Public Works Asset Management Consulting Services Event No. 454

Submitted to

City of Fort Lauderdale, Florida

July 7, 2025

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Jacobs

Challenging today.
Reinventing tomorrow.

June 30, 2025

Erick Martinez, Senior Procurement Specialist
City of Fort Lauderdale, Florida
Tel. (954) 828-4019; Email: emartinez@fortlauderdale.gov

Subject: Public Works Asset Management Consulting Services, Event No. 454

Dear Mr. Martinez and Evaluation Committee Members,

The City of Fort Lauderdale is embarking on a transformative journey through its Asset Management Consulting Services Program - one that will shape the future of Public Works and define the City's infrastructure legacy for the next century. In response to this visionary initiative, Jacobs Engineering Group, Inc. (Jacobs) is proud to lead a team of experts, supported by Arcadis U.S., Inc. (Arcadis) as a key subconsultant, to deliver resilient, forward-thinking solutions for our world-class city.

Our team is deeply aligned with the City's vision as outlined in Fast Forward Fort Lauderdale. We are committed to honoring and integrating existing Master Plans, strengthening infrastructure, engaging City Commissioners and the community, and ensuring the City is equipped to meet both current demands and future opportunities.

Jacobs, supported by Arcadis, brings decades of experience delivering asset management and infrastructure programs across the US, including ongoing work for the City as well as for the City of North Miami Beach and Tampa Bay Water. We understand the scope, challenges, and opportunities presented in the RFQ and are fully equipped to deliver a comprehensive, flexible, and results-driven program framework.

Key strengths of the Jacobs team include:

Community-Centered Engagement	Through our partnership with Sheryl Dickey of Dickey Consulting Services, Inc. (DCS), we bring a sophisticated, inclusive approach to stakeholder engagement that fosters community trust and buy-in.
Accountability and Data-Driven Solutions	We take ownership of challenges and deliver solutions grounded in quantifiable data and proven methodologies.
Global Expertise, Local Insight	Our core team lives and works in Florida, bringing global best practices tailored to local needs and regulatory environments.
Access to Specialized Expertise	Our team has direct access to a multidisciplinary bench of subject matter experts in water, wastewater, stormwater, marine, and structural systems - ensuring comprehensive lifecycle asset management.
Innovative Tools and Technology	We prioritize practical, cost-effective tools over proprietary software. With partners like CityWorks and technologies such as LiDAR and advanced condition assessment tools, we deliver robust data management, risk analysis, and project prioritization capabilities.

We recognize the City's role as a responsible steward of public infrastructure and are eager to support the development of an actionable, sustainable asset management plan. Our approach will help communicate the value of this initiative to City Commissioners and the public, emphasizing long-term cost savings and risk mitigation.

The Jacobs team, supported by Arcadis and other trusted partners, offers unmatched local knowledge, deep technical expertise, and a proven track record of delivering implementable, high-impact solutions. Our proposed team members are not only highly qualified but also deeply committed to the success of this project and to the City of Fort Lauderdale.

We have reviewed the insurance and compliance requirements and confirm our ability to meet all obligations under City regulations.

As detailed in our proposal, our team was purposefully assembled to partner with City staff in delivering this landmark initiative - one that will ensure Fort Lauderdale remains one of the most vibrant and resilient cities in the world.

We welcome the opportunity to further present our qualifications and vision. Should you have any questions, please feel free to contact our Project Manager, Mauricio Lara at (954) 309.1380. Email: Mauricio.Lara@jacobs.com, or our Client Account Manager, Didier Menard at (407) 496.1938. Email: Didier.Menard@jacobs.com.

Respectfully Submitted,

Jacobs

Mauricio Lara, PE, MBA, PMP Program Manager

Didier Menard, PE, Client Account Manager

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2 Executive Summary

Our Team Understands the City's Need for Actionable Asset Management Planning Services and the Values and Goals of Fast Forward Fort Lauderdale.

Jacobs has evolved from a one-person engineering consultant to a publicly traded Fortune 500 company. We lead the global professional services sector delivering solutions for a more connected and sustainable world. With a local office in Fort Lauderdale and backed by nearly 2,000 professionals who live and work throughout the state of Florida, we are ready and available to continue to serve the City of Fort Lauderdale and its residents.

Business Entity: **Jacobs Engineering Group Inc. (Jacobs)**

Firm Background: The business was founded by Dr Joseph J Jacobs in 1947 and originally incorporated in the State of California in 1974. It reincorporated in Delaware using the same name in 1987 and changed from JEG Acquisition Company to Jacobs Engineering Group, Inc. Jacobs is a publicly traded corporation offering a comprehensive range of services, including scientific and technical consulting, planning, engineering, and construction and program management. We serve a broad spectrum of infrastructure markets across government, commercial, industrial, and private sectors. Our deep understanding of Florida's regulatory environment—demonstrated through successful projects in neighboring cities and counties—combined with our robust local presence, ensures we are well-positioned to deliver responsive, tailored solutions that meet the specific needs of the City of Fort Lauderdale.

Main Office: 1999 Bryan St # 3500, Dallas, TX 75201

Office Location Serving this Contract: 550 W Cypress Creek Rd # 400, Fort Lauderdale, FL 33309

Key Staff for this Contract: Names, role, firm, and office locations for our key staff are listed below. A complete organizational chart can be found in Section 3 of our response.

Name	Firm	Role	Office Location
Mauricio Lara, PE, MBA, PMP	Jacobs	Program Manager	Fort Lauderdale, FL
Didier Menard, PE	Jacobs	Principal in Charge	Orlando, FL
Raul Alfaro, PE	Jacobs	Deputy Program Manager/ Treatment Plants	Fort Lauderdale, FL
Juliana Gomez, EI, MSc	Jacobs	Deputy Program Manager	Fort Lauderdale, FL
Janeane Giarrusso, IAM	Jacobs	Advisor & QA/QC; AMS Development	Atlanta, GA
Jose Custodio, PE	Arcadis	Advisor & QA/QC	Plantation, FL
Margaret Gadzic, IAM	Arcadis	Change Management & Business Integration	Akron, OH
Greg Osthues, PE, IAM	Arcadis	Asset Condition Assessments	Tampa, FL
Celine Hyer, PE, IAM	Arcadis	Asset Criticality & Risk Management	Tampa, FL
Francisco Martinez, PE	Jacobs	O&M Strategic Planning	Pembroke Pines, FL
Melissa Pomales, PE, IAM	Arcadis	Capital Planning	Miami, FL
Jennifer Jacobs, GISP	Jacobs	Data Management	Fort Worth, TX
Sheryl Dickey	Dickey	Commission Engagement & Community Outreach	Fort Lauderdale, FL
GJ Schers, PMP	Jacobs	Treatment Plants	Fort Lauderdale, FL
Diana Francois, PE	Jacobs	Conveyance	Naples, FL

Summary of Key Elements of Our Proposal

National Experience with Local Insight. Jacobs brings nationally recognized expertise, having led transformative projects across the country that balance visionary goals with practical implementation. Our multidisciplinary approach integrates land use, infrastructure, sustainability, and resiliency to shape thriving, future-ready communities. In Florida, we apply this expertise with a deep understanding of the region's unique environmental, regulatory, and growth-related challenges including coastal vulnerability, stormwater management, and rapid urbanization. With a strong local presence and a track record of successful collaborations with Florida municipalities, Jacobs is uniquely equipped to deliver comprehensive, context-sensitive solutions tailored to the specific needs of communities like Fort Lauderdale.

Extensive City Experience. Jacobs has a long-standing and trusted partnership with the City, demonstrated by our extensive history of delivering critical planning and infrastructure projects. We developed the City's previous utility master plans in 2000 and 2007 and served as the program manager for the successful WaterWorks 2011 initiative.

Since then, our relationship with the City has continued through a range of impactful projects, including asset management support for Public Works, major improvements at the GT Lohmeyer and Peele Dixie facilities, resiliency planning efforts, numerous engineering studies, and the Fiveash to Prospect system replacement. This depth of local experience uniquely positions Jacobs to provide strategic, forward-thinking solutions aligned with City needs.

The Jacobs-Arcadis team members proposed for this contract are currently supporting the City on its ongoing Asset Management contract, resulting in continuity of service with no learning curve, facilitating a quick start up on this program.

In 2013, the City of Fort Lauderdale launched Fast Forward Fort Lauderdale: Our City, Our Vision 2035 - an ambitious roadmap for a connected, resilient, and prosperous future. To advance this vision, the City is seeking qualified partners to provide comprehensive Asset Management Planning services for its Public Works asset groups, including stormwater, domestic water, wastewater, roadways, and bridges.

This proposal outlines a strategic approach to support the City in developing a unified, data-driven, and actionable asset management program that addresses current infrastructure challenges and enhances long-term resilience.

The proposed methodology is anchored in five core principles:

1.	**ACCELERATE FOUNDATIONAL TASKS TO ACHIEVE EARLY PROGRESS** Initial efforts will focus on GIS data validation, asset inventory, and condition assessments to deliver early value and establish momentum for long-term implementation.
2.	**ALIGN DECISION-MAKING WITH DATA AND STRATEGIC GOALS** High-quality data will be integrated with the City's vision to ensure that investment decisions are transparent, defensible, and aligned with community priorities.
3.	**APPLY RISK AND VALUE FRAMEWORKS TO GUIDE PRIORITIZATION** A risk-based, value-driven approach will be used to allocate resources efficiently, focusing on critical assets and high-impact projects.
4.	**INTEGRATE OPERATIONS WITH LONG-TERM PLANNING** Asset management practices will be embedded into existing workflows to bridge the gap between day-to-day operations and strategic planning.
5.	**SUPPORT PUBLIC ENGAGEMENT AND TRANSPARENCY** Inclusive outreach strategies will be developed to communicate the value of infrastructure investments and gather meaningful input from the community.

This Asset Management Program will build upon the City's recent planning efforts and provide a foundation for justifying capital projects to the City Commission. The program will be implemented within a regulatory, social, and economic context that enables informed, objective decision-making by City staff and leadership.

The proposal includes:

- A phased, realistic project schedule that supports the City's Asset Management Planning Maturity Evolution.
- Application of Multi-Objective Decision Analysis, Whole Life-Cycle Costing, and Business Case Evaluations to inform long-term financial planning.
- A comprehensive understanding of the scope and complexity of services required, with a focus on maximizing efficiency and value.
- A locally based team with the experience, tools, and qualifications necessary to deliver results, supported by W/MBE subcontractors with a strong history of service to the City.

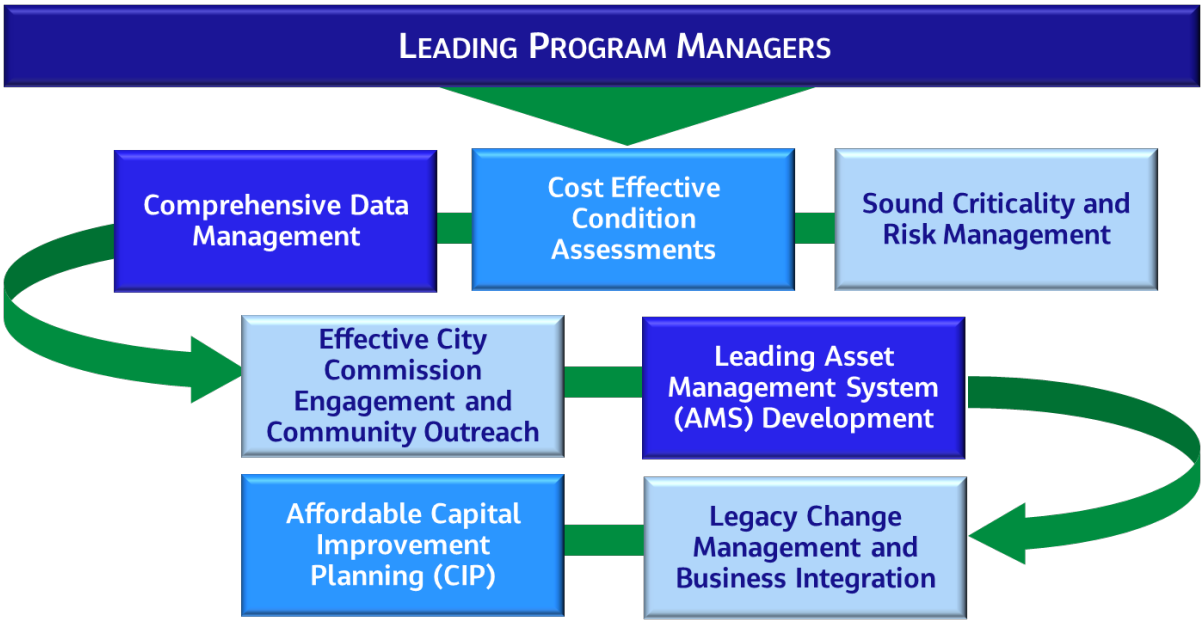
This proposal offers a clear path forward to help the City realize its vision for a resilient and thriving future through effective Asset Management.

Our Team understands the City's need for actionable Asset Management Planning Services and the values and goals of Fast Forward Fort Lauderdale.

Our approach is based on our understanding of Fast Forward Fort Lauderdale, and our knowledge of asset management programs worldwide. Through engaged City Commissioner participation, development of pragmatic and affordable condition assessments, transparent risk analysis, and development of sound cost estimates for financial planning, the attainment of City staff objectives will be at the forefront of our work with your team.

Our approach is based on our understanding of Fast Forward Fort Lauderdale, and our knowledge of asset management programs worldwide. Through engaged City Commissioner participation, development of pragmatic and affordable condition assessments, transparent risk analysis, and development of sound cost estimates for financial planning, the attainment of City staff objectives will be at the forefront of our work with your team.

To successfully deliver the City's Asset Management Program, the team brings together a group of highly qualified professionals with deep North America expertise across all required service areas. Each member is strategically selected for their experience, technical knowledge, and commitment to the City's long-term success. The following roles represent the core capabilities of the team:



LEADING PROGRAM MANAGERS	Brings extensive experience in delivering asset management programs across North America, consistently achieving on-time and on-budget results. This role emphasizes strong leadership in program execution through effective risk management, rigorous quality control, and adherence to safety protocols. These capabilities ensure that complex infrastructure initiatives are delivered efficiently and with high standards of performance.
COMPREHENSIVE DATA MANAGEMENT	Provides deep expertise in organizing and leading teams to conduct thorough data validation and asset attribute collection from diverse sources. This role also includes managing the migration and integration of data into asset management platforms such as CityWorks, ensuring that the City's asset data is accurate, complete, and ready to support informed decision-making.
COST-EFFECTIVE CONDITION ASSESSMENTS	Brings extensive experience in the evaluation and implementation of condition assessment technologies tailored to complex infrastructure systems. The approach includes the development and application of appropriate assessment methodologies, along with field oversight to ensure accurate data collection. These efforts support effective risk evaluation and inform capital planning decisions by providing reliable insights into asset condition and performance.

Sound Criticality and Risk Management	Provides national-level expertise in asset management planning, risk assessment, and capital investment strategy. The work includes conducting both desktop and field-based analyses to evaluate asset criticality and estimate remaining useful life. These insights are essential for prioritizing infrastructure investments, optimizing resource allocation, and managing long-term risk across asset portfolios.
City Commission Engagement/ Community Outreach	Specialists in public engagement and strategic communication will work closely with City Commissioners and senior leadership to build awareness and understanding of the asset management program. They will also lead community outreach efforts to ensure residents are informed and involved at the right stages of the process.
Leading Asset Management System (AMS) Development	Brings a comprehensive and strategic perspective to asset management system development, ensuring full functionality to support capital investment planning. Their expertise includes designing ISO 55001-aligned business processes that enable data-driven, risk-based decision-making. By integrating AMS capabilities with infrastructure planning workflows, the team ensures that the system supports long-term performance, transparency, and accountability.
Affordable Capital Improvement Planning (CIP)	Capital planning professionals will apply life-cycle costing, funding strategy development, and business case evaluations to create an affordable and implementable CIP. Their approach ensures that infrastructure investments are prioritized, justified, and aligned with the City's financial goals.
Legacy Change Management and Business Integration	Brings extensive experience in supporting strategic planning initiatives and guiding organizations through complex transitions. Their approach includes the development of structured change management plans based on industry best practices, with a focus on identifying and mitigating potential risks. This ensures that new asset management processes are successfully integrated into existing systems and embraced across the organization.

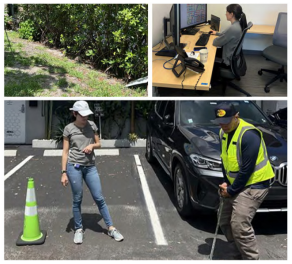
This team structure ensures that the City receives not only technical excellence but also a collaborative, locally engaged, and forward-thinking partnership. Each role is essential to delivering a program that is actionable, resilient, and aligned with the values and goals of Fast Forward Fort Lauderdale.

Over 60 Years of Trusted Partnership with the City of Fort Lauderdale

Year	Project Title	Services Provided
2023	Asset Management TO 2 Asset Registry Development and Condition Assessment of Stormwater Assets and Roadway Assets	Consulting services, planning
2025	Water and Wastewater System Cybersecurity Assessment	Consulting services, planning
Ongoing	GIS Support Services for the City of Fort Lauderdale	Consulting services
Ongoing	Citywide Stormwater Asset Registry Development	Consulting services, planning
Ongoing	GTL WWTP Cityworks Implementation	Consulting services
Ongoing	Risk and Resilience Assessment, Emergency Response Plan, and Hurricane Preparedness Plan Update	Consulting services, planning
Ongoing	24-inch Force Main Replacement Along NE 25th Ave	Design criteria package, design support services, and services during construction
Ongoing	NE 38th St. 42-inch Force Main and NE 19th Ave. 24-inch Force Main Replacement	Design criteria package, design support services, and services during construction
2023	Asset Management TO 1 GTL WWTP Asset Registry Development for CityWorks Integration	Consulting services, planning
2022	GTL WWTP Replacement of Liquid Oxygen Facilities with Variable Pressure Swing Adsorption (VPSA)	Design criteria package and design/build firm bidding and design support services
2022	Peele-Dixie WTP Sodium Hypochlorite Bulk Tanks Replacement and Degasifier Improvements	Design and construction
2022	GTL WWTP Motor Control Center Replacement and Rehabilitation	Design and services during construction
2020	Phase II Las Olas Boulevard Force Main Replacement and Modifications to Pump Station D-38	Design criteria package and services during construction
2020	Risk and Resilience Assessment and Emergency Response Plan	Consulting services
2020	Water and Sewer Biennial Engineer's Report	Consulting services
2020	Force Main Condition Assessment Phase 2, Wastewater Consent Order Program	Consulting services
2019	Force Main Condition Assessment Phase 1, Wastewater Consent Order Program	Consulting services
2009	Peele-Dixie 12 MGD WTP	Planning, construction management, and construction engineering and inspection
2010	Small Water Mains Improvements	Planning, design, construction, and/or project management for the construction of 32 miles of small water mains.
2010	Large Water Mains Improvements	Planning, design, construction, and/or project management for the construction of 61 miles of large water mains.
2010	WaterWorks 2011 Program	Planning, design, construction management, inspection, program planning, program design management and project management for projects between 2002-2011 with a total construction cost of $690 million.
2012	Series 2012 Water and Sewer Revenue Refunding Bonds Feasibility Report	Consulting services
2016	Water and Sewer Biennial Engineer's Report	Consulting services
2016	GTL WWTP Deep Injection Well Permit Renewal	Consulting services
2018	Sewer Force Main Plug Valves and Air Release Valves Assessment	Consulting services
2018	Force Main Condition Assessment Plan, Wastewater Consent Order Program	Consulting services
2009	GTL WWTP Improvements	Provided broad range of wastewater services, including dewatering facility renovations and wastewater process optimization. Planning, design, and construction management.
2009	Infiltration and Inflow Reduction Program, WaterWorks 2011	Planning, design, construction, and program management
2005	A1A Force Main (Sub-Aqueous Crossing), WaterWorks 2011	Planning, design, and construction management.
2004	Idlewyld Water Main, WaterWorks 2011	Planning, design and construction
2004	GTL WWTP Pump Station Upgrade, WaterWorks 2011	Planning, design, and construction
2003	4th Avenue Force Main (Sub-Aqueous Crossing), WaterWorks 2011	Planning, design, and construction management.
2000	Water and Wastewater Master Plan	Planning, consulting services.
1989 – 2000	Engineer of Record	Design, consulting, and construction management.

Ongoing
Cityworks GTL WWTP Cityworks Implementation

Completed 2023
Asset Registry Development and Condition Assessment of Stormwater Assets and Roadway Assets



Ongoing
GIS Support Services for Public Works

Completed 2023
Asset Registry Development for GTL WWTP

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Experience and Qualifications

Firm Profile

As a Fort Lauderdale firm with over 70 years in Florida and nearly 40 years serving the City, Jacobs brings proven performance, deep system knowledge, and a strong local commitment. Our familiarity with the City's infrastructure eliminates ramp-up time, ensuring efficient, on-time, and on-budget delivery. With local partners and aligned expertise, we're ready to implement your program immediately.

Challenging Today. Reinventing Tomorrow: Jacobs is one of the world's largest providers of professional engineering and technical services. Founded in 1947 by Dr. Joseph J. Jacobs, we are a global engineering and construction company providing the full spectrum of professional and field services for public and private clients across all key markets. Jacobs draws on a global talent force of more than 42,000 employees located in over 300 offices worldwide to deliver innovative, practical, sustainable and resilient solutions. We've provided multidiscipline engineering services for Florida clients for more than 70 years—civil, structural, mechanical, transportation, buildings, stormwater, wastewater, environmental, solid waste, marine and coastal, and more.

We're the largest solution provider in Florida and a top-ranked global planning, design, and environmental firm as ranked by Engineering New-Record (ENR) since 2003.

The Jacobs team brings more than 430 multi-disciplinary staff from our local South Florida offices – enabling us to respond quickly, with the right team for your project. Our South Florida-based staff are supported by another 900 staff in Central and North Florida, and a talent force exceeding 42,000 worldwide. Our local offices are specifically structured to manage and support multiple contracts for our Broward, Miami-Dade, and Palm Beach clients – providing the proximity and functional ability to deliver the scalability required to support any project need at any time.

The City's project will be managed from both Jacobs' Fort Lauderdale office. We understand the importance of providing fast, complete responses to the City's needs. For this reason, most of our team members, including Program Manager, Mauricio Lara, PE, MBA, PMP and Senior Advisor Jose Custodio, PE will be based from Jacobs' and Arcadis' offices in Fort Lauderdale and Plantation, respectively.

Our proximity provides you the benefit of immediate response and increased accessibility, as well as local presence, commitment, and familiarity. It also ensures access to the facilities, equipment, and resources to cost-effectively complete the Asset Management Planning program for the City of Fort Lauderdale, while ensuring the highest levels of quality. This on the spot service offers the flexibility, depth, mix of technical skills, and resources to meet all the various skillsets needed to complete this project.

Firm name: Jacobs Engineering Group Inc.

Years of experience in related work: 77
Business structure: Jacobs Engineering Group Inc. is a corporation, registered as a legal entity in Florida. See Jacobs' Sunbiz registration in Section 8 of this submittal.
Florida registration and licenses: See Key Staff Licenses included in this section

Local company address: 550 W. Cypress Creek Road, Suite 400, Fort Lauderdale, FL 33309
Phone/fax: Ph: (954).351.9256 | Fax: N/A
Email: Mauricio.Lara@jacobs.com, Didier.Menard@jacobs.com

Website: https://www.jacobs.com/

Contact person: Mauricio Lara, PE, MBA, PMP | Mauricio.Lara@jacobs.com | Phone: 954.309.1380

Size of the Firm: Jacobs is a global professional consulting firm with over $11.5 billion in annual revenue. Our core skills revolve around consulting, planning, architecture, design, engineering, infrastructure delivery services including project, program and construction management and long-term operation of facilities. Solutions are delivered as standalone professional service engagements, comprehensive program management partnerships, and selective progressive design-build and construction management at-risk delivery services. Increasingly, we use data science and technology-enabled expertise to deliver positive and enduring outcomes for our clients and communities. Our clients include national, state and local governments in the US, Europe, UK, Middle East, and Asia Pacific, and multinational and local private sector clients throughout the world.

Number of Staff: Global: 42,000 | Florida: 2,000 | Fort Lauderdale: 90

Financial Stability & Transparency: Jacobs' financial stability and industry reputation make us a trusted partner for municipal governments seeking forward-thinking, cost-effective infrastructure solutions. For company financial information, please visit https://invest.jacobs.com for our latest SEC corporate filing reports.

Key Staff Experience

A Highly Experienced Program Manager, Committed and Ready. Our team will be led by Program Manager, Mauricio Lara, supported by a team of professional staff who have relevant skills as well as direct experience working on projects in Fort Lauderdale. **The Jacobs-Arcadis team organization chart is detailed on page 3. Resumes for our key staff follow the organization chart.**

Mauricio Lara, PE, MBA, PMP will be our Program Manager for this contract. With over 23 years of experience in water/wastewater infrastructure, stormwater, and capital improvement planning, Mauricio is not just a leader—he is a results-driven strategist committed to excellence. Mauricio has successfully managed and delivered complex infrastructure projects and his experience extends to high-impact flood control initiatives and utility asset management, ensuring resilient and future-ready infrastructure. **He also brings invaluable, first-hand experience with the City of Fort Lauderdale through his direct involvement in the landmark WaterWorks 2011 program—a $700 million investment in water and wastewater infrastructure**.

His roles in design management, construction oversight, and project controls gave him deep insight into the City's operational standards, coordination protocols, and long-term infrastructure goals.

Throughout his career, Mauricio has led the development and implementation of digital advancement plans that support long-term infrastructure goals and improved service delivery and approach that emphasizes collaboration, transparency, and measurable outcomes—ensuring that digital tools are not only implemented effectively but are aligned with the mission and operational priorities of the organizations they support. Mauricio has worked closely with multidisciplinary teams to integrate digital workflows, optimize technology strategies, and transition organizations from traditional engineering practices to intelligent, connected infrastructure systems. Mauricio has participated in structured engagement models that includes continuous performance monitoring, stakeholder alignment, and executive-level reporting—ensuring accountability and sustained progress throughout the digital transformation journey. Having supported the full lifecycle of one of the City's most ambitious utility initiatives, Mauricio understands what it takes to deliver a strategic, technically sound, and community-aligned projects.

The Thames Estuary Asset Management 2100 (TEAM2100) programme is the Environment Agency's largest flood-risk management programme and involves new ways of working to manage flood defences more efficiently and effectively. TEAM2100 is delivering the first 10 years of asset management in the tidal flood defences (4000+ assets, including 350km of walls and embankments) as recommended by the 100-year Thames Estuary 2100 (TE2100) plan. This sets out how to manage increasing tidal flood risk, due to rising sea levels and deteriorating assets, from now until the end of the century and beyond. The assets in the Thames Estuary protect 1.3 million people and £275 billion worth of property from tidal flood risk. Valued at £308m, TEAM2100 is one of the Government's top 40 infrastructure projects. Delivering greater value for public money is at the heart of TEAM2100 through innovation, greater collaboration with the supply chain and optimized asset and programme management. Innovation is core to all activities across this programme, aligned to deliver £100m of efficiency savings over the 10 years. **The Integrated Delivery Team (IDT), consisting of the Environment Agency, Jacobs and Balfour Beatty are driving innovation at every stage of the asset lifecycle and have a unique Innovation Forum and process to drive innovation from programme and project level.**

City of Fort Lauderdale, Florida

Key Staff

Principal-in-Charge
Didier Menard, PE (J)

AM Program Manager
Mauricio Lara, PE, MBA, PMP (J)

Deputy Program Managers
Raul Alfaro, PE (J)
Juliana Gomez, EI (J)

Advisors & QA/QC
Janeane Giarrusso, IAM (J)
Jose Custodio, PE (A)

Commission Engagement & Community Outreach
Sheryl Dickey

Change Management & Business Integration
Margaret Gadzic, IAM (A)

Asset Condition Assessments
Greg Osthues, PE, IAM (A)

Asset Criticality & Risk Management
Celine Hyer, PE, IAM (A)

O&M Strategic Planning
Francisco Martinez, PE, CMRP (J)

AMS Development
Janeane Giarrusso, IAM (J)

- AMS Business Process Optimization
- LOS Alignment to Asset Performance
- Asset Group Whole Life-Cycle Strategies (Maintenance and Reliability
- Asset Management Competency & Training

Capital Planning
Melissa Pomales, PE, IAM, PMP (A)

- Project ID & BCE with WLC and MODA
- Value-Based Prioritization
- Financial Forecasting and CIP
- Funding and Grant Options

Data Management
Jennifer Jacobs, GISP (J)

- Validate Existing GIS Database
- Data Collection and Validation
- Data Storage into GIS
- CityWorks Data Migration and Sync

Water, Wastewater, and Stormwater

Modeling: Francisco Garcia (J), Sarah Deavenport (J), James Cooper (A), Chris Adams (A), Leah Balogh (A)
Treatment Plants: Raul Alfaro (J), Randy Boe (J), GJ Schers (J), Guy Le Patourel (A), Michael Pilutti (A)
Pump Stations: Dennis Stevenson (J), Brian Duane (A)
Conveyance: Diana Francois (J) David Wilson (A)
Stormwater: Mark Van Auken (A), Chris Tilman (A)

Seawalls

Underwater Inspections: Patrick Russo (J)
Coastal SME: Luce Bassetti (J)
Ports/Maritime SMEs: Duncan Kopp (J), Lee Hellstrom (J), Gary Ledford (J), Tomas Montemayor (J)

Transportation and Bridges

Modeling: Ana Elias (J), Christine Springer (J)
Planning: Tara Jones (J), Juan Gonzales (A)
Structural: Benjamen Weaver (J) Marisol Salas Morales (J)
Bridges: Velvet Bridges (J), Brett Rakita (J), Patrick Pecot (A)
Evaluations: L Carl Filer Jr (J), Colleen Ross (J)
Pavement Management: Joe Sawmiller (J), Houman Assari (J)

Technical Support Team

Data Management (GIS)
Jacobs Kaduthanathu (J)
Christine Rafferty (J)
James McCallon (A)

Change Management
John Fortin (J)

Cost Estimation
Ralph Myers (J)
Erika Smith (J)
Meghan Naumick (A)

Cityworks
Alex English (J)
Ed Roworth (J)
Tom Merce (A)

RFP Procurement
Raul Alfaro (J)
Leah Richter (A)

Risk Management
Matthew Walker (J)
Janeane Giarrusso (J)
Kelsi Pothier (J)

Capital Planning Optimization
Dr. Mark Engelhart (A)

Project Controls
Nerlande Toureau (J)

SAMP and AMPS
Janeane Giarrusso (J)
Celine Hyer (A)
Corrine DeLeon (J)
Eric Habermeyer (J)

Innovation & Technology
Matt W Erker (J)
Dan Scrutchfield (A)

Condition Assessment Field Services
Matt Crowley (J)
Mohammed Salam (J)
Viktor Cieslik (A)

Funding and Grants
David Green (J)
Charles Nicholas (J)
Melissa Hew (A)

O&M Strategic Planning Support
John Ganaway (J)
Patrick Haedtler (J)
Jim Oldach (J)

Stormwater & Green Infrastructure
Mitch Griffin, PE (J)
Jason Bird (J)

Strategic AM Framework
Janeane Giarrusso (J)
Kelsi Pothier (J)

Sustainability & Resiliency
Jason Bird (J)
Whitford Remer (A)
Alec Rodriquez (J)
Susy Torriente (J)

AMS Business Processses
Janeane Giarrusso
Kelsi Pothier (J)
Eric Habermeyer (J)

Decision Science
Matthew Walker (J)

IAM endorsed AM Fundamentals Training
Kelsi Pothier (J)
Paul Miller (J)

Legend
(J) Jacobs (A) Arcadis

YEARS OF EXPERIENCE
23 years

YEARS WITH JACOBS
1 year

EDUCATION AND TRAINING
MBA, General Management, Nova Southeastern University

BA, Civil Engineering, EAFIT University

Executive Project Management Certificate, Florida Atlantic University

REGISTRATIONS | CERTIFICATIONS
Professional Engineer: FL: (#69929)

Project Management Professional: Global, (#691289)

Office Location
Fort Lauderdale, FL

Mauricio Lara, PE, MBA, PMP | Program Manager

Mauricio expertise spans the planning and execution of significant water/wastewater, water resources, utilities, and civil infrastructure projects for the public sector. His involvement extends to large-scale water and wastewater programs and projects, including wastewater and water treatment plants, water and sewer networks, and pump stations. Notably, he has contributed to mission-critical water resources restoration initiatives that feature high-capacity pumps, multiple control structures, levees, and canals.

