazas.

SR-9/I-95 Broward Express Lanes Design Build, FDOT District 6 & District 4: This project includes the design & construction of Express Lanes by converting the existing High Occupancy Vehicle (HOV) Lane into 2 Express Lanes along 13.1 miles of I-95 from a point north of the SR 826 Golden Glades Interchange to a point south of the Broward Blvd. Park & Ride in both Miami-Dade and Broward Counties. Other aspects include analyzing and designing all roadway and structural elements, as well as drainage, stormwater management, traffic control, permitting, utility coordination, lighting, ITS infrastructure, tolling infrastructure, survey, geotechnical investigations, S&PM and FHWA reevaluations.

Florida's Turnpike (SR 91) from MP 198.5 to MP 207.0 and MP 227.0 to MP 249.2 in Osceola County (Subconsultant to JMT), Florida's Turnpike Enterprise: This project consists of nearly 100 lane miles of milling, resurfacing and safety enhancements to Florida's Turnpike mainline (SR 91) in Osceola County. Subconsultant services include signing & pavement marking plans, utility coordination, and subsurface utility locates/designates.

I-95 Six-Laning in Brevard & Volusia Counties, FDOT District 5: The project was to prepare the final design plans for the six-laning of a four-lane rural interstate in Brevard County. The project was 12.4 miles and is located at SR 528 approximately 1.4 miles north of SR 50. Other elements included: milling and resurfacing, drainage design, 14 retention ponds, permitting through SJRWMD (ERP) and ACOE (D&F), overhead signage, traffic control plans, and S&PM plans. For the Volusia County project, we prepared final design plans for the six-laning of a four-lane Interstate. This was 6.5 miles, and is located north of US 92 Interchange to north of the SR 40 Interchange, as well as reconstruction plans for the I-95/SR 40 Interchange. Other project elements included a multi-lane crossroad improvements, 4 interchange ramps, dual I-95 bridges replacement at SR 40, dual I-95 bridges widened over the Tomoka River.

I-4 Six Laning, FDOT District 5: Final design for 4.6 miles of the six-laning (inside widening) of a four-lane Interstate facility from south of the Saxon Blvd. Interchange to north of the SR 472 Interchange in Volusia County. Plans also provided for the replacement of the Graves Avenue Bridge over I-4, mainline profile revisions to prevent flooding and to attain adequate vertical clearance, the

C. BRIAN FULLER, PE

Senior Engineer

reconstruction and/or milling and resurfacing of seven interchange ramps and a collector-distributor road, two sound walls, and proprietary retaining walls.

I-4/SR 400 Widening and Resurfacing E.E. Williamson to CR 46A, FDOT District 5: This project has two segments. The first one is I-4/SR 400 from west Lake Mary Blvd. to West of CR 46A. For this segment, we are preparing final design plans to resurface the interstate and ramps. The second segment includes widening eastbound I-4 from east of SR 434 to west of Lake Mary Blvd. The ramps at the existing rest area will be reconfigured and the existing lighting will be modified based on the revised ramp configuration. New noise wall be installed just east of the rest area. Other aspects of the project include: drainage, permitting, structures, S&PM, lighting, and ITS fiber and device relocation.

Community Traffic Safety Program (CTSP) (Three Contracts), FDOT District 5: Task Work Order based Districtwide contract comprised of miscellaneous engineering services required to conduct studies and/or to design and prepare a set of contract plans which may include roadway, signing and pavement markings, signalization, lighting, sidewalk and/or bicycle ways along the transportation corridor that includes State highways, County streets, and City streets.

SR 5/US 1 at Canal Street Intersection Improvements, Volusia County, FDOT District 5: This project involves intersection improvements on US 1 at Canal Street in Volusia County. These improvements include the development of an innovative plateaued intersection which allows for a more pedestrian friendly environment in the downtown area, as well as providing a more effective transition to an adjacent railroad crossing. Approximately one mile of US 1 will be re-profiled to mitigate tidal flooding issues along this coastal roadway. Other improvements involve widening to accommodate bicycle traffic, sidewalk reconstruction and ADA improvements.

SR 500 (US 441) Widening & Reconstruction, FDOT District 5: Reconstruction of 4.1 miles of SR 500 from a four-lane rural roadway to a six-lane divided urban arterial from Lake Ella Drive to Avenida Central in Lake County. Final plans were prepared for the construction of a curb and gutter roadway with bicycle lanes and a raised median within an existing 100'-200' right-of-way corridor. Work efforts included roadway plans, drainage design and permitting for four retention ponds, the removal of the existing bridge over CR 25, design survey and right-of-way mapping, signing & pavement marking plans, traffic control plans, utility coordination and the preparation of adjustments, and the design of five signalized intersections. This project was shelved in 2014, and has recently been moved forward for re-design, and will be delivered using 3D design.

SR 121 (34th Street) Milling & Resurfacing (NW 5th Ave. to US 441), FDOT District 2: Preparation of final design roadway plans for the milling and resurfacing of a 4.5 mile segment of SR 121, a predominantly two-lane undivided rural roadway in Alachua County. Work efforts also included traffic signal loop replacement and pedestrian signal upgrades to five intersections, sidewalk construction, ADA upgrades, utility coordination, drainage improvements, signing and pavement marking plans, and traffic control plans.

SR 331 Milling & Resurfacing (SR 121 to US 441), FDOT District 2: Preparation of final design roadway plans for the milling and resurfacing of a 2.1-mile segment of SR 331, a four-lane divided urban roadway in Alachua County. Work efforts also included roadway widening in the median, traffic signal loop replacement and pedestrian signal upgrades at 2 intersections, turn lane construction, ADA upgrades, utility coordination, minor drainage improvements, signing and pavement marking plans, and traffic control plans. Roadway plans were prepared using existing construction plans and supplemental field survey.

SR 25 (US 441) Milling & Resurfacing (SR 331 to SR 24), FDOT District 2: Preparation of final design roadway plans for the milling and resurfacing of a 2.0-mile segment of SR 25 (US 441), a four-lane divided rural/urban roadway in Alachua County. Work efforts also included traffic signal loop replacement and pedestrian signal upgrades to four intersections, turn lane construction, sidewalk construction, ADA upgrades, utility coordination, minor drainage improvements, signing and pavement marking plans, and traffic control plans.

SR 20 Milling & Resurfacing (SR 329 to US 441), FDOT District 2: Preparation of final design roadway plans for the milling and resurfacing of a 3.3-mile segment of SR 20, a predominantly four-lane undivided urban roadway in Alachua County. Work efforts also included traffic signal loop replacement and pedestrian signal upgrades to five intersections, sidewalk construction, ADA upgrades, utility coordination, signing and pavement marking plans, and traffic control plans. Roadway plans were prepared using existing construction plans and supplemental field survey.

Districtwide Miscellaneous Safety Design, FDOT District 2: Metric is responsible for the design and preparation of a complete set of construction contract documents (specifications packages, etc.) and any incidental engineering services, as necessary, for improvements to various roadway transportation facilities. Services included roadway design (typical sections, plan/profiles, cross slopes, access management, etc.), Traffic Control Plan (TCP), drainage design, utility coordination, environmental/permitting, miscellaneous structures, S&PM, signalization, lighting, survey/SUE, and geotechnical.



ROBERTO J. MARIN

Chief Designer

TECHNICAL EXPERTISE

Roadway Design
3D Corridor Modeling
Signalization
Signing & Pavement Markings
Utility Coordination

YEARS OF EXPERIENCE

30 Years

EDUCATION

B.S.C.E., Florida International
University (1998)

MILITARY

9.5 years, Sargent, US Marine
Corps, Marine Corp, Inst., US
Marine Corp., Combat Engineer
and Chief of Construction
Support

PROFESSIONAL PROFILE

Mr. Marin currently serves as a Senior Highway Designer for Roadway and PD&E projects. Responsibilities include plans preparation, complex horizontal and vertical geometry, signing and pavement markings and signalization. Software skills include: Microstation (SS4 – 3D Corridor Modeling), Geopak, Mathcadd, Photoshop, Access, AutoCAD, ArcGIS, Microsoft Project, Primavera, and HecRass.

REPRESENTATIVE PROJECTS

Districtwide Miscellaneous PE Design Consultant, FDOT District 6: This task work order based contract includes several minor design projects in Miami-Dade County. The scope of work included milling and resurfacing (both Pavement Only Projects and Resurfacing, Restoration and Rehabilitation projects), ADA upgrades, signalization, and signing and pavement marking. Metric staff worked closely with FDOT as well as government officials from the affected municipalities. Public involvement was most extensive on our Miami Beach project as the intersection improvements affected several existing on-street parking spaces. *Client: FDOT D6, Contact: Ana Arvelo, PE, P: (305) 470-5210, Begin/End Dates: 2011–2018, Role: Roadway Senior Designer*

- **Alton Road from Michigan Avenue to 43rd Street, Miami Dade County, FDOT District 6:** Resurface, Restoration and Rehabilitation, widening to provide paved shoulders, and upgrades to signing and pavement markings and signals. 1.42 miles. *Client: FDOT D6, Contact: Ana Arvelo, PE, Ph: (305) 470-5210, Begin/End Dates: December 2012 – Ongoing, Role: Roadway Senior Designer*

HEFT/SR 874 Design-Build Project for Florida's Turnpike, Miami-Dade County, FDOT District 6, (Sub to BCC Engineering): Design and plans preparation on Segment 4 of the HEFT/SR 874 DB project. Roadway improvements consisted of widening of SW 117 Ave, SW 152 St and the Northbound and Southbound Frontage Roads to accommodate additional turn lanes as part of the improvements at the HEFT interchange with SW 117 Ave and SW 152 St. Additional services included drainage (French drain designs), signing and pavement markings, and signalization. Coordinated with various agencies including FDOT District 6, Miami-Dade Public Works, Miami-Dade Transit and the South Florida Water Management District. *Client: BCC Engineering, Inc., Contact: Anthony Jorges, Ph: (305) 670-2350, Begin/End Dates: November 2014 – Ongoing, Role: Senior Highway Designer*

SR 25 /US-27 / Okeechobee Rd from E. of NW 116 Way (MP 8.146) to E. of NW 87 Ave (9.340) in Miami-Dade County (Sub to BCC Engineering): Reconstruction of SR-25/ US-27/ Okeechobee Road using rigid pavement from MP 8.146 to MP 9.340. Includes design of bridges for grade separation of Okeechobee Rd. over NW 87 Ave., design of left turn lanes flyover bridge from Southbound NW 87 Ave to Eastbound Okeechobee Rd and from Northbound NW 87 Ave to Westbound Okeechobee Rd., construction of a new bridge at NW 106 St over the Miami (C-6) Canal. Metric's role includes the preparation of roadway and signing and pavement marking plans for the reconstruction of NW South River Dr. and NW 87th Avenue. *Client: BCC Engineering, Inc., Contact: Oscar Oliva, Ph: (305) 670-2350, Begin/End Dates: August 2016 – Ongoing, Role: Senior Highway Designer*

Reconstruction project of Eller Drive from East of US 1/ SR 5 to East of McIntosh. Fort Lauderdale, FDOT District 4: Road improvements included: New-elevated roadway into Port Everglades, a new bridge over NE 7th Avenue and the Port Railroad east of SE 14 Ave, new bridge over I-595 EB, (0.571 miles) reconfiguration of the intersection and signalization at NE 7th Ave/Eller Drive, reconfiguration of the intersection at SE 14th Avenue, new roadway connecting SB US 1 to Port Everglades. This project entails new horizontal and vertical geometry, cross sections, drainage, signalization, lighting, and traffic control plans according to federal, state, and local standards and guidelines. Concrete pavement had to be used because of geotechnical reasons. *Client: FDOT D4, Contact: Ramon Sierra, (954) 777-4341, Begin/End Dates: 2007-2009, Role: Project Engineer (TYLIN)*

SR-9 / I-95 Reconstruction, Palm Beach, FDOT District 4: This project represents the continuation of the HOV lane additions to I-95 currently under design in District 4 (2.85 miles). It includes the reconstruction of approximately 3.4 miles of the existing six lane interstate facility to a ten-lane section. The existing six-lane section will be milled and resurfaced along with widening to accommodate an HOV lane and an additional general-purpose lane in each direction. Auxiliary lanes will also be added along portions of the mainline between the existing interchanges. The three bridges over Northlake Boulevard, Holly Drive and Burns Road will be reconstructed. Duties included development of construction plans, establishing horizontal and vertical controls, setting profile grade and utilities coordination and pavement marking. *Client: FDOT D4, Contact: John Thompson, (954) 777-4680 Begin/End Dates: 2001-2005 Role: Project Engineer (Kimley-Horn)*

CR 510 PD&E Study from CR 512 to 58th Avenue, Indian River County, FDOT District 4: Project Development and Environment (PD&E) Studies (CAT EX Type II) (5.3 miles) to improve the capacity along CR 510 from CR 512 to 58th Avenue by widening from two to four lanes and implementing a raised median. CR 510 currently serves as the main artery in northern Indian River County

ROBERTO J. MARIN

Chief Designer

connecting I-95 to US 1 and A1A. Tasks include preparation of Design Traffic Technical Memorandum (DTTM), lead the noise data collection, analysis and documentation efforts as well as support preparation of other environmental documents. *Client: FDOT D4, Contact: Maria Formoso, PE, Ph: (954)777-4677, Begin/End Dates: February 2016 - Ongoing, Role: Senior Roadway Designer*

SR 408 Eastern Extension PD&E Study, Central Florida Expressway Authority: SEIR for a 7-mile eastern extension in Orange County. This project is the first phase of a larger regional vision to extend SR 408 to eventually connect to I-95 and the Brevard County coastal cities. Alternatives include new interchanges, bridging of the Econlockhatchee River, numerous, community and environmental concerns. *Client: Central Florida Expressway Authority, Contact: Glenn Pressimone, PE, Ph: (407) 690-5321, Begin/End Dates: April 2015 – Ongoing, Role: Senior Designer*

South Roosevelt Boulevard (US 1) from Bertha Street to Sta. 41+10, City of Key West: Responsible for the preparation of the roadway and signing and pavement markings plans for this 0.9 -mile project which includes a complete roadway reconstruction with new drainage and lighting for a major four lane facility in the City of Key West. This project also includes the design of a new shared used path. *Client: City of Key West, Contact: Mr. Roland Flowers, Ph: (305) 809-3975, Begin/End Dates: April 2005-Ongoing, Role: Senior Highway Designer*

DDB Downtown Homeless Restrooms, Miami, City of Miami: Responsible for the preparation of the roadway plans for a Homeless Restroom in the City of Miami. *Client: City of Miami Contact: Carlos Lozano, Ph: (305) 416-1247 Begin/End Dates: November 2016 – Present, Role: Highway Designer*

NW 2nd Avenue from NW 38th Street to NW 54th Street, Miami, City of Miami: Responsible for the preparation of the roadway plans Rework, Restoration and Rehabilitation of swales along NW 2nd Avenue. *Client: City of Miami, Contact: Keith NG, Ph: (305) 416-1298 Begin/End Dates: November 2016 – Present, Role: Highway Designer*

PRIOR WORK EXPERIENCE

SR 934/NW 79th Street from NW 13th Ct to N. Bayshore Drive, Miami, FDOT District 6: SR-934 that is one of seven major east-west arterials inking the coastal Barrier Islands to Miami-Dade County. The project involved the design and plans preparation for the Resurfacing, Restoration, and Rehabilitation (RRR) of 2.940 miles. Assisted in the preparation of Signing and Pavement markings, and traffic control plans. *Client: FDOT District 6, Reference: Jason Chang, P.E., Phone: (305) 470-5331, Begin/End Dates: 2011-2013, Role: Highway Designer (AES Engineering)*

S.R. 915 / NE 6th Avenue, Miami, FDOT District 6: 3R project consisting of 2.162 miles of an undivided urban arterial road running in the north-south direction and consisting of two travel lanes in each direction. The posted speed limit is 40 mph. NE 6th Ave. improvements to this corridor will be made under State Financial Project 42260-1-52-01. *Client: FDOT D6, Contact: Heidi Solaun Dominguez (305) 470-5582, Begin/End Dates: 2009-2011, Role: Project Engineer (APCTE)*



JOLIE CERVERA, EI

Roadway Design, S&PM, Utility Coordination

TECHNICAL EXPERTISE

Roadway Design
Drainage Design
Signalization
Signing & Pavement Markings
Utility Coordination

YEARS OF EXPERIENCE

4 Years

PROFESSIONAL REGISTRATIONS

Florida EI #1100020892 (2017)

EDUCATION

B.S.C.E., Florida International
University (2014)

PROFESSIONAL PROFILE

Ms. Cervera currently serves as a Drainage Designer for Roadway and PD&E projects. Responsibilities include geometric and drainage design, signing and pavement markings, signalization and writing technical reports. Software skills including: Microstation, Geopak, Excel, Word, PowerPoint.

