WSP USA

Bid Contact **Madison Boemecke**
madi.boemecke@wsp.com
Ph 618-772-8700

Address **3022 Watson Rd**
Saint Louis, MO 63139

Item #	Line Item	Notes	Unit Price	Qty/Unit	Attch.	Docs
12739-1031--01-01	Design Consultant Services	**Supplier Product Code:**	**First Offer -**	1 / lot	**Y**	**Y**

Supplier Total **$0.00**

WSP USA

Item: **Design Consultant Services**

Attachments

WSP-RFQ-12739-1031-Final-03082023.pdf

City of Fort Lauderdale

Las Olas Corridor Design Consultant Services

RFQ No.: 12739-1031
Date: March 8, 2023
Time: 1:00 p.m. EST

1000 Sawgrass Corporate
Parkway, Suite 578
Sunrise, FL 33323
+1 (954) 908-8700

wsp.com

March 8, 2023

City of Fort Lauderdale, Procurement Services Division
Erick Martinez, Senior Procurement Specialist
100 N. Andrews Avenue, 6th Floor
Fort Lauderdale, FL 33301

Re: City of Fort Lauderdale, Las Olas Corridor Design Consultant Services, RFQ No. 12739-1031

Dear Mr. Martinez and Selection Committee Members,

WSP USA Inc. (WSP) is pleased to submit our proposal to provide design services for the Las Olas Boulevard Corridor Phase 1 Segment from South Andrews Avenue to Southeast 17th Avenue. Our firm is a multi-disciplinary, global engineering firm with 14 offices throughout Florida. WSP is proud of the successful completion of similar work for the City of Fort Lauderdale and similar-scope projects for multiple cities and counties in Florida for more than 60 years, **which includes legacy firms Parsons Brinckerhoff and the Environment & Infrastructure (E&I) business of Wood. Both firms have a rich history of project experience working for the City of Fort Lauderdale; our combined, strengthened team commits to providing the same level of service you have come to expect from us.**

WSP recognizes the impact of Las Olas Boulevard in Fort Lauderdale as an iconic and major road in Downtown, an area filled with historic retail shops, restaurants and festivals of all kinds celebrating the character and quality of the City. As the City has adapted, the Corridor has adapted along with it, and WSP looks forward to refreshing and rethinking the civil engineering necessary to change underground infrastructure as climate change continues.

WSP is poised to make a significant contribution to your success based on the following factors detailed in our proposal:

- **Our team's previous experience with similar types of services** allows WSP to understand the scope of services delineated within this RFQ. Our proposed team has experience in design and construction services, such as design criteria packages, roadway hardscape, landscape, drainage, lighting, signalization, roadway inspection, sampling and testing of construction materials, traffic control oversight, survey control and various engineering services as described in the scope. These items have continuously been at the center of the services provided to the City.
- **Unparalleled depth of qualified staff and resources in Florida** affords us the ability to address the full spectrum of contract service requirements and issues that may be encountered as this contract progresses. Such capacity allows us to respond effectively to simultaneous project assignments on accelerated schedules.
- **An exceptional project team** with the experience, proven track record, and ability to deliver on both time and financial commitments to the City – no matter how big or small the task. The team offers a proven ability to deliver timely, innovative and cost-effective design solutions to both your routine and most challenging design problems. Our team qualifications, as detailed in our response, demonstrate experience with large-scale private sector clients, and have the managerial and financial abilities to perform this work satisfactorily.

We are excited at the prospect of continuing to work with the City of Fort Lauderdale. **WSP meets all of the City's minimum requirements, including principals with decades of relevant experience, proper licensing, and an experienced program manager with 18 years worth of similar projects successfully completed.** We look forward to further discussion of our capabilities and how we can assist you with your future design needs. Should you have any questions or require additional information, please feel free to contact us at your convenience.

WSP confirms that we have not been placed on the convicted vendors list as described in Section §287.133 (2) (a) Florida Statutes; that the only person(s), company or parties interested in the proposal as principals are named therein; that the proposal is made without collusion with any other person(s), company or parties submitting a proposal; that it is in all respects fair and in good faith, without collusion or fraud; and that the signer of the proposal has full authority to bind the firm. Thank you for your time and consideration.

Sincerely,

Alice Bravo, PE
Principal-in-Charge

Michael Flood, AICP
National Resiliency Lead

Table of Contents

WSP has been professional, reliable, and responsive regarding the County construction and inspection needs and we would highly recommend that they be considered for any project they may undertake."

Edgard A. Sucre, Project Manager
Miami Dade County Public Works Department

Executive Summary

WSP USA Inc. (WSP) is the US operating company of WSP, one of the world's leading engineering and professional services firms. A corporation licensed and registered in the State of Florida, we are engineers, planners, technical experts, strategic advisors and construction management professionals dedicated to serving local communities.

As the City of Fort Lauderdale makes great strides in ensuring a safe and thriving future for its neighbors, it is critical that the City selects a consultant who is not only familiar with its mission and aims, but is also rooted in parallel values and visions for the future. WSP, a national-leading engineering and professional services firm, operates on both a large, multi-disciplinary scale and a local, client-specific scale.

Background and History

With a 138-year history, WSP is one of the oldest continuously operating consulting firms in the United States that has a strong commitment to technical excellence, a diverse workforce, and dedicated service to our clients. Our infrastructure portfolio ranges from the mega projects that define an entire region to smaller, more local projects that keep neighbors humming.

In Florida, we have provided solutions to design, design evaluations, project management and construction of infrastructure systems for Florida cities, counties and utilities for more than 60 years. A few of our key local clients include Monroe County, Miami-Dade County, Florida Department of Transportation, City of Miami Beach, South Florida Regional Transportation Authority, and South Florida Water Management District.

In the U.S., the firm's origins date back to 1885, when William Barclay Parsons founded the company that would go on to become Parsons Brinckerhoff, based in New York City. Early projects included designing the original New York City subway system and the Cape Cod Canal. Chas H. Sells, Inc. was founded in New York in 1925 and was acquired by WSP in 2007, becoming the firm's transportation and infrastructure engineering group in the U.S. In 2022, the acquisition of Wood's E&I business almost doubled the size of our U.S. Earth and Environment team to 5,900.

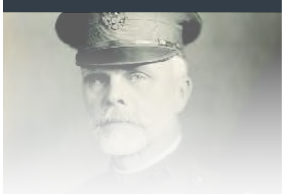
Office Locations

WSP has maintained a presence in Florida that spans more than three decades. With more than 900 people in offices located in every region of the state, including West Palm Beach, Miami, Orlando, Lakeland, Tampa, Gainesville, Jacksonville, Tallahassee, and Naples, WSP has the local resources and ability to support the City. This project will be managed from our Sunrise office, drawing on the resources both locally and nationwide.

Key Individuals

WSP has assembled an experienced team who have worked together previously and has been serving South Florida clients for decades. Our local, integrated team offers

1885

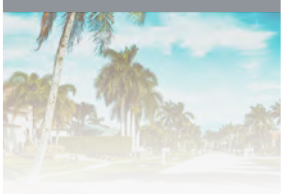


In the U.S., WSP's origins date back to 1885, when William Barclay founded the company that would become **Parsons Brinckerhoff** in NYC.

1904

The firm has led the rail and transit sector since its first project: the design of the New York City subway system, which opened in 1904.

1960s



The firm began operating in Florida in the 1960s.

2015

Parsons Brinkerhoff was acquired by WSP, becoming WSP's transport and infrastructure group in the U.S.

2022

WSP acquires the **Environment & Infrastructure (E&I) business of Wood plc,** further expanding our premier transportation capabilities in Florida.

Firm Stats

1400
Florida Based Employees

200
Florida Based Professional Engineers

$33 B
Helped Entities Secure Federal Grants and Loans for 140 projects since 2009

#1
ENR's Top 225 International Design Firms

#7
ENR's Top 125 Environmental Firms

Corporate Officers

US President and CEO
Lou Cornell

Regional President, Southeast
Jerry Jannetti

National Business Line President, Transportation
Sofia Berger

Florida District Leader
Alice Bravo, PE

proven leadership from individuals that you know and the capacity required to deliver the City's infrastructure needs for the regulatory process, design, project management and construction administration.

Key individuals who will be directly involved in this contract include Principal-in-Charge **Alice Bravo, PE** (Miami); Program Manager **Catherine Prince, PMP, LEED AP, STP**, (Broward); and Deputy Program Manager **Greg Corning, PE** (Miami). As an experienced project management team, they will keep the team on schedule and the project within budget.

Catherine is based out of WSP's Sunrise office and will lead this team by integrating transportation, climate resiliency, and urban design. She is also experienced as an implementor of several safe and Complete Street projects in the City of Fort Lauderdale and around Florida.

Other key individuals include **Michael Flood** (D.C.); **Eduardo Santamaria, PE, LEED AP, ENV SP, CGC** (Miami); **Christine Fanchi, PE, PTP, RSP** (Broward); **Betsy Jeffers, PE,** MARLIN Engineering (Broward); **Jose Custodio, PE** (Broward); **Cristobal Betancourt, PLA, AICP**, CMA (Palm Beach); **Alec Bogdanoff, PhD,** Brizaga (Broward); **Pedro Ugas,** HADONNE (Miami); **Adam Nacer, CGC, CFC,** Make Way Construction (Miami); **Werner Reinefeld, PE, ENV SP** (Miami); **Alexander Rojas, PE, AVS, CWI** (Broward); and **Ronald Fields, PE** (Miami).

Summary of Key Elements

The WSP team has a long-standing history of successful engineering and design-build projects in South Florida and beyond. This experience will benefit the success of this critical project for the City. Our extensive understanding of the local community, regulatory requirements, and permitting agencies, along with our reputable and highly qualified team, is a testament to the importance being applied to this project. The WSP proposal for design services for Las Olas Boulevard reflects our experience with similar iconic streets in Florida, like the implementation of Miracle Mile, Coral Gables. Las Olas project advisor, Ed Santamaria, then Public Works Director, worked closely with the community and oversaw the construction of this multi-year

project, and the implementation of portions of Lincoln Road, Miami Beach. Project landscape lead, Cristobal Betancourt, completed the design and construction of the section in front of Lincoln Center.

Our approach for Las Olas Boulevard Design services comes from an agency perspective and is anchored in lessons learned from implementing projects along the Boulevard. Catherine, then as the City staff, led the implementation of the raised intersection at Las Olas and SE 4th Avenue, a 6-month demonstration project on Las Olas Boulevard with designated rideshare and loading zones on SE 15th Avenue from Broward to Las Olas Boulevard. She also led other projects like NE 4th Avenue Complete Streets, Breakers Avenue Preliminary Design, and various intersection improvements in the City's downtown area.

Planning, designing, or constructing a project on Las Olas Boulevard requires a unique approach. On Las Olas Boulevard, the project's success leans on early, continuous stakeholder and community engagement as much as the quality of engineering design. The top priorities and challenges we identified for the Las Olas Boulevard Design include:

1. Need for extensive community stakeholder engagement
2. Multiple and sometimes conflicting short and long-term priorities
3. Timely design delivery that is both constructible, cost-feasible, and cost-effective

Our proposed approach addresses these top challenges:

1. **Effective stakeholder management**
   - Extensive stakeholder management, as much as engineering expertise
   - Reduce impacts on businesses during construction
2. **Utilize lifecycle costs for informed engineering design decision-making**
   - Design for its current needs, programmed activities
   - Consider that current conditions will change during its (50-year) design life
   - Communicate with community stakeholders using simple economic measures is key
3. **Constructive, timely, cost-feasible engineering design**
   - Constructability in a complex urban setting
   - Coordination with City, utilities, permitting agencies and private property owners
   - Develop a cost-feasible preliminary design before engineering

The WSP team anticipates investing the first half of the expected design time in engaging with the community and key stakeholders to vet the proposed design before entering the engineering design phase. Using our experience with the Las Olas community, the proposed upfront time investment will avoid future delays and change orders during engineering design or construction. We will use a community-based engagement approach with two major goals – transparency and buy-in from the community. We will work closely with project champions like Comm. Warren, Charlie Ladd, Mike Weymouth, the Las Olas Association, and Jackie Scott. We will also engage with the community before design decisions are made and keep them informed throughout the project design process. We will provide coordination with private business owners during design for harmonization and when developing a maintenance of traffic (MOT) plan to reduce impacts on businesses during construction. We will use the lifecycle cost approach that considers benefits and costs associated with engineering decisions over the project's useful life (design-life of 50 years). We will analyze constructible alternate designs and share them with stakeholders as benefit-cost/net present value, construction cost, and construction time. The clear comparison of alternates will facilitate informed conversations with stakeholders and informed decision-making.

Our design approach is to mitigate existing challenges like safe mobility of all users, including those walking, biking, using transit and rideshare, or delivering packages; increasing shade canopy; and coordinating with agency and private utility owners, among others. We will also anticipate challenges like the Americans for Disability Act (ADA) ramps and harmonization between City's ROW and the private property, flooding from tidal and storm events exasperated by future climate, and sometimes contradictory community priorities. The proposed approach will provide the City with a constructible and cost-effective engineering design. Proposed design options will integrate future climate conditions and include multimodal access improvements-transit, micro-transit, bike-share, and walking, reduce traffic crashes by providing safe spaces for different modes, and apply calming traffic strategies. Careful consideration will be given to providing more space for additional tree canopy, green and grey stormwater infrastructure to adapt to future climate, and emphasis on infrastructure investments with co-benefits such as green stormwater infrastructure.

Sub-consultants

WSP is committed to achieving the City's 10% MBE/SBE goal. We have strengthened our team with a select set of local sub-consultants that bring in-depth expertise and knowledge of the local conditions and the key concerns in South Florida. Our sub-consultants for this contract include:

Teaming Partners	
Please see Sections 7 and 8 for additional information on our subconsultants and MBE/SBE participation.	
MARLIN Engineering	**Why this partner:** Proven experience with roadway and stormwater design along Las Olas Blvd at 4th Avenue raised intersection and redesign at 15th Avenue. **Scope:** Support roadway engineering design.
Chen Moore and Associates	**Why this partner:** Proven landscape and street lighting experience in South Florida. **Scope:** Landscape and hardscape lighting.
Brizaga (SBE)	**Why this partner:** Experience in developing regulatory frameworks to enable resilient redesign. Experience with pilot road raising project on Mola Avenue and developing resilient design criteria for Huizenga Plaza. **Scope:** Leading ordinances, code updates, and supporting public outreach.
Make Way Construction (SBE, MBE)	**Why this partner:** Contractor with construction experience along Las Olas Blvd at 4th Avenue raised intersection, SE 15th Ave from Broward Blvd to Las Olas Boulevard, and pilot project Las Olas between SE 11th Ave to SE 17th Avenue. **Scope:** Constructability review of harmonization, ADA compliance, construction phasing plan, and MOT.
HADONNE (SBE, MBE)	**Why this partner:** Proven experience in multiple projects in south Florida. **Scope:** Utility coordination, subsurface utility, and survey.

Firm Qualifications and Experience

As the City of Fort Lauderdale makes great strides in ensuring a safe and thriving future for its neighbors, it is critical that the City selects a consultant who is not only familiar with its mission and aims, but is also rooted in parallel values and visions for the future. WSP, as a national-leading engineering and professional services firm, operates on both a large, multi-disciplinary scale and a local, client-specific scale.

With more than 15,650 employees in more than 330 offices across the US, we are technical experts who design and provide strategic advice on sustainable solutions and engineering projects that will help societies grow for a lifetime to come. **In Florida, we have provided solutions to design, design evaluations, project management and construction of infrastructure systems for local cities, counties and utilities for more than 60 years.** Firm and team licenses have been provided in **Section 9: Required Forms.**

We offer planning, engineering design and construction management and inspection services to Florida municipalities, utilities, public agencies and private clients, as well as state-specific water policy and technical issues. Our long and varied experience across the state, and especially in South Florida where 229 of our staff live and work, gives us in-depth knowledge of the region.

Company Information

WSP is a legal entity registered in the State of Florida

Legal Company Name	WSP USA Inc.
Website	www.wsp.com
Tax ID Number (EIN)	11-1531569
Organization Type	Corporation
State of Incorporation	New York
Date of Incorporation	October 5, 1933
Parent Company	Parsons Brinckerhoff Holdings Inc
Public or Private?	Private Company
Years of Experience	60+ in Florida

WSP Single Point of Contact

Catherine Prince, PMP, LEED AP, STP,
Program Manager

1000 Sawgrass Corporate Parkway, Suite 578, Sunrise, FL 33323

+1 (954) 908-8700

catherine.prince@wsp.com

Commitment to *Sustainability*

Sustainable Business Practices

In April 2021, WSP announced its intention to get ready for less by committing to achieve net zero emissions across its value chain by 2040. We set science-based GHG emissions reduction targets, approved by the Science Based Targets initiative. These commitments are aligned with the most ambitious aim of the Paris Agreement, to limit global temperature rise to 1.5˚C.

In addition, WSP has signed the Structural Engineers 2050 Commitment (SE 2050) to net zero. Two of the most commonly used structural materials — concrete and steel — represent approximately 21 percent of global carbon emissions. The objective of the SE 2050 program is to coalesce the support of the collective structural engineering industry to drive significant reductions of embodied carbon in the design and construction of structural systems.

As a signatory, WSP has committed to annually publishing an Embodied Carbon Action Plan (ECAP) and submitting data to the SE 2050 project database to increase understanding of embodied carbon and help set attainable targets for future projects.

Ability to Meet Schedule and Budget

WSP's depth and breadth of resources and our Florida coverage area offers the City stability and availability to handle any size project at any time. Contracts of this type require a highly qualified team that has the capacity to respond quickly; a strong commitment to quality, cost control and schedule maintenance; and clear team coordination and communication plans.

We are confident that this project will be an excellent fit for the WSP team in terms of experience and proficiency, as well as the availability of the personnel who are proposed. The professionals who will be utilized for this project are committed to client service and accustomed to providing the individual time and effort necessary to successfully achieve the objectives of our clients.

Our program manager, **Catherine Prince, PMP, LEED AP, STP,** will work with the City to ensure that our scope, schedule, and budget are acceptable and achievable. This is done through good communication practices and a variety of software applications that track planning and design phase activities. Internally, our company implements several types of scheduling, financial and data management software to control and forecast budget, resources, and deliverables.

Please see **Section 4: Qualifications of the Project Team** for a comprehensive summary of the experience and qualifications of the individual who has been selected to serve as WSP's proposed program manager for the City.

Firm Project Experience

WSP's team has worked together to implement similar projects throughout Florida and the City of Fort Lauderdale, including:

- Downtown Walkability Projects: Las Olas and 4th Ave; SE 2nd Ave at 4th, 5th Ave (Catherine Prince, Betsy Jeffers, Adam Nacer)
- SE 15th Ave between Broward and Las Olas Boulevards (Catherine Prince, Adam Nacer)
- NE 15th Ave (Cristobal Betancourt, Christine Fanchi)

Our project team understands the actions necessary to deliver a successful project within a tight urban corridor for elevated outcomes in safety, mobility, and climate resilience. We look forward to bringing our local knowledge and national expertise to Las Olas Boulevard.

On the following pages, we have provided project examples of similar type, size, function, and complexity.

Similar Projects

Similar Project (Completed & Ongoing)	Point of Contact/PM	Firm	Project Management	Stakeholder Engagement	Roadway Design	Climate Resilience	Utility Coordination	Design Criteria, Bid Support	Permitting	Construction Management
Jackson Street Complete Streets Project	Catherine Prince	WSP	●	●	●	●				
Monroe County Infrastructure Assessment & Roadway Improvements	Werner Reinefeld	WSP	●	●	●	●	●	●	●	●
Hollywood Boulevard Complete Street Improvements	Betsy Jeffers	MARLIN	●	●	●	●	●	●	●	
Lincoln Road Streetscape Improvements	Cristobal Betancourt	CMA	●	●		●	●	●	●	●
Euclid Avenue Streetscape (in Lincoln Road Mall) Improvements	Cristobal Betancourt	CMA	●		●	●	●	●	●	●
Miami-Dade County Vision Zero Program Plan	Catherine Prince	WSP	●	●	●			●		
City of Miami Beach Private Property Adaption Program	Alec Bogdanoff	Brizaga	●	●		●		●		
MDWASD, 48-Inch Water Main Downtown Loop Closure	Werner Reinefeld	WSP	●	●			●		●	
Stormwater Pump Station at 19th Street	Werner Reinefeld	WSP	●		●	●	●		●	●
SW 2nd Avenue Streetscape	Alex Rojas	WSP								●

Jackson Street Complete Street Improvements

Escambia County and City of Pensacola, Florida

Escambia County, the City of Pensacola, and their Community Redevelopment Agencies (CRA), are partnering to determine a constructable design for the 5-mile West Jackson Street. The project goal was to develop an implementable plan for the corridor. Proposed improvements will complement the existing communities and address safety, mobility, and sustainable, long-term economic redevelopment.

The WSP team engaged with the community over a series of design workshops to identify project goals: 1) Create a safe and comfortable complete street for all users; 2) Improve safety for the most vulnerable road users and eliminate fatal crashes by implementing roadway designs acting to self-enforce the reduced speeds of vehicles, improving lighting and addressing other human-scaled street elements; 3) Create safe and consistent crossings, especially at transit stops, parks, schools, and other community assets; 4) Protect the existing trees and create a lush, consistent, and sustainable shade canopy that incorporates stormwater filtration and bio-retention elements, as feasible; 5) Enhance neighborhood livability by promoting a contextual street design that addresses the functional needs of adjacent uses, such as parking; 6) Encourage infill development and reinvestment along the corridor.

The team developed a preliminary engineering design within the right of ways of the City of Pensacola, Escambia County, Florida Department of Transportation (FDOT), worked with private utility companies, and the City, County engineering departments. The deliverable was a cost-feasible preliminary engineering design with cost estimates, utility conflicts matrix, supporting policies and ordinances for implementation.

Firm:
WSP

Client/Owner:
Escambia County/City of Pensacola

Project Cost:
$35,000,000

Project Dates:
2021 to Present

Highlights:
- Project Management
- Stakeholder Engagement
- Roadway Design
- Landscape and Lighting
- Climate Resilience
- Utility Coordinaton

Monroe County Infrastructure & Roadway Improvements

Monroe County, Florida

WSP provided climate change adaptation services to Monroe County on multiple phases of this project development process - in an area already feeling the effects of climate change and subject to significant national news coverage. Communities in the coastal areas of the County currently experience increased flooding and loss of access on neighborhood roads for extended periods of time. WSP supported the County on the development of design options in two pilot communities to ensure that infrastructure investments made today on roadway improvement plans incorporate sea level rise and associated tidal effects.

The three phases included:

- Conducting an analysis of sea level rise / tidal effects and the impact of access disruptions
- Completing conceptual design (during the initial study) and final design for the roadway improvements to sea level rise target elevations and incorporating progressive stormwater management practices
- Bidding process support (current) and oversight of the state funded construction program

The effort has included the development of multiple visual products highlighting anticipated future conditions from sea level rise.

Firm:
WSP

Client/Owner:
Monroe County

Project Cost:
$29,325,000

Project Dates:
November 2016 to Present

Highlights:
- Project Management
- Stakeholder Engagement
- Roadway Design
- Stormwater Design
- Climate Resilience
- Utility Coordination
- Design Criteria, Bid Support
- Permitting

Hollywood Boulevard Complete Street Improvements

Hollywood, Florida

The City of Hollywood was awarded a grant for approximately $6.8 million with the condition that the design incorporates various Complete Street elements. For this project, MARLIN used a multimodal approach to roadway planning – instead of widening the street for vehicles, they recommended improvements to create a livable community that is safe for biking, walking, and transit. The new design integrates place-making concepts that bring mixed uses and creates a safe and comfortable street for children, wheelchair users, and sidewalk retailers. Improvements included:

- New paving, striping and surface drainage configuration
- New ornamental plantings along the corridor (trees, palms, flowering shrubs and groundcover)
- New pedestrian crosswalks with center refuge median and center walkway spline, including new pedestrian scale lighting, new colored concrete walks, safer parking configuration, new 5-foot-wide bike lanes with the buffer zone and ADA-compliant parking spaces and accessible ways

Design was performed in-house at FDOT District 4. MARLIN was requested to work in-house at FDOT to prepare the plans for the lighting, pavement markings and six pedestrian-actuated in-road pedestrian crossings.

Firm:
MARLIN Engineering

Client/Owner:
Florida Department of Transportation, District 4

Project Cost:
$6,800,000

Project Dates:
February 2016 to June 2017

Highlights:
- Stakeholder Engagement
- Roadway Design
- Landscape and Lighting
- Stormwater Design
- Utility Coordination
- Design Criteria, Bid Support

Lincoln Road Streetscape Improvements

Miami Beach, Florida

Chen Moore and Associates (CMA) is the local subconsultant to James Corner Field Operations (JCFO), the designers of New York City's famed High Line, in the development of a Master Plan and construction documents for the Lincoln Road Mall Historic District in Miami Beach. CMA provided local planning and landscape architecture expertise and civil engineering to support the efforts of JCFO's development of the Master Plan. Additionally, CMA provided support in public workshops, workshops with building owners and tenants and workshops with City staff and commissioners. CMA continues to provide local design support for the implementation of landscape, hardscape and irrigation components of the project and assist with landscape construction inspection.

The team initially developed a master plan that was adopted in 2017. Since that time, the team has developed a full set of construction documents and permitted portions of the project. The project has been vetted very closely by the community and the Lincoln Road Business Improvement District.

The adaptation solutions based on projected SLR are significant and raising the elevation of Lincoln Road is the best solution. During King Tides, there are episodes where ground water seeps back through the pervious areas in the corridor. However, this solution has practical impacts on adjacent building owners forcing them to adapt their Finished Floor Elevations (FFE) to the new elevation of Lincoln Road. For building owners that cannot afford to adapt their buildings this leaves their properties more vulnerable to flooding. The City is working with business owners to achieve balance in the adaptation strategies. The team is value engineering the construction documents.

Firm:

Chen Moore and Associates

Client/Owner:

James Corner Field Operations

Project Dates:

March 2015 to Present

Highlights:

- Project Management
- Stakeholder Enagagement
- Landscape and Lighting
- Stormwater Design
- Climate Resilience
- Utility Coordination
- Construction Management

Euclid Avenue Streetscape (in Lincoln Road Mall) Improvements

Miami Beach, Florida

Chen Moore and Associates developed the streetscape design for pedestrianizing Euclid Avenue between Lincoln Road and Lincoln Lane in the City of Miami Beach. This stretch of road was incorporated into the historic pedestrian street known as Lincoln Road Mall. The project was funded by the City of Miami Beach through a developer's agreement with Lincoln Center Associates who own the retail building at the intersection of Euclid Avenue with Lincoln Road. The project required coordination with various agencies including the City of Miami Beach Planning Department, Public Works, Greenspace Management, and Capital Improvements, as well as Miami-Dade County Environmental Protection, Traffic, and Utilities. The scope of work included site design and permitting including layout, hardscape, landscaping, lighting, drainage, and utilities.

Lessons learned from working in Miami Beach included the need for close coordination with business owners during construction and developing a sound construction phasing strategy. Businesses can be economically impacted during construction because access to their storefronts become limited, so good communication between business owners, the City, the contractor, and the design team are paramount to the success of the streetscape improvements.

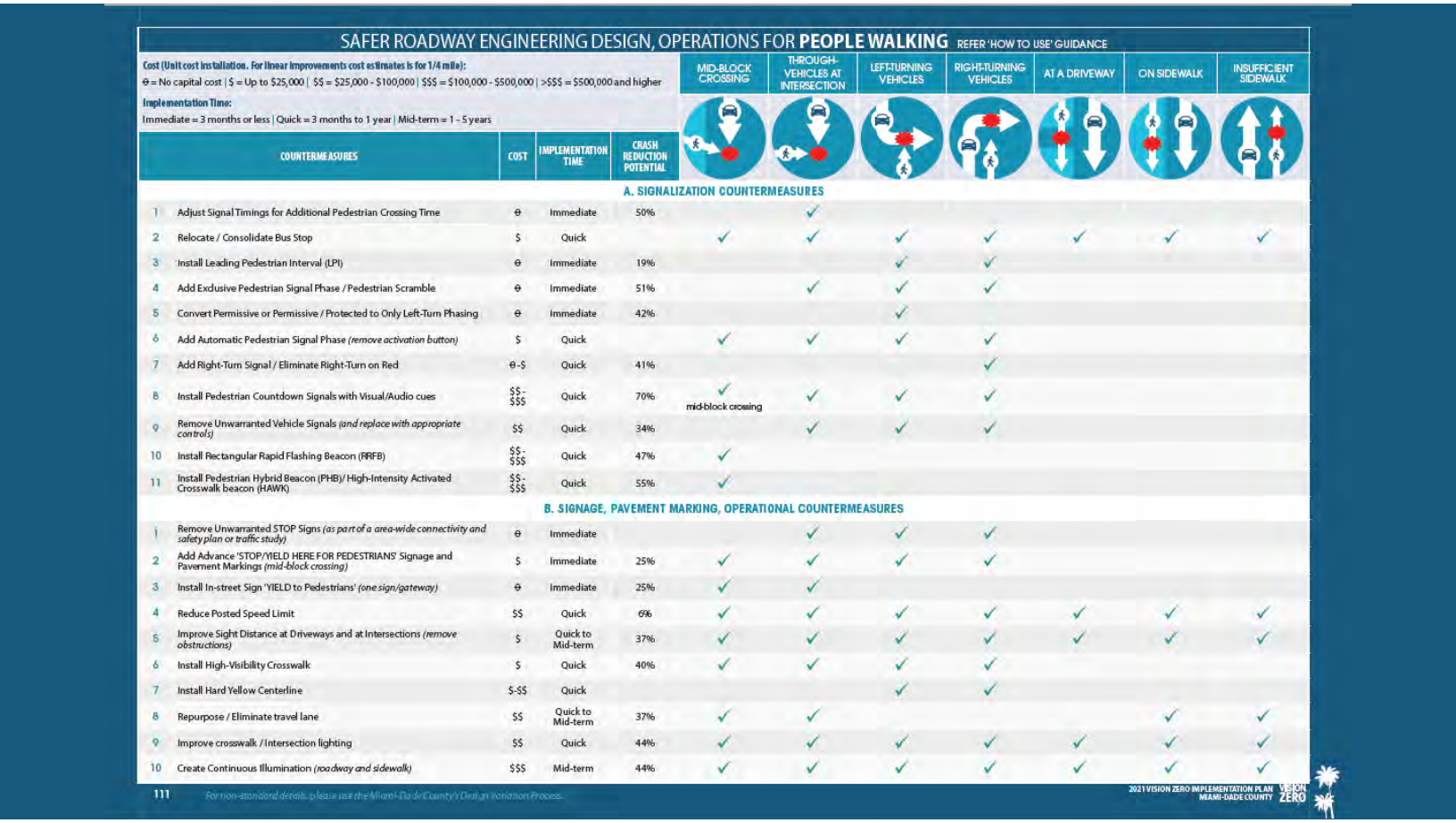
Firm:
Chen Moore and Associates

Client/Owner:
R & O Studio LLC

Project Cost:
$750,000

Project Dates:
February 2012 to June 2017

Highlights:
- Project Management
- Roadway Design
- Landscape and Lighting
- Stormwater Design
- Climate Resilience
- Utility Coordination
- Design Criteria, Bid Support
- Permitting



SAFER ROADWAY ENGINEERING DESIGN, OPERATIONS FOR **PEOPLE WALKING** REFER 'HOW TO USE' GUIDANCE

Cost (Unit cost installation. For linear improvements cost estimates is for 1/4 mile):
Θ = No capital cost | $ = Up to $25,000 | $$ = $25,000 - $100,000 | $$$ = $100,000 - $500,000 | >$$$ = $500,000 and higher

Implementation Time:
Immediate = 3 months or less | Quick = 3 months to 1 year | Mid-term = 1 - 5 years

	COUNTERMEASURES	COST	IMPLEMENTATION TIME	CRASH REDUCTION POTENTIAL	MID-BLOCK CROSSING	THROUGH-VEHICLES AT INTERSECTION	LEFT-TURNING VEHICLES	RIGHT-TURNING VEHICLES	AT A DRIVEWAY	ON SIDEWALK	INSUFFICIENT SIDEWALK
	A. SIGNALIZATION COUNTERMEASURES										
1	Adjust Signal Timings for Additional Pedestrian Crossing Time	Θ	Immediate	50%		✓					
2	Relocate / Consolidate Bus Stop	$	Quick		✓	✓	✓	✓	✓	✓	✓
3	Install Leading Pedestrian Interval (LPI)	Θ	Immediate	19%			✓	✓			
4	Add Exclusive Pedestrian Signal Phase / Pedestrian Scramble	Θ	Immediate	51%		✓	✓	✓			
5	Convert Permissive or Permissive / Protected to Only Left-Turn Phasing	Θ	Immediate	42%			✓				
6	Add Automatic Pedestrian Signal Phase *(remove activation button)*	$	Quick		✓	✓	✓	✓			
7	Add Right-Turn Signal / Eliminate Right-Turn on Red	Θ-$	Quick	41%				✓			
8	Install Pedestrian Countdown Signals with Visual/Audio cues	$$-$$$	Quick	70%	✓ mid-block crossing	✓	✓	✓			
9	Remove Unwarranted Vehicle Signals *(and replace with appropriate controls)*	$$	Quick	34%		✓	✓	✓			
10	Install Rectangular Rapid Flashing Beacon (RRFB)	$$-$$$	Quick	47%	✓						
11	Install Pedestrian Hybrid Beacon (PHB)/ High-Intensity Activated Crosswalk beacon (HAWK)	$$-$$$	Quick	55%	✓						
	B. SIGNAGE, PAVEMENT MARKING, OPERATIONAL COUNTERMEASURES										
1	Remove Unwarranted STOP Signs *(as part of a area-wide connectivity and safety plan or traffic study)*	Θ	Immediate			✓	✓	✓			
2	Add Advance 'STOP/YIELD HERE FOR PEDESTRIANS' Signage and Pavement Markings *(mid-block crossing)*	$	Immediate	25%	✓	✓	✓	✓			
3	Install In-street Sign 'YIELD to Pedestrians' *(one sign/gateway)*	Θ	Immediate	25%	✓	✓					
4	Reduce Posted Speed Limit	$$	Quick	6%	✓	✓	✓	✓	✓	✓	✓
5	Improve Sight Distance at Driveways and at Intersections *(remove obstructions)*	$	Quick to Mid-term	37%	✓	✓	✓	✓	✓	✓	✓
6	Install High-Visibility Crosswalk	$	Quick	40%	✓	✓	✓	✓			
7	Install Hard Yellow Centerline	$-$$	Quick				✓	✓			
8	Repurpose / Eliminate travel lane	$$	Quick to Mid-term	37%	✓	✓				✓	✓
9	Improve crosswalk / Intersection lighting	$$	Quick	44%	✓	✓	✓	✓	✓	✓	✓
10	Create Continuous Illumination *(roadway and sidewalk)*	$$$	Mid-term	44%	✓	✓	✓	✓	✓	✓	✓

111 *For non-standard details, please use the Miami-Dade County's Design Variation Process.*

2021 VISION ZERO IMPLEMENTATION PLAN MIAMI-DADE COUNTY VISION ZERO

Miami-Dade County Vision Zero Program Plan

Miami-Dade County, Florida

WSP supported the Department of Public Works and Transportation, Miami-Dade County, to develop the 2021 Vision Zero Program Plan. The goal of the program was bringing an internal culture shift, with bold leadership policies towards its audacious goal of eliminating sever injuries and fatalities by 2030. To foster change and culture-shift, WSP team led two educational workshops for agencies leaders and engineers.

The Vision Zero Implementation plan identified high-injury locations, potential socio-economic causes through data analysis. The implementation plan focused on developing guidance for engineering countermeasures and internal educational tools to achieve zero fatalities and incapacitating injuries. The project prioritization used a multi-step process to prioritize safety projects. First, identifying the severe-injury locations (intersections and corridors) through 2015-19 crashes data analysis. Top 50 projects Countywide safety projects were prioritized using the outcomes of the data-analysis, along with, the County's goals to promote equitable outcomes.

WSP developed a countermeasures matrix to serve as a reference for transportation professionals. First, common collision types that involve people walking and biking were identified. Then, the engineering countermeasures with respective crash modifications factors (CMFs) or crash reduction potential were listed against common collision types. The countermeasure matrix was used to develop a recommendation for the two highest crash locations near transit within the County.

Firm:
WSP

Client/Owner:
Miami-Dade County

Project Cost:
$330,000

Project Dates:
2020 to 2021

Key Elements:
- Vision Zero Implementation Plan
- Educational Workshops
- Guidance for Countermeasures
- Internal Educational Tools

City of Miami Beach Private Property Adaptation Program

Miami Beach, Florida

Working alongside the City of Miami Beach, Brizaga developed and implemented a program designed to provide grant dollars to Miami Beach residents and property owners. The grant money is intended specifically to assist these property owners in implementing flood adaptation solutions. Brizaga was retained to build out the framework for communicating with interested property owners, conducting site visits, evaluating property needs, and making recommendations for eligible projects. As part of the program, Brizaga developed an Adaptation Menu which provides an overview of the various types of adaptation options, their applicability, effectiveness, permit requirements, and generic costs. This first of its kind program is in its first year with the possibility of continuing in the future.

Brizaga standardized a field investigation and report for evaluating flood risk and potential solutions at the private property level. In preparation of field visits, coordination calls were held with 46 approved program participants to understand experiences and concerns related to flooding, while the technical team conducted background screenings to identify existing and future flood risk related to tides, storm surge, and rainfall. An adaptation menu and framework were built to allow field investigators to narrow in on the most appropriate and effective flood mitigation strategies based on field conditions, project priorities, and budget constraints.

Firm:
Brizaga

Client/Owner:
City of Miami Beach

Project Dates:
2022 to Ongoing

Highlights:
- Flood Adaptation Solutions
- Public Communication
- Adaptation Menu and Framework

MDWASD 48-Inch Water Main Downtown Loop Closure

Miami, Florida

The City of Miami's Downtown Loop Central Business Area is predominantly serviced by undersized water mains. These pipes have long exceeded their design life. WSP provided design for Phase I and Phase II for this project. Phase I consisted of a proposed 4,100 LF, 48-inch watertransmission main located along NW 17th St to NW 12th St and a 30-inch water transmission main located west of Brightline passenger station to NW 1st Ct. Phase II consisted of a proposed, 2,250 LF, 36-inch water transmission main along 5th St from approximately NW 1st Ave to Biscayne Blvd. The design included a microtunnel approximately 180 feet in length under the FEC railroad at NW 12 St.

During the early stages of construction for the 48-Inch water main extension Downtown Loop Project, the WSP Team executed public outreach and coordination to address stakeholder concerns along NW 5th Street in order to obtain the MOT Permit from the City of Miami. ISCG coordinated and met with key government officials from offices of the U.S. Attorney, U.S. Marshalls, U.S. District courthouse and the Bureau of Prisons, as well as City of Miami Fire Rescue and Miami-Dade College in order to ensure their daily operations were not affected during construction and provide seamless communications throughout the duration of construction.

Firm:
WSP

Client/Owner:
Miami-Dade Water and Sewer Department

Project Cost:
$7,700,000

Highlights:
- Project Management
- Stakeholder Engagement
- Stormwater Design
- Utility Coordination

2020 PROJECT OF THE YEAR

WSP was awarded the 2020 Project of the Year for the MDWASD 48-inch Water Main Extension - Downtown Loop Closure project by the Cuban American Association of Civil Engineers

Stormwater Pump Station at 19th Street

Miami Beach, Florida

The 19th Street pump station was part of the overall plan for a stormwater improvement system throughout the City of Miami Beach to reduce flooding for its residents of Miami Beach, more specifically, for the neighborhoods near the Convention Center. The project directly addressed the impacts of SLR and flooding issues, a major concern in South Florida.

As part of a design-build team, WSP provided design, permitting and construction of a new 80 million gallon per day (MGD) stormwater pump station and ancillary site infrastructure and discharge facilities. The biggest challenge working within a limited footprint, in close proximity to the public and nearby buildings, in a heavily urbanized area, under critical timelines, and in/near areas that are environmentally and culturally sensitive, such as the Holocaust Memorial and the Botanical Gardens.

In addition to the pump station components and electrical infrastructure to power the station, construction related services also included site preparation, earthwork, dewatering, storm drainage infrastructure installation, parking reconstruction, utility adjustments, landscaping and seawall modifications on the south side of the Collins Canal between Convention Center Drive and Meridian Avenue.

The scope of work included cofferdams design and implementation for 30-foot-deep shafts for the pump station and treatment units. These shafts are similar in footprint and depth to the microtunneling shafts required in this solicitation.

The project included design and construction of a deep (30-foot) stormwater pump station, including a 45- by 50- by 30-footdeep watertight cofferdam to accommodate the pump station trash rack, treatment units, four 20,000 Gpm submersible variable speed flyat pumps contained within precast structures to combat flooding events at the new convention center and surrounding areas.

Firm:
WSP

Client/Owner:
City of Miami Beach

Project Dates:
February 2018 to October 2019

Key Elements:
- H&H Modeling
- Drainage Design and Stormwater Management
- Traffic Control
- Structural Design
- Electrical Design
- Landscaping and Seawall Modifications
- Permitting and Construction

SW 2nd Avenue Streetscape

Fort Lauderdale, Florida

The streetscape improvements for this project were funded by a Federal Transit Administration (FTA) grant and included widening sidewalks, reducing vehicular presence, milling and resurfacing, pedestrian lighting, landscaping, and drainage along SW 2nd Ave between Broward Blvd and SW 2nd St/Himmarshee St in the City of Fort Lauderdale. This project improved not only the safety and aesthetics of the corridor but also to improve the quality of life for the area businesses while serving as a physical and visual connection between the Brightline train station, the Arts and Entertainment (A&E) and Historic Districts, Downtown Fort Lauderdale, as well as the Riverwalk.

Equal Employment Opportunity (EEO) requirements such as review of certified payrolls wage compliance, and on-the-job training. In addition, WSP is adept at monitoring federally funded contracts to guarantee compliance with FDOT regulations by ensuring contractors are provided on-the-job training; maintaining training schedules and trainee progress; interviewing employees, ensuring that their wages and deductions are following the US Department of Labor; reviewing payroll for accuracy and maintaining the payroll log; and ensuring contractors follow the FDOT EEO/AA Program by maintaining certifications and issuing non-compliance letters to contractors when necessary.

Firm:

WSP

Client/Owner:

City of Fort Lauderdale Downtown Development Authority

Project Cost:

Environmental: $21,877
Project construction: $714,000

Project Dates:

August 2019 to March 2020

Highlights:

- Utility Coordination
- Construction Management
- Highway Engineering

Qualifications of the Project Team

WSP has assembled an experienced team with the expertise and focus on corridor design the City is seeking. This team has worked together previously and has been serving South Florida clients for decades. Our local, integrated team offers proven leadership from people that you know, as well as the capacity required to deliver the City's infrastructure needs for the design, project management and construction administration of this project.

Proposed Organization

WSP is pleased to present a team with outstanding qualifications, demonstrated experience, commitment, and availability – a team structured for effective responsiveness. Our proposed organization centralizes overall responsibility and accountability for our team's project delivery under the leadership of our qualified program manager, **Catherine Prince, PMP, LEED AP, STP**. She will be supported by a team of technical leads who will manage specific elements of requested services, with additional resources available to the City.