Additionally, he has taken a leadership role in mission-critical flood control structure inspection programs and played a key part in multimillion-dollar capital improvement planning and execution for water resources and water/wastewater infrastructure projects. Throughout his career, he has served as a project engineer, project manager, and program manager, overseeing numerous projects across South Florida. He has led the creation and delivery of digital transformation initiatives for top engineering design firms and utilities with emphasis on water and wastewater.

KEY RELEVANT EXPERIENCE

Broward County Reuse Plant Expansion Construction Administration Services, Broward County, FL
Project Manager. Responsible for contract management field personnel, designers and sub consultants' coordination during the project throughout project lifecycle. Managed contract and coordinated with the county and contractor to uphold project specifications and budgetary conditions. Facilitated communication between all parties involved, conducted regular progress meetings, and provided comprehensive updates to the client throughout the project lifecycle to ensure transparency and alignment with their vision. Expansion of an existing 10 MGD, up-flow filter, reclaimed water plant. The project intends to implement a reclaimed water facility expansion that will yield a 26 MGD total production capacity at the NRWWTP facility. This $54M project included the expansion and modification of existing filter feed transfer station, expansion of existing partitioned concrete structure, expansion of existing chlorine contacts tanks, and a new concrete slab/containment area. Through effective communication and regular site visits, facilitated problem-solving and addressed any issues promptly to maintain project momentum and quality standards.

Sawgrass WTTP Train A Secondary Treatment Design, City of Sunrise Utilities Department, City of Sunrise, FL
Project Manager. Overseeing the project design lifecycle, from conception to completion. This involves orchestrating the design process with technical teams and subject matter experts, ensuring seamless coordination with the city authorities, sub-consultants, permitting agencies, and plant operators. Ensuring that all deliverables are met on time and within budget constraints. Central point of contact, facilitating communication and collaboration among various stakeholders to ensure the project progresses smoothly and achieves its objectives. Additionally, responsible for coordinating with subject matter experts to identify and mitigate risks, resolve conflicts, and ensure compliance with regulations and standards throughout the project. Design associated with the replacement of equipment located in Blower Building 1 by constructing a new building adjacent to the existing Blower Building 1 and demolishing the existing building once the new process and electrical services have been made operational. The replacement of the Train A aeration process equipment also allows modifications to the Train A Aeration Basins to be made. These modifications eliminate the existing Surge Tanks, by incorporating them into the aeration basins, as well as the large Dosing Pumps, which reached the end of their useful lives. The Sawgrass WWTP has a permit to treat an Annual Average Daily Flow of 20 MGD. This is a $35M construction cost project. Through effective communication and regular design review meetings, facilitated problem-solving and addressed any issues promptly to maintain project momentum and quality standards.

Sawgrass WWTP High-Level Disinfection Reuse Facility Construction Administration Services, Sunrise, FL
Project Manager. Overseeing every aspect of the project lifecycle. This included coordinating with the city's engineering and building departments and plant operators, field personnel, designers, contractors, agencies, and other stakeholders to ensure that the contract's requirements were met efficiently and within budget. Responsibilities also encompassed managing timelines, resources, and risk mitigation strategies to guarantee a successful outcome. Facilitated communication between all parties involved, conducted regular progress meetings, and provided comprehensive updates to the client throughout the

project lifecycle to ensure transparency and alignment with their vision. New $15M high-level disinfection facility rated for 4 MGD at a previously under-developed site. Major components included a new transfer station, concrete structure and building, motor control center and gear, chemical storage area, electrical building, new 5M gallon pre-stressed concrete reuse water storage, and a new high service pumping station. Underground utilities conflicts posed a major obstacle, demanding careful underground construction activities to avoid disruptions and ensure the integrity of existing infrastructure. Through strategic scheduling and close coordination with the contractor, engineering and operations, resolution of any issues that arose were achieved efficiently minimizing the plant's downtime.

Lift Station 114, 123, 125, 132 and 148 Rehabilitation Construction Administration Services, Sunrise, FL

Project Manager. Overseeing every aspect of the project lifecycle. This included coordinating with the city's engineering and building departments, field personnel, designers, contractors, agencies, residents, and other stakeholders to ensure that the contract's requirements were met efficiently and within budget. Responsibilities also encompassed managing timelines, resources, and risk mitigation strategies to guarantee a successful outcome. Facilitated communication between all parties involved, conducted regular progress meetings, public outreach, and provided comprehensive updates to the client throughout the project lifecycle to ensure transparency and alignment with their vision. Scope: Provided Construction Administration Services for the conversion of the existing Lift Stations 114, 123, 125, 132 and 148 from wet pit/dry pit lift stations to submersible pump stations, and to update the overall condition of each of the sites associated with this work. Through effective communication and regular site visits, facilitated problem-solving and addressed any issues promptly to maintain project momentum, quality standards and impacted residents satisfied.

Banyan Clearwater 12-inch Interconnect Construction Administration Services, West Palm Beach, FL

Project Manager. Overseeing every aspect of the project lifecycle. This included coordinating with the city's engineering and building departments, field personnel, designers, contractors, agencies, residents, and other stakeholders to ensure that the contract's requirements were met efficiently and within budget. Responsibilities also encompassed managing timelines, resources, and risk mitigation strategies to guarantee a successful outcome. Facilitated communication between all parties involved, conducted regular progress meetings, public outreach, and provided comprehensive updates to the client throughout the project lifecycle to ensure transparency and alignment with their vision. Performed Construction Administration Services for the connection of the 8-inch Ductile Iron Pipe (DIP) Water Main (WSP28993) to the 42-inch DIP Transmission Water Main Line (WSP25671, WSP29646) located on the intersection of Clearwater Drive and Banyan Boulevard that supplies water to the south area of the City's WTP. The 8-inch DIP connection was performed using Horizontal Directional Drilling (HDD). Through effective communication and regular site visits, facilitated problem-solving and addressed any issues promptly to maintain project momentum, and quality standards.

PROGRAM MANAGEMENT & GOVERNMENT ROLES

Environmental Services Department Utilities, City of Delray Beach, FL

Assistant Director. In this government employee role, assisted in the direction and coordination of daily activities within Environmental Services, including Public Utilities, Engineering & Project Management, Construction, Water/Sewer Network, Utility Maintenance, and others. Contributed to short-term and long-term planning on the $26-million CIP.

WaterWorks 2011 - Water and Wastewater Capital Improvements Program, City of Ft. Lauderdale Utilities Department, City of Ft. Lauderdale, FL

Project Engineer. Participated in design and construction management activities of this $750-million program including rehabilitation and construction phase services for pump stations, large water mains, wastewater force mains and gravity sewer projects. Analyzed and reported results of infiltration and inflow (I&I) monitoring used in generating contracts and SOW for approximately 7.5 miles of sanitary sewer. Assisted in managing project controls, budget, cost / system analysis and process improvement by administering the Program Control System (PCS). Led State Revolving Fund (SRF) program to construct wastewater and stormwater treatment projects.

Structure Inspection Program (SIP), South Florida Water Management District, West Palm Beach, FL

Program Manager. In this government employee role, led the $2-million annual Structure Inspection Program (SIP) that involved systematic inspections of underwater and above-water project structures (incl. 570 water control structures, 62 pump stations, and 1,969 miles of canals/levees). Planned inspections, prioritized and managed repair projects, validated inspection submittals, and introduced best practices. Reduced SIP costs through analyzing level of complexity for each structure and allocating resources based on needs. Decreased expenses through effective allocation strategies.

Project Development, South Florida Water Management District, West Palm Beach, FL

Lead Engineer. In this government employee role, determined needs, analyzed resources, and defined criteria for engineering projects with multimillion-dollar value (eg. canals, pump stations, facilities, bridges, numerous others). Oversaw the full cycle of projects. Assisted in developing $50-million, 5-year Capital Improvement Plan that involved compilation and presentation of comprehensive operations, financial, and engineering data on over 250 projects. Prioritized and launched $80-million plus of successful capital projects. Created highly detailed Project Definition Reports to facilitate project progress and achievement of goals.

Didier Menard, PE | Principal-in-Charge

Didier is the engineer in charge of local government affairs for Florida and brings local expertise in public involvement efforts. He is well versed in public involvement activities for water and transportation projects in Florida..

YEARS OF EXPERIENCE
26 years

YEARS WITH JACOBS
18 years

EDUCATION AND TRAINING
BA, Civil Engineering, University of Central Florida

REGISTRATIONS | CERTIFICATIONS
Professional Engineer: FL (# 66685)

Office Location
Orlando, FL

KEY RELEVANT EXPERIENCE

Seminole County Environmental Services Program Capital Improvement Plan (CIP), Seminole County, FL

Principal-in-Charge. As Principal-in-Charge, Didier provided sustained, open communication with the County Manager and County Attorney as well as County Commissioners. Didier coordinates with the Environmental Services Director, other department leaders and stakeholders to confirm their needs are addressed and issues resolved early.

North Miami Beach Water CIP & Contract Operations, North Miami Beach, FL

Community Outreach Lead. As the Community Outreach Lead for North Miami Beach Water's $350 million CIP and contract operations program, Didier worked with City leadership to identify opportunities to give back to the community. He was involved in numerous outreach programs for the local community, including the "Drop Savers Program" and "School Backpack" events.

Capital Improvement Plan, City of Cocoa, FL

Principal-in-Charge/Public Involvement Task Lead. Didier provided sustained, open communication with the local municipality executive leaders including the Mayor, City Council, and Utilities Director, and other stakeholders to confirm their needs are addressed and issues resolved early. He worked to identify funding opportunities and ensured staffing resources were available as needed. The City of Cocoa Utilities Department Capital Improvement Plan, which involves developing and implementing public involvement and communication strategies, and leading public information and stakeholder meetings. As public involvement task lead, Didier helps in developing and implementing public involvement and communication strategies and leading public information and stakeholder meetings.

City of Cocoa Consultant Services, City of Cocoa, FL

Principal-in-Charge. As Principal-in-Charge, Didier provided sustained, open communication with the local municipality executive leaders including the Mayor, City Council, and Utilities Director, and other stakeholders to confirm their needs are addressed and issues resolved early. He worked to identify funding opportunities and ensured staffing resources were available as needed. The City of Cocoa Utilities Department CIP, which involves developing and implementing public involvement and communication strategies, and leading public information and stakeholder meetings.

Ocean Outfall Legislation (OOL) Capital Improvement Program, Miami-Dade Water and Sewer Department (WASD). Miami, FL

Small Business Outreach/Workforce Development Lead. Didier provides small and minority business program development leadership for this 10-year, $5.7 billion capital improvement program. He leads all aspects of small business development, including fostering relationships with local firms, expanding their capacity, and assisting them in increasing their local work force. Key focus areas for implementation involve developing a mentor-protégé program, participating in small business events and training, providing the local workforce with opportunities, and leveraging program opportunities for local small businesses. Didier is responsible for collaborating with the Miami-Dade Chamber of Commerce, workforce training, and placement organizations, including CareerSource, and small and minority local businesses located in South Florida. Additionally, Didier has assisted WASD Small Business Enterprise with workshops such as "How to do Business with Miami-Dade," "Prompt payment," "Planning/Scheduling," and "Construction Management." These workshops prepare small businesses in Miami-Dade for additional work opportunities.

Seminole County Environmental Services Program CIP, Seminole County, FL

Principal-in-Charge/Public Involvement. Didier provided sustained, open communication with the County Manager and County Attorney as well as County Commissioners. Didier coordinates with the Environmental Services Director, other department leaders, and stakeholders to confirm their needs are addressed and issues resolved early.

CIP, City of Cocoa, FL

Public Involvement Task Lead. Public involvement task lead for the Utilities Department CIP, which involves developing and implementing public involvement and communication strategies, and leading public information and stakeholder meetings.

Raul Alfaro, PE, ENV SP | Deputy Program Manager, Treatment Plants

Raul is a senior water treatment process engineer and project manager. He has experience supporting municipal water utilities and private commercial clients across Florida and the Caribbean during all stages of the design process, including master planning, plant commissioning, performance testing, facility evaluation, process optimization, expansion evaluation, pilot testing, and capital improvement planning. Over the last 10 years, Raul has led and/or supported over 24 projects for the City of Fort Lauderdale.

YEARS OF EXPERIENCE
10 years

YEARS WITH JACOBS
8 years

EDUCATION AND TRAINING
BS, Environmental Engineering, Florida International University

REGISTRATIONS | CERTIFICATIONS
Professional Engineer: FL: #92557

ENV SP

AWWA J100 Utility Risk and Resilience Certificate

FEMA ICS: 100, 200, and 700

Office Location
Fort Lauderdale, FL

KEY RELEVANT EXPERIENCE

Comprehensive Utilities Master Plan and Condition Assessment, Pembroke Pines, FL.
Water System Lead. Managed a multi-discipline team on fast-tracked condition assessment project for the City of Pembroke Pines. The comprehensive assessment established a baseline of assets, unit processes, and components of water supply, treatment, and distribution system from which rehabilitation and replacement projects were prioritized and included in the City's Capital Improvement Projects.

Owner's Representative for Replacement of Fiveash WTP with New 50 mgd NF and Ion Exchange WTP, City of Fort Lauderdale. Fort Lauderdale, FL
Project Manager/Process Engineer. Managed a multi-disciplinary team to provide general engineering services including an Optimum Corrosion Control Treatment (OCCT) study to identify corrosion control indices when transitioning to new finished water quality and support compliance with Lead and Copper Rule Revision (LCRR). Conducted wellfield assessment of 28 surficial Biscayne aquifer wells which covered water quality characterization, flow/hydraulic testing, and well drawdown testing. Evaluated the selected treatment technologies for a new NF facility with anion exchange split stream.

Prospect Lake WTP PFAS Evaluation, Prospect Lake Water, L.P. Fort Lauderdale, FL
Project Manager/Lead Technologist. Raul served as lead technologist for PFAS evaluation of Prospect Lake WTP and was responsible for the development of a sampling and analysis plan. Raul directed the sampling of 28 surficial Biscayne aquifer wells for 29 PFAS compounds. The work also involved evaluating alternatives to meet compliance with proposed EPA MCLs for PFOS and PFOA at the WTPs, including the development of a blending model to optimize blending permeate stream with anion exchange treated water.

PFAS Evaluation of East and West Wellfield, City of Boynton Beach. Boynton Beach, FL
Project Manager/Process Engineer. Led and was responsible for the development of a sampling and analysis plan and directed the sampling of 30 surficial Biscayne aquifer wells for 29 PFAS compounds. The work also involved evaluating alternatives to meet compliance with proposed EPA MCLs for PFOS and PFOA at two WTPs, including the development of a blending model to optimize blending permeate stream with pretreated raw water at the West WTP.

Water System Master Plan and RO Expansion Design, City of Melbourne, FL
Water System Engineer/Process Engineer. Responsible for the development of design and operational criteria for the Lake Washington Surface WTP as part of the water production facility evaluation under the City of Melbourne Mater Plan, which had a 20-year planning horizon. Rehabilitation and replacement projects were prioritized and included in the City's Capital Improvement Projects. Raul also led the optimum corrosion control treatment study for the City of Melbourne's Reverse Osmosis (RO) WTP expansion which evaluated finished water chemistry changes after the expansion will impact corrosion control treatment and corrosion control parameters and informed design decisions for post treatment stabilization.

Repair and Replacement Services and Program Management Services, North Miami Beach Water. North Miami Beach, FL
Deputy Program Manager/Project Manager. Development of risk-based prioritization of repair and replacement projects, including project evaluation criteria to more readily allocate annual Repair and Replacement Funds to higher priority projects under a Repair and Replacement Services and Program Management Services contract. Also responsible for project management, contractor management, scope development and Basis of Design of several repair and replacement projects including a 30,000-gallon sulfuric acid bulk storage tank replacement. Responsible for preparing Request for Proposals (RFP) packages for design, permitting, and construction of several repair and replacement projects valued at approximately $5M.

Juliana Gomez, EI, MSc | Deputy Program Manager

Juliana is a versatile and results-driven engineer with extensive experience in civil and environmental engineering projects across Miami and Broward County. With a solid background in both design and project management, Juliana has contributed to a wide range of infrastructure developments, including high-rise stormwater systems, residential septic tank designs, and municipal water treatment improvements. Her experience includes preparing detailed construction cost estimates, reviewing submittals and RFIs, and overseeing the design of stormwater infrastructure for large-scale developments. Notably, Juliana led the stormwater design for several new high-rise projects and delivered effective septic systems designs for residential developments, ensuring compliance with local regulations and environmental standards.

YEARS OF EXPERIENCE
7 years

YEARS WITH JACOBS
3 years

EDUCATION AND TRAINING
BS, Petroleum Engineering, International University of Santander, Colombia

MS, Environmental Engineering, Florida International University

REGISTRATIONS | CERTIFICATIONS
Utility Risk and Resilience Program – G430, G440, J100, and Cybersecurity Guidance.

Office Location
Fort Lauderdale, FL

KEY RELEVANT EXPERIENCE

Stormwater Swales Asset Registry Development, City of Fort Lauderdale, FL
Project Manager. In charge of initiating, planning, executing, controlling, and closing the project. The PM is responsible for overall coordination and management of the project task and the successful completion of the project on time and on budget by developing and updating a project plan and schedule.

Project involves reviewing current maintenance management practices and assistance with the development of foundational CMMS data for the development of the first asset registry of stormwater swales locating in the City Right of Ways. The review of current GIS data with O&M practices to evaluate and propose a GIS schema modification needed to incorporate stormwater swales assets.

The completing of the project includes the development of a framework for asset hierarchy to determine how assets will be stored and aligned with Stakeholder needs. Once asset hierarchy is approved, the final task is to create a GIS geodatabase that will be incorporated into the City's GIS System.

City Streets Curbing Asset Registry Development, City of Fort Lauderdale, FL
Project Manager. In charge of initiating, planning, executing, controlling, and closing the project. Responsible for overall coordination and management of the project task and the successful completion of the project on time and on budget by developing and updating a project plan and schedule.

Project involves reviewing current maintenance management practices and assistance with the development of foundational CMMS data for the development of the first asset registry of concrete curbing located in the City's Right of Ways. The review of current GIS data with O&M practices to evaluate and propose a GIS schema modification needed to incorporate concrete curbing assets.

The completing of the project includes the development of a framework for asset hierarchy to determine how assets will be stored and aligned with Stakeholder needs. Once asset hierarchy is approved, the final task is to create a GIS geodatabase that will be incorporated into the City's GIS System.

GTL WWTP Cityworks Implementation, City of Fort Lauderdale, FL
Assistant Project Manager. The project includes reviewing the asset hierarchy, database organization, and data in GIS to determine additional configurations required to the GTL WWTP Cityworks. Responsible for review of current asset management business processes and identifying possible updates required as part of the Cityworks software implementation.

Also responsible for developing and providing material training and training sessions to introduce Cityworks software to the City's team, by providing testing procedures and walking the users through the Cityworks workflows in which any failures or unexpected issues are documented. Submitted training materials, workflow diagrams and role-based training materials to the City, and provided additional support services for Cityworks.

Professional Services for Geographic Information System (GIS) Consulting Services for Stormwater Operations, City of Fort Lauderdale, FL
Senior GIS Consultant. The project includes updating the City's Stormwater GIS system, making corrections about location of catch basins, manholes, drainage pipe, tidal valves, and other assets with recent field findings collected by the City crews as well as City stormwater contractor. Reviewing all field findings from a variety of sources (maps, Cityworks, Q-alerts, and others), and reviewing all city's development projects, including as-builts, surveys, construction drawings to confirm assets sizing, location, name, material, and others.

Janeane Giarrusso, IAM | Advisor & QA/QC | AMS Development

Janeane is certified with the Institute of Asset Management (IAM) and has 25 years of professional experience in strategic planning; Asset Management Program development; identifying the "right" data to inform decision-making in support of an organization's strategic goals; and identifying, selecting, and configuring supporting technology. She is a skilled facilitator and strategist who has worked with staff from all levels of an organization to create change by focusing on business process optimization improvements and maximizing the value of collected data.

YEARS OF EXPERIENCE
25 years

YEARS WITH JACOBS
9 years

EDUCATION AND TRAINING
MA, Urban and Regional Planning, Georgia Institute of Technology

BS, Biology/Environmental Studies, University of California, Santa Cruz

REGISTRATIONS | CERTIFICATIONS
Certified with the Institute of Asset Management (IAM)

Office Location
Atlanta, GA

KEY RELEVANT EXPERIENCE

Asset Management Plan, Clayton County Water Authority (CCWA), Morrow, GA
Technical Leader. Worked with CCWA and a team sub-consultant through a collaborative approach, to develop a facility asset management plan (AMP) for the water production facilities and a distribution system AMP, in response to a Georgia Environmental Protection Division (GA EPD) directive that water production facilities and assets must have an AMP at the time of water permit renewal. The resulting AMPs were developed in alignment to the Institute of Asset Management (IAM) standards and developed as a "tool" to support staff with understanding asset health by taking advantage of existing technologies, to inform staff asset management decision-making and reduce risk and associated costs. The next phase involves CCWA converting the AMP into a "Digital AMP" to further improve staff access to master data and information.

Strategic Asset Management Plan (SAMP) and Department Specific Data Improvement Work Plans, City of Redmond, OR
Technical Asset Management Leader. Working with the City of Redmond to develop a SAMP that sets standards for how the organization manages assets, including identifying levels of service (LOS), aligning operations and maintenance to support achieving those LOS, assessing data and usage of technology, establishing a risk management strategy, and life cycle analysis of their asset portfolio across multiple divisions. As part of this project, development of Department specific data improvement work plans focused on optimizing the organization of data (asset hierarchy, data standards) that can be used to support development of risk registers and life cycle models are being developed.

Strategic Asset Management Plan Development, Clayton County Water Authority (CCWA), Morrow, GA.
Technical Leader. Worked with a Steering Committee of CCWA leadership over core functional areas that include operations and maintenance, engineering, IT, customer service, finance, human resources, and risk management to prepare a Strategic Asset Management Plan (SAMP) for plants; distribution, collection, and stormwater systems; and warehouse facilities. The SAMP was prepared following the assessment of CCWA asset management procedures and processes and resources to develop a baseline for how well assets are managed, from which gaps to the future desired state were identified and compared, turned into projects, and prioritized and sequenced over a 5-year implementation period. Currently working with CCWA to implement prioritized improvement projects.

Asset Management Program Development and Implementation, City of Billings Public Works Department, Billings, MT
Project Manager and Technical Leader. Completed development of a Strategic Asset Management Plan (SAMP) a maturity assessment, AM training, identification of improvement initiatives, development of an implementation strategy, and change management communications plan. The SAMP, implementation strategy, and change management communications plan were developed through a series of interactive workshops with a defined Steering Committee.

Strategic Asset Management Plan Development, Gwinnett County Department of Water Resources, Gwinnett County, GA.
Business Process Analyst and Facilitator. Developed three Strategic Asset Management Plans to guide decision-making for management of stormwater infrastructure assets that included pipes, structures and best management practices. Facilitated meetings with top level managers and field level staff to collaboratively identify and develop input for these plans that included goals, asset hierarchy, service levels, failure and consequence criteria identification, optimized maintenance strategies, and realistic rehabilitation and replacement cycle management.

Jose Custodio, PE | Advisor & QA/QC

Jose is a professional engineer registered in the state of Florida, with a background in utilities engineering and construction management. Work experience includes planning, design, procurement, and construction management of several Capital Improvements Program (CIP) projects for the City of Fort Lauderdale and other municipalities in Florida.

YEARS OF EXPERIENCE
16 years

YEARS WITH ARCADIS
4 years

EDUCATION AND TRAINING
ME, Construction Engineering, Polytechnic University of PR,

BS, Civil Engineering, Polytechnic University of PR

REGISTRATIONS | CERTIFICATIONS
Professional Engineer – FL, PR

OSHA – 30 Hrs. Construction Industry

Florida Department of Environmental Protection Agency (FDEP) – Qualified Stormwater Management Inspector

American Water Works Association

Office Location
Plantation, FL

KEY RELEVANT EXPERIENCE

Prospect Lake CWC 48" Finished Water Line Design Criteria Package, City of Fort Lauderdale, FL

Design Project Manager. Responsible for developing of design criteria package and conceptual drawings for approximately 17,500 LF of 48" finished water line from the new Prospect Lake Clean Water Center to Fiveash WTP along Prospect Road. The work also included construction management, onsite inspections, constructability reviews, detailed plan reviews, and review of pay applications. The project was divided into 9 Phases. For phases 2, 3, 4, 6 and 9, the design proposed the use of 54" diameter prestressed concrete cylinder pipe (PCCP) via open cut, near the FXE Airport. Phases 1, 5, 7 and 8 the material proposed was HDPE for the horizontal directional drilling segments near on Broward County.

Fort Lauderdale High Service Pump Station – Basis of Design Report, City of Fort Lauderdale, FL

Design Project Manager. *R*esponsible for coordinating the development of a Basis of Design Report (BODR) to evaluate the options for the City of Fort Lauderdale new High Service Pump Station (HSPS). The alternatives evaluated were rehabilitation of the existing HSPS with a firm capacity of 70 million of gallons per day (mgd) and a new HSPS with a firm capacity of 72 mgd (6 horizontal split case pumps). The alternatives were evaluated in terms of maintenance of operations, construction schedule, redundancy/reliability, ease of operations, environmental impacts and support functions.

Consent Order Project - 30-inch Force Main A-Repump Station to GTL Wastewater Treatment Plant, City of Fort Lauderdale, FL

Construction Project Manager. Design-build project. Responsible for managing the design-build project through final completion and close-out to comply with the FDEP Consent Order deadline and avoiding penalty fees to the City. Project consisted of the trenchless repair/rehabilitation of approximately 20,000 LF of 30-inch diameter force main located along the Fort Lauderdale Downtown area. In addition to the typical open-cut installation, various trenchless methods were used like horizontal directional drilling and compression fit. The construction cost of the project was $15,500,000.

SSES and CMOM Plans for Town of Bay Harbor Islands, Town of Bay Harbor Islands, FL

Public Works Director and Town Engineer. Responsible for the preparation of the sewer system evaluation survey (SSES) and capacity management, Operation and maintenance (CMOM) reports for submittal to Miami-Dade County on an annual basis. Directed staff in performing night flow monitoring, visual inspection of sanitary sewer manholes, contracted smoke testing and CCTV services to determine I&I sources in the system.

Bermuda Riviera Small Water Mains Improvements City of Fort Lauderdale, FL

Project Manager. Responsible for managing the design, and bidding phase of the project. Project consisted of the replacement of aging and undersized infrastructure (approximately 24,000 LF of 2, 4 and 6-inch-diameter cast iron water mains) with an 8-inch diameter HDPE water main, replacement of fire hydrants, 500 service connections and relocation of water meters located in private property within the neighborhood. The installation methods used were open-cut trench for the tie-ins to existing system, and a combination of pre-chlorinated pipe bursting and horizontal directional drilling for the new water main. The construction cost of the project is $3.8 million.

Central New River Water Main Crossing, City of Fort Lauderdale, FL

Design-Build Project. Responsible for the design of approximately 600 LF of a 20-inch subaqueous water main crossing under the New River Canal in Downtown Fort Lauderdale using Horizontal Directional Drilling. The project required permits from USACE, FDEP and Broward County.

Margaret Gadzic, IAM, | Change Management & Business Integration

Margaret has worked on a variety of asset management, business advisory, and change management projects throughout her career. Her asset management projects have been focused on asset inventory and hierarchy, condition and risk assessment, capital improvement planning, level of service development, maturity assessments, and program documentation. Margaret has authored many Asset Management Plans (AMPs) and Strategic Asset Management Plans (SAMPs) in alignment with state regulations and best practices. She has performed several asset management maturity assessments and prepared roadmap documentation to guide program improvement. Margaret has prepared data-driven capital improvement plans to help clients communicate and secure future asset investment. She has prepared and conducted interactive workshops for many clients to transfer asset management knowledge and increase organizational outreach.

YEARS OF EXPERIENCE
19 years

YEARS WITH JACOBS
11 years

EDUCATION AND TRAINING
MS, Organizational Leadership, Mercy College

BS, Mechanical Engineering, University of Dayton

REGISTRATIONS | CERTIFICATIONS
Institute of Asset Management (IAM) Certificate

Prosci Change Management Practitioner

Office Location
Akron, OH

KEY RELEVANT EXPERIENCE

Asset Management Framework Design, Miami Dade Water and Sewer Department, Miami, FL
Technical Lead. Conduct a gap analysis of asset management practices across the organization compared to industry standard frameworks such as the Water Environment Research Foundation (WERF) and ISO 55000 Frameworks. The gap analysis included significant staff interviews, data and procedure documents review as well as an in depth look at the IT systems supporting asset management such as GIS and CMMS. Once the gap analysis was completed the team created the "to be processes" and prioritized roadmap over time to meet best practices within the next 5 to 7 years. SOP's for key asset management practices were also outlined for future implementation. Phase II of the project is anticipated to close the high priority gaps.

Asset Management Services, Toho Water Authority, Kissimmee, FL
Technical Lead. Prepared a Strategic Asset Management Plan for water, wastewater, and reclaimed water assets to document strategic framework, program governance, levels of service, risk assessment methodology, asset management data and information management, and continuous improvement. Assisted in the development of the Lift Station Asset Management Plan.

Asset Management Program Services, DeKalb County Department of Watershed Management, Decatur, GA
Technical Lead. Performed a detailed asset management gap analysis including 18 detailed staff interviews, IAM SAM+ maturity assessment, document and data review. Created customized interview strategy and questions. Documented results in technical memorandum and prepared improvement initiatives to close gaps. Prioritized initiatives into a five-year roadmap. Creation of Steering Team to drive ongoing program development and governance and Work Teams to drive specific initiatives. Provided recommendations for additional AM positions/roles to organization. Assisting client with preparation of a SAMP and AMPs for distribution and collection systems.

Asset Management Program Development, Evansville Water and Sewer Utility, Evansville, IN
Technical Lead. Tasked with creating methodology guidelines to document decisions made at client workshops and assist with development of asset management plan documentation for linear and facilities assets. Prepared asset definition standard operating procedure and add-modify-retire flow charts for vertical assets. Prepared SAM-GAP assessment materials and moderated SAM-GAP assessment workshop and scoring using MS Forms survey and Power BI data visualization. Performed gap assessment results analysis and wrote summary memo. Prepared project prioritization MS Forms survey to aid EWSU in obtaining staff feedback on project prioritization categories and weightings.

Asset Management Program Development and Implementation, Beaufort Jasper Water and Sewer Authority, Okatie, SC
Technical Lead. Ongoing assistance with the development and implementation of BJWSA's AM program for linear and vertical assets. Lead IAM SAM+ assessment and implementation roadmap development. Prepared and facilitated many methodology workshops related to vertical asset risk assessment, levels of service, AM roles and responsibilities, and governance. Developed several standard operating procedures to enable AM practices within the organization and prepared a SAMP and updates to the implementation roadmap. Assisted in development of two AMPs – for water mains and sewer mains.