REPRESENTATIVE PROJECTS

Districtwide Miscellaneous PE Design Consultant, FDOT District 6: This task work order based contract includes several minor design projects in Miami-Dade County. The scope of work included milling and resurfacing (both Pavement Only Projects and Resurfacing, Restoration and Rehabilitation projects), ADA upgrades, signalization, and signing and pavement marking. Metric staff worked closely with FDOT as well as government officials from the affected municipalities. Public involvement was most extensive on our Miami Beach project as the intersection improvements affected several existing on-street parking spaces. *Client: FDOT D6, Contact: Ana Arvelo, PE, P: (305) 470-5210, Begin/End Dates: 2011 – 2018, Role: Roadway Engineer Intern*

- **Alton Road at Michigan Avenue, Miami Dade County, FL:** Resurface, Restoration and Rehabilitation (RRR), widening to provide paved shoulders, and upgrades to signing and pavement markings and signals. 1.42 miles. *Client: FDOT District 6, Contact: Ana Arvelo, PE, Begin/End Dates: December 2012 – Ongoing, Role: Roadway Engineer Intern*

CR 510 PD&E Study from CR 512 to 58th Avenue, Indian River County, FDOT District 4: PD&E Studies (CAT EX Type II) (5.3 miles) to improve the capacity along CR 510 from CR 512 to 58th Avenue by widening from two to four lanes and implementing a raised median. CR 512 currently serves as the main artery in northern Indian River County connecting I-95 to US 1 and A1A. Assisted in the preparation of the preliminary engineering report. *Client: FDOT D4 Contact: Maria Formoso, PE, Ph: (954) 777-4677, Begin/End Dates: December 2015 – Ongoing, Role: Highway Designer*

SR 408 Eastern Extension PD&E Study, Central Florida Expressway Authority: Project Development and Environment (PD&E) Study (SEIR) for a 7 mile eastern extension in Orange County. This project is the first phase of a larger regional vision to extend SR 408 to eventually connect to I-95 and the Brevard County coastal cities. Alternatives include new interchanges, bridging of the Econlockhatchee River, numerous, community and environmental concerns. Assisted in the preparation of the preliminary engineering report. *Client: Central Florida Expressway Authority, Contact: Glenn Pressimone, PE, Ph: (407) 690-5321, Begin/End Dates: March 2015 - Ongoing, Role: Highway Designer*

SR 710 Passing Lanes in Martin County, (Sub to Hubbard Construction): This Design-Build project is to improve safety, operations and mobility by installing 12' wide passing lanes along SR 710 from MP 2.0 to SW Fox Brown Rd. in Martin County. The passing lanes are staggered such that there will be three lanes in each direction per passing lane segment (2 travel lanes and 1 passing lane). Other design services include S&PM, drainage and permitting. This project also includes the adding or resetting guardrail. Duties included assisting in the preparation of the roadway plans and the signing and pavement markings. Ms. Cervera also assisted in a compiling a roadside slope variation report and in the utility coordination for this project. *Client: Hubbard Construction Co., Contact: Robert Ueltschi, Ph: (407) 645-5500, Begin/End Dates: 10/2014–11/2014, Role: Highway Designer*

SR A1A from SE 3rd Street to NE 7th Street, City of Deerfield Beach: A Local Agency Program (LAP) project administered by the City of Deerfield Beach. The project consists of reconstructing SR A1A to provide new pavement, drainage, signing and pavement markings, signalization and roadway lighting. Right-of-way acquisition is also required to accommodate the proposed typical sections, as well as extensive coordination with the community and adjacent property owners. Ms. Cervera serves as a highway designer assisting in the preparation of the roadway plans and responsible for the Engineering Report, the Drainage Report and several Design Variations. Also compiled the Pavement Design Report and assisted in the preparation of the Signalization plans and in preparing quantities and cost estimates. The project also includes the reconstruction of Hillsboro Blvd from SR A1A east to SE 21st Ave. *Client: City of Deerfield Beach, Contact: Mr. Charles DaBrusco, PE, Ph: (954) 480-4269 Begin/End Dates: April 2015 – Ongoing, Role: Highway Designer*

SR 25 /US-27 / Okeechobee Rd from E. of NW 116 Way (MP 8.146) to E. of NW 87 Ave (9.340) in Miami-Dade County (Sub to BCC Engineering): Reconstruction of SR-25/ US-27/ Okeechobee Road using rigid pavement from MP 8.146 to MP 9.340. Includes design of bridges for grade separation of Okeechobee Rd. over NW 87 Ave., design of left turn lanes flyover bridge from Southbound NW 87 Ave to Eastbound Okeechobee Rd and from Northbound NW 87 Ave to Westbound Okeechobee Rd., construction of a new bridge at NW 106 St over the Miami (C-6) Canal. Metric's role includes the preparation of design plans for the reconstruction of NW South River Dr. and NW 87th Avenue. Assisted in the preparation of the roadway plans. *Client: BCC Engineering, Inc., Contact: Oscar Oliva, Ph: (305) 670-2350, Begin/End Dates: August 2016 – Ongoing, Role: Highway Designer*



JAIME TOVAR

Designer

METRIC ENGINEERING INC.

TECHNICAL EXPERTISE

Roadway Construction
Structural/Roadway/Site Civil Work

YEARS OF EXPERIENCE

21 Years

EDUCATION

B.S.C.E., Universidad de la Salle,
Bogota, Colombia (1996)

OFFICE LOCATION

Miami, FL

PROFESSIONAL PROFILE

Mr. Tovar experience is in roadway construction, assisting with the preparation and development of contract plans for projects consisting of all structural/ roadway/site civil work for FDOT, Miami-Dade County, and other municipalities. Most of his experience was gained in the Country of Colombia with over 9 years of local experience.

REPRESENTATIVE PROJECTS

DDB Downtown Homeless Restrooms, Miami, FL – Highway designer assisting in the preparation of the roadway plans for a Homeless Restroom in the City of Miami. **Client:** City of Miami **Contact:** Carlos Lozano, 305-416-1247 **Begin/End Dates:** November 2016 – Ongoing

NW 2nd Avenue from NW 38th Street to NW 54th Street, Miami, FL – Highway designer assisting in the preparation of the roadway plans Rework, Restoration and Rehabilitation of swales along NW 2nd Avenue. **Client:** City of Miami **Contact:** Keith NG, 305-416-1298 **Begin/End Dates:** November 2016 – Ongoing

SR 25 /US-27 / Okeechobee Rd from E. of NW 116 Way (MP 8.146) to E. of NW 87 Ave (9.340) in Miami-Dade County – Reconstruction of SR-25/ US-27/ Okeechobee Road using rigid pavement from MP 8.146 to MP 9.340. Includes design of bridges for grade separation of Okeechobee Rd. over NW 87 Ave., design of left turn lanes flyover bridge from Southbound NW 87 Ave to Eastbound Okeechobee Rd and from Northbound NW 87 Ave to Westbound Okeechobee Rd., construction of a new bridge at NW 106 St over the Miami (C-6) Canal. Metric's role includes the preparation of design plans for the reconstruction of NW South River Dr. and NW 87th Avenue. **Client:** BCC Engineering, Inc., **Contact:** Oscar Oliva (305) 670-2350, **Begin/End Dates:** August 2016 – Ongoing

SR 408 Eastern Extension PD&E Study, Central Florida Expressway Authority Project Development and Environment (PD&E) Study (SEIR) for a 7 mile eastern extension in Orange County. This project is the first phase of a larger regional vision to extend SR 408 to eventually connect to I-95 and the Brevard County coastal cities. Alternatives include new interchanges, bridging of the Econlockhatchee River, numerous, community and environmental concerns. **Client:** Central Florida Expressway Authority, **Contact:** Glenn Pressimone, PE (407) 690-5321, **Begin/End Dates:** March 2015 - Ongoing

CR 510 PD&E Study from CR 512 to 58th Avenue, Indian River County, FL. Project Development and Environment (PD&E) Studies (CAT EX Type II) (5.3 miles) to improve the capacity along CR 510 from CR 512 to 58th Avenue by widening from two to four lanes and implementing a raised median. CR 512 currently serves as the main artery in northern Indian River County connecting I-95 to US 1 and A1A. **Client:** FDOT District 4 **Contact:** Maria Formoso, PE (954) 777-4677 **Begin/End Dates:** December 2015 – Ongoing

SR A1A from SE 3rd Street to NE 7th Street, Deerfield Beach, FL – A Local Agency Program (LAP) project administered by the City of Deerfield Beach. The project consists of reconstructing SR A1A to provide new pavement, drainage, signing and pavement markings, signalization and roadway lighting. Right of way acquisition is also required to accommodate the proposed typical sections, as well as extensive coordination with the community and adjacent property owners. Mr. Tovar serves as a highway designer assisting in the preparation of the roadway plans and responsible for the Engineering Report, and several Design Variations. Also compiled the preparation of the Signalization plans and in preparing quantities and cost estimates. The project also includes the reconstruction of Hillsboro Blvd from SR A1A east to SE 21st Ave. **Client:** City of Deerfield Beach **Contact:** Mr. Charles DaBrusco, PE 954-480-4269 **Begin/End Dates:** April 2015 – Ongoing

Silver Beach Road from Congress Avenue to East of Old Dixie Highway, Palm Beach County, FL – Design and plans preparation for the reconstruction of a two-lane roadway (Silver Beach Road) from North Congress Avenue to east of Old Dixie Highway, in Riviera Beach, FL. Improvements include the designing a frontage road to provide access management, drainage includes design for a wet pond, conveyance ditches and storm sewer system along the curb and gutter portion. Duties include assisting in the preparation of the roadway, drainage and signalization plans. Ms. Cervera also assisted in compiling the Drainage Report. **Client:** Palm Beach County **Contact:** A. Basher Khan, PE 561-684-4191 **Begin/End Dates:** November 2014 – May 2015

SR 710 Passing Lanes in Martin County, FL – This **Design-Build** project is to improve safety, operations and mobility by installing 12' wide passing lanes along SR 710 from MP 2.0 to SW Fox Brown Rd. in Martin County. The passing lanes are staggered such that there will be three lanes in each direction per passing lane segment (2 travel lanes and 1 passing lane). Other design services include S&PM, drainage and permitting. This project also includes the adding or resetting guardrail. Duties included assisting in the preparation of the roadway plans and the signing and pavement markings.

JAIME TOVAR

Designer

Mr. Tovar also assisted in a compiling a roadside slope variation report and in the utility coordination for this project. **Client:** Hubbard Construction Company **Contact:** Robert Ueltschi 407-645-5500 **Begin/End Dates:** October 2014 – November 2014

Alton Rd. from Michigan Avenue to 43rd Street, Miami Beach, FL – Highway designer assisting in the preparation of the roadway plans and the signing and pavement markings. Ms. Cervera also assisted in compiling the drainage report and addendum. This is a Resurface, Restoration and Rehabilitation (RRR) project, widening to provide paved shoulders, and upgrades to signing and pavement markings and signals. **Client:** FDOT (District 6) **Contact:** Ana Arvelo, PE 305-470-5210 **Begin/End Dates:** December 2012 – Ongoing

US-1 Monroe County Shared Use Path – Pedestrian Bridge Over Marvin D. Adams Waterway Key Largo, Monroe County, Florida: Assisting in the preparation and completion of structural plans and quantities for the new 120' single span Pedestrian Bridge over this important channel adjacent to the existing SR 5 structures. The project also included Gravity wall and Cast in Place Wall. **Client:** Monroe County, **Contact:** Judith S. Clarke, PE (305) 295-4329, **Begin/End Dates:** April 2011 – March 2016

SR 836/I-395 from NE 2nd Avenue to West of MacArthur Causeway Bridge: Assisted in the preparation and completion of structural plans and quantities for the widening of 4 existing bridges. The project also included multiple cast-in-place retaining walls as well as temporary steel sheet pile walls. **Client:** FDOT District 6, **Contact:** Vilma Croft, PE (305) 470-5100, **Begin/End Dates:** April 2011 – Ongoing

I-95 Broward Express, FDOT District 4: Assisting in the preparation and completion of structural plans and quantities for the widening of the I-95 bridges over Hallandale Boulevard and Hollywood Boulevard. The project also included multiple MSE walls and Temporary Sheet Pile walls as well as miscellaneous light pole and median barrier details. **Client:** FDOT District 4, **Contact:** Donovan Pessoa, PE (305) 777-4350, **Begin/End Dates:** March 2011 – Ongoing

NW 42nd Avenue Bridge Replacement, Miami Dade County: Assisting in the preparation and completion of preliminary structural plans and quantities for the bridge replacement, which will carry NW 42nd Avenue over Carol City Canal. The existing substructure was utilized and widened to carry new inverted T beams for this 2 span configuration. Mr. Tovar also assisted in the preparation of roadway, as well as signing and marking plans. **Client:** City of Miami Gardens, **Contact:** (305) 622-8000, **Begin/End Dates:** May 2011 – July 2012

SR 112/Arthur Godfrey Road, from Alton Road to Collins Avenue, FDOT District 6: Assisting in the preparation and completion of Structural Rehabilitation plans for two bridges along this RRR project. Mr. Tovar is also responsible for the development of deficiency schedules and corresponding details for the two bridges in the project. **Client:** FDOT District 6, **Contact:** Adriana Manzanares, PE (305) 470-5283, **Begin/End Dates:** November 2010 – October 2012

SR 874 Don Shula Expressway from Kendall Drive/SW 88th Street to Miller Drive/SW 56th Street, MDX: Assisting in the preparation and completion of structural plans and quantities for the widening and rehabilitation of 5 existing mainline bridges including SR 874 over Miller Dr., Sunset Dr. Galloway Rd. C-2 Canal and Kendall Dr. The project also included multiple MSE walls, Temporary Sheet Pile walls, Noise Barrier walls and Traffic Barrier walls. **Client:** MDX, **Contact:** Alfred Lurigados, PE (305) 637-3277, **Begin/End Dates:** March 2010 – December 2010

Alexander Orr, Jr. Water Treatment Plant Improvements, MDWASD: Assisting in the preparation and completion of Civil, Architectural and Structural plans for two facilities that will house the Chlorine On-Site Generation (OSG) system equipment and tanks. Also responsible for other tasks such as: water analysis data collection, assisting in the testing of three wells, gap analysis, among others. This project also includes the remodeling of a structural building and the design of another that will house lime/slurry aging tanks, pumps and equipment. **Client:** Miami-Dade Water and Sewer Department, **Contact:** Brian Trujillo, PE (305) 588-4565, **Begin/End Dates:** June 2009 – June 2010

MIA-MOVER Project: Responsible for the plans preparation and quantities of 16 spans of the guideway supporting this important element within the Miami International Airport passenger moving system. Detailed multiple types of bridge supports including cantilever and hammer head piers as well as post-tensioned concrete straddle bents. The proposed superstructure included dapped end bulb T prestressed beams ranging from 120'-125' spans. The scope of work includes the MIA Station, structure connecting the MIA Station to the MIC Station. **Client:** Parsons-Odebrecht, JV, **Contact:** Robert Tucker, (305) 341-8777, **Begin/End Dates:** September 2008 – January 2011

PROFESSIONAL PROFILE

TECHNICAL EXPERTISE

Environmental Permitting
 Compliance and Enforcement
 Regulatory Agency Coordination
 Wetland Delineation
 Mitigation Design
 Wildlife / Benthic / Tree Surveys

YEARS OF EXPERIENCE

15 Years

EDUCATION

MS Marine Biology (2015),
 Nova Southeastern University,
 BS Wildlife Biology & Mgmt. (1999),
 University of Rhode Island,

PROFESSIONAL REGISTRATIONS

SWS Professional Wetland
 Scientist (PWS) Cert. No. 1998
 LIAF Certified Landscape Inspector
 (CLI), Cert. No. 2013-129
 FDEP Certified Stormwater,
 Erosion and Sedimentation Ctrl
 Instructor No. 38023
 FDACS licensed restricted use
 herbicide applicator No. CM24955
 PADI Scuba Certifications
 Advanced, Rescue/First Aid, Nitrox
 Am. Acad. Underwater Sciences
 Scientific Diver Training – 2003

OFFICE LOCATION

Fort Lauderdale/Miami, FL

Mr. St. George started at Metric Engineering in April, 2015. Prior to joining Metric's team, he spent eight years as a Natural Resource Specialist II for Broward County's Aquatic and Wetland Resource Program primarily serving as a lead environmental resource permit application reviewer and compliance/enforcement officer, and before that spent 4 years with Miller Legg as an Environmental Scientist. In addition to project management, he now provides, contract oversight, environmental permitting, construction compliance, wetland delineation, mitigation monitoring, natural resource survey, and related services for a variety of Metric projects. Mr. St. George has strong relationships with Federal, State, and local regulatory staff and an in-depth familiarity with environmental permitting and compliance requirements in the South Florida region.

REPRESENTATIVE PROJECTS
Metric Engineering, 2015 – present

D6 Districtwide Mitigation Site Development, Maintenance and Monitoring, Miami-Dade and Monroe Counties, FL - Involves oversight and management of all District 6 mitigation sites. Specific duties and tasks include coordination and oversight of maintenance, completion of annual monitoring events, and creation of remediation/enhancement plans for existing or future mangrove, wetland, and seagrass mitigation areas. Project also entails developing specific scopes of work for maintenance contractors, conducting field oversight and inspection of contractor work operations, and documenting compliance with contract and permit requirements as well as data collection, recordation, analysis, and extensive report writing. **Client:** FDOT District 6, **Contact:** Ricardo Salazar, P.E. (305) 470-5264, **Project Duration:** May 2013 to present, **Primary Role:** Project Manager.

Selected major work performed to-date:

- **Lower Matecumbe Key Tidal Rock/Cactus Barren Mitigation:** conducting monitoring events, coordinating/overseeing treatment events, and managing supplemental site enhancement activities in this rare, ecologically imperiled community that supports at least three federally endangered plant species.
- **Lois Ryan Road Mangrove Mitigation:** conducted comprehensive site status evaluation and designed remedial mitigation and planting plan to regain permit compliance at this 6-acre site. Work also includes extensive agency coordination and permit modifications for updated monitoring criteria and supplemental mitigation at Everglades Mitigation Bank.
- **Boca Chica Lagoon Seagrass Mitigation:** developed modified monitoring plan for assessment of seagrass coverage and establishment within a 90-acre seagrass ROMA site, conducting ongoing coordination with regulatory agencies for credit calculation, allocation and tracking.