Key elements of our organization chart include the names and roles of our team personnel, as well as the descriptions of responsibilities for all proposed staff. Immediately following this section, we have provided personnel resumes listing relevant experience and time committed to this project.

Program Manager

Catherine has more than 18 years of experience assisting agencies enhance the quality of life of the current and future generations with people-centered solutions by equitably engaging with stakeholders, leveraging technology to achieve elevated climate resilience, sustainability solutions. She is skilled at managing multiple projects simultaneously and ensuring that the rigorous deadlines from projects both in design and construction are met to the clients' satisfaction.

Catherine will serve as the individual who, from project start to finish, will be the leader of our team and the principal point of contact between WSP and the City. Catherine is a highly competent project manager and her leadership has led to many satisfied clients and successful projects. She understands the importance of effective communication and its relevance to your objectives. She provides our team the leadership it takes to meet the City's expectations on every project and emphasizes this within our team and with project stakeholders.

She has experience in complete street and community design, developing vision zero implementation policies and processes for cultural change within agencies, complete streets engineering design, construction and transportation planning. She has also developed equitable road safety/Vision Zero structural policies and systemic processes within agencies and worked with underserved communities to develop integrated resilient mobility and land-use solutions, ensuring equitable outcomes.

Management Plan & Tools

WSP's project management plan and strategy for each component of a project are designed to maximize the efficient execution of each task and to ensure the City's satisfaction. We understand that the successful execution of this contract must be accomplished through an effective management plan and corresponding tools. The proposed methods and project organization will provide the City with effective cost

Las Olas and SE 4th Avenue
Source: SubLime Imaginart

and schedule controls while providing easy access to our project personnel for real time project information.

To help our PMs perform efficiently, WSP provides a comprehensive array of control procedures and management tools that are available to assist in facilitating project communications such as web-based data sharing and online meeting capabilities. These capabilities will be utilized as appropriate to benefit clear communications and to help reduce project costs. Internally, WSP's staff have remote access capabilities to assist in facilitating efficient and timely communications and data sharing between offices and staff. WSP also utilizes Microsoft Teams across its IT network, which allows efficient real-time communications between staff through a suite of tools that include video conferencing, audio calls, screen sharing, and instant messaging capabilities.

Recent Team Experience

WSP is a full-service, multi-discipline, consultant engineering company with significant local available resources and relevant project experience that can be used to service this contract. Our team members have experience planning and designing roadway safety using Vision Zero principles, as adopted in the City of Fort Lauderdale's 2022 Vision Zero Fort Lauderdale Five-year Action Plan. Our proposed program manager, Catherine Prince, led the Miami-Dade County-wide program plan and is currently leading the preliminary engineering for a 5-mile corridor with safety and multimodal improvements in Escambia County. This experience will benefit the success of this critical project for the City.

Below please find three relevant project examples that capture's our team's experience. All noted individuals are still employed with their respective firms.

Project 1: Monroe County Sea-Level Rise Shoreline Stabilization

- **Total Value:** $20 million
- **Project Dates:** 2016 to 2022
- **Change Orders/Amendments:** None
- **Total Cost Increase:** Cost as estimated and within contingency
- **Initial vs. Actual Project Schedule:** No change
- **Client Representative:** Rhonda Haag
- **Phone Number:** 305-395-9928
- **Key Staff:** Greg Corning, PE; Tiffany Davies, PE (WSP)

Project 2: Hollywood Boulevard Complete Streets

- **Total Value:** $6.8 million
- **Project Dates:** 2016 to 2020
- **Change Orders/Amendments:** None
- **Total Cost Increase:** Cost as estimated and within contingency
- **Initial vs. Actual Project Schedule:** No change
- **Client Representative:** Scott Peterson, PE
- **Phone Number:** 954.777.4416
- **Key Staff:** Betsy Jeffers, PE; Richard Creed, PE; Ramon Soria, PE (MARLIN)

WSP provided knowledgeable service in developing the Miami- Dade County Vision Zero Program Plan. Their efforts included training to shift mindset and culture to prioritize safety during design. I highly recommend the team for Vision Zero work in your community."

Irene Soria, PE, Project Manager
Miami-Dade County

Project 3: Euclid Avenue Streetscape (in Lincoln Road Mall) Improvements

- **Total Value:** $750,000
- **Project Dates:** 2014 to 2017
- **Change Orders/Amendments:** None
- **Total Cost Increase:** $25,000 below estimated
- **Initial vs. Actual Project Schedule:** No change
- **Client Representative:** Omar Moreno, AIA, NCARB
- **Phone Number:** 305-484-1987
- **Key Staff:** Cristobal Betancourt; Daniel Diez, PE; Jose Acosta (CMA)

Organization Chart

Las Olas Corridor Design Consultant Services

CITY OF FORT LAUDERDALE

Principal in Charge
Alice Bravo, PE++

Program Manager
Catherine Prince, PMP, LEED AP, STP +

Deputy Program Manager
Greg Corning, PE

QA/QC
Yamila Hernandez, PE ++
Eduardo Santamaria, PE, LEED AP, ENV SP, CGC ++
Maria Watt

All Phases

Stakeholder Management

Community Engagement
Catherine Prince, PMP, LEED AP, STP ● +
Alec Bogdanoff, PhD (B) +

Agency Coordination
Jose Custodio, PE +

Flooding Vulnerability, Adaptation

Asset Vulnerability, Adaptation Strategies
Michael Flood ●
Chris Dorney, AICP

Supporting Ordinances, Policies
Alec Bogdanoff, PhD (B)+

Emergency Management
Miguel Torres-Diaz, PE

Utilities

Coordination, Undergrounding
Pedro Ugas (H) ++

Utilities Design
Jose Custodio, PE ● +

Program Management

Ronald Fields, PE ● ++

Phase 1A
Feasibility

General Engineering Services

Survey
Abraham Hadad, PSM ● ++
Charles Gardiner, PLS

Sub-Surface Utility
Pedro Ugas (H) ++

Geotech and Materials Testing
Brian Hathaway, PE

Renderings
Chase Mullen

Sospiro Bridge
Roger Khouri, PE

Alternatives Analysis

Christine Fanchi, PE, PTP, RSP ● +
Betsy Jeffers, PE (M)
Greg Corning, PE

Signalization, Traffic Studies
Md Sakoat Hossan, PE

Landscape, Lighting
Cristobal Betancourt, PLA, AICP (C)

Stormwater Design, Hydraulics
Jose Custodio, PE

Environmental Engineering
Ashok Aitharaju, PMP

Economist

Timothy Grose

Phase 1B
Engineering Design

Team 1 Road Engineering

Greg Corning, PE ● ++
Tiffany Davies, PE

Team 2 Road Engineering

Betsy Jeffers, PE (M) ● +
Richard Creed, PE (M)

Landscape Design

Landscape, Irrigation, Hardscape
Cristobal Betancourt, PLA, AICP (C)

Arborist
Brian Voelker, PWS (C)

Lighting
Daniel Diez, PE (C)

Stormwater Engineering

Drainage Design
Jose Custodio, PE

Design Criteria Package, Opinion of Costs

Werner Reinefeld, PE, ENV SP
Jose Suazo, PE

Constructability Review, Maintenance of Traffic
Adam Nacer, CGC, CFC ● ++ (MW)

Phase 2
Permitting

Jose Custodio, PE ● +
Freddy Mena, PE
Kevin Shelton, PWS

Phase 3
Bidding, Bid Support

Werner Reinefeld, PE, ENV SP ● ++
Stacie Schotanus

Phase 3
Construction Management

Alexander Rojas, PE, AVS, CWI ● ++
Ronald Fields, PE
Mike Berman
Criztol Lopez

Optional

Funding and Financing, Grant Administration

Alphonso Hernandez
Lauren Geraghty, LA, PMP

Small Business Support

Peter Waldt

Key

● Technical Lead

Sub-consultants

(B)	Brizaga
(H)	HADONNE
(MW)	Make Way Construction
(M)	MARLIN Engineering
(C)	Chen Moore and Associates

Office Location of Task Leads

+	Broward County
++	Miami-Dade or Palm Beach County

Our team members have more than 10 years of experience.

Alice Bravo, PE
Principal-in-Charge

Percentage Available
87%

Firm Name
WSP

Years of Experience
31

Professional Registrations
Professional Engineer, Florida No. 51310

Office Location
Miami-Dade County, Florida

Education
MBA, Business Administration, Florida International University, 1996

BS, Civil Engineering, University of Miami, 1992

Career Summary

Alice Bravo is highly qualified executive-level professional civil engineer with private and public sector experience. She is recognized throughout transportation industry for effective leadership and execution of complex transportation projects and policies. She has significant experience leading large organizations, initiatives, and projects. Alice has coordinated closely with elected officials, policy makers, and agency leaders at the federal, state, and local level regarding highway and transit projects. She has strong focus on developing strategies for gaining support/approvals for major infrastructure projects.

Professional Experience

Deputy City Manager/Chief of Infrastructure, City of Miami, Florida: Alice was responsible for management and oversight of six City departments including: Capital Improvements & Transportation, Public Works, Planning & Zoning, Building, Real Estate Management, and Information Technology. Worked successfully with major developers during this time to help plan the redevelopment of Miami's urban core. Responsible for procurement of several new leases for City Waterfront Property which required approval by Public Referendum.

Director of Capital Improvement Program, City of Miami, Florida: Alice was responsible for overseeing a $573-million capital improvement program: procurement, design, permitting and construction of numerous facilities such as transportation improvements, the Marlins Ballpark parking garages, parks, fire and police stations, water parks, recreational centers, the Museum Park complex, development of a trolley system with multiple routes, the City's bicycle facilities and implementation of a Red Light Infraction Camera System.

FDOT District Six District Director of Transportation Development, Miami, Florida: Alice was responsible for all production aspects of the District including Planning, Public Transportation, Environmental Management, Design and Right of Way activities. Coordinated directly with the State Secretary of Transportation, Assistant Secretaries, District Secretary, and the Federal Highway Administration (FHWA). Was responsible for managing a number of diversified Public Private Partnership (P3) projects involving design, construction, finance, operation, and maintenance including the $1-billion Port of Miami Tunnel and the $550-million SR 826/SR 836 interchange reconstruction project. She was responsible for spearheading the first Managed Lanes project in Florida (95 Express) which required leading a multi-disciplinary team and extensive coordination at the Federal, State, and Local levels. She secured nearly $70 million of federal funding through the U.S. DOT Urban Partnership Agreement for 95 Express. Represented the Department at the South Florida Regional Transportation Authority (SFRTA TriRail) as a Board Member.

FDOT District Six District Planning & Environmental Management Engineer, Miami, Florida: Alice managed major studies and permitting efforts for the District. She successfully attained all necessary approvals and permits for the controversial reconstruction of the US 1 18-mile Stretch project to the Florida Keys which included the reconstruction of the $140-million bridge over the Intracoastal Waterway.

Vice President and South Florida Regional Manager, Miami, Florida: As Regional Manager for an engineering consultant, Alice was responsible for growing the South Florida operations from a four-person office to an established multi-disciplined engineering office consisting of over 30 professionals. She established, managed, and became President of a wholly owned subsidiary, with a satellite office in San Juan, Puerto Rico, to provide design services for the Puerto Rico Highway and Transportation Authority. She was responsible for strategic planning, business plan development, marketing, all finances, hiring/directing personnel, project development, quality control, and corporate interaction.

Catherine Prince, PMP, LEED AP, STP

Program Manager

Percentage Available

94%

Firm Name

WSP

Years of Experience

18

Certifications

Project Management Professional

Greenroads Sustainable Transportation Professional

Leadership in Energy and Environmental Design Accredited Professional

Office Location

Broward County, Florida

Education

MBA, Boston University, 2022

MA, Architecture, University of Miami, 2007

BA, Architecture, Center for Environmental Planning and Technology University, 2005

Publications

"Reprioritizing the curb in Fort Lauderdale using Designated TNC (Rideshare) and Loading Zones." Federal Highway Administration (FHWA), Fostering Multi Modal Connectivity Newsletter, July/August 2019

Contributed to "Curbside Management Practitioner's Guide", Technical Advisor, Institute of Transportation Engineers (ITE), 2019

Career Summary

Catherine Prince assists agencies enhance the quality of life of the current and future generations with people-centered solutions by equitably engaging with stake-holders, leveraging technology to achieve elevated climate resilience, sustainability solutions. Her project management experience extends from complete street engineering design, construction, and developing supporting policies and ordinances.

Professional Experience

Resilient Corridor Facility-level Climate Vulnerability Assessment, Hollywood Boulevard, Broward Metropolitan Planning Organization (BMPO), Florida: Project Manager. Ms. Prince leads the pilot project using BMPO's Resilient Infrastructure Project Development Framework. The project objective is to develop a cost-feasible preferred conceptual design with implementation plan cost estimates.

Jackson Street Complete. Escambia County, Florida: Project Manager. Ms. Prince is leading the effort to develop integrated transportation and climate-resilient solutions along a 5-Mile corridor. Tasks include community resilience through complete street engineering design, mobility initiatives that uses a safe systems approach considering health, climate resilience, economic redevelopment, and social equity.

Preston Corridor Masterplan, Louisville, Kentucky: Technical Advisor. Ms. Prince is leading the safety analysis of the 11-mile corridor using vision zero principles, develop a framework of countermeasures for this specific context. The developed countermeasures will inform the corridor's integrated long and short-term recommendations and implementation framework.

2020 Vision Zero Implementation Plan, Miami-Dade County, Florida: Project Manager. Ms. Prince led the effort to develop Vision Zero implementation plan led by the County's guiding values. The tasks include identifying high-injury corridors, developing engineering infrastructure countermeasures for the vulnerable user-mode, and developing project evaluation criteria.

Flagler Street Project Development & Environment (PD&E) Study, Miami, Florida: Deputy Project Manager. Ms. Prince is responsible for coordinating the alternatives analysis, for the North Corridor identified in the Strategic Miami Area Rapid Transit (SMART) Plan to be prioritized for premium transit services.

Additional Experience

Before joining WSP, Ms. Prince's project experience with the City of Fort Lauderdale led projects through Vision Zero lens from planning through implementation of transportation Capital Improvement Projects (CIP). Key projects included:

Las Olas Boulevard Safety and Mobility Improvements: The post-project evaluation showed a 50% increase in safety, a 27% decrease in vehicular speeding, a 91% increase in bicycle ridership, and other positive outcomes.

Downtown Walkability Program: Ms. Prince led the consensus building on multiple high-visibility urban intersections through design and increased safety.

Breakers Avenue Streetscape and Climate-Resilient Infrastructure, Concept Design, Fort Lauderdale, Florida: Ms. Prince led the preliminary engineering for six City-block streetscape improvements for a flexible shared streetscape with resilient infrastructure.

Greg Corning, PE
Deputy Program Manager

Percentage Available
79%

Firm Name
WSP

Years of Experience
18

Professional Registrations
Professional Engineer, Florida No. 79293

Office Location
Miami-Dade County, Florida

Education
BSc, Civil Engineering, Florida Atlantic University, 2009

Professional Associations
Southeast Florida Regional Climate Change Compact

American Society of Civil Engineers

American Water Resources Association

Florida Stormwater Association

Career Summary

Greg Corning provides technical input and engineering analysis for projects involving climate resiliency and assessment, project management, stormwater design and permitting, environmental design and permitting, and construction administration, engineering, and inspection. He is an active member in the Southeast Florida Regional Climate Change Compact and been engaged with the technical experts on solving the complex solutions to climate change. He brings this expertise with engaging with stakeholders and sharing lessons learned on projects within Florida and across the globe.

Professional Experience

Monroe County, Roads and Vulnerability Analysis and Capital Plan, Florida: Project Manager. Climate change, including but not limited to extreme weather conditions and sea level rise has prompted planners and officials to focus on strategies that support a more resilient system. The roadway system is vital for its access/evacuation and mobilization within the Florida Keys. As part of the County's sustainability approach, this project will merge climate change science and modeling, with transportation engineering and planning to develop a long-term roads adaptation plan based on design criteria, Sea Level Rise (SLR) projections, adaptation methodology, policy/financing evaluation, and public/stakeholder outreach. The project will be divided into three phases: study and analysis, engineering design, and adaptation plan.

Monroe County, Harry Harris Park Vulnerability Analysis, Monroe County, Florida: Project Manager. Monroe County contracted WSP to complete a vulnerability assessment of Harry Harris Park, which is a popular place for locals to spend a day at the ocean. The beach, not open to the ocean, is a tidal pool safer for children. The basketball courts, kiddie playground, pavilions and BBQ grills are close to rest rooms and parking. Two softball fields host local teams. One of the most popular features in this park is its deep-water easy access boat ramp. This assessment proactively developed adaptation strategies to enhance the County's investment in an important State goal: the preservation and enhancement of working waterfronts in Florida. This analysis furthered the work of the County's Sustainability and Climate Plan ongoing under the GreenKeys plan, which sets forth recommendations to plan appropriate uses and adaptation measures for areas.

Collier County Public Utilities – Parks & Recreation, Hurricane Irma Damage Assessment and Estimating Services, Florida: Project Manager. In the aftermath of Hurricane Irma, WSP is assisted Collier County with damage assessments services for the Utility and Park Facilities to assist with FEMA Public Assistance and Recovery operations. Our scope of services included 1) Infrastructure damage identification and assessment; 2) Damage estimations using FEMA's Substantial Damage Estimations (SDE) software; 3) Preliminary design and scope of work for repairs; 4) Cost Estimating of repairs to damage sites; 5) Technical Assistance in development of Public Assistance Applications (project worksheets); and 6) Administrative assistance and project documentation for grant management.

Monroe County, Canal Restoration Demonstration Program, Florida: Project engineer assisting with the implementation a canal restoration demonstration program consisting of implementation of various residential canal water quality improvements. WSP is obtaining all required permits, including a SFWMD ERP, a USACE individual permit, and a Florida National Marine Sanctuary permit. WSP is completing all required environmental surveys, bathymetric and topographic surveys, sediment characterization, geotechnical evaluations, and hydraulic modeling. WSP is also conducting public outreach and coordinating all homeowner approvals for staging areas and equipment installation.

Michael Flood

Asset Vulnerability, Adaptation Strategies

Percentage Available

91%

Firm Name

WSP

Years of Experience

28

Office Location

Baltimore County, Maryland

Education

MS, Urban and Environmental Planning, University of Virginia, 1993

BA, Urban Planning, University of Maryland, 1990

Career Summary

Michael Flood has over 28 years of consulting experience and is the National Resiliency Lead for WSP. In this role, he has led most of the national projects focused on determining the risks of extreme weather and climate change and the development of potential strategies for addressing those risks. This work has included work assessing potential impacts to buildings and facilities in the northeast and southeast, communities in Florida and Massachusetts and transportation facilities across the United States, including Puerto Rico, Alaska and Minnesota. The focus of Mike's recent work has been the development of methods, tools and strategies to help agencies make effective decisions in adaptation to climate change and extreme weather risks through development of prioritization processes. This work includes developing benefit-cost assessments of resiliency projects in New York, an assessment of impacts to infrastructure statewide in California, and the conduct of training seminars on resiliency strategies and other similar efforts focused on helping agencies make effective decisions.

Professional Experience

South Florida Climate Change Vulnerability Assessment and Adaptation Pilot Project: Planning lead on this project to identify coastal flooding risk and potential implications for transit/transportation infrastructure and long-range capital planning in the region. The focus of the project was applying existing and/or newly developed tools to understand the implications to the region of different sea level rise, inland flooding, and storm surge scenarios and a response focused on ensuring resiliency long term. The project included a multi-agency oversight committee made up of representatives from various environmental, planning and engineering agencies.

National Highway Institute - Addressing Resilience in Highway Project Development & Preliminary Design: Served in the role of technical lead/WSP project manager on these projects to define appropriate capital investment decisions for infrastructure and buildings in the county in those areas where low-lying areas are already experiencing the effects of sea level rise and tidal flooding. The focus of one of these efforts included identifying the most cost-effective design option for their ongoing countywide roadway improvement project and how best to analyze county owned buildings.

Extreme Weather and Climate Change Risk to the Transportation System: Broward County, Florida: Served in the role of project manager on this effort to define long term climate risks to the county as a means of identifying capital program improvements for county infrastructure. This effort was focused on defining risks to county infrastructure primarily from tidal and flooding effects, but also include groundwater, precipitation and temperature assessments to capture the full picture of changing conditions and develop strategies for how the county should respond.

Transportation Engineering Approaches to Climate Resiliency (TEACR) Study: Responsible for oversight of project development, process development and application of benefit cost assessment methodologies. This work incorporated the development of statistically derived future weather risks from multiple climate model outputs, identification of damage/failure costs and the assessment of whole lifecycle costs to identify the most cost-effective design strategy for a range of future risks.

AASHTO Climate Resiliency Peer Exchange: Lead on the development and hosting of a peer exchange in Washington DC which brought together transportation agency representatives from around the country to define a consistent understanding of those items that should define a resilient transportation agency. The outcome of this effort included the development of best practices that other agencies should implement.

Christine Fanchi, PE, PTP, RSP
Alternative Analysis

Percentage Available
84%

Firm Name
WSP

Years of Experience
24

Professional Registrations
Professional Engineer, Florida No. 80088

Professional Transportation Planner, TPCB No. 484

Roadway Safety Professional, TPCB No. 855

Office Location
Broward County, Florida

Education
BS, Civil Engineering, Transportation, Auburn University, 1999

Career Summary

Christine Fanchi has over 24 years of delivering multimodal street designs with emphasis on engineering to protect vulnerable users. While serving as City Transportation Engineer for Fort Lauderdale, Christine led numerous projects working closely with Broward County and FDOT to gain consensus and deliver projects on time. Christine utilizes her technical experience alongside her excellent communication skills to leverage positive outcomes for public engagement and stakeholder processes.

Professional Experience

City of Fort Lauderdale, NE 13th Street and NE 4th Ave to Progresso Dr, Fort Lauderdale, Florida: First economic development CRA grant for complete streets project included reducing from 5 to 3 lanes, converting signal to roundabout, adding on-street parking, 6.5' on-street continuous green bike lanes, landscaped median with shade trees, landscape bulb-outs, LED roadway lighting upgrades, pedestrian lighting, artistic banners, and community artwork partnership for center of roundabout. Led all public outreach during planning, design, and construction at large public meetings and individual businesses. Project was awarded Community Appearance Award in 2018 for Best Complete Streets Project. Awarded two awards for dedicated service to NE 13th Street in 2017 and 2020 from Central City Alliance.

City of Fort Lauderdale, Neighborhood Master Mobility Plans, Florida: City Transportation Engineer for Lake Ridge, Coral Ridge County Club Estates, Palm Air Village, Shady Banks, Tarpon River, and Twin Lakes North. Worked alongside City Transportation Planner to lead discussions with neighborhoods about transportation issues, concerns, and opportunities for improved mobility, safety, and connectivity to assets. Outcomes provided prioritized project list submitted for local MPO grant applications and supported neighborhood project programs.

FDOT D4, NE 4th Ave (SR811), Sunrise Blvd to NE 26th St, Fort Lauderdale, Florida: Led traffic analysis and FDOT coordination to achieve approval of lane repurposing for City of Fort Lauderdale. Led numerous public meetings to achieve public consensus on repurposing outside lane to buffered bike lane with transit pull outs. Led City review of project through design and construction phases.

FDOT D6, Flagler Street Lane Repurposing for Dedicated BAT, Florida: As Flagler Street is a main artery serving downtown Miami, the SMART Plan transit priority corridor has been selected for a pilot project to repurpose the outside lane from vehicular traffic to a dedicated BAT lane. The project will include a detailed traffic simulation model to understand travel times and traffic diversion, environmental analysis, public engagement and outreach, and final engineering design plans for implementation. The goal of this project is to understand the travel times, transit ridership/on-time service, and the safety improvements associated with the lane repurposing. A monitoring plan will be completed one year after the implementation of the project to show the before and after metrics to present to the area transportation leadership to determine the success of this pilot project.

FDOT D5, SR426 Aloma Avenue, Florida: Planning level study with high level of public engagement to improve safety, mobility, and accessibility. Collaborative partnership between FDOT and Project Visioning Team hosting multiple meetings to understand issues and opportunities. Alternatives focused on traffic calming to support the posted 30 MPH speed limit while improving safety for all modes including: raised intersections, mini-medians, roadway chicanes, raised crosswalks with pedestrian hybrid beacons, internally illuminated RPMs, dynamic curve systems, in lane pavement decals, and a roundabout. Traffic analysis, project visualization, and construction cost estimating informed project outcomes.

Alec Bogdanoff, PhD

Community Engagement, Supporting Ordinances, Policies

Percentage Available
74%

Firm Name
Brizaga

Years of Experience
15

Office Location
Broward County, Florida

Education
PhD, Physical Oceanography, Massachusetts Institute of Technology (MIT)/ Woods Hole Oceanographic Institution (WHOI), 2016

MS, Meteorology, Florida State University, 2010

BS, Meteorology, Florida State University, 2008

Career Summary

Alec Bogdanoff is a policy-trained oceanographer and meteorologist with nearly two decades of policy and political experience, including managing campaigns and authoring legislation on a state and federal level. He is adept project manager, with experience leading complex multi-jurisdictional resilience assessments. He has an extensive background in simplifying and effectively communicating complex scientific processes for general audiences. For Brizaga, Alec is responsible for monitoring and identifying scientific research and advances in the areas of sea level rise and climate change, including datasets and models, to further develop internal technologies, as well as leading resilience and adaptation planning, strategic communications, and public outreach and engagement. Alec also serves as the Senior Scientist for the American Flood Coalition.

Professional Experience

North Bay Village, Stormwater Master Plan, Florida: Directed outreach and education associated with the City's Stormwater Master Plan, which included the development of a communication strategy, assistance with the creation of materials for print, social media, and newsletters, and planning and execution of the public outreach meetings. All materials developed were designed for consumption by the public.

Village of Key Biscayne, Resiliency Strategy, Florida: Developing a resilience strategy, including evaluating threats, developing goals, and ultimately working with the consultant team to build an implementation and integration plan that examines all projects across the Village. Leading outreach and engagement efforts, including building a brand for the resilience program and associated educational materials.

Town of Surfside, Stormwater and Flood Hazard Mitigation Plan, Florida: Directing outreach and education associated with the Stormwater Master Plan. Serving as project manager for the communications and outreach team, which included the development of a communication strategy, assistance with the creation of materials for print, social media, and newsletters, and planning and execution of the public outreach meetings. The materials developed were designed for consumption by the general public.

City of Coral Springs, Stormwater Master Plan, Florida: Developing innovating outreach and education program for the Stormwater Master Plan. Serving as project director for the communications and outreach team, overseeing the communications team and reviewing all materials, providing expert feedback, as needed.

Suwannee River Permit to Protect Public Outreach, Florida: Lead the development of easy-to-understand permitting flyers and informational graphics on the Water Manage District's Permit to Protect Program. Flyers were graphically-designed, scientifically accurate, and designed for the general public.

City of Pompano Beach, Habitat for Humanity Park in Pompano Beach, Florida: Providing pro-bono owners representative services for Broward County Habitat for Humanity to assist with the development of a pocket park inside of a planned workforce housing community. This includes all aspect of the park developments.

Town of Briny Breezes, Briny Breezes Adaptation Plan, Florida: Project manager for the Adaptation Plan, which assessed and identified top risk factors and vulnerabilities to create a prioritized list of at-risk assets with input from stakeholders supported by Brizaga's Adaptation Prioritization Exercise (APEx) tool.

Jose Custodio, PE

Agency Coordination, Utilities, Stormwater, and Drainage Design, Hydraulics, Permitting

Percentage Available

93%

Firm Name

WSP

Years of Experience

13

Professional Registrations

Professional Engineer, Florida No. 81080

Office Location

Broward County, Florida

Education

ME, Construction Engineering, Polytechnic University of Puerto Rico, 2013

BS, Civil Engineering, Polytechnic University of Puerto Rico, 2010

Career Summary

Jose Custodio is a licensed professional engineer registered in the states of Florida and Puerto Rico, with a strong background in water, sewer, stormwater design and construction management. Jose was the design manager of the Central River Water Main Crossing (Under Las Olas Boulevard in 2020). He also managed the design development and construction of the City of Fort Lauderdale Las Olas 16" force main in 2018, a Consent Order project that was completed ahead of FDEP's stipulated deadline.

Professional Experience

City of Fort Lauderdale, Central River 20-inch Water Main Crossing, Florida: Project consisted of the installation of approximately 700 LF of a 20-inch Water Main installed via Horizontal Directional Drilling from the Broward County Correction Facility to just north of Las Olas Blvd. Jose was responsible for the design calculations, development of the design, coordination with stakeholders (DDA, Broward County and Hotels).

City of Fort Lauderdale, East Las Olas 16-inch Force Main, Florida: Project consisted of the replacement of approximately 2,000 LF of 12-inch FM with a 16-inch HDPE FM along East Las Olas Blvd from SE17th Street to Lido Drive, via the pipe bursting method. This was a Consent Order Project completed ahead of schedule. Jose was responsible to manage the design, evaluate bid proposals, manage the construction phase of the project and coordinate with FDEP in providing the required information for project closeout.

City of Fort Lauderdale, Coral Shores Small Water Mains, Florida: Project consisted of the replacement of approximately 6,000 LF of undersized small water mains with a new 8-inch HDPE water main. Jose was responsible for the design, coordination with the contractor, obtaining the permits from FDOT, Broward County and FDEP.

City of Fort Lauderdale Executive Airport South Perimeter Loop Road, Florida: Engineer of record. Responsible for the design plans preparation, technical specifications and cost estimate, preparation of the bidding documents and construction management. The project consisted in the construction of an approximately 1,400 linear foot long asphalt perimeter road along the southeastern end of Runway 31.

Town of Bay Harbor Islands, Stormwater Master Plan, Florida: Project consisted of the development of a town-wide Stormwater Master Plan to address Sea Level Rise impacts in the Town. Among the proposed solutions provided were stormwater injection wells, raising the seawalls, installation of backflow prevention valves, among others. Jose was responsible to review the document and provide comments to the Consultant on behalf of the Town, and coordinate meetings with residents to present the plan results.

Town of Bay Harbor Islands, Stormwater Backflow Prevention Valves (Tidal Valves), Florida: Project consisted of the installation of several tidal valves on areas of the Town that based on the Stormwater Master Plan were susceptible to Sea Level Rise and King Tides effects. Jose was responsible to prepare the design of the valves in the outfalls, coordinate with supplier, and Contractor and monitor the installation of these ahead of the King Tides season of 2022.

City of Fort Lauderdale, Croissant Park Neighborhood Small Water Mains Improvements, Florida: Project manager responsible for managing the design, bidding and construction phase of the project through final completion and closeout. Project consisted of the replacement of aging and undersized infrastructure (approximately 16,000 linear feet of two, four and six-inch diameter cast iron water mains) with an eight-inch diameter high-density polyethylene water main, replacement of fire hydrants, 375 service connections and relocation of water meters located in private property within the neighborhood.

Betsy Jeffers, PE

Team 2 Road Engineering, Alternatives Analysis

MARLIN

Percentage Available
92%

Firm Name
MARLIN Engineering

Years of Experience
30

Professional Registrations
Professional Engineer, Florida No. 50745

Office Location
Broward County, Florida

Education
BS, Civil Engineering
Florida International University, 1991

Career Summary

Betsy Jeffers has 30 years of experience, including a 26-year tenure with the FDOT D4 Design Office. She spent 12 years as an In-House Design Section Leader with FDOT. Betsy is knowledgeable in FDOT design criteria and standards, AASHTO guidelines, specifications, typical section variance and exception review, and quality control in the daily plans production environment. She served as the Design Project Manager and Engineer of Record for various projects with construction budgets ranging from $300,000 to upwards of $65 million. From 2015 to 2020, Betsy served as the Program Manager for the Broward Mobility Initiative, working with the Broward MPO and other County municipalities such as Fort Lauderdale, Hollywood, Pompano Beach, and Coconut Creek to program over $300 million in bicycle and pedestrian projects. Her experience with FDOT District 4 includes four years as a Consultant Project Manager.

Professional Experience

City of Fort Lauderdale, NE 15th Avenue Lane Repurposing Project, Fort Lauderdale, Florida. Project Manager. The project provides plan documents to allow the City of Fort Lauderdale to repurpose the outside lanes to Buffered/Protected Lanes on NE 15th Avenue from Sunrise Boulevard to N. of 13th Avenue as a pilot project. MARLIN will perform collection/survey, ped/bike video reports, plans/Quality Control, and post-design services for this contract. This project is being performed under MARLIN's Traffic and Transportation Engineering and Planning Services contract.

City of Fort Lauderdale, Downtown Walkability Projects, Fort Lauderdale, Florida: Engineer-of-Record. Supported the Fort Lauderdale Downtown Walkability Capital Improvement program through the engineering and construction administration of pedestrian and bicyclist safety improvements at the intersections at E. Las Olas Blvd. and NE 2nd Street with NE 4th Ave and SE 2nd Street between SE 3rd and 5th Ave. The project crossing in Downtown Fort Lauderdale is intended to slow vehicular speeds, enhance pedestrian traffic control, markings, and signage, improve site distance, raise intersections and crossing, and other strategies in urbanized areas where there is a mix of high pedestrian and vehicular volumes. The scope of work included a comparative analysis of bicycle and pedestrian standards by the City's Complete Streets Manual, NACTO, AASHTO, FDOT, and Broward County to comply with varying jurisdictional requirements of the project streets and intersections

City of Fort Lauderdale, Breakers Avenue, and Las Olas at NE 4th Avenue, Fort Lauderdale, Florida: Project Manager. Planning Study and Concept Design to make Breakers Avenue a comfortable, connected, safe, and memorable destination. The project makes Breakers Avenue a complete street that reduces the excess pavement, formalizes the seating and gathering spaces, and creates event spaces using street trees, varied seating options, a unified material design, and a pedestrian-friendly approach.

FDOT D4, Veteran's Memorial Bridge - CR 714 Mapp Road to Kanner Hwy, City of Stuart and Palm City, Florida: Deputy Project Manager and Lead Roadway Designer. This project included the replacement of the existing bascule bridge with a new 65' high-level bridge over the Intracoastal Waterway and the reconstruction of a 2-mile of roadway to connect the City of Jensen Beach with Hutchinson Island. Major environmental issues included minimizing damage to mangroves and the endangered seagrasses in the area and manatees and working in Outstanding Florida Waters. The project also had one of the first modern roundabouts on a Florida State Highway.

Cristobal Betancourt, PLA, AICP

Landscape, Lighting, Irrigation, and Hardscape

Percentage Available
82%

Firm Name
CMA

Years of Experience
27

Professional Registrations
Registered Landscape Architect, FL No. LA6666941, NJ No. AA000949, NY No. 001959

Office Location
Broward County, Florida

Education
BS, Landscape Architecture, Cornell University, 1995

Career Summary

Cristobal Betancourt is CMA's Vice President of Landscape Architecture and Planning. Cris is responsible for client and resource management, and operations of his department. He has 27 years of experience providing planning and landscape architecture design solutions for public and private sector clients, with significant FDOT experience. He currently manages our landscape design services under a GEC contract with the Florida Turnpike Enterprise.

Cris provides a full range of services stating with due diligence and master planning, culminating in detailed site design, and he is well versed in designing landscaping for multiple modes of transportation including air, rail, roadway, and multimodal transit facilities. He has been the project manager for FDOT landscape contracts, highway beautification projects, LAP and JPA projects, and MPO funded projects for landscape and pedestrian improvements including Complete Streets methodology.

Professional Experience

FDOT D4, University Drive - Cardinal Road to SR 869/Sawgrass Expressway, Florida: CMA provided landscape architecture services for this off-system project for FDOT D4 as a subconsultant. The scope of the project included the conversion of an existing 4 lane road section to 6 lanes. This section of University Drive has a significant amount of existing tree canopy and is lined with multiple businesses and residential neighborhoods that will be impacted by the widening. The design goals are to limit the impact to the existing tree canopy, incorporate a proposed linear park and meandering shared use paths into the design, and develop a cohesive landscape theme for the corridor. The services provided by CMA include community input, tree inventory and disposition plans, tree mitigation permitting, landscape, hardscape, and irrigation design.

FDOT D6, Miscellaneous Districtwide Landscape Design, Florida: The scope of services includes plan reviews; attending and reporting on design, coordination, and review meetings; landscape architectural and engineering consultation; landscape architectural planning and design; construction inspection and/or field assessments; quarterly monitoring; illustrative graphics; permitting; project coordination, post design services; correspondence and project filing; and development of project scopes. During this contract he has been the Landscape Architect of Record for stand-alone landscape projects and many miscellaneous projects associated with resurfacing and safety upgrades. CMA reported to the D6 District Landscape Architect and provided support as necessary to their office limiting the effort of D6 personnel.

FDOT D4, Wiles Rd from Rock Island Rd to State Rd 7, Florida: CMA provided landscape architecture services as a subconsultant for the widening of Wiles Road between SR7 and Godfrey Road in Coral Springs. Hardscape, landscape, and irrigation design, as well as public outreach with abutting residential neighborhoods and government permitting agencies was included in the CMA scope of work.

City of West Palm Beach, 26th Street and Flagler Drive Storm Water Improvements, Florida: CMA provided the stormwater and roadway design for the 26th Street and Flagler Drive Stormwater Improvements project. Our design involved the replacement of an existing 54-inch stormwater trunk line and the reconfiguration of the roadway. The current cross-section of the road is four-lane divided by a median, whereas the proposed cross-section will be two-lanes with a protected pedestrian and bicycle facility and significant plantings. With a reduction in impervious area and the use of bio-swales, this design will be a significant "green infrastructure" project for the City of West Palm Beach.

Werner Reinefeld, PE, ENV SP

Design Criteria Package, Opinion of Costs, Bidding, Bid Support

Percentage Available

81%

Firm Name

WSP

Years of Experience

38

Professional Registrations

Professional Engineer, Florida No. 63042

Envision Sustainability Professional

Office Location

Miami-Dade County, Florida

Education

BS, Civil Engineering, Central University of Venezuela, 1983

Career Summary

Werner Reinefeld has nearly four decades of experience in the fields of civil and infrastructure engineering, project management, design construction, computer aided design, and land development. His experience includes work in the areas of earthworks, road systems, hydrological and hydraulic systems and modeling, water and wastewater facilities, sewer systems, stormwater and drainage, utility coordination, oil-contaminated water remediation, energy efficiency audits, permitting feasibility studies, proposal preparation, and land development projects. Mr. Reinefeld served as a Design and Procurement Manager for two of the largest Programs for MDWASD Department, delivering to construction more than 100 projects similar to this solicitation

Professional Experience

Central New River Water Main HDD Crossing, Fort Lauderdale, Florida: Engineer of record responsible for the design of 800 linear feet of a sub aqueous water main crossing under the New River Canal. The existing 16-inch cast iron water main is aging and undersized for the existing and future potable water demands. It will be replaced with a 20-inch HDPE DR-13.5 pipe to be installed via Horizontal Directional Drilling (HDD) in the middle of Fort Lauderdale Downtown Area. Project includes extensive coordination with the residents of the high-rise buildings within the area, the downtown development authority and Broward County Jail Facility.

MDWASD's $91M Program and Construction Management Services related to the Wastewater System Priority Projects (PMCM), Florida: The PMCM Team was selected by the Miami Dade Water and Sewer Department (MDWASD) to provide Program and Construction Management Services related to the Wastewater System Priority Projects. Services provided include, but are not limited to, program management, construction management, development coordination, public outreach, engineering analysis, hydraulic modeling, scheduling, cost estimates, inspections and document control. Mr. Reinefeld is working as a Deputy Task Leader for the PMCM Team within the Wastewater Collection and Transmission System (WCTS) Task. The WCTS Task is assisting the Department with the coordination and management of ninety-three (93) Force Main and Pump Station Projects, from conception to closure, including the following phases: Engineering Design, Permitting, Procurement, Construction, and Certification.

Miami-Dade Water and Sewer Department (MDWASD) $17M Pump Station Improvement Program (PSIP), Florida: Design Manager Lead for the upgrading of the Wastewater Collection and Transmission System (WCTS) that includes pump stations and force mains pursuant to which each pump station has to be certified as capable of meeting a nominal average pump operating time (NAPOT) of less than or equal to 10 hours per day. Pump stations exceeding the NAPOT criteria must have a Remedial Action Plan (RAP) and no certificate of occupancies can be issued for connections to the WCTS upstream of that pump station until the RAP recommendations are implemented. The program aims to bring into compliance 109 sewage pump stations that do not comply with the NAPOT criteria and/or are in need to be upgraded.

MDWASD 42-inch WM to Port of Miami, Florida: Project Manager and Engineer of Record for the design of a proposed 36 – inch Transmission Main that will interconnect with a future 36-inch stub-out (WASD's Downtown Loop Project) located at the intersection between Biscayne Boulevard (SR 5 / US-1) and NW 5th Street and the Port of Miami. Approximately 7,700± ft. of transmission pipe. The proposed Transmission main takes into consideration future system expansion and improvements identified in the Port of Miami's Master Plan. Scope of work included 2,200 LF of Horizontal Directional Drilling under Biscayne Bay.

Adam Nacer, CGC, CFC

Design Constructability Review, Maintenance of Traffic

Make Way Construction

Percentage Available

91%

Firm Name

Make Way Construction

Years of Experience

14

Professional Registrations

Certified General Contractor, Florida No. 1528073

Certified Underground Utility and Excavation Contractor, No. 1225626

Certified Plumbing Contractor, No. 1431334

Office Location

Miami-Dade County, Florida

Training and Certifications

QC Manager

CTQP Earthwork Inspection Level 1 & 2

CTQP Asphalt Paving Level 1 & 2

CTQP Final Estimates 1 & 2

CTQP Pile Driving Inspector

CTQP Drilled Shaft Inspector

MOT Advanced

Railroad MOT

CTQP Concrete Field Inspector Spec.

Grade 1 & 2

Troxler Nuclear Density

Critical Bridge Structures

Auger Cast Piles

Career Summary

Adam Nacer is a conscientious, safety/detail oriented, team performer with a willingness to work with others to solve problems while ensuring the production of a high-quality product in the construction of roadway, bridge or underground utility projects. His skills are monitoring MOT, underground utility installation, pipe backfill, embankment, subgrade, base, asphalt paving, milling, shoulder rework, sidewalk construction, verifying cross slopes, straight edge, guardrail installation, drilled shaft operations, pile driving, silt fence installation, verifying cross slopes, straight edge, signage installation, and striping installation. Mr. Nacer also controls schedules, cost, and quality of projects for roads, bridges and underground utilities. He plans and coordinates all aspects of the construction process, including hiring contractors and working with engineers, architects and vendors; scheduling different phases of multiple projects simultaneously based on established deadlines; negotiating contracts with architects, vendors, contractors and other workers; securing of permit, licenses, delivery of materials and equipment to construction sites.