Greg Osthues, PE, IAM | Asset Condition Assessments

Greg has over 3 decades of experience in managing and delivering utility asset management programs in support of facility and capital planning including: the development and implementation of service levels, asset inventory and condition assessment programs and operation and maintenance program evaluation and development. His experience includes the evaluation and implementation of asset management software including Decision Support Systems, Geographic Information Systems (GIS) and Computerized Maintenance Management Systems. He is certified from the Institute for Asset Management (IAM) with extensive background in the industry leading ISO 55000 and EPA/WRF Asset Management Frameworks for water and wastewater utilities

YEARS OF EXPERIENCE
36 years

YEARS WITH ARCADIS
33 years

EDUCATION AND TRAINING
MS, Environmental Engineering, Manhattan College

BS, Civil Engineering, University of Massachusetts

REGISTRATIONS | CERTIFICATIONS
IAM Certificate – Institute of Asset Management

Professional Engineer – NY #069502

Office Location
Tampa, FL

KEY RELEVANT EXPERIENCE

Asset Management Framework Phase I, Miami Dade Water and Sewer Department, Miami, FL
Condition and Risk Assessment Lead. Perform EPA/WRF gap analysis and business process mapping around service levels and performance management, capital planning, risk assessment, maintenance, and IT systems. Developed new SOPs for Condition and Risk Assessment covering all water and wastewater vertical assets for treatment plants and pump stations.

Asset Management Services, Indian River County, Vero Beach, FL
Condition/Risk Assessment Lead. Comprehensive asset management program, including WTP, WWTP water booster stations and wastewater pump stations. Activities included visual field assessments, maintenance data review and staff interviews for equipment performance and reliability. Short- and long-term planning results and tools were provided including recommended CIP projects, enhanced maintenance programs, and long-term funding needs.

Asset Management Program – Water and Wastewater, Toho Water Authority, Kissimmee, FL
Condition and Risk Assessment Task Lead. Asset management program including 15 water and wastewater plants, over 300 lift stations and 2,000 miles of pipeline infrastructure. Activities included a gap analysis using the IAM SAM+ framework, a Strategic Asset Management Plan (SAMP) and Asset Management Plans (AMPs) for each asset class – wastewater pipelines and lift stations are complete and water mains and treatment plants are scheduled. Each AMP development included updating the asset hierarchies, developing levels of service and KPIs, establishing assessment methodologies, creating risk profiles, defining projects for the 5-year CIP and estimating long-term capital investment needs.

Asset Management Program – Water and Wastewater, Lee County Utilities, Fort Myers, FL
Asset Management Task Leader. Development of pilot program asset condition, criticality and risk assessment methodology for water, wastewater and reclaimed water systems. Pilot project included: a water plant, wastewater plant, 33 lift stations, 50 miles of sewer and 60 miles of water and reclaimed water distribution. Activities included: development of asset hierarchy, development of assessment methodologies and guidelines, field collection of asset inventory and condition assessment data, criticality evaluation and risk analysis. Develop estimates of asset effective life and business cases .

Asset Management Program, New York City Department of Environmental Protection
Technical Lead. Development of global risk assessment methodology for use by the three operating bureaus within NYCDEP for all wastewater treatment, water supply and water distribution assets in support of capital planning. Risk assessment methodology includes physical and performance condition assessment for mode and probability of failure combined with consequence of failure evaluation. Responsible for developing risk assessment methodology based on International Infrastructure Management Manual® guidelines and adapting for NYCDEP's specific asset base including conducting workshops to build consensus across the Bureaus on the approach and resulting capital plan.

Asset Management Plan for Department of Public Utilities, City of Columbus, OH
Technical lead. Led overall risk assessment across complete asset base, including water, sewer and electric. Responsible for leading a work group composed of DPU staff from each utility to develop standard operating procedures for condition assessment, consequence of failure, risk and monetized triple-bottom-line asset evaluation, including DPU wide condition assessment pilot involving representative assets from each utility. Also, technical lead for reimplementation of DPU's EAM application, Oracle WAM® in support of maintenance and capital planning.

Celine Hyer, PE, IAM | Asset Criticality & Risk Management

Celine has previously worked on the WASD Asset Management Framework project and is currently engaged in the Integrated Master Plan project to support the renewal and replacement planning of all assets including lift stations, sewer mains and wastewater treatment facilities. This gives her unique qualifications, insights and institutional information that can be immediately applied to the CMOM project. Celine has over 35 years of combined experience working as a utility and as a consultant on implementing asset management programs. She has supported the planning, prioritization and implementation of numerous risk-based capital plans across the country, including large utilities such as NYCDEP, San Diego Water, DC Water, and San Antonio Water with a combined value of over $7 billion dollars. These projects have included condition and risk assessments for wastewater treatment plants, pumping stations and pipe assets. Her comprehensive programs have included strategic planning, service level development, risk assessment, capital planning prioritization using business cases and life-cycle costs to select the best project alternatives and prioritize the right projects to spend dollars on at the right time, and long-term funding needs analysis. Ms. Hyer currently serves as the AWWA Asset Management Committee Chair where she collaborates to share national best practices. She also is a member of the ASCE Committee on America's Infrastructure producing the water and sewer national reports cards for 2025 and leads their asset management division.

YEARS OF EXPERIENCE
35 years

YEARS WITH ARCADIS
18 years

EDUCATION AND TRAINING
MS, Engineering Management, Florida Institute of Technology

BS, Chemical Engineering, Florida Institute of Technology

REGISTRATIONS | CERTIFICATIONS
Professional Engineer – FL

IAM Certificate – Institute of Asset Management

Office Location
Tampa, FL

KEY RELEVANT EXPERIENCE

Miami Dade Water and Sewer Department, Miami, FL
Technical Lead. Conduct a gap analysis of asset management practices across the organization compared to industry standard frameworks such as the Water Environment Research Foundation (WERF) and ISO 55000 Frameworks. The gap analysis included significant staff interviews, data and procedure documents review as well as an in depth look at the IT systems supporting asset management such as GIS and CMMS. Once the gap analysis was completed the team created the "to be processes" and prioritized roadmap over time to meet best practices within the next 5 to 7 years. SOP's for key asset management practices were also outlined for future implementation. Phase II of the project is anticipated to close the high priority gaps.

Integrated Master Plan, Miami Dade Water and Sewer Department, Miami, FL
Technical Support. Developing project prioritization criteria and condition and risk scores for the water, sewer and recycled water assets to determine the renewal and replacement needs over the next 20 years. Evaluations will be made through desktop evaluations leveraging existing data sources.

Asset Management Implementation Phase I and II, Toho Water Authority, Kissimmee, FL
Program Manager. Asset management program implementation work for the overall asset management program since 2009. Tasks included establishing asset hierarchy and definitions, performance measures, performing inventory, condition, and risk assessments of 15 water and wastewater treatment plant and 300 lift station assets, creating procedures for prioritizing capital projects, analyzing asset criticality and consequence of failure and modifications to Infor EAM CMMS to produce capital planning reports and Service Level KPIs. Phase II task activities included writing a strategic asset management plan (SAMP) that included a gap analysis using the IAM SAM+ tool, prepared a detailed roadmap for improvements and defined program governance. Phase II also included preparing individual asset management plans (AMPs) with AMPs completed for gravity sewer and force mains, and wastewater pumping stations which were submitted to FDEP as part of a consent decree requirement. These AMPs evaluate condition and risk and define strategies to address high risk and poor condition assets through maintenance and capital programs as well as define tactical key performance measures to assist in meeting level of service goals defined in the SAMP.

Project Prioritization and Asset Management, New York City Department of Environmental Protection, New York, NY
Technical Advisor. Condition and risk assessment of assets covering water, wastewater, stormwater, and all facilities owned and operated by NYCDEP. The outcome of the data collection and evaluation was a 4- and 10-year capital plan for renewal and replacement of assets based on risk and remaining life. Business case templates and prioritization using a custom Arcadis-designed tool facilitated the CIP creation. Guidelines documents, tools and staff training have allowed NYCDEP staff to make this an ongoing program. Tools included a custom asset management information system that stored all risk data and created business cases and CMMS. Phase III was recently completed and included updates to the CIP.

YEARS OF EXPERIENCE
24 years

YEARS WITH JACOBS
1 year

EDUCATION AND TRAINING
MBA, Management, Pontifical Catholic University of Puerto Rico, Ponce

B.S., Mechanical Engineering, University of Puerto Rico, Mayaguez

REGISTRATIONS | CERTIFICATIONS
Professional Engineer: FL, PR

Certified Maintenance and Reliability Professional: CMRP

Drinking Water Treatment Plant Operator Class A: FL

Wastewater Treatment Plant Operator IV: PR

Office Location
Pembroke Pines, FL

Francisco Martinez, PE, CMRP | O&M Strategic Planning

Francisco has 24 years of engineering, operations and maintenance experience in water and wastewater utilities operations. He has occupied several positions in the industry (including at executive level) at two very large water/wastewater utilities, been directly engaged in countless initiatives and projects including maintenance programs optimization, managing large capital projects, master plans, reduction of non-revenue water, collective bargaining negotiations, emergency management, revenue recovery, operations optimization, strategic plans, CMOM Programs, instrumentation and controls (including automation) enhancements with SCADA integration, etc. Francisco also worked as a Loss Prevention Specialist where he was responsible for identifying risks at property-insured facilities, including inadequate maintenance plans for production, auxiliary machinery and equipment. Throughout his career, he has been directly involved in programs and initiatives regarding maintenance and asset management. He is a Certified Maintenance and Reliability Professional (CMRP).

KEY RELEVANT EXPERIENCE

Miami Dade Water and Sewer Assistant Director of Water Operations, Miami, FL

O&M Lead. Responsible for operation and maintenance of four divisions within the Department; Production and Maintenance, Transmission and Distribution, Meter Shop, and Laboratory divisions with a combined workforce of approximately 650 employees. WASD is the largest water and wastewater utility in the Southeastern United States serving a population of 2.3 million, with an operating budget of $796M. The utility produces an average of 320 MGD using three main production facilities. The largest, with a permitted capacity of 214 MGD, is also the largest lime-softening treatment plant in the world. The water distribution system consists of approximately 8,723 miles of pipe with diameters of up to 96 in, 140,000 valves and about 48,000 fire hydrants. The Assistant Director of Water Operations is responsible for maintaining a continuous, optimized operation of the divisions under his purview while meeting assigned budgets and providing customers with high-quality service in compliance with all regulations.

Puerto Rico's Water and Sewer Authority (PRASA)

Vice President of Operations. Direct report to PRASA's President, managed the performance of five Operational Regions, Customer Service, Compliance, EHS, Integrated Maintenance, Security and Emergency Response departments. PRASA is a large and complex water and wastewater utility covering a service area of 3500 square miles, serving a population of approximately 3.5M (97% of the island's total for potable water; 59% for wastewater collection, treatment, and disposal), producing approximately 570 MGD by 119 potable water treatment plants, and treating approximately 228 MGD in 56 wastewater treatment plants with a workforce of approximately 5000 employees. PRASA also owns and operates 8 dams and water reservoirs, over 4000 ancillary facilities (pump stations, wells, water storage and distribution tanks) and almost 20,000 miles of island-wide pipelines. Operational revenues per FY are around $1.05B, with operational costs of about $661M. As Vice President of Operations, ensured that all the utility's resources were focused on reaching or surpassing the Agency's objectives.

PRASA's Regional Executive Director. Responsible of all Operational Areas and regional office divisions including personnel, equipment, and infrastructure available to provide water and wastewater services and billing to all customers within that region. The customer base per region is approximately 250,000 customers (estimated population of 875,000), with an operational budget of approximately $110M/yr. Delegated responsibilities included identifying the needs, prioritizing, and requesting budget for capital improvement projects.

PRASA's Infrastructure Department Regional Assistant Director Supervise PRASA's and Program Management Consortium (PMC) Engineers and other personnel for the implementation of the Capital Improvement Program (CIP) for the South and East Regions of the Puerto Rico's Aqueduct and Sewer Authority (PRASA). The program was intended to significantly improve service by upgrading potable and wastewater systems within these regions. Projects managed included new constructions such as reservoirs, potable and wastewater plants, potable water distribution and sewer collection systems; and improvements and/or expansions of existing facilities. The CIP represented for each region an investment of over $500M within five years. This position was also in charge of the Regional Public and Private Projects Office, being responsible for evaluating proposed development projects for endorsement, while safeguarding the Agency's Rules and Regulations, and promoting economic growth.

Melissa Pomales, PE, IAM, ENV SP | Capital Planning

Melissa is a south Florida-based licensed Professional Civil Engineer and Project Management Professional with a diverse range of experience in program and project management, asset management utility consulting and business advisory, procurement and strategic planning, feasibility analyses, funding strategies, planning, and design. She brings many years of experience working on program management for large-scale resiliency, risk, energy management, and emergency response projects in addition to managing Arcadis-led projects in the tri-county area.

YEARS OF EXPERIENCE
21 years

YEARS WITH ARCADIS
19 years

EDUCATION AND TRAINING
MS, Finance, Indiana University Bloomington

MBA, Indiana University Bloomington

MS, Civil Engineering, Cornell University

BS, Civil Engineering, Cornell University

REGISTRATIONS | CERTIFICATIONS
Professional Engineer – FL, PR

Project Management Professional

Institute of Asset Management

Envision Sustainability Professional

Lean Six Sigma Sensei

Office Location
Miami, FL

KEY RELEVANT EXPERIENCE

Asset Management Framework Development, Miami-Dade Water and Sewer Department, Miami, FL
Project Manager. Development of an enterprise-wide Asset Management (AM) Framework to implement across water and sewer with optimized business practices, an effective technology portfolio and high-level organizational awareness for staff knowledge and training.

Asset Management Program Development and Staff Augmentation, Toho Water Authority, Kissimmee, FL
Business Process Mapping Lead and QA/QC Support. Development of an asset management program, and development of standards to support operational and financial goals.

Wastewater Pump Station Asset Management and Master Plan, City of Plant City, FL
Quality Assurance and Capital Planning Task Technical Advisor. Asset management activities and development of a wastewater pump station master plan, which included condition assessment and process evaluation of pump stations and force mains.

Program Management Consulting/Bond Engineer, Puerto Rico Aqueduct and Sewer Authority, Puerto Rico
Program Manager. Consulting/bond engineer annual responsibilities, including deliverables as per Master Agreement of Trust with bondholders including Asset Condition Reports, Consulting Engineering Reports, and Annual Budget and Cash Disbursement Reports. Supported bond issuances exceeding $5 billion.

Hurricane Sandy Recovery and Resiliency Portfolio Project Controls, NYC Mayor's Office of Recovery and Resiliency (ORR), New York, NY
Project Manager. Responsible for embedded team within the New York City Mayor's Office of Recovery and Resiliency charged with providing monitoring and oversight services of the recovery and resiliency program, totaling over 1,000 projects with a combined program budget of $23 billion. Managed a team of five full-time and eight part-time (remote) employees. Supported client in development of strategy and plan for transitioning program tracking, controls and monitoring activities to internal ORR team.

Program Management Framework Development, Los Angeles Department of Water and Power, CA
Technical Expert. Development of a framework and implementation roadmap for Program Management. Evaluated current project and program management practices for the water system, facilitated workshops and interviews with staff, and in process of developing guidelines and SOPs and implementing a pilot to assess and review the framework.

Jennifer Jacobs, GISP | Data Management

Jennifer is a credentialed GISP manager whose focus for the past eight years has been in the management of large inventory and assessment projects for both Federal and municipal clients. She has managed all aspects of these projects from requirements gathering and database design, through field data collection and deliverable development while coordinating with project teams and site locations throughout the U.S. Jennifer brings expertise in identifying relevant data sets for acquisition, establishing appropriate configuration management to cost-effectively meet compliance requirements, and packaging information into analytical reports that support decision making.

YEARS OF EXPERIENCE
24 years

YEARS WITH JACOBS
17 years

EDUCATION AND TRAINING
MS, Emphasis in Geographic Information Systems, Texas A&M University College Station

BS, Rangeland Ecology and Management, Texas A&M University College Station

REGISTRATIONS | CERTIFICATIONS
Certified Geographic Information Systems Professional, 2008, 00059418

Office Location
Fort Worth, TX

KEY RELEVANT EXPERIENCE

State Transportation Initiative Council (STIC) Traffic Ops Data Collection, Florida Department of Transportation, Tallahassee, FL

GIS Technical Lead. Project includes customization of a field data collection tool with a GIS data model based on the Federal Highway Administration (FHWA) Model Inventory of Roadway Elements (MIRE). Responsible for tool customization, database design and development, implementation and training.

Statewide Railroad Crossing Inventory, Florida Department of Transportation (FDOT), Statewide, FL

GIS Technical Lead. Project includes a massive field inventory of all public and private railroad crossings throughout the state of Florida, office-based data collection for non-field data, customization of field data collection tools and a GIS-enabled inventory management system. The inventory management system (RAIL) employs Web-based GIS technology, SQL Server, and SQL CE database technology, and applications built using Visual C# .NET.

South Florida Water Control District, C43 Reservoir, Fort Myers, FL

Technical Lead. Development and maintenance of a comprehensive set of technical solutions for collecting, managing and delivering large data sets from various sources to a central QA Dashboard for engineering review of a reservoir construction project. Responsible for requirements gathering, standards development, technical training and ongoing support as well as final data delivery to the SIMDAMS data model.

NAVFAC Linear Segmentation and Pavement Condition Surveys, Various Locations, NAVFAC

PM/ Technical Lead. Coordinated on-site pavement assessments as well as GIS and Paver data quality control for 53M SY of pavement, including parking, open storage and paved roadways. Assessments were completed for 29 Naval installations in the Southeast, Southwest, Northwest, Mid-Atlantic, Hawaii, and Europe Africa Southwest Asia regions. Deliverables included comprehensive Linear Segmentation maps; a PAVER pavement management system database; SDSFIE compliant GIS database, a 5-year Maintenance and Rehabilitation plan and summary reports for surveyed areas at each installation.

Letterkenny Army Depot GIS Support & Requirements Analysis, PA

Project Manager. GIS Support and requirements analysis for guided missile maintenance and storage buildings. Managed planning, data collection and development of aerial imagery and updated Common Installation Picture (CIP) data elements in a SDSFIE compliant GIS database as well as a facility requirement analysis workshop and documentation.

NAVFAC Linear Segmentation and Pavement Condition Surveys, Various Locations, NAVFAC

PM/Technical Lead. Conducted linear segmentation and pavement condition surveys of paved and unpaved roadways and parking lot facilities, roads, parking areas, vehicle staging areas, and other paved areas. Led the development of comprehensive linear segmentation maps; a PAVER pavement management system database; SDSFIE compliant GIS database, a Maintenance and Rehabilitation plan and summary reports for each installation.

North Texas Tollway Authority Maintenance Management Consultant, TX

Technical Lead. Managed a system-wide GIS Storm Drain Asset Inventory geodatabase as part of a comprehensive Maintenance Department Five-Year Strategic Plan. Tasks included georeferencing scanned design drawings, maintaining an index of the images and updating as needed, developing and administering an ArcSDE Enterprise geodatabase (to support asset inventory management, MS4 compliance, condition assessment and illicit discharge monitoring), populating the geodatabase, QA/QC for digitized assets, GPS field verification and Hansen integration for roughly 60 miles of utility lines.

Dickey Consulting

Public Relations • Project Management • Strategic Planning • Economic Development

"Sustaining Communities"

Sheryl A. Dickey

President/CEO

HIGHLIGHTS

Community and Business Development Expert

Public Engagement Specialist

Collaborative Change Agent

Longtime Broward County Business Owner

CERTIFICATIONS

Charrette Planner, National Charrette Institute

Public Meeting Facilitator, National Charrette Institute

AFFLIATIONS

International Economic Development Council

Greater Fort Lauderdale Chamber of Commerce

COMTO

EDUCATION

B.S.S.W., Ohio State University

RECOGNITION

Commission on the Status of Women/Women's History Month Certificate of Recognition, 2023

Boys & Girls Clubs of Broward County/100 Outstanding Women of Broward County, 2010

Sistrunk Community Festival Small Business Award, 2007

Success South Florida Magazine One of South Florida's 25 Most Prominent & Influential Black Women, 2006

Greater Fort Lauderdale Chamber of Commerce/Salute to Business Award, 2002

Sheryl A. Dickey, founder and owner of Dickey Consulting Services, Inc. (DCS) is a community and economic development professional with more than 40 years of experience and a history of success in these areas. She and her staff bring an elevated level of energy and the ability to participate in a leadership or team member role to ensure successful completion of a project.

DCS is an economic development, public relations, project management and communications consulting firm. DCS provides services to public and private enterprises. DCS provides staffing for invoicing, document controls, contract compliance, and communications assistance.

Dickey has collaborated with numerous clients including the Florida Department of Transportation, Broward County, City of Fort Lauderdale, City of Deerfield Beach, and Boca Raton Airport Authority. She has extensive history with City of Fort Lauderdale projects that include Inflow & Infiltration Reduction Program Sewer Smoke Testing, Stormwater Master Plan Modeling and Design Implementation, Bayshore Drive Intracoastal Force Main Crossing, and Water & Wastewater Capital Improvements Program *WaterWorks 2011.* She currently serves as the Public Outreach Project Director for Broward County Public Works UAZ Improvement Projects and the BCT Premium Mobility (PREMO) Plan. She is the DBE Liaison for Fort Lauderdale Executive Airport and Keolis NA at the Fort Lauderdale/Hollywood International Airport. She successfully completed consulting services for the City of Deerfield Beach Housing Rehabilitation and Purchase Assistance Programs. Dickey has worked with Jacobs to provide public involvement/outreach services for the Central Broward East-West Transit Study and Fort Lauderdale-Hollywood International Airport Master Plan Update.

DCS's headquarters is in the Midtown Commerce Center, a Silver LEED certified building in Fort Lauderdale. Dickey is the developer and owner of the building. The Broward Cultural Division is a major tenant along with Destination Sistrunk Cultural and Community Investment Partnership, Inc., a tourist attraction initiative for Historic Sistrunk Boulevard and related African American and Caribbean Culture neighborhoods in Broward County.

Dickey's professional experience includes being Director of Economic and Community Development for Blockbuster Entertainment Corporation and Director of Economic Development for the City of Fort Lauderdale, in Fort Lauderdale, Florida. She was formerly the Deputy Director of Economic Development for the Toledo/Lucas County Port Authority in Toledo, Ohio, the Director of Small and Developing Businesses for the State of Ohio Department of Development, in Columbus, Ohio, and a former member of the Portsmouth City Council in Portsmouth, Ohio. Ms. Dickey's prior experiences include a variety of positions supporting small business development and community revitalization.

Dickey completed her undergraduate education in social work at The Ohio State University in Columbus, Ohio.

Dickey is active in many community and business organizations including the Urban Core Committee of Broward Workshop, Greater Fort Lauderdale Chamber of Commerce, Port Everglades Association, Home Beautiful Civic Association and International Council for Urban and Economic Development. She is the former Chair of the Broward Public Library Foundation, and a member of Delta Sigma Theta Sorority.

Gerardus J. (GJ) Schers, PMP | Treatment Plants

GJ is a globally recognized subject matter expert in water technology and water facilities/treatment with more than 30 years of experience in master planning, design and construction management. He has been involved in more than 10 Master Planning and more than 20 water treatment plant projects and supports Jacobs' plant operations group. His expertise includes hydraulic, civil, and process engineering during all project stages. GJ has been responsible for the design of advanced water treatment processes, including ion exchange, ozonation, advanced oxidation, activated carbon filtration, membrane filtration, and ultraviolet light disinfection as well as conventional treatment processes like coagulation, softening, clarification, sand filtration, pumping systems, chemical feed systems, washwater recovery, and sludge treatment and dewatering systems.

YEARS OF EXPERIENCE
30+ years

YEARS WITH JACOBS
9 years

EDUCATION AND TRAINING
MA, Civil Engineering, Delft University of Technology

BA, Civil Engineering, Delft University of Technology

REGISTRATIONS | CERTIFICATIONS
Project Management Professional: FL (#428825)

Office Location
Fort Lauderdale, FL

KEY RELEVANT EXPERIENCE

Comprehensive Utility Master Plan, City of Pembroke Pines, FL

Project Manager and Senior Technologist. Jacobs developed the utility master plan covering the water and wastewater systems for the City of Pembroke Pines serving around 160,000 customers. Work included water demand projections, regulatory compliance review, condition assessments of the water and wastewater facilities, prioritization of needs on the basis of risks and development of CIP. Also, a hydraulic model of potable water distribution was developed, calibrated and used to develop improvement scenarios.

WTP Master Plan and Implementing Improvements, City of Melbourne, FL

Project Manager and Senior Technologist. Jacobs developed the utilities master plan for both surface and groundwater facilities looking at alternatives to meet future water demands and regulatory requirements. The SWTP treats surface water with high levels of organic material and color and traces of per- and polyfluoro alkyl substances (PFAS). Future treatment options included technologies like RO and GAC to remove these contaminants. GWTP treats brackish groundwater with RO and degasification. Currently, a design for the 10 mgd RO WTP expansion is ongoing. Other projects completed include a pilot study to optimize RO treatment, RO membrane replacement, groundwater system 4-log virus treatment, modifications to RO feed pumps, replacement of degasifier and chemical scrubbers. Currently, Jacobs is working on funding for the $350million 5-year CIP including EPA's WIFIA, FDEP SRF and municipal bonds.

Water Utility Master Plan and Program Management, North Miami Beach, FL

Senior Technologist. Jacobs developed the utility master plan laying out the groundwork for subsequent system improvements. These include compliance with 4-log virus treatment of the 32 mgd Norwood WTP containing three separate treatments trains involving lime softening, nanofiltration and RO. Work included bench test for breakpoint chlorination, chlorine decay and DBP formation for Biscayne Aquifer groundwater and jar tests to optimize lime softening for color and organics removal. Subsequent work covered design of NF and RO membrane expansion with 6 mgd including sand separators, new/upgrade membrane skids, and chemical improvements. Work also covered lime softening expansion with 5 mgd capacity including lime softening clarifier, chemicals for increased color removal, recarbonation system, media filters, transfer/high services pumps, elevated storage and other R&R needs.

Water Master Plan, City of West Palm Beach, FL

Project Manager and Senior Technologist. Completed the WTP Master Plan of this conventional WTP treating surface water, with high levels of color and organic material. Performed bench/pilot plant investigations to improve and enhance the treatment process. The modified treatment process will include ultraviolet (UV) light disinfection and a rated capacity of 50 MGD. Ancillary facilities include a new electrical/generator building, a new washwater recovery system, new chemical feed systems, new hardware and software SCADA system, and improvements to Profibus communication system for the media filters.

Water, Wastewater, and Resilience Master Plan, Puerto Rico Aqueduct and Sewer Authority, Puerto Rico

Senior Water and Wastewater Technologist. Project was a master plan update. Reviewed the work prepared by the project team and integrated it into a cohesive document (water supply, water treatment, wastewater collection, wastewater treatment, effluent management, biosolids, resilience, and energy management sections). Involved in creating a roadmap for capital investment that achieves immediate CIP needs while providing a long-term roadmap to ensure regulatory compliance, increasing system resilience, modernizing and consolidating operations, achieving operational and financial sustainability, safeguarding the environment, and delivering high-quality, safe drinking water.

Diana Francois, PE, PMP | Conveyance

Diana has 18 years of experience successfully delivering small and large projects under multi-disciplinary general services contracts ranging from planning and design through construction administration and start up under traditional and design build delivery approached for both new construction and rehabilitation projects. Diana's experience includes water treatment plant expansions, condition assessment, design and hydraulic modeling of water and wastewater pipelines, and pump stations requiring preparation of construction plans and specifications.

YEARS OF EXPERIENCE
20 years

YEARS WITH JACOBS
20 years

EDUCATION AND TRAINING
ME, Civil Engineering, University of Texas at Arlington

BS, Civil Engineering, Florida International University

REGISTRATIONS | CERTIFICATIONS
Professional Engineer: FL (#75176)

Project Management Professional

Office Location
Naples, FL

KEY RELEVANT EXPERIENCE

Ocean Outfall Legislation Program, Conceptual Design for the North District Transmission and Pumping System Improvements, Miami-Dade County Water and Sewer Department, Miami, FL

Project Manager. Responsibilities included continuously monitoring and reporting on the progress, schedule, and financial performance of the project. Responsibilities also included managing the execution of the scope of work by ensuring that the technical content of the deliverables satisfy the requirements outlined in the scope of work, coordinating the review of deliverables, such as the Route Analysis and Pump Station Site Analysis Technical Memoranda for 23 miles of force mains ranging from 36 to 60 inches in diameter and large pump stations.

Engineering Design Services, Installation of 4.5 miles of New 54-inch Diameter Force Main and Rehabilitation of 2.5 miles of Existing 54-inch Diameter Force Main, WASD, Miami, FL

Project Manager. Responsibilities include continuously monitoring and reporting on the schedule and financial performance of the project. Responsibilities also included developing a Basis of Design Technical Memorandum, Corridor Analysis and Route Analysis in coordination with two subconsultants and senior pipeline technologists, coordinating the development of project specifications and drawings, signing/sealing the drawings and specifications for the project, reviewing Request for Information, shop drawings and other construction related documents.

Sewage Pump Station 691 and Sewage Pump Station 692 Condition Assessment and Basis of Design Report, WASD, Miami, FL

Project Engineer. Responsibilities included performing a condition assessment of the mechanical components of Pump Station 691 and Pump Station 692, which have a firm capacity of 16 mgd and 30 mgd, respectively; writing the process mechanical section of the conceptual design technical memorandum and the process mechanical section of the basis of design report for both sewage pump stations in coordination with a senior conveyance technologist. Responsibilities also included coordinating with the pump manufacturers to obtain pump curves and budgetary cost information for the two stations.

North Collier Regional Water Treatment Plant Variable TDS Reverse Osmosis Conceptual Design, Collier County, FL

Project Manager. Performed a condition assessment and capacity analysis for the existing 8-mgd brackish reverse osmosis (RO) system installed in 1999. This project was prompted due to recent changes in well salinity near the WTP. Services included reviewing operational data, design drawings, operation manuals and past studies, running projections using available membrane projection software to determine operating limits of the existing system and presenting different alternatives to treat higher salinity water.

South District WWTP Stormwater Master Plan, Stormwater Pollution Prevention Plan Update and Environmental Resource Permit Modification, WASD, Miami, FL

Project Manager. Responsible for leading the team through the data collection, stormwater system modeling and update of the stormwater master plan as a basis for all improvements planned at the Miami Dade Water and Sewer South District WWTP through 2035.

SE Advanced Water Reclamation Facility (AWRF), Lee County Utilities, Lee County, FL

Area Manager of Projects. To meet the growing demands of new developments in southeastern Lee County and further protect the region's water resources, Lee County selected Jacobs to design a new advanced water reclamation facility. The new greenfield SE AWRF will provide very high-quality effluent that may be used to recharge natural wetlands near the site. The project will be delivered using the construction management at-risk (CMAR) approach.