Continuing Professional Services – Environmental Engineering and Wetland Management – City of Weston, FL – Involves continued contractor oversight and comprehensive management of over 2,200 acres of City-responsible wetland mitigation in western Broward County. Work includes mitigation site inspections, hydrologic observation, evaluation of treatment effectiveness, treatment prioritization, invoice reviews, public relations, and miscellaneous environmental support services. **Client:** City of Weston, **Contact:** Karl Thompson (954) 385-2600 **Begin/End Dates:** July 2016 to present. **Primary Role:** Project Manager

D6 Districtwide Environmental Compliance Monitoring, Miami-Dade and Monroe Counties, FL: This contract provides for inspection and monitoring of all active construction sites within FDOT District 6, to verify, document and facilitate environmental permit

compliance, as well as compliance with related environmental commitments. Work includes preparation of environmental compliance documentation for preconstruction meetings, conducting routine inspections of active construction sites, coordinating with project CEI staff to ensure continued environmental compliance with FDEP NPDES permits, SFWMD ERPs, Water Use and ROW permits, USACE Section 404 permits and Sec 408 clearances, FKNMS permits, Miami-Dade permits for off-system roads, and NEPA commitments, as

Ryan St. George

Senior Environmental Scientist

well as coordination with FDOT and regulatory staff. **Client:** FDOT District 6, **Contact:** Ricardo Salazar, P.E. (305) 470-5264, **Project Duration:** March, 2018 - Present, **Primary Role:** Project Manager

Phase II Dagny Johnson Hammock State Park - Port Bougainville Habitat Restoration, Key Largo, Monroe County, FL - Involves oversight of the second/final phase of sensitive habitat restoration work in densely wooded State Park inhabited by multiple listed/endangered species. Restoration work includes the use of heavy machinery for demolition and removal of remaining above-ground concrete, asphalt, metal, and other artificial structures. Metric is handling oversight contractor's work to ensure compliance with the USFWS Biological Opinion, Endangered Species Act, State and Federal permits, and to documented satisfactory completion of project pay items. **Client:** Monroe County, **Contact:** Paul Rice – FDEP Park Manager, (305) 451-1202 **Begin/End Dates:** March, 2017 to present. **Primary Role:** Project Manager

Phase I Dagny Johnson Hammock State Park - Port Bougainville Habitat Restoration, Key Largo, Monroe County, FL - Oversight of a sensitive habitat restoration project which entailed careful use of heavy machinery for demolition and removal of above-ground concrete, asphalt, metal, and other artificial structures in densely wooded State Park inhabited by multiple listed/endangered species. Metric oversaw contractor's work to ensure compliance with the USFWS Biological Opinion, Endangered Species Act, State and Federal permits, and documented satisfactory completion of project pay items. **Client:** Monroe County, **Contact:** Beth Bergh – (305) 289-2511 **Begin/End Dates:** March, 2016 to May 2016. **Primary Role:** Senior Environmental Scientist

I-395 / SR-836 design-build, FDOT District 6, Dade County FL: The project entails reconstruction of I-395, SR-836, and a portion of I-95 from SW 17th Avenue west of I-95/Midtown Interchange to Biscayne Bay, a distance of approximately 1.5 miles. Improvements to the corridor are considered necessary to provide for the existing and projected traffic demand. Environmental support provided to-date includes permit-related coordination. **Client:** FDOT District 6, **Contact:** Maria Perdomo, PE, Ph: (305) 640-7186, **Begin/End Dates:** August 2018 – Present, **Primary Role:** Environmental Specialist

SR 500 (US 441), Widening & Reconstruction, Lake County, FDOT District 5: Reconstruction of 4.1 miles of SR 500 from a four-lane rural roadway to a six-lane divided urban arterial from Lake Ella Drive to Avenida Central in Lake County. Final plans were prepared for the construction of a curb and gutter roadway with bicycle lanes and a raised median within an existing 100'-200' right-of-way corridor. Work efforts included roadway plans, drainage design and permitting for four retention ponds, the removal of the existing bridge over CR 25, design survey and right-of-way mapping, signing & pavement marking plans, traffic control plans, utility coordination and the preparation of adjustments, and the design of five signalized intersections. This project was shelved in 2014, and in early 2018, our team was asked to start move forward with the re-design. This redesigned project will be delivered using 3D design. **Client:** FDOT D5, **Contact:** Sarah Van Gundy, P.E., Ph: (386) 943-5551, **Start/End Dates:** September 2005 / July 2014 (Placed on Hold) / Re-start on Plans Update (Start/End Dates): May 2018 / November 2018, **Role:** Sr. Environmental Scientist

New Oxford Road Improvements Environmental Permitting Support, Seminole County, FL: Conducting field wetland delineation using sub-meter GPS, providing wildlife habitat assessments, and environmental permitting support for a proposed new roadway alignment. Includes complicated coordination with the County, USACE and the SJRWMD related to development of a Cumulative Impact Analysis necessary to justify a larger-than-normal mitigation provided out-of-basin. **Client:** Seminole County. **Contact:** Rolando Raymundo, P.E. (407) 665 5715 **Begin/End Dates:** June 2015 – Present **Primary Role:** Sr. Environmental Scientist.

Broward County Continuing Services – Traffic, Roadway, and Civil Engineering, Broward County, FL: Providing environmental and right-of-way permitting support for ITS upgrades under traffic capital improvement program. Work includes wetland and surface water delineation, agency coordination, permit document preparation, GIS data collection, and other related tasks. **Client:** Broward County **Contact:** Chris Masullo (954) 847-2676 **Project Begin/End Dates:** January 2016 to Present **Role:** Sr. Environmental Scientist

Pigeon Key Access Ramp Rehabilitation Environmental Permitting, Monroe County, FL: Ongoing environmental permitting support for a LAP funded historic bridge repair/replacement project. Work includes benthic, mangrove, and wetland resource surveys/delineations, and permit coordination with the SFWMD, USACE, and Florida Keys National Marine Sanctuary as well as extensive coordination with the State Historic Preservation Office in fulfillment of NEPA requirements. **Client:** Monroe County **Contact:** Judith Clarke, P.E. - Monroe County Engineer. **Begin/End Dates:** May 2015 – Present **Primary Role:** Sr. Environmental Scientist.

I-4 St. Johns River Bridge Security – Seminole and Volusia Counties, FL - Ongoing environmental support for a bridge security upgrades design project. Work completed includes corridor environmental analysis, site inspection, resource delineation, and all environmental permitting tasks including coordination with USACE, SJRWMD, and SHPO. **Client:** FDOT District IV. **Contact:** Jim Miller @FDOT, Alex Mims @ Traffic Engineering Data Solutions, Inc. **Project Duration:** August 2016 to present, **Primary Role:** Sr. Environmental Scientist.

SR 520 Roadway Improvements Environmental Permitting Support, Brevard County, FL: Providing wetland delineation and environmental permitting support for this 3.10 mile roadway improvement project including sidewalk, safety and drainage improvements, permitting through the USACE and SJRWMD. **Client:** FDOT District 5. **Contact:** Sarah Van Gundy **Project Duration:** April 2015-September 2016 **Primary Role:** Sr. Environmental Scientist.

PROFESSIONAL PROFILE



Ms. Hill joined Metric in May of 2014 and provides a wide array of specialized environmental services including technical report development, wildlife surveys, mitigation monitoring, NEPA evaluations, construction oversight, compliance monitoring, and regulatory permitting coordination, as well as in-house support for FDOT District 6. Ms. Hill specializes in GIS analyses, benthic marine resource surveys, and coral gardening/fragmentation techniques, and is also Metric's FAA certified drone pilot.

REPRESENTATIVE PROJECTS

Metric Engineering May 2014- Present

CR 510 PD&E Study, from CR 512 to 58th Avenue, Indian River County, FL, Senior Environmental Scientist: This project involves the expansion of an existing rural two-lane county road to four lanes. Mr. Myers is the Lead Environmental Scientist in charge of developing all environmental documents, including the ESBA, WER, NSR, CSER, section 4(f) documentation and the Categorical Exclusion Type II. In addition he is in charge of conducting nest surveys for the federally listed caracara and supporting coordination with FDEP for unavoidable impacts to lands purchased with Florida Forever Funds. **Client:** FDOT District 4, **Contact:** Maria Formosa (954) 777-4677, **Begin/End Dates:** February 2016-Ongoing **Role:** Environmental Scientist

D6 - Districtwide Mitigation Site Development, Maintenance and Monitoring, Miami-Dade and Monroe Counties, FL: Ms. Hill provides technical support including field assessments of wildlife, coral, seagrass, and wetland resources, data collection, data analysis, regulatory agency coordination, and remedial plan development. Ms. Hill also provides field oversight for maintenance events for vegetation management and environmental compliance. She is Metric's environmental team leader in GPS data processing for analysis through ArcGIS. Under this contract, Ms. Hill also provides a wide variety of in-house support services for mitigation, permitting, and compliance services since 2015. **Client:** FDOT District 6, **Contact:** Ricardo Salazar, P.E. (305) 470-5264, **Begin/End Dates:** May 2013 to present, **Primary Role:** Environmental Technician. Selected Projects for reference:

Boca Chica Seagrass Restoration Site – Key West Naval Air Station.

Houseboat Row Seagrass Restoration Site – Houseboat Row, Key West.

Bahia Honda Coral Relocation and Monitoring – Bahia Honda Bridge, Bahia Honda.

Oslo Road PD&E Study from E. of SR 9/I-95 to E. of 58th Avenue, Indian River County, FL - Project Development and Environment (PD&E) Studies to improve the capacity along Oslo Road from E of SR 9/I-95 to E of 58th Avenue by widening from two to four lanes and implementing a raised median. Field surveys were conducted to evaluate adjacent environmental resources and included specific survey protocols for the Audubon's Crested Caracara and preparing an associated summary report. Responsible for Sec4(f) reviews, socio-cultural effects documentation including potential land use changes from agricultural to suburban communities and development of Categorical Exclusion Type II (CatEx II) **Client:** FDOT District 4, **Contact:** Sabrina Aubery, PE (954) 777-4585, **Begin/End Dates:** July 2014 - December 2015. **Primary Role:** Environmental Scientist

D6 - Districtwide Environmental Permit Compliance, Miami-Dade and Monroe Counties, FL: Conducted environmental inspections for active construction sites within District 6 to ensure compliance with contract requirements, NPDES criteria, environmental permits, ROW permits, dewatering permits, and PD&E/NEPA commitments. Work included site inspections,

benthic surveys, report preparation and distribution, regulatory agency coordination, and preparation of environmental summary documents for preconstruction meetings and presentation. **Client:** FDOT District 6, **Contact:** Ricardo Salazar, P.E. (305) 470-5264, **Begin/End Dates:** November 2011 to 2015, **Primary Role:** Environmental Inspector.

Grove Isle Bridge Rehabilitation Permitting, Metric Engineering (Grove Isle), Miami-Dade County, FL: Conducted a wetland delineation and seagrass/benthic habitat survey, and delineated extents of mangroves for a privately-owned bridge rehabilitation project in Miami-Dade County. Tasks include coordinating with federal, state and local agencies, obtaining permit exemptions from the USACE and SFWMD, and preparing a DERM Class I permit application. **Client:** Community of Grove Isle **Reference:** Eduardo Avila (305) 857-0400, **Begin/End Dates:** November 2014 to June 2015, **Primary Role:** Environmental Technician.

TECHNICAL EXPERTISE

Marine and Wildlife Biology
Coral Restoration
Seagrass Assessments
NEPA Documentation
GIS Analysis

YEARS OF EXPERIENCE

4 Years

EDUCATION

B.S. - Marine Science and Biology,
University of Miami (2011)

PROFESSIONAL REGISTRATIONS

FAA Certified Small Unmanned
Aircraft/Drone Pilot #3964676
FDEP Stormwater, Erosion &
Sediment Control Inspector #30943
FNGLA Certified Horticulture
Professional #10358
PADI Advanced Open Water
PADI Nitrox Diving Certification
AAUS Authorized Scientific Diver
AGRRA and Coral Gardening
Fragmentation Training

OFFICE LOCATION

Miami, FL

PROFESSIONAL PROFILE



Ms. O'Donahue joined Metric Engineering in August 2017. She provides wetland, tree, and landscape inspections, conducts site reviews for environmental permit compliance, prepares environmental documents, oversees contractors, and provides in-house support including a variety of data tracking, QC/QA, and other related services for Metric's projects.

REPRESENTATIVE PROJECTS

D6 Districtwide Mitigation Site Development, Maintenance and Monitoring, Miami-Dade and Monroe Counties, FL: Involves the maintenance, monitoring and management of 23 mitigation sites throughout the District. Includes conducting field inspections and oversight of contractor work operations to document compliance with environmental protection measures and adherence to scope of work, conducting field mitigation monitoring, report writing, file management, in-house support, design and implementation of remedial mitigation plans.

Client: FDOT District 6, **Contact:** Ricardo Salazar, P.E. (305) 470-5264, **Project Duration:** May 2013 to present, **Primary Role:** Environmental Technician

D6 Districtwide Environmental Permit Compliance, Miami-Dade and Monroe Counties, FL: This contract provides for inspection and monitoring of all active construction sites within FDOT District 6, to verify, document and facilitate environmental permit compliance, as well as compliance with related environmental commitments. Work includes preparation of environmental compliance documentation for preconstruction meetings, conducting routine inspections of active construction sites, coordinating with project CEI staff to ensure continued environmental compliance with FDEP NPDES permits, SFWMD ERPs, Water Use and ROW permits, USACE Section 404 permits and Sec 408 clearances, FKNMS permits, Miami-Dade permits for off-system roads, and NEPA commitments, as well as coordination with FDOT and regulatory staff.

Client: FDOT District 6, **Contact:** Ricardo Salazar, P.E. (305) 470-5264, **Project Duration:** March 2018 to present, **Primary Role:** Environmental Technician

Broward County Continuing Services – Traffic, Roadway, and Civil Engineering, Broward County, FL: Providing environmental and right-of-way permitting support for ITS traffic improvement services. Work includes wetland and surface water delineation, agency coordination, permit document preparation, GIS data collection, and other related tasks.

Client: Broward County, **Contact:** Chris Masullo (954) 847-2676, **Project Duration:** January 2016 to present, **Primary Role:** Environmental Technician

Sawgrass Expressway PD&E, Broward County, FL: Responsible for wildlife surveys and monitoring within a 3.2-mile corridor in northern Broward County. Work also includes development of an NRE, a CSER, a CSRP, as well as coordination regarding Section 6 impacts and potential impacts to a nearby bald eagle nest. **Client:** Florida's Turnpike Authority, **Contact:** Ryan Solis-Rios (786)280-8895, The Corradino Group, **Project Duration:** June 2016 to present, **Primary Role:** Environmental Technician

Pigeon Key Access Ramp Rehabilitation Environmental Permitting, Monroe County, FL: Ongoing environmental planning and permitting support for an historic bridge repair/replacement project. Work includes benthic, mangrove, and wetland resource surveys/delineations, and permit coordination with the SFWMD, USACE, and Florida Keys National Marine Sanctuary as well as extensive coordination with the State Historic

Preservation Office. **Client:** Monroe County **Contact:** Judith Clarke - County Engineer **Primary Role:** Environmental Technician

Dagny Johnson Hammock State Park - Port Bougainville Habitat Restoration, Key Largo, Monroe County, FL: Involved oversight of a sensitive habitat restoration project which entailed careful use of heavy machinery in densely wooded State Park inhabited by multiple listed/endangered species. Restoration work includes demolition and removal of above-ground concrete, asphalt, metal, and other artificial structures. Metric oversaw contractor's work to ensure compliance with the USFWS Biological Opinion, Endangered Species Act, State and Federal permits, and documented satisfactory completion of project pay items. **Client:** FDEP, **Contact:** Paul Rice – John Pennekamp Park Manager (305) 451-1202, **Project Duration:** March 2016 to April 2018, **Primary Role:** Environmental Inspector

CASSANDRA M. O'DONAHUE

Environmental Specialist

CR 510 PD&E Study, from CR 512 to 58th Avenue, Indian River County, FL: This project involves the expansion of an existing rural two-lane county road to four lanes. Ms. O'Donahue is the Environmental Technician assisting in development of all environmental documents, including the ESBA, WER, NSR, CSER, section 4(f) documentation and the Categorical Exclusion Type II. She provides QC/QA for all deliverables. **Client:** FDOT District 4, **Contact:** Maria Formosa (954) 777-4677, **Project Duration:** February 2016-Ongoing, **Primary Role:** Environmental Technician

Florida's Turnpike Enterprise ITS Continuing Services Districtwide, Palm Beach, Broward, and Dade Counties, FL: This contract involves environmental field reviews for protected species and wetland and surface water delineations. Responsible for conducting field reviews and determining environmental permitting requirements. **Client:** Florida's Turnpike Enterprise, **Contact:** Anthony Washington (407) 264 3199. **Project Duration:** September, 2017 to present, **Primary Role:** Environmental Technician

I-75 ITS County Line to Big Bend FMS, Hillsborough County, FL: This FDOT District 7 design/build project involves providing environmental permitting support for ITS traffic improvement services along I-75 from the Hillsborough/Manatee County Line to Big Bend Road. Work includes wetland and surface water delineation, listed species surveys, GIS data collection and analysis, agency coordination, permit document and submittal preparation, and other related tasks. **Client:** HSD, **Contact:** DJ Conner, (813) 478-7138 **Project Duration:** June 2018 to present, **Primary Role:** Environmental Technician

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
**AUDIT CERTIFICATION PACKAGE FOR
PROFESSIONAL SERVICES FIRMS**

375-030-39
PROCUREMENT
02/18

Certification of Current Cost or Pricing Data (F.A.R. 15.406-2)

Consultant Name: Metric Engineering, Inc.

Financial Project ID No.: 250548-4

Project Description: South Roosevelt Blvd. from Bertha Street to Smathers Beach

Date: 11-13-2018

Wage Certification

This is to certify, that, the wage rates listed for employees in the Department's Automated Fee Proposal spreadsheet (i.e., cost and pricing data as referenced under FAR subsection 15.403-4) submitted to the Contracting Officer or the Contracting Officer's representative, are current as of this date. I have attached a copy of the current payroll register that supports these rates.



Signature

Vice President

Title

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
OPERATING MARGIN JUSTIFICATION

375-030-82
PROCUREMENT
02/16

1. CONTACT INFORMATION

a. Firm Name: Metric Engineering, Inc.		b. Phone No.: 305-235-5098	
c. Address (including suite number): 13940 S.W. 136 Street	d. City: Miami	e. State: FL	f. Zip Code: 33185

2. COMPLEXITY OF PROJECT

The degree of difficulty associated with this project. Are there unique aspects to the project? Degree of coordination with others outside FDOT should be considered. This includes other agencies, municipalities, etc. multiple districts, multimodal projects
LOW – Straight-forward projects. Well defined and specific scope of services.