Professional Experience

Road, Bridge and Underground Utility Projects

Plan, schedule, and execute as the General Superintendent various stages of the project including submittals, subcontracting, oversight of project personnel, and meeting project deadlines. Develop construction schedules to maximize productivity and cost controls. Execute projects in timely manner utilizing safe and accurate construction practices. Effective leadership skills and ability to ensure continuous productivity of crews. Enforce project schedule and goals to supervisors, foremens, and crews. Implement effective cost controls over labor, material and equipment to meet or beat budget. Oversee subcontractors/suppliers to ensure adherence to purchase order agreement and project schedule. Knowledgeable in FDOT Design Standards and Road & Bridge Specs. Projects included:

- FDOT, 419345-2-52-01, 439777-1-52-01, 4363076-1-52-01
- Broward County, General Roadway and Misc Construction PNC2117271B1
- Broward County, General Roadway and Misc Construction C1347414B1
- City of Coconut Creek, Coconut Creek C1347414B1
- FDOT, Districtwide Misc Sidewalk/ADA Repairs - E4P96
- City of Dania Beach, Oasis Neighborhood Phase 9 @ Dania Beach, FL
- City of Tamarac, Margate Piggyback of Broward General Roadway and Misc Construction C1347414B1
- City of Pompano Beach, Procurement and Installation Services for Stormwater Outfall Check Valves
- Broward County, General Roadway and Misc Construction Q1001001B1
- City of West Palm, Northwood Brightline Rail Connection Utility Relocate 11999583

Pembroke Road Project

Bridge Senior Inspector conducting verification and monitoring MOT, drainage installation, embankment inspection, subgrade inspection, base inspection, MSE Wall inspection, pile driving, Barrier Wall inspection, culvert inspection, irrigation installation, lighting installation, sound wall installation landscape and irrigation installation inspection.

MIC Projects, Dade County, Florida

Senior threshold Inspector conducting verification and monitoring MOT, drainage installation, embankment inspection, subgrade inspection, base inspection, sidewalk construction, asphalt paving, milling operation, shoulder rework, signing and pavement marking installation, drilled shaft operation, silt fence installation landscape and irrigation installation inspection.

Alexander Rojas, PE, AVS, CWI

Construction Management

Percentage Available

86%

Firm Name

WSP

Years of Experience

28

Office Location

Palm Beach County, Florida

Education

MS, Construction Management, Florida International University 2016

BSc, Mechanical Engineering, Central University of Las Villa 1995

Career Summary

Alexander Rojas is a project manager/group supervisor with more than 28 years of experience. Mr. Rojas has managed and provided project coordination and engineering services for various geotechnical and CMT engineering-related projects in Florida. These projects have ranged from residential structures and commercial developments to state roadways, bridges, office buildings, parking garages, and government facilities. Services provided by Mr. Rojas have involved all aspects of project proposal, price estimating, and project management, including planning and execution of materials testing contracts, roadway construction projects, geotechnical field explorations, soil/rock sample classification, and laboratory testing.

Professional Experience

City of Fort Lauderdale, Fiveash Water Treatment Plant Filters Rehabilitation, Project Number 12485, Florida: The project consists of complete and partial rehabilitation of 13 filters. This project includes procurement, removal disposal, construction, testing and placing into service the equipment and materials shown on the drawings and specifications. Responsible for CEI project administration and inspections.

City of Fort Lauderdale, Croissant Park Water Main Infrastructure Improvements, Florida: The project consists of using trenchless technologies to upgrade existing water infrastructure. More than 8,000 linear feet of HDPE was installed by pipe bursting, and more than 6,000 liner feet was installed with horizontal directional drilling. Responsible for CEI project administration and inspections of installed mains and pressure testing of pipe welds and fittings, fire hydrants, water services, and paving/restoration.

City of Fort Lauderdale, East Las Olas 12-inch Force Main Replacement, SE 17th Avenue to Lido Drive Pump Station, Fort Lauderdale, Florida: This project includes the installation of approximately 2,200 linear feet of 8-inch, 12-inch, 16-inch, and 18-inch, diameter force mains and associated wastewater infrastructure. The force main will be constructed within the City right-of-way (ROW) and FDOT ROW limits.

Miami-Dade Expressway Authority, MDX Materials Engineering and Testing Services for SR 836 Operational, Capacity, and Interchange Improvements, Florida: This project consists of increasing the capacity of SR 836 in the eastbound direction from west of NW 57th Avenue to east of NW 27th Avenue and in the westbound direction from west of NW 17th Avenue to east of NW 57th Avenue. Responsible for verification materials testing services.

PDS Development, LLC, Palazzo Del Sol Project, Fisher Island, Miami, Florida: Special Inspection Engineer. Palazzo Del Sol was the first new condominium complex on Miami's exclusive Fisher Island since 2014. WSP performed special inspections and CMT services for the construction at the site.

Broward County, Ravenswood Bus Maintenance Facility, Florida: Laboratory Engineer responsible for construction materials testing.

Broward County, I-595 Corridor Roadway Improvement, Florida: QC manager responsible for all necessary action for implementation of the QC plan. This includes administering, implementing, and monitoring the processes to ensure the compliance with the contact documents. Daily activities include material testing and inspections and placement in accordance with the applicable specifications. Total project length along I-595 is approximately 10.3 miles and includes the reconstruction, addition of auxiliary lanes, resurfacing of the I-595 mainline, and a new reversible express lanes system in the I-595 median.

Yamila Hernandez, PE
QA/QC

Percentage Available
78%

Firm Name
WSP

Years of Experience
24

Professional Registrations
Professional Engineer, Florida No. 61701

Office Location
Miami-Dade County, Florida

Education
BS, Civil Engineering, Florida International University, 1998

Career Summary

Yamila Hernandez has over 24 years of progressively responsible, diversified experience in transportation and infrastructure project management and design (highway, drainage systems, signalization, signing, pavement markings and lighting). Projects include roadway and interchange reconstruction, resurfacing, restoration and rehabilitation. Management skills include establishing and maintaining client relationships, solving technical problems, quality control (QC), critical path scheduling, budgeting, subconsultant management, progress reporting and multi-agency coordination.

Professional Experience

Veterans Drive and Fort Christian Restoration, St. Thomas, Virgin Islands: Drainage engineer for the design, analysis and permitting of this urban roadway widening/reconstruction along the waterfront at Charlotte Amalie on the island of St Thomas and the restoration of this historic 17th century fort. The design for replacement of an adjacent fire station is part of the project.

FDOT District Four, Continuing Services for Design Projects, Florida: The project involves the design and preparation of a complete set of construction contract or conceptual plans, documents, special provisions and incidental engineering services, as necessary, for minor projects comprised of the following types, but not limited to: Resurfacing, Restoration, and Rehabilitation (RRR) projects, safety projects, in-house production support, ITS support, architecture and other services that may include developing concept reports, 3D modeling, and Request for Proposals (RFPs) on design-build projects.

Eduardo Santamaria, PE, LEED AP, ENV SP, CGC
QA/QC

Percentage Available
88%

Firm Name
WSP

Years of Experience
29

Professional Registrations
Professional Engineer, Florida No. 54861

Certified General Contractor, Florida No. CGC1505101

Office Location
Miami-Dade County, Florida

Education
BS, Civil Engineering, Florida International University, 1993

Career Summary

Ed Santamaria has held positions of increasing responsibility throughout his nearly 30-year career in the public and private sectors. Most recently, he served as Assistant City Manager of Coral Gables. In this role, Ed had direct oversight for multiple City departments, including Public Works, Development Services, and Information Technology.

Professional Experience

Five-year Capital Improvement Plan (CIP), City of Coral Gables, Florida: Managed overall planning and implementation of the ongoing Five-Year Capital Improvement Plan (CIP) for the City of Coral Gables. During Ed's tenure, he had direct oversight of the program and major projects such as the $60 million Public Safety Building project on he managed procurement, contract negotiations, programming, design and construction.

Comprehensive Citywide Traffic Calming Plan, City of Coral Gables, Florida: Project manager responsible for the overall plan development, negotiation of interlocal agreements with Miami-Dade County, evaluations of the traffic study data, establishment of design standards, and direct participation in public engagement for the multi-year program implementation.

Public Works Director, City of Miami, Florida: Executive responsible for planning, overseeing, and managing the City's infrastructure needs including pavement, drainage facilities, street lighting, landscape maintenance, and related activities. Responsible for the daily activities of the department, preparing the department's annual budget, and short and long-range planning of projects.

Maria Watt
QA/QC

Percentage Available
65%

Firm Name
WSP

Years of Experience
37

Office Location
Hillsborough County, Florida

Education
BS, Chemical Engineering, Rutgers University, 1985

Career Summary

Maria Watt specializes in disaster recovery and mitigation, resilient infrastructure, sustainable redevelopment, and environmental restoration. She has served as principal-in-charge/ program manager for numerous disaster recovery, coastal and environmental restoration, wetland restoration, green infrastructure, and flood control projects. Maria has managed and provided technical support to more than 100 multi-disciplined professionals and numerous team members and subcontractors.

Project Experience

New Jersey Department of Environmental Protection, HUD CDBG-DR Rebuild by Design and National Disaster Resilience, Program/Construction Management of Hoboken-Hudson River and New Meadowlands Projects, New Jersey: Ms. Watt managed the engineering oversight services on the Program/Construction Management contract for the feasibility study, design, and engineering services during construction for both RBD projects. These Post-Sandy coastal restoration, resilient infrastructure and flood protection projects include resist feature with flood walls, levees, and deployable structures, pump stations, force mains, channel restoration, urban parks and wetland restoration features, and major green infrastructure components.

RBD Meadowland Engineering Oversight, New Jersey: Served as the project manager on the NDR toolkit which involves developing a regional stormwater infrastructure toolkit and benefit cost analysis guidance of voluntary best management practices that can assist local jurisdictions, regional entities, and policy makers facing long term stormwater management challenges with an emphasis on green infrastructure.

Chris Dorney, AICP
Asset Vulnerability, Adaptation Strategies

Percentage Available
65%

Firm Name
WSP

Years of Experience
18.5

Professional Registrations
AICP

Office Location
Lancaster, Pennsylvania

Education
PhD, Urban and Regional Planning and Development, University of Maryland, 2021

MS, Land Use Planning, University of Maryland, 2006

BS, Geography, Pennsylvania State University, 2004

Career Summary

Chris Dorney is a vice president in WSP's Climate, Resilience, and Sustainability practice and has been engaged in extreme weather and climate change adaptation planning for over a decade. Dr. Dorney has been at the forefront of developing and implementing procedures for incorporating climate change adaptation into the project development process and has helped incorporate the use of climate data in project benefit-cost analyses. The projects listed below demonstrate this expertise, including some within the region.

Project Experience

U.S. Federal Highway Administration National Highway Institute, Addressing Resilience in Highway Project Development and Preliminary Design, Nationwide: Lead the development of training sessions on incorporating climate change into project design.

Pinellas County, RESTORE Act Vulnerability Assessment, Pinellas County, Florida: Lead methodology development for five facility-level adaptation assessments, including two roadways in low-lying coastal settings.

Monroe County, Sea Level Rise Exposure Pilot Study, Florida: Helped lead the approach to the tidal flooding exposure analysis for two county-owned roadways.

U.S. Federal Highway Administration, Transportation Engineering Approaches to Climate Resiliency, Nationwide: Led the development of Adaptation Decision-making Assessment Process (ADAP) and oversaw its application to five roadway case studies around the country.

Miguel Torres-Diaz, PE
Emergency Management

Percentage Available
96%

Firm Name
WSP

Years of Experience
25

Professional Registrations
Professional Engineer, Florida No. 56324

Office Location
Orange County, Florida

Education
MCE, Engineering Management, Polytechnic University of Puerto Rico, 2003

BS, Civil Engineering, Polytechnic University of Puerto Rico, 1996

Career Summary

Miguel Torres Diaz is a professional engineer with more than 25 years of experience with an emphasis on project and program management of infrastructure. Main expertise in the development, management, and construction of renewable energy, transportation, ports, highway, industrial, residential, commercial, and sports facilities for government and private sector clients. From January 2013 to December 2016 served as Secretary of Transportation and Public Works of Puerto Rico.

Professional Experience

Private Property Debris Removal Monitoring Program, 2017 Hurricanes Irma and Maria, San Juan, Other, Puerto Rico: As Program Manager, directed the operational and administrative tasks related with the project management and construction management (PM/CM) services to help design, establish, and manage an island-wide large-scale private property debris removal (PPDR) and demolition program. The program, funded under FEMA's Public Assistance program, is designed to alleviate conditions that present an immediate threat to public health and safety and/or create a major obstacle to the economic recovery of Puerto Rico in the aftermath of Hurricanes Irma and Maria.

Puerto Rico Integrated Transit Authority, Puerto Rico: President of the board of directors who led the initial consolidation of transit services efforts to obtain an operational cost reduction of train, bus and ferry operation.

Ronald Fields, PE
Program and Construction Management

Percentage Available
75%

Firm Name
WSP

Years of Experience
45

Professional Registrations
Professional Engineer, Florida No. 32259

Office Location
Miami-Dade County, Florida

Education
MS, Construction Management, University of Florida, 1978

BS, Civil Engineering, University of Florida, 1976

Career Summary

Ronald Fields is a senior supervising construction engineer and project manager for WSP with extensive experience in program and construction management for a variety of public works projects.

Professional Experience

Program Management, Miami-Dade County Public Schools, Miami-Dade County, Florida: Ron's assignments on this task-work order contract involve all program management activities through planning, design, bid and construction.

Ocean Outfall Program Management, Miami-Dade Water and Sewer Department (MDWASD), Miami-Dade County, Florida: As construction project manager, Ron monitored and provided documentation of construction activities including for design-build (D-B) delivery of 13,200 feet of 48-inch force main and 5,200 feet of 12-inch water main.

D-B Norris Cut Utility Relocation, MDWASD, Miami, Florida: Project manager responsible for the overall quality assurance program, D-B contract administration, management and supervision providing design phase review and support, constructability review, scheduling and cost estimating, project permitting review support, pre-construction coordination, contract administration, construction monitoring and inspection, coordination of project start-ups and closeout.

Pedro Ugas
Utilities Coordination, Undergrounding, Sub-Surface Utility

Percentage Available
65%

Firm Name
HADONNE

Years of Experience
28

Office Location
Miami-Dade County, Florida

Education
BS, Construction Management, Drexel University, 1991

AS, Civil Engineering, Delaware College, 1987

Career Summary

Pedro Ugas has over 28 years of experience in the inspection, construction and coordination of utilities for major projects throughout the United States. This experience has given him a vast knowledge base in all aspects of construction, utility access management and utility coordination. His experience with utility coordination and Sub-surface Utility Engineering (SUE) on FDOT and municipal projects is extensive, having handled major utility issues on projects ranging from urban arterials to major limited access facility and design/build projects.

Project Experience

SR-9/I-95 widening from south of Glades Rd. to north of Linton Blvd. (Phase 3B-2); Palm Beach County, FDOT District Four: Widening of I-95 to provided two additional express lanes in each direction through the limits of the project. Project include the relocation of FPL's transmission and distribution overhead electric lines.

SR-802/Lake Worth Road Roundabout Pedestrian and Sidewalk Improvements, Palm Beach County, FDOT District Four: 3R, pedestrian safety improvements project including reconstructing roundabout, adding sidewall and crosswalk at various locations.

P SR-836/Dolphin Expressway from west of NW 57th Avenue to NW 17th Avenue, Miami-Dade County, Florida: Lead utility coordinator and SUE manager. The design-built project included the widening of SR-836 to accommodate two additional lanes in each direction. Responsible for coordinating the relocation of multiple utility facilities within the limits of the project.

Abraham Hadad, PSM
Survey

Percentage Available
80%

Firm Name
HADONNE

Years of Experience
28

Professional Registrations
Professional Surveyor and Mapper, Florida No. LS6006

Office Location
Miami-Dade County, Florida

Career Summary

Abraham Hadad's 28 years of experience has encompassed all phases of infrastructure planning and development in surveying and mapping, planning, design, agency permitting and construction management. He has been responsible for route/right-of-way, boundary, construction, topographic, and geodetic control surveys for cellular towers, transportation projects and commercial and residential developments. Mr. Hadad's expertise in resolution of complex boundary and title problems has established him as an expert witness.

Project Experience

B-17365 - Shorecrest Area Survey within the City of Miami: Perform Topographic Survey of approximately 45,000 linear feet of road, survey to include the following items: Depict Right of Way information based on the City of Miami Street ATLAS sheets, record plats and property appraisal database including all current dedicated areas. Survey limits to extend from Right of Way to Right of Way along the corridor 15 feet into the private properties.

Broadway & SW 1st Avenue / New Park Project No. B-40355A: City of Miami Capital Improvement Program request for miscellaneous surveying and mapping services under CIP Work Order No. B-40355A for topographic, underground and tree survey. Performed topographic survey from SW 15th Road to SW 25th Road. Located all trees within the project boundaries and provided a tree table with tree, name, trunk diameter, height, and canopy. Collected invert elevation, pipe size, and pipe type of all accessible existing inlets and manholes and performed Miscellaneous Surveying Services.

Charles Gardiner, PLS
Survey, Sub-surface Utility

Percentage Available
69%

Firm Name
WSP

Years of Experience
41

Professional Registrations
Professional Land Surveyor, Florida No. LS5046

Office Location
Seminole County, Florida

Education
BS, Surveying and Mapping, University of Florida, 1987

AS, Civil Engineering, Central Florida Community College, 1984

Career Summary

Charles Gardiner has 41 years of experience in surveying and mapping activities, including management and execution of projects for private and public sector clients. He has expertise in geodetic surveying, route/design surveying and mapping and boundary surveying. He has a background with an emphasis on new technologies – including GNSS, GIS, and LiDAR – being used for surveying and engineering professions.

Project Experience

Florida Department of Environmental Protection, Surveying and Mapping Services Contracts, Statewide, Florida: Served as project manager since 1995 under five successive contracts. Work has involved land acquisitions, land management and land restoration projects associates with the state's land acquisition programs to include Save our Rivers, Rails to Trails, Conservation and Recreational Lands (CARL), P-2000 and Florida Forever.

Southwest Florida Water Management District, Surveying and Mapping Services Contracts, Florida: Supported the District's program of migration of hydrological monitoring stations. Assignments have included geodetic control surveys, specific purpose surveys and calibration of existing hydrological monitoring stations.

Brian Hathaway, PE
Geotech and Materials Testing

Percentage Available
83%

Firm Name
WSP

Years of Experience
23

Professional Registrations
Professional Engineer, Florida No. 60724

Office Location
Palm Beach County, Florida

Education
MS, Civil Engineering, University of Florida, 2000

BSc, Civil Engineering, Florida State University, 1998

Career Summary

Brian Hathaway is a licensed professional engineer with more than 23 years of professional experience with primary emphasis in geotechnical and civil engineering, subsurface exploration techniques, site characterization, QA/QC materials testing, and civil construction practices. Mr. Hathaway has managed and provided engineering services for various design and construction-related projects throughout Florida, Alabama, and Georgia.

Professional Experience

City of West Palm Beach, Professional Geotechnical Engineering Design Services and Materials Testing Contract, West Palm Beach, Florida: WSP was selected by the City of West Palm Beach as a professional consultant to provide geotechnical, construction materials, and laboratory testing services.

Florida Department of Transportation District 4, FDOT Districtwide Geotechnical and Materials Testing Contract, Florida: WSP has performed more than 120 task work order assignments inclusive of geotechnical engineering, field explorations, material testing and inspection services, and pavement coring for five counties within FDOT's District 4.

Monroe County, Tax Collectors Office Facility Assessment and Repairs, Marathon, Florida: Senior Geotechnical Engineer. WSP is preparing repair construction documents including plans, geotechnical, and permits for the damaged portion of the structure. WSP is also investigating the possibility of mitigating future, similar hurricane damage to the building with a flood-mitigation structure; and if warranted, design the structure.

Roger Khouri, PE
Sospiro Bridge

Percentage Available
85%

Firm Name
WSP

Years of Experience
39

Professional Registrations
Professional Engineer, Florida No. 47745

Office Location
Miami-Dade County, Florida

Education
MS, Florida International University, 1991

Career Summary

Roger Khouri is a senior structural engineer with more than 37 years of extensive experience in the structural de-sign of bridges, buildings, hydraulic and underground structures. As a project manager and the engineer of record on numerous bridge design projects, Roger has been involved in all phases of design from the conceptual to the final design of short to long span bridges, steel, prestressed concrete, segmental, cable-stayed and various post-tensioned bridge structures.

Professional Experience

Fort Lauderdale Airport Terminal Access Road, Fort Lauderdale, Florida: Project engineer for the de-sign of the upper vehicular bridge in front of the Airport Terminal. The project consists of transverse AASHTO beams monolithic with two longitudinal edge girders on augercast pile foundations.

FDOT District Six, Districtwide Bridge Load Rating, Miami, Florida: Structural engineer performing quality control (QC) for the load rating of various type of bridge including movable, steel and concrete bridges.

Gateway Boulevard Bridge, West Palm Beach, Florida: Project engineer for the design of a precast prestressed slab bridge on piled bents in accordance with AASHTO-LRFD.

Hagen Ranch Road Bridge, West Palm Beach, Florida: Project engineer assisted in the design of a precast, prestressed slab bridge on piled bents in accordance with AASHTO-LRFD.

Md Sakoat Hossan, PE
Signalization, Traffic Studies

Percentage Available
79%

Firm Name
WSP

Years of Experience
10

Professional Registrations
Professional Engineer, Florida No. 87964

Office Location
Orange County, Florida

Education
BE, Civil Engineering, Bangladesh University of Engineering and Technology, 2009

Career Summary

Md Sakoat Hossan has 10 years of experience in traffic engineering, transportation planning, travel demand modeling, traffic impact studies and road safety projects. He also has extensive experience in toll roads, managed lanes and Project Development & Environment (PD&E) projects. Currently serving as a standing committee member of the Transportation Research Board (TRB) Managed Lanes Committee (ACP35).

Project Experience

KDOT, Kansas Highway 96 Expansion, Wichita, Kansas: Project includes reconfiguration of 3 major urban interchanges, complete National Environmental Policy Act documentation, a Level 1 tolling study to assess the feasibility of implementing managed lanes, implementation of the Kansas Department of Transportation's new stormwater control measures and a robust public engagement campaign.

Midtown Miami, Private Land Development Site, Miami, Florida: Traffic engineer. Providing engineering services, including water, sewer, stormwater management and traffic analysis for a new private land development site in midtown Miami.

Transit Engineering Services for Miami-Dade Transit Capital Improvement Plan, Miami-Dade County, Florida: Traffic engineer. The scope of work includes providing technical and operation planning, traffic and transit studies, planning, development and engineering studies, design permitting, engineering inspections, right of way support, survey, structural, geotechnical, electrical, construction cost estimating, and other professional services required.

Timothy Grose
Economist

Percentage Available
74%

Firm Name
WSP

Years of Experience
15

Office Location
San Francisco, California

Education
BA, Economics, Amherst College, 2008

Career Summary

Timothy Grose is a transportation planner experienced with helping clients understand extreme weather and climate change risks and helping them implement climate resiliency and adaptation plans. He has worked with agencies at the local, regional, state, and federal levels, as well as with national research programs in their adaptation efforts. He enjoys collaborating with teams across disciplines to understand and address climate risks and promote resiliency in our infrastructure and human systems.

Professional Experience

SACOG Project-Level Climate Adaptation Strategies, Sacramento, California: Tim is overseeing the evaluation process and conducting a climate-risk enhanced benefit-cost analysis for the project.

Fresno Transportation Network Vulnerability Assessment, Fresno, California: Tim assisted with the general plan to identify areas of the region where the multimodal transportation network is vulnerable to potential effects of climate change, and is currently identifying strategies to remedy those impacts that have co-benefits to public health, natural ecosystems, social equity, the economy, and greenhouse gas emissions.

WRCOG Regional Climate Adaptation Toolkit for Transportation Infrastructure, Riverside, California: Project manager. Helped develop the methodology for comprehensively assessing climate risks for individual assets, including quantification of risks. Incorporated climate change risks into a climate resilient transportation infrastructure guidebook, helping local public works and planning departments incorporate climate change into projects/policies.

Tiffany Davies, PE
Team 1 Road Engineering

Percentage Available
80%

Firm Name
WSP

Years of Experience
20

Professional Registrations
Professional Engineer, Florida No. 68370

Office Location
Alachua County, Florida

Education
BS, Civil Engineering, University of Florida, 2003

Career Summary

Tiffany Davies is a senior engineer with 20 years of professional civil engineering experience. She has been the project manager on number civil engineering projects for municipalities and federal clients as well as private clients. She manages a team of engineers in the water resources department, focusing on civil engineering, hydrology and hydraulic analysis, site civil and wetland restoration projects. Ms. Davies has been responsible for the design, permitting, and construction phase services of numerous civil engineering projects entailing modeling and design of stormwater management systems, design of recreational facilities, design of roadways, layout and design of residential developments, water and wastewater transmission/collection system designs, and site development services for commercial sites.

Professional Experience

Monroe County, Roads and Vulnerability Analysis and Capital Plan, Monroe County, Florida: Associate Engineer. Climate change, including but not limited to extreme weather conditions and sea level rise has prompted planners and officials to focus on strategies that support a more resilient system. The roadway system is vital for its access/evacuation and mobilization within the Florida Keys. As part of the County's sustainability approach, this project will merge climate change science and modeling, with transportation engineering and planning to develop a long-term roads adaptation plan based on design criteria, Sea Level Rise (SLR) projections, adaptation methodology, policy/financing evaluation, and public/stakeholder outreach. The project will be divided into three phases: study and analysis, engineering design, and adaptation plan. Responsible for performing technical liaison duties and quality control review for this project.

Richard Creed, PE
Team 2 Road Engineering

MARLIN

Percentage Available
80%

Firm Name
MARLIN Engineering

Years of Experience
35

Professional Registrations
Professional Engineer, Florida No. 47162

Office Location
Broward County, Florida

Education
BS, Civil Engineering, University of Florida, 1987

Career Summary

Richard Creed has over 35 years of roadway design experience with the FDOT District 4 Design office and private consultant. He is well-versed in FDOT design criteria and standards, AASHTO guidelines, specifications, typical section, variance, and exception review, and quality control in the daily plans production environment.

Professional Experience

City of Fort Lauderdale, NE 15th Avenue Lane Repurposing Project, Fort Lauderdale, Florida: QA/QC Officer. The project provides plan documents to allow the City of Fort Lauderdale to repurpose the outside lanes to Buffered/Protected Lanes on NE 15th Avenue from Sunrise Boulevard to N. of 13th Avenue as a pilot project. MARLIN will perform collection/survey, ped/bike video reports, plans/Quality Control, and post-design services for this contract. This project is being performed under MARLIN's Traffic and Transportation Engineering and Planning Services contract.

FDOT D4, Sunset Strip from Nob Hill Road to Sunrise Boulevard, Sunrise, Florida. District Roadway Design Engineer. Complete Streets project, including lane elimination and two roundabouts with the city of Sunrise. Scope included drainage, bike lanes, and roundabout design. As the District Roadway Design Engineer, Richard reviewed all submittals and ensured phase review comments were adequately addressed for each submittal. Additionally, he performed quality assurance/quality control (QA/QC) and technically assisted in-house staff.

Brian Voelker, PWS
Arborist

cma chen moore and associates

Percentage Available
65%

Firm Name
CMA

Years of Experience
25

Professional Registrations
SWS Professional Wetland Scientist, 1355, 2002

Office Location
Broward County, Florida

Education
MS, Coastal Zone Management, Marine Biology, Nova Southeastern University, 2000

BS, Environmental Studies. State University of New York, 1996

Career Summary

Brian Voelker is a senior scientist specializing in natural resource assessments and permitting and certified arborist services. He provides ecological services to clients, including the following: wetland delineation, function evaluation, mitigation design, monitoring, permitting, upland habitat assessments, coastal habitat assessments and permitting, marine and estuarine habitat assessments and permitting, protected wildlife assessments and permitting, GPS data collection/mapping and GIS database development, NEPA document preparation and oversight, and sediment and erosion control monitoring.

Project Experience

City of Tampa, Bayshore Beautiful Neighborhood Tree and Infrastructure Conflict Assessment, Tampa, Florida: Evaluated existing trees relative to proposed roadway milling and resurfacing work. Evaluation included assessments of tree health and remediation measures to address root or canopy conflicts between existing trees and milling/resurfacing and curb replacement work.

City of Miami Beach, Tree Canopy Analysis, Miami, Florida: Estimated the canopy coverage for the urban forest, as well as percentage of available space for additional tree planting.

Daniel Diez, PE
Lighting

Percentage Available
80%

Firm Name
CMA

Professional Registrations
Professional Engineer, Florida No. 92828

Office Location
Broward County, Florida

Education
BS, Electrical Engineering, Florida International University, 2016

Career Summary

Daniel Diez has experience with ITS/Lighting Plans Development, Power Service, Load Center development, FDOT A+ Imagery, Utility Distribution Line and Transformer Selection, and AGI32 Lighting Analysis calculations for LDAR and Voltage Drop. Has experience with FPL, Duke Energy, and FKEC for service points, high voltage distribution line repair plans, and a complete medium voltage distribution system. Familiar with NESC application to Line Clearance and installations around water, and application of NEC to ITS and Lighting Projects.

Project Experience

FDOT, RRR SR 5 / US 17 (N. Main Street) from State Street to the Trout River: Conducted RRR mill and resurfacing, access management, safety enhancements, ADA compliance, replacement signals, provide lighting for pedestrian crossings, pavement marking, drainage repairs, 3 at-grade railroad crossings, public hearing, guardrail safety improvements and Temporary Traffic Control Plans.

FDOT, Lighting Normandy Blvd from Blair Rd to Hammond Blvd: Created 3-D AGi32 lighting analysis models. Clear zone, utility conflicts, and power service was considered with photometric calculation results to guide the development of the lighting plans

FDOT D2, Lighting Design Engineer for Dames Point Bridge Lighting: Created a 3-D lighting analysis model of the Dames Point Bridge in AGi32. Helped determine the appropriate type of luminaires that would meet the illumination levels required for the up-lighting of the bridge.

Jose Suazo, PE
Design Criteria Package, Opinion of Costs

Percentage Available
66%

Firm Name
WSP

Years of Experience
15

Professional Registrations
Professional Engineer, Florida, No. 88241

Office Location
Miami-Dade County, Florida

Education
BS, Civil Engineering, Walla Walla University, 2007

Career Summary

Jose Suazo has 15 years of engineering experience developing roadway geometric design and maintenance of traffic strategies for limited access highway facilities and municipal roadways. He has been involved in all phases of project development from planning to design and construction and has knowledge of federal and state regulation and documentation processes to modify access, acquire approval of design variances and obtain design approvals needed to successfully develop a project.

Project Experience

North Bridge Replacement Design, Broward County, Florida: Roadway engineer of record (EOR) for County Road A1A North Bridge replacement project. Work also includes mill and resurfacing and constructing a new roadways extension. A new signalized intersection at Federal Highway and Juanita Avenue will be added.

54-Inch PCCP Force Main Rehabilitation at Flagler Street, Miami, Florida: EOR for developing the maintenance of traffic strategy for the replacement of a mile of main sewer trunk line along Flagler Street. Coordinated with contractor to arrive at the most efficient and least disruptive traffic management strategy.

City of Miami, Civil Engineering On-Call, Miami, Florida: Project manager for the conceptual design of the 33-acre site under the new Interstate 395 viaduct. Jose provided contract management and design consultation on engineering matters for the landscape architecture team developing the site programming and layout for the City.

Freddy Mena, PE
Permitting

Percentage Available
95%

Firm Name
WSP

Years of Experience
11

Professional Registrations
Professional Engineer Florida No. 86701

Office Location
Miami-Dade County, Florida

Education
BS, Civil Engineering, Florida International University, 2014

Career Summary

Freddy Mena is a water resources engineer with experience in water and wastewater treatment, planning, permitting, design, construction management, and inspections. Freddy has developed proposals, met and coordinated with clients, and has experience reviewing project financials. Clients served include Miami-Dade Water and Sewer Department, Broward County, Broward County Port Everglades, City of North Miami, City of Ft. Lauderdale, Seminole Tribe of South Florida, and SFWMD.

Project Experience

Monroe County Engineering Department, One Mile of Roadway Reconstruction, 7,000 LF of Drainage, Two Stormwater Pump Stations, Key Largo, Florida: Senior design engineer for this project consisting of the design of a gravity collection system with a pump station discharging to multiple injection wells; routing all runoff to the pump station using trunk lines along the main roads. Design of drainage includes numerous inlets and manholes, above ground electrical control and distribution panels, generator, underground valve box, wet well, treatment unit structures, and a solids storage pump.

MDWASD, South Florida Water Management District, S-140: Pump Station Improvements, Florida: Construction manager and onsite owner's representative during construction of the improvements to the existing (Flood Control) Pump Station, S-140, containing three 193,800 gallons-per-minute raw water pumps for SFWMD.

Kevin Shelton, PWS
Permitting

Percentage Available
73%

Firm Name
WSP

Years of Experience
34

Professional Registrations
Professional Wetland Scientist, No. 2814

Certified Ecological Restoration Practitioner

Office Location
Hillsborough County, Florida

Education
BS, Environmental Science and Policy, University of South Florida, 2015

Career Summary

Kevin Shelton has 34 years of ecological experience with a focus on state and federal regulatory permitting requirements. He has created master plans for mitigation and restoration of large tracts of land and designed small and innovative on-site mitigation efforts. His work in incorporating public education and recreation in his mitigation and public interest designs has resulted in improved mitigation success as well as cost savings to clients.

Project Experience

Manatee County/Carollo Engineers, Lake Manatee Dam Phase II Final Repairs, Manatee County, Florida: Responsible for ecological/environmental evaluation of the project and permitting the project through the FDEP and USACE. Project addressed the heavily damaged seepage control system for the Service Spillway and downstream riverbank stability.

Stream and Lake Biological Monitoring, Orange County, Florida: This project consists of biological sampling at 10 streams and 20 lakes in Orange County to assess the biological health of the subject waterbodies and to assist OCEPD in future management efforts.

Trestle Bridge Pipe and Fill, MP ANB 612.6, CSX Transportation: Senior scientist. Investigated the proposed project site for the presence of wetlands using aerial interpretation techniques, soil maps, and available habitat maps. Generated a report of potential state and federal listed species conflicts for the proposed work. Contributed to the design and permitting report to the client.

Mike Berman
Construction Management

Percentage Available
78%

Firm Name
WSP

Years of Experience
50

Certifications
NACE Certified Corrosion Specialist and Certified Cathodic Protection Specialist, No. 4366

Office Location
Broward County, Florida

Education
MS, Electrical Engineering, Moscow Institute of Railroad Transportation, 1972

BS, Electrical Engineering, Moscow Institute of Railroad Transportation, 1970

Career Summary

Mike Berman has been involved in the design, testing, monitoring, construction supervision and troubleshooting of cathodic protection systems for light and heavy rail systems, transmission and distribution piping, underground and at-grade tanks, marine structures and reinforced concrete structures. He has a strong background in stray current corrosion control.

Project Experience

Port Authority New York and New Jersey, Harrisson Station Replacement and Upgrade, New York, New Jersey: Prepared corrosion control design drawings and specifications. Designed cathodic protection systems for station water and sewer systems.

SANDAG, Mid-Coast LRT Project, San Diego, California: Prepared corrosion control details drawings and specifications. Performed Baseline Corrosion Survey and designed cathodic protection systems for new water lines.

LA Metro, Exposition LRT Project Phase 2, Los Angeles, California: Responsible for corrosion control design of transit fixed facilities including six new and two existing bridges. Prepared construction specifications, directive and design corrosion control drawings for the project.

Metro Transit, Blue Line LRT Extension, Minnesota: Prepared corrosion control drawings for local utilities and existing and new bridges. Designed cathodic protection for underground structures.

Peter Waldt
Small Business Support

Percentage Available
82%

Firm Name
WSP

Years of Experience
40

Office Location
Essex County, New Jersey

Education
MS, Public Policy Analysis (Quantitative Analysis and Economic Development), University of Rochester, 1983

BA, American History (Early American Economic History), University of Rochester, 1978

Career Summary

Peter Waldt leads WSP's efforts in Value Capture and Real Estate Transactions. He has significant experience in asset monetization and transit oriented development transactions, particularly in creating the financial architecture of a project and land value capture. He also has lengthy experience in commercial lending and real estate finance, notably over 30 stadiums and arenas.

Project Experience

Amtrak, Philadelphia, Pennsylvania: Senior Director of Commercial Planning and Development who led a dynamic team of 15 professionals responsible for all of Amtrak's non-fare revenue generation and major station redevelopment transactions, including Sunnyside Yard, Chicago, Baltimore, Philadelphia, New York, and Washington, DC as well as land acquisition for the Gateway Program.

New York Metropolitan Transportation Authority, New York, New York: Director of Real Estate development who directed all of the MTA's real estate development efforts. Responsible for creating and locating opportunities that would generate revenue from the MTA's assets. Created a transit-oriented development (TOD) program that generated additional ridership with no further demand on existing parking facilities; created and advisory committee made up of developers, brokers, and corporate real estate executives to craft the TOD program in Nassau and Suffolk counties, engaging executives in the towns and counties to make this a bottom-up effort; and initiated a corporate sponsorship program allowing corporations to partner and align themselves with the MTA.

Chase Mullen
Renderings

Chase Mullen is both an accomplished urban designer and visualization expert with a unique focus on creating interactive and virtual reality simulations to aid the community engagement process. What sets Chase apart is the duality of his technical production capability and his depth of urban design experience. His understanding of the full process helps him anticipate the potential project needs and his mastery of technology helps weave opportunities for cutting-edge solutions into the process. His approach of creating better virtual places as a foundation for designing better built places enables projects to move from the drawing board to the built world quicker, more predictably, with higher quality, and more support from stakeholders.

Ashok Aitharaju, PMP
Environmental Engineering

Ashok Aitharaju has more than 28 years of experience in environmental engineering representing city, county, state, and private clients in contamination assessment, remediation, environmental permitting, drinking water systems testing, asbestos and lead based paint surveys, and indoor air quality testing. He has performed Phase I and II ESAs, UST removals, remediation, and site closures involving hydrocarbon releases, solvent contamination, and other contamination generated from varying industrial processes.

Stacie Schotanus
Bid Support

Stacie Schotanus is a dedicated and motivated environmental engineer offering problem-solving, planning and engineering services with expertise in water resource engineering. She is skilled in the use of AutoCAD, AutoCAD C3D, ArcGIS, and Maintenance of Traffic Certified and provides drafting, analysis, and review services.

Criztol Lopez
Construction Management

Criztol Lopez works with WSP's Construction Services Department and has experience working on FDOT quality control projects, Lab verification, commercial, municipal, and FDEP CEI projects. Her responsibilities include administrative support on current MDX and FDOT and Turnpike contracts, interfacing with the client to resolve issues related to field coordination, test results or invoicing. She manages sub-consultant on prime-held contracts, issuing subcontracts, purchase requisitions, and field coordination in order to meet FDOT contract required DBE/MBE percentages.

She provides internal project accounting experience as well as submittal of invoices within the state billing system (CITS) and Local agencies. Criztol also provides the generating of laboratory reports for soil and concrete related laboratory tests, managing and inputting data into the state's Laboratory Information Management System (MAC).

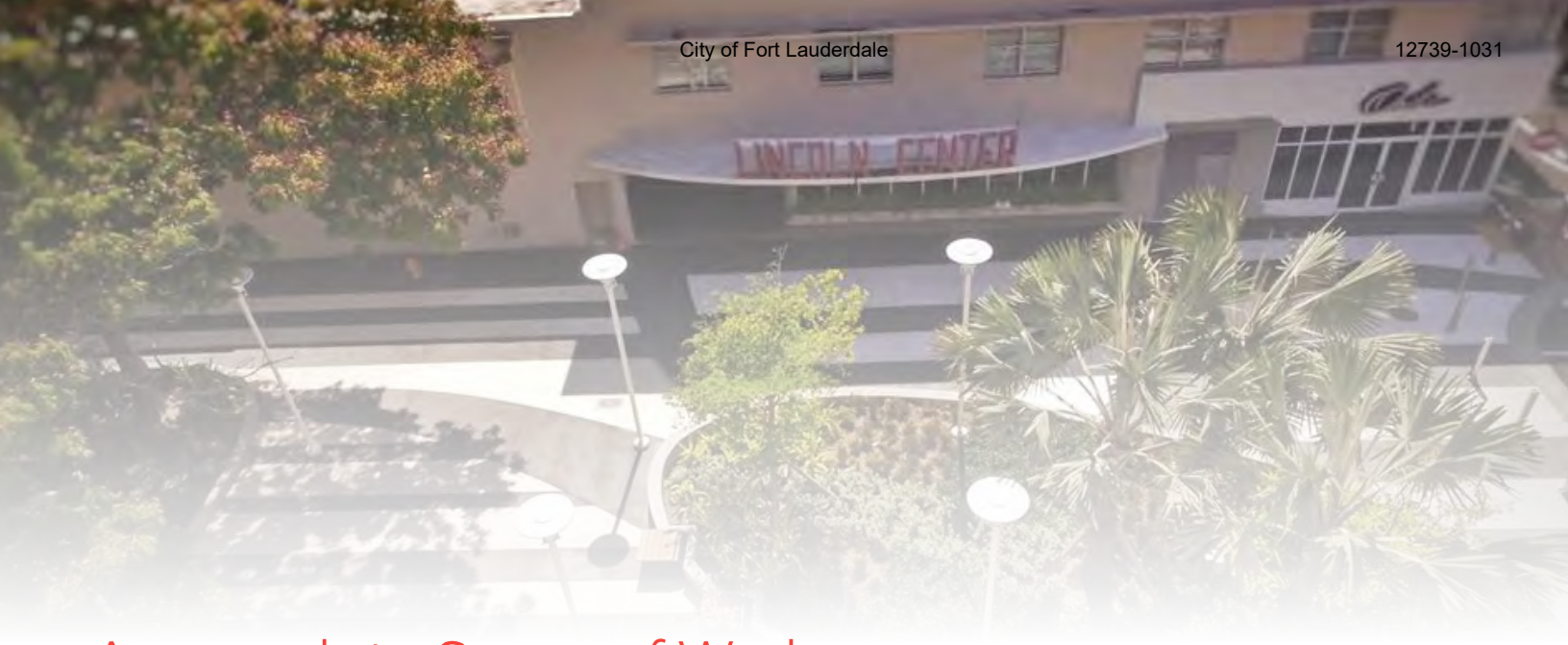
Alphonso Hernandez
Funding and Financing, Grant Administration

Alfonso Hernandez offers public sector grant experience, from pre-award to post-award, which includes grant writing, grants management, and identify funding opportunities. Alfonso has worked for various government organizations at the local and regional levels. He is a subject matter expert in the field of government grant development, which includes federal, state, and local grants, and has a large portfolio of grant experience that addresses across each department for government organizations. Collectively throughout his career, Alfonso has secured more than 150 competitive grant applications in excess of $200 million while maintaining a high success rate.

Lauren Geraghty, LA, PMP
Funding and Financing, Grant Administration

Lauren Geraghty has worked at the intersection of climate adaptation and resilience, disaster response and recovery, and sustainable design with various organizations domestically and abroad. Lauren facilitated information exchange between EU and US partners to encourage the use of best developing climate-resilient infrastructure. She has also worked with the Federal Emergency Management Agency to help launch the Building Resilient Infrastructure and Communities Grant program.

WSP has experience with custom wayfinding signage.



Approach to Scope of Work

Las Olas Boulevard serves the City of Ft. Lauderdale in a multitude of ways. It is the City's de-facto main street with retail, entertainment, offices and mixed-use developments throughout the corridor. It is a key festival street, serving as a center of activity throughout the year. The corridor also houses several utility infrastructures, and portions of the corridor serves as an evacuation route. In addition, the Boulevard is the focus of several City agencies and divisions, each providing its own services and responsibilities as required by its mandate. Rethinking how the Las Olas Boulevard supports its vibrancy while improving mobility, accessibility and livability is an important opportunity for the City, its neighborhoods and business community.