Key Staff Licenses

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LICENSEE DETAILS — 7:16:07 PM 6/25/2025

Licensee Information

Name:	LARA, MAURICIO L. (Primary Name)
Main Address:	17308 BOCA CLUB BLVD #1101 BOCA RATON Florida 33487
County:	PALM BEACH

License Information

License Type:	Professional Engineer
Rank:	Prof Engineer
License Number:	69929
Status:	Current,Active
Licensure Date:	06/26/2009
Expires:	02/28/2027

Special Qualifications	Qualification Effective
Civil	08/30/2007
Advanced Building Code Course Credit	12/21/2018

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Licensee Information

Name:	MENARD, FRANCOIS D. (Primary Name)
Main Address:	11867 BATELLO LANE ORLANDO Florida 32827
County:	ORANGE

License Information

License Type:	Professional Engineer
Rank:	Prof Engineer
License Number:	66685
Status:	Current,Active
Licensure Date:	07/19/2007
Expires:	02/28/2027

Special Qualifications	Qualification Effective
Civil	03/08/2004

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LICENSEE DETAILS — 7:18:31 PM 6/25/202

Licensee Information

Name:	CUSTODIO HERNANDEZ, JOSE VICTOR (Primary Name)
Main Address:	1962 NW 100TH AVE. PEMBROKE PINES Florida 33024-1460
County:	BROWARD

License Information

License Type:	Professional Engineer
Rank:	Prof Engineer
License Number:	81080
Status:	Current,Active
Licensure Date:	05/13/2016
Expires:	02/28/2027

Special Qualifications	Qualification Effective
Civil	05/13/2016

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Licensee Information

Name:	HYER, CELINE ANNE (Primary Name)
Main Address:	27900 BOREAL LOOP WESLEY CHAPEL Florida 33544
County:	PASCO
License Mailing:	27900 BOREAL LOOP WESLEY CHAPEL FL 33544
County:	PASCO

License Information

License Type:	Professional Engineer
Rank:	Prof Engineer
License Number:	67367
Status:	Current,Active
Licensure Date:	01/17/2008
Expires:	02/28/2027

Special Qualifications	Qualification Effective
Environmental	01/25/2007

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Licensee Information

Name:	MARTINEZ, FRANCISCO J. (Primary Name)
Main Address:	534 SW 91ST COURT MIAMI Florida 33174
County:	DADE

License Information

License Type:	Professional Engineer
Rank:	Prof Engineer
License Number:	78911
Status:	Current,Active
Licensure Date:	03/19/2015
Expires:	02/28/2027

Special Qualifications	Qualification Effective
Mechanical	03/19/2015

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Licensee Information

Name:	POMALES, MELISSA L. (Primary Name)
Main Address:	2981 HIDDEN HOLLOW LN DAVIE Florida 33328
County:	BROWARD

License Information

License Type:	Professional Engineer
Rank:	Prof Engineer
License Number:	81761
Status:	Current,Active
Licensure Date:	09/30/2016
Expires:	02/28/2027

Special Qualifications	Qualification Effective
Civil	09/30/2016

GIS Certification Institute

This is to certify that The Board of Directors of the GIS Certification Institute,
Upon the recommendation of the Executive Director, has conferred upon

Jennifer H. Jacobs

the distinction of

Geographic Information Systems Professional

GISP

Certificate Number 59418

Date of Initial Certification 5/25/2008 — Date of Expiration 5/25/2027

Jochen Albrecht
GISCI President

Anthony Spicci, GISP
GISCI Executive Director

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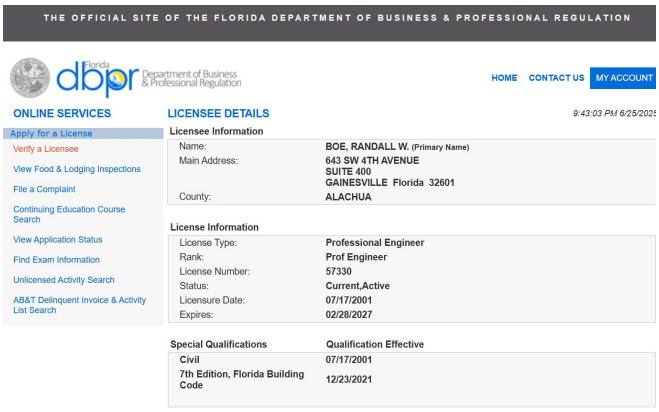
Licensee Information

Name:	ALFARO, RAUL (Primary Name)
Main Address:	355 NE 127TH ST MIAMI Florida 33161
County:	DADE

License Information

License Type:	Professional Engineer
Rank:	Prof Engineer
License Number:	92557
Status:	Current,Active
Licensure Date:	10/12/2021
Expires:	02/28/2027

Special Qualifications	Qualification Effective
Environmental	10/12/2021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Licensee Information
Name: BOE, RANDALL W. (Primary Name)
Main Address: 643 SW 4TH AVENUE SUITE 400 GAINESVILLE Florida 32601
County: ALACHUA
License Information
License Type: Professional Engineer
Rank: Prof Engineer
License Number: 57330
Status: Current,Active
Licensure Date: 07/17/2001
Expires: 02/28/2027
Special Qualifications
Qualification Effective
Civil
07/17/2001
7th Edition, Florida Building Code
12/23/2021


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9:46:19 PM 6/25/2025
Licensee Information
Name: GRIFFIN, MITCHELL LEE (Primary Name)
Main Address: 347 SENEGAL DRIVE PONTE VEDRA Florida 32081
County: DUVAL
License Information
License Type: Professional Engineer
Rank: Prof Engineer
License Number: 40772
Status: Current,Active
Licensure Date: 01/26/1989
Expires: 02/28/2027
Special Qualifications
Qualification Effective


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9:39:39 PM 6/25/2025
Licensee Information
Name: FRANCOIS, DIANA FLORE (Primary Name)
Main Address: 5811 PELICAN BAY BLVD SUITE 305 NAPLES Florida 34108
County: COLLIER
License Information
License Type: Professional Engineer
Rank: Prof Engineer
License Number: 75176
Status: Current,Active
Licensure Date: 11/02/2012
Expires: 02/28/2027
Special Qualifications
Qualification Effective
Civil
11/02/2012
Environmental
11/02/2012

Support Staff

Jim Oldach | O&M Strategic Planning/

Jim has 34 years of experience providing reliability centered maintenance practice support related to asset management and condition assessment, planning and scheduling, and ongoing facilities operations and maintenance. He is well-versed in water and wastewater treatment, manufacturing, and other utilities. Jim provides asset management, reliability, and maintenance consulting/ support services to commercial, municipal, and industrial clients. For the City of Fort Lauderdale, Jim utilized the Solomon Oldach Asset Prioritization (SOAP) process to effectively reduced the time required to collect asset data by allowing the City to make informed decisions on the amount of information needed for the highly critical assets and for assets of lower criticality.

Alex English | Cityworks

Alex brings over 10 years of experience with GIS including utilizing and creating GIS data for decision making, geometric network development, resource allocation, planning, and analysis from public safety to the public utilities, specifically water and wastewater utilities. He has saved local municipalities time and money by automating routine GIS tasks and providing dynamically updated status maps. To accomplish this, Alex had to understand the business processes for each of the datasets to acquire the data in its completed form. Alex is currently the Cityworks technical lead for the Cityworks integration at the City of Fort Lauderdale's George T. Lohmeyer WWTP, the Asset Registry Development for Stormwater Swales and Curbing.

Jacob Kaduthanathu | Data Management (GIS)

Jacob is a GIS professional with extensive experience managing enterprise GIS applications and GIS enterprise systems. For more than 20 years, he has provided consulting services to various government/corporate agencies. Jacob works with municipalities to develop strategic plans for GIS enterprise systems and provide technical support for system integration and management, automation tasks, geodatabase migration, SQL database migration, vendor evaluations, development of ArcGIS online applications, and API integration. He has also designed and developed custom tools for GIS.

Matt Crowley | Condition Assessment Services

Matt has more than 25 years of experience and serves as the Director of Maintenance Consulting Services for Jacobs' Operations & Maintenance Technical Services Group. He has been integral to the development of a risk-based asset management approach and has participated in many condition assessment projects for our clients, including work in Florida. Matt's decades of specialized experience in water and wastewater maintenance strategies, predictive and preventive maintenance technologies, and organizational performance support facilitates optimization of our clients facility operations.

David Green | Funding and Grants

Dave is a senior economist with over 40 years of experience providing consulting services for economic and financial analyses. Specific experience includes preparing capital improvement funding plans, including reviews of funding options; feasibility studies; cost effectiveness analyses; capital prioritization and asset management plans; business case analyses; optimization analyses, engineer's reports preparation in support of bond issues, grant/loan applications, and cash flow financing plans.

Christine Rafferty | Data Management (GIS)

Christine has been directly supporting the City of Fort Lauderdale's Public Works/Stormwater Operations Department as the City's GIS analyst since April 2024. In her role, she has updated the City's GIS records by updating locations of catch basins, manholes, drainage pipes, tidal valves, and other City assets with findings collected by City crews as well as City stormwater contractors. Christine earned a Bachelor of Science in Environmental Engineering from the University of Miami.

Mitch Griffin, PE | Stormwater & Green Infrastructure

Mitch brings over 40 years of experience and is a nationally recognized expert on point and nonpoint source pollution sources and control, including urban and rural watersheds. He is familiar with a wide range of computer model types including hydraulics, hydrologic (watershed), mixing zones, water quality impacts, GIS, systems analysis, optimization modeling, and time series analysis. Mitch has successfully negotiated surface water discharge permits, including treated wastewater effluent, stormwater, bioassessments, toxicity identification evaluations, and water quality-based limitations.

Jason Bird, CFM | Sustainability & Resiliency

Jason serves as Jacobs' Florida Resilience Practice Leader. He focuses on water resources, water conservation, infrastructure assessment, green infrastructure and sustainability, including LEED and ENVISION evaluations. He has applied his knowledge of infrastructure planning and design including climate scenario development to risk and vulnerability evaluations and development and prioritization of adaptation strategies to mitigate current and future threats to inform capital investment and enhance the resilience of built and natural assets.

James Cooper, PE, CWO, ENV SP | Water, Wastewater and Stormwater

Jim has 20 years of experience as an Engineer and an Operator in water distribution systems. He balances engineering and management expertise with hands-on operations experience by leading diverse teams to deliver innovative, practical, and sustainable solutions in water system hydraulics, water quality, utility management, modeling, field testing, and system optimization. He is the lead author of AWWA Manual of Practice 32, Computer Modeling of Water Distribution Systems and received the AWWA Vernon Lucy Award for managing a team of over 50 experts in water distribution system modeling.

Chris Adams, PE | Water, Wastewater, and Stormwater

Chris has 24 years of experience specializing in hydraulic analysis using computer-aided modeling platforms. His experience includes the development and operation of water and wastewater system hydraulic models, pump station design, transient analysis, sewer evaluation studies involving RDII analysis, developing and evaluating flow monitoring programs, quality control, and project management for hydraulic and modeling-related projects. Chris has served as a Technical Advisor, Modeling and Hydraulics Lead and Project Engineer for numerous water and wastewater projects for clients throughout the US.

Guy Le Patourel, PE, ENV SP | Treatment Plants

Gary has 36 years of varied experience in the design and construction of water and wastewater treatment infrastructure. This has included advanced and innovative technologies including membrane filtration using microfiltration (MF), reverse osmosis (RO) and electrodialysis reversal (EDR) processes; advanced wastewater treatment such as biological nutrient removal (BNR); and treatment for emerging contaminants of concern using granular activated carbon (GAC), advanced oxidation with UV/Peroxide; and many others.

Michael Pilutti, PE | Treatment Plants

Gary has 32 years of experience, including serving as assistant director of a public water and sewer utility. He is skilled in water treatment plant design including conventional treatment, design of advanced water treatment systems (micro and ultrafiltration, reverse osmosis), design of chemical storage and dosing systems, clearwell storage and pumping system design, capital planning, infrastructure evaluation, condition assessments of water systems, cost estimating, commissioning and operations, and hydraulic modeling.

Brian Duane, PE | Pump Stations

Brian's experience includes the design of more than 50 water and wastewater pumping facilities with capacities more than 1-million gallon per day (mgd). He is a technical expert in hydraulics, pumping systems and the design of mechanical process systems, and he routinely assists with start-up and troubleshooting of mechanical systems. He has a proven track record of practical design, history of successful project execution and completion, and understanding of the client's needs during all phases of the project.

David Wilson, PE | Conveyance

David has 41 years of experience in all aspects of pipeline project design and management. His areas of expertise include wastewater treatment, sanitary sewer and stormwater conveyance, detention/retention ponds, site grading, roadways, and sedimentation and erosion controls. He has participated in projects involving green/brownfield plant siting, power plant layout and modification design, owner's engineer services, wastewater treatment plant design, water reuse, and wastewater treatment plant start-up.

Mark Van Auken, PE, CPMSM | Stormwater

Mark serves as Arcadis' national Stormwater and Green Infrastructure Practice Area Leader. He has 35 years' experience specializing in municipal stormwater management and is a Certified Professional in Municipal Stormwater Management (CPMSM) who has developed or updated Stormwater Management Plans for more than two dozen Phase I and II MS4 communities in 12 states. His additional stormwater expertise includes flow monitoring, sampling, modeling, permitting, design, green infrastructure, funding, maintenance, program management and risk-based asset management.

Leah Balogh, PE | Stormwater

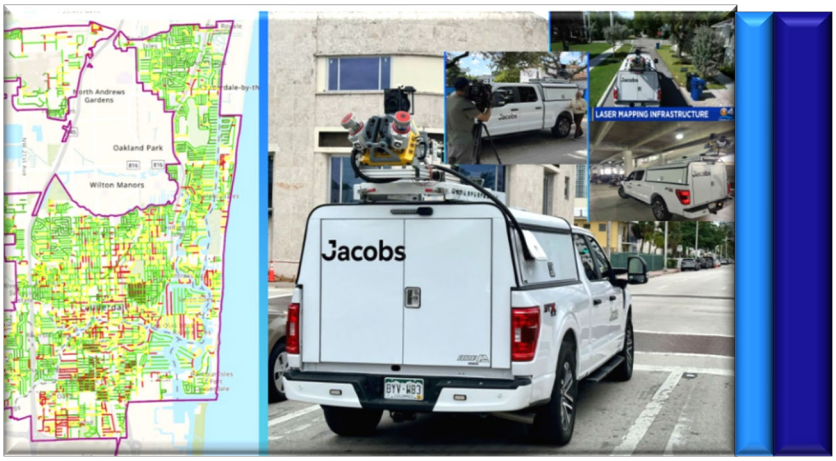
Leah is a senior water resources engineer with over 15 years of experience facilitating collection system management, planning, and design through the development and optimization of stormwater/sanitary/combined hydrologic and hydraulic models. She has experience working with municipalities to optimize stormwater management and conveyance system performance. Current work experience includes water resource/stormwater conceptual system design, 2D stormwater modeling, riverine floodplain mapping (FEMA), and Stormwater Management Plan Development.

Relevant Project Experience

Asset Management Consulting Services, City of Fort Lauderdale, FL

Asset Criticality Ranking and Task Order Summary

Over the past five years, Jacobs, with support from Arcadis, has played a pivotal role in advancing the City of Fort Lauderdale's asset management capabilities through a series of strategic Task Orders under the Asset Management Consulting Services contract. These initiatives have strengthened the City's infrastructure planning, enhanced operational efficiency, and laid the groundwork for a more resilient and data-informed future. Below is a summary of the services delivered to date:



TO#1: Development of Asset Registry for George T. Lohmeyer (GTL) Wastewater Treatment Plant

In alignment with the Clean Water Act (CWA) and EPA recommendations, this task order focused on establishing a comprehensive asset inventory for the GTL Wastewater Treatment Plant. The registry includes mechanical, electrical, and sewer assets, enabling the City to enhance operational integrity, streamline maintenance, and reduce long-term expenditures. This foundational work supports compliance with NPDES permit requirements and sets the stage for future asset management planning.

TO#2: Development of Street Swales & Curbing Asset Registry for Public Works Stormwater Operations

This task order involved the collection and condition assessment of street swales, alleyways, curbing, and sidewalks within City limits, including 143 lane miles of County and State roadways. Using Mobile LiDAR and high-resolution imagery, our team developed a detailed asset registry and conducted condition assessments to support stormwater operations and street sweeping programs. Optional tasks included assessments of County and State curbing, pending City approval. Ongoing.

TO#3: Implementation of Cityworks Asset Management System for GTL Wastewater Treatment Plant

Building on the asset registry developed in TO#1, this task order implemented the Cityworks Asset Management System at the GTL WWTP. This integration enables the City to manage assets more effectively through work order automation, lifecycle tracking, and performance monitoring—enhancing operational efficiency and decision-making. Ongoing.

TO#4: Citywide Pavement Condition Assessment for Roadways, Alleyways, and Sidewalks

Leveraging previously collected LiDAR and StreetView imagery, this task order assessed pavement conditions across 543 centerline miles of City streets and 28 miles of alleyways. The scope included digitization of pavement edges and identification of surface defects. Deliverables included condition assessments for roadways, sidewalks, and alleyways, providing the City with actionable data to prioritize maintenance and rehabilitation efforts. Ongoing.

TO#5: GIS Consulting Services for Public Works Stormwater Operations

To address a backlog of GIS updates, this task order provided both onsite and remote GIS consulting services. Our team supported the maintenance and enhancement of the City's stormwater infrastructure asset portfolio, ensuring data accuracy and readiness for integration with asset management systems. Ongoing.

TO#6: Development of Street Swales Asset Registry for Stormwater Operations

This task order focused on configuring the asset registry for stormwater swales previously collected within City rights-of-way. The effort included defining asset data requirements, establishing a hierarchical structure, and preparing the data for integration into the Cityworks CMMS platform—enabling more effective maintenance planning and execution. Ongoing.

TO#7: Watershed Asset Management – Street Curbing Asset Registry

As part of the City's watershed asset management strategy, this task order developed the first comprehensive registry for concrete curbing assets along City streets. Building on the GIS database collected in 2023, our team structured the data for seamless integration into Cityworks, including the creation of work orders and asset hierarchies to support ongoing maintenance and capital planning. Ongoing.

Water Master Plan and Asset Management Program, City of North Miami Beach, FL

In 2017, the City of North Miami Beach (NMB) developed a unique, combined O&M, asset management, and construction contract - a one-of-a-kind model in the industry—to bring world-class asset management program delivery to the City. Until 2021,we operated and maintained a 32-mgd treatment plant, with 550 miles of water distribution, 88 miles of sewer pipeline, 20 water wells, and manage developer liaison, meter reading, customer service, and billing. As an active partner, the City of NMB retained full ownership of its assets and participates in all phases of planning and decision-making.

Jacobs has provided services to NMB included Asset Management Planning, GIS and CityWorks, Data Management, Condition Assessments, Asset performance testing, AM Policy, SAMP and CMOM, and data-driven risk-based decision making AMS processes. The team has made progress under this unique partnership, including improved decision-making with condition assessments, data analysis, identification of asset replacement by risk and project prioritization by NMB Water's regulatory requirements and levels of service (value).

With support for Directors, Jacobs has engaged The Commission and Public Utilities Commission to secure funding for the CIP.

The Asset Management Program included improvements in NMB Water's Asset Management System – including asset data collection and storage in GIS and CityWorks, Key Performance Indicator (KPI) reporting for strategic decision making, asset condition assessments, AM Policy, SAMP and CIP development, asset criticality assessment, Asset Risk Management process development, capacity analysis, cost estimation, financial forecasting, fund and grant option analysis, WIFIA loan application, RFP support, Capital Planning, Project Prioritization, and community outreach and relations support.

Tampa Bay Comprehensive Asset Management Program, Tampa Bay Water

Jacobs was selected to lead the unique program which includes a wide range of improvement initiatives including: evaluation of existing computerized maintenance management system (CMMS), advertising, negotiation, award and implementation of new CMMS, evaluation of maintenance practices and maintenance organization, performing series of maintenance and reliability workshops, developing and implementation of an asset management plan, including evaluation of levels of service, risk management framework, financial models, internal communication, staff re-organization, and improving the preventive maintenance program.

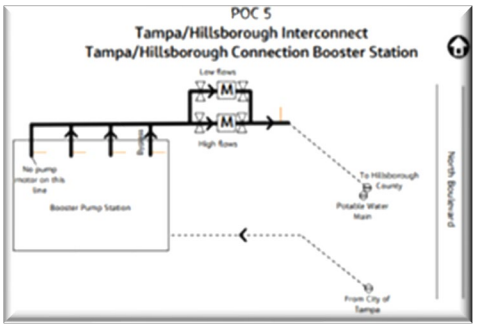
The program includes a wide range of improvement initiatives including: evaluation of existing CMMS, advertising, negotiation, award and implementation of new CMMS, evaluation of maintenance practices and maintenance organization, performing series of maintenance and reliability workshops, developing and implementation of an asset management plan, including evaluation of levels of service, risk management framework, financial models, internal communication, staff re-organization, and improving the preventive maintenance program. The program also required a reliability-based focus, including integrating with water supply and water distribution models utilizing probabilistic methodologies, engineering analysis of systems using FMEAs and cut sets, and maintenance analysis using FMEAs and Root Cause Analysis

Initial implementation spanned four years, including a one-year renewal that focused on implementation of a new project management information system (PMIS) and evaluation of the contract operations agreement for the 19 MGD desalination plant, and followed by a second 5-year contract. The program led to separate awards for aligning risk and level of service criteria in the different prioritization models used by the Agency, updating of the strategic plan, and performing a workforce analysis and development program.

Water Transmission System Asset Evaluation, Tampa Bay Water, FL

The Jacobs Team completed a comprehensive assessment of the water transmission system. Tampa Bay Water has an extensive water transmission system that provides high quality drinking water to its Member Governments – including the City of Tampa - through 24 Points of Connection (POC) serving over 2.5 million customers. The system includes raw water

and finished water Transmission Mains (TMs), the POCs, the desalination water main, and the water main connecting the Reservoir to the Regional Water Treatment Plant.

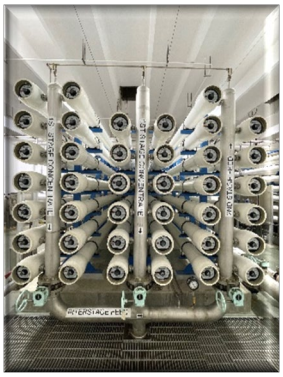


- Asset Verification & GIS Updates: Reviewed 102 record drawings, schematics, and historical documents to ensure accurate system mapping. Verified 846 parcels in Tampa Bay Water's real estate geo-database against GIS and field observations.
- Field Investigations & Condition Assessments: Conducted aerial and on-site inspections to identify road crossings, utility conflicts, powerline crossings, and new developments impacting transmission mains. Accompanied Tampa Bay Water Operations staff for nine days of field verifications.
- Cathodic Protection Review: Analyzed 82 cathodic protection inspection reports from 2016-2022, assessing the condition and level of protection for 16 of Tampa Bay Water's transmission mains.
- Risk Identification & Infrastructure Planning: Identified short-term priorities including eliminating cathodic protection gaps, repairing inoperable valves, securing access along transmission mains, and creating standardized valve layouts.

The Tampa Bay Water Transmission System Asset Evaluation aligns with Hardee County's Utilities and Facilities Master Plan goals. This project demonstrates Jacobs' ability to:

- Conduct infrastructure asset evaluations to support long-term capital investment planning.
- Optimize water transmission networks through GIS verification, field validation, and asset risk assessments.
- Enhance system resilience by identifying vulnerabilities and recommending proactive infrastructure improvements.
- Develop sustainable and cost-effective maintenance strategies for water system reliability.

Asset Replacement Model and Capital Improvement Projects Development, Deerfield Beach, FL



Jacobs developed an asset hierarchy for the City's West WTP, which was used by Jacobs to conduct a full facility condition assessment and hydraulic and process assessment. All assets were visually inspected and rated based upon their condition and performance. Risk scores were developed from likelihood of failure and consequence of failure based on categories that were agreed with input from City stakeholders. Consequence of failure categories were developed and assigned a percent weight including, safety, system reliability, fiscal impact, regulatory compliance, and public confidence. While likelihood of failure relied mostly on the physical condition of the asset from Jacobs' condition assessment findings while also looking at performance and maintenance history of the asset.

From the condition assessment and risk based prioritization, an asset replacement model and an updated capital improvement plan was developed. Jacobs used its one-of-a-kind Replica™ PD in conjunction with our Multi-Criteria Prioritization (MCP) model to quickly evaluate alternatives and estimate cost of equipment. Replica PD allows the quick and effective development of conceptual-level construction cost information by calculating quantity take-offs and applying unit costs, life-cycle costs, including energy consumption and carbon footprint for a wide variety of water and wastewater treatment technologies and infrastructure. The cost estimates are based on actual construction costs from Jacobs' projects supplemented by Means and Richardson's cost data along with vendor quotes to confirm costs for major

equipment. The tool has been effectively used for treatment options comparisons, including for this project at the City of Deerfield Beach. The cost estimates were further bolstered with equipment vendor quotations and cost estimators.

The capital cost estimates are considered a Class V opinion of probable construction cost in accordance with AACE International's (AACE's) Recommended Practice No. 56R-08 (AACE 2020). The total capital cost estimate for the needs of the City's West WTP and associated assets was $127,255,000.

Vulnerability Assessment, City of Fort Lauderdale, FL

The City of Fort Lauderdale retained Arcadis to complete a vulnerability assessment (VA) that meets State criteria in FS 380.093. The Arcadis team was tasked with generating elevation certificates for prioritized critical government facilities to assess roadway vulnerability and to prepare an adaptation plan which compiles a list of City adaptation projects to address flooding risks in the future. Our team compiled critical asset data into one central data repository for the City to use and access for the purposes of this project and future work.

Asset Management Framework Phase 1, Miami-Dade Water and Sewer Department, FL

Arcadis developed an enterprise-wide strategic asset management plan that specifically covers all of their asset classes, standardizes assessment approaches among facilities, and directly incorporates consideration of risks resulting from vulnerability to sea level rise. WASD strategically integrated the AWWA J100 methodology for risk and resilience management into their asset management planning process, allowing for the development of a more holistic risk management program. WASD's asset management program considers the risk inherent in owning and operating an asset (asset management), external threats and hazards (vulnerability assessment), and how those threats and hazards change over time (e.g., sea level rise).

Phase 1 of the asset management framework development addressed the first three tactical elements of the framework – key business processes, primary technology systems, and data.

The outcome of Phase 1 was a framework that identified planning process gaps relative to WASD's targets and design of "to-be" processes to close the gaps, including incorporation of resilience and sea level rise considerations across the enterprise business processes. Also, a unified risk/business case prioritization framework integrating the J100 methodology was developed for adoption as an enterprise-wide planning process.

Large Diameter Pipe Evaluation and Replacement Program (LDPP), JEA, Jacksonville, FL

From 2016-2021 Arcadis was the program manager for JEA's LDPP, or Program. The Program addressed the challenge of aging pipeline infrastructure by establishing a proactive risk-based framework for pipeline management to ensure reliable service. The Program accomplished this goal by systematically identifying, analyzing and inspecting high-risk pipelines prior to failure and implementing the most cost-effective action for rehabilitation or replacement. The risk-based framework, considered both the likelihood of failure (LOF) and consequence of failure (COF) to prioritize pipelines within the CIP. The COF evaluation used a triple bottom line approach to rank the social, environmental, and economic impacts of pipeline failure. The LOF was determined via a combination of non-destructing condition assessment (performed in house by Arcadis) and desktop GIS analysis. Key Program outcomes included the following:

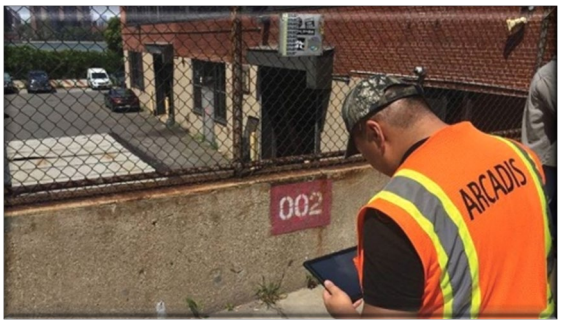
1. Condition Assessment: Inspection using non-destructive technologies (NDT) for over 141 miles of pipelines including over 32 miles of CCTV inspection.
2. Capital Planning: The Program's risk-based approach identified 97 priority pipeline replacement and rehabilitation projects (48 sewer and 49 water) with a total value of $265M.
3. Long-Term Funding: The Program provided an interactive GIS risk model to forecast alternate long-term investment scenarios to achieve pipeline reliability goals.

Lift Station and Force Main Risk Based Master Plan, City of Plant City, FL

The City of Plant City (Plant City) owns and operates 44 wastewater lift stations and associated force mains. Arcadis applied a risk-based evaluation of the facilities to enable the development of a 20- year master plan for the Plant City's lift stations and force mains. This risk- based approach allows for informed, fact- based decisions to be made with respect to capital and maintenance expenditures. From this 20- year plan, a more detailed 5-year Capital Improvement Plan (CIP) was developed for nearer term projects. Key tasks completed included:

- Development of condition and risk assessment guidance documentation that can be used for future assessments across water, wastewater, and reclaimed water assets.
- Development of equipment inventory at each lift station.
- Improved inventory and attributes for force mains through GIS edits and field verifications.
- Evaluation of asset condition, consequence of failure and failure risk results for each lift station and force mains using both visual assessment, staff interviews, maintenance record reviews, and Broadband Electromagnetic equipment for ferrous pipes.
- Development of a Power BI Dashboard to show risk results and run scenarios for different service levels.
- Development of a 20-year master plan for the City's lift stations and force mains including a prioritized list of assets for repair or replacement, including prioritized business cases for the 5-year CIP needs.

Asset Management Program and Facilities Condition Assessment, New York City Department of Environmental Protection (NYCDEP), NY



Arcadis supported NYC DEP in a multi-phase asset management program from 2009-2023 for DEP's three operating bureaus, Bureau of Wastewater Treatment, Bureau of Water Supply and Bureau of Water and Sewer Operations. Phase 1 resulted in comprehensive four-year and 10-year CIPs totaling over $1 billion for treatment plant and pump station assets. Key tasks included:

- Procedures for asset definition, hierarchy, data standards, condition and risk assessment
- Condition and risk assessment for wastewater treatment plants and pump stations
- Project bundling and cost estimating for renewal and replacement projects
- Project prioritization and business case methodology
- Final four-year and 10-year prioritized CIPs

Phase 2 extended the asset management framework to include pipelines (water and sewer mains), risk assessment and capital planning activities to enhance current renewal, and replacement planning and budgeting projections for water and sewer pipelines over the next 50 years. Key tasks included:

Defining levels of service and KPIs to evaluate pipeline performance versus goals

- Performing risk assessments for gravity sewers, force mains, and water mains
- Providing 50-year renewal and replacement cost projections

Phase 3 refreshed the condition and risk assessment for all treatment facilities and pump stations, updated the CIP projections, and performed an audit with recommendations to enhance the maintenance programs including new SOPs, PMs, and staffing additions.

Ability to Meet Time and Budget Requirements

Creating a "One Project" team culture is one way we set projects up for success in meeting cost and schedule requirements. From the initial mobilization of the team through site selection, design, construction, and close out, we are laser focused on guiding decisions that are in the best interest of the project and the Fort Lauderdale community.

Building on our team's previous work for the City of Fort Lauderdale water and wastewater system, including the Americas Water Infrastructure Act of 2020 and 2025 Risk and Resilience Assessments and Emergency Response Plans, we already know your utility system and your needs. This knowledge allows our team to hit the ground running with no learning curve and implement a program that aligns with City priorities and focuses on near term system needs while identifying mid-term actions and longer-term strategies.

Our team draws on extensive experience, advanced project management tools, and skilled professionals to deliver projects on time and within budget constraints. For example, we:

- √ Employ rigorous planning and scheduling techniques, including critical path method (CPM) scheduling and earned value management (EVM), to support timely project completion.
- √ Take a proactive approach to risk management to identify and mitigate potential delays or cost overruns early in the project lifecycle.
- √ Draw on a combination of global resources and local expertise for efficient resource allocation and cost-effective solutions tailored to each project's unique requirements.
- √ Focus on continuous improvement and adoption of innovative technologies to optimize project timelines and budgets.

Sustainable Business Practices

Planning Building Resilience for a Stronger Future Resilience is the ability to survive, recover, adapt and thrive from chronic stresses and acute shocks. Becoming resilient means minimizing the impacts of climate change, extreme weather, natural disasters, urbanization and aging infrastructure, supply chain, regulations, health and cyber security threats so public entities and private citizens are safe and secure. It also means increasing the capacity of individuals, communities, institutions, businesses and systems to continue to adapt and grow — no matter what adversities they experience.