Typical Project Type

- **Bridge Inspection:** bridge inspection except scour; All
- **CEI:** Category 1 Bridges, 3R Rural, signalization, simple and straight-forward projects.
- **Design:** simple 3R-Rural; 3R Urban ride only.
- **Geotechnical:** standard.
- **PD&E:** Small simple projects with specific scopes.
- **Planning:** Data/traffic counts.
- **Survey:** resurfacing 3R rural/urban.
- **Traffic Operations:** turn-lane projects (design).

MEDIUM – Projects with some specialized areas requiring some specialized skills.

Typical Project Type

- **Bridge Inspection:** generally not applicable.
- **CEI:** resurfacing with some improvements; ITS, construction on new alignments, and signal system timing, development and implementation; rural arterials and rural interstate capacity improvements.
- **Design:** 3R Urban with some improvements, intersection, improvements with safety, Category 1 bridges.
- **PD&E:** widening with limited issues and bridge replacement with limited impacts.
- **Railroads:** all.
- **Survey:** survey in water areas.
- **Traffic Operations:** traffic operations studies and signal design projects.

HIGH – Complex multi-disciplined projects requiring specialized skills with significant management issues. Project that has numerous complicated traffic phases, involved highly technical construction features requiring specialized skills of the inspection staff. A complex project may also include complex involvement by multiple third parties (i.e., multiple utility relocations, railroads, airports, regulatory agencies, municipalities). The size of the project will not necessarily determine whether the construction project is complex. Large, repetitive projects on their own are not considered complex.

Typical Project Type

- **Bridge Inspection:** bridge scour.
- **CEI:** CEI for multi-level bridges in a corridor or interchange; numerous complicated traffic phases; specialized technical skills; Coating Systems; bridge projects involving movable spans, significant post-tensioning operations, pre-cast segmental components, and steel structures with large horizontal and vertical curvature; Multiple third party involvement (railroads, utilities, airports, municipalities, regulatory agencies)
- **Design:** new alignments, major widening, major reconstruction, railroad bridge design, Segmental Class 2 bridges, Movable Bridges.
- **PD&E:** PD&E with Feasibility study, multiple disciplines, significant issues;
- **Planning:** large planning (multimodal).
- **Survey:** pilings and bridges.
- **Traffic Operations:** ITS

Complexity of Project Allowed Range: 5% to 7%

Consultant %: 6.00%

JUSTIFICATION:

Project was converted from reconstruction to M&R/widening that will include trench cutting for proposed drainage. Proposed drainage will be constructed in a limited R/W

3. DEGREE OF (FINANCIAL) RISK

Indicate the amount of financial risk assumed by the consultant in relation to this project.
LOW – Contracts with well-defined and specific scopes, minimal probability of costs overruns and low financial risk exposure. Scope clarification meeting held, if applicable.

Typical Project Type

- **Bridge Inspection:** bridge inspections.
- **CEI:** subconsultants providing support personnel, ITS.
- **Design:** simple 3R rural, 3R urban ride only.
- **Geotechnical:** all.
- **PD&E:** accurate and specific scope & pre-negotiation meetings.
- **Planning:** most planning.
- **Survey:** all, including SUE.
- **Traffic Operations:** traffic operations studies; traffic counts.

MEDIUM – Projects with potential for additional coordination efforts with outside agencies/parties; coordination with several Districts, multiple municipalities, etc.

Typical Project Type

- **Bridge Inspection:** bridge scour.
- **CEI:** standard CEI contract.
- **Design:** design for new alignments, major reconstruction, and widening.
- **PD&E:** experimental design and broad scopes.
- **Planning:** some planning.
- **Railroads:** all.
- **Traffic Operations:** traffic signal projects, ITS design

HIGH – lump sum consultant contracts with possibility of overrunning costs; experimental design; projects involving significant financial risk, hazardous materials, and potential for significant unknown issues.

Typical Project Type

- **CEI:** high visibility, lump sum CEI contracts, multiple projects.
- **Design:** projects with multiple bridges.
- **PD&E:** multiple alternatives, multiple agency approval required.
- **Planning:** large multimodal projects (airports, seaports, railroads, transit).

Degree of (Financial) Risk Allowed Range: 3% to 5%	Consultant %: 4.00%
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JUSTIFICATION:

Project is M&R/widening with trench cutting for proposed drainage. Alignment has a shift to avoid R/W impact

4. PROJECT SCHEDULE

<p>LOW – no critical short term deadlines or requirements for large staffing concentrations, unfunded projects to go on the shelf.</p> <p>Typical Project Type</p> <ul style="list-style-type: none"> • Bridge Inspection: bridge inspection; bridge scour. • CEI: resurfacing; support services. • Design: all 3R projects, standard schedule • PD&E: no design phase scheduled in Work Program. • Planning: all. • Railroads: all. • Traffic Operations: ITS. • Survey: all 3R projects. 	
<p>MEDIUM – standard schedule.</p> <p>Typical Project Type</p> <ul style="list-style-type: none"> • Bridge Inspection: generally not applicable. • CEI: ITS; push button construction. • Design: standard design; bridges, large corridors. • Traffic Operations: traffic counts. • Survey: increased number of crews needed 	
<p>HIGH – High visibility projects with short durations and aggressive schedules requiring large commitment of staff. Fast track projects with high profile and quick implementation schedule.</p> <p>Typical Project Type</p> <ul style="list-style-type: none"> • Bridge Inspection: generally not applicable. • CEI: multi-financial project contract, construction bonus, urban (day & night), high visibility; phased utility reallocations by others during the construction project. • Design: mobility/economic stimulus. • PD&E: design phase funded in the Work Program, bridge replacements. 	
Project Schedule Allowed Range: 1% to 3%	Consultant %: 3.00%
<p>JUSTIFICATION: This project required accelerated completion task</p>	

5. COST CONTROL EFFORTS

<p>The degree to which the Consultant controls its costs for wages rates (by region), overhead, expenses and FCCM. The cost control is not generally dependent upon the type of project. Factors to be considered in negotiating this criteria are the following, and other project-specific items:</p> <ul style="list-style-type: none"> • Burdened salary rates (by region) by classification. • Reasonableness of the proposed distribution of staffing for the project. • Specialized services requiring specialized staff. • Reimbursed or excluded premium overtime. <p>LOW – (3% to 6%) Lower or minimal cost control efforts. MEDIUM – (7% to 15%) Moderate cost control efforts. HIGH – (16% to 27%) Substantial cost control efforts.</p>	
Cost Control Efforts Allowed Range: 3% to 27%	Consultant %: 22.00%
<p>JUSTIFICATION: High cost control efforts resulting in low overhead rate at 156.01%. Design requires specialized service (align shift) to the project.</p>	

6. OPERATING MARGIN JUSTIFICATION TOTAL

<p>The total for items 2 through 5 will be calculated for you.</p>	
Total Allowed Range: 12% to 42%	Consultant %: 35.0%

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
OPERATING MARGIN JUSTIFICATION

375-030-82
 PROCUREMENT
 02/16

7. CONTRACT DURATION ADJUSTMENT FACTOR

For contracts of longer duration (reference table below), the Department shall allow a Contract Duration Adjustment Factor (CDAF). CDAF is defined as an economic price adjustment, necessitated by instability of labor costs for an extended period of contract performance (Reference 48 CFR Section 16.203). CDAF is not negotiated, but shall be a fixed number of points based on the overall anticipated length of contract (project schedule). CDAF points shall be allocated by the Department as follows:

	Anticipated Length of Contract	CDAF Points	
	0-12 Months	0	
	13-24 Months	0	
	25-36 Months	3	
	37-48 Months	4.5	
	49-60 Months	5.5	

- a) For new contracts, CDAF is applied beginning with the first labor hour incurred.
- b) CDAF shall only be applicable for contracts selected (contract final ranking) on or after November 1, 2014.
- c) In the event a contract selected on or after November 1, 2014 is extended (time extension) by six or more months, CDAF shall be applied prospectively to the extended/remaining services only, in accordance with the table shown above.
- d) CDAF shall not be applied to contracts selected before November 1, 2014, nor contract amendments/time extensions for contracts selected before November 1, 2014.
- e) For calculation purposes, CDAF shall be added to operating margin and applied to unloaded direct salaries.
- f) CDAF is applicable only to consultant firms who are awarded operating margin points.

For Calculation purposes, CDAF shall be added to Operating Margin and applied to direct salaries:

Allowed CDAF for this project: 3



Florida Department of Transportation

**RICK SCOTT
GOVERNOR**

605 Suwannee Street
Tallahassee, FL 32399-0450

**MIKE DEW
SECRETARY**

May 30, 2018

Jose Munoz, President
BCC ENGINEERING, INC.
6401 SW 87th Avenue, Suite 200
Miami, Florida 33173

Dear Mr. Munoz:

The Florida Department of Transportation has reviewed your application for prequalification package and determined that the data submitted is adequate to technically prequalify your firm for the following types of work:

- Group 2 - Project Development and Environmental (PD&E) Studies
- Group 3 - Highway Design - Roadway
 - 3.1 - Minor Highway Design
 - 3.2 - Major Highway Design
 - 3.3 - Controlled Access Highway Design
- Group 4 - Highway Design - Bridges
 - 4.1.1 - Miscellaneous Structures
 - 4.1.2 - Minor Bridge Design
 - 4.2.1 - Major Bridge Design - Concrete
 - 4.2.2 - Major Bridge Design - Steel
 - 4.2.3 - Major Bridge Design - Segmental
- Group 5 - Bridge Inspection
 - 5.4 - Bridge Load Rating
- Group 6 - Traffic Engineering and Operations Studies
 - 6.1 - Traffic Engineering Studies
 - 6.2 - Traffic Signal Timing
 - 6.3.1 - Intelligent Transportation Systems Analysis and Design
 - 6.3.2 - Intelligent Transportation Systems Implementation
 - 6.3.3 - Intelligent Transportation Traffic Engineering Systems Communications
 - 6.3.4 - Intelligent Transportation Systems Software Development
- Group 7 - Traffic Operations Design
 - 7.1 - Signing, Pavement Marking and Channelization
 - 7.2 - Lighting
 - 7.3 - Signalization

- Group 10 - Construction Engineering Inspection
 - 10.1 - Roadway Construction Engineering Inspection
 - 10.3 - Construction Materials Inspection
 - 10.4 - Minor Bridge & Miscellaneous Structures CEI
- Group 11 - Engineering Contract Administration and Management
- Group 13 - Planning
 - 13.4 - Systems Planning
 - 13.5 - Subarea/Corridor Planning
 - 13.6 - Land Planning/Engineering
 - 13.7 - Transportation Statistics

Your firm is now technically prequalified with the Department for Professional Services in the above referenced work types. The overhead audit has been accepted, and your firm may pursue in the referenced work types with fees of any dollar amount. This status shall be valid until June 30, 2019 for contracting purposes.

Approved Rates

Home/ Branch Overhead	Field Overhead	Facilities Capital Cost of Money	Premium Overtime	Reimburse Actual Expenses	Home Direct Expense	Field Direct Expense
162.79%	125.97%	0.391%	Reimbursed	No	2.35%	22.86%*

*Rent and utilities excluded from field office rate. These costs will be directly reimbursed on contracts that require the consultant to provide field office.

Should you have any questions, please feel free to contact me by email at carliayn.kell@dot.state.fl.us or by phone at 850-414-4597.

Sincerely,

Carliayn Kell
Professional Services
Qualification Administrator

Luis Rodriguez, PE

Project Manager (Highway/Drainage)

Mr. Rodriguez is a Senior Highway/Drainage Engineer with BCC. He has extensive experience in drainage design, permitting and roadway geometric design in highway, transportation and civil engineering projects. He provides guidance and direction to the team and provides leadership to challenges encountered in engineering analysis and design. He is responsible for the development of concepts and preparation of final roadway plans. Mr. Rodriguez is also well versed in the drainage design process for FDOT and has extensive experience in the hydrologic and hydraulic analysis, modeling and plans preparation following FDOT standards and criteria. As a Project Manager and Technical lead his responsibilities include the coordination of transportation engineering projects, including providing field support, preparing engineering calculations, developing specifications, reports, preparing schedules and cost estimates. His experience also includes continuous coordination with the client/owner, subconsultants, contractors and permitting agencies from the onset of a project through its completion.

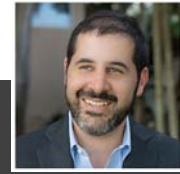
Project Experience

South Roosevelt Boulevard/SR A1A from Bertha Street (MP 0.000) to East of Smathers Beach (MP 0.778) (FPN No. 250548-4); Monroe County, FL; Client: City of Key West; Reference: Manny A. Sauleda, PE, (786) 350-9931; msauleda@metriceng.com; Length: 0.778 mile; Project Duration: 2007 to Ongoing – Engineering design for the reconstruction of SR A1A, a four-lane undivided road running along the southern coast of Key West along Smathers Beach. BCC was responsible for the development of the lighting and drainage systems. Major project features included the design of a drainage system that would minimize impacts on environmentally sensitive coastal waters, permitting for that system, extensive regulatory agency coordination and the use of decorative lighting fixtures for roadway and pedestrian lighting. Project Role: Project Manager/Engineer-of-Record responsible for the complete drainage analysis and of the lighting system design plans.

SR 5 (US 1) "18-Mile Stretch" Design-Build Project (FPID No. 249356-1-52-01; Contract E-6C66); Miami-Dade and Monroe Counties, FL; Client: FDOT District 6/Community Asphalt Corporation; Reference: Jose Barrera, PE, (305) 470-5260; jose.barrera@dot.state.fl.us; Length: 3 miles; Project Duration: 2005 to 2010 – Project consisted of reconstruction of an existing two-lane undivided roadway to a two-lane divided facility. This corridor is part of the 18-mile stretch linking Florida City to the Florida Keys. The improvements included a new 14-foot wide median with concrete barrier wall designed to eliminate head-on crashes. In addition, there is a one-mile section where passing lanes are being provided. Coordination with utilities was very important as impacts to the FCAA 36-inch water main were to be avoided given the fact that this is the sole source water supply to all the Florida Keys. In addition, we prepared JPA plans for the relocation of BST facilities. In addition, seven concrete box culverts were built to support wildlife crossings. Project Role: Project Engineer for the drainage design, environmental permitting, and the development of the maintenance of traffic plans which included the reconstruction of three miles of US 1 along the 18-mile stretch to the Florida Keys between Florida City and Key Largo in an environmentally sensitive section of roadway which included the removal of an average of four feet of muck.

SR 836/I-395 from West of I-95 to MacArthur Causeway Bridge (FM No. 251688-1-32-01; Contract C9279); Miami-Dade County, FL; Client: FDOT District 6; Reference: Maria I. Perdomo, PE, (305) 640-7186, maria.perdomo@dot.state.fl.us; Contract Amount: \$600 million; Length: 1.4 miles; Project Duration: 2011 to 2014 – BCC prepared the preliminary geometric design for the reconstruction of the entire I-395 corridor, from the original terminus at the west side of the I-95/Midtown Interchange (I-95/SR 836/I-395) to the original corridor terminus at the West Channel Bridges of US 41/MacArthur Causeway. This project was developed to improve mainline operations along I-395, reduce congestion on the surface streets below and provide enhanced access to the Performing Arts Center and surrounding areas of downtown Miami. Project Role: Project Engineer responsible for the drainage plans.

Biscayne Island Drainage Improvements – Civil Engineering Services for Roadway Projects (RFQ No. 06-07-039); Miami, FL; Client: City of Miami; Reference: Jose L. Lago, PE, (305) 416-1252; jlago@miamigov.com; Project Duration: 2009 to 2014 – The project involved the drainage analysis and re-design of the drainage system to resolve flooding issues associated with the Island. The drainage design included drainage calculations, hydrologic/hydraulic modeling and development of the drainage design plans. The analysis consisted of performing hydraulic calculations for different alternatives for the existing conditions and post conditions using AdlCPR; water quality and water quantity permitting calculations; and pre-development and post-development drainage modeling. In addition, included extensive coordination and permitting with Miami-Dade County Department of Regulatory and Economic Resources (RER) and field investigations to identify existing conditions and topographic surveys provided. Project Role: Project Manager/Engineer-of-Record responsible for the design of the drainage system and overseeing



Years of Experience
17

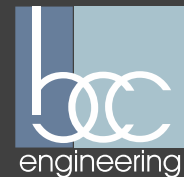
Years of Post Registration Experience
12

Work History
BCC Engineering, Inc. (Miami)
2006 – Present
Gannett Fleming, Inc.
2001 – 2006

Education
MBA, 2004
University of Miami
BS in Civil Engineering, 1999
Universidad de Los Andes,
Colombia

Career Highlights
Successfully Completed:
Florida Advance Training (MOT)
FDOT Specifications Package
Preparation Training

Registration
Professional Engineer
Florida No. 63983, 2006



the plans development for this project.

SR 931/I-75 PD&E Project Study from North of the Homestead Extension of Florida's Turnpike (HEFT) Interchange in Miami-Dade County to the I-595 Interchange in Broward County (FM No. 419343-1-22-01; Contract C8M70; Miami-Dade and Broward Counties, FL; Client: FDOT Districts 4 and 6/HDR Engineering, Inc.; Reference: (HDR) Will Suero, PE, (305) 728-7400; will.suero@hdrinc.com.; Project Duration: 2007 to 2015 – Project Development and Environment (PD&E) Study for I-75 improvements to relieve existing and future congestion. The study included alternatives to include the possible addition of reversible/special use and auxiliary lanes and interchange improvements. The study also included a dedicated transit way adjacent to the highway with stations at appropriate intervals. Engineering services provided included hydrology and hydraulic calculations; water quality and water quantity permitting calculations; and pre-development and post-development drainage modeling; as well as environmental permitting services. Project Role: Project Engineer responsible for the drainage master plans and permitting to include the hydrology and hydraulic calculations; water quality and water quantity permitting calculations; and pre-development and post-development drainage modeling.