The study approach described in the following sections reflects WSP's thinking and experience on how the Las Olas Boulevard design process can provide a corridor of opportunity for the City. Planning efforts to address the safety and mobility challenges along Las Olas Boulevard have been ongoing for over a decade. In 2017, the City began to view the corridor holistically through the Las Olas Working Group, which led to important ideas of how the Boulevard could best support community goals. This effort along with the recommendations of the unified Las Olas Boulevard Mobility Project, including the Conceptual Design Vision Plan led by the Corradino Group, are important foundations for a new vision for the Boulevard and the community activities it supports.

Our Understanding of Challenges

Given that the Las Olas Boulevard corridor is one of the oldest streets in Fort Lauderdale, the main challenge in this study will be replacing the needed infrastructure with new, sustainable materials to provide a long, useful life while enhancing economic opportunity, protecting the environment, preserving existing utilities and complementing adjacent private investments. Improving mobility and safety for pedestrians as a priority mode while balancing traffic, transit and parking needs is an important foundation for the design process. Strategies could include wider sidewalks, Americans with Disabilities Act (ADA) improvements, high visibility crosswalks, LED street lighting design, bicycle-friendly enhancements, signal improvements and raised intersections. Shade trees installed along the Boulevard sidewalks improve walkability, stormwater management and aesthetics. We anticipate extensive engagement with the adjacent business owners to harmonize the public right of way and the private space. We also anticipate working with them to develop long-term policies and codes that guide future development to provide continuous shade along the sidewalk and building finished floor elevation considering future climate, among others.

Protecting the historical resources along the corridor, like Stranahan House and Himmershee Bridge, and protecting new water, sewer, and stormwater infrastructure, will be the key to a successful project. Las Olas Boulevard as a festival street (e.g., St. Patrick's Day Parade, Christmas on Las Olas, king tide events) needs to be incorporated into design considerations. The maps below note existing and future opportunities to improve the safety and mobility of the Boulevard while enhancing sustainability and economic vitality in the corridor.

Top Challenges Identified

- Need for extensive community stakeholder management and engagement
- Multiple and sometimes conflicting short-term priorities and long-term needs
- Timely design delivery that is both constructible and cost-effective

WE EMBRACE THE POTENTIAL TO ENHANCE THE ICONIC LAS OLAS BOULEVARD THROUGH IMPROVEMENTS TO MOBILITY, SAFETY, WALKABILITY, LIVABILITY, AND RESILIENCE

EXISTING CONDITIONS

Colee Hammock

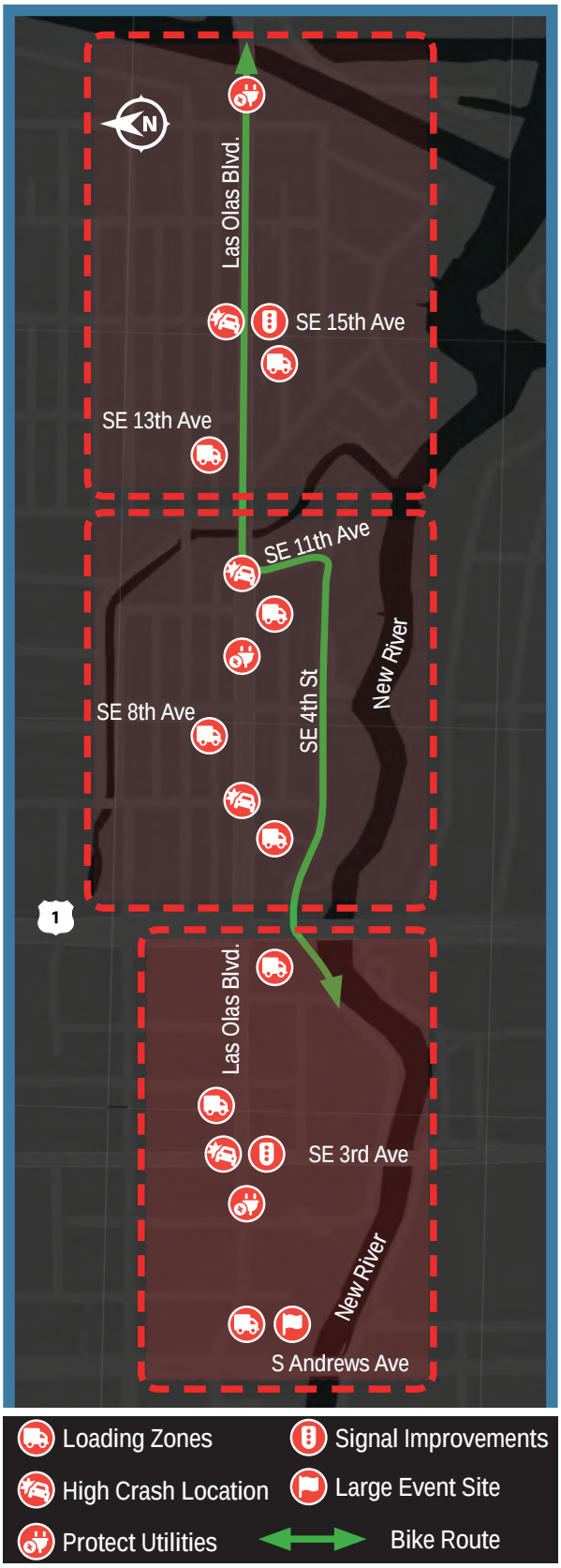
- SE 15th Avenue- Traffic congestion
- SE 16th Avenue- Cut Thru Traffic and illegal left turns
- Roadway lighting not working consistently
- New HDPE pipe installed near SE 17th Avenue
- No bike lanes westbound, SE 15th to SE 17th Avenue

The Shops

- Very narrow sidewalks
- Olive median trees at end of life
- Deficient ADA ramps and sidewalk
- No designated transit stop
- Undesignated parking space locations and varied times
- Major road closures for events regularly
- Tunnel Top Plaza/Riverwalk connection at SE 6th Ave

Downtown

- Inconsistent lane configuration and traffic control at intersections
- New developments with high quality materials in public space.
- Inconsistent fire hydrant spacing
- Andrews/3rd Avenue owned by Broward County
- US1 owned by FDOT
- 66"-72" SW Main Crossing at 1st Avenue
- Renovation of the major event space, Huizenga Plaza
- Major Parade Route: St. Patrick's Day



OPPORTUNITIES

Colee Hammock

- Dual SB Left Turn movement and signal timing upgrades
- Harden Left turn restrictions at SE 16th Avenue
- Create dedicated bike lanes SE 15th Ave to 17th Avenue
- Dedicated/protected bike lanes east of Himmershee Canal
- Curb extensions for transit shelters/shade/seating nodes
- Consistent lighting and shade

The Shops

- Reallocate median space to widen sidewalks
- Curb extension and organized parking improvements
- Plant large canopy trees at sidewalks to improve shade
- Add pedestrian wayfinding at intersections
- Improve crossing safety with high-visibility crosswalks and traffic calming at intersections
- Enhance bike connectivity to Riverwalk

Downtown

- Consistent traffic control at intersections
- Shade canopy over wide sidewalks
- Improve crossing safety with new and enhanced crosswalks
- Provide improved connectivity to Huizenga, Tunnel Top, and Riverwalk amenities

Lifecycle *Approach*

Our lifecycle approach incorporates lessons learned from past projects along Las Olas Boulevard. The WSP team design approach reflects the lessons learned leading reconstruction projects in the corridor. Our customized approach for this one-mile Las Olas Boulevard corridor will result in a cost-feasible and constructible project delivered on time. The WSP team approach is based on addressing the City's needs, goals, and objectives associated with reconstructing the Boulevard.

Our approach addresses the top challenges identified by the WSP team and is elaborated on in the following sections:

#1. **Effective stakeholder management**

A. Extensive community engagement, as much as engineering expertise

B. Integrating private properties into design

#2. **Utilize lifecycle costs for informed engineering design decision-making**

C. Design for its current needs, programmed activities

D. Also, consider that current conditions will change during its (50-year) design life

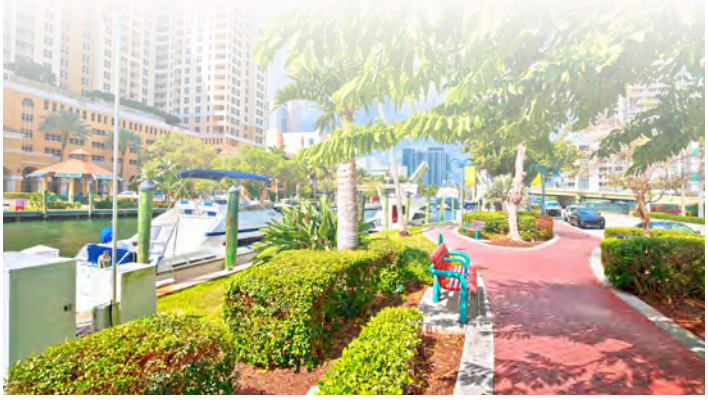
E. Communicating using simple economic measures with the community stakeholders is key

#3. **Constructive, timely, cost-feasible engineering design**

F. Constructability in a complex urban setting

G. Coordination with City, utilities and permitting agencies

H. Develop a cost-feasible preliminary design before engineering



Approach #1 - Effective Stakeholder Management

Challenge: The Las Olas Design Project Requires Extensive Community Engagement, as much as Engineering Expertise

Stakeholder engagement is a cornerstone of a successful project. It is not an afterthought for this team but engrained in the project from the onset. A project of this magnitude and importance requires significant and sustained outreach. The outreach team, led by WSP and Brizaga, has the experience to support the redesign of Las Olas Boulevard successfully.

Stakeholder engagement sets the foundation for the continued success of any project. Creating a sense of ownership, building excitement, and strengthening the relationships between citizens, neighborhoods, government, and the appropriate project team are integral to successfully engaging members of the Community and ensuring that the work accomplished does not stop at the end of a project. Encouraging partnerships amongst stakeholders and the community will catalyze a sense of unity not only for the project at hand but for future work. Our team has dozens of examples of stakeholder-driven and -informed projects ranging from the public to elected officials. These successful projects have enhanced stakeholder engagement and public buy-in, setting the stage for longer-term success. Our approach to this challenge is elaborated in the below section.

A. Community-Based Engagement with Two Goals – Transparency and Buy-In

B. Integrating Private Properties into Design

Our Approach: A) Community-Based Engagement with Two Goals – Transparency and Buy-In

A transparent process requires substantial and sustained engagement. The WSP team will develop a detailed outreach plan in coordination with the City. This will include milestones for each task, an essential stakeholder list, and specific areas where stakeholder input is desired. The outreach plan will create clear expectations for how and when engagement will drive the project and where feedback is essential. From the start, this will be abundantly clear.

- **Develop an outreach plan,** a one to two-page document that lays out the outreach plan, providing the phases or subphases, a written understanding of the phase, and a detailed list of tasks and due dates. The plan is a living document and is updated for each check-in meeting, which serves as how we provide accountability as part of the outreach phase. Everyone involved in the project, from the WSP team and the City, will have an easy-to-use reference document.

- **Setting clear expectations** from the start of a project and ensuring consistent communication is key to building the will necessary for further action. This team is ready to deliver public and business-ready communications that are impeccably designed and factually correct. Given the importance and prominent nature of this project – this team is ready from day one – to engage the Community.
- **Do not assume that everyone is on the same page.** Real engagement begins with understanding our stakeholders and their purpose for engaging or explaining why they should care. We will consider the messaging for each stakeholder group and engage with them in a way tailored to individual needs and works for the City. We will use that engagement to understand better each community member's concerns to drive the project process. We will use partner and community groups to integrate existing knowledge and expand upon the needs of all members.

The WSP team has the experience and trust of this community needed to deliver the City a successful project. From strong community relationships right here on Las Olas Boulevard to neighborhood associations, business leaders and community leaders and activities – this team is engrained in the Community in a way that allows us to understand the project and drive a successful outcome.

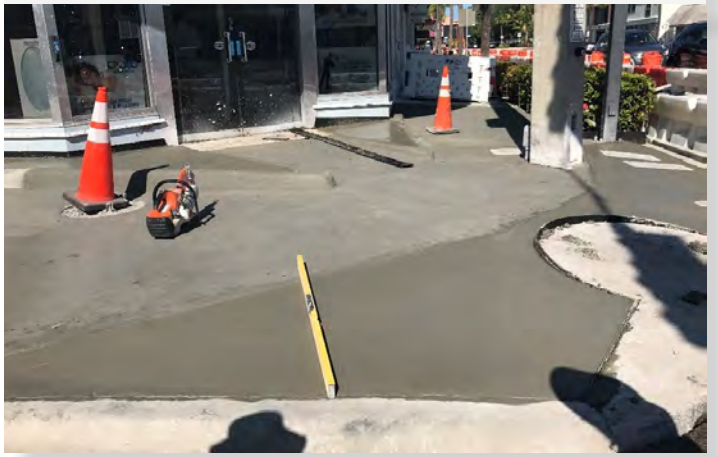
D4 Commissioner and key stakeholder priorities discussed on Wednesday, February 15th, 2023

The WSP team attended the D4 Meeting on Las Olas Boulevard on Wednesday, February 15th, at the City, led by Commissioner Warren Sturman. During the meeting, we spoke with the commissioner and several community members. WSP's approach to addressing the top challenges expressed by the community are:

1. **Flooding.** This occurs with severe storm events with the expectation it will worsen in the future. The WSP team will use the climate change adaptation processes and tools that team members developed to consider future climate change-related hazards. This way, we will ensure that current and future flooding conditions will be addressed through resilient design approaches. It is important to note that WSP has successfully applied many of these approaches in other Florida communities.
2. **Trees Relocation.** The WSP team has a certified arborist who will review the conditions of the existing trees in the median and sidewalk and recommend removal or relocation.

Figure 2: ADA ramp at the SE corner required City Engineer interpretation on-site and after hours so to open the intersection per schedule to traffic. *Source: Catherine Prince*

Figure 1: ADA ramp at the NE corner of Las Olas Blvd and SE 15th Ave required on-site resolution causing construction delays. *Source: Catherine Prince*



3. **American with Disabilities Act (ADA) Ramps.** Accessibility is a major challenge along the corridor, primarily because of the constrained right-of-way and the numerous utility conflicts. WSP includes team members who have worked on and resolved these challenges along Las Olas Boulevard. The team consists of: 1) contractor – Adam Nacer, who led the construction of Las Olas and SE 4th Avenue, Las Olas, and SE 15th Avenue, constructed to review constructability of the proposed ADA design; 2) design engineer – Betsey Jeffers; who worked on harmonization with the adjacent properties at Las Olas Boulevard and SE 4th Avenue.

The team proposed this approach because of lessons learned during the construction of Las Olas Boulevard and SE 15th Ave intersection. The northeast corner of the intersection was designed using an FDOT ADA ramp template. Still, the existing grade, the stormwater basin, and maintenance hole, FPL concrete posts required redesign during construction. Close coordination with the business owner and the tenant was necessary to resolve the design per ADA standards.

The Southeast corner also had challenges with constructing the FDOT ADA ramps. Catherine Prince as a City PM, Chris Bennett at that time as the City Engineer, and Adam Nacer as the contractor, resolved the challenge while working after business hours to open the MOT at the intersection. Working closely with the adjacent business owner was critical for successful delivery.

Identify and work closely with project champions, engage the community before decision-making, keep them informed throughout the project design life

Empowering the community with clear information on project challenges, its solutions and the efficacy of investments is critical for overall successful project delivery. Success from previously implemented projects along Las

Olas Boulevard required identifying and working closely with project champions through the project life cycle.

Project champions significantly influence the decisions made on Las Olas Boulevard. They want to be in the loop and part of the decision-making. It is critical to keep these champions informed of our decisions but explain in detail why they are made. We will engage with these champions one-on-one and meet with them as necessary.

The initial project champions we identified are:

- Commissioner Warren Sturman, District 4
- Downtown Section: Jenni Morejon, Downtown Development Authority (DDA); Stiles
- Shops Section: Mike Weymouth, Las Olas Company; Charlie Ladd, DDA; Steve Hudson, POLO, Luke Moorman, Las Olas Association
- Colee Hammock Section: Jackie Scott, Jerry Jordan, Ed Smoker

Project Steering Committee. Las Olas Boulevard Working Group business associations, homeowner associations, CRA, chambers of commerce and other entities that will share information with their neighbors, friends and community. WSP will meet with this group at project kick-off and during critical milestones. Monthly email updates will be sent to the steering committee.

Property Owners, Tenants, and Community. Decisions on Las Olas Boulevard will directly impact the property owners and tenants and indirectly impact the community from design to construction. We aim to engage and integrate their input before selecting the preferred alternate.

Public workshops, commission presentations and update memos

We propose two sets of public workshops held at two locations along the corridor - one at the Downtown and shops segment and the other at the Colee Hammock section. One public workshop will be held to show alternatives with benefit-costs identified, and the second workshop will go back to the community to share the preferred alternative they chose from the first workshop. The WSP team will prepare a City Commission presentation or an updated memo informing the City Commission of the preferred alternate developed into the community before going into engineering design.

Visualization

Visualizing is a powerful communication tool. The WSP team will use 3-D renderings and other digital tools to help the community imagine what could be. Additionally, when necessary, the team can meet stakeholders on Las Olas Boulevard and mark the locations where the changes are expected.

Our Approach: B) Integrating Private Properties into Design

Harmonization between the private property and City right-of-way will be one of the key considerations when engaging with the adjacent businesses. Our approach is discussed in detail in G) Constructability in a Complex Urban Setting.

Long-term Strategies for Consistent Private Urban Streetscape Implementation

The sidewalk and the streetscape elements of the existing private properties are inconsistent and obtain miscellaneous elements and aesthetics. A consistent form-based guideline or adopted ordinance would ensure provisions for consistent features aligned with the long-term vision for the corridor. The project team have the capabilities to explore the need to develop a consistent space along the Las Olas Boulevard sidewalk with the City's Department of Sustainable Development (DSD).

Elements like setback from the right-of-way line, sidewalk materials and maintenance requirements, harmonization during reconstructions, updated finished floor elevation (FFE) based on the Las Olas Blvd design and future climate conditions, shade structure like awnings and other features.

Maintenance of Traffic Plan (MOT)/ Transportation Management Plan (TMP) Developed with a Construction Phasing Plan

WSP has worked with many communities that have had important roads under construction to ensure that every effort is made to protect the livability and attractiveness of the road corridor during construction. Not only is mobility for those facing challenges an essential component of a final design, but it must be considered for those using the corridor when construction is underway. The construction phasing plan will be developed with the maintenance of mobility and accessibility in the corridor during construction. We are aware of and sensitive to the important businesses in the corridor and the festival nature of events.

Figure 3: Proposed MOT plan at 60% will indicate the additional considerations like water barriers for safe access for people walking, driving, or those delivering on this multimodal corridor. *Image taken at Las Olas Blvd and SE 15th Ave reconstruction.*

Figure 4: Proposed MOT should consider and accommodate the outdoor dining, events, and other activities along Las Olas Boulevard. *Image taken at Las Olas Blvd and SE 4th Ave reconstruction.*

We propose developing a draft MOT at 60% design to understand impacts and ensure advanced communication before construction. The WSP team will obtain approval for MOT/TMP plans per the latest City requirements and policies. Proposed MOT plans will minimize delays and disruptions in a safe and efficient manner while maintaining access to the adjacent properties. They will consider all modes of transportation – cars, delivery trucks, transit vehicles, bicycles, and pedestrians.

Economic Support Plan
The team can assist the City to develop a support plan for businesses during the reconstruction of Las Olas Boulevard. Raising the FFE of the existing properties and other improvements may require funding assistance. The WSP team is equipped with the experience and resources to support the adjacent property and business owners.

Traffic Studies and Emergency Time Response
The team will review recently completed traffic studies including the one-way pairs studies, and supplement with additional studies as required. Additional operational needs at Las Olas Blvd and SE 16th Avenue will be evaluated. Emergency response time to and from the nearest fire stations will also be evaluated during design. The City's Fire Department will be a major stakeholder throughout the design process; we will discuss any opportunities to improve response times and access.

Approach #2: Utilize Lifecycle Costs For Informed Engineering Design Decision-Making that is Cost-Feasible and Effective

Our lifecycle-cost approach will consider recently completed planning study findings, stakeholder priorities, existing and future conditions, as well as the community's climate risk tolerance, cost of improvements and lifetime maintenance supporting policy solutions for integrated design. Our approach to this challenge is elaborated in the below section.

C. Design for its current needs and programmed activities

D. Consider that historical climate conditions will change during the project's (50-year) design life

E. Communicate using simple economic measures visualization tools with the community stakeholders

Challenge: Multiple and Sometimes Conflicting Short and Long-Term Priorities

City Commission committed to zero traffic fatalities in 2015 and set a target for zero emissions by 2040 in 2021. The City Commission prioritized community resilience. In January 2023, the City approved a grant agreement with the Florida Department of Environmental Protection to conduct a City-wide climate vulnerability assessment and prioritize corridors for resilient alternatives. The City had short-term and long-term goals that may impact how we design Las Olas Boulevard, and these goals will be carefully considered.

Our Approach: C) Design for its Current Needs, Programmed Activities

Capital investment considerations - safe, mobility needs. Consider investments with co-benefits like green stormwater infrastructure.

The WSP team will support the City in implementing City goals by reducing emissions through multimodal access improvements - transit, micro-transit and bikeshare walking. This will help reduce traffic crashes by providing safe spaces for modes - assigned bus stops, assigned parking areas, wider sidewalks defined vehicular and bike lanes. Traffic calming and consistent traffic controls will increase driver expectations and safety. Redesigning the space to carve out areas for more tree canopy and green infrastructure stormwater inlets will reduce flooding and severe impacts

Figure 5: Illustrated green infrastructure. *Jackson Street, Escambia County*

on quality of life. These improvements benefit the Street, the City and the users along Las Olas Boulevard.

Activities on the street - festival street, outdoor seating. Road closures to host large events are a regular occurrence. Outdoor dining is present at every restaurant as people want to be a part of the Las Olas atmosphere when they visit. The design priority is creating a vibrant activity street to balance transportation, business activity, utilities and events. Street design can accommodate all of these activities by prioritizing these functions and designing accordingly. Huizenga Plaza and Tunnel Top will be a significant anchor for public spaces attracting more unique events to the area. WSP will approach the street design considering the many uses and occasions of Las Olas creating a safe and iconic entertainment area for residents and visitors alike.

Evacuation route from and to Downtown and the Beaches via SE 15th Avenue to Broward Blvd. Evacuation of eastern Fort Lauderdale is executed a few days per year and Las Olas will be utilized to SE 15th Avenue to connect to Broward Boulevard/regional evacuation network. Residents are notified early and all lanes can be shifted to westbound traffic if needed to maximize evacuation capacity.

Operational cost, equipment and resources considerations. The WSP team uses construction costs and lifecycle costing approach when assessing the benefits and costs of different design options. Ongoing maintenance costs (such as lighting, landscaping, sweeping, striping and utility upkeep) and other future costs (pavement rehabilitation, traffic control devices and lighting replacements) are also included in the assessment. This tool can be utilized to do a comparative analysis of different materials and assess the sustainability of improvements, such as asphalt paving vs. pavers, so that City leadership can make informed decisions before moving into final design engineering. Maintenance of the proposed design is critical to long-term project success. We expect to coordinate at a minimum with these City divisions.

Events along Las Olas Boulevard	Time of year
Las Olas Art Fair	January, March & October
Las Olas Wine & Food Festival	January & April
St. Patrick's Day Parade	March
VCA Walk for Animals	March
MADD 5k Run	April
Step Out for Diabetes Walk	September
Making Strides 5K	October
Day of the Dead Celebration	November
Christmas on Las Olas	November
Light the Night Walk for Leukemia	November
Boat Parade Viewing Party	December

Table 1: Events regularly organized along Las Olas Boulevard during the year

City of Fort Lauderdale Division	Anticipated Coordination
Parking Division, Transportation and Mobility (TAM)	Parking impacts, curb space management, event considerations/closures, parking payment kiosks
Parks and Recreation	Emergency management, lighting, trees and landscape, trash pick-up
Sustainability Division, Public Works	Solid Waste Management, lighting and other energy efficiency, policy, and ordinance updates to consider future climate conditions (if any)
Stormwater Engineering, Public Works	New stormwater infrastructure, modifications to existing stormwater infrastructure
Stormwater Operations, Public Works	Green infrastructure like swale, urban gardens, pervious surface
Nighttime Economy Manager, City Manager's Office	Nighttime activities and enforcement
Planning Division, Department of Sustainable Development	Private property policy requirements (if any)
Parking Division, Transportation and Mobility	Parking impacts, curb space management

Table 2: Anticipated City coordination to consider maintenance costs

Our Approach: D) Consider that Historical Climate Conditions will Change During the Project's (50-Year) Design Life

The City of Fort Lauderdale, aptly named Venice of America, is vulnerable to sea level rise (SLR) and increasingly frequent and extreme weather events related to climate change. Las Olas Boulevard is already exposed and vulnerable to SLR, high tide flooding such as those from King Tides, short and intense rains that overwhelm drainage systems and extreme storm surges. Climate change is expected to cause this problem to become more frequent and intense in the

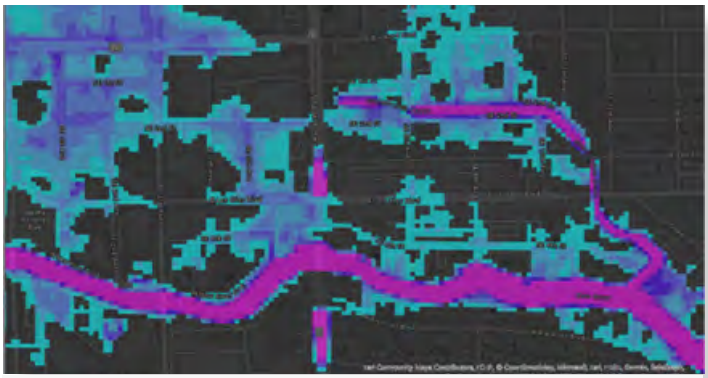


Figure 6: Flooding similar to current Historical 100-year Storm, or 2070 SLR with King Tide

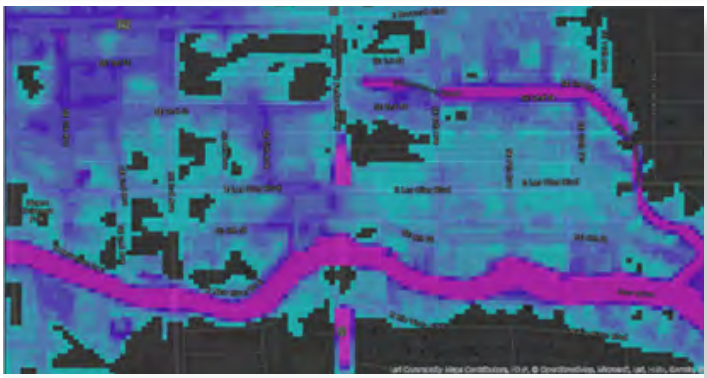


Figure 7: Flooding similar to expected 100-year storm event with 2040-2050 SLR*

coming decades. If these hazards are not accounted for, the corridor of Las Olas Boulevard will be adversely impacted on an increasing basis.

For example, flooded streets from increasingly frequent high tide and extreme rainfall events will disrupt traffic, limit street parking, restrict pedestrian movement and lead to lost revenues for local businesses. These impacts could compound in the coming decades resulting in loss of property and business revenue, impacting mobility and transportation.

We propose using the **Adaptation Decision-making Assessment Process (ADAP) developed in collaboration with the Federal Highway Administration (FHWA)** by WSP. This resiliency decision-making framework goes above and beyond the minimum requirements set by Florida Department of Environmental Protection's "Florida Adaptation Planning Guidebook." It uses future trend analysis to provide integrated solutions for the community, environment and economic vitality from planning and engineering for decision-making. The framework helps assess climate change readiness and helps select the most cost-effective adaptation strategies aligned with organizational goals and culture.

The framework requires quantitative risk-based testing of each design alternative to the range of plausible climate scenarios Las Olas Boulevard may experience. The right level of protection must be integrated into the project planning, engineering design, operation & maintenance. The resiliency framework process includes the identification, assessment of the physical risks and consequences of increasing stressor levels, and quantifying benefits of action/inaction.

We embrace striking the right balance and ensuring that projects are not over- or under-designed for expected conditions. The consequences of increasing stressor levels "risk" and the quantification of "benefits" are captured in economic measures such as total lifecycle costs, benefit-cost ratios or net present value for each design alternative and climate scenario.

Our Approach: E) Communicate Using Simple Economic Measures and Visualization Tools with the Community Stakeholders

Project stakeholders including government officials, business interests, owners and community members can serve as invaluable resources for informing and supporting recommended adaptation strategies. Empowering the community with clear information on project challenges, its solutions and the efficacy of investments will promote project champions through the project life cycle.

1. The simplified common language of economic measure will help make informed engineering, corresponding financial investment and resilience financial planning. Identifying the economic and social cost of integrating resilience or adaptation strategies along Las Olas Boulevard and providing a common language between technical climate modeling, leadership and the community. Also, the proposed process provides information that links investments in resiliency improvements to past events. This can be an effective communication tool for better communicating on proposed improvements.

For example, most people in Fort Lauderdale recall the extreme rains during 2020 Memorial Day Weekend but may not understand a "500-year event."

To achieve such collaboration and buy-in, our team will use clear and compelling logic that incorporates the future into analysis conditions. We will also prepare summary material that supports the logic of recommended investments. The team will utilize the basis of risk to outline consequences to the community, determine potential resilience actions and select the cost-effectiveness of recommended actions.

An example conversation with stakeholders could proceed as follows:

"The analysis shows that if this roadway were inundated by two feet of water during a storm event would be shut down for one week of repair. During that week, it will impact travel for 1,500 residents and 25 businesses without access. Currently, a two-foot storm surge is estimated to be unlikely. However, a two-foot storm surge could occur every five years by 2040 and is expected at least once annually by 2070."

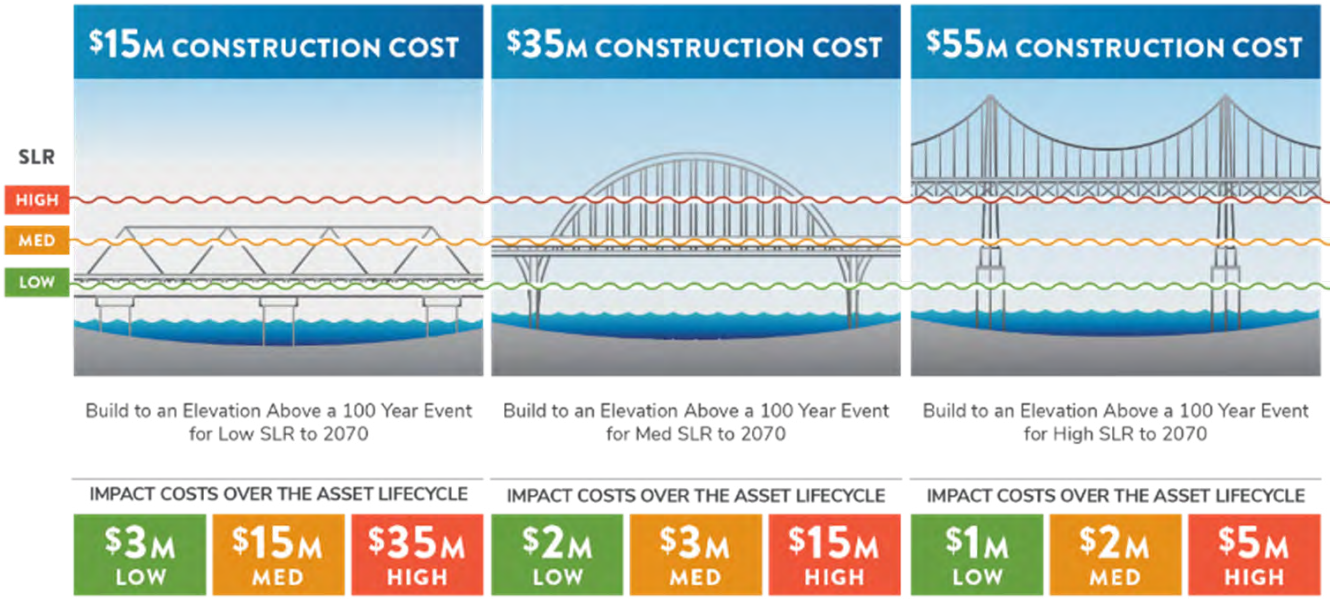


Figure 8: Sample illustration of simplified economic measures of Alternates A, B, C

We explored three alternatives, developed an opinion of construction costs, and estimated future costs from loss of service.

- **The construction cost of Alternative A is $15 million using our current standard for design.** Without integrating future climate conditions, it could result in $15 million in impact costs, repair costs, and costs to travelers in a flood risk scenario with a medium sea level rise.
- **If you select Alternative B, the construction cost would be $35 million.** Still, due to its resilient design, there would only be $3 million in impact costs during its entire life cycle for a flood risk scenario with medium sea level rise.
- **The construction cost of Alternate C is estimated $55 million.** But, since we integrated resilience considerations, we estimate $2 million impact cost during its design life for a flood risk scenario with medium sea level rise.

Given these options, which alternative would you support?

2. Visualization Tools like WSP's technology Flood Vue can enable the Community to imagine future conditions on their mobile smart device. WSP's FloodVue™ tool takes flood management, communication, planning and prevention to the next level to achieve a resilient future. The augmented reality mobile app provides real-time visualizations of potential flood scenarios by combining multiple data sources to create a clear, immersive picture of severe weather impacts at any location. FloodVue helps communities and organizations anticipate their flood risks before being impacted.

Figure 9: View on the user's mobile device indicating flooding impacts before and after resilient design

Approach #3: Timely, Constructible Engineering Design

Challenge: Timely Design Delivery that is Constructible

Challenges on Las Olas Boulevard are unique to the corridor because of its significance, mobility priorities, constrained right-of-way, aging infrastructure, vocal stakeholders and a multitude of City and private utilities, among others. The WSP team members have a zero-learning curve, meaning our approach is grounded in anticipating challenges, firstly understanding the engineering challenges along Las Olas Boulevard, and recognizing that stakeholder management will be the key to the successful design and implementation of the Project. Our approach to this challenge is elaborated in the below section.

F. Develop a Preliminary Design Before Engineering

G. Constructability in a Complex Urban Setting

H. Coordination with City, Utilities and Permitting Agencies

Our Approach: F) Develop a Preliminary Design Before Engineering

Our team's approach is from a past City project delivery manager perspective, and our approach intends to ensure a timely project delivery through construction. At the same time, the team will avoid an expedited design timeline at the cost of delays during construction.

1. Alternatives analysis and preliminary feasibility, summary design criteria before engineering design. Expedited project design schedules on Las Olas Boulevard will require an upfront time investment with community buy-in and stakeholder engagement before diving into the engineering design process. A lesson learned is to develop a summary design criterion before the preliminary (15% design). Though it is desired to fix all existing problems in a project area, there will be a clear understanding amongst all parties of what improvements are and are not a part of the project. A summary of design criteria before the engineering phase will minimize rework and delays in the design process later in the project schedule.

2. Concurrent activities during the design. The WSP team will work with the City staff to expedite and work on concurrent activities. We identify work concurrently in the design phase after the Preliminary design phase is complete. The WSP engineering teams will mobilize two separate roadway and civil engineering teams to work alongside each other. One team will work on the downtown and shops area, and the other will work on the Colee Hammock section. Working in unison also accommodates potential delays in one section of the corridor. The same stormwater, landscape design and utility coordination team members will support the two teams and ensure consistency. Also, the WSP team will plan for consolidated comments review from City stakeholders. We propose consolidating stakeholder reviews into one 30-day review activity, concluded with a comment resolution meeting to review alternate strategies.

Our Approach: G) Constructability in a Complex Urban Setting

Our team is comprised of members who have successfully implemented projects along the Boulevard. The major lesson learned from past Las Olas Boulevard design and construction projects is to ensure the 'constructability' of the design. The team will use the approach listed here to ensure a cost-feasible, constructible design.

1. Identify harmonization challenges between private property and the City's right-of-way (ROW). The Las Olas corridor is a bustling, downtown environment constrained by limited ROW with adjacent buildings. It includes many features that could be impacted by design including business entrances, paved driveways, outdoor dining areas, landscaping, raised/decorative sidewalk areas, planters, decorative lighting, on-street and space parking and bike facilities. Harmonizing private property is an integral and necessary tool for design.

ROW instruments such as license agreements and temporary easements aid in meeting the intent of each design while benefiting the adjacent property. Temporary encroachments into privately owned areas are anticipated and will be addressed explicitly with each property owner as conditions warrant.

Lessons-learned from the previous Las Olas Boulevard project involved extensive coordination of harmonization activities and agreements which provided improved access to businesses and storefronts to ensure compliance with ADA and increase safe mobility for all roadway users. One-on-one discussions with each property owner were conducted to dispel rumors, improve local trust, develop property-specific solutions and create personal relationships

Figure 10: On-site drainage solutions to capture stormwater away from the ADA ramps at the intersection after harmonizing with existing private property grade. The image was taken at Las Olas Blvd and SE 4th Ave reconstruction. *Source: Catherine Prince*

Figure 11: A linear trench drain connected to the adjacent drainage basin was installed to reduce ponding at the ADA ramp after sidewalk harmonization. Image taken at Las Olas Blvd and SE 4th Ave reconstruction. *Source: Catherine Prince*

that helped expedite conflict resolution. Another area of focus for Las Olas is the area's outdoor dining ambiance and aesthetics.

- **Agreements- Harmonization, driveway access and maintenance agreements.** We envision utilizing similar strategies by incorporating harmonization activities, including outdoor dining and walking path accessibility solutions, landscape and decorative pavers placement and lighting maintenance agreements. Driveway access agreements were accomplished through local business coordination, traffic safety analysis, traffic pattern confirmation and business needs. The harmonization agreement will clearly define impacts and benefits to the owners as well as time frames for activities and sunset dates for agreements ultimately improving property access. Clear, concise communication supporting harmonization efforts can lead to successful outcomes for everyone who benefits from the city improvements.
- **Right of way acquisition.** Some sections of the corridor will likely affect private property, and right-of -way acquisition is necessary. We will work with impacted landowners early in a project to provide a clear understanding of the extent of the impacts and the concerns of the property owners affected. Alternate strategies that were successfully utilized in the past have been introducing design elements (i.e. a linear drain on private property draining into City storm drain) to reduce the impacts, propose solutions that enhance the value of the property or locating the limits of the impacts in the field allowing the property owner to see the actual limits.

2. Integrate contractor perspective who has constructed on Las Olas Boulevard. Experience has shown that integrating a contractor's construction perspective of constructability, sequence of construction and construction sequencing based on existing and proposed underground roadway infrastructure. Adam Nacer of Make Way Construction will lead the constructability reviews during the alternates analysis, 30% and 60% engineering and identify potential challenges that must be addressed before construction.

Figure 12: The ideal ramp slope to achieve traffic-calming was achieved through contractor's constructability review during engineering design. Lessons-learned from the SE 15th and SE 2nd Street raised intersection was successfully applied at Las Olas Blvd and SE 4th Avenue.

Our Approach: H) Coordination with City, Utilities and Permitting Agencies

1. City of Fort Lauderdale Coordination. City staff that approve or maintain the proposed design will be engaged through the design phase. The WSP team proposes an agency working group that shares the agency perspective and coordinates with ongoing projects, policy development and ordinances to guide new development and permits. The

WSP team will keep the City division informed throughout the entire design process, some of which are identified below.

- Emergency Services (Fire Safety and Police Department) – coordinate evacuation, large events/safety
- Public Works – city forester to evaluate trees/coordinate tree removals
- Public Works – coordinate fire hydrant relocations, water meters for irrigation
- Environmental Services
- City Attorney's Office – right-of-way acquisition, construction easement, harmonization easement
- Survey – survey to conform to City standards

2. Utility Coordination and Relocation. Existing utilities (both overhead and underground) run throughout a project and are expected to impact the overall corridor design significantly. For example, the FPL vault runs East to West on the corridor's north side. Any new stormwater basins or new shade trees must accommodate this utility that cannot be relocated.

The team requested a list of utilities along Las Olas Boulevard and 1/4 mile north and south. Based on the Sunshine 811 design ticket, we anticipate coordinating with the entities provided in the following table.

Private Utility	Contact
Windstream Communication	800-289-1901
ATT/T	Kevin Talecki/Mike Gamboa 610-200-3365
Broward County OES - Water Supply	Robert Blount 954-847-2745
Comcast Cable	Ricardo Davidson 786-586-8505
Crown Castle	Fiber Dig Team 800-654-3110
Breezeline	Troy Gaeta 786-583-0404 Ext: 5650
Florida Power & Light	Joel Bray/Edgar Aguilar 386-586-6403
Hotwire Communications	Walter Davila 954-699-0900
Centurylink	Network Relations 877-366-8344 Ext: 2
MCI	Asg Investigations Team 800-624-9675 Ext: 2
Crown Castle NG	Fiberdig Team 888-632-0931 Ext: 2
Teco Peoples Gas - South Florida	Joan Domning 813-275-3783
AT&T/Distribution	Dino Farruggio/Jessica Grant
Sprint	Jon Baker 352-409-5095

Figure 13: NE 13th Street implementation was overseen by Christine Fanchi.

- Locate utilities by reaching out utility owners, request as-builts and record of existing facilities within the limits of the Project and schedule regular utility coordination meetings.
- Develop a utility conflict matrix and conduct monthly utility coordination meetings at preliminary and 30% design.
- Utility Field Inspection (UFI) meeting at 60% design for concurrence on the recommended design and initiate any identified utility relocations. Avoiding utility impacts is the goal, when that is not feasible, we recommend early relocation of those utilities impacting a project, including developing "out of plan" relocations before commencing construction. Clearing utilities before, or early on in the construction phase will save both time and money. For example, relocation of FPL poles would require the agency to design their relocations and perform the relocation. This coordination should start early in order to avoid delays.

Lessons Learned: At Broward Boulevard and SE 15th Avenue, led by Catherine Prince, relocating a power pole from a wooden post to a new concrete post took about 14 months from the beginning to the actual relocation.

Agency	Note
Broward County Traffic	Coordination with Broward County Traffic is needed for signage and striping since there is an Interlocal Agreement between the City and County.
Broward County Environmental Protection and Growth Management Department	The Project would involve adjustments of sanitary sewer manholes, valve boxes and possible pipe relocations. Coordination should be performed early to get their input on the proposed work.
Florida Department of Environmental Protection (FDEP)	To address Sea Level Rise, the Project might involve the installation of stormwater pump stations and/or injection wells. Preliminary Coordination with FDEP will result in an initial design that could be approved further by the Agency.
South Florida Water Management District (SFWMD)	Similar to FDEP, the stormwater infrastructure improvements will need to be approved by SFWMD. Coordination should start early in the design process.
City of Fort Lauderdale	Owner of the Project
Florida Department of Transportation	Replacing the Sospiro Canal Bridge and the utilities under it.