Keeping utilities, cities, and whole communities safe, resilient, and adaptable to change is one of our core competencies and one we proudly offer the City. Our staff will build upon the City's various initiatives including Fast Forward Fort Lauderdale 2035 VisionPlan, Fortify Lauderdale Initiative, the ULI Advisory Panel Report and the Press Play 2029 Strategic Plan, to help advance implementation of the City's goals and objectives of maintaining safe and reliable utility services. Jacobs' experience working with water utilities across the US has developed our robust capabilities and a clear understanding of how to effectively and efficiently address utility system threats and enhance overall sustainability and resilience. Jacobs has developed EPA guidance for Climate and Flood Resilience, creating the foundation for water resilient utilities across industry. We understand the challenges associated with a changing climate and uncertainty associated with federal policy and funding, driving the need to maximize utility system and long-term reliability while positioning for state funding opportunities such as the Resilient Florida program to improve overall utility performance. Our implementation pathway philosophy allows us to strengthen, adapt, and envision the future of the City and its utilities through targeted investment at the right time that support immediate needs while preparing for future needs.

Our approach to integrating sustainability and resilience builds on a strong understanding of goals and objectives related to risk reduction, reliability, and overall performance, that informs asset management actions, policies, design standards and related utility management activities. This clear understanding of system and community needs, coupled with a robust understanding of natural hazards and evolving climate threats informs the utility system analysis, future planning horizons and scenarios, and the development of design standards, adaptation actions and project prioritization. This comprehensive approach identifies potential system weaknesses to support reliable and safe utility operations, across all potential system shocks or stressors, while managing limited resources and protecting the community and the environment.

Our proven system will be developed using the following:

- Align to a vision through early engagement where we listen and learn from stakeholders to establish goals and objectives, performance expectations, and confirm project elements.
- Discover and define the threats and risks to utility systems during data collection and review to support targeted system evaluations and promote sustainable and resilient outcomes.

- Develop the CUSMP Update including adaptation actions using integrated approach to co-create resilience strategies, projects, and funding sources.

Examples of representative sustainability and resilience planning considerations for the City are listed below. Our asset management team is committed to working collaboratively with the City to confirm the planning criteria and considerations that are most important for your utility systems and supporting infrastructure to enable long-term sustainability and resilience.

Component	Description
Natural Hazards	Extreme weather, lightning, drought, flooding impacts to City utilities
Security & Vulnerability	Review of human-based threats to public/staff safety and infrastructure function
Climate Change	Long-term impacts from saltwater intrusion, storm frequency, corrosion, & erosion
Supply Chain Impacts	Potential disruptions including chemicals, parts, fuel, power, equipment, materials
Financial Resilience	Resilience of financial elements including billing, collection, & financial contingencies
Water Quality Surveillance	Review of USEPA's Water Quality Surveillance Monitoring Capabilities Assessment Tool
Sustainable Resources	Managing limited resources and protecting sensitive ecosystems
Chemical Use, Storage, & Handling	Document chemical use, storage and handling facilities and employee training

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4

Approach to Scope of Work

Project Understanding & Overview

The City of Fort Lauderdale (City) is seeking the services of a qualified consulting firm to provide Asset Management (AM) Planning services on an as-needed (task order) basis in support of the City's Public Works Asset Groups. Services may include the development and implementation of asset management plans; program management; asset management strategy and decision-making; asset condition assessments; data collection; risk management; asset information management; life cycle delivery; resource management; and georeferenced mapping of infrastructure systems, including stormwater, domestic water, wastewater, roadways, seawalls, and bridges.

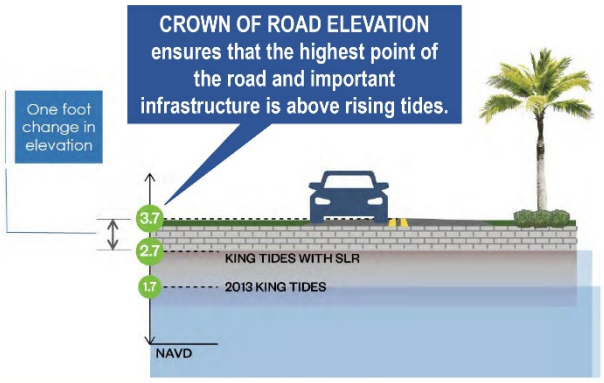
Our vision for this program is to apply data-driven, risk-based decision-making to support the City in planning and deploying optimized investments that enhance critical infrastructure. This approach aligns with the objectives outlined in the City's Asset Management Plans (AMPs) and broader organizational strategy.

Our local team offers the leadership, availability, and integrated resources necessary to deliver the professional AM Planning services the City requires. The Jacobs-Arcadis team includes specialists with extensive experience in AM programs and a strong track record of delivering successful projects for the City. We will work in close collaboration with City staff to identify long-term, sustainable solutions. Our efforts will include assessing existing and new public infrastructure, supporting the prioritization of repair and replacement projects, and assisting in the planning and prioritization of new initiatives.

We understand that the City aims to develop a comprehensive Roadway Elevation Master Plan to address the urgent challenge of roadway flooding caused by rising sea levels, tidal inundation, a rising groundwater table, and extreme weather events. Despite ongoing mitigation efforts, including significant stormwater system upgrades and seawall enhancements, certain roadways remain persistently flooded, with some experiencing flooding as frequently as 90 days per year.

The master plan will provide comprehensive recommendations for the elevation of City-owned roadways. Fort Lauderdale's municipal road network, serving approximately 180,000 residents, connects critical infrastructure such as the Everglades, Fort Lauderdale-Hollywood International Airport, Fort Lauderdale Beach, and numerous bridges and causeways. Local roads make up the largest portion of this network, with nearly 55% of local road segments falling within moderate to extreme flood risk zones. Significant disruptions occur when high tides exceed 2.5 feet NAVD88.

Jacobs has a successful history of partnering with Southeast Florida clients to develop integrated approaches to solve their regional challenges.



Jacobs is supporting the City of Miami Beach to reduce flood risk through a comprehensive approach to managing water resources. Building on the previous surface water and groundwater management modeling and the City's Sustainability and Resilience programs, this project will develop an integrated water model that addresses flood pathways and adapts to increasing threats from sea level rise, extreme tides, extreme rainfall, and surge events.

Our team of leading international experts are utilizing an integrated strategy which maximizes the value of every dollar invested through the capture of environmental and social co-benefits aligned with other City initiatives, while being tailored to meet the local neighborhood needs.

Each project will incorporate a complete street approach including enhancements to pedestrian, bicycle and vehicular access, blue-green infrastructure for managing stormwater quantity and quality, streetscape aesthetics, traffic calming, urban forestation, and dry and wet utility replacement while improving the road surface durability, elevation and resilience to flooding.

This 5- to 10-year program will set the industry standard for integrated approaches to mitigate current flood risk and adapt to future flood risk in coastal communities.

The City's Vulnerability Assessment, completed by Arcadis in collaboration with the City, identified 22.8 miles of roadway within City boundaries with elevations below 2.5 feet NAVD88, including: 0.9 miles under 1.0 feet NAVD88; 1.7 miles between 1.0 and 1.5 feet NAVD88; 6.4 miles between 1.5 and 2.0 feet NAVD88, and 13.8 miles between 2.0 and 2.5 feet NAVD88

Jacobs - Arcadis Team Differentiators

As one of the City's existing AM Planning Services consultants, the Jacobs–Arcadis team brings familiarity, expertise, and a deep understanding of the City's current challenges and opportunities. We are uniquely positioned to support the City through this contract, including initiatives such as the City's intended Roadway Elevation Master Plan.

Community-First and Stakeholder Engagement. Our City Commission engagement processes and community outreach efforts build upon our team's deep understanding of local issues. Through our partnership with Sheryl Dickey of Dickey Consulting Services, Inc. (DCS), we bring a high level of sophistication to stakeholder engagement, working effectively to achieve community buy-in.

Implementation-Ready with a Focus on Fast-Tracking "Quick Wins" and Critical Needs. Based on our extensive experience with similar organizations, we understand the importance of implementing solutions as soon as they are identified. Our team will collaborate with City staff (and other consultants as needed) to deploy solutions quickly, delivering positive results that support the City's mission. We will also help create a pool of illustrative "Quick Wins" for internal and external communications.

Application of Advanced AM Techniques and Technology. By implementing an advanced Asset Management System (AMS) aligned with best practices, we will support the City's immediate Capital Improvement Plan (CIP) needs while enhancing financial sustainability and infrastructure resilience. The City's AM Planning maturity will be advanced through data validation, accelerated condition and criticality assessments, and the development or refinement of Risk Management Plans.

In-House Technical Capabilities. The Jacobs–Arcadis team includes in-house technical inspectors equipped for underwater inspections and CCTV, as well as licensed field surveyors and mappers based in Florida.

Global Experience with Local Knowledge. Our core team lives and works in Florida, bringing global experience in advising clients on international asset management standards across multiple sectors

Access to Subject Matter Experts (SMEs). Our key personnel have access to a multidisciplinary bench of SMEs in roads, bridges, water, wastewater, stormwater, and marine infrastructure. These experts bring diverse skill sets across the asset life cycle. Our team will translate the City's vision into practical engineering terms and communicate these concepts clearly to the community.

Technology and Tools. Our team prioritizes service over software. Across our U.S. operations, we've developed practical tools and partnered with technology providers like CityWorks to deliver effective services. Using LiDAR, condition assessment tools, and more, we will provide cost-effective solutions for data management, risk assessment, and project selection.

Strong Emphasis on Customer Outcomes. Assets exist to deliver services, and those services must meet customer expectations. Our team regularly applies the guiding question: "What would the customer think of this decision?"

Well-Developed Change Management Tools and Experienced Practitioners. We propose using Prosci's ADKAR© Methodology (as detailed in the change management section of this document) to guide project change management efforts and facilitate the City's AM transformation.

Jacobs brings a comprehensive insight to this contract gained through our ongoing work for the City as well as for other regional clients.

Jacobs is currently providing ongoing consulting engineering services to the City of Hollywood under a Professional Services Agreement. As part of this work, Jacobs is assisting with CityWorks Support Services by working closely with City staff to enhance the City's Asset Management System. This includes reviewing and optimizing the existing configuration, setting up and refining work activities such as service requests, work orders, and inspections, supporting reporting and mobile application functionality, and providing general troubleshooting and ad-hoc technical support.

At the Water Treatment Plant, Jacobs is developing a comprehensive asset registry, conducting asset criticality and risk ranking, and performing condition assessments to support data-driven maintenance strategies. A similar scope is being executed at the Southern Regional Wastewater Treatment Plant, where Jacobs is implementing asset registry development, risk-based prioritization, and condition assessments to enhance operational reliability and long-term sustainability.

Jacobs-Arcadis Approach to Asset Management

Data Management – Validation, Gap Analysis, Collection and Migration

Our Data Management lead, Jennifer Jacobs, GISP, will leverage her experience working with Florida clients, including the Florida Department of Transportation Statewide and the City of Fort Myers.

Jennifer will work closely with City of Fort Lauderdale staff to map out and implement the proper technology stack and architecture that may include cloud, hybrid-cloud, and on- premises components. This underlying architecture will provide the foundation to enable multi-level analysis.

One of the biggest challenges is the vast volume of data that needs to be cost-effectively collected, validated, stored in GIS and CityWorks; analyzed for multi-criteria decision making; and integrated into future City-wide asset management activities.

These six AM support systems are measured against the 10 performance criteria below

1. **Functionality**
2. **Capacity**
3. **Data availability and integrity**
4. **Data Security**
5. **System interconnectivity**
6. **Reporting functionality**
7. **Usability**
8. **Application maintenance and replacement**
9. **Application reliability and availability**
10. **Delivering outcome**

Exhibit 1: The 10 performance criteria for AM Data

Completeness of asset-systems will be considered, to ascertain when an incomplete or "missing" asset is significant to the understanding of the overall asset system. The identification of incorrect or incomplete data, and whether the 10 performance criteria for AM data **(Exhibit 1)** have been met will be reported within the data gap analysis - which is the foundation for the Asset Information Improvement Plan (AIIP).

With the considerable effort already undertaken by City of Fort Lauderdale staff, our Jacobs-Arcadis team will review and confirm the groundwork already in place by City staff, including existing and upcoming Master Plans, management plans (such as the Wastewater Department Capacity, Management, Operation and Maintenance (CMOM) Plan), and other key efforts produced through the I&I Reduction Program and the Critical Stormwater Condition Assessment Program.

Mobile Laser Scanning – this is able to capture features within the roadway, shoulders, medians, and parking lots. The resulting point cloud will be georeferenced using visible PID's that have been identified using aerial photogrammetry. The use of high definition mobile LiDAR in conjunction with aerial photogrammetry will result in reduction in field data collection, which increases efficiency.

Photogrammetric Aerial Mapping – our team will establish ground control points used during the flying of low altitude drones to enable feature definition and increased ability to map smaller items.

Record Drawings – Working with the City and local developers, our team will determine the most accurate and complete data for use in populating the GIS database and for migration to CityWorks. Sources will include CADD, PDF maps, asset tables, field collected GPS data and CCTV results.

BENEFIT

The Jacobs-Arcadis team have in-house professional surveyors and mappers registered in the State of Florida, along with a sub-consulting arrangement for local surveyors. The most cost-effective solution will be presented to City staff for data collection, upload to GIS storage, and migration to CityWorks.

The team has completed more than 200 CMMS enhancement and implementation projects throughout North America. The team's specific skills and experiences will directly benefit the City of Fort Lauderdale in the following ways:

- **Strong portfolio of CMMS Implementation for our clients.** Jacobs is the leader in multi-phase projects and can develop "right-sized" solutions to any client's needs.
- **Leaders in Utility Performance Measurement services**. Jacobs-Arcadis offers the City of Fort Lauderdale expertise in implementing Key Performance Indicators (KPIs) through CityWorks to collect the necessary data, data analysis, and reporting to easily and effectively track KPIs.
- **With ESRI GIS being the foundation on which Cityworks runs, the team is an ESRI Silver partner,** highly experienced in making GIS and Cityworks fully integrated and maximizing the use of these tools in the field and the office.
- **Experienced in providing effective training for all-levels of staff on the use of Cityworks** to ensure the enhanced use of Cityworks is documented for future users.

- **Leader in software integration,** we have accomplished complex Cityworks integrations with other software systems to meet client needs, improve efficiencies, save money, and enhance the value and functionality of agency GIS and CMMS technology.
- **Superior knowledge of Cityworks tools and functionality,** our Implementers have in-depth knowledge and experience with all the tools Cityworks has to offer as well as the variety of mobile applications, third party offerings, and integrations.
- **Advanced skill in Cityworks form customizations,** our team's xml editing expertise enables quality customization of the Cityworks user interface at an extreme value.

Jacobs geospatial group was tasked with using our integrated survey services, including survey, aerial photogrammetry, GIS and high-definition laser scanning, to produce very robust asset mapping of water utilities for the City of Fort Lauderdale. The end result of the data collection and attribution was used for CityWorks Asset Management System.

Featured on CBS Miami Channel 4 while mapping in Fort Lauderdale

BENEFIT

Changes in the asset management planning methodology has proven to reduce costs. The move to risk-based, condition-driven analysis reduced North Miami Beach Waters' thirty-year forecast for asset replacement by 28% over thirty years because of data-driven decision-making.

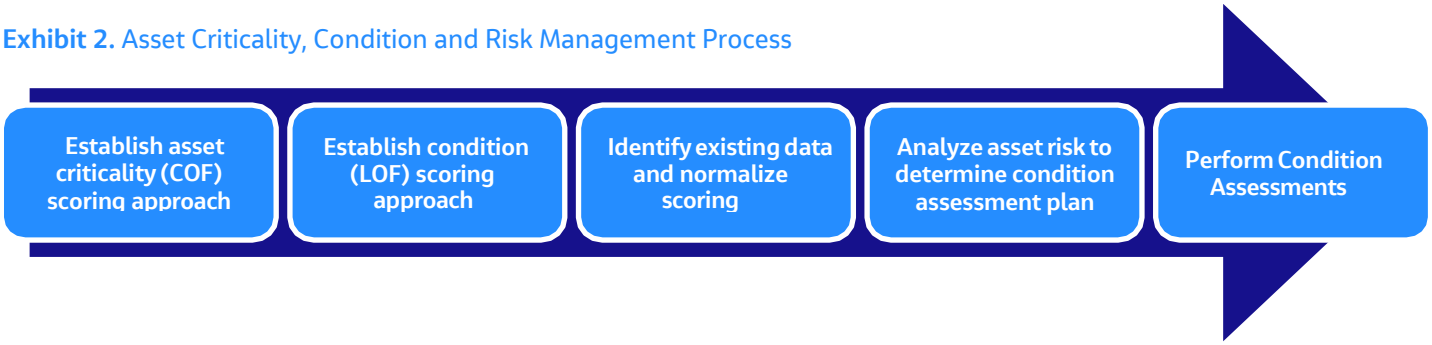
Asset Criticality, Condition and Risk Management

Our asset criticality, condition and risk task leaders, Celine Hyer and Greg Osthues, will lead City staff on the journey of developing and implementing the system of conducting condition assessments, criticality analysis, and risk assessments which will be used to plan asset replacement and investment.

Our Team provides a collaborative approach, which fully integrates City staff throughout all aspects of condition and risk assessment, providing training and knowledge transfer for City staff. **(Exhibit 2)**

Using existing data, condition assessments will be prioritized for QUICK WINS. Prioritization will be conducted through criticality and risk assessments, and once our team has calculated the initial risk assessment, an actionable plan to conduct condition assessments will be implemented.

Exhibit 2. Asset Criticality, Condition and Risk Management Process



Condition Assessment Plan

Our Team will facilitate the development and implementation of an effective Assessment Plan to support data-driven, risk-based capital planning and decision-making. The right data will be collected to correctly conduct asset management planning to monitor asset condition and asset performance and estimate remaining life and asset risk.

The field condition assessment process will be developed by Jacobs-Arcadis team members who have expertise and extensive field experience conducting condition assessments. The program will be developed around the City's specific asset classes. GIS data will be analyzed and workshops will be held with City O&M staff to develop and select the asset

Exhibit 3: Jacobs (as CH2M HILL) is a leader in writing inspection guidelines

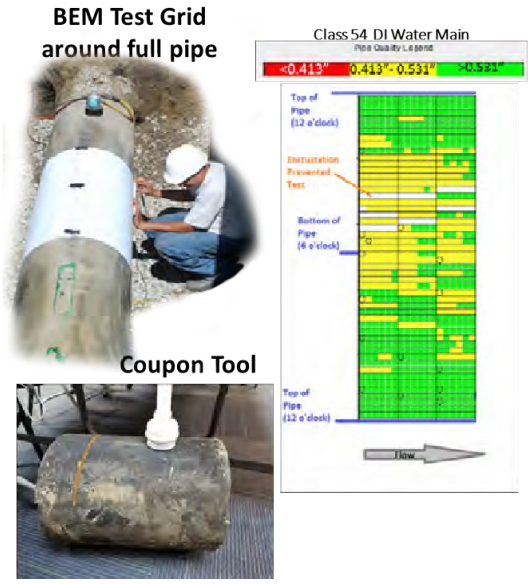


Exhibit 4: Broadband Electromagnetic

informed decision on how to maintain and rehabilitate or replace linear assets.

For roadways, our Jacobs-Arcadis team will use the Pavement Condition Survey and Pavement Management System Analysis. Our Jacobs team members will use a laser road imaging system (LRIS), which uses two high resolution line scan cameras and narrow spectrum infrared laser illuminators, configured to capture

types and condition scoring criteria to be used as part of the condition assessment program, following best practice recommendations from the International Infrastructure Management Manual (IIMM).

The guidelines will cover all assessment types, apply to all asset categories, and evaluate all likely failure modes. **(Exhibit 3)**

Technology and IT Systems for Condition and Performance Assessments

Our Team will utilize software for conducting condition assessments and making decisions based on the assets condition. Asset Condition Evaluation System (ACES) is a web-based condition assessment tool that offers a repeatable process and reporting capabilities. It is designed to manage condition assessment information for assets, allowing data to be collected electronically in the field. ACES is designed to assess asset condition and to establish effective useful life based on standardized criteria and methods from the International Infrastructure Management Manual (IIMM).

Data for buried infrastructure such as sewer or stormwater mains can be collected by Jacobs in-house CCTV licensed professionals, or through a subcontractor arrangement with local CCTV licensed professionals. The most cost-effective solution, depending on what has been completed already through the CMOM program, will be presented to City staff for data collection, upload for data analysis and storage/migration to GIS and CityWorks.

For buried water mains, Arcadis has a license and field equipment from Rock Solid in Australia for the application of Broadband Electromagnetic (BEM) Technology which can evaluate the condition of metallic pipelines as shown in **Exhibit 4.** This equipment and the personnel to apply it are located in Jacksonville Florida and can be easily deployed for the City of Fort Lauderdale.

After data collection, it is uploaded into SCREAM (System Condition Risk-Enhanced Assessment Model) **(Exhibit 5)** and this tool is used to convert CCTV condition inspections into pipe condition assessments. SCREAM is designed to provide a detailed prioritization for CIP or maintenance activities for each asset. Along with this next step prioritization, immediate and life-cycle costs are determined to make the most appropriate and

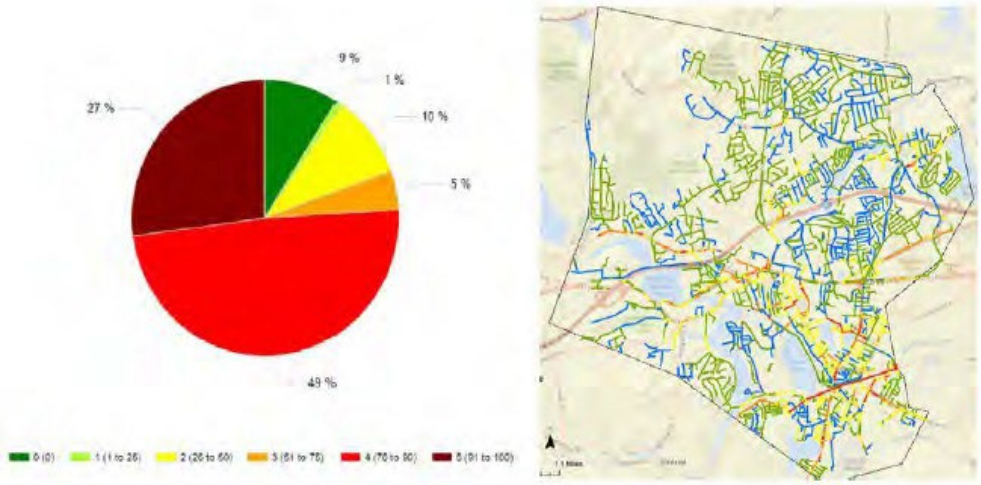


Exhibit 5: Example SCREAM Grades displayed in Reports and GIS

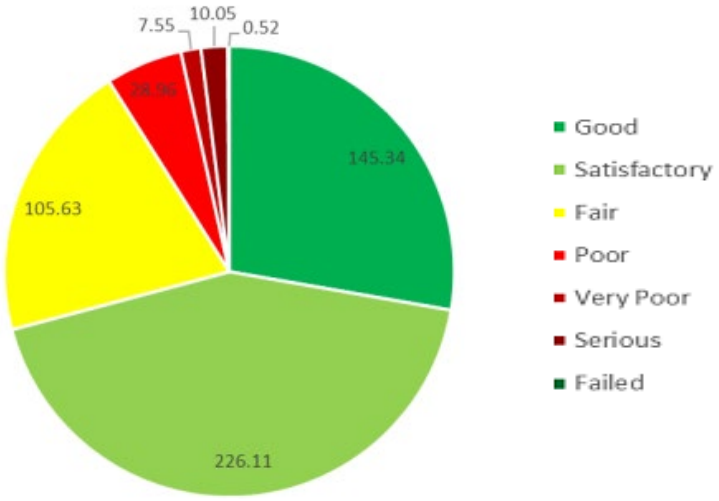


Exhibit 6: Results of the Pavement Condition Index (PCI) for Fort Lauderdale's Roadways and Alleyways (Miles)

pavement imagery up to 13 feet in width, providing 1mm resolution at traffic speeds. Coupled with the condition data, as shown in **Exhibit 6**, a pavement management system analysis will provide for an objective prioritization of work and determine the impacts of annual street maintenance and rehabilitation programs under current or proposed funding levels. This will enable staff to exercise effective judgment on funding requirements to meet target network condition levels going forward.

For seawalls, Jacobs has an underwater inspection team who work for our Ports and Marine division. Our Jacobs-Arcadis team has reach back to this team, and our Jacobs Condition Assessment and Rehabilitation Services (CARS) team, who offers condition assessment services and are active in every major U.S. professional organization through committee work and authoring technical papers at national and regional conferences. For each stage of the asset life cycle, and for all asset types our Jacobs-Arcadis team offer a full suite of in-house staff and equipment.

ACES is integrated with Jacobs Asset Replacement Model (ARM). Jacobs have developed ARM specifically for capital replacement prioritization and planning and for determining an overall asset replacement schedule. ARM uses a set of triggers to highlight high-risk assets based on an asset's condition, annual maintenance costs, and effective useful life. Ultimately, ARM provides a holistic picture of asset replacement cost and scheduling, which then becomes the basis for data-driven risk-based decision-making and CIP forecasting (discussed in the next section).

Determine Asset Residual Life and Replacement Cost Estimates

Our team provides an extensive database of effective useful life analyses and replacement cost estimation to assist the City. We have completed condition assessments of over hundreds of thousands of assets and can provide examples, based on industry accepted values, to help the City optimize estimates for all assets. The estimates for effective useful life will be tied to asset types and customized for the City.

Our team will estimate the remaining service life for pilot assets based on our typical resources including the results of the condition assessment, manufacturer's recommendation, industry standards, and references. The City's personnel input, experience, and service history will also be used. The final step will be to estimate current value from the installed cost and/or depreciated value based on remaining service life, and to determine replacement cost values for each asset.

Our team of Ports and Maritime investigation experts (incl. Professional Engineer Divers) have played a critical role in the success of the NYCEDC's program. One of our critical contributions was the creation of an inspection guidelines manual that provides the basis for the inspection procedures, deterioration ratings, and reporting requirements. This guideline was developed based on ASCE and Navy standards, and provides a baseline for the inspection data collection, ensuring the necessary data is consistent.

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Asset Criticality

Asset Criticality is the consequence of failure (COF) for the Public Works levels of service (LOS) for the customer. This will be evaluated considering triple bottom line plus criteria of social, environmental, financial, and technical consequences (COF) due to asset failure. Subject matter experts from Jacobs and Arcadis will support the practical application of this best practice framework.

Risk management creates and protects value, is part of and supports all organizational processes, and is part of decision making. It helps decision-makers make data-driven informed choices, prioritize actions, and distinguish among alternative courses of action.

Risk Assessments

Risk management is an essential element of asset management. Managing a large and diverse asset portfolio spread over the City, the Public Works department relies on the expertise of staff, service partners, consultants, and contractors to implement risk management for these assets.

Jacobs, with partner Arcadis, provide risk assessment for Port of San Francisco, including multi-hazard risk assessment of the seawall and associated infrastructure, development and evaluation of a wide range of alternatives to mitigate risks, community outreach, cost estimates, and training for staff on matters related to risk analysis.

Enterprise risk management (ERM) is a strategic process designed to identify, assess and manage an organization's risks to ensure the organization achieves its objectives. Risk management comprises a coordinated set of activities and methods used to monitor and control the unplanned events that affect the City's ability to achieve its asset management objectives. It includes identification, assessment, and prioritization of risks, and the management of unwanted events. Once identified and assessed, the risks can be responded to in one of four ways, known as the four 'T's:

- Tolerate a risk and its likely impact;
- Transfer the risk to another party;
- Treat the risk by reducing the probability and/or consequences, or;
- Terminate the activity that causes the risk.

The response to the risk, as outlined above, is determined by risk appetite and risk tolerance. Risk appetite is the amount and type of risk that organizations are willing to pursue, while risk tolerance is the readiness to accept the risk after the risk has been treated.

Risk analysis provides the necessary tool to identify and justify the most effective maintenance and capital investments. Members of our Jacobs-Arcadis team are industry leaders in aiding cities in making decisions under uncertainty and risk.

The City of Fort Lauderdale had undertaken identification and mitigation of risks within their sewer system. Jacobs has assisted with condition assessment of the entire 85 miles of force main network.

SMEs on the team Diana Francois used a risk-based approach to prioritize force mains for inspection using consequence and likelihood criteria, developed with O&M staff.

Further to this, the team selected inspection technology based on failure mode analysis and performed condition assessments using Jacobs crew and equipment.

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With our experience, we bring knowledge of the full range of risk assessment options, over 30 identified in ISO 31000—the international risk management standard. Our team will provide examples from numerous risk assessments, which incorporate best practices, to assist the City of Fort Lauderdale in evaluating an appropriate risk model.

- Likelihood of Failure. The LOF is generally taken as the highest score (most likely) of the failure modes from the condition assessment.

- Consequence of Failure. The COF (asset criticality) incorporates "triple bottom plus" principles with criteria assessing economic, environmental, social and technical consequences to the City's service delivery.

Task leaders Celine Hyer and Greg Osthues developed the risk model in use by New York City Department of Environmental Protection to develop their CIP based on guidance from the IIMM.

Risk Analysis Visualization

Analysis of results provides multiple risk profiles for asset management planning. Our team will provide results of data analysis to produce multiple condition, criticality and risk profiles. Power BI interface and dashboards can be used to visualize, validate and understand assessment results, as shown in **Exhibit 8.**

Exhibit 7: Risk Assessments assist the City in determining Risk Management Strategies

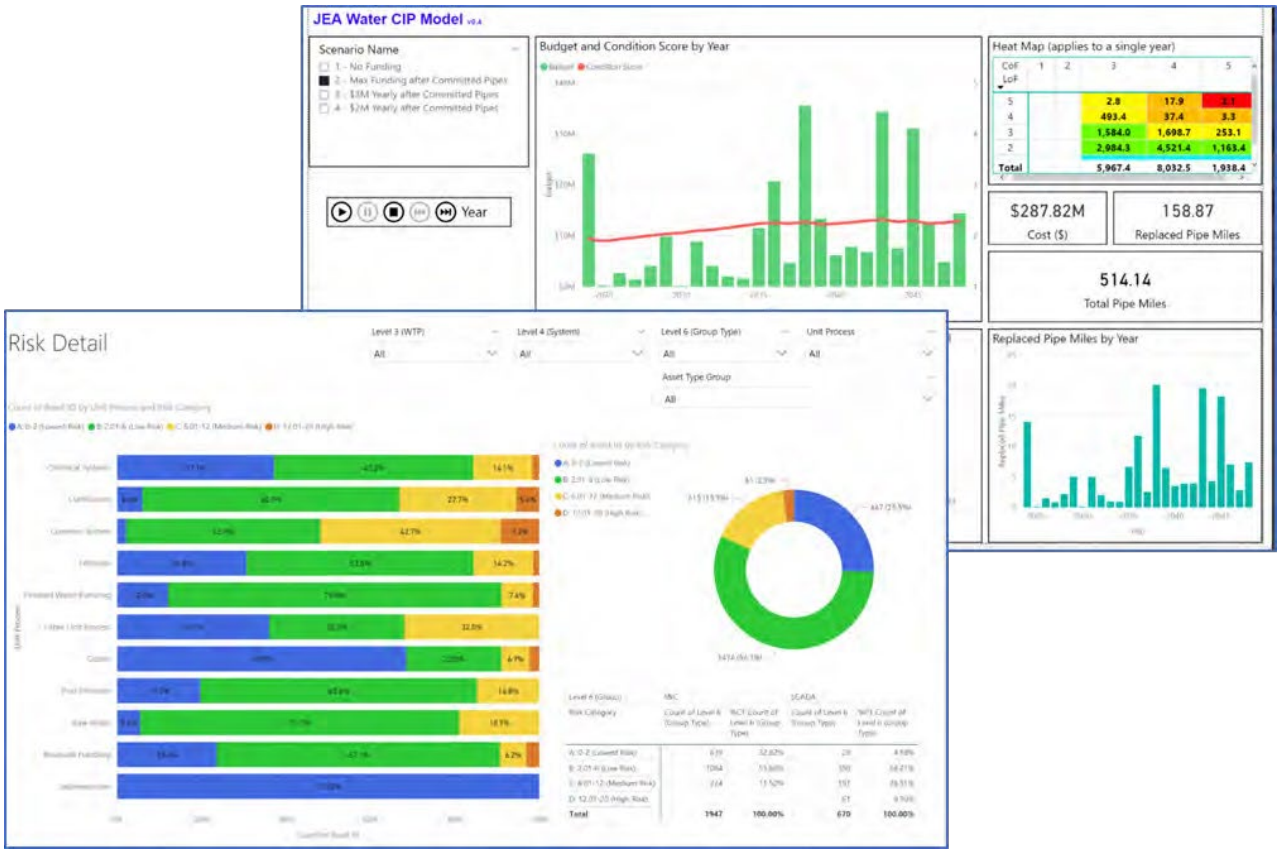


Exhibit 8: SEAMS - 'Decision Support Technology (DST) for Asset Investment Planning (AIP)

City Commission Engagement and Community Outreach

Fellow residents, City Commissioners, business owners, and property owners form an active, informed community that appreciates the critical issues of safety, risk, cost, and feasibility, and who, at the same time, deeply value high-quality levels of service.