I-95 (SR 9) Interchange Operational Improvements Design-Build; Broward and Palm Beach Counties, FL; Client: FDOT District 4/Community Asphalt Corp.; Reference: (FDOT PM) Scott Thurman, PE, (954) 777-4135; scott.thurman@dot.state.fl.us/(Community Asphalt) Vernon Walker, (561) 790-6467 ext. 106; vwalker@cacorp.net; Contract Value: \$32.5 million; Length: 4 miles; Project Duration: 2014 to Ongoing – This project involves the design and construction of operational improvements to five critical I-95 interchanges in Broward and Palm Beach Counties: SW 10th Street, Woolbright Road, Hypoluxo Road, 10th Avenue north, and Donald Ross Road. These improvements provide additional turn lanes on the arterial roadways and ramps, as well as an Auxiliary Lane widening on I-95 for the SW 10th Street interchange. The project involves prioritizing the Interchanges to minimize disruption to local, seasonal, and event-driven flux, maintain vehicular, railroad (CSXT), and pedestrian traffic (including schools), and accommodate future adjacent I-95 Express Lane projects. BCC is serving as prime consultant for this contract, handling project management and engineering duties to include roadway widening, bridge widening, walls, traffic signals, turn lanes, drainage, lighting, and signing and pavement markings. Project Role: Project Manager and Roadway/Drainage/Traffic Control Plans (TCP) Engineer-of-Record.

Design Services for SR 713 (Kings Highway) from SR 70 at Turnpike to North of I-95 Overpass (FM No. 230256-2-32-01; Contract C9675); St. Lucie County, FL; Client: FDOT District 4; Reference: Bing Wang, PE, (954) 777-4406; bing.wang@dot.state.fl.us; Length: 3 miles; Contract Amount: \$2.9 million; Project Duration: 2012 to 2022 (Est.) – Reconstruction of Kings Highway to widen from a two-lane facility to a four-lane divided section (urban high speed). Key elements on the project included permitting, right-of-way acquisition, access management, traffic control during construction, and coordination with multiple projects by the District, Florida's Turnpike Enterprise, the County, and ongoing development in the area. Extensive coordination with South Florida Water Management District (SFWMD) and U.S. Army Corps of Engineers (USACE) was required for permitting and mitigation of wetland and wild life impacts, and coordination with North St. Lucie River Water Control District for permitting of the drainage system and relocation of the existing canal bordering the west side of the road. Project Role: Project Manager and Engineer-of-Record.

I-595 Corridor Design Consultant from I-75/Sawgrass Expressway Interchange West of 136th Avenue to I-95 (FM No. 420809-1-32-02; Contract C8K05); Broward County, FL; Client: FDOT District 4; Reference: Joseph A. Borello, PE, (954) 777-4426; joseph.borello@dot.state.fl.us; Length: 7.5 miles; Design Fees (BCC): \$510,000; Construction Fees: \$1.2 billion; Project Duration (Study): 2007 to 2007; (Construction): 2014 – The project consisted of the Widening of I-595 from the I-75/Sawgrass Expressway Interchange to east of the I-95 interchange. The widening included elevated reversible lanes in the median serving express traffic between I-75 and I-95 with direct connections to Florida's Turnpike, and transit lanes underneath, continuous connection of SR 84 between Davie Road and SR 7, collector/distributor system between I-95 and Davie Road, braided ramps, bypass ramps, and interchange improvements and Florida's Turnpike interchange improvements. Engineering services provided included hydrology and hydraulic calculations; water quality and water quantity permitting calculations; and pre-development and post-development drainage modeling; as well as environmental permitting services for 11 miles of I-595 including eight major interchanges. Project Role: Project Engineer responsible for the drainage master plans and permitting to include the hydrology and hydraulic calculations; water quality and water quantity permitting calculations; and pre-development and post-development drainage modeling. Project Role: Task Manager responsible for the drainage master plans and permitting for Design Criteria Package/RFP Package Preparation.

SR 76 (Kanner Highway) from Port Mayaca (MP 1.810) to West of SR 710 (MP 9.770); Martin County, FL; Client: FDOT District 4 (FM No. 422953-1-32-00); Reference: (FDOT) Fernando Morales, PE, (954) 777-4687; fernando.morales@dot.state.fl.us/(Wantman Group) Maverick Marshall, PE (currently with Johnson, Mirmiran & Thompson, Inc.), (954) 492-9921; MMarshall@jmt.com; Length: 7.96 miles; Project Duration: 2008 to 2011 – This resurfacing, restoration and rehabilitation (3R) project primarily consisted of milling and resurfacing with shoulder widening of SR 76/Kanner Highway for a project length of 7.96 miles. The 100' typical section is of a rural two (2)-lane undivided roadway consisting of two 12-foot travel lanes and paved shoulders which vary from 2 feet to 5 feet. Shallow roadway swales exist along the outside of the roadway, with several cross drains with the ultimate discharge to the St. Lucie Canal (C-44), located along the north side of the corridor. Engineering Design services included the drainage design analysis and preparation of the drainage report for the drainage system. Project Role: Project Manager/ Engineer-of-Record responsible for the drainage design to include the development of a Mini Drip report, swale re-grading, inlet adjustments and resolving erosion issues along the project limits.

Joan De La Rosa, PE

Structural Engineer

Mr. De La Rosa is a Professional Structural Engineer with 15 years of experience in structural design. He serves as a Structural Project Manager for BCC's Miami Office. His background includes design, plan production and load ratings for both transportation bridge design and building structure projects. Mr. De La Rosa has served as the Engineer-of-Record (EOR), Project Manager and Project Engineer for various agencies including Florida Department of Transportation (FDOT) Districts 3, 4, 5, 6, 7, Florida Turnpike Enterprise (FTE), Miami-Dade Expressway Authority (MDX) and Miami-Dade County Department of Transportation and Public Works (MDTPW). His bridge design experience includes short span flat slab bridges, AASHTO girder bridges, Florida-I Beam bridges, as well as design and analysis of miscellaneous structures including MSE walls, temporary walls, anchored bulkhead walls, Dynamic Message Sign (DMS), sign structures, box culverts, overhead cantilever and span structures.

Project Experience

District-Wide Traffic Operations Design Consultant (FM NO. 250629-3-32-01; Contract C9922); Miami-Dade County, FL; Client: FDOT District 6; Reference: Elsa Riverol, PE, (305) 470-5105; Elsa.Riverol@dot.state.fl.us; Length: n/a; Project Duration: 2013 to Current – Structural Design support for Task Work Order assignments involving safety improvement modifications to Mast Arms and Strain Wire structures the District. This contract involved over 20 Task Work Orders in which safety improvements such as addition of signals, signs and backplates to existing structures. Structural analysis included over 30 FDOT Design Standard Mast Arms and Miami-Dade County Mast Arms. Additionally, Design Variations were created to accommodate the proposed improvements. Project Role: Engineer-of-Record for all the Task Work Orders.

SR 9/I-95 Widening from North of SR 60 (MP 6.611) to the Indian River/Brevard County Line (MP 19.198) – Design-Build (FM No. 413049-2-52-01; Contract E4M78); Indian River County, FL; Client: FDOT District 4/Community Asphalt, Corp.; Reference: (FDOT PM) Vanita Saini, PE, (954) 777-4468; vanita.saini@dot.state.fl.us; Length: 13 miles; Contract Amount: \$51 million; Project Duration: 2013 to 2015 – Primary responsibilities included roadway design, as well as managing design for drainage, Temporary Traffic Control (TTC), signing and pavement marking, signals, structures, Intelligent Transportation Systems (ITS), lighting and permitting. This 13-mile project involved the widening of I-95 (SR 9) from four to six lanes, milling and resurfacing of existing lanes, reconstruction of the interchange at CR 512, bridge replacements at CR 512, reconstruction of approximately two miles of the I-95 mainline, widening of CR 512 and replacement of 16 major box culvert under I-95. Other scope items included the replacement of median guardrail, construction of sound abating walls, miscellaneous drainage repairs including lining and pipe replacement, installation and relocation of Dynamic Message Signs (DMS) and structures and coordination for TTC with ongoing projects immediately north and south of the project limits. Project Role: Structural Engineer.

SR 817/NW 27th Avenue at Miami Gardens Drive Safety Improvements; Miami-Dade County, FL; Client: FDOT District 6; Reference: Jose Barrera, PE, (305) 470-5260; jose.barrera@dot.state.fl.us; Project Length: 0.170 mile; Project Duration: 2012 to 2014 – Task work order under Districtwide Miscellaneous contract. Project entailed design and plans preparation for safety improvements. The intersection improvements entailed providing/supplementing traffic operation elements such as adding traffic signal heads, providing backplates on all signal heads, adding a crosswalk with associated pedestrian signals, and adding pedestrian signage to improve pedestrian and vehicular traffic safety. Project Role: Project Structural Engineer for the analysis of the existing mast arms.

NW/NE 167th Street from North Miami Avenue to NE 10th Avenue; Miami-Dade County, FL; Client: FDOT District 6; Reference: Judy Solaun-Gonzalez, PE, (305) 470-5207; Judy.Solaun@dot.state.fl.us; Length: 0.135 mile; Project Duration: 2009 to 2013 – Upgrade of signals at five signalized intersections. Upgrades consist of replacement of existing span wire signal support with the installation of new mast arm supported signals including pedestrian signals, vehicle loop detection, and upgrade of controller cabinets when required. Primary Role: Project Structural Engineer for all the mast arms structures.

SR 817/NW 27th Avenue at Miami Gardens Drive Safety Improvements; Miami-Dade County, FL; Client: FDOT District 6; Reference: Jose Barrera, PE, (305) 470-5260; jose.barrera@dot.state.fl.us; Project Length: 0.170 mile; Project Duration: 2012 to 2014 – Task work order under Districtwide Miscellaneous contract. Project entailed design and plans preparation for safety improvements. The intersection improvements entailed providing/supplementing traffic operation elements such as adding traffic signal heads, providing backplates on all signal heads, adding a crosswalk with associated pedestrian signals, and adding pedestrian signage to improve pedestrian and vehicular traffic safety. Project Role: Project Structural Engineer for the analysis of the existing mast arms.



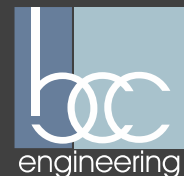
Years of Experience
15

Years of Post Registration
Experience
6

Work History
BCC Engineering, Inc. (Miami)
2008 – Present
De Los Reyes Engineering
2003 – 2008

Education
MS in Civil Engineering, 2008
Florida International University
BS in Civil Engineering, 2007
Florida International University

Registration
Professional Engineer
Florida No. 74705, 2012



SR 826/I-75 Express Lanes Project – Design-Build (FM Nos. 432687-1-52-01, 432687-2-52-01, 432687-1-56-01, 430795-1-52-01, 430795-1-52-02; Contract E6105); Miami-Dade County, FL; Client: FDOT District 6/The Community/Condotte/de Moya JV; Reference: (FDOT PM) Judy Solaun-Gonzalez, PE, (305) 470-5343; judy.solaun@dot.state.fl.us; Contract Amount: \$243.6 million; Length: 13 miles; Project Duration: 2014 to 2017 (Est.) – Project includes the addition of approximately 13 miles of Express Lanes to be constructed – 10 miles along the SR 826 (Palmetto Expressway) and three miles on I-75 (SR 93). On SR 826, one to two express lanes in each direction will be provided beginning approximately 0.20 miles south of West Flagler Street (south of SR 836) up to a point south of the NW 154th Street Bridge. On I-75, one express lane will be provided in each direction from SR 826 and to NW 170th Street (2.0 miles south of the Miami-Dade/Broward County Line). The improvements consist of widening both SR 826 and I-75, reconstruction on SR 826, new construction in the median of I-75, and an elevated structure connecting the Express Lanes on SR 826 to the Express Lanes on I-75. This project includes new drainage, lighting, Intelligent Transportation Systems (ITS), signage, and landscape. Project Role: Engineer-of-Record for two bridge widenings, three new FIB Bridges and over 70 miscellaneous sign and ITS structures. The structural improvements consist of 10 bridge widenings, three new FIB bridges and a four-span steel box girder Express Lanes Bridge. Additional structural improvements include 10 partial bridge demolitions, sign structures, ITS structures, and temporary and permanent retaining walls.

SR 821 (HEFT) Widening from South of SW 104th Street (Killian Parkway) to North of SW 72nd Street (Sunset Drive) – Design-Build (FM Nos. 415051-1-52-01, 430811-1-52-01; Contract E8N18); Miami-Dade County, FL; Client: Florida’s Turnpike Enterprise/The de Moya Group, Inc.; Reference: Paul Naranjo, PE, (407) 264-3429; paul.naranjo@dot.state.fl.us; Contract Amount: \$73,880,232; Length: 2.9 miles; Project Duration: 2014 to 2017 – The project includes the milling, resurfacing and widening of SR 821, the Homestead Extension of the Florida Turnpike (HEFT), which accommodates the future needs for capacity, operational and safety improvements, from south of SW 104th Street/SR 990 (Killian Parkway) to north of SW 72nd Street (Sunset Drive). Capacity improvements will be provided via the addition of two Express Lanes in each direction through the limits of the project, in addition to the three general purpose lanes in each direction. The project also includes the resurfacing, restoration, and rehabilitation of Sunset Drive, as well as interchange improvements at Kendall Drive. Project Role: Structures Engineer.

SR 821 (HEFT) Widening North of SW 184th Street (Eureka Drive) to South of SW 104th Street/SR 990 (Killian Parkway) – Design-Build (FM No. 406096-1-52-01; Contract E8M65); Miami-Dade County, FL; Client: Florida’s Turnpike Enterprise (FTE)/The de Moya Group, Inc.; Reference: (FTE) Paul Naranjo, PE, (407) 264-3429; paul.naranjo@dot.state.fl.us; Contract Amount: \$143 million; Length: 7.318 miles; Project Duration: 2013 to 2016 – The project consisted of design, widening, and reconstruction of SR 821/HEFT, to accommodate the future needs for capacity, operational and safety improvements, from north of SW 184th Street (Eureka Drive) to south of SW 104th Street/SR 990 (Killian Parkway), including the new extension of SR 874/Miami-Dade Expressway (MDX) through the interchange with SR 821 (HEFT). Capacity improvements were provided via the addition of one general-purpose lane and one express lane in each direction through the project limits. Reconstruction of the HEFT/SR 874 interchange modified the northbound configuration of the interchange to provide lane continuity for HEFT lanes on the left and SR 874 exiting traffic to the right. Operational and capacity improvements were provided to the surface streets at the interchanges. Project Role: Miscellaneous Structures Engineer-of-Record.

Districtwide Miscellaneous Structures Design Services GEC II (FIN No. 417069-2-32-01; Contract C9M49); Districtwide, Florida; Client: FDOT District 5/Florida Bridge and Transportation, Inc.; Reference: Mark Niedermann, PE, (407) 513-9709; MNiedermann@flbridge.com; Construction Cost: varies; Project Duration: 2016 to 2021 (Est.) – BCC Engineering, Inc. will update the designs for the miscellaneous structures based on the 90% ERC comments (consisting of a redesign of the concrete strain pole signal structure at LPGA Blvd., redesign of the four mast arm signal structures at Tomoka Farms Road, and the redesign of one cantilever overhead sign structures). Project Role: Structures Engineer-of-Record.

MDX Work Program No. 10019.030 – Design-Build Project for System-Wide Implementation of Dynamic Message Signs (DMS) (Contract RFP-13-04); Miami-Dade County, FL; Client: Miami-Dade Expressway Authority (MDX) / World Fiber Technologies, Inc.; Reference: Juan Toledo, PE, (305) 637-3277 ext. 2115; jtoledo@mdxway.com; Contract Amount: \$7.499 million; Project Duration: 2013 to 2015 – System-wide design, construction and installation of Intelligent Transportation Systems (ITS) components that included mainline and arterial Dynamic Message Signs (DMS), DMS verifications CCTV cameras and Incident Management CCTV cameras along MDX’s five operational expressways and multiple FDOT arterials. Project included nine mainline overhead span sign structures and nine overhead cantilever structures supporting Dynamic Messaging Signs as well as 18 CCTV camera strain poles. Responsible for design of all Sign Structures and CCTV strain poles. Project Role: Project Structural Engineer.

Wilfredo Rodriguez, PhD

Senior Drainage Designer

Mr. Rodriguez has 34 years of experience mainly in the area of transportation with emphasis in stormwater modeling, drainage design, permitting, stormwater management, and roadway design. Many of his projects have been for public agencies such as the Florida Department of Transportation, Miami-Dade County Public Works, Miami Expressway Authority and other cities and municipalities. As Project Engineer his responsibilities include the execution of roadway design, plans preparation, drainage design, stormwater runoff permitting, preliminary engineering studies, pavement design, utilities coordination, maintenance of traffic, roadway lighting design, signing and pavement marking, traffic signalization and traffic planning.

Project Experience

South Roosevelt Boulevard/SR A1A from Bertha Street (MP 0.000) to East of Smathers Beach (MP 0.778) (FPN No. 250548-4); Monroe County, FL; Client: City of Key West; Reference: Manny A. Sauleda, PE, (786) 350-9931; msauleda@metriceng.com; Length: 0.778 mile; Project Duration: 2007 to Ongoing – Engineering design for the reconstruction of SR A1A, a four-lane undivided road running along the southern coast of Key West along Smathers Beach. BCC was responsible for the development of the lighting and drainage systems. Major project features included the design of a drainage system that would minimize impacts on environmentally sensitive coastal waters, permitting for that system, extensive regulatory agency coordination and the use of decorative lighting fixtures for roadway and pedestrian lighting. Project Role: Drainage Engineer.

SR 821 (HEFT) Widening from South of SW 104th Street (Killian Parkway) to North of SW 72nd Street (Sunset Drive) – Design Build (FM Nos. 415051-1-52-01, 430811-1-52-01; Contract E8N18); Miami-Dade County, FL; Client: Florida's Turnpike Enterprise (FTE)/The de Moya Group, Inc.; Reference: Paul Naranjo, PE, (407) 264-3429; paul.naranjo@dot.state.fl.us; Length: 2.9 miles; Project Duration: 2014 to 2017 (Est.) – The project includes the milling, resurfacing, and widening of SR 821/HEFT, which accommodates the future needs for capacity, operational and safety improvements, from south of SW 104th Street/ SR 990 (Killian Parkway) to north of SW 72nd Street (Sunset Drive). Capacity improvements will be provided via the addition of two Express Lanes in each direction through the limits of the project in addition to the three General Purpose Lanes in each direction. The project also includes the resurfacing, restoration, and rehabilitation of Sunset Drive, as well as interchange improvements at Kendall Drive. Project Role: Drainage Engineer.