3. Permitting Agencies. Preliminary and as shown in the permit matrix above, we have determined that the mentioned permitting agencies will be involved on this Project.

4. Sospiro Bridge Replacement. The FDOT Bridge Inventory lists the Sospiro Canal Bridge as number 860017. It was built in 1950 and was last inspected on July 7, 2022 with a sufficiency rating of 69.8, health rating of 95.48 and classified NBI rating of Functionally Obsolete. The bridge is not listed for rehabilitation or reconstruction with the current FY23-28 FDOT 5-year work program, so the WSP team will work with FDOT and the City to design the Las Olas improvements in coordination with FDOT District 4.

The Sospiro Canal Bridge creates a gap in the bike lane infrastructure as well as uncomfortable pedestrian infrastructure between Colee Hammock and the Isles. The City also has multiple utility lines within this canal bridge that must be relocated.

Currently, the City has a 10" water main attached to the south portion of the Sospiro Bridge, and there is a 6" force main which is believed to be cast iron crossing the bridge. As part of the redesign, these utilities shall be taken into consideration and designed for future generations. For example, the capacity of the pipes should be sufficient, however the brackets/support system where these are attached should be of stainless steel to prevent corrosion of the equipment and possible failure of the lines. Another approach that should be considered is having both lines installed under the river bed, to avoid having utilities attached to the bridge. This can be achieved through horizontal directional drilling. The location of the pits should take into consideration existing soil conditions, depth of the canal and service connections in the area. The material of the pipes will be HDPE pipe which does not have joints (to avoid leaking) and is inert to corrosive conditions in the area. We believe this should be the proposed alternative, rather than having the pipes attached to the deteriorated bridge. If horizontal directional drilling option is selected, we do not believe a FDOT utility relocation permit is necessary since the work will not be impacting the bridge structure. In relation to local coordination with City's Utility Operation and Engineering Staff, this will need to be closely coordinated with them in addition to FDEP and Broward County.

Source: SubLime Imaginart

Project Management Approach

Our approach to project management will provide the City with well-planned and implemented projects, providing technical solutions delivered on time and within budget. Our program manager has completed extensive formal training in project management principles and techniques, which will benefit the City with solid project monitoring and controls.

Our project management approach is focused on responsiveness and early planning. Our approach to each task order begins with **Program Manager, Catherine Prince,** thoroughly reviewing the scope with the City, receiving any required clarification and ensuring we have a complete and correct understanding of the work to be performed. We will work with the City to establish specific and realistic schedule and budget goals for the Project.

Proven Systems and Project Controls

We will establish goals for each subtask and milestones to facilitate project tracking, budget and schedule. Our project management systems and controls are rigorous yet flexible enough to adapt to the Project's requirements. Program Manager, Catherine Prince, will manage the team and support the successful execution of the Project for the City, capturing and applying technical knowledge, innovation and gaining project efficiencies. She has successfully managed CIP projects and on-call contracts and brings a broad understanding of the scale and complexity of the City's local infrastructure system.

Budget and Schedule Management

Budget and schedule monitoring is part of every project we plan, design, and eventually follow into construction. The WSP team has already laid the foundation for meeting the City's budget and schedule requirements by assigning a team of experienced staff that is very familiar with City policies, practices, and preferences. Upon receiving the Notice to Proceed (NTP), the WSP team will meet with the City's staff to develop a consensus on the key Project issues, goals and objectives, and the scope of services.

Our project management plan (PMP) will establish project budgets for each discipline associated with the work breakdown structure (WBS) for each of the major phases of the Project, as well as for individual tasks and subtasks within each phase. We have learned that early and prompt attention to potential scope adjustments helps mitigate the need for budget changes. The WSP team will track Cost Variance (CV) and Schedule Variance (SV) throughout project implementation for each phase of the work and discuss such changes at regular, bi-weekly design coordination meetings and corrective actions will be taken when either CV or SV shows problems.

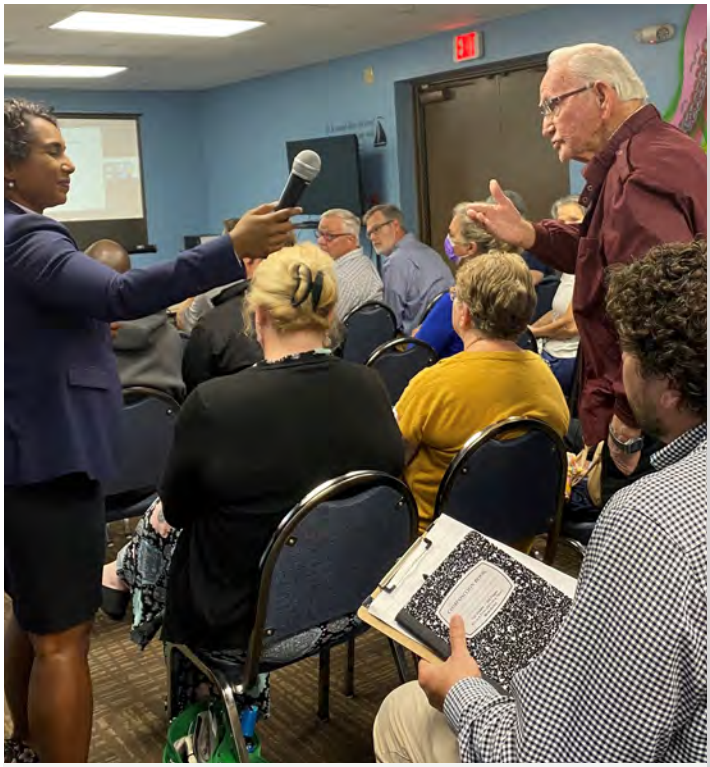


Figure 14: Engaging with the community is at the heart of our approach. Catherine Prince with the Jackson Street neighbors.

Quality Control

At At WSP, quality is integral to every task and work product. Our program is designed to integrate quality from the beginning and build continuous quality performance into all aspects of project delivery. WSP is ISO 9001:2015 certified. It is WSP's required practice to develop and implement a QA/QC plan for every project undertaken by our firm. Key features of a QC plan for the City include:

- Clear assignment of responsibilities
- Documentation of scope and City expectations
- Adherence to the project schedule
- Careful checking of each deliverable by a third-party professional
- Sub-consultant requirements to utilize a formal QC plan for the respective discipline

Draft documents will be reviewed by an assigned team member before submittal to the City to validate against the scope and check for completeness, accuracy, and compliance with state and federal regulations (as applicable). Qualified staff will review final documents to include experts in various disciplines. These procedures support our QA/QC goal to ensure that each of our deliverables conforms to or exceeds the City's expectations and to our company-wide quality standards.

Figure 15: Project tracking and performance monitoring procedures

Project Tracking and Performance Monitoring Procedures

Our team brings experience and state-of-industry processes/ tools to project delivery. Our primary focus is achieving your cost, schedule, quality expectations and goals. The key steps for our process is shown above.

Project Progress Reporting Procedures

Scheduled progress meetings play an essential role in disseminating information during a project. Throughout the entire Project, we will do the following to maintain continuous communication and reporting to all team members:

- Monthly meetings are held in which project progress is discussed, conflicts resolved, and issues requiring City decisions presented
- Meeting minutes distributed within three working days of all meetings
- Action items are identified, including responsible individuals and the due date
- Action items are input into a tracking database, reviewed by Catherine Prince every week
- Monthly status reports are submitted including cost and schedule updates, variance analyses, recommended corrective actions, and updated forecasts

Workload and Availability

WSP is currently in an excellent position to perform work on new projects. We have the capacity, availability, and required

Current & Anticipated Workload		
WSP Office	**2023 Workload**	**2024 Workload**
Miami	75%	60%
Sunrise	70&	60%
West Palm Beach	75%	50%
Doral	70%	50%
Tampa	80%	50%
Ocoee	70%	60%
Altamonte Springs	65%	50%
Orlando	75%	60%

expertise to successfully complete this contract for the City of Fort Lauderdale. Our Florida proposed staff for this project are based out of our Miami, Sunrise, West Palm Beach, Doral, Tampa, Ocoee, Altamonte Springs, and Orlando offices, with the majority located in our local Miami office. Our experienced staff are efficient in their duties as a result of the deep level of understanding and familiarity with not only the tasks at hand, but also of the local landscape. We provided the City with the workload percentages for 2023 and 2024.

Anticipated Schedule

We anticipate delivering the engineering design within 24 months of NTP. Realistically, we expect to complete the engineering design within 24-months of NTP. With a keen understanding of the essential need to get stakeholder buy-in, we propose spending the initial part of the project timeline vetting the design with the key stakeholders and community. This initial investment with time will ensure an overall successful project delivery with minized disruption during final design and construction.

We expect four Project phases to initiate and complete the services requested in this solicitation. The following section describes the below four phases.

- **Phase 1: Design Phase** is split into two distinct activities:
  - **Phase 1A preliminary design, alternatives analysis, and feasibility** stage of developing a constructible preliminary design in coordination with stakeholders, which supports the project intent and goals.
  - **Phase 1B engineering design 30%, 60%,** develop corresponding cost estimates, design criteria package.
- **Phase 2: Preliminary Permitting**
- **Phase 3: Bid Support Services**
- **Phase 4: Construction Management**

The preliminary project schedule after Notice to Proceed (NTP) is shown in the following page.

Preliminary Schedule

Implementation | Initiation | Key Milestone | > Continues through Project Duration

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Program Management & Controls																								
Notice to proceed																								
Kick-off with the City PM																								
Prepare Draft Program Management Plan, detailed schedule																								
Develop program budget, project costs projections																								
Maintain schedule, budget																								
Bi-weekly meetings with City PM																								
Stakeholder Management																								
Develop a list of community and city stakeholders with City PM, Identify utility owners within the project limits																								
Community Stakeholders																								
Conduct preliminary outreach																								
Hold monthly updates with Project Champions (associations, individuals from the community)																								
Community public workshop #1																								
Community public workshop #2																								
Commission update or presentation																								
Update community bi-monthly on projects (via email, commissioner reports)																								>
City Divisions Stakeholders (TAM, PW, Utilities, Parks & Rec, and other identified)																								
Preliminary outreach to City stakeholders																								
Monthly meeting updates with City stakeholders																								>
Private Utilities																								
Preliminary outreach to utilities identified																								
Monthly utility coordination																								>
Phase 1 Design																								
Phase 1A Preliminary Design																								
Conduct Survey, Geotech, SUE, environmental assessment																								
Review Las Olas Boulevard past and collect updates																								
Identify future climate vulnerability within asset's lifecycle																								
Develop draft alternates based on City division stakeholder feedback																								
Identify feasibility of the alternates, potential utility conflicts																								
Develop Detailed Alternates																								
Review constructability of design alternates																								
For each alternate, develop Net Present Value (NPV) of lifecycle costs, opinion of probable construction cost																								
Develop detailed 2-D renderings of alternates, Develop FloodVue 3-D model																								
City review and updates to alternates																								
Community Public Workshop#1 (to select preferred alternate)																								
Present the alternates at Workshop #1																								
Identify recommended/preferred alternate with City using community feedback																								
Update the recommended/preferred alternate design (15%)																								
Perform preliminary constructability review on prefered alternate																								
Update the 2-D renderings , and FloodVue 3-D model																								
Update NPV, cost estimates (OPCC), and construction time																								
Optional- Develop funding strategies																								
Community Public Workshop#2 (to update the community)																								
Present the preliminary design at Workshop #2																								
Update and finalize preliminary design (15%) with City using community feedback																								
Develop the summary Design Criteria Package																								
Present the preliminary design to City Commission presentation or a Commission Update Memo																								
Phase 1B Engineering Design																								
30% Design																								
60% Design (addressing 30% comments)																								
Team 1 - Downtown and The Shops																								
Team 2 - Colee Hammock Neighborhood																								
Roadway Engineering																								
Landscape and Lighting design																								
Stormwater Engineering																								
Utility conflicts matrix																								
Constructability review																								
Design Criteria compliant with City and state codes, standards																								
Opinion of Construction Cost (OPCC), update construction time																								
Preliminary permitting coordination																								
City stakeholder review and comments																								
Phase 2: Permitting																								
Permitting Agencies (City, Broward County, FDOT, and other identified)																								
Preliminary outreach to agencies																								
Identify regulatory permits																								
Agency coordination, mitigation requirements																								>
Submit permitting packge for preliminary approvals																								
Phase 3: Bid Support																								
as necessary and requested by City																								
Phase 4: Construction Management																								
as necessary and requested by City																								

Phase 1A: Preliminary Design

The goal of Preliminary Design is to review Project feasibility from lifecycle cost-effectiveness and constructability perspectives. This is done by developing alternative design concepts.

Task A: Understand the Context

The WSP team will assemble all the information from the Corradino team's planning effort along the corridor, past planning efforts, traffic and parking studies, and information from commission meetings.

Task B: Collect Base Information

Survey, Geotechnical (General Subsurface Conditions)

The WSP team will deploy various techniques to collect survey and geotechnical base information. Terrestrial Mobile LiDAR and conventional GPS/RTK methods will be used to support the Project needs. This approach offers a localized DTM/topographic survey while increasing the safety of field associates by keeping them out of traffic. Baseline and existing ROW will be established utilizing existing City/Broward Co./FDOT information and supplemented as needed. Also, the team will conduct required geotechnical engineering services, including test pits, test borings, determination of soil bearing values, percolation tests, ground corrosion and resistively tests, materials testing, settlement analysis, slope stability and stabilization analysis, and reports containing professional evaluations and recommendations.

Utility Coordination

Several utility agencies have facilities within the Project limits, including City of Fort Lauderdale Water & Sewer lines, FPL underground electric duct banks, TECO gas, and AT&T and Crown Castle telecommunication facilities, among others. These facilities could be impacted by the proposed improvements. Our utility coordination process will focus on the early identification of existing and proposed facilities, conflict avoidance, and planning for advanced utility relocations and adjustments as needed. As with any project, every effort is made to accommodate existing utilities with minimal relocations and disruption of service. We gather available as-builts/record drawings, which leads into developing a detailed conflict matrix during the preliminary design, 30%, and 60% design.

Ground Penetrating Radar (GPR), Subsurface Utility Exploration (SUE)

The use of GPR on past projects has proven to be a tremendous aid in confirming utility locations with minimal disruption. Using a combination electromagnetic locator and GPR, we will designate all utilities in areas of potential conflicts. Using a vacuum excavator, we will accurately locate all critical facilities in the proximity of the proposed construction. We will develop a comprehensive conflict matrix for each design alternative detailing the time and cost associated with each utility relocation/adjustment. We will certify utilities for construction; Utility Certification packages will include color-coded plans indicating the facilities to remain, facilities to be relocated, and new or proposed utilities, executed agreements, and Utility Work Schedules detailing relocation activities, duration, work to be done prior to or during the phases of construction.

Traffic Studies and Emergency Time Response

The team will review recently completed traffic studies including the one-way pairs studies, and supplement with additional studies as required. Additional operational needs at Las Olas Blvd and SE 16th Avenue will be evaluated. Emergency response time to and from the nearest fire stations will also be evaluated during design. The City's Fire Department will be a major stakeholder throughout the design process; we will discuss any opportunities to improve response times and access.

Environmental

Preliminary desktop screening using the Florida Department of Environmental Protection (FDEP) contamination locator map *(Figure 2)* indicates at least three known or potential contaminant sites along the Las Olas Boulevard corridor and must be considered during design. Recently, the team worked with local agencies to develop design modifications to address contaminated soils or stormwater management structures. These modifications were approved by regulatory agencies and constructed. To reduce delays during construction, we recommend engaging with the permitting agencies during design.

Coordination Pre-Construction

Our team has familiarity and extensive experience working with Broward County and commercial clients to resolve environmental contamination issues during construction projects. Our project team and agency personnel involved

Figure 16: FDEP Contamination Map shows three potential sites along the Project

in report reviews and decision-making have proven to be critical in avoiding unplanned construction work delays. Our approach includes developing a plan for any required additional assessment for expedited review and implementation. Because further assessment is sometimes required based on the initial assessment results, our team is prepared to implement additional iterations of the assessment immediately, if needed, to conclude the pre-construction assessment in the shortest time possible. Our team will provide environmental compliance monitoring during the construction phases of the Project. We hvave extensive experience in providing air, water, and ecological monitoring to ensure compliance with permits and agency directives during all phases of construction.

Roadway Infrastructure

State of safety, mobility, and flexibility in transportation provides an option for all types of trips. WSP is well-versed in designing safe streets for all users while providing flexible spaces for vehicle drop-off zones to sidewalk extensions to serve the daily or seasonal needs of Las Olas Boulevard. Generous sidewalks on both sides provide space to prioritize the pedestrian, giving ample space and comfort. Speed control can be created by implementing raised intersections, narrow lanes, and vertical elements along streets such as trees. Shade trees along a street create value over time by creating shade for pedestrians, reducing heat from asphalt/concrete, intercepting stormwater, and adding beauty and natural habitats for local species. Creating a street with slow speeds can be flexible enough to host all modes safely- bikes, golf carts, scooters, and vehicles. By pairing the public input with collected data, the WSP team will present safety, mobility, and livability improvement opportunities for design alternatives to meet the community vision for Las Olas Boulevard.

Landscape and Lighting Infrastructure

Pavement

Our design approach recommends the use of locally-found materials reflective of Fort Lauderdale's coastal environment. We also recommend materials that are poured or laid in large sizes to provide a smoother walking experience. Larger sizes are more comfortable for feet; for sliding chairs in and out of tables; and are subject to less tilting and settlement with the passage of time. Pervious pavement can be considered to support stormwater management throughout the corridor.

Seating

Loved public spaces provide multiple forms of comfortable seating. We propose fixed seating in a Comfort Zone in the form of precast benches and, when possible, incorporating other elements such as raised planters or bicycle racks that can be used informally to lean or sit on. The proposed benches will be backless, allowing users to select the direction they wish to face. The Comfort Zone is protected by a row of on-street parking, allowing for a safer user experience.

Figure 17: Euclid Streetscape by CMA

Wayfinding

Wayfinding will be added throughout Las Olas as required including regulatory, directional, and locational signage. The signage will incorporate the City's current brand identity or unique elements to the Las Olas corridor.

Landscape

- **Trees.** The proposed design relies heavily on incorporating shade trees to enhance the City's urban canopy and provide shade and comfort for pedestrians. We propose expanded planting pits with curb cuts added to accept surface stormwater and aid in stormwater management. These vegetated areas would add additional greenery to the street to enhance the pedestrian experience and act as access management funneling pedestrians to safer crossing points. Our plant selection will rely heavily on native plants and consider long-term maintenance in their selection.
- **Soil.** The key to successful urban street tree plantings lies below the surface. We support the City's use of suspended pavement solutions, such as Silva Cell by Deep Root. We will explore additional products on the market as alternatives to the City based on cost and ease of installation and maintenance.
- **Irrigation.** For street tree plantings, we encourage root watering systems that deliver water to the root zone of trees encouraging root growth deeper below grade to prevent the development of surface roots throughout the corridor. Water management through selecting the proper irrigation controller is also critical to the success of urban trees since most tend to fail because of overwatering.
- **Street and Pedestrian Lighting.** The design incorporates both roadway and pedestrian-level lighting. The important factors in selecting the right fixtures will be that they direct light downward and have full cut-off housing to eliminate glare, that the illumination be LED and energy efficient, and that aesthetically, the poles and housing support the iconic look of Las Olas. In addition to pole-mounted fixtures, we will consider market lighting over the street and lower ground-level lighting to eliminate dark spots.

Stormwater Infrastructure

The WSP team conducted a preliminary review of the existing stormwater drainage system. Las Olas Boulevard is served by City of Fort Lauderdale, Broward County, and FDOT-owned stormwater outfalls, as indicated on the map and summarized in the following.

The stormwater generated on Las Olas Boulevard:

- Between Andrews Avenue to SE 3rd Avenue is pumped from a stormwater pump station on SE 1st Avenue into the New River.
- On SE 3rd Avenue is discharged to New River through three (3) stormwater outfalls.
- On US-1 is discharged to the New River, like the infrastructure on SE 8th Avenue stormwater outfalls.
- Between SE 11th Avenue to SE 13th Avenue is discharged from two (2) outfalls into the Himmarshee Canal (connected to the New River).
- Between SE 16th and SE 17th Avenue is discharged from one outfall onto Sospiro Canal (connected to the New River).

Except for SE 1st Avenue, most of the infrastructure in the corridor is a gravity system that depends on the stormwater outfalls discharging into the New River. The gravity systems alone will not be able to discharge into the rivers, given projected sea-level rise projections within the project design life. We will evaluate the need for a combination of mechanical systems like stormwater pump stations and deep injection wells when designing for future conditions.

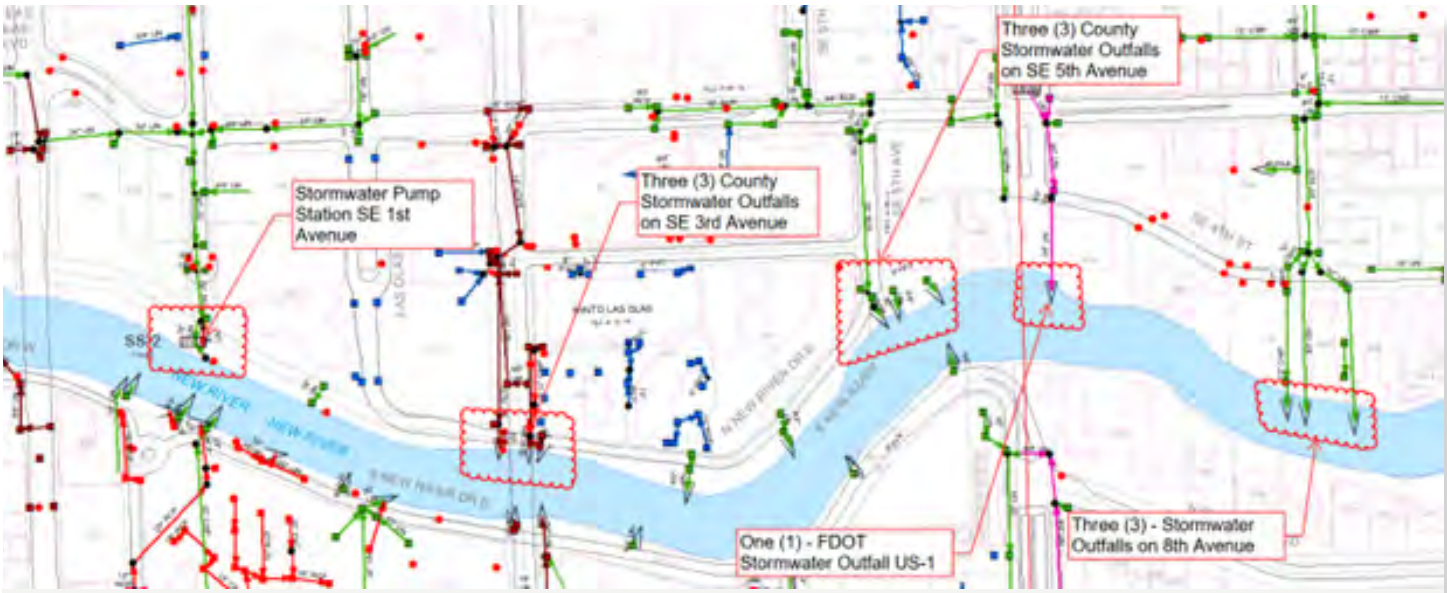


Figure 18: Stormwater Infrastructure from Andrews Avenue to SE 8th Avenue

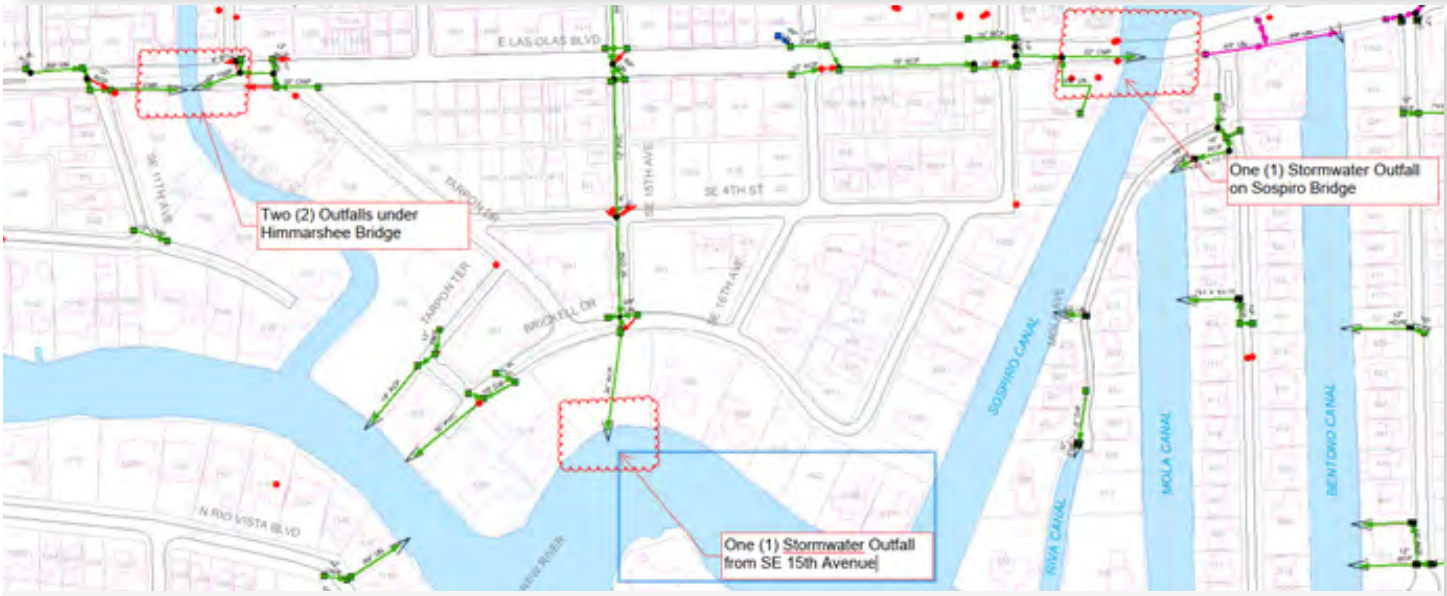


Figure 19: Stormwater Infrastructure from SE 10th Avenue to SE 17th Avenue

Figure 20: Pre-Improvements Condition

Figure 21: Post-Improvements Condition

Stormwater Modeling

The WSP Team will use ICPR4 stormwater modeling software to model existing and future conditions (Pre and Post Development). The modeling will consider the current and proposed groundwater elevations, future developments in the area, and proposed improvements to the roadway.

Future Climate Conditions Impacting Infrastructure During the Project Design Life

We will use the WSP-produced Adaptation Decision-making Assessment Process (ADAP), which was developed in collaboration with the Federal Highway Administration (FHWA). ADAP incorporates uncertainty associated with climate change into Project design, which provides a more robust statistical baseline than traditional practice in support of adaptive designs. The Las Olas Boulevard project design life of 50 years will consider current and future conditions that helps make a better case for climate change resilient designs and more cost-effective investments *(Figure 22).*

Identify future climate scenarios during the Project's 50-year design life: Project design will, at a minimum, consider sea level rise (SLR) and its effects on tidal flooding, storm surge, groundwater elevations, and temperature and precipitation changes. The team will consider at least three future (SLR and precipitation) scenarios over the Project's design life. Two time horizon years 2040, and 2070 will be analyzed to support the risk analysis and provide a sense of the possible timing of extreme weather events. The WSP team will work with the City and any relevant permitting authorities to define the scenarios, horizon years, and data sources. The information will support the quantitative risk analysis. Return period projections of tidal flooding, storm surge, and precipitation-induced flooding will be developed and mapped.

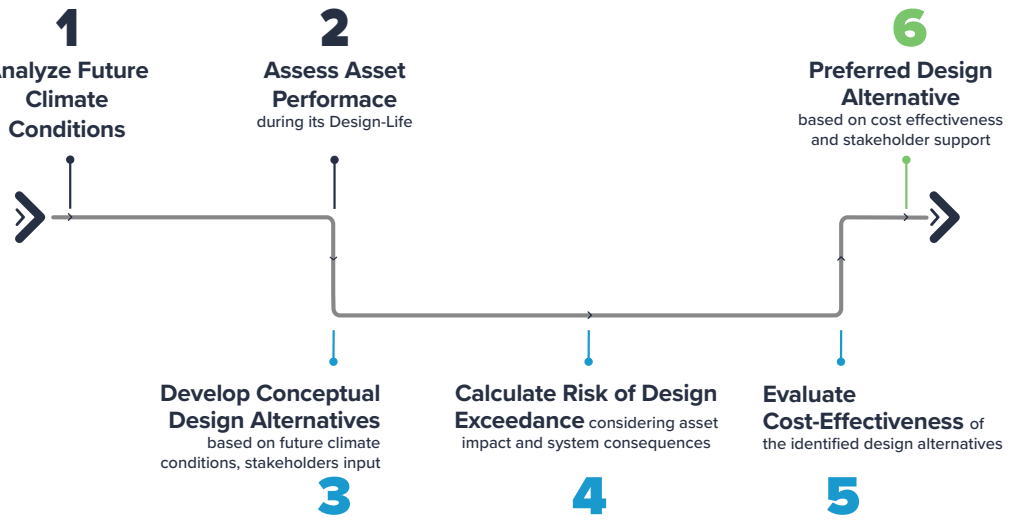


Figure 22: The multi-step process WSP developed with the FHWA integrates future conditions into engineering design

Assess the Project's asset performance within the Project's design life: The WSP team will next conduct an exposure analysis on the City-owned infrastructure and on adjacent private propertyfor each hazard in the future climate scenarios. Las Olas Boulevard assets will include assets like stormwater drainage, roadway pavement and appurtenances, and green infrastructure.

Develop resilient design alternatives based on the identified vulnerability of project assets: The WSP team will develop adaptation options for the three climate scenarios. Adaptive management strategies in which adaptation actions are taken over time as conditions change will be developed and applied whenever feasible.

Calculate the risk of design exceedance, evaluate the cost-effectiveness of the alternatives: The team will work with the project engineers andagency staff to conduct a detailed analysis of the damage and consequences during extreme events that exceed the conventional design criteria-based on historical data. The WSP team will analyze the benefits of each alternative relative to the likely higher up-front costs of its construction to determine the cost-effectiveness of each alternative. Timothy Grose, an economist, will lead the economic analysis and assess the physical damage costs (costs to repair damaged infrastructure) and socio-economic costs (detour costs around flooded sections of roadway, business downtime costs due to flooding, etc.). These anticipated costs will be estimated by who bears them (City, residents, businesses, etc.).

Evaluate the cost-effectiveness of the alternatives: A cost effectiveness analysis will be conducted for each alternative. Economic metrics will include lifecycle costs, benefit-cost ratios, and net present values in coordination with the City. The outcome of this phase is the ability to communicate using a common language using economic metrics, such as:

- *"What is the cost – financial and social burden on the community? What are the benefits of Alternate 1 compared to Alternate 2?"*
- *"What are the costs of doing nothing?"*
- *"What is the net present value of waiting 5 years to install resilient infrastructure?"*

The outcome of this process is a straightforward, transparent communication to compare the alternatives on the same playing field of Net Present Value (NPV) of all costs within the project design life.

Task C: Develop Alternatives, Conduct Alternatives Analysis

The team is well-aware that translating the vision plan to engineering design requires additional consideration of feasibility and cost-effectiveness.

Need to Evaluate Design Alternatives within the Three Character Areas

Las Olas Boulevard improvements have been discussed for several decades and multiple plans have been developed, including the most recent comprehensive vision plan. Many neighbors are ready for these improvements, and others are passionate about many elements, including current medians, trees, parking, and bike lanes. We will seek opportunities to enhance the design to meet stakeholder goals of enhancing safety, reducing maintenance, and improving resiliency through the corridor through value-added design features. With City support, we will present the design alternatives to the public through a stakeholder engagement process. Community feedback along with the City's Project goals will be utilized to select a preferred alternative design to move directly into final engineering design. Some consideration include:

- Evaluation of latest safety data/desire lines to enhance/ add pedestrian crosswalk infrastructure.
- Replacing 16 mature invasive and end of life black olives on the median with shade native Oak trees. New oak trees planted every 30-feet spacing for a continuous shaded sidewalk.

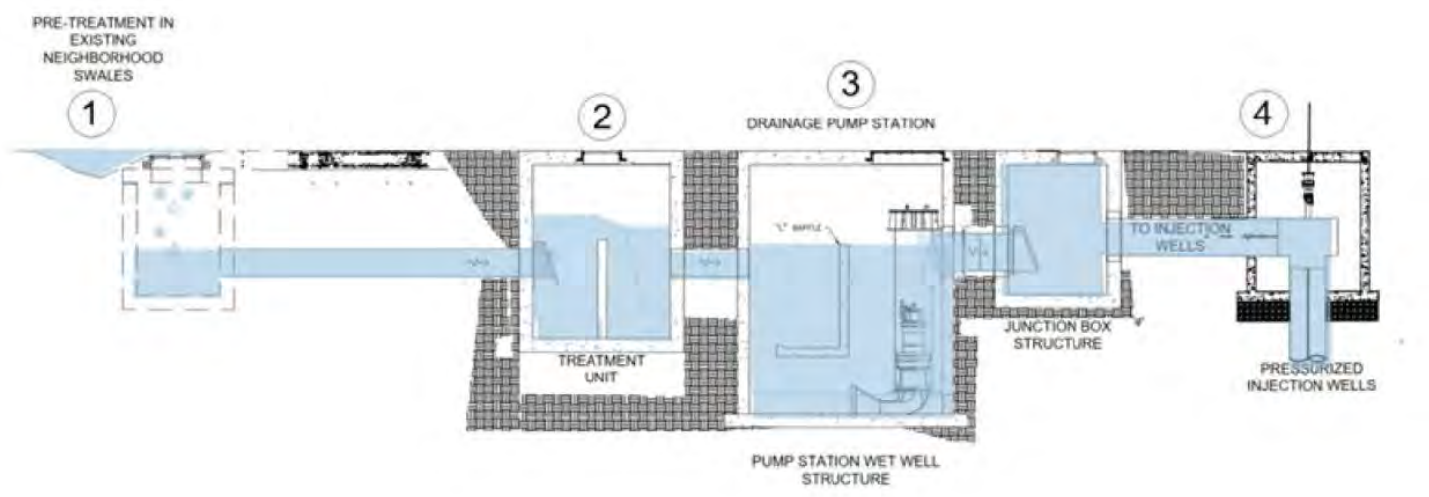


Figure 23: Sample drainage concept of treating green infrastructure before pumping into injection wells designed for City of Dania Beach.

Figure 24: Performance metrics of the demonstration lane-elimination project on Las Olas Blvd, led by Catherine Prince.

- Intersection improvements to balance the needs of pedestrians and vehicles to include signal retiming/ synchronization, evaluation of turn lanes, raised intersections (like Las Olas Boulevard and 4th St), high visibility markings, and use of LED technologies.
- Creating spaces to support curb management with designated pick-up and drop-off zones.
- Opportunities for wayfinding for visitors to connect to Downtown, Art Museum, Beach, Parks, Civic spaces, and Parking.
- Creating clear zones within the sidewalk for street furniture, walking and outdoor seating, and delineating with changes in paving color or texture to reduce unintended encroachment or littering of the sidewalk.

Alternatives Analysis

The WSP team will use the design survey to lay out the design of the proposed vision plan (from Corradino Group) to understand the feasibility and constraints of constructing the vision plan. Also, the team will evaluate other design options and value-added design features for the City's consideration. The team will use the goals identified with the community in the planning phase and integrate engineering data (design survey, safety data, and stormwater data) to develop a holistic, constructible, and cost-effective design strategy. The steps we anticipate during the alternate analysis phase are:

- Work with City and key stakeholders to develop two or more design alternatives. These design alternatives will be developed to 15% preliminary design after assessing construction feasibility and developing probable construction cost estimates.
- Meet with key project champions (identified in Stakeholder Management), conduct two public workshops, one at the downtown and shops segment and the other at the Colee Hammock section. Utilize renderings and use virtual tools like FloodVue to communicate with the community and key stakeholders.
- Preliminary design of the preferred alternative, conduct feasibility assessment, and develop benefit-cost
- Present the preliminary design plan to project champions and the community at a second meeting.
- Develop a summary of design criteria; summarize and present the identified design to the Commission or send.

Stakeholder Engagement: City, Community and Commission

We will meet with community stakeholders and City leaders for input on a preferred alternative.

- A Project Champions focus group will be used including business associations, homeowner associations, CRA, chambers of commerce, and other entities that will champion the Project. The group will be engaged at project kick-off, and in mid and final phases.
- Community workshops will be hosted. At the first meeting, we will explain climate impacts and other consequences to the community; the second meeting, will be an opportunity to share design alternatives with life cycle cost estimates.

Summary Design Criteria of the Preferred Alternative

The WSP team will compile all the documentation and summarize the outcomes of the meetings with meeting minutes and will use this documentation as the basis for preparing the summary of design criteria and the 30% Design Package.

Phase 1A: Anticipated Deliverables

- Survey file report with existing above and below-ground utilities
- Geotechnical report
- Las Olas Boulevard climate hazards vulnerability analysis and cost-feasible resilience strategies
- Alternates (15% design), alternate analysis with NPV of lifecycle costs, opinion of probable construction cost, and construction timeline
- Preferred Alternate cost-feasible (15% design), Project Definition Report

Sample Of Our Approach To 'Task C: Develop Alternatives'

This section illustrates the WSP team's approach to the alternative development process using an intersection and segment in Las Olas Boulevard (the Boulevard). (Note: This example is simply an example of the process and not intended to imply that the alternatives are those that will result from the process).

Las Olas Blvd and SE 8th Avenue

The WSP team selected SE 8th Avenue intersection because of the community's desire to expedite the reconstruction of 'The Shops' section. Also, this intersection is one of the most challenging for the safe mobility of people walking, biking, using rideshare, or delivering packages. Also, flooding after a major storm is likely, combined with high tides like the October 2022 King tide event. Several storm events have flooded this intersection in the past five years.

Current Safety Concerns, Typical and Proposed Sections by the Las Olas Vision Plan

CRASH SEVERITY

10.5% Injury
29% Aggressive Driving
37% During the Night
79% During Dry Conditions

Current Conditions at the Intersection

Step # 1. Analyze Existing Conditions, Community

The initial step in the process is to understand the existing conditions of the Boulevard, surrounding land uses, and environmental conditions important for placing the Boulevard within social, economic and environmental contexts. The analysis of existing conditions will include developing typical sections of roadway segments in the corridor (see Figure x). This alternative analysis will identify current deficiencies from the perspective of all users of the Boulevard. The following sections describe some specific topics we propose addressing.

Roadway Infrastructure

A preliminary review of the existing road conditions identified challenges including 1) crosswalks with Americans with Disability Act (ADA) ramps allow only for one crossing in one direction, the pavers shifting or missing with utility patches, 2) uneven pavement conditions, 3) narrow sidewalks (sometimes as low as four feet wide that do not accommodate two pedestrians walking next to each other), 4) aging traffic signal equipment that allows water intrusion, 5) no clearly identified ADA on-street parking or rideshare pick-up drop-off zones. In the last five years, 38 crashes have occurred at this intersection.

Landscape Infrastructure

The existing cross-section has large canopy Black Olive trees, a non-native species; some trees are at their end of life. The sidewalks are lined with palm trees.

Utilities, Stormwater Infrastructure

The WSP team collected preliminary utility information. Stormwater inlets at all four corners of the intersection are located at the apex of the curb returns. Collected stormwater is directed through stormwater pipes to the outfalls at Himmarshee Canal in the North and the New River to the South. Private underground utilities at this intersection include- FPL duct bank, AT&T duct bank, water (N-S & E-W), sewer (N-S & E-W), fiber, and communications. Overhead, Florida Power and Light (FPL) and communications run North-South across the intersection.

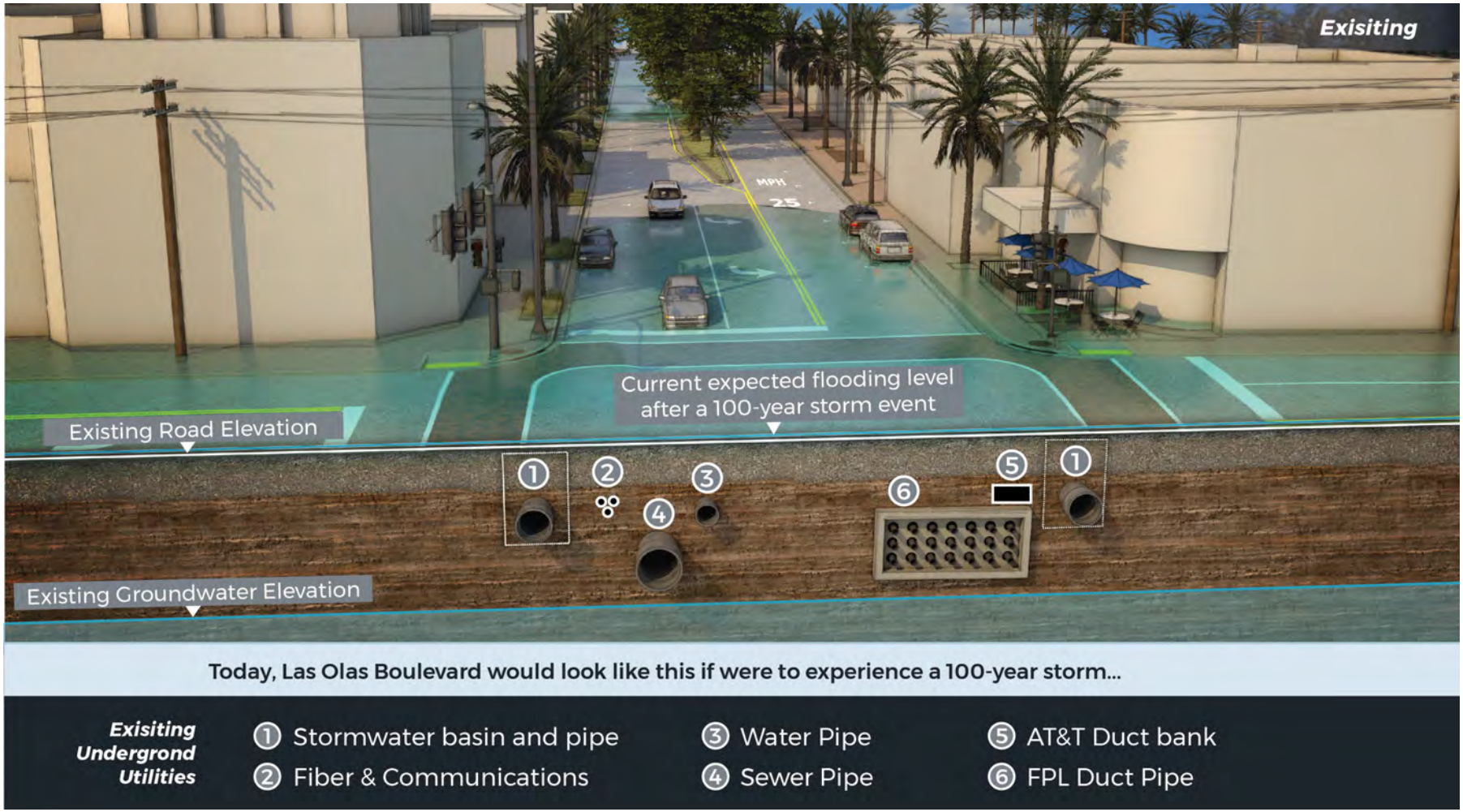
Sample Alternative Analysis

Flooding Exasperated by Future Climate during The Project's 50-year Design Life

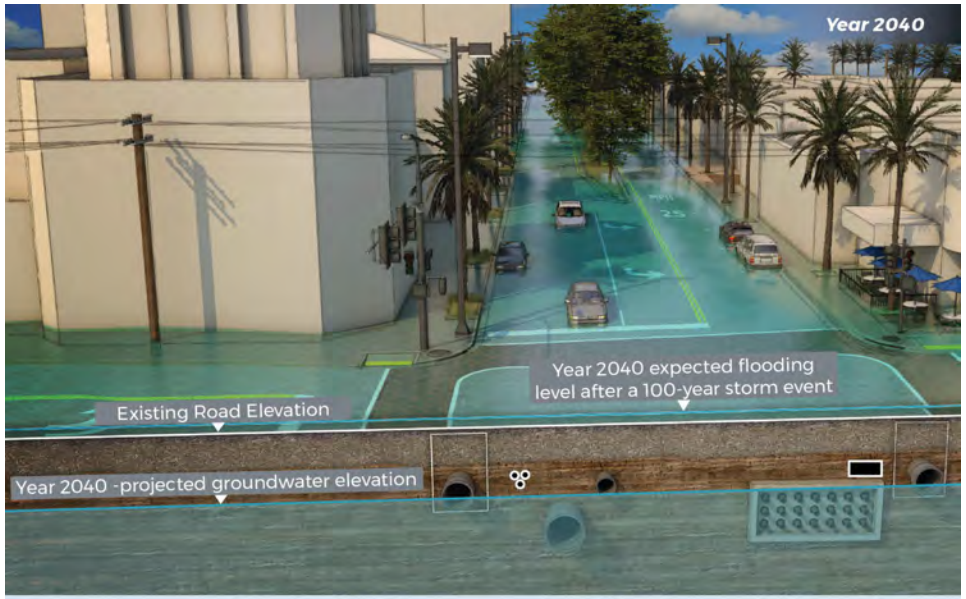
The WSP team collected preliminary flooding hazard data that will be considered in the design phase. The average elevation of the existing roadway is **3.5 feet above NAVD88** (typical elevation of areas near New River and Intercoastal Waterway). Using 2022 data from National Oceanic and Atmospheric Administration (NOAA), we found that the highest king tide was roughly 2 feet above NAVD88 (October 25, 2022). We evaluated the latest intermediate-high sea-level rise (SLR) projections and preliminary groundwater elevation data. If the Boulevard were reconstructed, its new design life (the years of use the design is intended to perform) would be 50 years. So, these preliminary findings are summarized below for the approximate mid-design life of 2040 and the end-of-design life year 2070.