BENEFIT

Informed and educated residents, City Commissioners, business owners, and property owners will be more inclined to support Public Works in delivering their services. DCS and Jacobs-Arcadis will manage the process for sharing with City Commissioners. From condition assessments to risk assessments to replacement or refurbishment, the awareness of the great work the City is doing will be shared with a "ribbon cutting".

We know from experience that our community can come together to have a discussion about the future based on values, aspirations, social and environmental benefits, and urban appeal. The Jacobs-Arcadis team will work closely with the City and our public relations consultant Sheryl Dickey from Dickey Consulting Services, Inc. (DCS) to design and implement a purpose-driven stakeholder engagement and communications plan that builds on the substantive community relationships and process developed by the City and specific to the task order or activity being completed. Our approach will be tailored to the specific objectives of engagement for each group of stakeholders. To be effective, we will clearly articulate the process, giving the range of stakeholders a clear understanding of how to engage in the process.

DCS brings extensive expertise in working with community members, neighbors and stakeholders from a variety of backgrounds, cultures and interest. Each neighborhood or community has unique objectives or interest in their expectations to address an issue or concern to improve their community. DCS and Jacobs-Arcadis will work with staff and management to deliver a concise unified message at public meetings, workshops and one on one engagements.

Dickey Consulting Services, Inc. will work with Jacobs-Arcadis to refine existing Asset Management Awareness Training for executive level stakeholders including the City Commission

BENEFIT

Structured decision-making engages staff, empowers senior management and provides justification and recorded evidence to be able to secure grants and funding.

Capital Planning – Data-Driven, Risk-Based Structured Decision-Making

The Capital Planning Task Lead, Melissa Pomales, will work with City staff and Jacobs-Arcadis Subject Matter Experts to develop and implement (1) business case evaluations; (2) multi-objective decision-analysis (MODA); and (3) whole life-cycle cost (WLC) calculations.

Best-in-class project alternatives identification and business case evaluation (BCE) are conducted through a structured process and creates a process that forms the basis for summarizing the advice and direction to make an investment decision. The process Jacobs-Arcadis will develop will articulate and describe the identified problem and need, evaluate the alternatives to resolve the problem, and makes a recommendation for the preferred project or intervention (e.g. preventive maintenance). Once developed, the business case provides the necessary information to evaluate the best decision.

Exhibit 9 shows the steps from asset risk assessments, to the Business Case Evaluation Process, and onto Community [Capital] Improvement Planning Prioritization.

Exhibit 9: From Asset Risk to Business Case Evaluations to CIP

Exhibit 10 provides a summary of the Business Case Evaluation process, including the business rules, tools, templates, and guidelines required for the main procedures throughout the Business Case Evaluation process that the Jacobs-Arcadis team will implement for the City of Fort Lauderdale.

Identify Needs	• Collate business needs, identify overlapping business needs, and consolidate
Determine Rigour	• Determine the degree to which analysis is to be conducted • *Artifact: Business rules for degrees of rigour*
Develop Alternatives	• Identify alternatives and non-traditional options to find the best value solution
Calculate Costs	• Determine the cost of each alternative • *Artifacts: Whole Life-cycle cost business rule, tool, and guideline*
Determine "Value"	• Determine the value to the organization • *Artifacts: Triple Bottom Line Plus tool and guideline*
Make the Decision	• Consider the cost and value of alternatives to decide the solution • *Artifacts: Triple Bottom Line Plus tool and guideline*
Document Decision	• Describe need, alternative(s) evaluation, and recommendation • *Artifact: Business Case Evaluation template and guideline*
Test the Decision	• Consider whether the decision is the best one • *Artifact: Procedure for challenge session*
Apply for Budget	• Collate information and apply for budget for the solution • *Artifacts: Budget Process, Procedures and Time*

Exhibit 10: BCE process overview and relating artifacts (tools, templates and guidelines)

Multi-Objective Decision Analysis (MODA)

MODA is sound theoretically, practical, transparent, and builds trust with stakeholders. The Jacobs MODA tool helps organizations select among a series of alternatives to address a complex, strategic challenge. It is designed to be flexible and easy to use based on more than 20 years of success using MODA with our clients. The tool is available to Jacobs clients at no-cost license.

MODA includes establishing relative value weights for each criterion, then using a weighted average of normalized scores and weights to achieve an overall "value score" for each alternative. Relative value weights for each criterion are established in facilitated workshops where the facilitator ensures that participants think clearly about the relative importance of different values. We have successfully utilized this tool for the Seattle Public Utilities, Metro Vancouver, City of Windsor, Gwinnett County, Capital Regional District, King County (WA.), City of Calgary, Kittitas County (WA.), Region of York, and City of Edmonton.

Exhibit 11: One of many outputs of the Jacobs MODA Tool

Cost Estimation

The Jacobs-Arcadis estimating system is time tested and provides budget guidance at the planning level down to quantity-price takeoff levels, allowing City staff to make decisions on future activities based on accurate estimates and cost

information. We have the proven ability to estimate work scope at any stage, and we have the local strength and capability to engage our cost estimating teams for both early and final design estimates. Our proven record of cost estimating experience in South Florida, and throughout the US. for similar projects of all sizes demonstrates that the estimating tools we use result in accurate pre-bid estimates as shown in the table below. Tools available to our estimators include:

- A cost database developed exclusively for our infrastructure projects that is continuously updated
- A risk management tool that is used to determine risk and contingency at various points in the estimate
- An escalation calculation module that forecasts construction cost escalation. In fact, we are the only firm with an escalation forecast tool that has 17 project specific indexes.
- Access to commercial forecasting groups that provide current price and trending.

Access to this data confirms the latest trends in material escalations that have a significant impact on project delivery and price fluctuations.

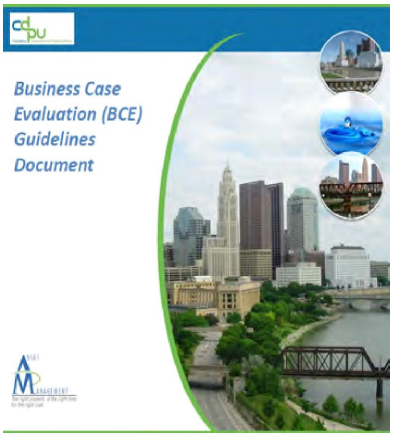
Jacobs' Original Estimate Versus Final Cost

Project Name, Bid - Completion	Client	Original Estimate	Final Cost	Variance
NF WTP 2015 – 2017	North Springs Improvement District, FL	$20,057,510	$19,450,000	-3%
Green Meadows RO and IX WTP 2016 – 2018	Lee County Utilities, FL	$72,392,000	$73,000,000	1%
Filter Drainage Improvements 2021 – 2023	City of Melbourne, FL	$1,674,123	$1,641,727	-2%
NF Rehab and Improvements	Collier County, FL	$3,010,390	$3,164,390	5%
North Miami Beach NF and RO Expansion	North Miami Beach, FL	$9,373,582	$9,754,952	4%
Dixie Wellfield Improvements	Fort Lauderdale, FL	$8,993,000	$8,895,000	1%
Peele Dixie Membrane WTP Improvements	Fort Lauderdale, FL	$26,555,000	$26,035,000	2%.
GT. Lohmeyer WWTP Pump Station Upgrades	Fort Lauderdale, FL	$7,201,000	$7,229,000	-0.4%

Funding and Grant Management

The Jacobs-Arcadis team brings one of the largest combined group of expert funding and grant management professionals in the industry. The first step in development of a funding strategy is to work closely with City staff and other key stakeholders, as deemed appropriate, to identify and prioritize the goals and objectives for the funding program. Jacobs will facilitate a workshop in which potentially competing objectives for the funding/financing program can be discussed and weighed, such as:

- Revenue-generating capability of the funding method, such as limits of funding provided through grant sources and limitations on locally generated funding as a result of policy and legislative constraints, such as commitment to restrict increases in revenue requirements.
- Timeliness in providing funding of the candidate funding sources.
- Implementation difficulty and cost, such as application requirements and implementation related administrative costs for grant and loan programs, and the potential need for new data for any new fee or charge program components that might be considered.
- Political acceptability, such as the willingness to use emerging project delivery/finance options that increase collaboration in both delivery and finance with the private sector.
- Reliability of the funding over time, such as the potential volatility of funding that is tied to usage or other metrics that are subject to variability, and funding sources that are subject to uncertain appropriations at the state or federal levels.
- Equity/fairness of repayment requirements to the various components of the City's customer base.



- Impact on financial strength and credit rating, such as the impact of expanding outstanding debt on the performance criteria of high interest to the credit rating agencies.

We have found having an organized identification and weighing of priorities for the funding program is important in focusing effort on those opportunities that are in alignment with the City's goals. Our funding team led by Dave Green includes experts in funding and grant programs for a wide range of infrastructure projects. Collectively, we have secured more than $5 billion for our clients across the nation from a host of infrastructure grant, bond, and loan pro-grams including several throughout Florida. Through this experience, we understand federal and state funding priorities and can help shape project narratives that align with these priorities, helping the City to access funding.

As part of the asset management program implementation, another Jacobs-Arcadis team developed business case evaluation (BCE) processes and templates for the Columbus Department of Public Utilities (Columbus, OH) to evaluate and prioritize planned and proposed capital improvement program (CIP) projects. Applying the BCE principles identified $60M in cost reduction for 5-year CIP.

Exhibit 12 below details various funding projects our team has participated in including the client, the source of funding, and the amount for various infrastructure projects.

Exhibit 12: Our History Securing Alternative Funding

Project Prioritization

The PRIORITIZE tool uses multi-objective decision analysis (MODA) principles to aid organizations in prioritizing a set of capital projects **(Exhibit 13).** It has proven to be a flexible, powerful, low-uptake tool that allows organizations to begin the journey to align spending with its strategic objectives without costly commercial off-the-shelf software and relatively little training time. Like the MODA tool, PRIORITIZE and its documentation is available to Jacobs clients as a no-cost license.

Asset Management System Development and Implementation

Our asset management task leader, Mauricio Lara, will work closely with City of Fort Lauderdale staff to develop and document an asset management system that effectively integrates with your existing systems and promotes enhanced management of your new and existing infrastructure assets.

Our asset management goal is to achieve optimum use of financial and human resources so that the City's level of service objectives can be achieved while maintaining selectively optimized infrastructure whole life-cycle costs (WLC).

The AM Policy, AM objectives, Levels of Service, and Asset Performance will be established with City management based on the goals of Fast Forward Fort Lauderdale and prudent industry practice.

Development of AM Policy, AM Objectives, Levels of Service (LOS), and Asset Performance

A basic tenet of AM is the assurance that decisions, investments, and on-the- ground work involving the utility's assets are consistent with the organization's strategy. This alignment is frequently referred to as "line-of-sight" because people on the front needed to see it, not just how to do it. The Jacobs-Arcadis team will work closely with City staff to determine organizational line need to have direct visibility of the reasons for their activities - why the task objectives, prioritize them, and develop an AM Policy that is clearly aligned with those objectives, as well as the AM drivers and other demands. The aim is to make the policy understandable to all staff and readily endorsed by leadership.

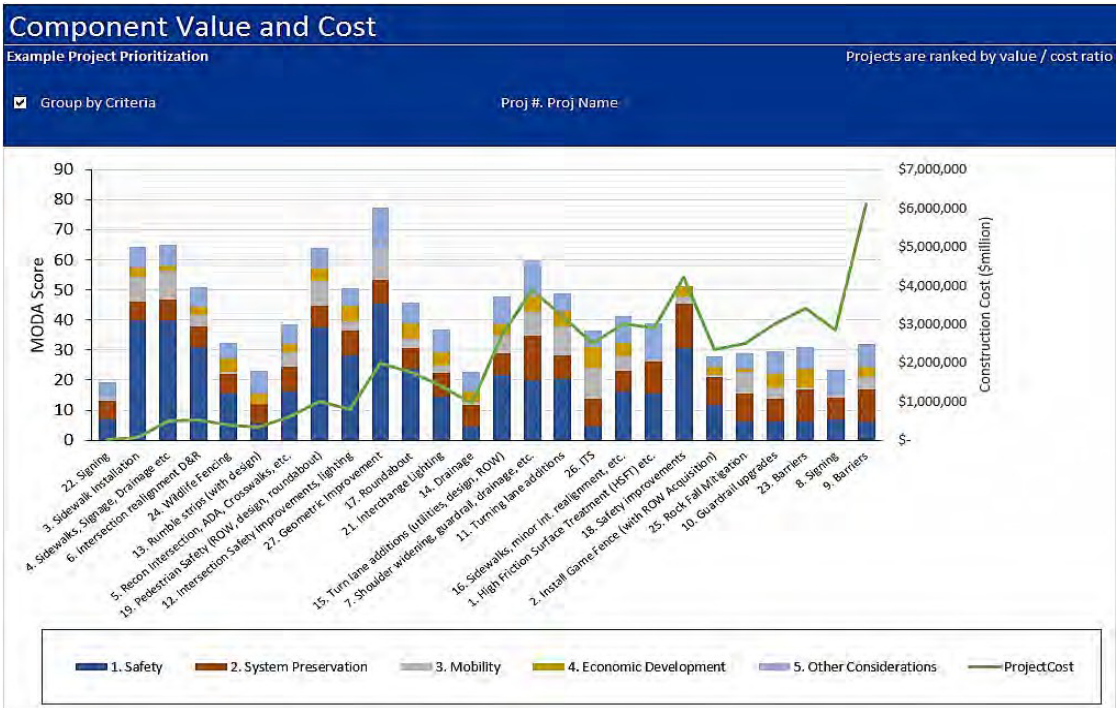


Exhibit 13: Outputs of the Jacobs PRIORITIZE Tool

Asset management objectives are measurable goals derived from the principles of the AM Policy and will address the organizational objectives and high-priority AM drivers. The AM objectives are achieved through accomplishment of the AM programs and initiatives. The team anticipates that we will continue to work primarily with leadership to develop these AM objectives, although meetings with City staff will be necessary to ground-truth that the objectives meet the City's needs and to leverage opportunities already underway. This additional input will also be valuable to understand to what extent the AM objectives will be measurable, and to also set the stage for identifying the strategic programs and initiatives to be included in the SAMP.

Exhibit 14: Asset Management Line of Sight

Upon establishment, metrics for asset performance, tracking, and reporting will be developed with City staff through CityWorks to measure and report progress on meeting the objectives and KPIs.

The performance tracking methodology will utilize CityWorks and the tracking methodology will be aligned with the progress being made on the programs/initiatives identified to allow City staff to meet its AM objectives. The Jacobs-Arcadis team will propose milestones for each objective.

Current performance management systems used by the City will be assessed to determine whether their use can be expanded to include tracking the AM objectives. This activity will be conducted in coordination with development of the AM Improvement Roadmap.

The key concepts of levels of service (LOS) are shown in **Exhibit 15.** The LOS is intended to assist with alignment of the corporate goals and technical objectives. The intention is to ensure that when staff and assets meet performance levels at the lower level, this leads to achieving top level corporate goals.

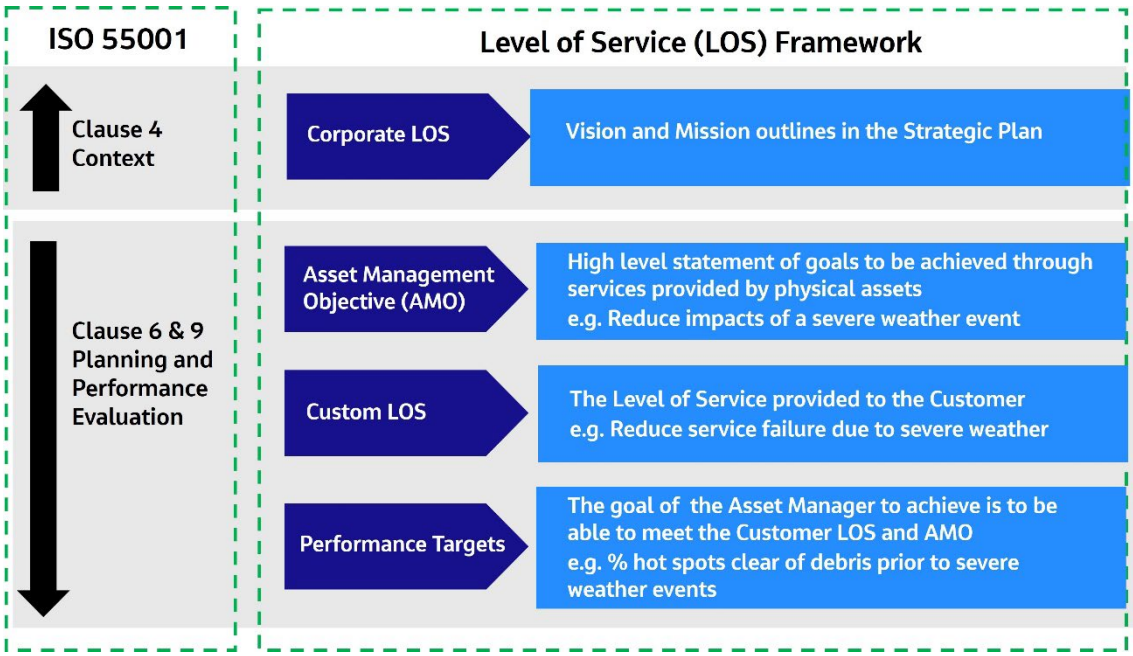


Exhibit 15: Levels of Service Hierarchy and the Line-of-Sight

In this asset management initiative, technical LOS measures will be determined for asset management, asset performance, and the asset management system.

To develop a suite of LOS indicators that align to the vision of the City of Fort Lauderdale, Program Manager, Mauricio Lara, will review the existing LOS indicators against the vision, customer values and industry standard practice. He will work with City staff to identify a suite of customer LOS indictors that reflect the expectations and needs of customers and stakeholders of the asset portfolio.

For each of the customer LOS indicators, Mauricio will work with staff to identify Technical LOS indicators that will directly support achievement of the customer LOS. Technical LOS includes both asset performance, such as availability and capacity, and O&M performance such as failure resolution times.

Once the suite of LOS indicators have been agreed upon, the team will determine the AM data that will allow for LOS indicators to be measured. LOS data will be used to inform the asset management strategies for decision-making, capital and operational financial forecasting, and the updating of KPI metrics.

There are several activities needed for the City of Fort Lauderdale to make well-informed decisions regarding service levels, including the following:

1. **Develop a Performance Management System Framework.** This will include description of the organization's chosen use of service levels and performance indicators, as well as definitions service levels, performance indicators, and related terms (typically performance indicators roll up to service levels).
2. **Decide on an initial set of service levels and related performance indicators for consideration for each department.** This can be done in a few work sessions, during which the following are established:

- Service level categories
- Service level objectives (may be one or more per category)
- Intent statements for each objective
- Performance indicators (leading or lagging, **as shown in Exhibit 17)**
- Performance indicator targets (may have to be analyzed for a baseline and benchmark)
- Performance indicator owners
- Performance Indicator importance (internally and to customers)
- Ease of measurement

Performance Indicator Characteristics	
Meaningful	➢ Relevant to staff and stakeholders ➢ Provides a clear picture of performance
Measurable	➢ Expressed as a qualitative or quantitative measure
Consistent	➢ Measurement is reproducible by others
Useful	➢ Helps manage the utility ➢ Encourages improvement
Unique	➢ Describes a specific attribute of utility services or activities ➢ Independent of other indicators

3. **Obtain industry information to ensure indicators align with commonly used industry benchmarking** so that City indicators can be compared with industry indicators.
4. **Determine data availability for desired indicators -** because if the data is not readily available, a new process or system may be necessary and this should be a consideration in selection of the initial set of indicators.
5. **Select a short list (from the list developed in No. 3 above) of initial indicators for measurement.**
6. **Develop design reports,** including CityWorks, and document data collection and purporting processes.
7. **Initiate reporting.** Advanced development and the use of service levels includes obtaining input from elected officials, customers, and potentially other community stakeholders regarding the levels at which they want (and are willing to pay for) to receive services. This is an important step but it can be time-consuming to obtain meaningful information from customers and it can be difficult when current data regarding the cost to own, operate, and maintain assets is of poor quality or incomplete. In the interest of completing the SAMP with currently available information, the team suggests this step be performed as a future step, though if desired by City staff, it could be conducted concurrently with the initial SAMP development.

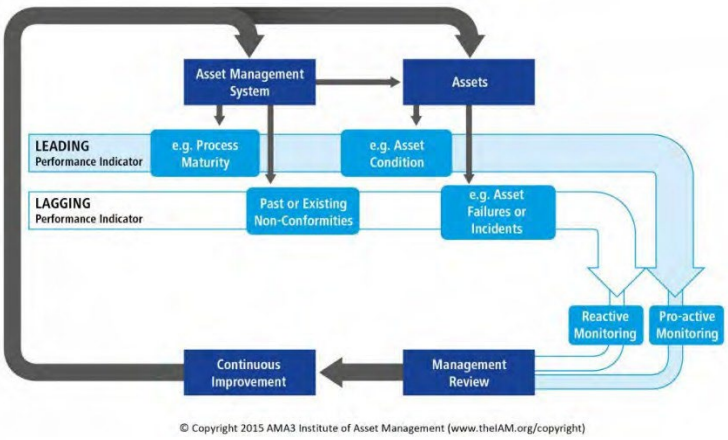


Exhibit 17: Leading and Lagging Indicators (source IAM An Anatomy Version 3)

Development of SAMP, AMPs, and Regulatory Plans

The Jacobs-Arcadis team will conduct a kickoff meeting with City staff, as appropriate, to discuss and define the plan for developing the SAMP. We also propose an outline for the SAMP based upon our knowledge of industry resources, such as ISO 55002, the IAM AM Anatomy, the IIMM and PAS-55.

The structure of the annotated SAMP outline **[example in Exhibit 18]** will be a narrative of the contents of the SAMP. It will also explain the methodology for developing the sections and for updating the SAMP in the future. The methodology will be created jointly by the team and City staff.

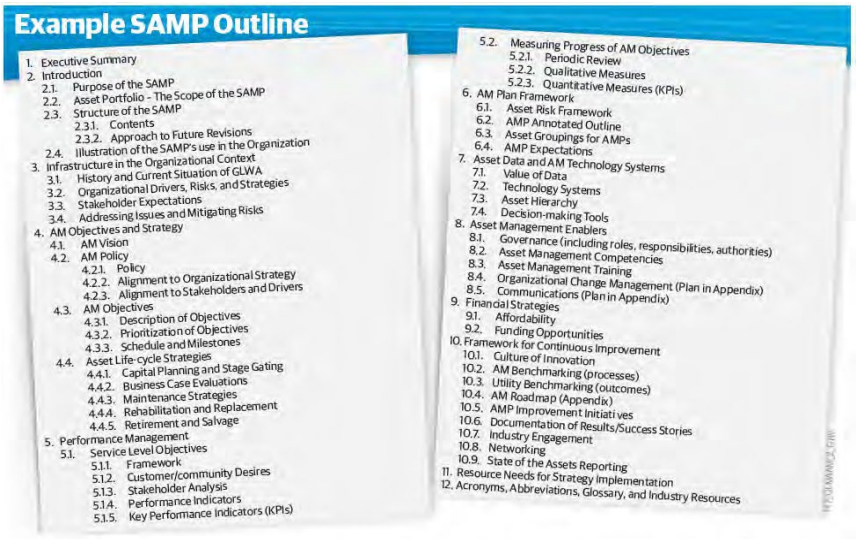


Exhibit 18: Example SAMP Outline

The Jacobs-Arcadis team will design a diagram that illustrates how the SAMP is to be used within the Asset Management System (ASM) in the development of service area AMPs and AM decision-making, as well as its relationships to other AM documents and tools and the organization as a whole. To accomplish this, we anticipate several meetings and workshops with decision-makers.

With the considerable amount of effort already undertaken by City of Fort Lauderdale staff, much of the work in this task will be to review and confirm the groundwork already in place, including existing Master Plans and management plans (such as the Wastewater Department Capacity, Management, Operation and Maintenance (CMOM) Plan).

Asset-Group Whole Life-Cycle Strategies (Maintenance and Reliability)

Asset-group whole life-cycle strategies document Public Works staff strategies about how they decide to manage asset-groups throughout their life cycle. The documents (1) are a means of communication, (2) assist in determining whole life-cycle costs, and (3) force staff to conduct the analysis required to determine the asset-groups' whole life-cycle strategies.

The purpose of asset-group whole life-cycle strategies are twofold. The first is to ensure that infrastructure planning, design, asset procurement, construction, asset performance and condition monitoring, maintenance, operations, asset replacement, decommissioning and disposal are applied in a consistent manner to assets and asset-systems (networks) within the City's asset portfolio.

The second is to determine the best strategies to balance a reduction in expenditure and risk, while ensuring that asset performance provides the required service performance for customers and stakeholders.

The asset-group whole life-cycle strategies will provide guidance to staff for their day-to-day decision making, from asset planning and Whole Life Cycle (WLC) management, through to asset operation, maintenance and decommissioning. Strategies will include: developing asset specifications and standardization to meet asset performance, determining the requirements for construction/installation and commissioning, and identifying the data to be collected for asset decision-making during all phases of the asset life cycle.

Asset Management Competency and Training

The IAM Competences Framework provides guidance of what asset management professionals should be capable of doing, and what they should know and understand. The City of Fort Lauderdale Public Works is recommended to apply this framework within their AMS business processes to conduct training needs analysis, recruitment, career planning, continuing professional development, and workforce management.

The framework contains a unified set of competence requirements that apply to all organizations and sectors whose business performance relies on optimizing the delivery and performance of physical assets. Its structure is compatible with other leading competence frameworks and the contents reflect the fundamentals of ISO 55000, and will meet the requirements of ISO 55001.

This purpose is achieved by asset management professionals performing one or more of 7 Key Roles:

1. Policy Development
2. Strategy Development
3. Asset Management Planning
4. Implement Asset Management Plans
5. Asset Management Capability Development
6. Risk Management and Performance Improvement
7. Asset Knowledge Management

Broken down into 28 competence units and 153 elements, the Jacobs-Arcadis team will use this approach to assist in defining the competence requirements of each role. This is the level at which assessment takes place, and the results will be summarized.

Asset Management Training will be customized for specific asset management activities and be managed throughout the 3+1+1 program with the City of Fort Lauderdale.

Prior to this training beginning, IAM Endorsed Asset Management Fundamentals Training will be run by the Jacobs-Arcadis team, utilizing the Jacobs three-day infrastructure asset management training and certificate course – aligned with the Institute of Asset Management (IAM) Professional Certificate Exam.

Jacobs' course is split into the following five modules that align with good practice asset management as outlined in ISO 55000, PAS 55 and the IAM's learning framework:

- Module 1 – Introduction to Asset Management
- Module 2 – Asset Related Risk
- Module 3 – Asset Management Lifecycle
- Module 4 – Asset Information
- Module 5 – Financial and Business Impacts (including Asset Management Plans)

On the third day, we will host the Institute of Asset Management (IAM) Certificate Examination.

The Certificate is a globally recognized Asset Management professional qualification, developed and managed by the IAM. Jacobs' role is to act as proxy between exam candidates and the IAM.

Jacobs is recognized by the Institute of Asset Management as an Endorsed Trainer. This involved a rigorous review of the training materials by asset management experts at the IAM.

Departmental Asset Management Improvement Roadmaps

The objective of the Departmental Asset Management Improvement Roadmaps is to determine the specific implementation plans required for each department through quantitatively evaluating the asset management system and practices, utilizing the IAM ISO 55001 maturity assessment methodology tool.

The tool is Microsoft Excel based and will be used to capture the results from multiple interviewees, where interviewees may be single individuals or a group / panel of individuals. This enables views and opinions from across the organization to be compared and contrasted. The tool enables the responses to individual questions / criteria to be captured and displayed graphically. Each question is scored using the five-point maturity scale.

A score is provided for each ISO 55001 clause, based on the unweighted average of the responses provided to the questions or criteria relating to those particular elements. This will be displayed in the form of a Radar Chart and a Bar Chart (as shown in **Exhibit 19)** and reported through the findings report.

Maturity Level 0	Maturity Level 1	Maturity Level 2	Maturity Level 3	Beyond	
The organization has not recognized the need for this requirement and/or there is no evidence of commitment to put it into place.	The organization has identified the need for this requirement, and there is evidence of intent to progress it.	The organization has identified the means of systematically and consistently achieving the requirements and can demonstrate that these are being progressed with credible and resourced plans in place.	The organization can demonstrate that it systematically and consistently achieves relevant requirements set out in ISO 55001.	The organization can demonstrate that it is systematically and consistently optimizing its asset management practice, in line with the organization's objectives and operating context.	The organization can demonstrate that is employs the leading practices and it achieves maximum value from the management of its assets, in line with the organization's objectives and operating context.

Exhibit 19: ISO 55001 Maturity Assessment Scale

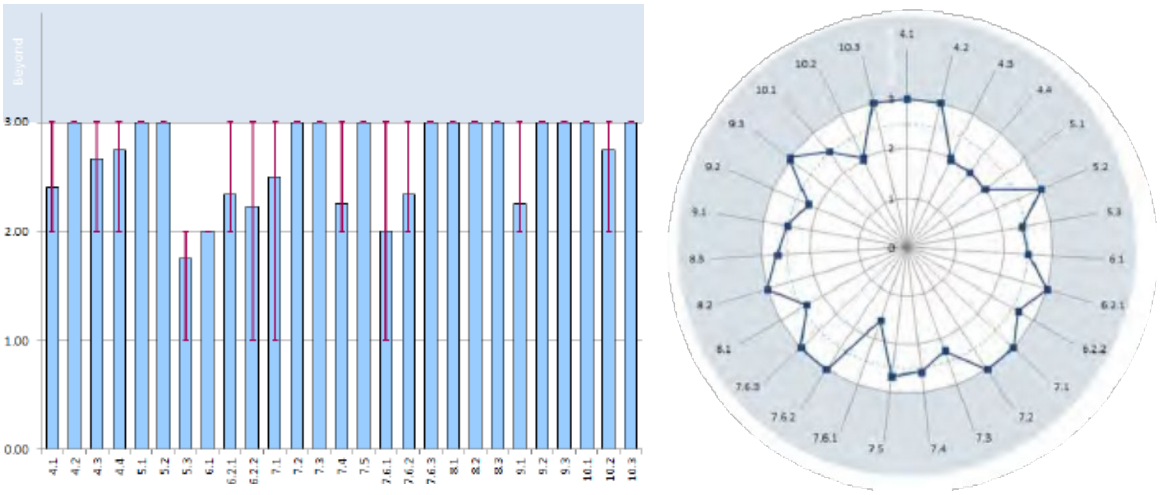


Exhibit 20: Example graphs of IAM ISO 55001 Maturity Assessment findings

The assessment serves to both educate City staff and senior management with the responsibilities faced by asset managers, and to identify available approaches to assist the City moving towards more effective and efficient Asset Management System.

ISO 55001 Conformance Readiness (optional)

During the final months of the Asset Management Planning Program, the City of Fort Lauderdale will be offered the opportunity to prepare for ISO 55001 certification. If the opportunity is accepted, the Jacobs-Arcadis team will work with City staff to engage a third-party and qualified ISO 55001 auditor; and (most importantly) prepare City staff for the interviews and gathering of artifacts for the audit.

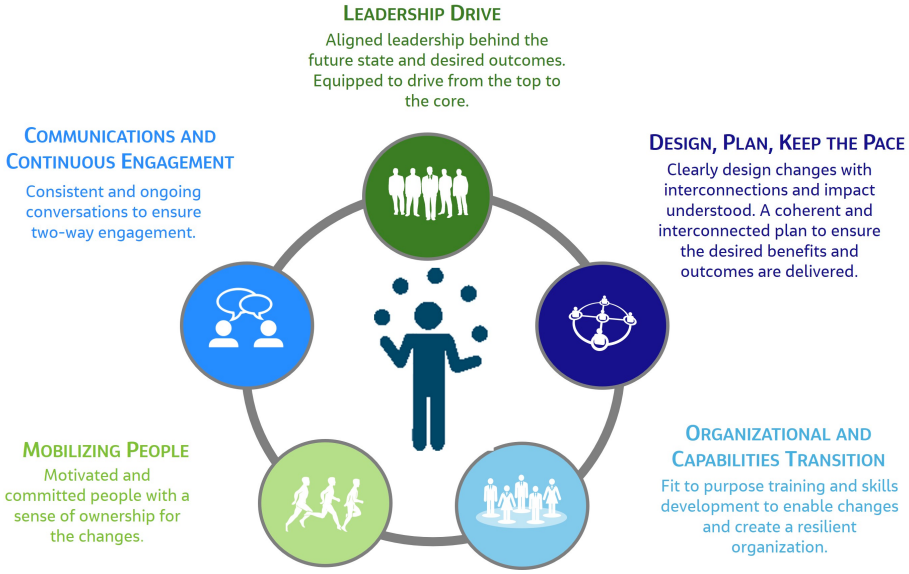
Change Management and Business Integration

Culture change begins with defining the current conditions and building on a foundation for effective communication and change management.

The Jacobs-Arcadis team will take a three-tiered approach to better define organizational culture.

Our team begins by:

- Assessing tangible artifacts of culture, including factors such as physical space, communication content, and documented expectations.
- Reviewing available staff survey data as well as conduct tailored staff surveys to capture how utility staff communicate about current conditions.



These simple steps along with thoughtful communications provide a strong foundation for change management. Our team will focus on the critical success factors of change management. Whether it's using a new tool or adopting a new process, nearly every project requires people to change. However, the "people dimension" is often overlooked. **We recognize that success is not just built on technical requirements, outputs, specifications, or even solutions. Instead, we help utility leaders view projects through five "lenses" of change**. These lenses help focus on the key factors that drive change behaviors and ultimately results. Each project should include change management actions that address each of these lenses.

Leveraging Prosci's ADKAR© methodology (Exhibit 22) to both organize and guide AMS implementation. We have had excellent success with this approach and appreciate its foundation on decades of business transformation experiences.

The ADKAR© methodology employs common sense tools and collaborative approaches that are easy to understand and that provide a clear path for staff at all levels of the organization. Specific tools and approaches we will use are integrated into our entire project approach.

ADKAR MODEL OF CHANGE	
A	Awareness of the need to change
D	Desire to support & take part in the change
K	Knowledge of how to change
A	Ability to implement the change
R	Reinforcement to sustain the change

Exhibit 22: ADKAR Model of Change

Workload and Availability

Your success is our highest priority, and to that end, we pledge our corporate and management support to the City of Fort Lauderdale under this contract. In addition to their familiarity with the City's facilities and extensive similar experience in the Tri-County area and throughout Florida, our personnel have been selected for their ability to be fully committed to the City's projects until they are successfully concluded. Program Manager Mauricio and our Task Leads are fully committed and available to the City to execute the tasks under this contract. In addition, our extensive "reach-back" staff resources are available to support the City's every need and will be committed as needed to achieve project success.

Since April 2024, Christine Rafferty has been directly supporting the City of Fort Lauderdale's Public Works/Stormwater Operations Department as one of the City's onsite GIS analyst.

In her role, she has updated the City's GIS records by updating locations of catch basins, manholes, drainage pipes, tidal valves, and other City assets with findings collected by City crews as well as City stormwater contractors.

Technological Capabilities

The City and Jacobs and Arcadis share many of the same sophisticated tools for asset management planning.

Jacobs OMNI

Jacobs OMNI is a combination of software packages designed to act as the 'digital engineer' to collect and analyze data captured from the field and through CMMS and AMS software (including CityWorks). The combination of software packages will use multiple data sources such as asset condition, the assets' attributes, geology of surrounding soil, CCTV, and cost estimates (to name a few) to determine asset Risk Assessments; Community [Capital] Investment Plan financial forecasts; asset inspection plans; selection and prioritization of projects; and feasibility studies.

CityWorks

Jacobs-Arcadis offers the City our subject matter experts (SMEs) and former utility managers with first- hand experience transforming their organizations with CityWorks.

Sustaining a best-in-class performance requires continuous improvement to meet and manage the ever- changing business environment. Jacobs has completed more than 200 CMMS enhancement and implementation projects throughout Canada and North America. The team's specific skills and experiences will directly benefit the City of Fort Lauderdale.

Jacobs and our highly qualified team of local sub-consultants can assist City staff in improving the existing computerized maintenance management system (CMMS) software with the end-users in mind.

Our unique combination of local knowledge and commitment, access to national resources and experience, first-hand field implementation experience, demonstrated Cityworks experience, and state- of- the-art technology assures you successful streamlining of workflow and procedures associated with CMMS.

Largest CityWorks platinum partner, Jacobs has had significant experience with citywide and complex CMMS implementation, integrations, enhancements and workflow improvements.

Arcadis Software Collection

Asset Management Tool	Application	Benefit
Arcadis Data Profiler	Evaluates gaps in asset attributes in GIS and CityWorks to Support Risk Assessment	Quickly identifies where largest data gaps are to guide a cost-effective program to fill critical gaps.
Fulcrum Tablet Data Collector	Collection of asset field inventory, attribute and condition data	Reduces cost for field condition data collection and supports enhanced quality assurance and control.
Arcadis Renewal and Replacement Planning System (RRPS)	Evaluates asset risk, remaining life, and service levels to support capital planning as well as long term funding projections.	Streamlines risk-based capital planning process to identify short term projects and long term funding needs using no cost software such as MS Access and PowerBI dashboards that can be integrated with the City's GIS and CityWorks.
Arcadis SEAMS	Asset investment planning for CIP optimization	CIP optimization across multiple asset classes results in lowest overall cost

As well as Jacobs OMNI and Arcadis software, the City of Fort Lauderdale will have the option to select third-party fit-for-purpose software such as FRACTA. These analytics systems will be discussed with staff from the City to determine the tools and software that will be used for the Asset Management System (AMS).

Project Management of the Program

Our team's overall management approach is structured to expedite and deliver any task associated with this contract. Our extensive local presence and team structure empower us to simultaneously deliver concurrent projects of any size or scope, regardless of their discipline or asset group. This approach provides the City with a single point of contact, accountability and immediate responsiveness.

Our customized approach is proven to meet the needs of any project with the most qualified resources available to deliver projects to that will outperform the City's expectations.

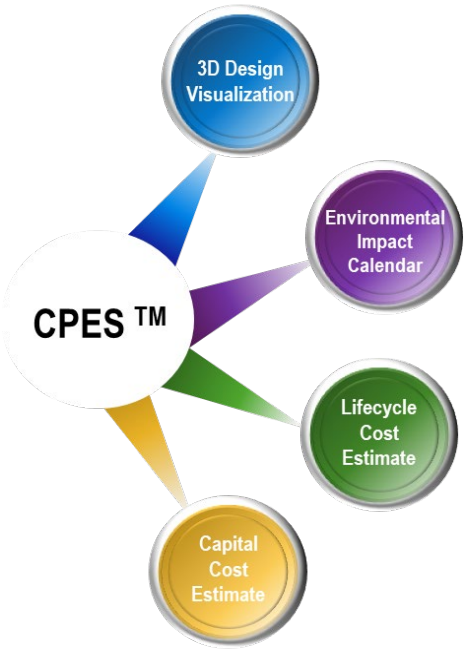
Jacobs' ability to accurately estimate the effort required to complete each project and the provision of quality are at the heart of our philosophy and approach. Key objectives of our delivery approach are:

- Single point of contact through Program Manager, Mauricio Lara, to streamline communications
- Frequent communications between City staff and Jacobs team members throughout the project
- Local, highly qualified activity managers for any project type
- Immediate access to qualified local support staff and specialty resources nationally
- Clear roles of responsibility, communication, and accountability
- Proven financial and schedule tracking, change management, and cost estimating expertise
- QA/QC program to provide continuous senior review
- Consistent quality and timely delivery of task orders

Value of using CPES ™

- Accurate and detailed cost estimates early in the project lifespan.
- Eliminates reliance on scaling cost based on similar projects, rules of thumb, cost curves or manual quantity take-off cost estimating techniques.
- Substantially reduces time required to develop estimates.
- Increases cost estimate accuracy through the use of quantity take-off and a material unit cost approach.
- Quickly provides capital and lifecycle cost, footprint, energy use, and environmental impact information for alternatives in multi-attribute decision models.
- Enables 3D visualization of facilities early in the project.
- Supports improved water management decision making.

CPES™ also produces lifecycle costs, energy usage, and an environmental impact summary, which includes greenhouse gas emissions for each project. The environmental impact summary is based on key construction quantities (e.g. concrete, steel, earthwork, etc.) as well as facility power, chemical, and residuals consumption and/or generation. Early estimates of environmental impact help to inform more sustainable water management decision-making.



Task-Order Based Project Delivery Approach

The key to successfully managing task-order based requests is fully understanding the scope and level of effort required to complete a project and applying the appropriate processes to allow the project manager and activity managers to efficiently manage assignments. For every task order issued, we will customize our approach with your end goal in mind.

An experienced program manager with 10 years of experience successfully executing infrastructure projects globally, our Program Manager, Mauricio Lara, brings a strong record of completing projects on time and within budget. Throughout the contract, he will meet with the City's designated representative on a regular basis to identify and discuss the City's upcoming asset management needs, including location, scope, size, schedule, and the specific resources and expertise needed for each activity.

Once a task is identified, Mauricio and Deputy Program Managers, Raul Alfaro and Juliana Gomez will review the requirements and assign the appropriate task lead to manage each individual project. The task lead, along with Mauricio, will determine the best person from Jacobs and/or Arcadis to conduct the projects. The team of three will meet with City staff to understand the details of the request, ensure the proper personnel are mobilized, align staff with the appropriate City staff, and ensure the work plan is established.

Typically, the activity manager will have full control over the project once it is defined and the scope is clear. Our leadership team will occur directly between the Director of Public Services and Jacobs' Program Manager. Our activity managers will be continuously responsible and accountable to Mauricio for providing effective and efficient instructions, delivery tools, and qualified resources throughout the life of a task order.

Once task orders are assigned, we will employ our proven PDS described next to ensure the efficient completion of work tasks. This approach allows our project team to work as an extension of the City's own project management team to ensure all projects are completed according to the City's objectives for asset management planning of the City's Public Works asset portfolio.

A. Task Order Development

- Identify Task Goals, Objectives and Issues
- Define Scope of Work
- Identify Teams and Task Organization Chart
- Set Schedule, Budget and Deliverables

B. Task Order Negotiations and Notice to Proceed

- Negotiation Project
- Kickoff Project Plan
- Quality Plan
- Health and Safety

C. Project Performance

- Monitor Progress, Scope, Schedule and Budget
- Review Deliverables, Quality, and Cost to Complete
- Communicate with Client and Project Team. Progress Meetings
- Document Meeting Minutes, Project Reports, Memos and Phone Conversations

D. Project Completion and Closeout

- Client Acceptance
- Project Completion
- Lessons Learned
- Project Archiving

Project Control Tools, including QA / QC

Assuring responsiveness, efficiency, quality, cost control, and schedule adherence through proven project controls strategies PDS provides a systematic approach to better control of project costs, improved schedule execution, and increased quality. Through clearly defined processes, our team will focus on your needs and satisfaction to successfully deliver projects and ensure success by:

- Controlling Costs
- Maximizing use of existing tools and resources
- Providing reliable, continuous service
- Meeting increasingly stringent performance criteria
- Providing world-class project management standards and controls
- Integrating with technology to optimize resources
- Providing checks and balances for project success
- Helping the team make well-informed decisions

Schedule Methodology and Compliance

Jacobs has a demonstrated record of meeting or exceeding delivery schedule requirements on our projects. Our commitment to schedule performance is demonstrated by our ability to beat demanding schedules and by our willingness to find approaches to accomplish the project faster. We institute state-of- the- art project delivery and control systems so our project teams operate at optimal performance levels.

Our project delivery system serves to:

√	Understand and establish the baseline schedule of each task order
√	Communicate and receive buy-in and commitment by project team members regarding the schedule
√	Consistently check the baseline delivery schedule against project milestones
√	Develop recovery plans as needed to maintain project schedules

We will develop a customized timeline for each task order due to the size, scope and complexity of each project under this contract to ensure a timely and successful outcome.

Cost Control

For each project, detailed project schedules and estimated staff requirements will be used to develop cost projections and cash flow estimates. Projected staff requirements will be established for each principal project task and compared to actual costs each week in our computer-based project cost tracking system. Once we establish a baseline cost, we update the budget estimate document on an as-needed basis to reflect any scope changes to maintain an accurate projections of project cost. This early-warning process will allow for changes in direction early in the design and procurement stages. The data will allow the team to track costs and make adjustments to meet the project budget.

Claims Avoidance and Change Management

Jacobs' best-practice change management and claims prevention strategies focus on capability, foster teamwork, and promote problem solving to support early identification of potential issues and the timely application of corrective actions. Our integrated cost estimating tools enable us to confirm that contractor cost and change request proposals are realistic and accurate and facilitate effective change order management and negotiations

Quality Management

Jacobs' Quality Management System (QMS) provides a common framework for uniform QA/QC processes throughout the team. Our management team will ensure our QA/QC Plan for this contract is aligned with the needs of each project and communicated to all project staff, to allow team members to take responsibility for learning and abiding by the QA/QC Plan and its policy statements.

In support of QA/QC, we are committed to:

- Providing quality, excellence, and attention to detail in all our activities and deliverables and those of our subcontractors and suppliers.
- Ensuring conformance with approved designs and specifications through systematic application of our quality program, including checks and audits to identify and correct non-complying work.
- Maintaining requisite standards of quality throughout all phases of our work to achieve reliable, efficiently operating facilities.
- Eliminating excesses and maximizing efficiency through continuous quality improvement.
- Maximizing efficiency through a philosophy of continuous quality improvement.

Our QA/QC review team will be involved throughout the work, working closely with City engineering, operations, and construction staff to perform process and design reviews, as well as value engineering (VE), operability, and constructability reviews, particularly during the early stages when it is easiest to influence the work to be accomplished, to ensure projects are not only buildable but also provide life-cycle cost savings and operate as intended.

5

References

Jacobs References

Tampa Bay Water

Reference Project: Tampa Bay Comprehensive Asset Management Program

Contact Name	Telephone	Email
Justin Fox, PE	813.215.2406	jfox@tampabaywater.org
Address	**Year Work Completed**	**Cost (estimated and actual)**
2575 Enterprise Road Clearwater, FL 33763	Ongoing	$ 4.6B

Services Provided:

Asset Management Program ■ CMMS implementation ■ Data validation and migration ■ Level of Service evaluation ■ Risk Management Framework ■ CIP Prioritization Strategies ■ Capacity Modeling ■ Root Cause Analysis ■ Strategic Planning

City of Deerfield Beach, FL

Reference Project: Asset Replacement Model and Capital Improvement Projects Development

Contact Name	Telephone	Email
John Holdman, Water Plant Manager	954.250.4314	jholdman@deerfield-beach.com
Address	**Year Work Completed**	**Cost (estimated and actual)**
150 NE 2nd Avenue Deerfield Beach, FL 33441	2025	$1.7M (Total Project)

Services Provided:

Asset Replacement Model ■ CIP Development ■ Reliability and Redundancy Review ■ Condition Assessments ■ Process/Hydraulic Reviews ■ Alternatives Evaluation ■ Cost Estimating

City of North Miami Beach, FL

Water Master Plan and Asset Management Program

Contact Name	Telephone	Email
Sam Zamacona	786.657.6247	Samuel.Zamacona@citynmb.com
Address	**Year Work Completed**	**Cost (estimated and actual)**
17050 NE 19th Avenue 2nd Floor North Miami Beach, FL 33162	2021	$22M

Services Provided:

Asset Management Planning ■ GIS and CityWorks ■ Data Management ■ Condition Assessments ■ Asset Performance Testing ■ AM Policy, SAMP and CMOM ■ Data-Driven Risk-Based Decision Making AMS Processes

Arcadis References

Miami-Dade County Water and Sewer Department

Reference Project: Asset Management Framework Development – Phase 1

Contact Name	Telephone	Email
Amanda R. Kinnick, P.E.	786.552.8515 / Cell: 305.561.9211	amanda.kinnick@miamidade.gov
Address	**Year Work Completed**	**Cost (estimated and actual)**
3071 SW 38th Ave. Miami, FL 33146	2019	Actual fee: $488,900 No construction cost.

Services Provided:

Enterprise-wide strategic asset management plan ■ Covers all asset classes ■ Standardize assessment approaches among facilities ■ Incorporate consideration of risks resulting from vulnerability to sea level rise

New York City Department of Environmental Protection (NYCDEP)

Reference Project: Asset Management Program and Facilities Condition Assessment

Contact Name	Telephone	Email
Jason Galea, PE, Asset Management Program Manager	718.595.5584	jgalea@dep.nyc.gov
Address	**Year Work Completed**	**Cost (estimated and actual)**
59-17 Junction Boulevard, 13th Floor, Flushing, NY 11373	2023	Consulting fee: $11M. No construction cost.

Services Provided:

Asset definition, hierarchy, data standards, condition and risk assessment ■ Project bundling and cost estimating for renewal and replacement projects ■ Project prioritization and business case methodology ■ Pipelines (water and sewer mains), risk assessment and capital planning activities to enhance current renewal, and replacement planning and budgeting projections ■ Condition and risk assessment for all treatment facilities and pump stations ■ Updated the CIP projections ■ Audit with recommendations to enhance the maintenance programs

City of Plant City, FL

Reference Project: Lift Station and Force Main Risk Based Master Plan

Contact Name	Telephone	Email
Lynn Spivey	813.757.9191 ext. 105	lspivey@plantcitygov.com
Address	**Year Work Completed**	**Cost (estimated and actual)**
1500 Victoria Street Plant City, FL 33563	Ongoing	Actual fee: $336,948. No construction cost.

Services Provided:

Condition and risk assessment guidance documentation for future assessments across water, wastewater, and reclaimed water assets ■ Development of equipment inventory ■ Improved inventory and attributes for force mains through GIS edits and field verifications ■ Evaluation of asset condition, consequence of failure and failure risk results for each lift station and force mains ■ Development of a Power BI Dashboard ■ Development of a 20-year master plan for the City's lift stations and force mains

6

Minority/Women (M/WBE) Participation

We are committed to social responsibility for our local communities and promoting opportunities within regional services areas that reflect the areas' diversity. We offer a long history of past successful engagements with Minority/Women (M/WBE Participation) firms. We seek local minority and small business partners to develop long-term business relationships and often provide mentoring and training to enhance their company growth potential.

Awarded the Small Business Administration Eisenhower Award for Excellence in 2017 as a Federal prime contractor, this award recognized Jacobs' use of small business in areas of research and development, manufacturing, service, construction, and utility.

Proven, Award-Winning DBE Outreach

Though Jacobs is not a Disadvantaged Business Enterprise (DBE), we recognize the importance of providing opportunities to local minority, women, disadvantaged, and small businesses and have a long history and on-going policy of mentoring companies. The effectiveness of this policy has been recognized by the Environmental Protection Agency (EPA), resulting in Jacobs' receipt of EPA's Outstanding Prime Contractor Award five times, and by the Department of Defense (DOD), with receipt of the DOD's Nunn Perry Award for excellence in implementing a Mentor/Protégé Program for disadvantaged/minority owned businesses.

DBE Business Practices

Jacobs shares the City's commitment to workforce diversity and engaging and growing the capacity of DBE firms. We recognize their ability to provide quality, specialized services that complement our in-house capabilities. We will work with you and our local partners to assign small business firms as applicable to reach your organizations goals and deliver the best quality services for the project.

Proven Commitment to M/WBE Utilization

Jacobs consistently uses DBE firms on local projects, aiming to meet or exceed our commitments. Our strategy is focused on building valuable partnerships and capacity for our partner firms. We identify partners that complement our services and provide the City with a stronger, more effective project team, and ultimately a successful project.

Strategies for Maximizing DBEs

Each year, we participate in several activities designed to positively impact the growth and development of small businesses and small business programs throughout the country. We implement a structured program to support multiple facets of business and personal development, including the following:

Technical Development	We create opportunities for our partners to work side by side with our team to increase engineering acumen across all disciplines. These opportunities are adapted to fit our partner requirements. We begin projects with extensive team chartering and workshops to define common working platforms and expectations around data management and the design process.
Business Acumen Development	Like the formalized mentor-protégé partnerships we have set up previously, we develop a curriculum for DBE firms to enhance their business acumen, including strategy development, business planning, accounting, sales, staff retention, and other similar topics.
Knowledge Transfer	It is equally important that the staff who work for our DBE partners have an opportunity to learn and grow. We include our partners in our formal Project Mentoring Program, identify mentors aligned to work functions, and hold workshops on personal development topics.

7

Subcontractors

Jacobs-Arcadis is excited about the team we have assembled for the City's Asset Management Consulting Services contract which includes several local/women/minority subcontractors in important roles. Jacobs-Arcadis has longstanding successful project experience with our women-owned, small, disadvantaged and minority partners, and we are proud to work with them time and time again. It is our intention to pursue, wherever practical, subcontracting opportunities with disadvantaged, minority, women, small and veteran-owned enterprises in the performance of our contracts.

Our team of subcontractors are ready to provide their specialized services to the City. Jacobs-Arcadis meets the State of Florida's minority inclusion requirements for Architectural-Engineering Services in partnering with these highly qualified W/MBE, DBE, CBE and SBE certified firms.

SUBCONTRACTOR PARTNERS

FIRM	CERTIFICATIONS	SPECIALIZATION	BENEFIT TO THE CITY OF FT. LAUDERDALE
Arcadis U.S., Inc.		Engineering Consultants	Arcadis is a leading global company providing consulting, design, engineering, and management services in water, wastewater, reclaimed water, stormwater, utility management, conveyance for collection, and distribution systems. Their Plantation office houses over 20 professionals including certified asset management practitioners, business advisory, management consultants, engineers, and scientists to help the City of Ft. Lauderdale successfully realize their goals.
Dickey Consulting Services, Inc. (DCS)	W/MBE DBE CBE SBE	Public Outreach, Communications and Workforce Training	DCS brings 30 years of expertise in community and economic development, with specialization in Community Outreach, stakeholder engagement, City Commission awareness training, and stakeholder awareness training.
KEITH and Associates Inc.		Civil Engineering, Subsurface Utility Engineering; Planning; Transportation; and Surveying	KEITH is a 60+ year old, majority woman owned, transdisciplinary Florida-based firm. KEITH provides surveying and mapping, subsurface utility engineering, planning, civil engineering, transportation engineering, landscape architecture, and construction management services.
Wirx Engineering, LLC	DBE MBE CBE	Geotechnical	WIRX services include Geotechnical Engineering, Geotechnical Drilling, Construction Management, and Construction Materials Testing and Inspections. WIRX offers combined Civil and Geotechnical Engineering experience, covering all aspects of a project including Design, Construction Engineering Inspection, Material Testing, Project Management, and Heavy Civil Construction.

LEGEND:

SBE = Small Business Enterprise

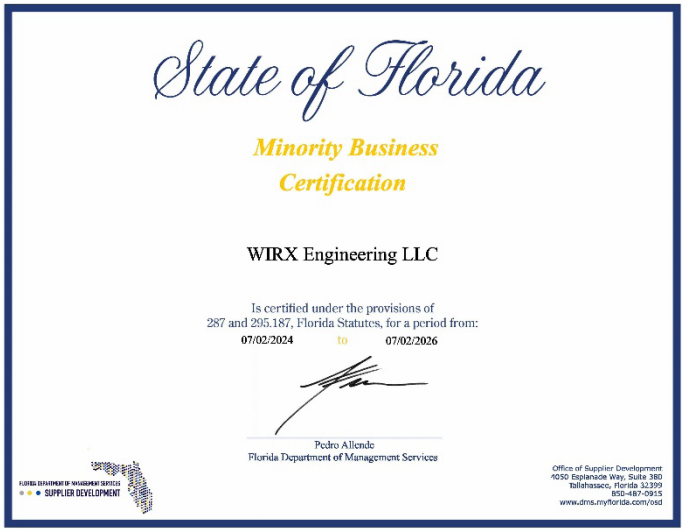
MBE = Minority Business Enterprise

DBE = Disadvantaged Business Enterprise

W/MBE = Women/ Minority Business Enterprise

CBE = County Business Enterprise (Broward County)

Licenses



State of Florida

Minority Business Certification

WIRX Engineering LLC

Is certified under the provisions of
287 and 295.187, Florida Statutes, for a period from:
07/02/2024 to 07/02/2026

Pedro Allende
Florida Department of Management Services

FLORIDA DEPARTMENT OF MANAGEMENT SERVICES
SUPPLIER DEVELOPMENT

Office of Supplier Development
4050 Esplanade Way, Suite 380
Tallahassee, Florida 32399
850-487-0915
www.dms.myflorida.com/osd

FDOT · Broward County Florida · Lee County Port Authority · Greater Orlando Aviation Authority · Jacksonville Transportation Authority

Florida Unified Certification Program

Disadvantaged Business Enterprise (DBE)
Certificate of Eligibility

WIRX ENGINEERING LLC

MEETS THE REQUIREMENTS OF 49 CFR, PART 26
APPROVED NAICS CODES:
237990, 541330

Laura Paskvan
DBE & Small Business Development Manager
Florida Department of Transportation

Miami-Dade County · Tampa International Airport · Tallahassee · Votran

BROWARD COUNTY FLORIDA
OFFICE OF ECONOMIC AND SMALL BUSINESS DEVELOPMENT
Governmental Center Annex
115 S. Andrews Avenue, Room A-680 • Fort Lauderdale, Florida 33301 • 954 357 6400

June 3, 2025

ANNIVERSARY DATE: March 7th

Mr. Andrew Nixon
WIRX ENGINEERING, LLC
515 Las Olas Drive, Suite 120
Fort Lauderdale, Florida 33301

Dear Mr. Nixon:

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

Your firm's certification is continuing from your anniversary date but is 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 program within **thirty (30) days** from your anniversary may result in the expiration of your firm's certification. 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 access and respond to Broward County's solicitations, you will need to be a registered vendor with Broward County. The current web-based procurement platform is **BPRO, powered by Bonfire.** All vendors must complete the vendor registration process in Broward County's **BPRO** system. It is free to do so. Information on how to register your company can be found on the Purchasing Division's webpage: www.broward.org/Purchasing. Alternatively, you may use your camera to scan the QR code in this letter.

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 **BPRO** 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/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, 541380, 541620, 541990

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

Sincerely,

Cheryl Roberts, Small Business Development Supervisor
Office of Economic and Small Business Development

Cert Agency: BC-CBE

Broward County Board of County Commissioners
www.broward.gov

ANNIVERSARY DATE – Annually on December 1

The Florida Department of Transportation (Department) has certified, WIRX ENGINEERING LLC under the Florida's Unified Certification Program (UCP) as a Disadvantaged Business Enterprise (DBE), in accordance with Title 49 Part 26, Code of Federal Regulations (CFR).

DBE Certification does not expire. It is contingent upon the firm maintaining eligibility annually through this office. We will notify Owners of their responsibilities in advance of the anniversary date.

We have listed the firm in the Florida's DBE Certification Directory, found at the following link: https://fdotxwp02.dot.state.fl.us/EqualOpportunityOfficeBusinessDirectory

Prime contractors and consultants must verify the firm's DBE certification status, and identify eligible work area(s) through the Directory. The Department makes available DBE Support Service Providers, offering managerial and technical assistance at no cost.

Contact us at (850) 414-4747 or via email DBECert.Help@dot.state.fl.us with your questions or concerns. Thank you.

Laura Paskvan
DBE & Small Business Development Manager
Equal Opportunity Office

Sunbiz.org Division of Corporations
an official State of Florida website

Department of State / Division of Corporations / Search Records / Search by Entity Name /

Detail by Entity Name

Florida Limited Liability Company
WIRX ENGINEERING LLC

Filing Information

Document Number	L17000229939
FEI/EIN Number	82-3346253
Date Filed	11/07/2017
Effective Date	01/01/2018
State	FL
Status	ACTIVE
Last Event	LC AMENDMENT AND NAME CHANGE
Event Date Filed	12/05/2022
Event Effective Date	NONE

Principal Address
901 NORTHPOINT PARKWAY
STE 100
WEST PALM BEACH, FL 33407

Changed: 02/17/2025

Mailing Address
901 NORTHPOINT PARKWAY
STE 100
WEST PALM BEACH, FL 33407

Changed: 02/17/2025

Registered Agent Name & Address
LAW OFFICES OF RYSZARD BOLKO PLLC
2933 W CYPRESS CREEK ROAD
SUITE 202
STE 110
FORT LAUDERDALE, FL 33309

Address Changed: 04/21/2024

Authorized Person(s) Detail

Name & Address

Title MGRM

3/11/25, 10:40 AM Detail by Entity Name

HIPPOLYTE, CLIFFORD
3598 nw 91st Lane
Sunrise, FL 33351

Title MGRM

STELMACK, GREGORY
422 MEADOWLARK DRIVE
JUPITER, FL 33458

Title MGRM

NIXON, ANDREW
515 E LAS OLAS BOULEVARD
STE 120
FORT LAUDERDALE, FL 33301

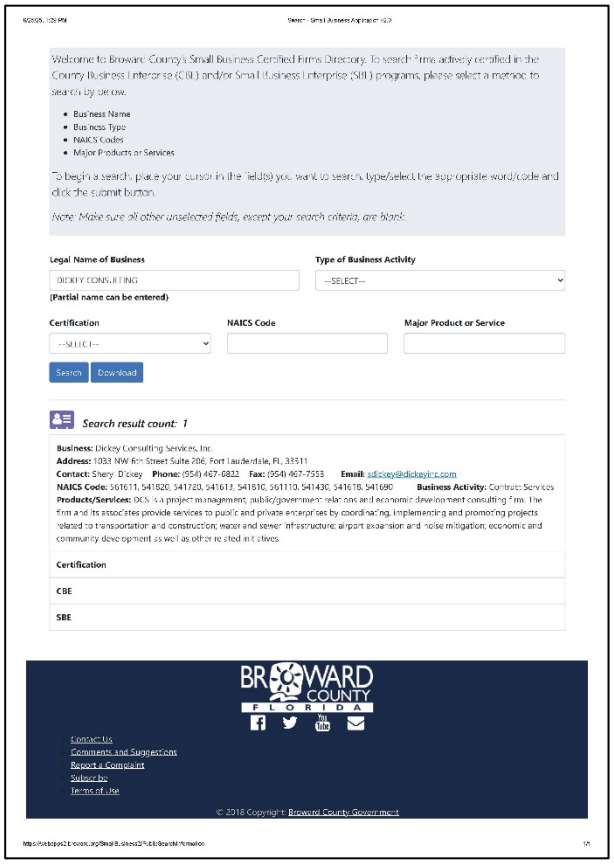
Annual Reports

Report Year	Filed Date
2023	01/18/2023
2024	04/21/2024
2025	02/17/2025

Document Images

02/17/2025 – ANNUAL REPORT	View image in PDF format
04/21/2024 – ANNUAL REPORT	View image in PDF format
01/18/2023 – ANNUAL REPORT	View image in PDF format
01/01/2022 – ANNUAL REPORT	View image in PDF format
11/09/2021 – LC Amendment	View image in PDF format
01/27/2021 – ANNUAL REPORT	View image in PDF format
04/07/2020 – ANNUAL REPORT	View image in PDF format
04/08/2019 – ANNUAL REPORT	View image in PDF format
11/07/2017 – Florida Limited Liability	View image in PDF format

Florida Department of State, Division of Corporations



Welcome to Broward County's Small Business Certified Firms Directory. To search firms actively certified in the County Business Enterprise (CBE) and/or Small Business Enterprise (SBE) programs, please select a method to search by below:

- Business Name
- Business Type
- NAICS Codes
- Major Products or Services

To begin a search, place your cursor in the field(s) you want to search, type/select the appropriate word/code and click the submit button.

Note: Make sure all other unselected fields, except your search criteria, are blank.

Legal Name of Business

DICKEY CONSULTING

(Partial name can be entered)

Type of Business Activity

--SELECT--

Certification

--SELECT--

NAICS Code

Major Product or Service

Search | Download

Search result count: 1

Business: Dickey Consulting Services, Inc.
Address: 1033 NW 6th Street Suite 206, Fort Lauderdale, FL, 33311
Contact: Sherry Dickey **Phone:** (954) 467-6822 **Fax:** (954) 467-7553 **Email:** sdickey@dickeyinc.com
NAICS Code: 561611, 541820, 541720, 541613, 541610, 561110, 541430, 541618, 541690 **Business Activity:** Contract Services
Products/Services: DCS is a project management, public/government relations and economic development consulting firm. The firm and its associates provide services to public and private enterprises by coordinating, implementing and promoting projects related to transportation and construction; water and sewer infrastructure; airport expansion and noise mitigation; economic and community development as well as other related initiatives.

Certification

CBE

SBE

BROWARD COUNTY FLORIDA

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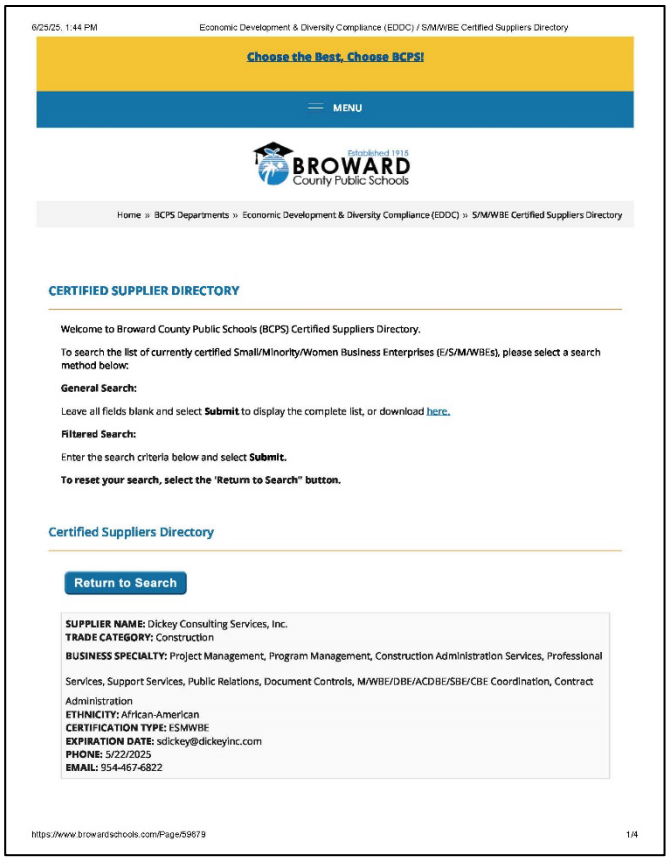


6/25/25, 1:44 PM Economic Development & Diversity Compliance (EDDC) / S/M/WBE Certified Suppliers Directory

Choose the Best, Choose BCPS!

MENU

Established 1915 BROWARD County Public Schools

Home » BCPS Departments » Economic Development & Diversity Compliance (EDDC) » S/M/WBE Certified Suppliers Directory

CERTIFIED SUPPLIER DIRECTORY

Welcome to Broward County Public Schools (BCPS) Certified Suppliers Directory.

To search the list of currently certified Small/Minority/Women Business Enterprises (E/S/M/WBEs), please select a search method below:

General Search:

Leave all fields blank and select **Submit** to display the complete list, or download here.

Filtered Search:

Enter the search criteria below and select **Submit.**

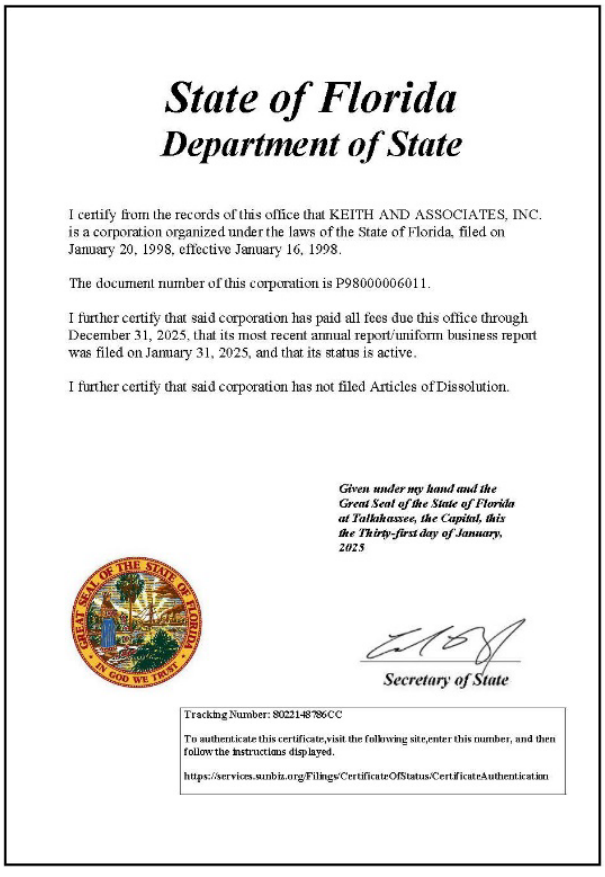
To reset your search, select the "Return to Search" button.

Certified Suppliers Directory

Return to Search

SUPPLIER NAME: Dickey Consulting Services, Inc.
TRADE CATEGORY: Construction
BUSINESS SPECIALTY: Project Management, Program Management, Construction Administration Services, Professional Services, Support Services, Public Relations, Document Controls, M/WBE/DBE/ACDBE/SBE/CBE Coordination, Contract Administration
ETHNICITY: African-American
CERTIFICATION TYPE: ESMWBE
EXPIRATION DATE: sdickey@dickeyinc.com
PHONE: 5/22/2025
EMAIL: 954-467-6822

https://www.browardschools.com/Page/59679 1/4



State of Florida
Department of State

I certify from the records of this office that KEITH AND ASSOCIATES, INC. is a corporation organized under the laws of the State of Florida, filed on January 20, 1998, effective January 16, 1998.

The document number of this corporation is P98000006011.

I further certify that said corporation has paid all fees due this office through December 31, 2025, that its most recent annual report/uniform business report was filed on January 31, 2025, and that its status is active.

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

Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Thirty-first day of January, 2025

Secretary of State

Tracking Number: 802214878GCC

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

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

State of Florida
Department of State

I certify from the records of this office that ARCADIS U.S., INC. is a Delaware corporation authorized to transact business in the State of Florida, qualified on February 26, 1998.

The document number of this corporation is F98000001104.

I further certify that said corporation has paid all fees due this office through December 31, 2025, that its most recent annual report/uniform business report was filed on March 10, 2025, 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 Ninth day of April, 2025

Secretary of State

Tracking Number: 0329560727CU

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

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

License Type	Name	Name Type	License Number/ Rank	Status/Expires
Professional Engineer	SUAREZ, GUSTAVO	Primary	58189 Prof Engineer	Current, Active 02/28/2027

LICENSEE DETAILS *6:48:44 AM 4/10/2025*

Licensee Information

Name:	**ARCADIS U.S., INC.** (Primary Name)
Main Address:	**110 WEST FAYETTE STREET ATTN: LEGAL SYRACUSE New York 13202**
County:	**OUT OF STATE**
License Mailing:	**110 WEST FAYETTE ST., SUITE 30 ATTN: LEGAL SYRACUSE NY 13202**

License Information

License Type:	**Engineering Business Registry**
Rank:	**Registry**
License Number:	**7917**
Status:	**Current**
Licensure Date:	**04/03/1998**
Expires:	

From the Executive Director: How the New Law Affects Engineers, Firms

Engineering Firms

In Section 471.023, F.S., the new law replaces the existing Certificate of Authorization for engineering firms with a free registry. Engineering firms will no longer be required to apply for a Certificate of Authorization and pay a fee. Instead, firms must register their business with the Board and be qualified by a Professional Engineer licensed in Florida.

Plans call for current and active Certificates of Authorization to be rolled over into the new registry, with CA numbers becoming registration numbers. Companies seeking to offer engineering services in Florida will be issued numbers once they have successfully registered with the Board.

Rather than renewing a CA every two years, the qualifying engineer of a firm must notify the Board within 30 days of any changes to information in the firm's initial registration application.

Also, a qualifying engineer who leaves an engineering firm must notify the Board within 24 hours. If the qualifying engineer was the only qualifying agent for the business, the firm may no longer provide engineering services in Florida and must be qualified by another qualifying engineer within 60 days if it wishes to resume offering engineering services. FEMC or the Board may authorize a temporary qualifying engineer for no more than 60 days in order to proceed with incomplete contracts.

A qualifying engineer must notify the Board in writing before engaging in the practice of engineering in the licensee's name or in affiliation with a different engineering firm.

The shift from CA to registration also applies to out-of-state firms seeking to temporarily perform engineering services in Florida, as reflected in changes to Section 471.021, F.S.

8

Required Forms

The following required forms are included in this section.

A. Proposal Certification

B. Non-Collusion Statement

C. Non-Discrimination Certification Form

D. Contract Payment Method

E. E-Verify Affirmation Statement

F. Affidavit of Compliance

G. Anti-Human Trafficking Affidavit

H. Sample Insurance Certificate

I. W-9 for Proposing Firm

J. Active Status Page from Division of Corporations – Sunbiz.org

ADDENDUM NO. 1

Event 454
Public Works Asset Management Consulting Services

ISSUED: June 30, 2025

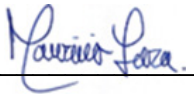
This addendum is being issued to make the following change:

1. The Bid Due Date is hereby changed to Monday, July 7, 2025, at 2:00PM.

All other terms, conditions, and specifications remain unchanged.

Erick Martinez
Senior Procurement Specialist

Company Name: Jacobs Engineering Group Inc.
(please print)

Bidder's Signature: 

Date: 7/1/2025

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) Jacobs Engineering Group Inc.

Address: 550 W. Cypress Creek Road, Suite 400

City: Fort Lauderdale State: FL Zip: 33309

Telephone No.: 954.309.1380 FAX No.: N/A Email: mauricio.lara@jacobs.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.

Bob Pragada	CEO	Mauricio Lara, PE	Project Manager
Name	**Title**	**Name**	**Title**
Venk Jathamuni	Chief Financial Officer	Didier Menard	Principal-in-Charge
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
N/A					

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.**

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:

Ellen B. Patterson
Name (printed)

Ellen B. Patterson
Signature

6/30/2025
Date

Senior Vice President
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 City of Fort Lauderdale, FL officer or employee who has any input into the writing 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,

> 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.

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
_____	_____
NOT APPLICABLE	
_____	_____
	_____
	_____

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.

Ellen B. Patterson

Authorized Signature

Ellen B. Patterson

Name (Printed)

Senior Vice President

Title

June 30, 2025

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 City Ordinance Sec. 2-17(a)(i)(ii), bidders must certify compliance with the Non-Discrimination provision of the ordinance.

A. Contractors doing business with the City shall not discriminate against their employees based on the employee's race, color, religion, gender (including identity or expression), marital status, sexual orientation, national origin, age, disability, or any other protected classification as defined by applicable law.

Contracts. Every Contract exceeding $100,000, or otherwise exempt from this section shall contain language that obligates the Contractor to comply with the applicable provisions of this section.

The Contract shall include provisions for the following:

(i) The Contractor certifies and represents that it will comply with this section during the entire term of the contract.

(ii) The failure of the Contractor to comply with this section shall be deemed to be a material breach of the contract, entitling the City to pursue any remedy stated below or any remedy provided under applicable law.

Ellen B. Patterson

Authorized Signature

Ellen B. Patterson, Senior Vice President

Print Name and Title

June 30, 2025

Date

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 the credit card 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

✔ Visa

Jacobs Engineering Group Inc.

Company Name

Ellen B. Patterson

Name (Printed)

Ellen B. Patterson

Signature

Senior Vice President

Title

June 30, 2025

Date

Solicitation/Bid /Contract No: Event No. 454

Project Description: Public Works Asset Management Consulting 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: Jacobs Engineering Group Inc.

Authorized Company Person's Signature: Ellen B. Patterson

Authorized Company Person's Title: Senior Vice President

Date: June 30, 2025

AFFIDAVIT OF COMPLIANCE WITH FOREIGN ENTITY LAWS
(Florida Statute- §287.138, 692.201, 692.202, 692.203, and 692.204)

The undersigned, on behalf of the entity listed below ("Entity"), hereby attests under penalty of perjury as follows:

1. Entity is not owned by the government of a foreign country of concern as defined in Section 287.138, Florida Statutes. (Source:§ 287.138(2)(a), Florida Statutes)

2. The government of a foreign country of concern does not have a controlling interest in Entity. (Source:§ 287.138(2)(b), Florida Statutes)

3. Entity is not organized under the laws of, and does not have a principal place of business in, a foreign country of concern. (Source: § 287.138(2)(c), Florida Statutes)

4. Entity is not owned or controlled by the government of a foreign country of concern, as defined in Section 692.201, Florida Statutes. (Source:§ 288.007(2), Florida Statutes)

5. Entity is not a partnership, association, corporation, organization, or other combination of persons organized under the laws of or having its principal place of business in a foreign country of concern, as defined in Section 692.201, Florida Statutes, or a subsidiary of such entity. (Source: § 288.007(2), Florida Statutes)

6. Entity is not a foreign principal, as defined in Section 692.201, Florida Statutes. (Source: § 692.202(5)(a)(l), Florida Statutes)

7. Entity is in compliance with all applicable requirements of Sections 692.202, 692.203, and 692.204, Florida Statutes.

8. ***(Only applicable if purchasing real property)*** Entity is not a foreign principal prohibited from purchasing the subject real property. Entity is either (a) not a person or entity described in Section 692.204(1)(a), Florida Statutes, or (b) authorized under Section 692.204(2), Florida Statutes, to purchase the subject property. Entity is in compliance with the requirements of Section 692.204, Florida Statutes. (Source:§§ 692.203(6)(a), 692.204(6)(a), Florida Statutes)

9. The undersigned is authorized to execute this affidavit on behalf of Entity.

Name: Ellen B. Patterson Title: Senior Vice President Entity: Jacobs Engineering Group Inc.

Signature: Ellen B. Patterson Date: June 30, 2025

NOTARY PUBLIC ACKNOWEDGEMENT SECTION

STATE OF Florida

COUTY OF Broward

The foregoing instrument was acknowledged before me, by means of ☒ physical presence or ☐ online notarization, this 30th day of June 2025 , by Ellen B. Patterson, as Senior Vice President for Jacobs Engineering Group Inc, who is personally known to me or who has produced _____ as identification.

Notary Public Signature: Stacey Lesser (Notary Seal)

STACEY LESSER
MY COMMISSION # HH 382624
EXPIRES: April 3, 2027

Print Name: Stacey Lesser My commission expires: 4/3/2027

ANTI-HUMAN TRAFFICKING AFFIDAVIT

The undersigned, on behalf of Jacobs Engineering Group Inc. ("Nongovernmental Entity"), a Florida (*State*) Corporation (*Type of Entity*), under penalty of perjury, hereby deposes and says:

1. My name is Ellen B. Patterson.
2. I am an ____ officer or ✔ authorized representative of the Nongovernmental Entity.
3. I attest that the Nongovernmental Entity does not use coercion for labor or services as defined in Section 787.06, Florida Statutes (2024), as may be amended or revised.

Under penalties of perjury, I declare that I have read the foregoing Anti-Human Trafficking Affidavit and that the facts stated in it are true.

Signature of Officer or Representative: Ellen B. Patterson

Name of Officer or Representative: Ellen B. Patterson Title: Senior Vice President

Office Address: 550 W Cypress Creek Road. Fort Lauderdale, FL 33309

Email Address: Ellen.Patterson@jacobs.com

Main Phone Number: (561) 914.0192 FEIN No.: 95-4081636

STATE OF Florida
COUNTY OF Broward

Sworn to and subscribed before me by means of ☒ physical presence or ☐ online notarization, this 30th day of June, 2025, by Ellen B. Patterson.

STACEY LESSER
MY COMMISSION # HH 382624
EXPIRES: April 3, 2027

(SEAL)

Stacey Lesser
(Signature of Notary Public – State of Florida)

Stacey Lesser
Print, Type or Stamp Commissioned Name of Notary Public)

Personally Known ____ OR Produced Identification ____

Type of Identification Produced ____

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 06/17/2025

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 LIC #0437153 1-212-948-1306 Marsh Risk & Insurance Services CIRTS_Support@jacobs.com 633 W. Fifth Street Los Angeles, CA 90071 USA	CONTACT NAME: PHONE (A/C, No, Ext): FAX (A/C, No): 1-212-948-1306 E-MAIL ADDRESS:
INSURED Jacobs Engineering Group Inc. C/O Global Risk Management 555 South Flower Street, Suite 3200 Los Angeles, CA 90071 USA	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A : ACE AMER INS CO — 22667 INSURER B : INDEMNITY INS CO OF NORTH AMER — 43575 INSURER C : INSURER D : INSURER E : INSURER F :

COVERAGES **CERTIFICATE NUMBER:** 752086389 **REVISION NUMBER:**

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

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			HDO G4892007A	07/01/24	07/01/25	EACH OCCURRENCE	$ 1,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 500,000
	X CONTRACTUAL LIABILITY						MED EXP (Any one person)	$ 5,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						PERSONAL & ADV INJURY	$ 1,000,000
	X POLICY PRO-JECT LOC						GENERAL AGGREGATE	$ 2,000,000
	OTHER:						PRODUCTS - COMP/OP AGG	$ 2,000,000
								$
A	AUTOMOBILE LIABILITY			ISA H10739585	07/01/24	07/01/25	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	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 $							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			WLR C5072041A (AOS)	07/01/24	07/01/25	X PER STATUTE OTH-ER	
A	ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N: N	N / A		SCF C57256710 (WI)	07/01/24	07/01/25	E.L. EACH ACCIDENT	$ 1,000,000
A	(Mandatory in NH)			WCU C57256564 (OH)*	07/01/24	07/01/25	E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
A	If yes, describe under DESCRIPTION OF OPERATIONS below			WLR C57256667 (AZ)	07/01/24	07/01/25	E.L. DISEASE - POLICY LIMIT	$ 1,000,000
A	PROFESSIONAL LIABILITY			EON G21655065 015	07/01/24	07/01/25	PER CLAIM/PER AGG	2,000,000

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

PROJECT MGR: Mauricio Lara. CONTRACT MGR: Raul Alfaro. RE: Public Works Asset Management Consulting Services, Event No. 454. CONTRACT END DATE: 06-30-2025. SECTOR: Public. City of Fort Lauderdale, Florida, its officials, employees, and volunteers are added as an additional insured for general liability & auto liability as respects the negligence of the insured in the performance of insured's services to cert holder under contract for captioned work. The General Liability and Auto Liability insurance policies are primary and the certificate holder's insurance is excess and non-contributory. Waiver of subrogation is hereby granted in favor of City of Fort Lauderdale, Florida, its officials, employees, and volunteers for WC. Coverage includes U.S. Longshore and Harbor Workers Compensation Act Coverage and

CERTIFICATE HOLDER	CANCELLATION
City of Fort Lauderdale, Florida 401 SE 21st Street Fort Lauderdale, FL 33316 USA	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

SUPPLEMENT TO CERTIFICATE OF INSURANCE

DATE
06/17/2025

NAME OF INSURED: **Jacobs Engineering Group Inc.**

Additional Description of Operations/Remarks from Page 1:

Outer Continental Shelf Lands Act Coverage. *THIS IS A SAMPLE CERTIFICATE ONLY*. THE ACTUAL CERTIFICATE FOR THE PROPOSED PROJECT WILL COMPLY WITH THE TERMS AND CONDITIONS NEGOTIATED IN THE FINAL CONTRACT, CONSISTENT WITH POLICY TERMS AND CONDITIONS.

Additional Information:

***$2,000,000 SIR FOR STATE OF: OHIO**

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 06/17/2025

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 LIC #0437153 1-212-948-1306 Marsh Risk & Insurance Services CIRTS_Support@jacobs.com 633 W. Fifth Street Los Angeles, CA 90071 USA	CONTACT NAME: PHONE (A/C, No, Ext): FAX (A/C, No): 1-212-948-1306 E-MAIL ADDRESS:
INSURED Jacobs Engineering Group Inc. C/O Global Risk Management 555 South Flower Street, Suite 3200 Los Angeles, CA 90071 USA	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A : ACE AMER INS CO — 22667 INSURER B : INDEMNITY INS CO OF NORTH AMER — 43575 INSURER C : INSURER D : INSURER E : INSURER F :

COVERAGES **CERTIFICATE NUMBER:** 752086549 **REVISION NUMBER:**

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

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			HDO G48977145	07/01/25	07/01/26	EACH OCCURRENCE	$ 1,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 500,000
	X CONTRACTUAL LIABILITY						MED EXP (Any one person)	$ 5,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						PERSONAL & ADV INJURY	$ 1,000,000
	X POLICY PRO-JECT LOC						GENERAL AGGREGATE	$ 2,000,000
	OTHER:						PRODUCTS - COMP/OP AGG	$ 2,000,000
								$
A	AUTOMOBILE LIABILITY			ISA H11371504	07/01/25	07/01/26	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	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 $							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			WLR C72792919 (AOS)	07/01/25	07/01/26	X PER STATUTE OTH-ER	
A	ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N: N	N / A		WCU C72792932 (OH)*	07/01/25	07/01/26	E.L. EACH ACCIDENT	$ 1,000,000
A	(Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below			SCF C72792920 (WI)	07/01/25	07/01/26	E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
A	PROFESSIONAL LIABILITY			EON G21655065 016	07/01/25	07/01/26	PER CLAIM/PER AGG	2,000,000

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

PROJECT MGR: Mauricio Lara. CONTRACT MGR: Raul Alfaro. RE: Public Works Asset Management Consulting Services, Event No. 454. CONTRACT END DATE: 06-30-2025. SECTOR: Public. City of Fort Lauderdale, Florida, its officials, employees, and volunteers are added as an additional insured for general liability & auto liability as respects the negligence of the insured in the performance of insured's services to cert holder under contract for captioned work. The General Liability and Auto Liability insurance policies are primary and the certificate holder's insurance is excess and non-contributory. Waiver of subrogation is hereby granted in favor of City of Fort Lauderdale, Florida, its officials, employees, and volunteers for WC. Coverage includes U.S. Longshore and Harbor Workers Compensation Act Coverage and

CERTIFICATE HOLDER	CANCELLATION
City of Fort Lauderdale, Florida 401 SE 21st Street Fort Lauderdale, FL 33316 USA	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

SUPPLEMENT TO CERTIFICATE OF INSURANCE

DATE
06/17/2025

NAME OF INSURED: **Jacobs Engineering Group Inc.**

Additional Description of Operations/Remarks from Page 1:

Outer Continental Shelf Lands Act Coverage. *THIS IS A SAMPLE CERTIFICATE ONLY*. THE ACTUAL CERTIFICATE FOR THE PROPOSED PROJECT WILL COMPLY WITH THE TERMS AND CONDITIONS NEGOTIATED IN THE FINAL CONTRACT, CONSISTENT WITH POLICY TERMS AND CONDITIONS.

Additional Information:

***$2,000,000 SIR FOR STATE OF: OHIO**

SUPP (05/04)

Form **W-9**
(Rev. March 2024)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Go to *www.irs.gov/FormW9* for instructions and the latest information.

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

Before you begin. For guidance related to the purpose of Form W-9, see *Purpose of Form*, below.

Print or type. See ***Specific Instructions*** on page 3.

1 Name of entity/individual. An entry is required. (For a sole proprietor or disregarded entity, enter the owner's name on line 1, and enter the business/disregarded entity's name on line 2.)

Jacobs Engineering Group Inc.

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

3a Check the appropriate box for federal tax classification of the entity/individual whose name is entered on line 1. Check only **one** of the following seven boxes.

☐ Individual/sole proprietor ☒ C corporation ☐ S corporation ☐ Partnership ☐ Trust/estate

☐ LLC. Enter the tax classification (C = C corporation, S = S corporation, P = Partnership) . . . . .

Note: Check the "LLC" box above and, in the entry space, enter the appropriate code (C, S, or P) for the tax classification of the LLC, unless it is a disregarded entity. A disregarded entity should instead check the appropriate box for the tax classification of its owner.

☐ Other (see instructions)

3b If on line 3a you checked "Partnership" or "Trust/estate," or checked "LLC" and entered "P" as its tax classification, and you are providing this form to a partnership, trust, or estate in which you have an ownership interest, check this box if you have any foreign partners, owners, or beneficiaries. See instructions . . . . . ☐

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):

Exempt payee code (if any)

Exemption from Foreign Account Tax Compliance Act (FATCA) reporting code (if any)

(Applies to accounts maintained outside the United States.)

5 Address (number, street, and apt. or suite no.). See instructions.

1999 Bryan Street, Suite 3500

6 City, state, and ZIP code

Dallas, TX 75201

7 List account number(s) here (optional)

Requester's name and address (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. See also *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number

			–			–				

or

Employer identification number

9	5	–	4	0	8	1	6	3	6

Part II Certification

Under penalties of perjury, I certify that:

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

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

Sign Here **Signature of U.S. person** Ellen B. Patterson Ellen B. Patterson **Date** June 1, 2025

General Instructions

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

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to *www.irs.gov/FormW9*.

What's New

Line 3a has been modified to clarify how a disregarded entity completes this line. An LLC that is a disregarded entity should check the appropriate box for the tax classification of its owner. Otherwise, it should check the "LLC" box and enter its appropriate tax classification.

New line 3b has been added to this form. A flow-through entity is required to complete this line to indicate that it has direct or indirect foreign partners, owners, or beneficiaries when it provides the Form W-9 to another flow-through entity in which it has an ownership interest. This change is intended to provide a flow-through entity with information regarding the status of its indirect foreign partners, owners, or beneficiaries, so that it can satisfy any applicable reporting requirements. For example, a partnership that has any indirect foreign partners may be required to complete Schedules K-2 and K-3. See the Partnership Instructions for Schedules K-2 and K-3 (Form 1065).

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS is giving you this form because they

Detail by Entity Name

Foreign Profit Corporation
JACOBS ENGINEERING GROUP INC.

Filing Information

Document Number	P13217
FEI/EIN Number	95-4081636
Date Filed	02/12/1987
State	DE
Status	ACTIVE
Last Event	AMENDMENT
Event Date Filed	03/31/2025
Event Effective Date	NONE

Principal Address

1999 Bryan Street
Suite 3500
Dallas, TX 75201

Changed: 02/20/2024

Mailing Address

1999 Bryan Street
Suite 3500
Dallas, TX 75201

Changed: 02/20/2024

Registered Agent Name & Address

CT CORPORATION SYSTEM
1200 S. PINE ISLAND ROAD
PLANTATION, FL 33324

Name Changed: 06/30/1992

Address Changed: 06/30/1992

Officer/Director Detail

Name & Address

Title Secretary

JOHNSON, JUSTIN
1999 Bryan Street
Dallas, TX 75201

Title VP

BUNDERSON, MICHAEL
555 S Flower Street
Ste 670
Los Angeles, CA 90071

Title Director, President

Pragada, Robert
1999 Bryan Street
Dallas, TX 75201

Title Authorized Representative

NEIN, BRETT
1100 N Glebe Rd
5th Floor
Arlington, VA 22201

Title VP

WATSON, KATUS
5401 W Kennedy Blvd
Ste 300
Tampa, FL 33609

Title VP

Lazaro, Alberto
3150 SE 38 Avenue
Miami, FL 33146

Title VP

Patterson, Ellen
550 W Cypress Creek Rd
Fort Lauderdale, FL 33309

Title VP

Ashman, David
5401 W Kennedy Blvd
Ste 300
Tampa, FL 33609

Title Authorized Representative

Stejskal, David
25 West Cedar St
Ste 350
Pensacola, FL 32502

Title Authorized Representative

Kirby, Daniel
200 South Orange Ave
Ste 900

Orlando, FL 32801

Title Authorized Representative

Jones, Keith
46 Liberty Industrial Parkway
McDonough, GA 30253

Title Treasurer

Hsu, Chin Chang (Mike)
555 S. Flower Street
Ste 3200
Los Angeles, CA 90071

Title Vice President Transportation SE Region

Williams, Joshua L.
10 Tenth Street
Ste 1400
Atlanta, GA 30309

Title Authorized Representative

Martin, Joseph
550 W Cypress Creek Rd
Ft Lauderdale, FL 33309

Title VP/OP

BAUCO, ROBERT
ONE PENN PLAZA
10TH FLOOR
NEW YORK, NY 10119

Title VP/OP

MCLEAN, JIM
525 W. MONROE
CHICAGO, IL 60661

Annual Reports

Report Year	Filed Date
2024	02/20/2024
2024	11/07/2024
2025	01/16/2025

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ADDENDUM NO. 1

Event 454
Public Works Asset Management Consulting Services

ISSUED: June 30, 2025

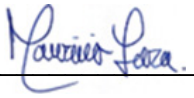
This addendum is being issued to make the following change:

1. The Bid Due Date is hereby changed to Monday, July 7, 2025, at 2:00PM.

All other terms, conditions, and specifications remain unchanged.

Erick Martinez
Senior Procurement Specialist

Company Name: Jacobs Engineering Group Inc.
(please print)

Bidder's Signature: 

Date: 7/1/2025

Jacobs Engineering Group Inc.
550 W. Cypress Creek Road, Suite 400,
Fort Lauderdale, FL 33309

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Reinventing tomorrow.