SR-9 (I-95)/Copans Road Interchange; Broward County, FL; Client: FDOT District 4; Reference: July Jimenez, (954) 777-4415; july.jimenez@dot.state.fl.us; Length: 1.19 miles; Project Duration: 2017 to 2019 (Est.) – The I-95/Copans Road interchange is a partial cloverleaf interchange with loop ramps in three of its four quadrants (northwest, southwest, and northeast quadrants). This project includes interchange improvements required to address deficiencies associated with the interchange. These deficiencies include a high level of traffic in the merge and diverge areas between entrance and exit ramps. To address these deficiencies, the interchange ramps will be modified in order to combine the two northbound entrance ramps into a single entrance ramp, physically separated from the I-95 General Purpose Lanes. Similarly, the two-southbound entrance and exit ramps will be combined to create a C-D road system in the SB direction. The interchange uses two parallel concrete beam bridges to carry I-95 over Copans Road. Accommodating the ramp modifications required for this project will require a minor widening of the northbound bridge, and either a major widening of the southbound bridge, or a new ramp bridge immediately west of the existing southbound bridge. Copans Road is an off-system Broward County facility, classified as urban minor arterial. The project includes enhanced coordination with Broward County to address re-striping Copans Road to provide Bike Lane continuity. Project Role: Drainage Design and Permitting Coordination.

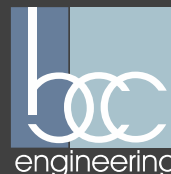
Design Services for SR 713/Kings Highway from SR 70 at Turnpike to North of I-95 Overpass (FM No. 230256-2-32-01; Contract C9675); St. Lucie County, FL; Client: FDOT District 4; Reference: Bing Wang, PE, (954) 777-4406; bing.wang@dot.state.fl.us; Length: 3 miles; Contract Amount: \$2.9 million; Project Duration: 2012 to 2022 (Est.) – Reconstruction of Kings Highway to widen from a two-lane facility to a four-lane divided section (urban high speed). Key elements on the project included permitting, right-of-way acquisition, access management, traffic control during construction, and coordination with multiple projects by the District, Florida's Turnpike Enterprise, the County, and ongoing development in the area. Extensive coordination with South Florida Water Management District (SFWMD) and U.S. Army Corps of Engineers (USACOE) was required for permitting and mitigation of wetland and wild life impacts, and coordination with North St. Lucie River Water Control District for permitting of the drainage system and relocation of the existing canal bordering the west side of the road. Project Role: Senior Drainage Designer.



Years of Experience
34

Work History
BCC Engineering, Inc. (Miami)
2017 – Present
CSA Group
2006 – 2014
Post, Buckley, Schuh &
Jernigan, Inc.
2000 – 2006
Consul-Tech Enterprises, Inc.
1998 – 2000
Kunde Sprecher & Associates
1994 – 1998

Education
Ph.D. Hydraulic Engineering
Institute of Hydraulic
Engineering
Moscow, 1987
BS, MS Hydraulic Engineering,
Institute of Hydraulic
Engineering, 1983



SR 25 (Okeechobee Road) from East of NW 116 way to East of NW 87 Avenue (FIN No. 423251- 4-32-01; Contract 9Q28); Miami-Dade County, FL; Client: FDOT District 6; Reference: BaoYing Wang, (305) 470-5211; baoying.wang@dot.state.fl.us; Contract Amount: \$13.6 million; Length: 1.2 miles; Project Duration: 2016 to 2019 (Est.) – Final design of the largest segment of the Okeechobee Road corridor. This project includes the reconstruction of Okeechobee Road and design with third level bridges over NW 87th Avenue and second level flyover bridges to and from Okeechobee Road and NW 87th Avenue. The design will also include the realignment of NW 103rd Street as well as widening of NW 87th Avenue, NW South River Drive, and NW 106th Way. Project Role: Senior Drainage Designer.

SR 76 (Kanner Highway) Widening from SW Lost River Road (MP 25.780) to South of SR 714 (SE Monterey Road) MP 30.047); Martin County, FL; Client: FDOT District 4; Reference: Anson Sonnett, PE, (954) 779-4474; anson.sonnett@dot.state.fl.us; Contract Amount: \$1.9 million; Length: 4.327 miles; Project Duration: 2016 to 2018 – The project includes the widening of Kanner Highway from an existing four-lane divided arterial to a proposed six-lane divided arterial in order to relieve congestion and address trend of an increase in the number of accidents. Work consists of widening the existing pavement to the inside and outside between SW Lost River Road and SE Cove Road, and to the inside between SE Cove Road and SW Cabana Point Circle. This will provide an additional travel lane and bicycle lane in each direction. Project structures include the outside widening of the existing Kanner Highway bridge over the South Fork of St. Lucie River, retaining walls, sound walls, and culvert extensions. Retaining wall design required accommodating existing buried AT&T facilities to remain in place. An innovative steel sheet pile/concrete panel wall system was used to avoid utility conflict. Concrete facing was applied to meet project aesthetic criteria. Project Role: Drainage Designer.

Gateway Expressway, Design Build (FM Nos. 433880-1-52-01, 424501-2-52-01; Contract E7J46); Tampa FL, Client: FDOT District 7/Archer Western-de Moya Joint Venture/Tampa BCC; Reference: Eyra Cash, (813) 975-6000, eyra.cash@dot.state.fl.us; Project Duration: 2016 to Ongoing – Design and construction of the Gateway Expressway (433880-1-52-01) and I-275 from south Gandy Boulevard to north 4th Street North (424501-2-52-01) in Pinellas County. The scope of work includes all investigations, design, permitting, coordination and final approved construction documents and the construction activities necessary to complete the project. The Project is segmented into two components. The Gateway Expressway component of the project will undertake major additions and changes to the existing roadway system in order to enhance safety, add capacity and mobility. The Project component (FPID 424501-2) along I-275, from south of Gandy Boulevard (SR 694) to north of 4th Street North, will construct one tolled (Dynamic) express lane in each direction (one Northbound and one Southbound) along I-275. This project component will also provide a direct connection (a flyover ramp) from Southbound I-275 express lanes to Westbound Gateway Expressway and from Eastbound Gateway Expressway to the Northbound I-275 express lanes (also via a flyover ramp). An additional flyover ramp (non-tolled) is included in this Project component to carry Eastbound Gateway Expressway traffic onto the I-275 northbound non-tolled lanes just north of the Roosevelt Boulevard Interchange. Project Role: Senior Drainage Engineer. Primary responsibilities include all pertinent drainage systems and structures, including storm water systems with inlets, manholes scupper and pipes, cross road culverts, attenuation and/or detention ponds with fencing, ditch system with the appropriate protections, etc. Project Role: Drainage Engineer.

MDX Work Program 87410.030: Design-Build Services for SR 874 Ramp Connector to SW 128th Street (Contract No. RFP-15-02); Miami-Dade County, FL; Client: Miami-Dade Expressway Authority (MDX)/The de Moya Group, Inc.; Reference: Juan Toledo, PE, (305) 637-3277 ext. 2115; jtoledo@mdxway.com; Contract Amount: \$40 million; Project Duration: 2015 to 2018 (Est.) – As part of the Design-Build Team, BCC Engineering, Inc. is serving as Prime Designer for the design and construction of the MDX Ramp Connectors from SR 874 (Don Shula Expressway) to SW 128th Street from west of the SR 821 Homestead Extension of Florida's Turnpike (HEFT), to west of SR 825/SW 137th Avenue. The new ramp connectors will provide access to and from the Don Shula Expressway (SR 874) and SW 128th Street at SW 122nd Avenue, extending SR 874 west from its current terminus at the HEFT (approximately 0.5 mile). The ramp connectors will require third level flyovers over the existing SR 874/SR 821 interchange. The flyovers are complex category II bridges with straddle piers and drilled shaft foundations. The project will widen approximately 1.5 miles of SW 128th Street from a three-lane urban section to a five-lane urban section. Additional scope items include signals for three intersections, lighting design, Intelligent Transportation Systems (ITS) design and utility work for Miami-Dade Water and Sewer Department. BCC is responsible for project management, roadway, drainage, traffic operations and structural design for the project. Project Role: Senior Drainage Designer.

SR 826/I-75 Express Lanes Project – Design-Build (FM Nos. 432687-1-52-01, 432687-2-52-01, 432687-1-56-01, 430795-1-52-01, 430795-1-52-02; Contract E6I05); Miami-Dade County, FL; Client: FDOT District 6 / The Community/Condotte/de Moya JV; Reference: (FDOT) Judy Solaun-Gonzalez, PE, (305) 470-5343; judy.solaun@dot.state.fl.us; Contract Amount: \$243.6 million; Length: 13 miles; Project Duration: 2014 to 2020 (Est.) – Project includes the addition of approximately 13 miles of Express Lanes to be constructed – 10 miles along the SR 826 (Palmetto Expressway) and three miles on I-75 (SR 93). On SR 826, one to two express lanes in each direction will be provided beginning approximately 0.20 mile south of West Flagler Street (south of SR 836) up to a point south of the NW 154th Street Bridge. On I-75, one express lane will be provided in each direction from SR 826 and to NW 170th Street (2.0 miles south of the Miami-Dade/Broward County Line). The improvements consist of widening both SR 826 and I-75, reconstruction on SR 826, new construction in the median of I-75, and an elevated structure connecting the Express Lanes on SR 826 to the Express Lanes on I-75. This project includes new drainage, lighting, Intelligent Transportation Systems (ITS), signage, and landscape. Project Role: Senior Drainage Designer.

Junior Henry, PE

Project Engineer

Mr. Henry has five years of experience in transportation engineering. He has worked closely with roadway engineers and other staff in the design of roadway geometrics, signing and pavement markings, traffic signalization and project cost estimating. His design software experience includes AutoCAD, MicroStation and Geopak.

Project Experience

MDX Work Program 87410.030: Design-Build Services for SR 874 Ramp Connector to SW 128th Street (Contract No. RFP-15-02); Miami-Dade County, FL; Client: Miami-Dade Expressway Authority (MDX)/The de Moya Group, Inc.; Reference: Juan Toledo, PE, (305) 637-3277 ext. 2115; jtoledo@mdxway.com; Contract Amount: \$40 million; Project Duration: 2015 to 2018 (Est.) – As part of the Design-Build Team, BCC Engineering, Inc. is serving as Prime Designer for the design and construction of the MDX Ramp Connectors from SR 874 (Don Shula Expressway) to SW 128th Street from west of the SR 821 Homestead Extension of Florida's Turnpike (HEFT), to west of SR 825/SW 137th Avenue. The new ramp connectors will provide access to and from the Don Shula Expressway (SR 874) and SW 128th Street at SW 122nd Avenue, extending SR 874 west from its current terminus at the HEFT (approximately 0.5 mile). The ramp connectors will require third level flyovers over the existing SR 874/SR 821 interchange. The flyovers are complex Category 2 bridges with straddle piers and drilled shaft foundations. The project will widen approximately 1.5 miles of SW 128th Street from a three-lane urban section to a five-lane urban section. Additional scope items include signals for three intersections, lighting design, Intelligent Transportation Systems (ITS) design and utility work for Miami-Dade Water and Sewer Department. BCC is responsible for project management, roadway, drainage, traffic operations and structural design for the project. Project Role: Project Engineer – Roadway.

SR 826/I-75 Express Lanes Project – Design-Build (FM Nos. 432687-1-52-01, 432687-2-52-01, 432687-1-56-01, 430795-1-52-01, 430795-1-52-02; Contract E6I05); Miami-Dade County, FL; Client: FDOT District 6; Reference: Teresita Alvarez, PE, (305) 470-5287; teresita.alvarez@dot.state.fl.us; Contract Amount: \$243.6 million; Length: 13 miles; Project Duration: 01/2014 to 01/2017 (Est.) – Project includes the addition of approximately 13 miles of Express Lanes to be constructed; 10 miles along the SR 826 (Palmetto Expressway) and three miles on I-75 (SR 93). On SR 826, one to two Express Lanes in each direction will be provided beginning approximately 0.20 mile south of West Flagler Street (south of SR 836) up to a point south of the NW 154th Street Bridge. On I-75, one Express Lane will be provided in each direction from SR 826 and to NW 170th Street (2.0 miles south of the Miami-Dade/Broward County Line). The improvements consist of widening both SR 826 and I-75, reconstruction on SR 826, new construction in the median of I-75, and an elevated structure connecting the Express Lanes on SR 826 to the Express Lanes on I-75. This project includes new drainage, lighting, Intelligent Transportation Systems (ITS), signage, and landscape. Project Role: Project Engineer – Roadway.

SR 823 (NW 57th Avenue) from NW 202nd Street to SR 821 Westbound Off-Ramp; Miami-Dade County, FL; Client: FDOT District 6; Reference: Danny Iglesias, PE, (305) 470-5289; daniel.iglesias@dot.state.fl.us; Project Length: 1.175 miles; Project Duration: 2011 to 2015 – Final design and plans preparation for the sidewalk improvements along NW 57th Avenue (SR 823) from NW 202nd Street to the Southbound HEFT ramps. Improvements consisted of providing sidewalks along the east side of NW 57th Avenue between the limits above including improvements to Bridge No. 861550 (NW 57th Avenue over HEFT) and Bridge No. 860549 (NW 57th Avenue over the C-9 Canal). The project also included removal of existing traffic railings, addition of a raised sidewalk and new traffic railings on Bridge No. 860549. Project Role: Project Engineer responsible for cost estimate and assisting the Project Manager in the development of roadway plans and signing and pavement markings plans.

SR 826 (Palmetto Expressway) Improvements Program, Section 5 – Design-Build (FIN No. 249584-1-52-01; Contract E6F61); Miami-Dade County, FL; Client: FDOT District 6; Reference: Mario Cabrera, PE, (305) 640-7445; mario.cabrera@dot.state.fl.us; Contract Amount: \$559 million; Length: 2.77 miles; Project Duration: 2009 to 2016 – This project included the reconstruction of SR 826 from south of Flagler Street to north of NW 12th Street and SR 836 from east of NW 87th Avenue to west of 57th Avenue. The SR 826/SR 836 Interchange is a four-level System-to-System Interchange with direct connectors that provide for traffic movements in all directions between the two expressways. The project also included the reconstruction of two service interchanges, the reconstruction of NW 12th Street and the realignment of the North Line Canal. The project included 47 new bridge structures (four Concrete Segmental Flyovers, seven Steel Plate Girder, and 36 FIB) as well as an extensive amount of permanent and temporary walls, and sign structures. Responsibilities included the design of 21 Bridges (19-Florida-I Beam (FIB) Bridges – Category 1 and 2-Steel Plate Girder Bridges - Category 2), MSE walls up to 40 feet in height, temporary walls, anchored bulkhead walls for the realignment of the Northline Canal, and over 40 overhead sign structures. The



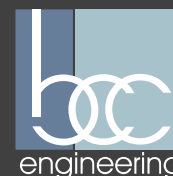
Years of Experience
5

Years of Post Registration
Experience
1

Work History
BCC Engineering, Inc. (Miami)
2013 – Present
Gannett Fleming, Inc.
2013 – 2013

Education
BS in Civil Engineering, 2011
Florida International University

Registration
Professional Engineer
Florida No. 82644, 2017



Florida-I Beam (FIB) bridges utilized all different types of Florida-I Beam sizes and bridges consisting of single span and multi-span bridges with span lengths varying between 71 feet to 170 feet. Several bridges are complete replacements of the existing bridges and required phased construction. Project Role: Project Engineer – Roadway.

SR 836/I-395 from West of I-95 to MacArthur Causeway Bridge (FM No. 251688-1-32-01; Contract C9279); Miami-Dade County, FL; Client: FDOT District 6; Reference: Maria I. Perdomo, PE, (305) 640-7186; maria.perdomo@dot.state.fl.us; Contract Amount: \$600 million; Length: 1.4 miles; Project Duration: 2011 to 2014 – BCC prepared the preliminary geometric design for the reconstruction of the entire Interstate 395 (I-395) corridor, from the terminus at the west side of the I-95/Midtown Interchange (I-95/SR 836/I-395) to the original corridor terminus at the West Channel Bridges of US 41/MacArthur Causeway. This project was developed to improve mainline operations along I-395, reduce congestion on the surface streets below and provide enhanced access to the Performing Arts Center and surrounding areas of downtown Miami. Project Role: Project Engineer responsible for preparation of exceptions and variations and assisting the Task Manager with the roadway design.

SR 821 (HEFT) Widening from South of SW 104th Street (Killian Parkway) to North of SW 72nd Street (Sunset Drive) – Design-Build (FM Nos. 415051-1-52-01, 430811-1-52-01; Contract E8N18); Miami-Dade County, FL; Client: Florida's Turnpike Enterprise/The de Moya Group, Inc.; Reference: (FTE PM) Paul Naranjo, PE, (407) 264-3429; paul.naranjo@dot.state.fl.us; Length: 2.9 miles; Project Duration: 2014 to 2017 (Est.) – The project includes the milling, resurfacing and widening of SR 821, the Homestead Extension of the Florida Turnpike (HEFT), which accommodates the future needs for capacity, operational and safety improvements, from south of SW 104th Street/SR 990 (Killian Parkway) to north of SW 72nd Street (Sunset Drive). Capacity improvements will be provided via the addition of two Express Lanes in each direction through the limits of the project in addition to the three General Purpose Lanes in each direction. The project also includes the resurfacing, restoration, and rehabilitation of Sunset Drive as well as interchange improvements at Kendall Drive. Project Role: Project Engineer responsible for assisting the Project Manager in the development of roadway plans and signing and pavement markings plans.