Elevations of Expected Flooding over Time

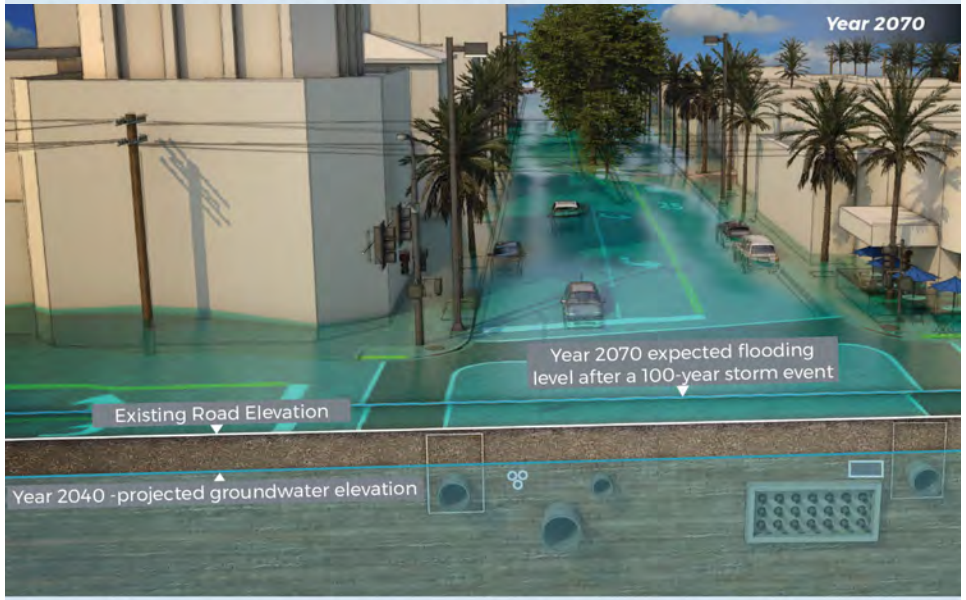
Extreme Event (like)	**Elevations of Expected Flooding** (Approx.)
October 25, 2022 – King Tide Event	2.00 feet NAVD88
2040-2050 SLR w/ King Tide Event	3.00 feet NAVD88
Today, after a 100-year storm event* or 2070 SLR with King Tide Event, or	4.00 feet NAVD88
100-year storm event with 2040-2050 SLR*	5.00 feet NAVD88
100-year storm event with 2070 SLR*	6.00 feet NAVD88



Sample Alternative Analysis



In 2040, Las Olas Boulevard would look like this if were to experience a 100-year storm.



In 2070, Las Olas Boulevard would look like this if were to experience a 100-year storm.

Projected Groundwater Elevations over Time

	Groundwater Elevation (Approx.)
Current Conditions	0.5 feet NAVD 88 (3 ft below current road elevation)
Year 2040	1.5 feet NAVD 88 (2 ft below current road elevation)
Year 2070	2.5 feet NAVD 88 (1 ft below current road elevation)

The corridor currently experiences flooding from a 100-year storm surge event (40% probability of occurring at least once over 50 years). It could regularly flood from high tide events by the mid-to-late century if the proposed redesign does not consider sea-level rise. The illustrations show what the intersection would be like, given a 100-year storm today and in the future years 2040 and 2070. If the Boulevard were reconstructed in 2025, there is a 40% probability of at least one 100-year storm event during its design life of 50 years. Flooding at this intersection will impact the adjacent business owners and create system-wide mobility impacts for the neighboring communities. Understanding the implications of future climate will facilitate informed conversations.

Step # 2. Develop & Analyze Alternative Designs

The need for an alternative analysis is to evaluate the constructibility of the vision plan and assess alternatives that provide the same benefits and be more cost-effective. The alternatives analysis aims to identify and refine one preferred design. In this sample analysis, the WSP team proposes analyzing the vision plan design as **Alternative A** and another alternative presented by the WSP team as **Alternative B**. During the actual project, these alternatives would be developed in collaboration with City staff.

Roadway Infrastructure

The WSP team examined the cause of crashes and developed a range of proven safety countermeasures based on the FHWA Safe Systems Approach to reducing crash impacts. Both alternates focus on maintaining consistent speed for the safety of all users. **Alternative A** includes curb extensions at the intersection and the removal of the center median, a large sidewalk with large canopy trees, and on-street parking, as noted in the Las Olas Vision Plan. It has a raised mid-block crossing with advanced warning in pavement markings and signage. **Alternative B** has similar improvements except for a raised intersection. Trees offset from the sidewalk placed every few on-street parking spaces, and removable bollards to facilitate repurposing the Boulevard during events and fairs.

Landscape Infrastructure

The WSP team designed for shade trees to enhance the City's urban canopy, pedestrian wayfinding, street lighting. Our tree and plant selection relies heavily on native plants and considers long-term maintenanceAlso,. planting pits with curb cuts for hold stormwater. **Alternative A** focuses on enhancing the Boulevard's experience as a vibrant public space providing points of interest and comfortable movement. The zones include **1) Café/retail zone** – Area closest to building facades typically used for sidewalk cafés or displaying retail goods, sandwich boards, etc., **2) Mobility Zone** – Clear pathway allowing for walking and other mobility methods, **3) Comfort Zone** – Area closest to the street edge with typical streetscape elements such as lighting, seating, trash receptacles, wayfinding, etc. The zones are differentiated by applying different paving materials to provide users with visual location cues. **Alternative B** maintains a similar design as Alternative A. The sidewalk is separated into two zones: **1) Retail/Mobility Zone** – Area closest to building facades typically used for sidewalk cafés or the display of retail goods,

Sample Alternative Analysis

Roadway

1. Curb returns with mountable curb for turning vehicles
2. Crosswalk pavers removed and replaced with asphalt and high-visibility pavement markings
3. Generous ADA ramps aligned to new crosswalks on all four sides
4. Generous sidewalk space with consistent materials.
5. Broward County Transit stop with bus shelter and seating on the sidewalk

Landscape and Lighting

6. Proposed native large canopy trees with supporting soil structure
7. New lighting design will cater to the needs of people using the sidewalk, as well as, people driving
8. Overhangs (like awnings) on adjacent businesses during redevelopment to support shade along the corridor.

Stormwater

9. Stormwater capture and planter area. Overflow is conveyed to the existing stormwater basin- accessed through existing utility holes. To accommodate future climate conditions, we will analyze alternates like pump stations, deep injection wells, raising the road elevation

- - - - existing storm basin and pipe
- - - - proposed connection to existing storm basin

Sample Alternative Analysis

1. Shade Structure, street furniture placed at key activity nodes
2. Raised mid-block crossing with advanced warning signage
3. Way finding signage
4. Street lighting
5. Green Infrastructure (stormwater capture area)
6. Opportunity for art within the streetscape
7. Awnings on adjacent private properties extending into the public realm

Sample Alternative Analysis

Roadway

1. Raised intersection provides for safety- reduces vehicle speeds, increases visibility of people crossing
2. Removable bollards to allow the flexibility for street closures during the events
3. Crosswalk pavers removed and replaced with asphalt and high-visibility pavement markings
4. Generous sidewalk space with consistent materials
5. Generous ADA ramps aligned to new crosswalks on all sides

Landscape and Lighting

6. Proposed native large canopy trees with supporting soil structure are inset between on-street parking spaces.
7. New lighting design will cater to the needs of people using the sidewalk, as well as, people driving
8. Overhangs (like awnings) on adjacent businesses during redevelopment to support shade along the corridor.

Stormwater

9. Stormwater capture and planter area. Overflow is conveyed to the existing stormwater basin- accessed through existing utility holes. To accommodate future climate conditions, we will analyze alternates like pump stations, deep injection wells, raising the road elevation.

- - - - existing storm basin and pipe
- - - - proposed connection to existing storm basin

sandwich boards, etc., and the clear pathway allowing for walking and other mobility methods; **2) Comfort Zone** – Area closest to the street edge with typical streetscape elements such as lighting, seating, trash receptacles, wayfinding, etc. Each zone has a different paving material. This alternative combines two zones to allow a retail spill into the pedestrian pathway for users to spend more time and business and engage one another socially.

Stormwater Infrastructure

In **Alternative A and B,** the team proposes replacing the existing inlets with multiple urban rain gardens or planting pits (each with an overflow inlet and underground perforated pipes connected to the existing stormwater basin under the new sidewalk). The stormwater will collect in the urban rain gardens through curb openings and provide pre-treatment before being conveyed through the pipes and discharged into the nearby river. The overflow of the proposed rain gardens will be connected to the existing utility holes located on the roadway (North and South of the intersection). The dimensions and depth of the rain garden will be determined when the stormwater modeling is completed, and appropriate vertical protection for people walking on the sidewalk will be designed. These preliminary stormwater design recommendations are based on historical rainfall data and the assumption that the gravity systems will function during the Project's design life.

Understanding Impacts and the Resulting Consequences for Informed Decision-Making

To integrate future climate uncertainties into engineering, the WSP team will first assess alternatives' potential impacts and consequences compared to doing nothing (using only historical data).

Based on the preliminary future climate data, the WSP team anticipates the need for mechanical infrastructure like additional pump stations and injection wells to accommodate future conditions because the gravity systems alone will not provide sufficient capacity for discharge. .

The alternatives developed would offer recommendations for multiple scenarios based on the City and key stakeholders' tolerance for flooding risk. The WSP team will present the information as Impact and consequences to identify the acceptable level of flooding risk (design exceedance) we can tolerate on the Boulevard. The alternatives may include a combination of pump stations, injection wells, and raising road elevation.

What is an acceptable level of flooding risk on the newly reconstructed Boulevard?

Alternative A

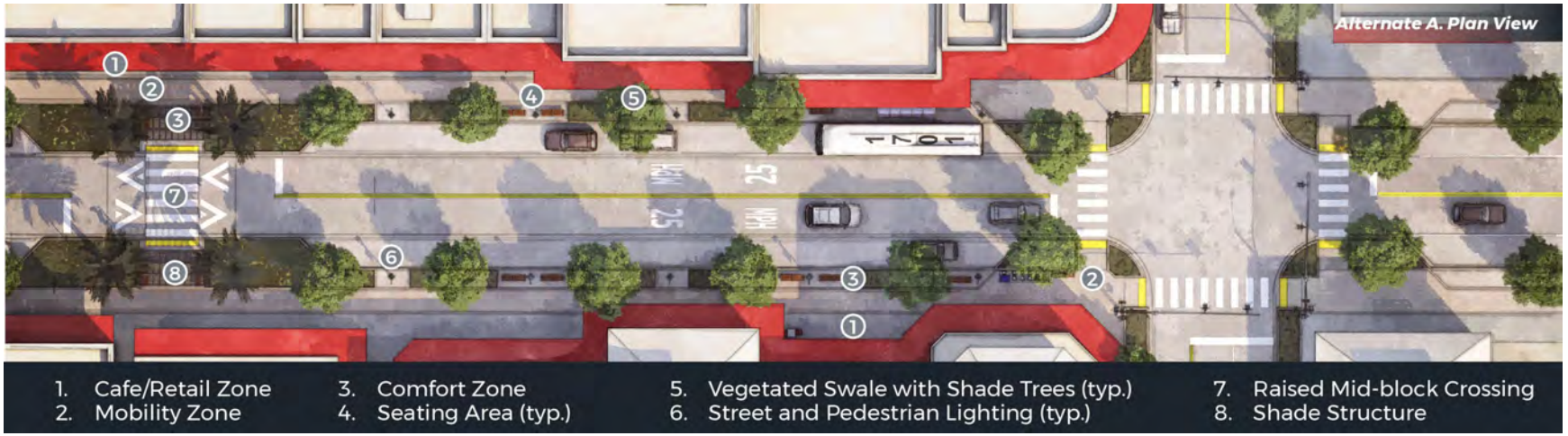
- **Impacts -** One foot of flooding for four days once a year
- **Consequences -** 1) Four days of potential system-wide impacts on mobility and movement of goods and services; 2) Some businesses may be flooded, access to most businesses hampered, and outdoor seating restricted for 8-10 days for clean-up; 3) City resources for maintenance and repairs in water-logged areas; among others.

Alternative B

- **Impacts -** Six inches of flooding for two days once a year without water intrusion into adjacent private buildings
- **Consequences -** 1) Two days of potential system-wide impacts on mobility and movement of goods and services; 2) Access to some businesses hampered and outdoor seating restricted for about four to six days for clean-up, among others.

The WSP team's stormwater and supporting landscape design will use these solutions as alternatives.

Alternative A- Curb Extensions with Raised Mid-Block Crossing



Also, Consider the Impacts and Opportunities to the Adjacent Private Properties

The team would consider the opportunities to work with the property owners on longterm strategies that would ensure a consistent private and public realm. These may result in urban design guidelines for private properties with co-benefits in the public realm. Also, the Las Olas Blvd design must integrate protection for the adjacent private properties based on future climate projections. Beyond harmonization, and stormwater engineering, when benefit versus cost is higher, one of the strategies that the team may be forced to consider additional strategies, such as raising the road elevation in certain sections. This solution would also require increasing the finished floor elevation (FFE). The team embraces that raising the road elevation is never the first option and is more than just an infrastructure project - it requires careful coordination with adjacent private property owners. Transitions from raised public infrastructure to private property is a property-by-property conversation. Though increasing the FFE may not be an immediate requirement of the project, it should be considered part of Boulevard's long-term plan. This coordination or harmonization is essential to a successful project requiring stakeholder engagement from the onset and requires the City's policy and ordinances updates. Another consideration is how the City could support the businesses that cannot afford to raise the FFE, leaving them vulnerable to flooding. The WSP team has the experience to implement a resilient Las Olas Boulevard successfully.

- WSP has successfully engaged with the adjacent community and developed engineering design, construction documents, the design criteria package, bid support for the pilot Monroe County road-raising project.
- Team member Brizaga was involved in successful communications with private property owners around road raising in Miami Beach and conceptual planning for Mola Avenue in Fort Lauderdale.
- Team member Chen Moore worked closely with the Lincoln Road Business Improvement District to share the cost and Impact of raising the FFE, then developed a complete set of construction documents and permits for the project.

Step # 3. Alternatives Analysis Summary

The WSP team will develop each alternative to preliminary (15% design), ensure constructability, and identify utility conflicts and those that require relocation. Then, calculate the associated lifecycle benefit-cost. So, the City and the stakeholder can make informed decision-making that last 50 years (projects' design-life).

Working with City staff, we propose presenting each alternative with net present value (Benefits/Cost), construction cost, and construction time. Calculating the benefits and costs will simplify the comparison of the alternative from qualitative and subjective to simple, transparent quantitative costs and construction costs.

- **Net present value.** What is the value of each alternative over the Project's design life of 50 years? This question considers that the investment is expected to bring value to the following two generations.
- **Construction cost estimate.** What are you willing to spend now (2025 or later)?
- **Construction length.** Considering the adverse Impact on businesses and adjacent communities, what is the acceptable length of construction?

Summary Analysis of Alternates

	Benefit/Cost. Net Present Value (NPV) of lifecycle costs	Opinion of probable construction cost (OPCC)	Length of construction time
Alternative A:	$$$	$$$	XX months
Alternative B :	$$$$	$$$$	XXX months

Step # 4. Community Workshops

The WSP team engagement leads will meet with key project champions and conduct two public workshops. Visual renderings and virtual tools like FloodVue will be used to illustrate the design and ask **"Would you pick Alternative A or Alternative B understanding their value and cost".**

Alternative B-Raised Intersection with Mid-Block Crossing

Phase 1B: Engineering Design

The team will use the approved alternative and the summary design criteria package to develop the 30% and 60% design, design criteria, and estimates of probable construction costs.

Engineering Design Package

30%, 60% Roadway Design: The 30% roadway design will include typical final sections and defining the horizontal and vertical geometry. These plans are used for utility coordination and, when possible, to initiate the permitting and right-of-way process. The 60% roadway design will include all details necessary for the construction of the Project. We will include all roadway, utility, signal, and lighting designs and any structural details needed at this phase. At this point, all the pay items to be used to construct the design are determined and any specifications and details are identified. This is also the stage at which our design plans are detailed enough to be reviewed by our construction engineering expert for constructability, practicality, and value engineering.

30%, 60% Stormwater Design: The 30% stormwater design phase will use as a basis the results of the ICPR4 modeling results as part of the preliminary design phase. The 30% plans will include views (not profiles) of proposed infrastructure, including location, sizes, and typical details. Utility conflicts and relocations will also be shown. The 60% design plans will include all details necessary for the construction of the Project. At this phase, we will include all plans and profiles, relocation of utilities, 60% structural design (stormwater pump stations), and electrical plans as needed. At 60% design, we will define most of the stormwater design components. This is also the stage at which our design plans are detailed enough to be reviewed by our construction engineering expert for constructability, practicality, and value engineering.

30%, 60% Landscape, Lighting: The 30% Landscape Design Phase will be be based on a comprehensive tree survey performed by our ISA-certified arborist, coordination with the design team, and site visits conducted by our design staff to understand the neighborhood context. The 60% Landscape Design Phase Plans will include all necessary plans, details, and calculations necessary for Site Plan approval through Development Services. The drawings shall reflect all Owner comments received in the 30% Design Phase.

Design Criteria Package (DCP)

The WSP team will use the summary design criteria developed in phase 1A to advance the proposed design to a 30% level of detail and prepare a Design Criteria Package to be used as the basis of a design by the selected Design-Builder for this Project. The DCP will include a detailed project scope description, design criteria and performance requirements, any necessary and supplementary

attachments and exhibits, technical specifications, and preliminary design drawings. To ensure quality and minimize costly changes during the design process, the WSP Team will prepare Design Criteria Package (DCPs) for each project phase, as required or requested by the City. We will review the design criteria packages with staff (TAM, PW, Park& Rec, utility maintenance, and others) and other stakeholders to select the most cost-effective solution while minimizing impacts to residents, businesses, and other utilities. The 60% Design Criteria Package will serve as the Basis of Design for Alternate Deliver Methods like Design-Build or Construction Management at Risk.

Constructability Review

Adam Nacer, a licensed contractor from Make Way Construction, will lead the constructability review. During the constructability review, the team will determine that all design documents are complete, unambiguous, free of deficiencies and conflicts and appropriate for the planned construction in terms of available workforce, sequences, construction practices and site constraints. Constructability reviews will include:

- Completeness and accuracy check to reveal any conflicts, errors or omissions in the plans and specifications.
- A review to ascertain whether the design can be built within the specified schedule, that contract documents are coherent and capable of being administered/ enforced, and that site conditions, work areas, permit and utility requirements and other constraints are clearly addressed.

The value of a contractor performing this review is the avoidance of construction claims. Many claims result in "omission" rather than from "commission," and the former is more difficult to identify. Many claims also arise from dimensioning, design conflicts, unrealistic quality specifications and errors in construction drawings.

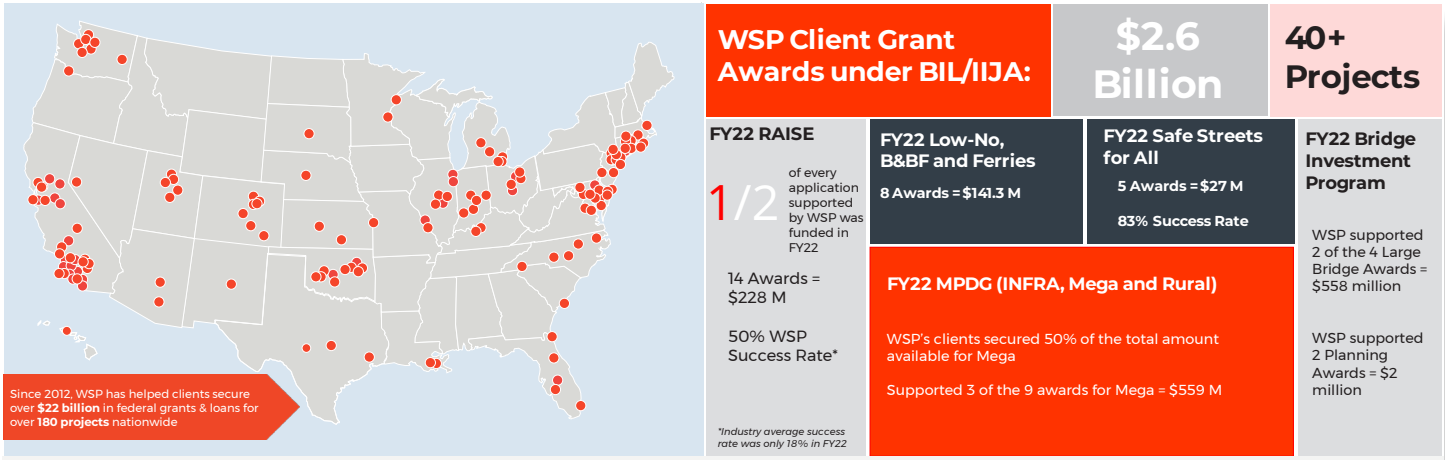


Figure 8: Summary of agencies and grants that WSP helped secure in the past decade

Each constructability review includes an analysis of the proposed schedule for the contract and long lead procurement items identified. Expected construction sequences and durations will be analyzed to determine whether contract documents are adequate and reasonable. In addition to the scope of work encompassed by the construction contract, other activities affecting the contract will be reviewed, such as the work of other contractors, obtaining special permits, work authorizations and activities at or adjacent to the work site. The constructability review will include an inspection to verify existing site conditions and identify any obstructions or interferences. We will confirm the requirements for special permits and environmental protection. The review should also consider contract documents from a claims avoidance perspective with the input of a WSP claims specialist.

Opinion of Probable Construction Cost

Our project team is familiar with the City's construction cost-estimating requirements. We have experience developing opinions of probable construction cost (OPCC) estimates using the City template with standard percentage allocations for unforeseen conditions, authorized reimbursable, legal fees and department overhead. We will perform cost estimating during design, along with constructability reviews. WSP's estimators have experience in all construction disciplines and with up-to-date and hands-on knowledge of current construction practices. Our cost-estimating capabilities extend into solicitation and construction phases. The cost estimating team routinely performs bid evaluations, reviews contractor cost breakdowns and estimates for change order work. As directed by the City, the Team's OPCC can be updated based on the most recent City construction cost.

Optional Service-Grant Funding/Blended Financing

The team is aware that the City applied for the 2023 RAISE grants; if the City cannot secure these funds, we can assist in obtaining funding and alternate financing mechanisms. The WSP team is a national leader in federal grants and can help CCD build its federal grants strategy. In fact, since 2012, we have helped clients secure more than $20 billion in federal funding for projects ranging from city-level, multi-use trails to national-level highway improvement projects. The graphic below indicates where the WSP team has had grant-seeking success over the last decade.

State and Federal Funds

The WSP team has refined a Grant Model approach to federal grant acquisition and management that identifies and addresses the standard milestones of a competitive grant, from grant identification to grant close-out. Our team has identified federal grants from the recent Bipartisan Infrastructure Law (BIL), Federal Emergency Management Agency (FEMA), US Department of Transportation (USDOT) for which Las Olas Boulevard construction may be eligible, including:

- $47B: Resilient Infrastructure
- $50B: Water/Wastewater Infrastructure (EPA)
- $8.7B: PROTECT Program (USDOT)
- $6 B: Safe Streets and Roads for All Program. Support local programs to prevent death and serious injury on roads
- $500M. Healthy Streets. Mitigate urban heat islands, improve air quality, reduce stormwater runoff, and flood risk
- $2.3B: Building Resilient Infrastructure and Communities (FEMA BRIC)
- $3.5B: Flood Mitigation Assistance (BIL)
- $500M: Safeguarding Tomorrow through Ongoing Risk Mitigation (STORM) Act (BIL)

Also, the City is expected to complete its citywide vulnerability assessment in 2023-24 using FDEP Resilient Florida funding. Upon completing the assessment, the City is eligible to apply for resilient infrastructure funding in 2024-25.

Blended Financing

Climate change has and will continue to impact critical infrastructure. Public funds alone will not likely finance the resilience needed considering the increasing impacts of climate change. WSP's climate finance capability has over 125 years of collective experience in designing and implementing financing strategies to unlock additional sources of capital by leveraging public funds for climate-resilient investments. Our team has expertise in identifying, attracting, and deploying public, private, and blended capital for resilience programs, funds, projects, and companies, including organizing public, blended, or other capital.

Our approach is to developwith a master plan or comprehensive plan of the finance approach. WSP first conducts a context and needs assessment to understand available sources of funding, capital amounts, and existing finance gaps. Second, a financing landscape assessment will identify additional untapped sources of finance, such as local, state, federal, philanthropic, or private opportunities, as well as opportunities to use existing sources in different instruments. Third, we benchmark recommended strategies with industry best practices to ensure that our approach represents the most modern, innovative applications for improved returns using new funds, structures, or facilities.

These best practices may include issuing green, sustainability, and/or impact bonds to secure additional climate-aligned investments that meet development goals, creating stormwater or resilience districts to generate revenue, and other innovative approaches. Finally, we work with our clients to structure and operationalize financing strategies.

Phase 1B: Anticipated Deliverables

- Engineering, Stormwater and Landscape Design Plans at 30%, and 60% with detailed Utility Conflicts Matrix
- Consolidated Opinion of Probable Construction Cost at 30% and 60%
- Design Criteria Package at 30% and 60%
- AutoCAD files (if requested)

Phase 2: Preliminary Permitting

Permitting and regulatory compliance are critical elements of any project. The WSP team will identify all regulatory agencies having jurisdiction over the Project and will initiate meetings at the onset of the Project to identify any critical and significant permitting requirements. We will prepare a permitting matrix and allow for continued communication channels throughout the Design Criteria Package (DCP) preparation.

With a Project of this magnitude and extension, the City needs a team with the experience and knowledge needed to avoid delays. The WSP team has developed relationships with the permitting agencies that will be involved with this Project and will help us to expedite preliminary approvals at the 60% design. We will identify permitting timelines, contacts, forms and attachments required for each application. Most importantly, we will begin coordinating with agencies during the preliminary design phase. The team's communications will be summarized in Technical Memoranda that will become a part of the DCP. We will continue utility coordination with the entities identified. Typically, these would require adjusting their infrastructure and can take time to process. For example, based on previous experiences, FPL can take several months to relocate its utilities after the City requests it. A preliminary list of permitting agencies that will be involved is summarized on the following page.

Preliminary Permitting

We anticipate working with these agencies for preliminary permits.

Permit	Agency	Submitted After	Typical Lead Time
County-owned ROW and Utilities			
Stormwater, Roadway Engineering within County ROW	Highway Construction and Engineering Broward County	County ROW at Andrews Avenue and SE 3rd Avenue. Submit at 30%, then 60% to expedite the approval process	2-3 months
Modifications or Upgrade to Traffic Signals	Traffic Engineering	Any traffic signal modifications. Submit at 30%, then 60% to expedite the approval process	1-3 months
Transit Stops Improvements, Relocation (coordination only, no permit required)	Broward County Transit	Can be submitted with 60% to expedite the approval process	2-3 weeks
FDOT-owned ROW and Utilities			
Stormwater, Roadway Engineering (Tunnel top plaza) within FDOT ROW	FDOT	Tunnel top plaza is FDOT owned. Can be submitted with 60% to expedite the approval process	1-3 months
Sospiro Bridge Replacement	FDOT	Relocate City's water and private utilities under the bridge. Submit 60% to expedite approval (see page 58 for approach). Coordination to add bridge replacement to FDOT's 5-year work program.	1-3 months
Third Party Utilities			
Utility Relocation	Teco Gas	Typically, these are submitted by the third party, and they used their own Consultants/Contractors. WSP will start coordination with these.	
Utility Relocation	Crown Castle, FPL, etc.		
City Owned Utilities			
Application to Construct a Wastewater Collection/Transmission System (BCEPD Form 212-0004)	Broward County Environmental Protection and Growth Management Department	Can be submitted with 60% to expedite the approval process	4 weeks
Application to Construct a Wastewater Collection/Transmission System (FDEP Form #62-604.300 (8)(a)	Florida Department of Environmental Protection (FDEP)	Submitted along with the Broward County Application.	3 weeks
SFWMD ERP	South Florida Water Management District	100% Design (coordination with agencies to start earlier in the design)	3-4 months
FDEP ERP	Florida Department of Environmental Protection	100% Design (coordination with agencies to start earlier in the design)	3-4 months
Dewatering Permit	Broward County and FDEP	100% Design	4 weeks
MOT Permit	City of Fort Lauderdale and Broward County	Typically submitted by Contractor, but Consultant prepares MOT plans	8 weeks

Phase 3: Bid Assistance, Design Management

The WSP Team's approach to providing construction engineering and coordination support services to assist the City construction management group is based upon proven experience and procedures utilized on our current and recently completed assignments. Our team support the City in necessary construction engineering to help manage the Contractor's performance to deliver the Project's completion in compliance with the contract documents, industry standards, regulatory requirements, and the City's Standard Specifications and Details for Design and Construction. These support services can be provided to help the the City with Contractor coordination and administration during the construction phase of the program can include:

- **Contractor pre-qualification:** During the contractor qualification and selection process, our team will support the City to pre-qualify construction and design-build contractors as needed. Understanding that the City has a list of prequalified contractors, we strongly suggest the consideration of Project specific pre-qualifications due to our economic climate where construction companies are constantly facing financial challenges, such as those factors ranging from the need for firms to understanding of project goals and objectives; provide their prior work history with local Community Small Business Enterprise (CSBE) contractors, submit relevant project experience with reference lists, evaluate corporate financial information, analyze proposed team organizational charts; evaluate team member qualifications (resumes); understand insurance capacity, bonding capacity, and rating of bonding company; review prior litigation history; ensure adequate safety qualifications, and avoid potential conflicts of interest.
- **RFQ/RFP development:** Preparation of well-written RFQ/RFP for selection of the construction contractors and design-build contractors will be essential to selecting the most qualified firms. With our team's extensive experience in delivering projects, we understand the need to attract and select the most qualified, competitive firms and develop RFPs that provide the framework for a sound selection process. The proposed RFP process will accomplish various goals that include the selection of contractors with the lowest compliant lump sum bid, as well as design-build contractor based on a best value evaluations approach (i.e., qualifications, technical approach, and competitive price).
- **Contractor proposal evaluation:** As needed by the City, the WSP Team will perform a comprehensive evaluation of the various aspects of the proposals to ensure that all information has been provided in the format required, responsiveness check, addenda release and confirm that all requested information was provided.
- **Proposal evaluation:** Together with the City, we will evaluate the contractor firms and design-build firm technical benefits expressed in the proposal. For Design/Build procurements, our team will assist in determining the validity of proposed design solutions and adherence to RFP requirements inclusive of bid alternates if proposed/allowed as well as to develop interview questions that provide the needed level of insight for key project requirements with design and design-build proposers and their references. If required by the City Contractor bid evaluations during the bidding process can be provided, including participating in pre-bid conferences and regulatory agency coordination meetings (local, state and federal) and evaluating lump sum bids to provide recommendations for contract awards.

We can work with the City and its County Attorneys, as requested, to support legal reviews of any exceptions taken by the construction contractor or design-build Team's general terms and conditions to suggested revisions or enhancements to the contract terms, conditions, performance requirements and risk allocations. Our goal is to support the City in developing and negotiating contracts that identifies potential risks to assign such risk to the entity most suitable to mitigate or manage it.

Phase 4: Construction Management

The WSP team offers full-service engineering, environmental and construction management with expertise in all aspects of construction management services. Our services include document control, environmental testing and inspection services, quality control/quality assurance, resident and office engineering, safety observation, and scheduling and cost estimating.

Construction Engineering and Inspection

Our primary focus in providing construction management services is to look out for the City's best interest and is based

on a consistent project management plan for oversight of the Project. Our goals are open and clear communication with City staff, the contractor and all other stakeholders; to manage the Project so that schedules are attainable and budgets are met; provide up-to-date realistic project status and financial forecasting; provide accurate and transparent reporting on the Project; assist the City with public outreach meetings concerning the Project's impact on the neighborhood and community; provide proactive management and oversight of the Project so that the City receives the best value.

Project Plan and Considerations

We understand that these types of projects will impact the normal activities of local neighborhood businesses and City property. Our team will support the City and the Contractor in being proactive with making sure that the community is aware of any immediate project issues that may affect them. Project staff will review construction schedules and durations and monitor best practices of construction so impact on the community is reduced. We will deliver inspection services that offer best value to the City and monitor the Project with respect to contract conformance, duration, and completion within budget. Our experienced inspection staff has been trained to provide consistent oversight, accurate and transparent project status documentation, and reliable recommendations towards material workmanship, contract conformance and final acceptance.

Pre-Construction Project Review

Our team will review the planned phasing and sequencing of the construction work with City staff and the Contractor to evaluate the status of the Project, including but not limited to review of the Project Construction Scope of Work and its associated budget, evaluation of project contingencies including escalation and potential risk issues, review of project schedules and milestone dates, review of and current status of any ongoing construction work within the project vicinity, review of the sites pre-exiting conditions prior to construction, review of available Staging Area(s) and contractor's Staging Plan, review of the City's current community outreach program, etc.

Construction Oversight Issues and Pre-Planning

Part of our best value plan begins with the understanding that the entire project team has a responsibility to look for issues that may impact the Project and ensure that best project practices are adhered to through all phases of the work.

- WSP will assist the City and the Contractor in informing the community about the project's purpose, the overall and immediate project schedules and what to expect as construction takes place.
- WSP will make sure that the selected Contractor performs a preliminary walk-through and produces a pre-construction video of existing site conditions, noting conditions of existing street, intersections, sidewalks, landscaping, private property, lighting, signage and existing visibility. Also, identify any existing property conditions that may later be submitted as possible damage claims.
- Prior to construction, we will review Contractor's restoration considerations to plan, discuss and reach a clear and concise agreement on what is to be restored, clarify the difference between the work under permitted construction; and review requests from other agencies and/or City for additional restoration work.
- Perform a thorough review of MOT plans and ROW permit requirements so that the Contractor addresses any restrictions such as trash pickup, mail delivery, school bus stops, etc, or access into business and private driveways, and plan for control of one-way traffic. The contractor should also recognize time of day issues such as when residents leave or return to and from work, so

that any required planning for restoration of two-way traffic, use of sidewalk, emergency access and public transportation are considered during construction. The project staff will:

- Assist contractor to minimize duration of work for each stage in the Project.
- Review contractor's contingency plan for equipment/device failure.
- Coordinate any shut down or relocation with affected utility companies well in advance.
- Invite interested representatives to the pre-construction and subsequent construction progress meetings.

Management of Construction Engineering and Inspection Services

Project Management

Our Construction Management team will provide management oversight of our team for the duration of the Project to deliver consistent, effective, and superior quality service to the City. The team will also provide the inspection staff with whatever support is necessary to keep focus on the contractor and quality of the work being provided. Our Construction Management team will perform the following services:

- Coordinate all project meetings and prepare agendas, take meeting notes, and distribute minutes to the project team members.
- Organize and facilitate community involvement/ resident's information meetings.
- Review/track/monitor status of 1) construction progressm 2) shop drawing submittals and responses, 3) contract document clarification and interpretations (RFIs), 4) requests for changes to construction cost and or schedule, and 5) review of contractor's Baseline and Progress schedules and recovery schedules should the work fall behind.
- Process progress payments, verifying that the work has progressed to the point indicated, that it is in substantial accordance with the contract documents and that the contractor is entitled to the payment amount being requested.
- Confirm that the EOR has properly Certified the Request for Payment, that all required backup documentation is included (Subcontractor and contractors Releases of Lien, a current and updated Progress Schedule, Stored Materials Record.
- Internal Quality Control oversight of the inspector's work product.

Project Closeout

As the Contractor gets closer to completion of the Project or individual phases, our team will begin the closeout process which would include:

- Confirmation that the project completion is concurrent with appropriate agencies
- Verification of issuance of Certificate of Occupancy or Completion as may be required by the local agencies
- Coordinate and attend Substantial Completion Walk through

Expected Flow and Major Tasks

- Construction Schedule Review and Acceptance
- Contractor's Update of the Construction Schedule
- Contractor's Schedule of Values
- Shop Drawings and Submittal Schedule
- Contractor's Safety Plan
- Contractor's List of Subcontractors and Major Suppliers
- Review and Acceptance of Required Submittals
- Processing Requests for Information (RFI)
- Construction Progress Meetings
- Change Order Management
- Progress Payments
- Claims Avoidance
- Determination of Substantial Completion
- Equipment Tests and Systems Start-Up
- Final Inspection and Acceptance and Close-Out

Project Communication Methods

Effective communication between the contractor, the Construction Management personnel, the City of Fort Lauderdale and private utility companies is critical to keeping the Project on schedule, as well as keeping all participants, including the City, the public and other entities, informed of the Project's progress. Communication becomes effective when all parties have a desire to freely share and communicate issues and ideas as appropriate. This desire to share is enhanced when interpersonal communication is conducted in a professional manner and with a cordial spirit by all stakeholders. This promotes an atmosphere of trust and respect that allows prompt and effective communication. To achieve this environment, WSP employs inspectors and engineers that possess a positive professional attitude with a focus on the team.

Quality Assurance Review

Successfully conducting multi-disciplinary, multi-task projects requires more than just resources, it also requires sound processes. At WSP, quality work begins with extensive project planning and is supported by internal quality programs designed to ensure appropriate levels of leadership, customer care and technical competency. The ultimate purpose of our QA/QC program is to provide clients with confidence that services are performed according to agreed-upon specifications and within applicable rules, regulations, codes and standards, to the highest extent possible. All of our professionals and technicians receive the training required to implement the practices described in our corporate QA procedures. The foundation of the QA program is the use of fully trained personnel, accurately calibrated and maintained equipment and review of all reports and test data by our principal professionals. The system of functions and controls established by WSP apply to all disciplines and scopes of services.

Proximity to the Project

WSP's proposed team has the geographic coverage area and available transportation and equipment to meet the needs and requests of this contract. Our team is uniquely qualified for construction engineering inspection with our main laboratory and office for this contract located in Miami Lakes, as well as our secondary laboratory in West Palm Beach. Our team offers the combined resources of CTQP qualified and certified staff operating out of these two FDOT-certified laboratories. We have key personnel located near the Project and are therefore well suited and capable to respond quickly to unscheduled project needs.

Involvement of City Staff

WSP team is committed to working as an extension to the City's staff with the responsibility and professionalism that this Project requires. Successful construction management includes common elements – they are completed within time and money constraints; have no ongoing maintenance issues; and are well received by the stakeholders during construction. There are a number of reasons for this success, including the people involved in the management of the contract. They must have the experience and knowledge to foresee possible problems that could delay the Project and/or add additional costs. But, more importantly, they implement solutions early to minimize their effects. We know that the City wants a qualified local team who will manage the contract fairly and efficiently, and we believe in the City's mission to administer contracts in a consistent, predictable, and repeatable process.

References

Our strong commitment to client service is reflected by our great references and our repeat clients, as well as our ability to be reselected for on-call contracts and individual projects. Below is a table with client contact information for local projects with a similar scope as listed in this RFQ.

Government References

Client/Project Name	Contact Information	Firm Contact	Year Completed	Construction Cost (Estimated/Actual)	Description of Work
Monroe County Sea-Level Rise Shoreline Stabilization	Rhonda Haag 305-395-9928 haag-rhonda@monroecounty-fl.gov 102050 Overseas Highway Key Largo, FL 33037	Greg Corning, WSP	2022	$20 million, as estimated and within contingency	SLR rise, shoreline resilience, stormwater engineering
Florida Department of Transportation Hollywood Boulevard Complete Streets	Scott Peterson, PE 954.777.4416 scott.peterson@dot.state.fl.us 3400 West Commercial Boulevard, Fort Lauderdale, FL 33309	Betsy Jeffers, MARLIN Engineering	2020	$6.8 million, as estimated and within contingency	Roadway, stormwater engineering and landscape
R & O Studio and City of Miami Beach Euclid Avenue Streetscape (in Lincoln Road Mall) Improvements	Omar Moreno, AIA, NCARB 305-484-1987 omar@obras.studio 6915 Red Rd, Suite 228 Coral Gables, FL 33143	Cristobal Betancourt, CMA	2017	$750,000, $25,000 below estimated	Roadway, stormwater engineering and landscape

“(WSP) has demonstrated a high level of professional knowledge, integrity, and client service, which has met or exceeded our expectations. The firm has played an integral part in the success of hitting all milestones established by the FDEP. (WSP) has been able to provide all services in accordance with our schedule.”