SR 821 (HEFT) Widening from North of SW 184th Street (Eureka Drive) to South of SW 104th Street/SR 990 (Killian Parkway) – Design-Build (FM No. 406096-1-52-01; Contract E8M65); Miami-Dade County, FL; Client: Florida's Turnpike Enterprise/The de Moya Group, Inc.; Reference: (FTE PM) Paul Naranjo, PE, (407) 264-3429; paul.naranjo@dot.state.fl.us; Length: 7.318 miles; Project Duration: 2013 to 2017 (Est.) – The project includes the design, widening and reconstruction of SR 821, the Homestead Extension of the Florida Turnpike (HEFT), which accommodates the future needs for capacity, operational and safety improvements, from north of SW 184th Street (Eureka Drive) to south of SW 104th Street/SR 990 (Killian Parkway), including a new extension of SR 874 (MDX) through the interchange with SR 821 (HEFT). Capacity will be provided via the addition of one General Purpose Lane and one Express Lane in each direction through the limits of the project. Reconstruction of the HEFT/SR 874 Interchange will modify the northbound configuration of the interchange in order to provide lane continuity for HEFT lanes on the left and SR 874 exiting traffic to the right. Additional surface street improvements will be provided to improve operations and capacity at the interchanges. Project Role: Project Engineer responsible for assisting the Project Manager in the development of roadway plans and signing and pavement markings plans.

MDX Work Program No. 83629 – Reconstruction of the NW 87th Avenue Interchange at SR 836; Miami-Dade County, FL; Client: Miami-Dade Expressway Authority (MDX)/A&P Consulting Transportation Engineers (APCTE); Reference: (GEC PM) Gil Portela, PE, (305) 551-8100 (HNTB)/(786) 252-2457; portela@HNTB.com; Contract Amount: \$5.6 million; Design Fee (BCC Engineering, Inc. (BCC)): \$2.2 million; Length: 1.5 miles; Project Duration: 2012 to Present – The project consists of the reconstruction of the SR 836 Interchange at NW 87th Avenue, including the reconstruction of the SR 836 mainline for approximately 1.5 miles, reconstruction of NW 12th Street for approximately 0.6 mile, and the widening of NW 87th Avenue in the vicinity of the interchange. The project includes the construction of seven new bridges, including replacement of mainline bridges, a new flyover bridge, noise walls, mechanically stabilized earth (MSE) walls, lighting, drainage, landscaping, etc. BCC's responsibilities include the initial development of the roadway geometry (horizontal, vertical, cross section, etc.) along with development of 50% roadway plans, full development of Traffic Control Plans (TCPs), and the design of four of the project bridges. Project Role: Project Engineer.

Districtwide Miscellaneous PE Design Consultant (FM No. 250605-1-32-09; Contract C8Y66); Miami-Dade County, FL; Client: FDOT District 6; Reference: Teresita Alvarez, PE, (305) 470-5287; teresita.alvarez@dot.state.fl.us; Length: n/a; Project Duration: 2010 to Present – Structural Designer for several task work orders for safety improvement projects including SR 5 (US-1) from SW 80th Street to Kendall Drive. This project involved the load rating of an existing cast-in-place beam-slab bridge previously widened using precast slab units. The enhanced evaluation of this structure involved an in-depth review of the structural interaction of the differing superstructure sections to include: field verification of conditions, review of past performance and load ratings, the remaining design life of the structure, and close coordination with the District Six Bridge Maintenance office. Project Role: Project Engineer.

Amarilis Chao, EI

Civil/Utility Engineer

Ms. Chao has over 12 years of experience with paving and drainage design, striping and signage plans, and water, sewer, and force main collection system designs. Ms. Chao has excellent planning and coordination skills and works well in a team environment.

Project Experience

South Roosevelt Boulevard/SR A1A from Bertha Street (MP 0.000) to East End of Smathers Beach (MP 0.778) (FPN No. 250548-4); Monroe County, FL; Client: City of Key West; Reference: Manuel Sauleda, PE, (786) 350-9931; msauleda@metriceng.com; Length: 0.778 mile; Project Duration: 2007 to 2015 – Engineering design for the reconstruction of SR A1A, a four-lane undivided road running along the southern coast of Key West along Smathers Beach. BCC Engineering was responsible for the development of the lighting and drainage systems. Major project feature included the design of a drainage system that would minimize impacts on environmentally sensitive coastal waters, permitting for that system, extensive regulatory agency coordination and the use of decorative lighting fixtures for roadway and pedestrian lighting. Project Role: Project Designer.

SR 826 (Palmetto Expressway) Improvements Program, Section 5 – Design-Build (FIN No. 249584-1-52-01; Contract E6F61); Miami-Dade County, FL; Client: FDOT District 6; Reference: Mario Cabrera, PE, (305) 640-7445; mario.cabrera@dot.state.fl.us; Contract Amount: \$559 million; Length: 2.77 miles; Project Duration: 2009 to 2016 – This project included the reconstruction of SR 826 from south of Flagler Street to north of NW 12th Street and SR 836 from east of NW 87th Avenue to west of 57th Avenue. The SR 826/SR 836 Interchange is a four-level System-to-System Interchange with direct connectors that provide for traffic movements in all directions between the two expressways. The project also included the reconstruction of two service interchanges, the reconstruction of NW 12th Street and the realignment of the North Line Canal. The project included 47 new bridge structures (four Concrete Segmental Flyovers, seven Steel Plate Girder, and 36 FIB) as well as an extensive amount of permanent and temporary walls, and sign structures. Responsibilities included the design of 21 Bridges (19-Florida-I Beam (FIB) Bridges – Category 1 and 2-Steel Plate Girder Bridges - Category 2), MSE walls up to 40 feet in height, temporary walls, anchored bulkhead walls for the realignment of the Northline Canal, and over 40 overhead sign structures. The Florida-I Beam (FIB) bridges utilized all different types of Florida-I Beam sizes and bridges consisting of single span and multi-span bridges with span lengths varying between 71 feet to 170 feet. Several bridges are complete replacements of the existing bridges and required phased construction. Project Role: Project Engineer.

Flagler Street Downtown Beautification – Civil Engineering Services for Roadway Projects (RFQ No. 06-07-039); Miami, FL; Client: City of Miami Department of Capital Improvements Program; Reference: Hector Badia, (305) 416-1236; HBadia@miamigov.com; Project Duration: 2011 to Present – The project involves full roadway reconstruction, sidewalk widening, and coordination with the landscape architect to propose trees in a corridor saturated by underground utilities designed and permitted for relocation. The provision of new hardscape patterns, the street lighting design and the drainage re-design of the drainage system to provide a 100-year service life operation. In addition, this project includes extensive utility coordination and the new design of the water distribution line and two sanitary sewer gravity lines. Extensive coordination with permitting authorities and field investigations to identify existing conditions and topographic surveys was also provided. Project Role: Project Engineer.

SR 836 Extension from NW 107th Avenue to NW 137th Avenue including the Widening and Reconstruction of SW/NW 137th Avenue from SW 8th Street to NW 12th Street, Design-Build; Miami-Dade County, FL; Client: Miami-Dade Expressway Authority (MDX)/Community Asphalt Corporation; Reference: Juan Toledo, PE, (305) 637-3277 ext. 2115; jtoledo@mdxway.com; Contract Amount: \$177 million; Length: 5.6 miles; Project Duration: 2004 to 2008 – The improvements consisted of the construction of a new limited-access facility extending SR 836 3.14 miles from its terminus at the Homestead Extension of Florida's Turnpike (HEFT) to NW 137th Avenue running parallel to NW 12th Street. In addition, the project constructed a new 1.6-mile, six-lane section of 137th Avenue from SW 8th Street to NW 12th Street. The project was the largest highway construction design-build project in the State of Florida at the time of letting and included five complex curved steel box girder structures and two Florida U-Beam bridges. The project consisted of new drainage, lighting, landscaping improvements, Intelligent Transportation Systems (ITS), and signalization improvements. Project Role: CADD designer assisting the Project Manager/Roadway with roadway design, structural design, drainage design, signing and pavement markings design, and permitting.

MDX Work Program 87410.030: Design-Build Services for SR 874 Ramp Connector to SW 128th Street (Contract No. RFP-15-02); Miami-Dade County, FL; Client: Miami-Dade Expressway Authority (MDX)/The de Moya Group, Inc.; Reference: Juan Toledo, PE,



Years of Experience
12

Work History
BCC Engineering, Inc. (Miami)
2008 – Present
Ford Engineers, Inc.
2006 – 2008

Education
BS in Civil Engineering, 2004
University of Havana

Training
Successfully completed:
AutoCAD Civil 3D 2010
Essentials, Certificate No.
15FDOZVZC47

Registration
Engineering Intern
Florida No. 1100015389, 2011



(305) 637-3277 ext. 2115; jtoledo@mdxway.com; Contract Amount: \$40 million; Project Duration: 2015 to 2018 (Est.) – As part of the Design-Build Team, BCC Engineering, Inc. is serving as Prime Designer for the design and construction of the MDX Ramp Connectors from SR 874 (Don Shula Expressway) to SW 128th Street from west of the SR 821 Homestead Extension of Florida's Turnpike (HEFT), to west of SR 825/SW 137th Avenue. The new ramp connectors will provide access to and from the Don Shula Expressway (SR 874) and SW 128th Street at SW 122nd Avenue, extending SR 874 west from its current terminus at the HEFT (approximately 0.5 mile). The ramp connectors will require third level flyovers over the existing SR 874/SR 821 interchange. The flyovers are complex category II bridges with straddle piers and drilled shaft foundations. The project will widen approximately 1.5 miles of SW 128th Street from a three-lane urban section to a five-lane urban section. Additional scope items include signals for three intersections, lighting design, Intelligent Transportation Systems (ITS) design and utility work for Miami-Dade Water and Sewer Department. BCC is responsible for project management, roadway, drainage, traffic operations and structural design for the project. Project Role: Project Engineer.

Design-Build Services to furnish and install a 48-inch Force Main along North Miami Avenue to NE 2nd Avenue. (Contract No. DB14-WASD-05); Miami, FL; Client: Miami-Dade Water and Sewer Department; Reference: Juan Muniz (305) 592-7283; jmuniz@apcte.com; Project Duration: 2016 to 2017 – Design-Build services and commissioning activities associated with the construction of a new 48-inch sewer force main. The Design-Builder also complied with all required construction methods for the project which includes minimizing noise, dust, and other impacts to surrounding residential neighborhoods. Project specifics include 12,700 LF of 48-inch prestressed concrete cylinder pipe (PCCP) and fittings; construction of three micro-tunnels (approximately 1,300 LF) with 48-inch carrier mains inside 72-inch steel casings under the railroad crossing along North Miami Avenue at NW 19th Street, under the railroad crossing at NE 36 Street and North Federal Highway furnish and install the one inch thick, 72-inch casings; furnishing and installing casing spacers; constructing jacking and receiving pits for the micro-tunnel. Install 10 access manhole assemblies, furnish and install ten 48-inch plug valves, etc. Project Role: Project Engineer.

SR 821 (HEFT) Widening from South of SW 104th Street (Killian Parkway) to North of SW 72nd Street (Sunset Drive) – Design-Build (FM Nos. 415051-1-52-01, 430811-1-52-01; Contract E8N18); Miami-Dade County, FL; Client: Florida's Turnpike Enterprise/The de Moya Group, Inc.; Reference: Paul Naranjo, PE, (407) 264-3429; paul.naranjo@dot.state.fl.us; Contract Amount: \$73,880,232; Length: 2.9 miles; Project Duration: 2014 to 2017 – The project included the milling, resurfacing and widening of SR 821, the Homestead Extension of the Florida Turnpike (HEFT), which accommodates the future needs for capacity, operational and safety improvements, from south of SW 104th Street/SR 990 (Killian Parkway) to north of SW 72nd Street (Sunset Drive). Capacity improvements was provided via the addition of two Express Lanes in each direction through the limits of the project, in addition to the three general purpose lanes in each direction. The project also includes the resurfacing, restoration, and rehabilitation of Sunset Drive, as well as interchange improvements at Kendall Drive. Project Role: Project Engineer.

SR 821 (HEFT) Widening North of SW 184th Street (Eureka Drive) to South of SW 104th Street/SR 990 (Killian Parkway) – Design-Build (FM No. 406096-1-52-01; Contract E8M65); Miami-Dade County, FL; Client: Florida's Turnpike Enterprise (FTE)/The de Moya Group, Inc.; Reference: (FTE) Paul Naranjo, PE, (407) 264-3429; paul.naranjo@dot.state.fl.us; Contract Amount: \$143 million; Length: 7.318 miles; Project Duration: 2013 to 2017 – The project included the design, widening, and reconstruction of SR 821/HEFT, which accommodates the future needs for capacity, operational and safety improvements, from north of SW 184th Street (Eureka Drive) to south of SW 104th Street/SR 990 (Killian Parkway), including a new extension of SR 874/Miami-Dade Expressway (MDX) through the interchange with SR 821 (HEFT). Capacity will be provided via the addition of one General Purpose Lane and one Express Lane in each direction through the limits of the project. Reconstruction of the HEFT/SR 874 interchange will modify the northbound configuration of the interchange in order to provide lane continuity for HEFT lanes on the left and SR 874 exiting traffic to the right. Additional surface street improvements will be provided to improve operations and capacity at the interchanges. Project Role: Project Engineer.

MDX Work Program 11211 – Central Boulevard Widening Realignment and Service Loop – Design-Build; Miami-Dade County, FL; Client: Miami-Dade Expressway Authority (MDX); Reference: Juan Toledo, PE, (305) 637-3277 ext. 2115; jtoledo@mdxway.com; Contract Amount: \$134 million; Length: 0.704 mile; Project Duration: 2010 to 2015 – Reconstruction of the principal access in and out of Miami International Airport (MIA). The \$45 million project also included construction of north and south service loops to separate airport service vehicles from passenger vehicles; reconstruction of NW 20th Street and NW 42nd Court; seven bridges; Intelligent Transportation Systems (ITS), improvements; and signature MIA wayfinding signage. Improvements also included drainage, signing and pavement markings, lighting, signalization, utilities and landscaping. Project Role: Project Designer.

Angel Ferrer

CADD Technician

Mr. Ferrer has 45 years of experience as a CADD Technician. Mr. Ferrer has been responsible for the preparation of roadway construction documents in MicroStation and AutoCAD format for private and public clients. He is highly experienced in FDOT plans production format and the use of MicroStation for setting alignments, cross sections, drainage structures signing and pavement marking, and traffic control elements. Mr. Ferrer is also proficient in quantities calculations.

Project Experience

SR 25 (Okeechobee Road) from East of NW 116 way to East of NW 87 Avenue (FIN No. 423251-4-32-01; Contract 9Q28); Miami-Dade County, FL; Client: FDOT District 6; Reference: BaoYing Wang, (305) 470-5211; baoying.wang@dot.state.fl.us; Contract Amount: \$13.6 million; Length: 1.2 miles; Project Duration: 2016 to 2019 (Est.) – Final design of the largest segment of the Okeechobee Road corridor. This project includes the reconstruction of Okeechobee Road and design with third level bridges over NW 87th Avenue and second level flyover bridges to and from Okeechobee Road and NW 87th Avenue. The design will also include the realignment of NW 103rd Street as well as widening of NW 87th Avenue, NW South River Drive, and NW 106th Way. Project Role: CADD Technician.

SR 826/I-75 Express Lanes Project – Design-Build (FM Nos. 432687-1-52-01, 432687-2-52-01, 432687-1-56-01, 430795-1-52-01, 430795-1-52-02; Contract: E6105); Miami-Dade County, FL; Client: FDOT District 6; Reference: Teresita Alvarez, PE, (305) 470-5287; teresita.alvarez@dot.state.fl.us; Contract Amount: \$243.6 million; Length: 13 miles; Project Duration: 2014 to 2017 – The project included the addition of approximately 13 miles of Express Lanes to be constructed – 10 miles along the SR 826 (Palmetto Expressway) and three miles on I-75 (SR 93). On SR 826, one to two Express Lanes in each direction will be provided beginning approximately 0.20 mile south of West Flagler Street (south of SR 836) up to a point south of the NW 154th Street Bridge. On I-75, one Express Lane will be provided in each direction from SR 826 and to NW 170th Street (2.0 miles south of the Miami-Dade/Broward County Line). The improvements consist of widening both SR 826 and I-75, reconstruction on SR 826, new construction in the median of I-75, and an elevated structure connecting the Express Lanes on SR 826 to the Express Lanes on I-75. This project included new drainage, lighting, Intelligent Transportation Systems (ITS), signage, and landscape. Project Role: CADD Technician.

SR 821 (HEFT) Widening from South of SW 104th Street (Killian Parkway) to North of SW 72nd Street (Sunset Drive) – Design-Build (FM Nos. 415051-1-52-01, 430811-1-52-01; Contract E8N18); Miami-Dade County, FL; Client: Florida's Turnpike Enterprise/The de Moya Group, Inc.; Reference: Paul Naranjo, PE, (407) 264-3429; paul.naranjo@dot.state.fl.us; Contract Amount: \$73,880,232; Length: 2.9 miles; Project Duration: 2014 to 2017 – The project included the milling, resurfacing and widening of SR 821, the Homestead Extension of the Florida Turnpike (HEFT), which accommodates the future needs for capacity, operational and safety improvements, from south of SW 104th Street/SR 990 (Killian Parkway) to north of SW 72nd Street (Sunset Drive). Capacity improvements were provided via the addition of two Express Lanes in each direction through the limits of the project, in addition to the three General Purpose Lanes in each direction. The project also included the resurfacing, restoration, and rehabilitation (3R) of Sunset Drive, as well as interchange improvements at Kendall Drive. Project Role: CADD Technician.

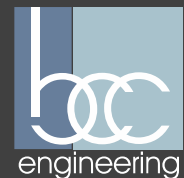
SR 821 (HEFT) Widening from North of SW 184th Street (Eureka Drive) to South of SW 104th Street (Killian Parkway) – Design-Build (FM No. 406096-1-52-01; Contract E8M65); Miami-Dade County, FL; Client: Florida's Turnpike Enterprise/The de Moya Group, Inc.; Reference: (FTE) Paul Naranjo, PE, (407) 264-3429; paul.naranjo@dot.state.fl.us; Contract Amount: \$143 million; Project Duration: 2013 to 2017 – The project included the design, widening and reconstruction of SR 821, the Homestead Extension of the Florida Turnpike (HEFT), which accommodates the future needs for capacity, operational and safety improvements, from north of SW 184th Street (Eureka Drive) to south of SW 104th Street/SR 990 (Killian Parkway), including a new extension of SR 874 Miami-Dade Expressway (MDX) through the interchange with SR 821 (HEFT). Capacity was provided via the addition of one General Purpose Lane and one Express Lane in each direction. Reconstruction of the HEFT/SR 874 Interchange will modify the northbound configuration of the interchange in order to provide lane continuity or HEFT lanes on the left and SR 874 exiting traffic to the right. Additional surface street improvements will be provided to improve operations and capacity. Project Role: CADD Technician.



Years of Experience
45

Work History
BCC Engineering, Inc. (Miami)
2016 – Present
Gannett Fleming, Inc.
2012 – 2016
CSA Group
2006 – 2012
Consul-Tech Engineering, Inc.
2001 – 2006
PHS Consulting Engineers
1999 – 2000
Vazquez & Associates
Architects
1997 – 1999
Coreslab Structures
1995 – 1997
National Institute of Hydraulic
Resources
1973 – 1995

Education
BS in Electromechanical
Engineering, 1973
Havana, Cuba
Technician of Constructions,
1976
Havana, Cuba



SR 76 (Kanner Highway) Widening from SW Lost River Road (MP 25.780) to South of SR 714 (SE Monterey Road) MP 30.047); Martin County, FL; Client: FDOT District 4; Reference: Anson Sonnett, PE, (954) 779-4474; anson.sonnett@dot.state.fl.us; Contract Amount: \$1.9 million; Length: 4.327 miles; Project Duration: 2016 to 2018 (Est.) – The project includes the widening of Kanner Highway from an existing four-lane divided arterial to a proposed six-lane divided arterial in order to relieve congestion and address trend of an increase in the number of accidents. Work consists of widening the existing pavement to the inside and outside between SW Lost River Road and SE Cove Road, and to the inside between SE Cove Road and SW Cabana Point Circle. This will provide an additional travel lane and bicycle lane in each direction. Project structures include the outside widening of the existing Kanner Highway bridge over the South Fork of St. Lucie River, retaining walls, sound walls, and culvert extensions. Retaining wall design required accommodating existing buried AT&T facilities to remain in place. An innovative steel sheet pile/concrete panel wall system was used to avoid utility conflict. Concrete facing was applied to meet project aesthetic criteria. Project Role: CADD Technician.

MDX Work Program 87410.030: Design-Build Services for SR 874 Ramp Connector to SW 128th Street (Contract No. RFP-15-02); Miami-Dade County, FL; Client: Miami-Dade Expressway Authority (MDX)/The de Moya Group, Inc.; Reference: Juan Toledo, PE, (305) 637-3277 ext. 2115; jtoledo@mdxway.com; Contract Amount: \$40 million; Project Duration: 2015 to 2018 (Est.) – As part of the Design-Build Team, BCC Engineering, Inc. is serving as Prime Designer for the design and construction of the MDX Ramp Connectors from SR 874 (Don Shula Expressway) to SW 128th Street from west of the SR 821 Homestead Extension of Florida's Turnpike (HEFT), to west of SR 825/SW 137th Avenue. The new ramp connectors will provide access to and from the Don Shula Expressway (SR 874) and SW 128th Street at SW 122nd Avenue, extending SR 874 west from its current terminus at the HEFT (approximately 0.5 mile). The ramp connectors will require third level flyovers over the existing SR 874/SR 821 interchange. The flyovers are complex Category II bridges with straddle piers and drilled shaft foundations. The project will widen approximately 1.5 miles of SW 128th Street from a three-lane urban section to a five-lane urban section. Additional scope items include signals for three intersections, lighting design, Intelligent Transportation Systems (ITS) design and utility work for Miami-Dade Water and Sewer Department. BCC is responsible for project management, roadway, drainage, traffic operations and structural design for the project. Project Role: CADD Technician.

SR 9 (I-95) Widening from North of SR 60 (Osceola Boulevard) (MP 6.611) to Indian River (Brevard County Line) (MP 19.198) (FM No. 413049-2-52-01; Contract E4M78); Indian River County, FL; Client: FDOT District 4/Community Asphalt Corp.; Reference: Vanita Saini, PE, (954) 777-4468; vanita.saini@dot.state.fl.us; Contract Amount: \$51 million; Length: 12.510 miles; Project Duration: 2013 to 2015 – This 13-mile project involves the widening of SR 9/I-95 from four to six lanes, milling and resurfacing of existing lanes, reconstruction of the interchange at CR 512, bridge replacements at CR 512, reconstruction of approximately two miles of the I-95 mainline, widening of CR 512 and replacement of 16 major box culverts under I-95. Key elements of the project include coordination with the U.S. Army Corps of Engineers (USACE) for drainage modifications which included replacement of several culverts, traffic control during construction, coordination with multiple agencies including Saint Johns River Water Management District (SJRWMD) for the permitting and mitigation of wetland impacts, continuous contact with utility agencies regarding utilities in conflict with proposed improvements, and adjustment of existing Intelligent Transportation System (ITS) structures when shifting traffic. Other scope items included the replacement of median guardrail, construction of sound abating walls, miscellaneous drainage repairs including lining and pipe replacement, installation, and relocation of Dynamic Message Signs (DMS) and structures and coordination for Temporary Traffic Control (TTC) with on-going projects immediately north and south of the project limits. Primary responsibilities included roadway design, as well as managing design for drainage, temporary traffic control (TTC), signing and pavement marking, signals, structures, Intelligent Transportation Systems (ITS), lighting and permitting. Project Role: CADD Technician.

SR 9 (I-95) Express Lanes and Ramp Signals – Phase 3A-1 from South of Broward Boulevard to North of Commercial Boulevard – Design-Build (FM Nos. 433108-4-52-01, 428009-1-52-01; Contract E4Q32); Broward County, FL; Client: FDOT District 4/The de Moya Group, Inc.; Reference: (FDOT) Vanita Saini, PE, (954) 777-4468; vanita.saini@dot.state.fl.us/(de Moya) Geoff Ferero, (305) 255-5713; geoff.ferero@demoya.com; Contract Value: \$148,749,800; Length: 6.53 miles; Project Duration: 2015 to 2018 (Est.) – Phase 3A-1 represents the first of several separate I-95 Express Lanes Design-Build projects that will ultimately extend 95 Express from Stirling Road in Broward County to Linton Boulevard in Palm Beach County. The Phase 3A-1 limits are from south of Broward Boulevard to north of Commercial Boulevard. The project includes converting the existing High Occupancy Vehicle (HOV) lanes to High Occupancy Toll (HOT) lanes, as well as one lane widening in each direction, resulting in two tolled Express Lanes in each direction. The number of existing General Use and Auxiliary Lanes will remain the same. Access to the Express Lanes will be limited to designated entry and exit point locations: between Broward Boulevard and Sunrise Boulevard, and between Oakland Park Boulevard and Commercial Boulevard. The facility will employ Electronic Toll Collection (ETC) via the Florida Turnpike Enterprise's (FTE) SunPass system. Other project improvements include: milling, resurfacing, and overbuilding of the I-95 General Use Lanes; guardrail; barrier wall; attenuators; shoulder gutters; drainage; bridge widenings; temporary and permanent retaining walls; sound barrier walls; sign structures; portable traffic monitoring sites; tolling gantries and associated infrastructure including equipment buildings; Intelligent Transportation System (ITS); signing and pavement markings; Express Lane delineators; signalization; lighting; ramp (metering) signals; utility relocation; landscaping; and any additional items required to provide a complete highway system in accordance with all standard Department policies, procedures, and guidelines. Project Role: CADD Technician.

Certification of Current Cost or Pricing Data (F.A.R. 15.406-2)

Consultant Name: BCC Engineering Inc

Financial Project ID No.: 250548

Project Description: AR A1A - South Roosevelt Boulevard

Date: November 9, 2018

Wage Certification

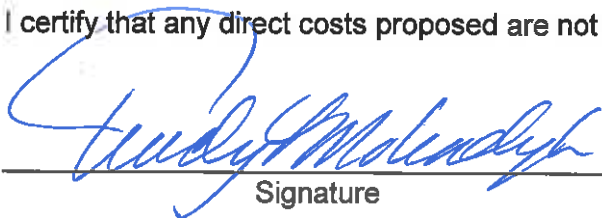
This is to certify, that, the wage rates listed for employees in the Department's Automated Fee Proposal spreadsheet (i.e., cost and pricing data as referenced under FAR subsection 15.403-4) submitted to the Contracting Officer or the Contracting Officer's representative, are current as of this date. I have attached a copy of the current payroll register that supports these rates.

Certification of Accounting Practices

I certify that the practices used in estimating costs and pricing the proposal are consistent with cost accounting practices.

Certification of Direct Costs

I certify that any direct costs proposed are not included as overhead in the Consultant's accounting system.



Signature

Trudy Molendyk, Controller

Title

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
OPERATING MARGIN JUSTIFICATION

375-030-82
PROCUREMENT
02/16

1. CONTACT INFORMATION

a. Firm Name: BCC Engineering, Inc.		b. Phone No.: (305) 670-2350	
c. Address (including suite number): 6401 SW 87 th Avenue, Suite 200	d. City: Miami	e. State: FL	f. Zip Code: 33173

2. COMPLEXITY OF PROJECT

The degree of difficulty associated with this project. Are there unique aspects to the project? Degree of coordination with others outside FDOT should be considered. This includes other agencies, municipalities, etc. multiple districts, multimodal projects
LOW – Straight-forward projects. Well defined and specific scope of services.

Typical Project Type

- **Bridge Inspection:** bridge inspection except scour; All
- **CEI:** Category 1 Bridges, 3R Rural, signalization, simple and straight-forward projects.
- **Design:** simple 3R-Rural; 3R Urban ride only.
- **Geotechnical:** standard.
- **PD&E:** Small simple projects with specific scopes.
- **Planning:** Data/traffic counts.
- **Survey:** resurfacing 3R rural/urban.
- **Traffic Operations:** turn-lane projects (design).

MEDIUM – Projects with some specialized areas requiring some specialized skills.

Typical Project Type

- **Bridge Inspection:** generally not applicable.
- **CEI:** resurfacing with some improvements; ITS, construction on new alignments, and signal system timing, development and implementation; rural arterials and rural interstate capacity improvements.
- **Design:** 3R Urban with some improvements, intersection, improvements with safety, Category 1 bridges.
- **PD&E:** widening with limited issues and bridge replacement with limited impacts.
- **Railroads:** all.
- **Survey:** survey in water areas.
- **Traffic Operations:** traffic operations studies and signal design projects.

HIGH – Complex multi-disciplined projects requiring specialized skills with significant management issues. Project that has numerous complicated traffic phases, involved highly technical construction features requiring specialized skills of the inspection staff. A complex project may also include complex involvement by multiple third parties (i.e., multiple utility relocations, railroads, airports, regulatory agencies, municipalities). The size of the project will not necessarily determine whether the construction project is complex. Large, repetitive projects on their own are not considered complex.

Typical Project Type

- **Bridge Inspection:** bridge scour.
- **CEI:** CEI for multi-level bridges in a corridor or interchange; numerous complicated traffic phases; specialized technical skills; Coating Systems; bridge projects involving movable spans, significant post-tensioning operations, pre-cast segmental components, and steel structures with large horizontal and vertical curvature; Multiple third party involvement (railroads, utilities, airports, municipalities, regulatory agencies)
- **Design:** new alignments, major widening, major reconstruction, railroad bridge design, Segmental Class 2 bridges, Movable Bridges.
- **PD&E:** PD&E with Feasibility study, multiple disciplines, significant issues;
- **Planning:** large planning (multimodal).
- **Survey:** pilings and bridges.
- **Traffic Operations:** ITS

Complexity of Project Allowed Range: 5% to 7%

Consultant %: 7.00%

JUSTIFICATION:

The drainage design is required for a major reconstruction project. Constructed in a limited R/W and not adversely impact adjacent high value and high profile property.

3. DEGREE OF (FINANCIAL) RISK

Indicate the amount of financial risk assumed by the consultant in relation to this project.
LOW – Contracts with well-defined and specific scopes, minimal probability of costs overruns and low financial risk exposure. Scope clarification meeting held, if applicable.

Typical Project Type

- **Bridge Inspection:** bridge inspections.
- **CEI:** subconsultants providing support personnel, ITS.
- **Design:** simple 3R rural, 3R urban ride only.
- **Geotechnical:** all.
- **PD&E:** accurate and specific scope & pre-negotiation meetings.
- **Planning:** most planning.
- **Survey:** all, including SUE.
- **Traffic Operations:** traffic operations studies; traffic counts.

MEDIUM – Projects with potential for additional coordination efforts with outside agencies/parties; coordination with several Districts, multiple municipalities, etc.

Typical Project Type

- **Bridge Inspection:** bridge scour.
- **CEI:** standard CEI contract.
- **Design:** design for new alignments, major reconstruction, and widening.
- **PD&E:** experimental design and broad scopes.
- **Planning:** some planning.
- **Railroads:** all.
- **Traffic Operations:** traffic signal projects, ITS design

HIGH – lump sum consultant contracts with possibility of overrunning costs; experimental design; projects involving significant financial risk, hazardous materials, and potential for significant unknown issues.

Typical Project Type

- **CEI:** high visibility, lump sum CEI contracts, multiple projects.
- **Design:** projects with multiple bridges.
- **PD&E:** multiple alternatives, multiple agency approval required.
- **Planning:** large multimodal projects (airports, seaports, railroads, transit).

Degree of (Financial) Risk Allowed Range: 3% to 5%	Consultant %: 4.00%
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JUSTIFICATION:

Major reconstruction project. The drainage design needs to be constructed in a limited R/W and not adversely impact adjacent high value and high profile property.

4. PROJECT SCHEDULE

<p>LOW – no critical short term deadlines or requirements for large staffing concentrations, unfunded projects to go on the shelf.</p> <p><u>Typical Project Type</u></p> <ul style="list-style-type: none"> • Bridge Inspection: bridge inspection; bridge scour. • CEI: resurfacing; support services. • Design: all 3R projects, standard schedule • PD&E: no design phase scheduled in Work Program. • Planning: all. • Railroads: all. • Traffic Operations: ITS. • Survey: all 3R projects. 	
<p>MEDIUM – standard schedule.</p> <p><u>Typical Project Type</u></p> <ul style="list-style-type: none"> • Bridge Inspection: generally not applicable. • CEI: ITS; push button construction. • Design: standard design; bridges, large corridors. • Traffic Operations: traffic counts. • Survey: increased number of crews needed 	
<p>HIGH – High visibility projects with short durations and aggressive schedules requiring large commitment of staff. Fast track projects with high profile and quick implementation schedule.</p> <p><u>Typical Project Type</u></p> <ul style="list-style-type: none"> • Bridge Inspection: generally not applicable. • CEI: multi-financial project contract, construction bonus, urban (day & night), high visibility; phased utility reallocations by others during the construction project. • Design: mobility/economic stimulus. • PD&E: design phase funded in the Work Program, bridge replacements. 	
Project Schedule Allowed Range: 1% to 3%	Consultant %: 3.00%
<p>JUSTIFICATION: This is a high visibility project. This has been a project requiring accelerated completion of tasks (higher range) combined with long waits which results in long schedules and increased cost.</p>	

5. COST CONTROL EFFORTS

<p>The degree to which the Consultant controls its costs for wages rates (by region), overhead, expenses and FCCM. The cost control is not generally dependent upon the type of project. Factors to be considered in negotiating this criteria are the following, and other project-specific items:</p> <ul style="list-style-type: none"> • Burdened salary rates (by region) by classification. • Reasonableness of the proposed distribution of staffing for the project. • Specialized services requiring specialized staff. • Reimbursed or excluded premium overtime. <p>LOW – (3% to 6%) Lower or minimal cost control efforts. MEDIUM – (7% to 15%) Moderate cost control efforts. HIGH – (16% to 27%) Substantial cost control efforts.</p>	
Cost Control Efforts Allowed Range: 3% to 27%	Consultant %: 20.00%
<p>JUSTIFICATION: Design requires specialized services to design the project. The drainage design needs to be constructed in a very limited R/W and not adversely impact adjacent high value and high profile property.</p>	

6. OPERATING MARGIN JUSTIFICATION TOTAL

<p>The total for items 2 through 5 will be calculated for you.</p>	
Total Allowed Range: 12% to 42%	Consultant %: 34.0%

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
OPERATING MARGIN JUSTIFICATION

375-030-82
 PROCUREMENT
 02/16

7. CONTRACT DURATION ADJUSTMENT FACTOR

For contracts of longer duration (reference table below), the Department shall allow a Contract Duration Adjustment Factor (CDAF). CDAF is defined as an economic price adjustment, necessitated by instability of labor costs for an extended period of contract performance (Reference 48 CFR Section 16.203). CDAF is not negotiated, but shall be a fixed number of points based on the overall anticipated length of contract (project schedule). CDAF points shall be allocated by the Department as follows:

	Anticipated Length of Contract	CDAF Points	
	0-12 Months	0	
	13-24 Months	0	
	25-36 Months	3	
	37-48 Months	4.5	
	49-60 Months	5.5	

- a) For new contracts, CDAF is applied beginning with the first labor hour incurred.
- b) CDAF shall only be applicable for contracts selected (contract final ranking) on or after November 1, 2014.
- c) In the event a contract selected on or after November 1, 2014 is extended (time extension) by six or more months, CDAF shall be applied prospectively to the extended/remaining services only, in accordance with the table shown above.
- d) CDAF shall not be applied to contracts selected before November 1, 2014, nor contract amendments/time extensions for contracts selected before November 1, 2014.
- e) For calculation purposes, CDAF shall be added to operating margin and applied to unloaded direct salaries.
- f) CDAF is applicable only to consultant firms who are awarded operating margin points.

For Calculation purposes, CDAF shall be added to Operating Margin and applied to direct salaries:

Allowed CDAF for this project: 3