Todd McGee, Former Construction Project Manager
FDEP, Bureau of Design & Construction

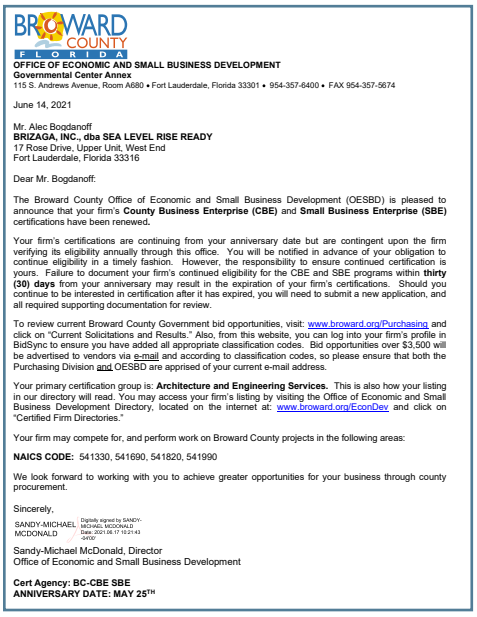
M/WBE Participation

WSP's commitment to diversity and inclusion is a major part of our culture. We take pride in our ability to develop partnerships with a wide range of professional service firms from across the country and throughout Florida.

Our commitment to M/WBE owned business enterprises extends beyond project requirements of meeting utilization goals. We strive for meaningful partnerships and relationships and creating opportunities on an ongoing basis to ensure small/minority/women/disadvantaged businesses get a fair share and grow their business.

Our approach is to match capabilities, interests and opportunities for growth with meaningful roles. We commit to a minimum 10% M/WBE participation on this contract and have partnered with **Brizaga (SBE), Make Way Construction (SBE, MBE) and Hadonne (SBE, MBE)**. For this project, we have allocated a significant amount of work for these SBE/MBE subconsultants. Our local team of subconsultants were selected based on their strong local knowledge, previous work with local municipalities and working relationships with WSP on similar assignments. They are all part of the local South Florida community and will provide valuable knowledge and experience for the delivery of this project.

Our commitment to providing opportunities to these businesses' stems, not only from our desire to meet or exceed our clients' goals, but from a belief that the use of such businesses helps us to fulfill our guiding principles of being locally dedicated with an international scale and fostering collaboration in everything we do. In sum, commitment to diversity furthers our mission of providing services to transform the built environment and restore the natural environment.



BROWARD COUNTY FLORIDA

OFFICE OF ECONOMIC AND SMALL BUSINESS DEVELOPMENT
Governmental Center Annex
115 S. Andrews Avenue, Room A680 • Fort Lauderdale, Florida 33301 • 954-357-6400 • FAX 954-357-5674

June 14, 2021

Mr. Alec Bogdanoff
BRIZAGA, INC., dba SEA LEVEL RISE READY
17 Rose Drive, Upper Unit, West End
Fort Lauderdale, Florida 33316

Dear Mr. Bogdanoff:

The Broward County Office of Economic and Small Business Development (OESBD) is pleased to announce that your firm's **County Business Enterprise (CBE)** and **Small Business Enterprise (SBE)** certifications have been renewed.

Your firm's certifications are continuing from your anniversary date but are contingent upon the firm verifying its eligibility annually through this office. You will be notified in advance of your obligation to continue eligibility in a timely fashion. However, the responsibility to ensure continued certification is yours. Failure to document your firm's continued eligibility for the CBE and SBE programs within **thirty (30) days** from your anniversary may result in the expiration of your firm's certifications. Should you continue to be interested in certification after it has expired, you will need to submit a new application, and all required supporting documentation for review.

To review current Broward County Government bid opportunities, visit: www.broward.org/Purchasing and click on "Current Solicitations and Results." Also, from this website, you can log into your firm's profile in BidSync to ensure you have added all appropriate classification codes. Bid opportunities over $3,500 will be advertised to vendors via e-mail and according to classification codes, so please ensure that both the Purchasing Division and OESBD are apprised of your current e-mail address.

Your primary certification group is: **Architecture and Engineering Services.** This is also how your listing in our directory will read. You may access your firm's listing by visiting the Office of Economic and Small Business Development Directory, located on the internet at: www.broward.org/EconDev and click on "Certified Firm Directories."

Your firm may compete for, and perform work on Broward County projects in the following areas:

NAICS CODE: 541330, 541690, 541820, 541990

We look forward to working with you to achieve greater opportunities for your business through county procurement.

Sincerely,

SANDY-MICHAEL MCDONALD Digitally signed by SANDY-MICHAEL MCDONALD Date: 2021.06.17 10:21:43 -04'00'

Sandy-Michael McDonald, Director
Office of Economic and Small Business Development

Cert Agency: BC-CBE SBE
ANNIVERSARY DATE: MAY 25TH

BROWARD COUNTY FLORIDA

Office of Economic and Small Business Development

This Certificate is Awarded to:

BRIZAGA, INC.
D/B/A SEA LEVEL RISE READY

County Business Enterprise (CBE)
Small Business Enterprise (SBE)
Anniversary Date: May 25th

FDOT BROWARD COUNTY GREATER ORLANDO AVIATION AUTHORITY

Florida Unified Certification Program

DISADVANTAGED BUSINESS ENTERPRISE (DBE)

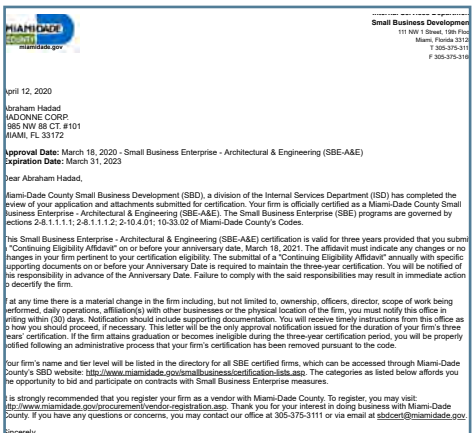
CERTIFICATE OF ELIGIBILITY

MAKE WAY CONSTRUCTION LLC (PART TIME)
MEETS THE REQUIREMENTS OF 49 CFR, PART 26

APPROVED NAICS CODES:
236220, 237110, 237310, 238910, 238990

Samuel Febres (Sammy)
DBE & Small Business Development Manager
Florida Department of Transportation

Tampa International Airport Tallahassee Veteran



MIAMIDADE COUNTY miamidade.gov

Small Business Development
111 NW 1 Street, 19th Floo
Miami, Florida 3312
T 305-375-31
F 305-375-316

April 12, 2020

Abraham Hadad
HADONNE CORP.
1985 NW 88 CT. #101
MIAMI, FL 33172

Approval Date: March 18, 2020 - Small Business Enterprise - Architectural & Engineering (SBE-A&E)
Expiration Date: March 31, 2023

Dear Abraham Hadad,

Miami-Dade County Small Business Development (SBD), a division of the Internal Services Department (ISD) has completed the review of your application and attachments submitted for certification. Your firm is officially certified as a Miami-Dade County Small Business Enterprise - Architectural & Engineering (SBE-A&E). The Small Business Enterprise (SBE) programs are governed by Sections 2-8.1.1.1.1; 2-8.1.1.1.2; 2-10.4.01; 10-33.02 of Miami-Dade County's Codes.

This Small Business Enterprise - Architectural & Engineering (SBE-A&E) certification is valid for three years provided that you submit a "Continuing Eligibility Affidavit" on or before your anniversary date, March 18, 2021. The affidavit must indicate any changes or no changes in your firm pertinent to your certification eligibility. The submittal of a "Continuing Eligibility Affidavit" annually with specific supporting documents on or before your Anniversary Date is required to maintain the three-year certification. You will be notified of this responsibility in advance of the Anniversary Date. Failure to comply with the said responsibilities may result in immediate action to decertify the firm.

If at any time there is a material change in the firm including, but not limited to, ownership, officers, director, scope of work being performed, daily operations, affiliation(s) with other businesses or the physical location of the firm, you must notify this office in writing within (30) days. Notification should include supporting documentation. You will receive timely instructions from this office as to how you should proceed, if necessary. This letter will be the only approval notification issued for the duration of your firm's three years' certification. If the firm attains graduation or becomes ineligible during the three-year certification period, you will be properly notified following an administrative process that your firm's certification has been removed pursuant to the code.

Your firm's name and tier level will be listed in the directory for all SBE certified firms, which can be accessed through Miami-Dade County's SBD website: http://www.miamidade.gov/smallbusiness/certification-lists.asp. The categories as listed below affords you the opportunity to bid and participate on contracts with Small Business Enterprise measures.

It is strongly recommended that you register your firm as a vendor with Miami-Dade County. To register, you may visit: http://www.miamidade.gov/procurement/vendor-registration.asp. Thank you for your interest in doing business with Miami-Dade County. If you have any questions or concerns, you may contact our office at 305-375-3111 or via email at sbdcert@miamidade.gov.

Sincerely,

Claudious Thompson, Section Chief
Small Business Development

CATEGORIES: (Your firm may bid or participate on contracts only under these categories)

SDC-TCC 15-01: SURVEYING AND MAPPING - LAND SURVEYING
SDC-TCC 15-02: AERIAL PHOTOGRAMMETRY
SDC-TCC 15-03: UNDERGROUND UTILITY LOCATION
NAICS 541370: SURVEYING AND MAPPING (EXCEPT GEOPHYSICAL) SERVICES

Our Commitment

Committed to Small/Minority Firms and the Community

We will provide meaningful opportunities and enable maximum participation by:

- Providing supportive services for emerging small/minority business firms
- Supporting achievement of the City's small/minority participation goals
- Establishing coaching components that help meet their development goals
- Assisting small/minority firms with each project step to set and satisfy goals throughout the course of this contract

State of Florida

Minority Business Certification

is certified under the provisions of
287 and 295.187, Florida Statutes, for a period from:

J. Todd Inman
Florida Department of Management Services

Sub-consultants

Our strategy is to build the best possible team to fully satisfy the needs of our clients. Our subconsultants are highly qualified, local firms that have extensive knowledge and past experience with similar projects throughout South Florida.

By combining our subconsultants' collective talents with WSP's specialized personnel, we will deliver all the services required in the RFQ and meet the City's expectations for on time, on budget performance. Below we highlight our partners to be utilized during the term of this contract.

Brizaga is a certified CBE/SBE and strategic consulting firm based in Fort Lauderdale. Specializing in climate and resilience education and outreach, civil and coastal engineering, and community resilience planning, Brizaga is uniquely equipped with two premier resilience experts in the State of Florida. They take a highly sensitive approach to each project, not only to examine the benefits that must be achieved as part of implementation, but to truly understand the various climate and flooding scenarios, the likelihood of their occurrences, and their impact on the triple bottom line. Built to solve complex problems by leveraging science, communications, engineering, and policy, Brizaga's vast experience in grant writing can assist with funding to develop programs, support equity, and align with the National Flood Insurance Program to benefit the community. They are able to present information in an equitable and dynamic way with a variety of tools to engage the audience, leading to greater participation and exchange of ideas.

Founded in 1986 and headquartered in Fort Lauderdale, **Chen Moore and Associates (CMA)** specializes in civil engineering, water resources, water and sewer, landscape architecture, electrical engineering, transportation, planning and irrigation, environmental and construction administrative services. CMA's Landscape Architecture and Planning studio focuses on public space design and implementation and holds multiple continuing services contracts with South Florida's major cities, including Fort Lauderdale, Hollywood, Miami, Miami Beach, and West Palm Beach. They are known for engaging the community through robust public engagement sorting through the multiple perspectives of residents living in dense cities to deliver open space projects based on consensus and focused on meeting community needs. Accustomed to working in the difficult environmental conditions prevalent in coastal urban environments, CMA completed the Old Dixie Highway Complete Streets Master Plan for the Middle River Terrace neighborhood in Fort Lauderdale; designed and permitted improvements for NW 15th Avenue from Carter Park to Mills Pond Park for transportation and mobility; and prepared the conceptual design package for the Galt Ocean Mile. The team was recently awarded the engineering contract to implement the Galt Ocean Mile Concept Plan.

Founded in 1991, **MARLIN Engineering** is a multi-disciplinary planning, engineering, and surveying firm, servicing all modes of transportation. They leverage the latest technology coupled with technical expertise to deliver solutions that connect communities and support economic growth. MARLIN is committed to improving where we live, work, and play by providing projects with holistic, personalized solutions.

Established in Miami-Dade County since 2001, **HADONNE** specializes in providing surveying and mapping, utility coordination and sub-surface utility engineering (SUE). Over the past decade, they have served on projects of all sizes, including route surveying and as-built surveying services for energy, pipeline and well field services, transportation infrastructure, federal clients, aviation, and state and local government. They leverage the most state-of-the-art technology in the field and office, and their survey field crews mobilize in vehicles fully equipped with the latest data collection and communication technology for high-definition surveying.

Make Way Construction is a heavy civil contractor focusing on roads, bridges, underground utilities, site development, and commercial and residential construction. They remain a preferred partner for construction projects by continuously delivering timely construction solutions. A Florida-based company with a global management team, Make Way is experienced in providing cost effective and efficient solutions to clients. Their aim is to connect clients to their goal through open communication, a clear understanding of questions and concerns, attention to detail, and an enthusiastic desire to make their vision become a reality.

Required Forms

Herein we have provided WSP's required forms, sample insurance certificate, signed addenda, letter of signing authority, and licenses.

Additional required forms have been prepared and submitted electronically through Bidsync, as applicable.

Florida Certificate of Status

State of Florida
Department of State

I certify from the records of this office that WSP USA INC. is a New York corporation authorized to transact business in the State of Florida, qualified on March 5, 1973.

The document number of this corporation is 829626.

I further certify that said corporation has paid all fees due this office through December 31, 2022, that its most recent annual report/uniform business report was filed on April 29, 2022, and that its status is active.

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

Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Twentieth day of February, 2023

Secretary of State

Tracking Number: 3510881932CU

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

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

Sample Insurance Certificate

CERTIFICATE OF LIABILITY INSURANCE — DATE (MM/DD/YYYY): 4/29/2022

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

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

PRODUCER: Arthur J. Gallagher Risk Management Services, Inc., 250 Park Avenue, 5th Floor, New York NY 10177
CONTACT NAME: AJG Service Team
PHONE (A/C, No, Ext): 212-994-7100 FAX (A/C, No): 212-994-7047
E-MAIL ADDRESS: GGB.WSPUS.CERTREQUESTS@AJG.COM

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Liberty Insurance Corporation	42404
INSURER B : Zurich American Insurance Company	16535
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED: WSPGLOB-01 — WSP USA Inc., One Penn Plaza, New York, NY 10119

COVERAGES **CERTIFICATE NUMBER:** 267002313 **REVISION NUMBER:**

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

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
B	X COMMERCIAL GENERAL LIABILITY			GLO 9835819-09	5/1/2022	5/1/2023	EACH OCCURRENCE	$ 3,500,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 100,000
							MED EXP (Any one person)	$ 10,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						PERSONAL & ADV INJURY	$ 3,500,000
	X POLICY PRO-JECT LOC						GENERAL AGGREGATE	$ 7,500,000
	OTHER:						PRODUCTS - COMP/OP AGG	$ 3,500,000
								$
A	AUTOMOBILE LIABILITY			AS7-621-094060-032	5/1/2022	5/1/2023	COMBINED SINGLE LIMIT (Ea accident)	$ 5,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$
	DED RETENTION $							$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N			WA7-62D-094060-012	5/1/2022	5/1/2023	X PER STATUTE OTH-ER	
A	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? N / A			WA7-62D-094060-982	5/1/2022	5/1/2023	E.L. EACH ACCIDENT	$ 2,000,000
A	(Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below			WA7-62D-095609-072	5/1/2022	5/1/2023	E.L. DISEASE - EA EMPLOYEE	$ 2,000,000
				WC7-621-094060-912	5/1/2022	5/1/2023	E.L. DISEASE - POLICY LIMIT	$ 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
THIRTY (30) DAYS NOTICE OF CANCELLATION.

CERTIFICATE HOLDER
As A Matter of Record

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

AUTHORIZED REPRESENTATIVE

ACORD 25 (2016/03) The ACORD name and logo are registered marks of ACORD

Letter of Signing Authority

WSP USA INC.
ASSISTANT SECRETARY'S CERTIFICATE

I, Laura S. Unger, Assistant Secretary of WSP USA Inc. (the "Corporation"), do hereby certify on behalf of the Corporation and not in my individual capacity that on August 4, 2020 the Board of Directors of the Corporation adopted the following resolution:

"**RESOLVED**, that parties authorized by the Delegation of Authority may sign RFPs, RFQs and any resulting project contracts or amendments in accordance with the Delegation of Authority."

I further certify that the resolution has not been revoked and that, as the National Resiliency Lead, Michael Flood is authorized by the Delegation of Authority to sign proposals, contracts and other legal instruments between The City of Fort Lauderdale, Florida and the Corporation regarding Request for Qualifications # 12739-1031: Los Olas Corridor Design Consultant Services.

Laura S. Unger
Assistant Secretary

February 14, 2023
Date

Non-Collusion Statement

NON-COLLUSION STATEMENT:

By signing this offer, the vendor/contractor certifies that this offer is made independently and free from collusion. Vendor shall disclose below any City of Fort Lauderdale, FL officer or employee, or any relative of any such officer or employee who is an officer or director of, or has a material interest in, the vendor's business, who is in a position to influence this procurement.

Any CityofLauderdaleFL officeror intowriting of specifications or requirements, solicitation of offers, decision to award, evaluation of offers, or any other activity pertinent to this procurement is presumed, for purposes hereof, to be in a position to influence this procurement.

For purposes hereof, a person has a material interest if they directly or indirectly own more than 5 percent of the total assets or capital stock of any business entity, or if they otherwise stand to personally gain if the contract is awarded to this vendor.

Text Box: 3.3. City employees may not contract with the City through any corporation or business entity in which they or their immediate family members hold a controlling financial interest (e.g. ownership of five (5) percent or more). 3.4. Immediate family members (spouse, parents and children) are also prohibited from contracting with the City subject to the same general rules.

In accordance with City of Fort Lauderdale, FL Policy and Standards Manual, 6.10.8.3,

Failure of a vendor to disclose any relationship described herein shall be reason for debarment in accordance with the provisions of the City Procurement Code.

Name	Relationships
N/A	

In the event the vendor does not indicate any names, the City shall interpret this to mean that the vendor has indicated that no such relationships exist.

Authorized Signature

Name (Printed) Michael Flood

Title National Resiliency Lead

Date 3/1/23

Non-Discrimination Certification Form

CONTRACTOR'S CERTIFICATE OF COMPLIANCE WITH
NON-DISCRIMINATION PROVISIONS OF THE CONTRACT

The completed and signed form should be returned with the Contractor's submittal. If not provided with submittal, the Contractor must submit within three business days of City's request. Contractor may be deemed non-responsive for failure to fully comply within stated timeframes.

Pursuant to the City Ordinance Sec. 2-187(c), bidders must certify compliance with the Non-Discrimination provision of the ordinance.

The Contractor shall not, in any of his/her/its activities, including employment, discriminate against any individual on the basis of race, color, national origin, religion, creed, sex, disability, sexual orientation, gender, gender identity, gender expression, or marital status.

1. The Contractor certifies and represents that he/she/it will comply with Section 2-187, Code of Ordinances of the City of Fort Lauderdale, Florida, as amended by Ordinance C-18-33 (collectively, "Section 2-187").
2. The failure of the Contractor to comply with Section 2-187 shall be deemed to be a material breach of this Agreement, entitling the City to pursue any remedy stated below or any remedy provided under applicable law.
3. The City may terminate this Agreement if the Contractor fails to comply with Section 2-187.
4. The City may retain all monies due or to become due until the Contractor complies with Section 2-187.
5. The Contractor may be subject to debarment or suspension proceedings. Such proceedings will be consistent with the procedures in section 2-183 of the Code of Ordinances of the City of Fort Lauderdale, Florida.

Authorized Signature

Michael Flood, National Resiliency Lead
Print Name and Title

3/1/23
Date

E-Verify Affirmation Statement

E-VERIFY AFFIRMATION STATEMENT

RFP/Bid /Contract No: RFQ No. 12739-1031

Project Description: Las Olas Corridor Design Consultant Services

Contractor/Proposer/Bidder acknowledges and agrees to utilize the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of,

(a) all persons employed by Contractor/Proposer/Bidder to perform employment duties within Florida during the term of the Contract, and,
(b) all persons (including subcontractors/vendors) assigned by Contractor/Proposer/Bidder to perform work pursuant to the Contract.

The Contractor/Proposer/Bidder acknowledges and agrees that use of the U.S. Department of Homeland Security's E-Verify System during the term of the Contract is a condition of the Contract.

Contractor/Proposer/ Bidder Company Name: WSP USA Inc.

Authorized Company Person's Signature:

Authorized Company Person's Title: National Resiliency Lead

Date: 3/1/23

Contract Payment Method

CONTRACT PAYMENT METHOD

The City of Fort Lauderdale has implemented a Procurement Card (P-Card) changes how payments are remitted to its vendors. The City has transitioned from t checks to credit card payments via MasterCard or Visa as part of this program.

This allows you as a vendor of the City of Fort Lauderdale to receive your payments No more waiting for checks to be printed and mailed.

In accordance with the contract, payments on this contract will be made utilizing th (MasterCard or Visa). Accordingly, bidders must presently have the ability to acce cards or take whatever steps necessary to implement acceptance of a card before contract term, or contract award by the City.

All costs associated with the Contractor's participation in this purchasing program sh the Contractor. The City reserves the right to revise this program as necessary.

By signing below you agree with these terms.

Please indicate which credit card payment you prefer:

☐ MasterCard

☒ Visa

WSP USA Inc.
Company Name

Michael Flood
Name (Printed)

Michael Flood
Signature

2/22/23
Date

National Resiliency Lead
Title

Bid/Proposal Certification

BID/PROPOSAL CERTIFICATION

Please Note: It is the sole responsibility of the bidder to ensure that his bid is submitted electronically through www.Bi the bid opening date and time listed. Paper bid submittals will not be accepted. All fields below must be completed. If apply to you, please note N/A in that field.

If you are a foreign corporation, you may be required to obtain a certificate of authority from the department of state, in accordance with Florida Statute §607.1501 (visit http://www.dos.state.fl.us/).

Company: (Legal Registration) WSP USA Inc. * EIN (Optional): 11-1531569

Address: One Penn Plaza, 4th Floor *

City: New York * State: NY * Zip: 10119 *

Telephone No.: 410-246-0528 * FAX No.: N/A * Email: michael.flood@wsp.com

Delivery: Calendar days after receipt of Purchase Order **(section 1.02 of General Conditions)**:

Total Bid Discount **(section 1.05 of General Conditions)**:

Check box if your firm qualifies for MBE / SBE / WBE **(section 1.09 of General Conditions)**: ☐

ADDENDUM ACKNOWLEDGEMENT - Proposer acknowledges that the following addenda have been received and proposal:

Addendum No.	Date Issued	Addendum No.	Date Issued	Addendum No.	Date
1 *	2/10/23 *				

VARIANCES: If you take exception or have variances to any term, condition, specification, scope of service, or r competitive solicitation you must specify such exception or variance in the space provided below or reference in the spa all variances contained on other pages within your response. Additional pages may be attached if necessary. No excep will be deemed to be part of the response submitted unless such is listed and contained in the space provided below. Th virtue of submitting a variance, necessarily accept any variances. If no statement is contained in the below space, it is your response is in full compliance with this competitive solicitation. If you do not have variances, simply mark N/A. **Yo the "Take Exception" button.**

WSP requests the opportunity to discuss, negotiate and agree to mutually agreeable terms that reflect reasonable, customary, and industry standards. *

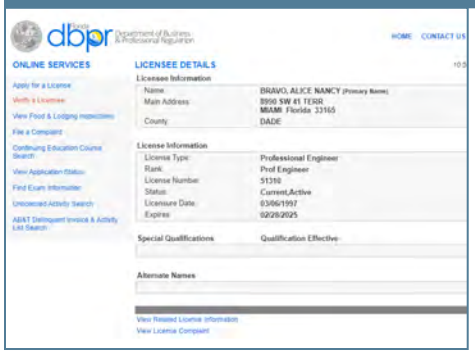
The below signatory hereby agrees to furnish the following article(s) or services at the price(s) and terms stated subjec conditions, specifications addenda, legal advertisement, and conditions contained in the bid/proposal.

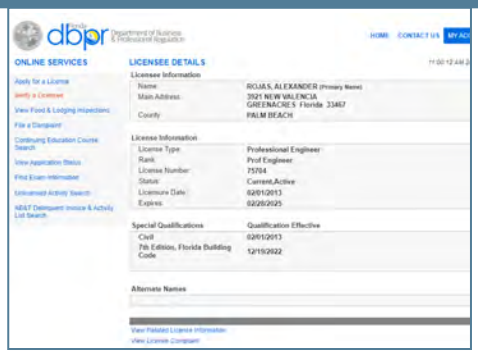
I have read all attachments including the specifications and fully understand what is required. By submitting this sig accept a contract if approved by the City and such acceptance covers all terms, conditions, and specifications of this below signatory also hereby agrees, by virtue of submitting or attempting to submit a response, that in no event shall t respondent's direct, indirect, incidental, consequential, special or exemplary damages, expenses, or lost profits competitive solicitation process, including but not limited to public advertisement, bid conferences, site visits, presentations, or award proceedings exceed the amount of Five Hundred Dollars ($500.00). This limitation shall not app under any provision of indemnification or the City's protest ordinance contained in this competitive solicitation.

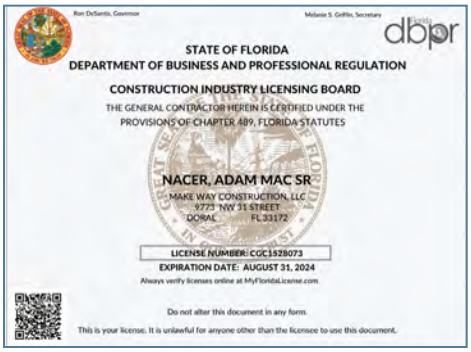
Submitted by:

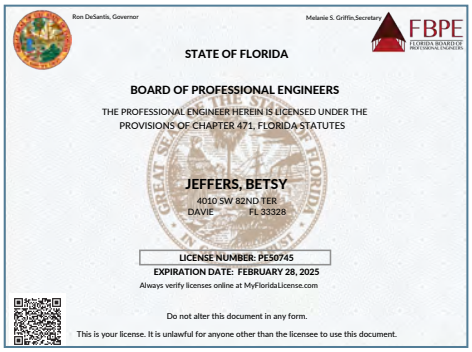
Michael Flood * Michael Flood *

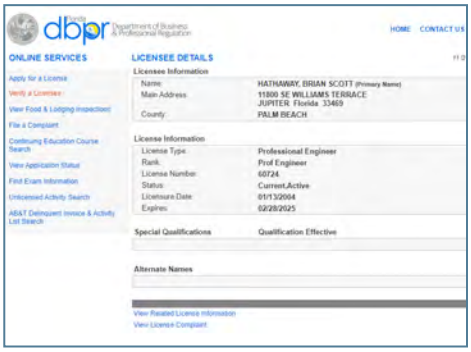
Staff Licenses

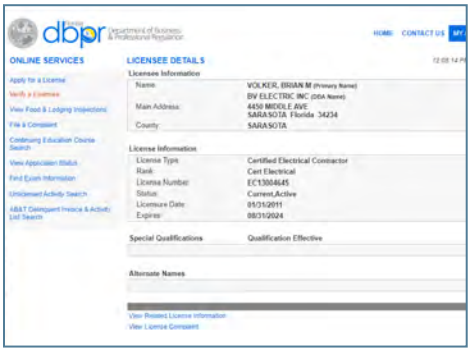


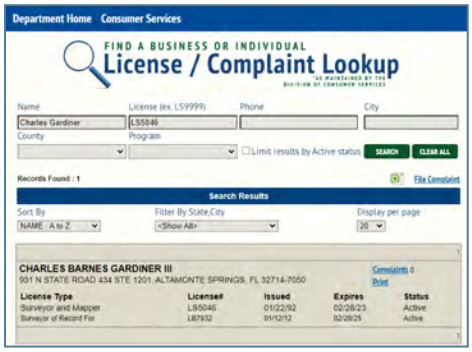


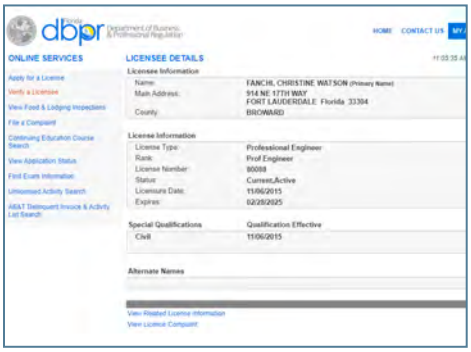










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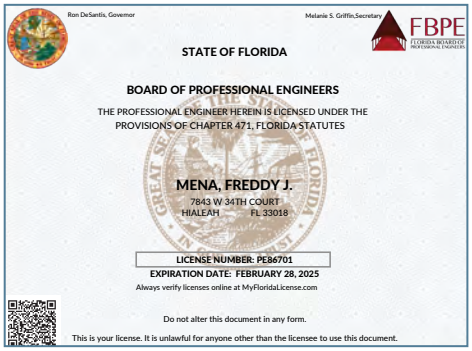
ONLINE SERVICES
LICENSEE DETAILS
SANTAMARIA, EDUARDO
CORAL GABLES Florida 33134
Professional Engineer
Prof Engineer
54804
Current,Active
07/26/1999
02/28/2023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Melanie S. Griffin,Secretary
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MENA, FREDDY J.
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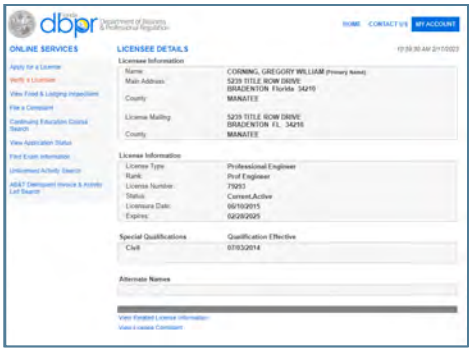
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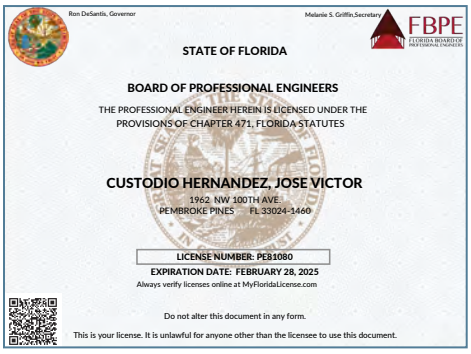
ONLINE SERVICES
LICENSEE DETAILS
CORNING, GREGORY WILLIAM
5239 TITLE ROW DRIVE
BRADENTON Florida 34210
MANATEE
Professional Engineer
Prof Engineer
79293
Current,Active
06/19/2015
02/28/2025
07/03/2014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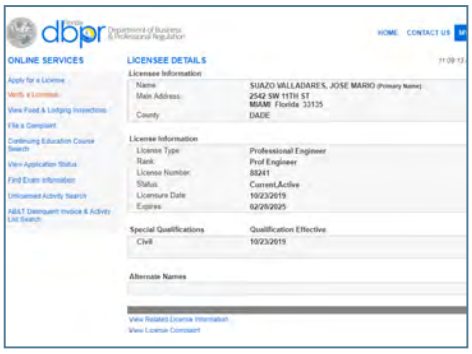
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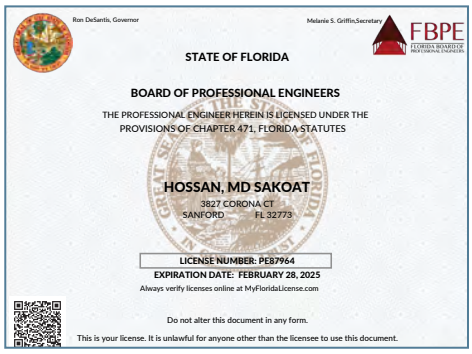
ONLINE SERVICES
LICENSEE DETAILS
SUAZO VALLADARES, JOSE MARIO
2542 SW 11TH ST
MIAMI Florida 33135
DADE
Professional Engineer
Prof Engineer
88241
Current,Active
10/23/2019
02/28/2025
10/23/2019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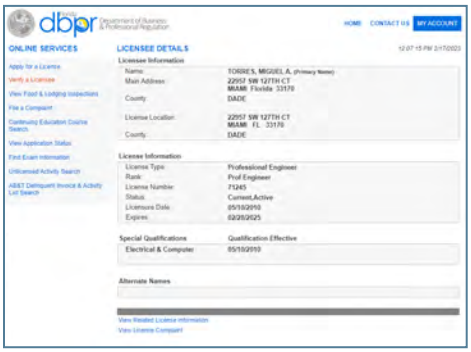
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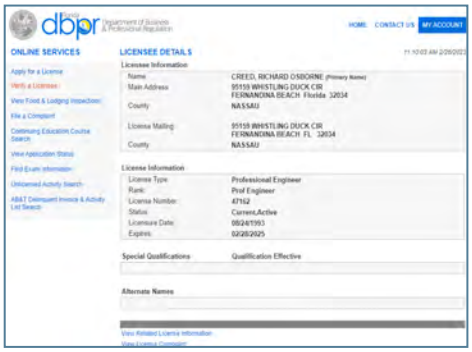
ONLINE SERVICES
LICENSEE DETAILS
TORRES, MIGUEL A.
22957 SW 127TH CT
MIAMI Florida 33170
DADE
Professional Engineer
Prof Engineer
71245
Current,Active
05/10/2010
02/28/2025
Electrical & Computer
05/10/2010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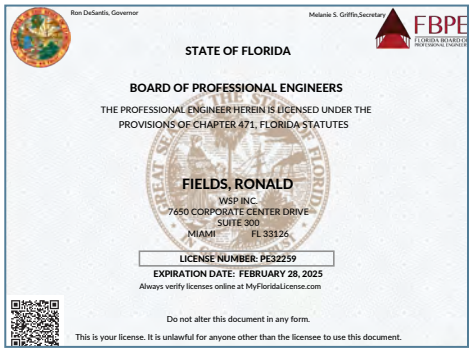
95159 WHISTLING DUCK CIR
FERNANDINA BEACH Florida 32034
NASSAU
95159 WHISTLING DUCK CIR
FERNANDINA BEACH FL 32034
NASSAU
Professional Engineer
Prof Engineer
47162
Current,Active
05/24/1993
02/28/2025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332 ROYAL LIVERPOOL LANE
ORLANDO Florida 32828
ORANGE
Professional Engineer
Prof Engineer
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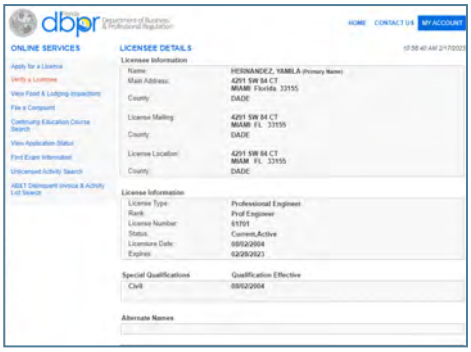
Current,Active
07/25/2008
02/28/2025
Civil
12/06/2007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ONLINE SERVICES
LICENSEE DETAILS
HERNANDEZ, YAMILA
4291 SW 84 CT
MIAMI Florida 33155
DADE
4291 SW 84 CT
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Professional Engineer
Prof Engineer
61701
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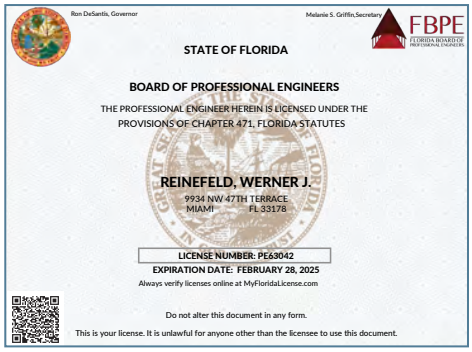
08/02/2004
02/28/2023
Civil
08/02/2004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Addenda Acknowledgement

Addendum 1

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

ADDENDUM NO. 1

RFQ No. 12739-1031
Las Olas Corridor Design Consultant Services (CCNA)

ISSUED: February 10, 2023

This addendum is being issued to make the following changes:

1. The attached document is hereby added to this solicitation:
   - Pre-Proposal Conference Sign-In Sheet

All other terms, conditions, and specifications remain unchanged.

Erick Martinez
Senior Procurement Specialist

Company Name: WSP USA Inc. (please print)

Bidder's Signature: _____

Date: 3/1/23

Addendum 2

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

ADDENDUM NO. 2

RFQ No. 12739-1031
Las Olas Corridor Design Consultant Services (CCNA)

ISSUED: February 10, 2023

This addendum is being issued to make the following changes:

1. The Proposal Due Date has been changed to Wednesday, March 1, 2023, at 2:00PM Local Time.

All other terms, conditions, and specifications remain unchanged.

Erick Martinez
Senior Procurement Specialist

Company Name: WSP USA Inc. (please print)

Bidder's Signature: _____

Date: 3/1/23

Addendum 3

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

ADDENDUM NO. 3

RFQ No. 12739-1031
Las Olas Corridor Design Consultant Services (CCNA)

ISSUED: February 23, 2023

This addendum is being issued to add the following documentation:

1. Summary of Plan Modifications
2. Las Olas Vision Plan Western Corridor (Revised)

All other terms, conditions, and specifications remain unchanged.

Erick Martinez
Senior Procurement Specialist

Company Name: WSP USA Inc. (please print)

Bidder's Signature: _____

Date: 3/1/23

Addendum 4

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

ADDENDUM NO. 4

RFQ No. 12739-1031
Las Olas Corridor Design Consultant Services (CCNA)

ISSUED: March 1, 2023

This addendum is being issued to make the following changes:

1. The Proposal Due Date has been changed to Wednesday, March 8, 2023, at 2:00PM Local Time.

All other terms, conditions, and specifications remain unchanged.

Erick Martinez
Senior Procurement Specialist

Company Name: WSP USA Inc. (please print)

Bidder's Signature: _____

Date: 3/1/23

Reference Letters

CARROLL'S
Jewelers
The GEM on Las Olas

2/15/2023

Luke Moorman

President and Chairman, Board of the Las Olas Association

To whom it may concern:

RE: Reference for Project Management and Stakeholder Communication during Construction

Catherine Prince as the City's Project Manager engaged with the Las Olas Association, the adjacent owners, prior to and during construction to minimize disruption. When there are unexpected challenges, she was cooperative, showed flexibility and professionalism in developing an acceptable alternate. I recommend Catherine Prince, WSP USA, Inc to manage any future work at the City of Fort Lauderdale.

Project Name: Pilot Las Olas Boulevard between SE 11th Avenue and SE 15th Avenue

Project Start and Finish Date: Nov 28-30, 2017

Project Description: Temporary pilot project to demonstrate lane repurposing, and safety at intersections particularly for those walking and biking.

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Project Name: Pilot Rideshare on Las Olas Boulevard and SE 8th Ave, near SE 11th Ave, SE 13th Ave; Loading Zones at SE 8th, SE 9th, SE 10th, SE 11th, SE 13th Avenues

Project Start and Finish Date: Dec 2017

Project Description: Temporary pilot project repurposing parking spaces for rideshare pick-drop off during late evening, and truck loading and unloading on side streets at daytime.

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Project Name: Las Olas Boulevard and SE 4th Avenue; Las Olas Boulevard between SE 11th Avenue and SE 15th Avenue

Project Start and Finish Date: Nov 28-30, 2017

Project Description: Intersection improvements for safe mobility -people walking, biking, using transit.

If you have any questions, please do not hesitate to contact me at *luke@carrollsjewelers.com*.

Best,

Luke Moorman

Luke Moorman

IJO MASTER JEWELER

MEMBER AMERICAN GEM SOCIETY

915 E. LAS OLAS BOULEVARD • FORT LAUDERDALE, FL 33301-2311 • (954) 463-3711
WWW.CARROLLSJEWELERS.COM

CITY OF FORT LAUDERDALE

All-America City

February 14, 2023

To Whom It May Concern:

RE: WSP Project Reference

WSP has delivered the project in a timely fashion, always meeting critical deadline dates. The quality of their work is above expectations. They have been cooperative and shown flexibility and professionalism to ensure completion of the contracted tasks.

I would certainly recommend WSP USA, Inc for any future work.

Project Name: CFL George English Park Restoration

Project Start and Finish Date: April 2020 through October 2021

Project Description: The project scope addresses documented wastewater discharge into George English Lake located at 1101 Bay View Drive in Fort Lauderdale in City of Fort Lauderdale (CFL). A 42-inch broken wastewater forcemain discharged into George English Park Lake. Scope of services provided: Perform sediment and water quality testing and prepare a restoration plan, obtain environmental permits, assist with construction contractor procurement, and provide construction engineering inspections, monitoring and administration services. WSP also prepared and assisted with the Consent Order preparation as required by FDEP for site restoration.

If you have any questions, please do not hesitate to contact me at 954-828-7807.

Sincerely,

Todd Hiteshew

Todd Hiteshew

Environmental Compliance Manager

PUBLIC WORKS DEPARTMENT
949 N.W. 38 STREET, FORT LAUDERDALE, FLORIDA 33309
TELEPHONE (954) 828-8000, FAX (954) 828- 7897
WWW.FORTLAUDERDALE.GOV

Fort Lauderdale Downtown Development Authority
201 East Las Olas Boulevard, Suite 1150
Fort Lauderdale, FL 33301

Phone (954) 463-6574 | **Email** dda@ddaftl.org | **Web** www.ddaftl.org

May 17, 2022

Ms. Criztol Lopez
Wood Environment & Infrastructure Solutions, Inc.
901 Northpoint Parkway, Suite 204
West Palm Beach FL 33407

RE: SW 2nd Avenue Streetscape Reference

To Whom It May Concern:

The Fort Lauderdale Downtown Development Authority had the pleasure of working with Wood Environment & Infrastructure Solutions, Inc. (Wood) during the above referenced streetscape project, in its capacity of providing a Resident Compliance Specialist to ensure compliance with federal funding requirements. From preconstruction through to final acceptance, the Resident Compliance Specialist assigned to this project monitored the day-to-day project administration of the contractor's performance to make sure it complied with all provisions of FTA/USDOT's Funding Supplement.

Wood's team was professional, reliable, organized, and responsive regarding the DDA's streetscape project, and I would highly recommend that they be considered for any project they may undertake.

Please feel free to contact me if I can provide any additional information regarding the performance of Wood.

Respectfully,

Alex Saiz
Planning & Program Manager
alex@ddaftl.org

PORTMIAMI

1007 NORTH AMERICA WAY, SUITE 301 ~ MIAMI, FLORIDA 33132 ~ PHONE (305) 347-4972

November 1, 2021

TO WHOM IT MAY CONCERN

RE: WSP USA Project Reference

Dear Monroe County Engineering Department Director:

WSP delivered the project submittals in a timely and orderly fashion, meeting the critical deadline dates. The quality of their design was above expectation and the consultant was always responsive to the owner. They are cooperative and showed complete flexibility and professionalism to ensure the completion of the contracted tasks.

I would certainly recommend WSP USA, Inc. for any future work.

Name of Project: Contract E13-SEA-01 – Civil Infrastructure Engineering Services for PortMiami
Date of Project Start: October 2015
Date of Project Completion: September 2020

Project Description: Design and Post-design Civil Engineering services including roadway and parking facilities, railways and civil tasks related to the improved facilities such as stormwater management systems and utility coordination/relocation.

Should you have any question, feel free to contact me.

Sincerely,

Victor M. Gutierrez

Victor Gutierrez, P.E., PMP
Project Manager
Miami-Dade County PortMiami — Capital Development
E-mail: Victor.Gutierrez@miamidade.gov

MIAMI-DADE COUNTY FLORIDA
www.miamidade.gov

MIAMIBEACH

City of Miami Beach, 1700 Convention Center Drive, Miami Beach, FL 33139, www.miamibeachfl.gov
OFFICE OF CAPITAL IMPROVEMENT PROJECTS
Tel: 305-673-7071 Fax: 305-673-7073
E-mail: jorgerodriguez@miamibeachfl.gov

November 4, 2021 **Sent Via E-mail**

Re: WSP USA Project Reference

Project: 19th Street Storm Water Pump Station; Provide comprehensive stormwater and drainage engineering services including design, surveying, feasibility studies, geotechnical investigations, permit preparation, preparing construction plans, specifications and contract documents, assisting with review of contractor bids, comprehensive project management services and construction engineering and inspection services. **Location: 19th Street and Convention Center Dr., Miami Beach, FL. from Jan. 2018 to Nov. 2019.**

TO WHOM IT MAY CONCERN:

Dear Monroe County Engineering Department Director:

WSP has delivered project design submittals in a timely fashion, always meeting critical deadline dates. The quality of their design has been above expectation and the consultant has been responsive to the owner at all times. They have been cooperative and have shown complete flexibility and professionalism in order to ensure the completion of the contracted tasks.

I would certainly recommend WSP USA, Inc. for any future work.

Should you have any questions do not hesitate to contact me at (305) 673-7071.

Respectfully,

Jorge L. Rodriguez, P.E., LEED®A.P.
Capital Projects Coordinator

Islamorada,
Village of Islands

November 17, 2021

Mr. Greg Corning, PE
Wood Environment & Infrastructure Solutions, Inc.
16250 N.W. 59th Avenue, Suite 206
Miami Lakes, Florida 33014

RE: Village of Islamorada – Canal Restoration Program Reference

To Whom It May Concern:

Islamorada, Village of Islands has had the pleasure of working with Wood Environment & Infrastructure Solutions, Inc. (Wood) in its capacity of providing canal restoration planning, design, permitting, and construction administration and monitoring for over 5 years. They have local staff who understand the sensitive waters surrounding the Florida Keys and take a vested interest to ensure the Contractor(s) follow all applicable environmental regulations to protect these waters from degradation.

Wood has been professional, reliable, and responsive regarding the Village's Canal Restoration Program, and we would highly recommend that they be considered for any project they may undertake.

Please feel free to contact me if I can provide any additional information regarding the performance of Wood.

Respectfully,

Peter Frezza
Environmental Resources Manager
Islamorada, Village of Islands
Office: 305-664-6427
Cell: 305-393-0982
peter.frezza@islamorada.fl.us

1000 Sawgrass Corporate Pkwy
Suite No. 578
Sunrise, FL 33323
954.908.8700

wsp.com

As one of the world's leading professional service firms, WSP brings clarity and vision to complex challenges by working with and advising governments and private-sector clients on transportation, water and environmental engieering services. With the recent acquisitions of the Environment & Infrastructure business (E&I) of John Wood plc. and Golder, we have built the largest environmental practice in the world.

QUESTIONNAIRE SHEET

PLEASE PRINT OR TYPE:

Firm Name: **WSP USA Inc.**

President **Bernard P. McNeilly**

Business Address: **One Penn Plaza, 4th Floor, New York, New York 10119**

Telephone: **410-246-0528** Fax: **N/A**

E-Mail Address:
michael.flood@wsp.com

What was the last project of this nature which you completed? Include the year, description, and contract value.
Monroe County Sea-Level Rise Shoreline Stabilization, 2022, $20 million, SLR rise, shoreline resilience, stormwater engineering

The following are named as three corporations and representatives of those corporations for which you have performed work similar to that required by this contract, and which the City may contact as your references (include addresses, telephone numbers and e-mail addresses). Include the project name, year, description, and contract value.

Monroe County, Rhonda Haag, 305-395-9928, haag-rhonda@monroecounty-fl.gov
FDOT, Scott Peterson, PE, 954.777.4416, scott.peterson@dot.state.fl.us
R & O Sudio, Omar Moreno, AIA, NCARB; 305-484-1987, omar@obras.studio

How many years has your organization been in business? **89**

Have you ever failed to complete work awarded to you; if so, where and why?
No

The name of the qualifying agent for the firm and his position is: **Greg Corning, PE, Deputy Project Manager**

Certificate of Competency Number of Qualifying Agent: **79293**

Effective Date: **06/10/2015**Expiration Date: **02/28/2025**

Licensed in: **Manatee County, Florida**Engineering Contractor's License # **N/A**
(County/State)

Expiration Date: **N/A**

NOTE: To be considered for award of this contract, the bidder must submit a financial statement upon request.

NOTE: Contractor must have proper licensing and shall provide copy of same with his proposal.

QUESTIONNAIRE SHEET

1. Have you personally inspected the proposed work and have you a complete plan for its performance?
   Yes

2. Will you sublet any part of this work? If so, list the portions or specialties of the work that you will.

a) **MARLIN Engineering, Roadway Engineering**

b) **Chen Moore and Associates, Landscape and Hardscape Lighting**

c) **Brizaga (SBE), Public Outreach**

d) **Make Way Construction (SBE, MBE), Construction Support**

e) **HADONNE (SBE, MBE), Survey/SUE**

f)

g)

3. What equipment do you own that is available for the work?
   Computers, software, intellectual property

4. What equipment will you purchase for the proposed work?
   No new equipment is anticipated

5. What equipment will you rent for the proposed work?
   No rental equipment is anticipated

BID/PROPOSAL CERTIFICATION

Please Note: It is the sole responsibility of the bidder to ensure that his bid is submitted electronically through www.BidSync.com prior to the bid opening date and time listed. Paper bid submittals will not be accepted. All fields below must be completed. If the field does not apply to you, please note N/A in that field.

If you are a foreign corporation, you may be required to obtain a certificate of authority from the department of state, in accordance with Florida Statute §607.1501 (visit http://www.dos.state.fl.us/).

Company: (Legal Registration) **WSP USA Inc.**EIN (Optional): **11-1531569**

Address: **One Penn Plaza, 4th Floor**

City: **New York**State: **NY**Zip: **10119**

Telephone No.: **410-246-0528**FAX No.: **N/A**Email: **michael.flood@wsp.com**

Delivery: Calendar days after receipt of Purchase Order **(section 1.02 of General Conditions)**:

Total Bid Discount **(section 1.05 of General Conditions)**:

Check box if your firm qualifies for MBE / SBE / WBE **(section 1.09 of General Conditions)**: ☐

ADDENDUM ACKNOWLEDGEMENT - Proposer acknowledges that the following addenda have been received and are included in the proposal:

Addendum No.	Date Issued	Addendum No.	Date Issued	Addendum No.	Date Issued
1	**2/10/23**	**3**	**2/23/23**		
2	**2/22/23**				

VARIANCES: If you take exception or have variances to any term, condition, specification, scope of service, or requirement in this competitive solicitation you must specify such exception or variance in the space provided below or reference in the space provided below all variances contained on other pages within your response. Additional pages may be attached if necessary. No exceptions or variances will be deemed to be part of the response submitted unless such is listed and contained in the space provided below. The City does not, by virtue of submitting a variance, necessarily accept any variances. If no statement is contained in the below space, it is hereby implied that your response is in full compliance with this competitive solicitation. If you do not have variances, simply mark N/A. **You must also click the "Take Exception" button.**

WSP requests the opportunity to discuss, negotiate and agree to mutually agreeable terms that reflect reasonable, customary, and industry standards.

The below signatory hereby agrees to furnish the following article(s) or services at the price(s) and terms stated subject to all instructions, conditions, specifications addenda, legal advertisement, and conditions contained in the bid/proposal.

I have read all attachments including the specifications and fully understand what is required. By submitting this signed proposal, I will accept a contract if approved by the City and such acceptance covers all terms, conditions, and specifications of this bid/proposal. The below signatory also hereby agrees, by virtue of submitting or attempting to submit a response, that in no event shall the City's liability for respondent's direct, indirect, incidental, consequential, special or exemplary damages, expenses, or lost profits arising out of this competitive solicitation process, including but not limited to public advertisement, bid conferences, site visits, evaluations, oral presentations, or award proceedings exceed the amount of Five Hundred

Dollars ($500.00). This limitation shall not apply to claims arising under any provision of indemnification or the City's protest ordinance contained in this competitive solicitation.

Submitted by:

Michael Flood Name (printed)	**Michael Flood** Signature
2/22/23 Date	**National Resiliency Lead** Title

Revised 4/28/2020

CONSTRUCTION BID CERTIFICATION

Please Note: It is the sole responsibility of the bidder to ensure that his bid is submitted electronically through www.BidSync.com prior to the bid opening date and time listed. Paper bid submittals will not be accepted. All fields below must be completed. If the field does not apply to you, please note N/A in that field.

If you are a foreign corporation, you may be required to obtain a certificate of authority from the Department of State, in accordance with Florida Statute §607.1501 (visit http://www.dos.state.fl.us/).

Company: (Legal Registration) **WSP USA Inc.**

Address: **One Penn Plaza, 4th Floor**

City: **New York**State: **NY**Zip: **10119**

Telephone No.: **410-246-0528**FAX No.: **N/A**Email: **michael.flood@wsp.com**

Check box if your firm qualifies for MBE / SBE / WBE: ☐

If a corporation, state the name of the President, Secretary and Resident Agent. If a partnership, state the names of all partners. If a trade name, state the names of the individuals who do business under the trade name.

Bernard P. McNeilly	**President & CEO**	**Hillary F. Jassey**	**Secretary**
Name	**Title**	**Name**	**Title**
C T Corporation	**Registered Agent**		
Name	**Title**	**Name**	**Title**

ADDENDUM ACKNOWLEDGEMENT - Bidder acknowledges that the following addenda have been received and are included in the proposal:

Addendum No.	Date Issued	Addendum No.	Date Issued	Addendum No.	Date Issued
1	**2/10/23**	**3**	**2/23/23**		
2	**2/22/23**				

VARIANCES: If you take exception or have variances to any term, condition, specification, or requirement in this bid you must specify such variance in the space provided below or reference in the space provided below all variances contained on other pages within your bid. Additional pages may be attached if necessary. No variances will be deemed to be part of the bid submitted unless such is listed and contained in the space provided below. The City does not, by virtue of submitting a variance, necessarily accept any variances. If no statement is contained in the below space, it is hereby implied that your response is in full compliance with this competitive solicitation. If you do not have variances, simply mark N/A. **You must also click the "Take Exception" button.**
WSP requests the opportunity to discuss, negotiate and agree to mutually agreeable terms that reflect reasonable, customary, and industry standards.

The below signatory affirms that he has or will obtain all required permits and licenses from the appropriate agencies, and that his firm is authorized to do business in the State of Florida. The below signatory agrees to furnish all labor, tools, material, equipment and supplies, and to sustain all the expense incurred in doing the work set forth in strict accordance with

the bid plans and contract documents at the unit prices indicated if awarded a contract. The below signatory has not divulged to, discussed, or compared this bid with other bidders, and has not colluded with any other bidder or parties to this bid whatsoever. Furthermore, the undersigned guarantees the truth and accuracy of all statements and answers contained in this bid. The below signatory also hereby agrees, by virtue of submitting or attempting to submit a bid, that in no event shall the City's liability for bidder's direct, indirect, incidental, consequential, special or exemplary damages, expenses, or lost profits arising out of this competitive solicitation process, including but not limited to public advertisement, bid conferences, site visits, evaluations, oral presentations, or award proceedings exceed the amount of Five Hundred Dollars ($500.00). This limitation shall not apply to claims arising under any provision of indemnification or the City's protest ordinance contained in this competitive solicitation.

Submitted by:

Michael Flood Name (printed)	**Michael Flood** Signature
2/22/23 Date	**National Resiliency Lead** Title

Revised 4/28/2020

REFERENCES

A minimum of three (3) references shall be provided:

1. **Company Name: Monroe County**
   Address: **102050 Overseas Highway**
   Key Largo, FL 33037
   Contact: **Rhonda Haag**
   Phone #: **305-395-9928** Email: **haag-rhonda@monroecounty-fl.gov**
   Contract Value: **$20 million** Year: **2022**
   Description: **SLR rise, shoreline resilience, stormwater engineering (Firm Contact: Greg Corning, WSP**

2. **Company Name: Florida Department of Transportation**
   Address: **3400 West Commercial Boulevard**
   Fort Lauderdale, Florida 33309
   Contact: **Scott Peterson, PE**
   Phone #: **954.777.4416** Email: **scott.peterson@dot.state.fl.us**
   Contract Value: **$6.8 million** Year: **2020**
   Description: **Roadway, stormwater engineering and landscape (Firm Contact: Betsy Jeffers, MARLIN)**

3. **Company Name: R & O Studio**
   Address: **6915 Red Rd, Suite 228**
   Coral Gables, FL 33143

   Contact: **Omar Moreno, AIA, NCARB**
   Phone #: **305-484-1987** Email: **omar@obras.studio**
   Contract Value: **$750,000** Year: **2017**
   Description: **Roadway, stormwater engineering and landscape (Firm Contact: Cristobal Betancourt, CMA)**

4. **Company Name:**
   Address:
   Contact:
   Phone #: Email:
   Contract Value: Year:
   Description:

5. **Company Name:**
   Address:
   Contact:
   Phone #: Email:
   Contract Value: Year: **Madi.Boemecke@wsp.com**
   Description:

GENERAL CONDITIONS

Unless otherwise modified in the Project's Special Conditions, the following General Conditions shall be part of the Contract:

GC – 01 – DEFINITIONS – The following words and expressions, or pronouns used in their stead, shall wherever they appear in the Contract the Contract Documents, be construed as follows:

"Addendum" or "Addenda" – shall mean the additional Contract provisions issued in writing, by the Engineer, prior to the receipt of bids.

"Bid" – shall mean the offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

"Bidder" – shall mean any person, firm, company, corporation or entity submitting a bid for the Work.

"Bonds" – shall mean bid, performance and payment bonds and other instruments of security, furnished by Contractor and his surety in accordance with the Contract Documents.

"City" – shall mean the city of Fort Lauderdale, Florida, a Florida municipal corporation. In the event the City exercises its regulatory authority as a government body, the exercise of such regulatory authority and the enforcement of any rules, regulations, codes, laws and ordinances shall be deemed to have occurred pursuant to City's authority as a governmental body and shall not be attributable in any manner to the City as a party to this Contract.

"Consultant" – shall mean a person, firm, company, corporation or other entity employed by the City to perform the professional services for the project.

"Contractor" – shall mean the successful Bidder who has been employed by the City to perform the construction and related services for the project.

"Contract Work" – shall mean everything expressed or implied to be required to be furnished and furnished by the Contractor by any one or more of the parts of the Contract Documents referred to in the Contract hereof. In the case of any inconsistency in or between any parts of this Contract, the Project Manager shall determine which shall prevail.

"Design Documents" – shall mean the construction plans and specifications included as part of a Bid/Proposal Solicitation prepared by the City or by the Consultant under a separate Agreement with the City.

"Engineer" – shall include the terms "professional engineer" and "licensed engineer" and means a person who is licensed to engage in the practice of engineering under Florida Statute, Chapter 471. An Engineer may be a City employee or a consultant hired by the City.

"Extra Work" – shall mean work other than that required by the Contract.

"Inspector" – shall mean an authorized representative of the City assigned to make necessary inspections of materials furnished by Contractor and of the Work performed by Contractor.

GENERAL CONDITIONS (continued)

"Notice" – shall mean written notice sent by certified United States mail, return receipt requested, or sent by commercial express carrier with acknowledgement of delivery, or via fax or email, or by hand delivery with a request for a written receipt of acknowledgement of delivery and shall be served upon the Contractor either personally or to its place of business listed in the Bid.

"Owner" – shall mean the City of Fort Lauderdale.

"Project Manager" – shall mean a professional designated by the City to manage the Project under the supervision and direction of the Public Works Director or designee.

"Site" – shall mean the area upon or in which the Contractor's operations are carried out and such other areas adjacent thereto as may be designated as such by the Project Manager.

"Sub-Contractor" – shall mean any person, firm, company, corporation or other entity, other than employees of the Contractor, who or which contracts with the contractor, to furnish, or actually furnishes labor and materials, or labor and equipment, or labor, materials and equipment at the site.

"Surety" – shall mean any corporation or entity that executes, as Surety, the Contractor's performance and payment bond securing the performance of this Contract.

GC – 02 – SITE INVESTIGATION AND REPRESENTATION – The Contractor acknowledges that it has satisfied itself as to the nature and location of the Work under the Contract Documents, the general and local conditions of the Site, particularly those bearing upon availability of transportation, disposal, handling and storage of materials, availability of labor, water, electric power, and roads, field conditions, the type of equipment and facilities needed preliminary to and during the prosecution of the Work and all other matters which can in any way affect the Work or the cost thereof under the Contract Documents.

The Contractor acknowledges that it has conducted extensive tests, examinations and investigations and represents and warrants a thorough familiarization with the nature and extent of the Contract Documents, the Work, locality, soil conditions, moisture conditions and all year-round local weather and climate conditions (past and present), and, in reliance on such test, examination and investigations conducted by Contractor and the Contractor's experts, has determined that no conditions exist that would in any manner affect the Bid Price and that the project can be completed for the Bid Price submitted.

Any failure by the Contractor to acquaint itself with all the Site conditions shall not relieve Contractor from responsibility for properly estimating the difficulty of cost thereof under the Contract Documents.

GC – 03 - SUBSTITUTIONS – If the Contractor desires to use materials and/or products of manufacturer's names different from those specified in the Contract Documents, the Bidder requesting the substitution shall make written application as described herein. The burden of proving the equality of the proposed substitution rests on the Contractor making the request. To be acceptable, the proposed substitution shall meet or exceed all expressed requirements of the Contract Documents and shall be submitted upon the Contractor's letterhead. The following requirements shall be met in order for the substitution to be considered.

GENERAL CONDITIONS (continued)

1. Requests substitution shall be accompanied by such technical data, as the party making the request desires to submit. The Project Manager will consider reports from reputable independent testing laboratories, verified experience records from previous users and other written information valid in the circumstances; and

2. Requests for substitution shall completely and clearly indicate in what respects the materials and/or products differ from those indicated in the Contract Documents; and

3. Requests for substitution shall be accompanied by the manufacturer's printed recommendations clearly describing the installation, use and care, as applicable, or the proposed substitutions; and

4. Requests for substitution shall be accompanied by a complete schedule of changes in the Contract Documents, if any, which must be made to permit the use of the proposed substitution.

   If a proposed substitution is approved by the Project Manager, an addendum will be issued to prospective bidders not less than three (3) working days prior to the date set for opening of bids. Unless substitutions are received and approved as described above, the successful Bidder shall be responsible for furnishing materials and products in strict accordance with the Contract Documents.

GC – 04 – CONSTRUCTION RESOURCES – Contract shall provide all labor and equipment necessary to complete the installation within a timely manner. Contractor shall provide details as to manpower and equipment to be dedicated to the project in its Work Plan Contractor is responsible for making arrangements, obtaining and purchasing construction water services if required to complete the work.

GC – 05 – CONTROL OF THE WORK – The Project Manager shall have full control and direction of the Work in all respects. The Project Manager and/or his authorized designee(s) shall, at all times, have the right to inspect the Work and materials. The Contractor shall furnish all reasonable facilities for obtaining such information, as the Project Manager may desire respecting the quality of the Work and materials and the manner of conducting the Work. Should the Contractor be permitted to perform night Work, or to vary the period which work is ordinarily carried on in the daytime, he shall give ample notice to the Project Manager so that the proper and adequate inspection may be provided. Such Work shall be done only under such regulations as are furnished in writing by the Project Manager, and no extra compensation shall be allowed to the Contractor therefore. In the event of night work, the Contractor shall furnish such light, satisfactory to the Project Manager, as will ensure proper inspection. Nothing herein contained shall relieve the Contractor from compliance with any and all City ordinances relating to noise or Work during prohibited hours.

GC – 06 – SUB-CONTRACTOR – The Contractor shall not sublet, in whole or any part of the Work without the written consent and approval of the Project Manager. Within ten (10) days after official notification of starting date, the Contractor must submit in writing, to the Project Manager, a list of all Sub-contractors. No Work shall be done by any sub-contractor until such Sub-contractor has been officially approved by the Project Manager. A sub-contractor not appearing on the original list will not be approved without written request submitted to the Project Manager and approved by the Public Works Director. In all cases, the Contractor shall give his personal attention to the Work of the Sub-contractors and the Sub-contractor is liable to be discharged by the Contractor, at the direction of the Project Manager, for neglect of duty, incompetence or misconduct.

Acceptance of any sub-contractor, other person, or organization by the Project Manager shall not constitute a waiver of any right of Project Manager to reject defective Work or Work not in conformance with the Contract Documents.

GENERAL CONDITIONS (continued)
Contractor shall be fully responsible for all acts and omissions of its Sub-contractors and of persons and organizations directly or indirectly employed by them and of persons and organizations for whose acts any of them may be liable to the same extent that he is responsible for the acts and omissions of persons directly employed by him. Nothing in the Contract Documents shall create any contractual relationship between City and any sub-contractor or other person or organization having a direct contract with Contractor, nor shall it create any obligation on the part of City to pay or to see to the payment of any moneys due to any sub-contractor or other person, or organization, except as may otherwise be required by law.

GC – 07 – QUANTITIES – Contractor recognizes and agrees that the quantities shown on plans and Bid/Price Schedule are estimates only and may vary during actual construction. No change shall be made involving any departure from the general scheme of the Work and that no such change involving a material change in cost, either to the City or Contractor, shall be made, except upon written permission of the City. However, the Project Manager shall have the right to make minor alterations in the line, grade, plan, form or materials of the Work herein contemplated any time before the completion of the same. That if such alterations shall diminish the quantity of the Work to be done, such alterations shall not constitute a claim for damages or anticipated profits. That if such alterations increase the amount of the Work to be done, such increase shall be paid for according to the quantity actually performed and at the unit price or prices stipulated therefore in the Contract. The City shall, in all cases of dispute, determine the amount or quantity of the several kinds of Work which are to be paid for under this Contract, and shall decide all questions relative to the execution of the same, and such estimates and decisions shall be final and binding.

Any Work not herein specified, which might be fairly implied as included in the Contract, of which the City shall judge, shall be done by the Contractor without extra charge. However, such cost increases shall be authorized either by the Public Works Director or designee, or the City Commission based upon the purchasing threshold amounts provided for in Chapter 2 of the City of Fort Lauderdale's Code of Ordinances.

GC – 08 – NO ORAL CHANGES – Except to the extent expressly set forth in the Contract, no change in, or modification, termination or discharge of the Contract in any form whatsoever, shall be valid or enforceable unless it is in writing and signed by the parties charged, therewith or their duly authorized representative.

GC – 09 – PERMITS AND PROTECTION OF PUBLIC – Permits on file with the City and/or those permits to be obtained by the Contractor shall be considered directive in nature, and will be considered a part of this Contract. A copy of all permits shall be given to the City and become part of the Contract Documents. Terms of permits shall be met prior to acceptance of the Work and release of the final payment.

Contractor shall secure all permits and licenses required for completing the Project. Contractor will obtain the necessary State, County, and City construction/work permits if required.

The Contractor shall comply with all applicable Codes, Standards, Specifications, etc. related to all aspects of the Project.

Where there are telephones, light or power poles, water mains, conduits, pipes or drains or other construction, either public or private, in or on the streets or alleys, the Work shall be so conducted that no interruption or delay will be caused in the operation or use of the same. Proper written notice shall be given to all affected parties prior to proceeding with the Work.

GENERAL CONDITIONS (continued)
The Contractor shall not be permitted to interfere with public travel and convenience by grading or tearing up streets indiscriminately, but the Work of constructing the various items in this contract shall proceed in an orderly, systematic and progressive manner.

GC – 10 – DISEASE REGULATIONS – The Contractor shall enforce all sanitary regulations and take all precautions against infectious diseases as the Project Manager may deem necessary. Should any infectious or contagious diseases occur among his employees, he shall arrange for the immediate removal of the employee from the Site and isolation of all persons connected with the Work.

GC -11- CONTRACTOR TO CHECK PLANS, SPECIFICATIONS, AND DATA – The Contractor shall verify all dimensions, quantities, and details shown on the plans, supplementary drawings, schedules, and shall notify the Project Manager of all errors, omissions, conflicts and discrepancies found therein with three (3) working days of discovery. Failure to discover or correct errors, conflictions, or discrepancies shall not relieve the Contractor of full responsibility for unsatisfactory Work, faulty construction, or improper operation resulting therefrom nor from rectifying such condition at its own expense.

GC – 12 – MATERIALS AND WORKMANSHIP – All material shall be new and the workmanship shall, in every respect, be in conformity with approved modern practice and with prevailing standards of performance and quality. In the event of a dispute, the Project Manager's decision shall be final. Wherever the Plans, Specifications, Contract Documents, or the directions of the Project Manager are unclear as to what is permissible and/or fail to note the quality of any Work, that interpretation will be made by the Project Manager, which is in accordance with approved modern practice, to meet the particular requirements of the Contract.

GC – 13 – SAFEGUARDING MARKS - The Contractor shall safeguard all points, stakes, grade marks, monuments, and benchmarks made or established on the Work, bear the cost of re-establishing same if disturbed, or bear the entire expense of rectifying Work improperly installed due to not maintaining or protecting or for removing without authorization, such established points, stakes, and marks. The Contractor shall safeguard all existing and known property corners, monuments and marks not related to the Work and, if required, shall bear the cost of having them re-established by a licensed Professional surveyor registered in the State of Florida if disturbed or destroyed during the course of construction.

GC – 14 – RESTROOM FACILITIES – Contractor shall provide portable toilet facilities for employee's use at a location within the Work site to be determined by the City.

GC – 15 – PROGRESS MEETINGS – Weekly Status meetings will be conducted with representatives from the City and the Contractor. Contract shall budget time to participate in such meetings. A well-run Project should result in short meetings.

GC – 16 – ISSUE RESOLUTION – Should Contractor become engaged in a dispute with a resident or a City employee, the Contractor shall report the situation to the Project Manager immediately. It shall be mandatory that the City participate in any dispute resolution. Failure of Contractor personnel to notify the City shall obligate Contractor to replace the offending employee immediately if requested by the City.

GENERAL CONDITIONS (continued)

GC – 17 – CITY SECURITY-CONTRACTOR AND SUBCONTRACTOR EMPLOYEE INFORMATION – Prior to commencing work, Contractor shall provide to the City a list of all personnel and sub-contractors on site. The list will include the name, address, birth date and driver's license number for all personnel. All personnel and subcontractors on site will have on their person a company photo ID during all stages of the construction. Contractor shall provide standard required personal information per current City procedures.

GC – 18 – POST-CONTSTRUCTION SURVEY – The Contractor shall provide as-built survey, sealed and signed by a registered surveyor in the State of Florida, as a condition of final payment.

GC – 19 – KEY PERSONNEL – Contractor shall provide as part of the Work Plan, resumes for all key project personnel providing supervision and project management functions. Resumes shall include work history and years of experience performing this type of work.

GC – 20 – EXISTING UTILITY SERVICE – All existing utility service shall be maintained with a minimum of interruption at the expense of the Contractor.

GC – 21 – JOB DESCRIPTION SIGNS – Contractor, at Contractor's expense, shall furnish, erect, and maintain suitable weatherproof signs on jobs over $100,000 containing the following information:

1. City Seal (in colors)
2. Project or Improvement Number
3. Job Description
4. Estimated Cost
5. Completion Date

Minimum size of sign shall be four feet high, eight feet wide and shall be suitably anchored. The entire sign shall be painted and present a pleasing appearance. Exact location of signs will be determined in the field. Two (2) signs will be required, one at each end of the job. All costs of this work shall be included in other parts of the work.

GC – 22 – FLORIDA EAST COAST RIGHT-OF-WAY – Whenever a City contractor is constructing within the Florida East Coast Railway Company's Right-of-Way, it will be mandatory that the contractor carry bodily injury and property damage insurance in amounts satisfactory to the Florida East Coast Company. This insurance requirement shall be verified by the contractor with the Florida East Coast Company prior to commencing work, and maintained during the life of the Contract.

GC – 23 – ACCIDENTS – The Contractor shall provide such equipment and facilities as are necessary and/or required, in the case of accidents, for first aide services to be provided to a person who may be injured during the project duration. The Contractor shall also comply with the OSHA requirements as defined in the United States Labor Code 29 CFR 1926.50.

In addition, the Contractor must report immediately to the Project Manager every accident to persons or damage to property, and shall furnish in writing full information, including testimony of witnesses regarding any and all accidents.

GC – 24 – SAFETY PRECAUTIONS – Contractor must adhere to the applicable environmental protection guidelines for the duration of a project. If hazardous waste materials are used, detected or generated at any time, the Project Manager must be immediately notified of each and every occurrence. The Contractor shall comply with all codes, ordinance, rules, orders and other legal requirements of public authorities (including OSHA, EPA, DERM, the City, Broward County, State of Florida, and Florida Building Code), which bear on the performance of the Work.

GENERAL CONDITIONS (continued)

The Contractor shall take the responsibility to ensure that all Work is performed using adequate safeguards, including but not limited to: proper safe rigging, safety nets, fencing, scaffolding, barricades, chain link fencing, railings, barricades, steel plates, safety lights, and ladders that are necessary for the protection of its employees, as well as the public and City employees. All riggings and scaffolding shall be constructed with good sound materials, of adequate dimensions for their intended use, and substantially braced, tied or secured to ensure absolute safety for those required to use it, as well as those in the vicinity. All riggings, scaffolding, platforms, equipment guards, trenching, shoring, ladders and similar actions or equipment shall be OSHA approved, as applicable, and in accordance with all Federal, State and local regulations.

GC - 25 – DUST PREVENTION – The Contractor shall, by means of a water spray, or temporary asphalt pavement, take all necessary precautions to prevent or abate a dust nuisance arising from dry weather or Work in an incomplete stage. All costs of this Work shall be included in the cost of other parts of the Work.

Should the Contractor fail to abate a dust nuisance the Project Manager may stop the Work until the issue is resolved to the City's satisfaction.

GC – 26 – SITE CLEANUP AND RESTORATION – The Contractor shall remove all debris and unused or discarded materials from the work site daily. Contractor shall clean the work site to remove all directional drilling "Driller's Mud" materials. No "Driller's Mud" residue shall be allowed to remain in the soil or on the surface of the land or vegetation. All debris and drilling materials must be disposed of offsite at an approved location. The Contractor shall promptly restore all areas disturbed that are outside the Project limits in equal or better condition at no additional cost to the City.

GC – 27 – COURTEOUS BEHAVIOR AND RESPECT FOR RESIDENTS AND PROPERTY – The Contractor and its employees, associates and sub-contractors shall maintain courteous behavior at all times and not engage in yelling, loud music, or other such activities. Contractor's employees shall not leave trash or other discarded items at the Work Site, especially on any private property. In the event complaints arise, Contractor shall immediately remove such offending employees from the project if requested to do so by the Project Manager. Contractor's employees shall not trespass on any private property unless necessary to complete the work but with prior permission from the owner.

Contractor shall notify and obtain permission from the residents 24 hours in advance when planning to work within the resident's property. In addition, Contractor shall notify the resident prior to entering their property to perform work or inspect/investigate the work site. Contractor shall not block residents' driveways unnecessarily. Contractor shall not park equipment on landscaped areas when the vehicle is not needed for the current construction activities. Contractor shall be responsible for repair and/or replacement of all damaged landscaping within 48 hours including repairing vehicle wheel impressions, irrigation systems, lighting systems, structures, or any other items of resident's property. Contractor shall not destroy, damage, remove, or otherwise negatively impact any landscaping within or outside the right-of-way without prior approval from the Project Manager.

GENERAL CONDITIONS (continued)

GC – 28 – PLACING BARRICADES AND WARNING LIGHTS – The Contractor shall furnish and place, at Contractor's own expense, all barricades, warning lights, automatic blinker lights and such devices necessary to properly protect the work and vehicular and pedestrian traffic. Should the Contractor fail to erect or maintain such barricades, warning lights, etc., the Project Manager may, after 24 hours' notice to the Contractor, proceed to have such barricades and warning lights placed and maintained by City or other forces and all costs incurred thereof charged to the Contractor and may be retained by the City from any monies due, or to become due, to the Contractor.

GC – 29 – TRAFFIC CONTROL – The Contractor shall coordinate all Work and obtain, through the City's Transportation and Mobility Department, Broward County, Florida Department of Transportation, as applicable, any permits required to detour traffic or close any street before starting to work in the road.

All traffic control devices, flashing lights, signs and barricades shall be maintained in working condition at all times and conform to Manual of Uniform Traffic Control Devices (MUTCD), latest edition.

GC – 30 – COORDINATION – The Contractor shall notify all utilities, transportation department, etc., in writing, with a copy to the Project Manager before construction is started and shall coordinate its Work with them. The Contractor shall cooperate with the owners of any underground or overhead utility lines in their removal, construction and rearrangement operations in order that services rendered by these parties will not be unnecessarily interrupted.

The Contractor shall arrange its Work and dispose of its materials so as to not interfere with the operation of other contractors engaged upon adjacent work, and to join its Work to that of others in a proper manner, and to perform its Work in the proper sequence in relation to that of other contractors as may be directed by the Project Manager.

Each Contractor shall be responsible for any damage done by its agents to the work performed by another contractor.

GC – 31 – WATER – Bulk water used for construction, flushing pipelines, and testing shall be obtained from fire hydrants. Contractor shall make payment for hydrant meter at Treasury Billing Office, 1st Floor, City Hall, 100 N. Andrews Avenue. With the paid receipt, contractor can pick up hydrant meter at the utility location office. No connection shall be made to a fire hydrant without a meter connected.

GC – 32 – PROHIBITION AGAINST CONTRACTING WITH SCRUTINIZED COMPANIES – As to any contract for goods or services of $1 million or more and as to the renewal of any contract for goods or services of $1 million or more, subject *Odebrecht Construction, Inc., v. Prasad,* 876 F.Supp.2d 1305 (S.D. Fla. 2012), *affirmed, Odebrecht Construction, Inc., v. Secretary, Florida Department of Transportation,* 715 F.3d 1268 (11th Cir. 2013), with regard to the "Cuba Amendment," the Contractor certifies that it is not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, and that it does not have business operations in Cuba or Syria, as provided in Section 2877.135, Florida Statutes (2021), as may be amended or revised. As to any contract for goods or services of any amount and as to the renewal of any contact for goods or services of any amount, the Contractor certifies that it is not on the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2021), as may be amended or revised, and that it is not engaged in a boycott of Israel. The City may terminate this Agreement at the City's option if the Contractor is found to have submitted a false certification as provided under subsection (5) of Section 287.135, Florida Statutes (2021), as may be amended or revised, or been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Ira Petroleum Energy Sector List or the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2021), as may be amended or revised, or is engaged in a boycott of Israel, or has been engaged in business operations in Cuba or Syria, as defined in Section 287.135, Florida Statutes (2021), as may be amended or revised.

GENERAL CONDITIONS (continued)

GC – 33 – USE OF FLORIDA LUMBER TIMBER AND OTHER FOREST PRODUCTS – In accordance with Florida Statute 255.20 (3), the City specifies that lumber, timber, and other forest products used for this Project shall be produced and manufactured in the State of Florida if such products are available and their price, fitness, and quality are equal. This requirement does not apply to plywood specified for monolithic concrete forms, if the structural or service requirements for timber for a particular job cannot be supplied by native species, or if the construction is financed in whole or in part from federal funds with the requirement that there be no restrictions as to species or place of manufacture.

The Bidder affirms by submitting a response to this solicitation that they will comply with section 255.20 (3) Florida Statutes.

GC – 34 – PUBLIC RECORDS/TRADE SECRETS/COPYRIGHT: The Proposer's response to the Solicitation is a public record pursuant to Florida law, which is subject to disclosure by the City under the State of Florida Public Records Law, Florida Statutes Chapter 119.07 ("public Records Law"). The City shall permit public access to all documents, papers, letters or other material submitted in connection with this Solicitation and the Contract to be executed for this Solicitation, subject to the provisions of Chapter 119.07 of the Florida Statutes.

Any language contained in the Proposer's response to the Solicitation purporting to require confidentiality of any portion of the Proposer's response to the Solicitation, except to the extent that certain information is in the City's opinion a Trade Secret pursuant to Florida law, shall be void. If a Proposer submits any documents or other information to the City which the Proposer claims is Trade Secret information and exempt from Florida Statutes Chapter 119.07 ("Public Records Laws"), the Proposer shall clearly designate that it is a Trade Secret and that it is asserting that the document or information is exempt. The Proposer must specifically identify the exemption being claimed under Florida Statutes 119.07. The City shall be the final arbiter of whether any information contained in the Proposer's response to the Solicitation constitutes a Trade Secret. The City's determination of whether an exemption applies shall be final, and the proposer agrees to defend, indemnify, and hold harmless the City and the City's officers, employees, and agent, against any loss or damages incurred by any person or entity as a result of the City's treatment of records as public records. In addition, the proposer agrees to defend, indemnify and hold harmless the City and the City's officers, employees, and agents, against any loss or damages incurred by any person or entity as a result of the City's treatment of records as exempt from disclosure or confidential. Proposals purposing to be subject to copyright protection in full or in part will be rejected. The proposer authorizes the City to publish, copy and reproduce any and all documents submitted to the City bearing copyright symbols or otherwise purporting to be subject to copyright protection.

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

Telephone Number: **(954) 828-5002**

Mailing Address: **City Clerk's Office**
100 N. Andrews Avenue
Fort Lauderdale, Florida 33301-1016

E-mail: **prrcontract@fortlauderdale.gov**

GENERAL CONDITIONS (continued)
Contractor shall:

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

2. Upon request from the City's custodian of public records, provide the City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes (2021), as may be amended or revised, or as otherwise provided by law.

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

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

CONTRACT PAYMENT METHOD

The City of Fort Lauderdale has implemented a Procurement Card (P-Card) program which changes how payments are remitted to its vendors. The City has transitioned from traditional paper checks to credit card payments via MasterCard or Visa as part of this program.

This allows you as a vendor of the City of Fort Lauderdale to receive your payments fast and safely. No more waiting for checks to be printed and mailed.

In accordance with the contract, payments on this contract will be made utilizing the City's P-Card (MasterCard or Visa). Accordingly, bidders must presently have the ability to accept these credit cards or take whatever steps necessary to implement acceptance of a card before the start of the contract term, or contract award by the City.

All costs associated with the Contractor's participation in this purchasing program shall be borne by the Contractor. The City reserves the right to revise this program as necessary.

By signing below you agree with these terms.

Please indicate which credit card payment you prefer:

- [ ] MasterCard
- [x] Visa

WSP USA Inc.
Company Name

Michael Flood
Name (Printed)

Michael Flood
Signature

3/1/23
Date

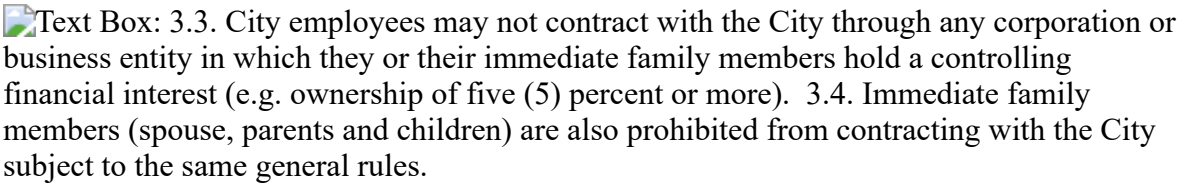
National Resiliency Lead
Title

NON-COLLUSION STATEMENT:

By signing this offer, the vendor/contractor certifies that this offer is made independently and *free* from collusion. Vendor shall disclose below any City of Fort Lauderdale, FL officer or employee, or any relative of any such officer or employee who is an officer or director of, or has a material interest in, the vendor's business, who is in a position to influence this procurement.

Any Cityof LauderdaleFL officeror intowriting of specifications or requirements, solicitation of offers, decision to award, evaluation of offers, or any other activity pertinent to this procurement is presumed, for purposes hereof, to be in a position to influence this procurement.

For purposes hereof, a person has a material interest if they directly or indirectly own more than 5 percent of the total assets or capital stock of any business entity, or if they otherwise stand to personally gain if the contract is awarded to this vendor.



In accordance with City of Fort Lauderdale, FL Policy and Standards Manual, 6.10.8.3,

Failure of a vendor to disclose any relationship described herein shall be reason for debarment in accordance with the provisions of the City Procurement Code.

Name	Relationships

In the event the vendor does not indicate any names, the City shall interpret this to mean that the vendor has indicated that no such relationships exist.

Authorized Signature	**Title**
Name (Printed)	**Date**

CONTRACTOR'S CERTIFICATE OF COMPLIANCE WITH NON-DISCRIMINATION PROVISIONS OF THE CONTRACT

The completed and signed form should be returned with the Contractor's submittal. If not provided with submittal, the Contractor must submit within three business days of City's request. Contractor may be deemed non-responsive for failure to fully comply within stated timeframes.

Pursuant to the City Ordinance Sec. 2-187(c), bidders must certify compliance with the Non-Discrimination provision of the ordinance.

The Contractor shall not, in any of his/her/its activities, including employment, discriminate against any individual on the basis of race, color, national origin, religion, creed, sex, disability, sexual orientation, gender, gender identity, gender expression, or marital status.

1. The Contractor certifies and represents that he/she/it will comply with Section 2-187, Code of Ordinances of the City of Fort Lauderdale, Florida, as amended by Ordinance C-18-33 (collectively, "Section 2-187").

2. The failure of the Contractor to comply with Section 2-187 shall be deemed to be a material breach of this Agreement, entitling the City to pursue any remedy stated below or any remedy provided under applicable law.

3. The City may terminate this Agreement if the Contractor fails to comply with Section 2-187.

4. The City may retain all monies due or to become due until the Contractor complies with Section 2-187.

5. The Contractor may be subject to debarment or suspension proceedings. Such proceedings will be consistent with the procedures in section 2-183 of the Code of Ordinances of the City of Fort Lauderdale, Florida.

Authorized Signature Print Name and Title

Date

E-VERIFY AFFIRMATION STATEMENT

RFP/Bid /Contract No:

Project Description: **A completed version of this form has been provided in our proposal for RFQ No. 12739-1031, Las Olas Corridor Design Consultant Services.**

Contractor/Proposer/Bidder acknowledges and agrees to utilize the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of,

(a) all persons employed by Contractor/Proposer/Bidder to perform employment duties within Florida during the term of the Contract, and,
(b) all persons (including subcontractors/vendors) assigned by Contractor/Proposer/Bidder to perform work pursuant to the Contract.

The Contractor/Proposer/Bidder acknowledges and agrees that use of the U.S. Department of Homeland Security's E-Verify System during the term of the Contract is a condition of the Contract.

Contractor/Proposer/ Bidder Company Name:

Authorized Company Person's Signature:

Authorized Company Person's Title:

Date: