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 Suite #500
 West Palm Beach, Florida 33406
 www.ghd.com

City of Fort Lauderdale, Procurement Services Division
 Attn: Erick Martinez, Senior Procurement Specialist
 101 NE 3rd Avenue, Suite 1650
 Fort Lauderdale, FL 33301

September 15, 2025

Re: Environmental Engineering Consulting Services, Continuing Services Contract (RFQ EVENT No. 501)

Dear Members of the Selection Committee,

GHD is pleased to submit our qualifications in response to the City of Fort Lauderdale’s RFQ Event 501 for Environmental Engineering Consulting Services. As a trusted partner to the City for over 15+ years, GHD brings a proven team of local experts, a deep understanding of the City’s environmental priorities, and a demonstrated record of delivering innovative, cost-effective, and regulatory-compliant solutions.



Local Expertise and Commitment: GHD’s South Florida team comprises more than 100 professionals, with key staff and resources based locally to ensure rapid response and efficient project execution. Our team is embedded in the community and has a long history of supporting the City’s environmental initiatives, including high-profile projects such as the Las Olas Marina mold assessment and the Lincoln Park Former Ash Landfill soil management plan. Our local presence ensures that we can provide timely consulting services and field investigations, leveraging our in-house resources and equipment.



Specialized Experience and Technical Competence: Environmental engineering is a core competency for GHD. Our team has successfully delivered a wide range of services to the City, including Phase I and II environmental site assessments, contamination and remediation planning, air and water quality testing, and emergency response. We have supported the City through complex regulatory environments and have a strong rapport with City staff and regulatory agencies. Our experience includes preparing reports and studies for City Commissioners and regulatory bodies, as well as providing rapid response during critical events such as the 2019 wastewater main break.



Project Management and Team Leadership: For this contract, Jingwei Li, PE will serve as GHD’s Project Manager. Jingwei has successfully managed planning and design projects for the City and brings a collaborative, interdisciplinary approach to project delivery. As the primary point of contact, Jingwei will ensure clear communication between the City, GHD’s technical resources, and regulatory agencies. Under Jingwei’s leadership, our team will continue to provide the City with integrated solutions, drawing on the collective expertise of our engineers, scientists, and subconsultants.



Comprehensive Services and Innovative Solutions: GHD offers the City a full suite of environmental engineering and natural resources services. Our team provides site assessments, remediation design, permitting, grant support, sustainability evaluations, and emergency response. Our ecologists and biologists will support the City’s project needs by conducting desktop and field-based investigations in upland environments, wetlands, coastal, and marine habitats. Our approach is rooted in technical excellence, quality assurance, and a commitment to sustainable practices. We utilize advanced project management tools and digital platforms to ensure efficient coordination, data management, and quality control.



Client-Focused Approach: GHD is committed to supporting the City achieve its environmental goals while supporting community development and resilience. Our team is available and responsive, with the capacity to manage multiple projects simultaneously and the flexibility to address urgent needs as they arise. We value our longstanding partnership with the City and look forward to continuing to deliver exemplary services that protect natural resources and enhance quality of life for residents.

By selecting GHD, the City will benefit from a dedicated local team, proven project management, and a track record of successful project delivery. We appreciate the opportunity to continue serving as your environmental engineering partner and are committed to supporting the City’s vision for a sustainable and vibrant future.

Regards,

Jingwei Li, PE
 Project Manager
 (561) 246-3146
 jingwei.li@ghd.com

Brian Moore, PE
 Project Director
 (813) 257-0658
 brian.moore@ghd.com



01

→ Executive Summary

→ Executive Summary

Firm Background

Established in 1928, GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, advisory, digital, and construction services to public and private sector clients. Driven by a culture of client service excellence, we connect the knowledge, skill and experience of our people with innovative practices, and technical capabilities to create lasting community benefits.

We operate across five continents – the Americas, Asia, Australia, Europe, and the Pacific region. We employ more than 12,000 people in 160+ offices to deliver projects with high standards of safety, quality and ethics across the entire asset value chain. Our robust and dynamic business model has enabled GHD to grow into one of the world's leading environmental consulting, engineering, architecture, and construction services companies. We are proud to be a 100 percent employee-owned company which makes us unique—our company's leadership, sustained growth, direction, and success are determined by the people who work at GHD. This allows us to plan for the long-term, setting strategies that enable the growth and development of some of the world's best technical capabilities.

With a workplace rich in diversity of thought, background and experience, we have what it takes to deliver amazing outcomes for our clients. We are guided by our workplace health, safety, quality, and environmental management systems, which are certified to international standards including the International Organization for Standardization (ISO) and Occupational Health and Safety Assessment Series (OHSAS).

Officers, Principals, Supervisory Staff and Key Individuals

Our proposed **Project Manager, Jingwei Li, PE**, will be responsible for ensuring proper communication between the City, internal resources, and regulatory agencies. She will be supported by a robust and experienced team, including **Brian Moore, PE** as Project Director, who brings strategic oversight and deep environmental engineering expertise, and **Nick Bragaia, PE**, serving as QA/QC lead to ensure technical excellence and compliance. Task managers across specialized service areas include **Edwin Siersema, PG**, for Site Assessment; **Jeremy Hess, PE**, for Planning & Design; **Jesse Davis, PE**, for Construction Support Services; **Jenna Martin, PE**, for Testing & Inspections; **Craig Kruempel** for Natural and Cultural Resources; **Lori Coolidge, PG**, of Colliers Engineering & Design for Water Quality; and **Daniel Wolf, PE, CIH, CGC** of APEX Companies for Asbestos Services. These leaders are supported by skilled professionals, ensuring readiness and resilience for urgent environmental challenges.

Table 1 on the next page outlines this information.

Together, this multidisciplinary team offers the City of Fort Lauderdale a comprehensive and responsive partnership for environmental engineering services.

FIRM INFORMATION

Business entity:
GHD Services Inc.

Office location that will service this contract:
West Palm Beach, Florida



- ★ City of Fort Lauderdale
- GHD Main Offices

Proposed Management Qualifications and Experience Summary

Primary Point of Contact

Project Manager Jingwei Li, PE, will serve as the point of contact for this contract. Jingwei is a registered professional engineer in the State of Florida. She is experienced in analyzing surface and groundwater data and GIS databases, developing groundwater, hydraulic and hydrological models. Her work history also includes Stormwater Pollution Prevention Plans, and Phase I and II Environmental Site Assessments. Resumes for key staff are included in **Section 3: Qualifications of the Project Team**. However, as requested, a summary of their qualifications is provided below.

Key Personnel	Role	Education & Licensure	Years of Exp.	Experience Highlights
Jingwei Li, PE <i>GHD</i>	Project Manager	<ul style="list-style-type: none"> - MS, Civil and Environmental Engineering - BS, Civil Engineering - Professional Engineer: Florida 	12	<ul style="list-style-type: none"> - City of Fort Lauderdale, Watershed Asset Management Plan (WAMP) - City of Fort Lauderdale, Soil Management Plan at Lincoln Park Playground - Miami-Dade County, Environmental Engineering Services Contract - Miami-Dade County, Stormwater Master Plan Updates - Target Corporation and Lowe's Companies, Inc., Methane and Groundwater Monitoring
Brian Moore, PE <i>GHD</i>	Project Director	<ul style="list-style-type: none"> - MBA, Business Administration - ME, Environmental Engineering - BA, Environmental Science - Professional Engineer: Florida 	28	<ul style="list-style-type: none"> - City of Fort Lauderdale, General Environmental Engineering Services Continuing Contract - Port Tampa, Environmental Engineering Contract - Palm Beach County, Environmental Engineering Contract - Saber Real Estate Advisors, LLC, Larry's Chevron - FDEP Hazardous Waste Cleanup Program
Nick Bragaia, PE <i>GHD</i>	QA/QC	<ul style="list-style-type: none"> - MS, Civil and Coastal Engineering - BS, Ocean Engineering - Professional Engineer: Florida - Envision Sustainability Professional, ENV SP 	7	<ul style="list-style-type: none"> - City of Fort Lauderdale, Surveying & GIS Mapping of Unverified Stormwater Assets (Red Dots) - Miami-Dade County Beach Erosion Control: Modeling, Planning and Design Services - FDEP, Curry Hammock State Park Tidal Restoration - St. John's County, Hurricanes Matthew & Irma FEMA Berm Restoration - Town of Palm Beach, Mid-Town Seawall Replacement
Edwin Siersema, PG <i>GHD</i>	Task Manager Site Assessment	<ul style="list-style-type: none"> - BS, Geology - Professional Geologist: Florida 	41	<ul style="list-style-type: none"> - FDEP Hazardous Waste Cleanup Program - Port Tampa Bay, 3400 Pendola Point - Port Tampa Bay, Winners Metals Brownfield Site - International Ship Repair and Detsco Terminal - Former Tampa Jai Alai "Cortona" Brownfield Site Assessment
Jeremy Hess, PE <i>GHD</i>	Task Manager Planning and Design	<ul style="list-style-type: none"> - MSCE, Civil Engineering - BS, Civil Engineering - BS, Environmental Science - Professional Engineer: Florida 	18	<ul style="list-style-type: none"> - FDEP, Petroleum Restoration Program - Port Everglades, Bulkhead Replacement - FDEP, Hazardous Waste Cleanup - FDEP, Forensics Program - City of Miami Grapeland Park

Table 1. Proposed Management Qualifications and Experience Summary

Key Personnel	Role	Education & Licensure	Years of Exp.	Experience Highlights
Jesse Davis, PE <i>GHD</i>	Task Manager Construction Support Services	<ul style="list-style-type: none"> - MS, Ocean Engineering - BS, Ocean Engineering - Professional Engineer: Florida - Envision Sustainability Professional, ENV SP 	20	<ul style="list-style-type: none"> - Miami-Dade County, Beach Erosion Control: Modeling, Planning & Design Services - City of Key West, Environmental Engineering Services Contract - Miami-Dade County, Matheson Hammock Park Marina Seawall Replacement - Town of Palm Beach, Mid-Town Seawall Replacement - City of Miami, Legion Park: Seawall to Living Shoreline Conversion
Jenna Martin, PE <i>GHD</i>	Task Manager Testing & Inspections	<ul style="list-style-type: none"> - MS, Environmental Engineering - BS, Environmental Engineering - Professional Engineer: Florida 	16	<ul style="list-style-type: none"> - FDEP, Petroleum Restoration Program - FDEP, Mims Property Remedial Action Plan - FDEP, Division of Forestry - White City WC - FDEP, 120,000-Acre Due Diligence Project - Trans-Continental Marine Repair & Drydock Corporation, Former Detsco & International Ship Repair Sampling
Craig Kruempel <i>GHD</i>	Task Manager Natural and Cultural Resources	<ul style="list-style-type: none"> - MS, Coastal Zone Management - BS, Biology - NEPA Certificate Program Coursework 	40	<ul style="list-style-type: none"> - City of Fort Lauderdale, Surveying & GIS Mapping of Unverified Stormwater Assets (Red Dots) - Miami-Dade County, Coastal Consulting Services - Naval Air Station Key West, Dredge Readiness Plan Development Services - Port Everglades, Harbor Monitoring Project - Miami-Dade County, Matheson Hammock Seawall Replacement & Repair Project
Lori Coolidge, PG <i>Colliers</i>	Task Manager Water Quality	<ul style="list-style-type: none"> - BS, Geology - Professional Geologist: Florida - OSHA 40 Hour Hazardous Waste Operations and Emergency Response (HAZWOPER) 	18	<ul style="list-style-type: none"> - City of Fort Lauderdale, General Environmental Engineering Services Continuing Contract - City of Fort Myers, Backup Deep Injection Well Reverse Osmosis Water Treatment Plant - Hillsborough County, Southern Hillsborough County Aquifer Recharge Program (SHARP) - City of Fort Myers, MS4 Sampling & Microbial Source Tracing Study - Various Municipalities, due diligence
Daniel Wolf, PE, CIH, GCG <i>APEX</i>	Asbestos	<ul style="list-style-type: none"> - BS, Chemical Engineering - American Board of Industrial Hygiene Certified Industrial Hygienist (CIH), No. 8228 CP - Licensed Asbestos Consultant FL #AX87 - EPA Certified LBP Risk Assessor No. LBP-R-1155089-2 - Licensed Mold Assessor FL #MRSA260 - Licensed Pollutant Storage System Contractor No. PCC1256866, FL - Licensed, Mold Assessor and Remediator FL #R2203 and Radon Measurement and Mitigation Specialist FL #R2209 - Certified General Contractor, Florida 	35	<ul style="list-style-type: none"> - Regency Centers, Asbestos Surveys & Asbestos Abatement Management - Walmart Corporation, Indoor Air Quality (IAQ), Asbestos, & Industrial Hygiene Services - SunTrust Banks, IAQ/Mold/Asbestos Surveys & Abatement - Pinellas County Schools, AHERA Asbestos Inspections - SunTrust Banks, Asbestos Identification & Abatement/IAQ Services - Southeastern Grocers, Asbestos & Mold Assessment & Remediation Services



Fort Lauderdale Lincoln Park On-Call Task Order

Key Elements of this Proposal

Every interaction in society impacts the environment in some way. At GHD, we offer a broad range of environmental services to help our clients develop and enhance project performance while managing any potential risks and impacts. We have earned a reputation for excellence by offering integrated, practical and innovative solutions to all levels of government authorities as well as public and private organizations. The following is our understanding of key services required to successfully manage this contract.

Site Assessments: GHD specializes in turnkey site assessment and remediation of contaminated sites and possesses extensive contamination assessment and remediation experience. GHD has completed and authored more than 3,000 simple and multi-faceted environmental site assessments across the State. Our site assessment experience involves every facet of activity, yielding a true turnkey experience in remediation work. This has included, but not been limited to, source removal, soil and groundwater sampling/assessment, site assessment, risk assessment, remedial design, and active remediation employing a broad array of techniques and technologies. Our personnel have also been involved in the rules-making and standards-writing process itself. As a member of the American Society for Testing and Materials (ASTM), GHD actively participated in forming the guidelines which have become the E-1527 and E-1528 standards establishing site assessment practices that satisfy the due diligence responsibilities of participants involved in commercial real estate transactions. The site assessment services will be managed by **Edwin Siersema, PG**. He has extensive experience with Phase I and Phase II audits for a broad spectrum of commercial, industrial, and agricultural properties, as well as complex site assessment and characterization.

Planning and Design: GHD is an industry leader in providing engineering planning and design services for comprehensive municipal projects, including: evaluation, design and improvement services, preparing specifications, plans, and bidding documents, and project management. We have provided similar services for municipalities throughout Florida. The planning and design services will be managed by **Jeremy Hess, PE**. Jeremy is currently leading planning and design services for the City of Miami's Grapeland Park recreational field upgrades. He is directing the management of potentially contaminated soil during stormwater drainage enhancements and resurfacing of the recreational fields. The activities require close coordination with the City, its contractor, and Miami-Dade County.

Construction Support Services: GHD is a licensed general contractor and our team possesses the capabilities to provide in-house construction services or construction administration to address a variety of environmental issues including: storage tanks, hazardous materials, remedial design assistance, remedial action, and general construction services. As a licensed general contractor, we are a full-service remediation construction company, specializing in the installation, removal, and assessment of storage tank systems, remedial system installations, source removal, facility decommissioning and demolition, stormwater improvements, and wetlands restoration. GHD's construction management services provide our clients with experienced construction managers who prepare uniform bid forms, and project sequence and schedule details to assure that critical paths are identified and logistical challenges are addressed prior to project initiation. The construction services will be managed by **Jesse Davis, PE**.

Testing and Inspections: We employ personnel who are certified to perform a variety of inspection and testing services. This includes a wide array of skills needed to assess operational efficiency and regulatory compliance, as well as building condition as part of construction and demolition projects. GHD's professionals regularly provide timely and cost effective testing, inspection, and permitting services. Our strong local presence with a diverse staff allows us to respond quickly to requests for testing and inspection services. Our services include: petroleum and hazardous materials handling inspections, compliance inspections, construction inspections, petroleum facility inspection, and permitting. The testing and inspection services will be managed by **Jenna Martin, PE**.

Natural and Cultural Resources: GHD has experienced natural resources specialists, ecologists, and coastal managers that can support the City's range of needs while planning, designing, permitting, and implementing their various projects highlighted in the Community Investment Plan (CIP). Our natural resource lead, **Craig Kruempel** will serve as the primary task manager for any benthic survey, wetland delineation, cultural resource survey, or other environmental needs the City may require. He is familiar with the City's policies and procedures as he has assisted the City on several previous projects. The GHD Team will provide ecological assessments, restoration planning, habitat mapping, benthic surveys, compliance or mitigation monitoring, agency coordination, threatened and endangered species surveys, regulatory surveys, quality control, and environmental management services, as needed.

Water Quality: The GHD Team provides comprehensive water quality services designed to support municipalities in maintaining compliance, protecting public health, and enhancing environmental outcomes. Our team brings deep expertise in water sampling, analysis, and treatment planning, with a strong focus on regulatory alignment and sustainable practices. We offer turnkey solutions that include surface and groundwater monitoring, stormwater quality assessments, pollutant load modeling, and water treatment system evaluations. GHD's professionals are well-versed in federal, state, and local water quality standards, and we actively engage in the development of innovative approaches to meet evolving regulatory requirements. Our services also include support for Total Maximum Daily Load (TMDL) implementation, National Pollutant Discharge Elimination System (NPDES) permitting, and watershed management planning. The water quality services will be managed by **Lori Coolidge, PG of Colliers Engineering**, who brings extensive experience in water quality monitoring and compliance strategies. Lori has supported the City on previous water quality initiatives and is familiar with local environmental priorities and procedures.

15+ YEAR PARTNERSHIP

GHD is excited to support the City of Fort Lauderdale and looks forward to continuing our journey together.

As a valued partner, we will strive to exceed your goals of working safely, reducing liabilities, delivering programmatic lifecycle savings, and delivering innovative project approaches that support implementation of sustainable solutions.





02

→ Firm Qualifications and Experience

→ Firm Qualifications and Experience

Documentation that Satisfies Minimum Qualifications

Proof of Firm Licensure in Florida

State of Florida Department of State

I certify from the records of this office that GHD SERVICES INC. is a Delaware corporation authorized to transact business in the State of Florida, qualified on October 16, 2003.

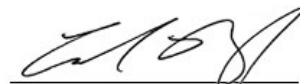
The document number of this corporation is F03000005291.

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 April 14, 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 Fifth day of June, 2025*




Secretary of State

Tracking Number: 3797564024CU

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

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

Operational History

Firm Experience in Relevant Services

GHD has provided environmental professional consulting services in Florida for the past 22 years and can fully perform all services under this contract with our highly qualified in-house personnel and subconsultants. Established in 1928 and privately owned by our people, we employ more than 12,000 people in 160+ offices to deliver projects with high standards of safety, quality and ethics across the entire asset value chain. Driven by a client-service led culture, we connect the knowledge, skill, and experience of our people with innovative practices, technical capabilities, and robust systems to create lasting community benefits. Details regarding our past projects for agencies of similar size and scope are included beginning on page 13.

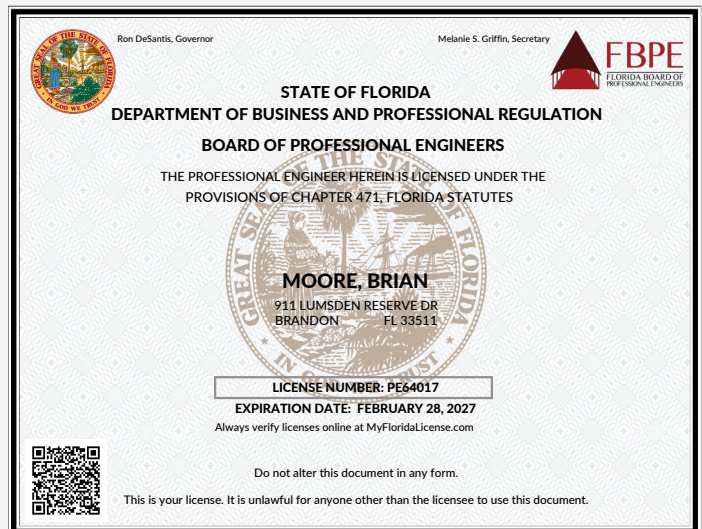
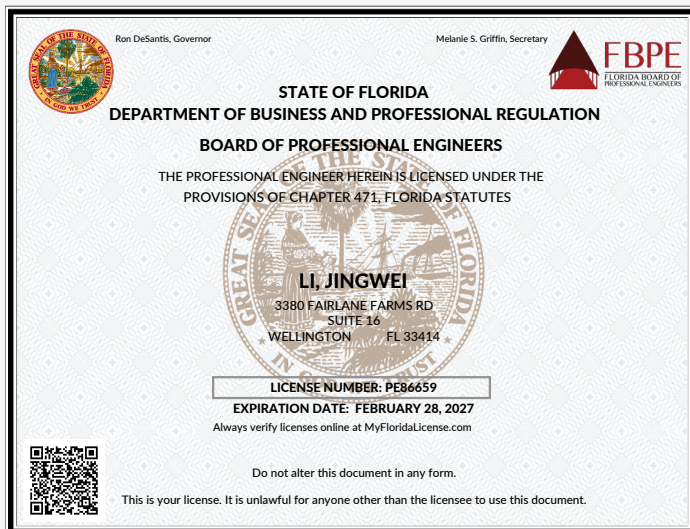
Sustainable Business Practices

Committed to sustainable development, GHD works to improve the physical, natural and social environments of the many communities in which we live and operate.

Sustainability is about improving human wellbeing without compromising the environment over the long term. Organizations wanting to reduce risk and improve results must harness the principles of sustainable development - efficiency, innovation, transparency, dialogue and stewardship - within their business strategies.

GHD has been on the forefront of green and sustainable practices through policies that include a fleet of Hybrid fuel vehicles, use of recycled content paper products, office recycling (paper, containers, cardboard, fluorescent light bulbs, and electronic devices), reuse of furniture between offices, utilization of energy efficient lighting measures, and use of aggressive water conservation practices. As a company, we encourage our employees to practice green and sustainable activities that improve our community and help sustain our environmental resources for the future.

Key Personnel Licenses



GHD recognizes its corporate responsibility to improving the social, economic and environmental performance of our operations and our projects. As members of the World Business Council for Sustainable Development, we embrace its mission statement to provide business leadership that acts as a catalyst for change towards sustainable development.

We recognize innovation as the key to meeting our sustainability objectives and encourage our people, our clients and our business partners to identify and act upon opportunities to enhance the communities in which we operate.

Business Structure



Table 2. Company Structure Overview - GHD Services Inc.

Criteria	Firm Response
Business Structure	Corporation
Address	1501 Belvedere Road Suite 500 West Palm Beach, FL 33406
Phone Number	(813) 971-3882
Fax	(813) 971-1862
Email	info@ghd.com
Website	www.ghd.com
Contact Person(s)	Chrissi Harding Vice President T: (813) 971-3882 E: Chrissi.Harding@ghd.com Jingwei Li, PE Project Manager T: (561) 246-3146 E: Jingwei.Li@ghd.com

Contractual and Financial Compliance

GHD confirms that neither the firm nor any principal, officer, or stockholder is in arrears or in default on any debt or contract involving the City—whether as a party to a contract or otherwise—and has faithfully performed on all previous contracts with the City.

Ron DeSantis, Governor
Melanie S. Griffin, Secretary





STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
BOARD OF PROFESSIONAL ENGINEERS

THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

BRAGAIA, NICHOLAS JOHN
500 N CONGRESS AVE
APT. 27
WEST PALM BEACH FL 33401

LICENSE NUMBER: PE95611
EXPIRATION DATE: FEBRUARY 28, 2027
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Melanie S. Griffin, Secretary




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DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
BOARD OF PROFESSIONAL ENGINEERS

THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES


DAVIS, JESSE W.
25000 SW 189TH AVE
HOMESTEAD FL 33031

LICENSE NUMBER: PE70660
EXPIRATION DATE: FEBRUARY 28, 2027
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DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
BOARD OF PROFESSIONAL GEOLOGISTS

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SIERSEMA, EDWIN W JR
1604 PARKER POINTE BLVD
ODESSA FL 33556

LICENSE NUMBER: PG1197
EXPIRATION DATE: JULY 31, 2026
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ISSUED: 06/13/2024



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BOARD OF PROFESSIONAL ENGINEERS

THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES



MARTIN, JENNA ELIZABETH
9138 FOX SPARROW ROAD
TAMPA FL 33626

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HESS, JEREMY K.
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ST. PETERSBURG FL 33710

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COOLIDGE, LORI DIANE
1903 WEEKEND LANE
ODESSA FL 33556

LICENSE NUMBER: PG2822
EXPIRATION DATE: JULY 31, 2026
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ISSUED: 07/31/2024



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Past Project Experience

GHD has a longstanding history of delivering high-quality environmental engineering services across Florida, with a particular emphasis on municipal partnerships. Our portfolio includes a diverse array of projects that demonstrate our technical expertise, regulatory acumen, and commitment to sustainable outcomes. Table 3 below is a summary of the key projects we will highlight in this section.

Project Name, Client		Relevance to the City of Fort Lauderdale						
		Term Contract	Site Assessment	Construction Support Services	Testing & Inspections	Water Quality	Natural & Resources	Cultural Resources
1.	City of Fort Lauderdale, General Environmental Engineering Consultant Services	✓	✓	✓	✓	✓	✓	✓
2.	City of Fort Lauderdale, Surveying & GIS Mapping of Unverified Stormwater Assets (Red Dots)	✓		✓		✓	✓	✓
3.	Miami-Dade County RER-DERM, Environmental Engineering Consulting Services	✓		✓		✓	✓	
4.	City of Miami, Environmental Engineering Contract	✓	✓	✓	✓	✓		
5.	Palm Beach County, Environmental Engineering Contract	✓	✓		✓	✓		
6.	Port Tampa, Environmental Engineering Contract	✓	✓	✓	✓	✓	✓	✓
7.	City of Fort Myers, Water Quality Sampling	✓			✓	✓	✓	
8.	FDEP, Forensic Site Investigations	✓	✓	✓	✓	✓		✓
9.	FDEP, Hazardous Waste Cleanup Contract	✓	✓	✓	✓	✓		
10.	Saber Real Estate Advisors, LLC, Larry's Chevron		✓	✓	✓	✓		



Schedule and Budget Control

Proactive schedule and cost control measures will be essential when managing multiple task orders. The Project Manager will be responsible for the overall task management, cost, and schedule control, with the Project Director providing oversight. Each Task Manager will be responsible for the approval of monthly reports and invoicing and will maintain active involvement in client communications. Both the Project Manager and Task Managers will be directly accountable to the City for fiscal and schedule control.

GHD typically uses Primavera P6 or MS Project software to assist with schedule control throughout the entire duration of design and consulting projects. The GHD Task Manager will prepare a Critical-Path-Method-based schedule that includes milestones for all task orders in progress. The schedule will integrate the work of all subconsultants and includes appropriate time for internal QC reviews, City reviews, and other stakeholder reviews as appropriate. Our team will confer and plan for the resources required to meet upcoming task order submittal milestones. A monthly schedule update will be provided to the City's Project Manager through routine progress meetings, in-person or virtual, or with monthly invoice and progress reports. In line with best practices, the GHD Project Manager will use Earned Value Management to monitor and compare progress on tasks with the costs expended to check for ongoing alignment between scope, budget, and schedule and global financial platforms that provide real-time information to task order managers to assess the financial health of their projects, using a Work Breakdown Structure (WBS) to help track tasks and subtasks to a detailed level for proper cost control.



General Environmental Engineering Consultant Services

Fort Lauderdale, FL

Project Owner

City of Fort Lauderdale
Todd Hiteshew, Compliance Manager,
Public Works Department
T: 954.828.7807
E: thiteshew@fortlauderdale.gov

Date

2010 - Ongoing

Value

Project cost varies on task order

Relevance to the City of Fort Lauderdale On-Call

- » Environmental Engineering
- » Phase I & II ESAs
- » Site Assessment (soil sampling, well installation, groundwater sampling)
- » Mold Sampling, Assessment and Remediation
- » Sustainability, Evaluation Reports
- » Reports to the City Commission
- » Emergency Response

GHD Team Involvement

Jingwei Li; Brian Moore; Nick Bragaia;
Craig Kruempel; Lori Coolidge

Project Overview

GHD has provided General Environmental Services to the City of Fort Lauderdale for the past 15 years. GHD is currently supporting the City of Fort Lauderdale's Public Works, Environmental Compliance Department under its general environmental engineering consulting services contract. Most of the projects are performed on an as-needed basis. Under the existing contract, GHD has completed several Phase I and II Environmental Assessments (ESA), including for the Fort Lauderdale One Stop Shop, Sunnyland Homes Parcel A & B, 4201 N Ocean Blvd, and 1300-1350 W. Broward Blvd (Police Department Headquarters).

In addition to these efforts, GHD has supported the City on high-profile projects such as mold testing for the Las Olas Marina and the development of a Soil Management Plan for playground equipment installation above the Lincoln Park Former Ash Landfill.

The following two task orders highlight the diversity and responsiveness of GHD's team.

City of Fort Lauderdale, Watershed Asset Management Plan (WAMP) Cost Estimate.

In the Spring of 2018, GHD developed a planning level estimate of annual costs to develop a WAMP for the City's Department of Public Works, Sustainability Division. GHD evaluated existing service levels, work order histories, operational expenditures by budget category, and asset information to determine the strategic and operational improvements the Sustainability Division could make over the next five years to improve customer service levels, better manage risk, and reduce growth in operational and asset lifecycle costs. Upon evaluation of the Division's data and current work practices, GHD developed a preliminary strategy to develop and implement the WAMP.

Specific strategic recommended activities included, but were not limited to, defining the Department's WAMP objectives, linking existing and new service level goals to align with those objectives, and identifying appropriate performance measures to report on those service levels. Following a three-phased approach of Discovery, Implementation, and Management, GHD forecasted annual savings to the City of up to \$2.8M by 2028.



Emergency Response to Fort Lauderdale Force Main Untreated Wastewater Release. On Sunday, December 22, 2019 at approximately 2:00 pm GHD received a phone call from the City of Fort Lauderdale requesting assistance with an emergency response related to the release of untreated domestic wastewater. The City requested GHD assist with air monitoring for toxins that might be released during the event. The release was the result of a break in a major sewer line force main that resulted in flooding of a residential neighborhood. GHD emergency response professionals immediately mobilized Team members to the site and started the development of a health and safety plan, and an air monitoring sampling plan. On the following day, GHD's emergency response team, with assistance from GHD's Local Contract Management Office, in Wellington, arrived onsite to conduct real time air monitoring for hydrogen sulfide, carbon monoxide, total VOCs, explosive gases and oxygen levels. Based on the initial sampling results, GHD recommended installing instruments to obtain laboratory data to confirm the meter reading levels documented during the monitoring activities. Air sampling devices were deployed on December 31, 2019, at six locations in and around the point of release and were retrieved on January 2, 2020. Collected samples were delivered to the laboratory the following morning. Team members involved received commendations for taking time from their holidays to provide emergency service to the City during this emergency. The sewer main break incident has attracted statewide and national attention, and highlights the importance of the Watershed Asset Management Plan, discussed above – an effort that GHD was selected as the preferred consultant to assist the City in developing, in 2020.





Surveying & GIS Mapping of Unverified Stormwater Assets (Red Dots)

Fort Lauderdale, FL

Project Owner

City of Fort Lauderdale, Public Works Department

Todd Hiteshew, Environmental Compliance Manager

T: 954.828.7807

E: thiteshew@fortlauderdale.gov

Date

2021 - 2024

Value

Approximate Professional Services Fee: \$600,000

Relevance to the City of Fort Lauderdale On-Call

- » GIS, database design, document management
- » Stormwater infrastructure condition assessments
- » Capacity assessments of existing stormwater infrastructure
- » Capital improvements planning

GHD Team Involvement

Brian Moore, Jingwei Li, Nick Bragaia, Edgar Diaz, Jesse Davis, Craig Kruempel

Project Overview

In April 2018, "A Budget Evaluation to Create a Watershed Asset Management Plan," study was performed by GHD for the City's Public Works Stormwater Operations Department, in which a high-level, preliminary roadmap was developed for the creation of a multi-year Watershed Asset Management Plan (WAMP) to manage the City's stormwater infrastructure. The City is responsible for multiple stormwater assets, including stormwater mains, pump stations, basins and manholes, tidal valves, drainage wells, and ditches. The study defined the WAMP as the sustainable strategic framework for efficient management of the City's current and future Public Works Stormwater Operations and Maintenance and environmental needs. To maintain and monitor the location, attributes, and condition of the stormwater assets, the Public Works Department uses a GIS mapping and computer maintenance management system.

In late December 2018, GHD was authorized to begin development of the WAMP; one year later, WAMP v1.0 was completed in December 2019. The Task Order (TO) for advancing this project, called Red Dots, was awarded at the beginning of 2022, along with two other stormwater TOs. This TO helps support one of the WAMP implementation goals, which was to build a complete stormwater GIS asset registry by (1) verifying the ownership, (2) mapping unverified stormwater assets (referred to as Red Dots) owned by the City, (3) identifying illicit drainage connections, and (4) verifying the storm pipe connectivity between basins or discharge points located immediately adjacent to City rights-of-way or waterways, Red Dots, or easements.

Given the number of unknown City-owned assets located within each of the 10 City watersheds, GHD was retained to conduct high-level "desktop" research of existing City-owned stormwater assets to identify potential discrepancies or duplication of unknown stormwater drainage structures. Following completion of the desktop effort, beginning in July 2022, GHD physically located, surveyed, and field verified the ownership of these 2,717 Red Dots. GHD conducted fieldwork to locate, survey, verify ownership, connectivity, flow direction, and whether there are illicit drainage connections within the tributary drainage basins and connected networks. The goal of this project was to improve efficiencies when responding to flooding events, pollution of waterways, and monitoring future water quality improvement projects for reporting through the NPDES permit program.

The Project scope included managing field crews and digitally uploading all field data into a geodatabase. GHD finalized the identification and field verification of these stormwater system assets and updated the City's ESRI File Geodatabase and the City's Geographic Information System database for those assets.



Environmental Engineering Consulting Services

Miami-Dade County, FL

Project Owner

Miami-Dade County RER-DERM
Mario Lopez, Construction Contracts
Specialists Supervisor - Department of
Regulatory and Economic Resources,
Division of Environmental Resources
Management

T: 305.372.6556

E: lopezma@miamidade.gov

Date

2022 – Ongoing

Value

Approximate Professional Services Fee:
\$1,000,000

Relevance to the City of Fort Lauderdale On-Call

- » Report to Regulatory Agencies
- » Miscellaneous Assessments
- » Testing & Monitoring
- » Water Quality

GHD Team Involvement

Nick Bragaia, Jingwei Li, Brian Moore,
Jenna Martin, Edgar Diaz, Lori Coolidge

Project Overview

Under this contract, GHD submitted the Quality Assurance Project Plan (QAPP) for the Little River Pilot Project to FDEP. The purpose of the Little River basin pilot projects is to install stormwater treatment devices in or along the stormwater infrastructure to reduce the conveyance and discharge of nutrient parameters into the Little River Canal, and to assess the effectiveness of the devices. Water quality sampling activities were conducted to assess the pre-assessment and post-installation levels of concentrations of nutrient and bacteria parameters in the selected stormwater structures. GHD has completed the first round of pre-installation sampling activities within 48-hours of a rainfall event. After the completion of the first pre-installation sampling event, the storm sewer infrastructure such as, storm sewer pipes, catch basins, inlets, and manholes will be cleaned (using vac trucks), as well as Closed Circuit Television (CCTV) monitoring of such structures in the locations of the Little River pilot project area. The cleaning and CCTV monitoring activities are currently in progress. After completion of both pre and post installation sampling events, GHD will analyze and compare pollutant removal efficiency, durability, maintenance, and cost of each stormwater treatment device and provide recommendations for selection of stormwater treatment devices.

Under this contract, GHD prepared a comprehensive Bacteria Pollution Control Plan (BPCP) for Miami-Dade County's Little River (C-7) WBID 3287, in general accordance with guidance provided in the July 2018 FDEP document titled "Restoring Bacteria-Impaired Waters: A Toolkit to Help Local Stakeholder Identify and Eliminate Potential Pathogen Problems (Toolkit)". GHD performed thorough reviews on GIS layers obtained from Miami-Dade County and on-line sources, identified potential sources of bacteria discharges, and conducted trend analysis on the bacteria samples collected over the past 10-years at locations within Little River. GHD conducted Walk the Watersheds (WTW) exercises with the stakeholders, identified and prioritized potential point sources of bacterial contamination, established a sampling plan to confirm impairment identified with potential sources and a series of management plans associated with common and identified potential bacteria contributions to the Little River.



Environmental Engineering Services Contract

Miami, FL

Project Owner

City of Miami
Keith Ng, Senior Project Manager
T: 305.416.1298
E: keithng@miamigov.com

Date

2020 – Ongoing

Value

Varies on task order

Relevance to the City of Fort Lauderdale On-Call

- » Report to Regulatory Agencies
- » Permitting
- » Conditions Assessment
- » Stormwater Compliance
- » Drilling
- » Geotechnical Investigation
- » Stormwater Evaluation
- » Soil Remediation
- » Construction Services

GHD Team Involvement

Jesse Davis, Jeremy Hess, Brian Moore, Jingwei Li, Nick Bragaia

Project Overview

GHD has provided General Environmental Services to the City of Miami on multiple projects over the past 5 years. The services include design, construction documents, construction administration, and reports for environmental engineering projects. Responsibilities included obtaining permits from agencies such as Miami-Dade DERM, FDEP, and ACOE for City projects.

We recently completed a task order for the Grapeland Baseball Complex.

Grapeland Baseball Complex | 2022 - 2024 | Budget: \$2.4M (construction) | Fee: \$390,000

The City of Miami employed GHD to design park improvements for the Grapeland Baseball Complex that includes replacing the grass with artificial turf, fence replacement/repair, replacing two batting cages, pressure washing the complex building, painting the dugouts, foul poles, and complex building (interior and exterior), replacing wind screens, replacing damaged concrete pathways, and performing a condition assessment/cleaning the existing stormwater infrastructure. The Grapeland Baseball Complex consists of four baseball fields and ancillary structures located directly east of the environmentally arsenic-contaminated Melreese Country Club and future site of Miami Freedom Park. The approximate project limits are defined by the yellow line depicted in the figure above.

GHD tasks include literature review and planning, field investigations (i.e., total site survey, geotechnical standard penetration test (SPT) borings and double-ring infiltrometer (DRI) tests, confirmatory environmental sampling for arsenic contamination, and condition assessment and cleaning of the site's stormwater infrastructure. GHD designed the new improvements to include pre-construction soil remediation and post construction services.

Following completion of the planning and design services, GHD assisted the City with permitting for construction and prepared a soil management plan to be implemented during the construction phase. The soil management plan was approved by Miami-Dade County. GHD is currently providing construction services that include soil testing, dust monitoring, and construction oversight.



Environmental Assessment Services Continuing Contract

Palm Beach County, FL

Project Owner

Palm Beach County
John Tierney, Regulatory Specialist
T: 561.233.0252
E: jtierney@pbcgov.org

Date

2021 - Ongoing

Value

Varies on task order

Relevance to the City of Fort Lauderdale On-Call

- » Report to Regulatory Agencies
- » Phase I & II ESAs
- » Groundwater Assessment & Remedial Plans
- » Soil | Sediment | Atmospheric
- » Miscellaneous Assessments
- » Drilling
- » Permitting
- » Storage Tank Assessments | Removal
- » Testing & Monitoring
- » Compliance
- » Asbestos | Lead | Radon Testing

GHD Team Involvement

Nick Bragaia, Jingwei Li, Jeremy Hess,
Brian Moore, Jenna Martin

Project Overview

GHD was selected to provide Environmental Engineering Consulting Services for Palm Beach County for projects necessary to protect the County's natural resources while providing opportunities for community development and redevelopment. These projects included but are not limited to Phase I and II Environmental Site Assessments, contamination assessments, identification of remedial activities, and related consulting and remediation observation services for capital improvement and/or renovation projects countywide.

Two sample task orders from the contract include:

Fire Rescue Station No. 22 Assessment and Response | 2022-2023

A discharge of diesel fuel occurred at an active emergency Fire Rescue services station on May 3, 2021. The discharge occurred as a result of a malfunction of the emergency generator controller system which led to the overflowing of the 100-gallon generator day tank. An estimated quantity of 300 gallons of diesel fuel was released; approximately 225 to 250 gallons were contained within the generator room and subsequently recovered. The remaining 50 to 75 gallons exited the building, onto an adjacent unpaved landscaped area and across the asphalt-paved driveway to the grassed area along the east site boundary. The Fire Rescue Hazardous Materials Response Team initially responded to the spill, deploying absorbent materials, and recovering product. On May 5, 2021, US Ecology mobilized to the site to excavate soils in the areas impacted by the spill. US Ecology removed impacted soils from landscaped areas on either side of the generator room entrance and from the grassed area east of the driveway in front of the generator room. In addition, impacted pavement was removed from the part of the asphalt driveway over which the spilled fuel flowed.

GHD initiated Site Assessment activities in February 2022. GHD personnel advanced twenty (20) soil borings and collected vadose zone soil samples for field screening and laboratory analysis. The soil analytical results revealed that petroleum constituents of concern were not detected at concentrations that exceeded their respective Soil Cleanup Target Levels (SCTL) per Chapter 62-777, Table II, Florida Administrative Code (FAC). GHD converted three of the borings into groundwater monitoring wells after advancing each borehole to a depth of 15 feet below land surface (bls) using a direct-push drilling rig. After well installation, free-floating product was detected in one of the newly installed monitor wells. Approximately one inch (0.08 feet) of free product was measured on the groundwater surface using an electronic interface probe.

GHD conducted manual removal of the free product on four occasions between March 23, 2022, and April 4, 2022. Product removal efforts were discontinued after two consecutive weekly measurements found no detectable floating product in the well. Afterwards, GHD conducted periodic groundwater monitoring with analysis for the presence of petroleum hydrocarbons on a quarterly schedule.

After two rounds of quarterly groundwater monitoring, no petroleum constituents were detected at levels exceeding their applicable GCTLs, per Chapter 62-777, FAC. As such, GHD recommended site closure in accordance with Chapter 62-780, FAC.

Phase I and Limited Phase II Environmental Assessment Belvedere Road Property | 2023 – 2024

GHD completed a Phase I Environmental Site Assessment for a property that reported a discharge of gear oil on November 24, 2020. The area impacted was approximately 144 square feet, which was initially excavated to a depth of 2 feet below land surface (ft bls). Soil sampling and analysis revealed the presence benzo(a)pyrene equivalent concentrations above the Residential Soil Cleanup Target Level (SCTL), per Chapter 62-777, FAC. Ultimately, similar levels were sporadically found at locations 20 feet outside of the excavation footprints. Based on the information reviewed, GHD concurred with previous consultants that the reported release was properly addressed and any associated runoff from the observed concrete pad would be considered a de minimis condition, and therefore, not subject to regulatory enforcement.

In order to further evaluate soil quality, the County requested a Limited Phase II Environmental Site Assessment to evaluate soil quality conditions. GHD proposed, in light of the previously identified finding, that a total of fourteen (14) soil borings be advanced across the Site to determine if the previously identified benzo(a)pyrene detections in soil were representative of a background condition or were indicative of a release(s) associated with the historical Site use. Soil samples were collected for analysis for the presence of benzo(a)pyrene (BaP) and other polycyclic aromatic hydrocarbons. Following sampling and receipt of results, a summary report was prepared. The reported concentrations of benzo(a)pyrene equivalence were in excess of its SCTL at multiple locations throughout the site.





On-Call Environmental Engineering Services Contract

Port Tampa Bay, FL

Project Owner

Port Tampa Bay
Christopher Cooley, Director of
Environmental Affairs

T: 813.215.0950

E: ccooley@tampaport.com

Date

2022 – Ongoing

Value

\$250,000

Relevance to the City of Fort Lauderdale On-Call

- » Permitting
- » Reports to regulatory agencies
- » Compliance assistance
- » Testing and monitoring services
- » Groundwater contamination assessment and remediation
- » Brownfields
- » Endangered species evaluation
- » Water quality evaluations
- » Monitoring well design
- » Pond design
- » Inspection services

GHD Team Involvement

Brian Moore, Jenna Martin, Jeremy Hess,
Jesse Davis, Ed Siersema, Lori Coolidge

Project Overview

GHD was selected to provide continuing environmental engineering services for Port Tampa Bay (PTB) on an on-call basis. GHD assists PTB with a variety of environmental consulting services including Phase I Environmental Site Assessments (ESA), Phase II ESAs, soil and groundwater assessment, Brownfields cleanup, and development of a Stormwater Pollution Prevention Plan (SWPPP) using the US Environmental Protection Agency Industrial SWPPP Template dated, February 25, 2021.

Recent projects included the completion of a comprehensive soil and groundwater assessment of a former coal yard. The property was impacted with metals and polycyclic aromatic hydrocarbons (PAH). GHD developed an overall remedial plan that focused on the removal of soils containing concentrations in excess of the State's Commercial/Industrial Exposure soil cleanup target levels.

GHD is also assisting with development and implementation of a groundwater monitoring plan at a Brownfield site that contained a former waste disposal area. The site is impacted with heavy metals (arsenic and iron) and total dissolved solids. GHD assisted with the development of a natural attenuation monitoring plan that was approved by Hillsborough County and is now in the Implementation phase. The ultimate goal for the site is to achieve a no further action with controls.

Finally, GHD also supports PTB with NPDES compliance by conducting quarterly inspections and sampling. GHD conducts routine inspections and sampling for PTB facilities. GHD personnel also assisted with inspections at PTB tenant facilities and provided NPDES compliance training.

Additional projects completed as part of the on-call services are listed below

- **Phase I and II ESAs:** Ajax, Pangea, Maschmeyer, Port Redwing, Glovis, Mrtin Marietta, Hookers Point
- **Site Assessment:** Tampa Livestock
- **Inspections:** Various Port properties
- **Tax Credit Applications:** Tampa Shipbuilding, Tampa Scrap
- **Emergency Response:** Pendola Point Fertilizer



Water Quality Sampling

Fort Myers, FL

Project Owner

City of Fort Myers
Justin Mahon, Environmental Compliance
Manager

T: 239.321.7225

E: jmahon@cityftmyers.com

Date

2021 - Ongoing

Value

\$170,000

Relevance to the City of Fort Lauderdale On-Call

- » Report to Regulatory Agencies
- » Miscellaneous Assessments
- » Grant Applications & Negotiations
- » Testing & Monitoring
- » Compliance
- » Water Quality

GHD Team Involvement

Brian Moore, Lori Coolidge

Project Overview

GHD conducts MS4 water quality sampling on a monthly basis at nine designated locations. Quality assurance procedures for the collection of samples and decontamination of sampling apparatus prior to and during use in the field is conducted in general conformance with the Florida Department of Environmental Protection (FDEP) field sampling and laboratory analysis quality assurance protocol codified in Chapter 62-160 FAC Standard Operation Procedures for Field Activities (FDEP SOP-001/01).

To determine the sources and develop management strategies for reducing the bacteria within the Billy's Creek and Manuel's Branch watershed, GHD has worked with the City and coordinated with the FDEP to conduct both sampling and stakeholder activities. Monthly sampling is conducted in an iterative fashion to identify potential point source areas, which utilizes "trigger" concentrations identified in the FDEP 2018 Restoring Bacteria-Impaired Waters - A Toolkit to Help Local Stakeholders Identify and Eliminate Potential Pathogen Problems, to determine appropriate response actions. Quarterly sampling is conducted with additional analysis for HF-183 and acetaminophen to assist in determining if the potential sources of bacteria are human.

To increase communication and assist in the identification of potential unknown non-point sources of pollution, a virtual Project Overview and Maps on Table (MOT) event was held on May 19, 2021, wherein stakeholder interests from the City of Fort Myers (the City), the Florida Department of Environmental Protection (FDEP), the Florida Department of Transportation (FDOT), Lee County, the Lee County Department of Human and Veterans Services, the Florida Department of Health (FDOH), the Calusa Waterkeepers, the South Florida Water Management District, and Billy's Creek Preserve, LLC identified points and/or areas of interest. A virtual tour including predetermined sample locations, watershed areas, and project scope provided a first-hand experience for stakeholders to visualize the project. City staff were able to interact with citizen participants and address all questions and concerns that were presented by them at the MOT. The project team worked to solicit comments from all participants so that all voices were heard during the event.

A follow-up Walk the Watersheds (WTW) event, attended by City staff and members of the FDEP, Lee County, the FDOH, the Department of Human and Veterans Services, and citizen's stakeholder groups, addressed feedback obtained through a review of the Maps on Table and information obtained through internal review of features of interest along the watershed. During the WTW stakeholders were able to observe points of interest as a group, and conversations pertaining to challenges and remedial actions organically flowed. Both physical (i.e., paper) maps and digital maps were provided. Participants were able to reference the 51 points/areas identified during the MOT and relative infrastructure as well as contribute to the dataset by adding additional "markups" from



field observations. GHD performed digital collection through the use of ArcGIS Collector during both days of the WTW event. A total of 89 points were collected with notes, photos, and priority rankings were assigned. Very often when an issue was observed, City staff made phone calls to see that it was addressed and in most instances remedial efforts were already in progress. Additional action items, including coordination with City Code Enforcement, were completed following the event.

During the WTW, it was noted that while many infrastructure improvement projects had already been completed or were planned for completion in the near future. To address potential point source contribution from residents, social marketing, utilizing behavior-based community engagement, is planned.

Laboratory results are delivered in electronic format to meet the FDEP's requirements for inclusion into the State STORET water quality database. GHD also imports the data into an Access database that is maintained for any further reporting or querying needs. Information obtained through the MOT and WTW stakeholder events are being compiled into a comprehensive Pollutant Reduction Plan that addresses identified point source locations and types and management plans to restore the Billy's Creek and Manuel's Branch watersheds. Increased collaboration of stakeholders, an integral part of managing pollutants in the watersheds, has occurred, and through social marketing, public education to change behaviors that impair the local surface water bodies is being planned.





FDEP Forensics Investigation Contract

Key Largo, FL

Project Owner

Florida Department of Environmental Protection (FDEP)
Kelcie Walsingham, Contract Manager
T: 850.245.8983
E: Kelcie.Walsingham@FloridaDEP.gov

Date

2017 – Ongoing

Value

\$250,000

Relevance to the City of Fort Lauderdale On-Call

- » Report to Regulatory Agencies
- » Testing & Monitoring
- » Permit applications
- » Groundwater contamination testing and assessment
- » Soil contamination testing and assessment
- » Sediment testing and assessment
- » Petroleum storage tank contamination testing and evaluation
- » Inspection services
- » Design remediation systems
- » Laboratory services
- » Design, install and monitor groundwater wells

GHD Team Involvement

Brian Moore, Jenna Martin, Jeremy Hess, Edwin Siersema, Jingwei Li

Project Overview

For the FDEP, GHD possesses a Forensic Investigation contract, in which we provide technical support services to the Division of Waste Management by providing environmental forensic site investigations, verification assessments, special case studies, tank abandonment and/or tank removal services. The FDEP requires the use of environmental forensics techniques to identify when the discharge(s) occurred, how the discharges occurred, from where those discharges originate, and to allocate remediation costs. In support of this contract, GHD may assist with acquiring federal, state, and local permits, authorizations and inspections. We also secure site access, conduct assessment, evaluate risk, conduct general studies, special case studies, statistics, expert evaluation interpretation, and provide recommendations.

GHD is one of a select few contractors vetted and contracted by the Department to support the Division of Waste Management by providing forensic site investigations and verification assessments. We have also been asked to evaluate unique case studies, including commingled sources, to assess their potential contaminant plume contributions, and investigate previously unidentified sources. Other scopes of work performed under the forensics contract have included third-party verification groundwater and soil sampling, often to verify qualification for closure, and evaluating sites to determine whether they meet risk-based closure criteria according to Chapter 62-780, FAC.

For the FDEP we provided our knowledge of carcinogenic polynuclear aromatic hydrocarbons (PAH). Site closure is often prevented in Department-funded projects because PAHs are present in soils, notably benzo(a)pyrene (BaP) and BaP equivalence. The persistence of PAHs in soils, relatively low SCTLs, and difficulty differentiating among the impacts' source(s) often prevent complete site rehabilitation. From 2019 to 2020, GHD performed a study on behalf of the Department using forensic methods to investigate previously encountered PAHs at select registered facilities to evaluate the potential source(s) (i.e., the documented petroleum releases, naturally occurring sources, and other anthropogenic sources) of the reported impacts. Ten (10) facilities were designated test cases and investigated by reviewing historical documentation and gathering additional data during site assessment. We developed a method for analyzing the potential source(s) of PAHs in soil by using their fingerprints to distinguish between petrogenic (petroleum-derived) and pyrogenic (combustion-derived) characteristics. Our innovative forensic approach yielded convincing results at several sites by demonstrating that the source(s) of the PAH impacts were pyrogenic and, therefore, not attributable to the documented release(s), potentially eliminating the need for costly remediation.



FDEP Hazardous Waste Cleanup

Various Locations, FL

Project Owner

Florida Department of Environmental Protection (FDEP)
Mackenzie Childs, Project Manager
T: 850.245.8929
E: Mackenzie.Childs@FloridaDEP.gov

Date

2011 – Ongoing

Value

\$10M

Relevance to the City of Fort Lauderdale On-Call

- » Site assessment
- » Site cleanup
- » Geophysics
- » Source Removal
- » Remedial System Installation

GHD Team Involvement

Brian Moore, Jenna Martin, Jeremy Hess, Edwin Siersema, Jingwei Li

Project Overview

GHD is currently supporting the Florida Department of Environmental Protection (FDEP) Hazardous Waste Cleanup Section by conducting site assessment and cleanup services in connection with the Dry cleaning Solvent Restoration Program and other State Programs.

To date, GHD has performed contamination assessments at over 500 dry cleaning facilities and has successfully remediated sites impacted by chlorinated solvents at locations throughout Florida using a variety of conventional and innovative remedial methods.

GHD was also selected as the contractor to conduct a statewide vapor intrusion study associated with dry cleaning facilities and assisted in development of a guidance methodology for the hazardous waste cleanup section in risk mitigation associated with vapor intrusion. We have also assisted in development of a methodology for execution of imminent threat and the appropriate mitigation measures to maintain public safety associated with program sites. GHD is currently simultaneously managing the assessment and cleanup of over 60 state-cleanup eligible sites. The sites are in different phases of cleanup including assessment, periodic groundwater monitoring, remedial design/construction, and ongoing Operations and Maintenance. The ongoing management of the sites requires close coordination with FDEP staff and GHD task managers and field personnel.

The State of Florida’s Dry cleaning Solvent Program has also adopted an assessment tool invented by GHD staff called Modified Active Gas Sampling (MAGS). MAGS has been very successful at locating unknown source areas commonly associated with the phenomenon of “rebound.” GHD has successfully closed many sites using this technology.



Larry's Chevron #47607

Fort Myers, FL

Project Owner

Saber Real Estate Advisors, LLC
Michael Klinger, Project Manager
T: 786.406.1762
E: klinger@saberfund.com

Date

2015 – 2020

Value

\$298,960

Relevance to the City of Fort Lauderdale On-Call

- » Phase I and II Environmental Site Assessment
- » Permit applications and meetings with permitting agencies
- » Written and verbal reports to regulatory agencies
- » Testing and monitoring services
- » Dewatering calculations
- » Groundwater contamination assessment and remediation planning
- » Soil contamination assessment
- » Petroleum storage tank contamination testing and evaluation
- » Design remediation systems
- » Design, install and monitor groundwater wells
- » Monitor tidal influence on groundwater

GHD Team Involvement

Brian Moore, Jingwei Li, Jenna Martin

Project Overview

The Larry's Chevron #47607 was a fuel dispenser, convenience store, and car wash facility that operated through mid 2015. GHD was contracted to complete due diligence, site assessment, and site restoration activities. Initially, GHD completed a Phase I Environmental Site Assessment (ESA), as well as a Phase II ESA. The due diligence activities were completed in anticipation of site redevelopment.

Following completion of due diligence, GHD conducted removal of the underground storage tanks (UST), associated underground piping, and dispensers. During tank closure, approximately 914.76 tons of petroleum-impacted soil was removed for off-site disposal. The soil removal process was iterative in that soil confirmation testing was conducted coincidental in order to ensure all contaminated soil was removed.

Following source removal activities, additional assessment was conducted in order to meet the requirements for a completed Site Assessment. The assessment work was complicated by the presence of adjacent petroleum dispensing facilities to the north and south of the site with subsurface impacts. Additional complications involved the tidally influenced groundwater (site located on Miami Beach). GHD negotiated assessment approval following well installation (both on- and off-site) and by sampling existing off-site wells.

Following Site Assessment approval, GHD recommended Natural Attenuation Monitoring in order to establish plume stability in anticipation of pursuing a Site Closure with Conditions. The Natural Attenuation Monitoring was complicated by ongoing construction activities both on- and off-site that resulted in damaged or destroyed monitor wells. GHD completed replacement well installation off-site and site closure was obtained following additional natural attenuation monitoring.



03

→ Qualifications of the Project Team

Project Team Organization Chart

CITY OF FORT LAUDERDALE

» Legend


- Key Personnel with resume included
- Colliers Engineering & Design
- APEX Companies, LLC



BRIAN MOORE, PE
Project Director



JINGWEI LI, PE
Project Manager



NICK BRAGAIA, PE
QA/QC

SITE ASSESSMENT	PLANNING & DESIGN	CONSTRUCTION SUPPORT SERVICES	TESTING & INSPECTIONS	NATURAL & CULTURAL RESOURCES	WATER QUALITY
TASK MANAGER Edwin Siersema, PG	TASK MANAGER Jeremy Hess, PE	TASK MANAGER Jesse Davis, PE	TASK MANAGER Jenna Martin, PE	TASK MANAGER Craig Kruempel	TASK MANAGER Lori Coolidge, PG
SUPPORT STAFF Rick Hagberg, PG Stephen Saller	SUPPORT STAFF Cathy Warner, PE Jessica Walsh	SUPPORT STAFF David Chang Ben Doan	SUPPORT STAFF Edgar Diaz Daniel Wolf, PE, CIH, CGC	SUPPORT STAFF Anne Shoffner Christopher Barnes Jacob Spuck	SUPPORT STAFF Jingwei Li, PE Madison Mullen

SUBCONSULTANTS

WATER QUALITY Lori Coolidge, PG	ABSESTOS Daniel Wolf, PE, CIH, CGC
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SPECIALIZED SERVICES

WASTE REMOVAL EnviroServe	ENVIRONMENTAL DRILLING Earth Tech Drilling	TESTING LABORATORY Pace Analytical Services, LLC
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EMERGENCY RESPONSE / VALUE ADD

Drilling - William Rich	Coastal Engineering - Mike Barnett	Low Impact Stormwater System Design - Arnel Santos	Sustainability Evaluation Reports - Greg Carli
LEED AP - Jesse Davis	Greenhouse Gas Inventories - Pete Romzick		

Key Personnel Resumes



Jingwei Li, PE

→ Project Manager



Jingwei Li is a professional engineer with nine years of experience, whose primary focus has been on hydrological and hydraulic modeling, groundwater analysis and modeling, stormwater planning, environmental mitigation, water resources and Geographical Information Systems (GIS). She is experienced in analyzing surface water and groundwater data and GIS databases, developing groundwater, hydraulic and hydrological models. Her work history also includes Asset Management, Phase I and II Environmental Site Assessments, Spill Prevention and Countermeasure Control Plans and Stormwater Pollution Prevention Plans. Jingwei possesses skills that give clients confidence that their projects will have an effective outcome.

PROJECT EXPERIENCE

Watershed Asset Management Plan

Role: Asset Management Engineer | **Client:** City of Fort Lauderdale | **Location:** Fort Lauderdale, FL | **Professional Services:** 2018 – present

Asset Management Engineer responsible for developing, in concert with the project lead firm and future teaming partner (Hazen and Sawyer) the Draft WAMP, a multi-year Watersheds Asset Management Program, which is a sustainable strategic framework for efficient management of the City's current and future Public Works Stormwater Operations and Maintenance and environmental needs. Discovery Phase (Year 1) work included Community Rating System (CRS) analysis, reviewing and identifying key activities for the City, and grant source identification in support of developing strategic goals and objectives of the WAMP.

Soil Management Plan, Lincoln Park Playground

Role: Project Manager | **Client:** City of Fort Lauderdale | **Location:** Fort Lauderdale, FL | **Professional Services:** 2018 – 2019

Project Manager who developed a Soil Management Plan (SMP) and Site-specific Health and Safety Plan (HASP) for the Lincoln Park Playground in Fort Lauderdale. The City of Ft. Lauderdale fenced the former incinerator area, cleaned contaminated soil on the property, and capped contaminated soil on the Lincoln Park playground back in 2009. In 2019, the City intended to demolish the existing playground equipment located at Lincoln Park and replacing it with new playground equipment. The City requested GHD to develop a Best Management Practices Plan (BMP) for the handling of impacted soils potentially encountered during construction activities; and supervise all associated demolition and construction Site activities.

Environmental Engineering Consulting Services

Role: Project Manager | **Client:** Miami-Dade County | **Location:** Miami-Dade County, FL | **Professional Services:** 2022 – present

GHD is under contract to perform various activities and services for Miami-Dade County's National Pollutant Discharge Elimination System (NPDES) Program and Florida Department of Environmental Protection (DEP) grants for Biscayne Bay Water Quality Characterization and Pollution Reduction. GHD has developed a comprehensive Bacteria Pollution Control Plan (BPCP) for the Little River (C-7) Waterbody Identification (WBID) number 3287. Stakeholder Maps on Table (MOT) and Walk the WBID (WTW) events were conducted, and these exercises offered an efficient and quick starting point to identify possible sources of bacterial contamination, conditions of stormwater and wastewater infrastructure, and hydrological conditions of the water body. BPCP established a sampling plan to confirm impairment identified with potential sources and established a series of management plans associated with common and identified potential bacteria contributions to the Little River.

Years Experience

12 (total); 10 (with GHD)

Location

West Palm Beach, FL

Qualifications/Accreditations

- MS, Civil and Environmental Engineering
- BS, Civil Engineering
- Professional Engineer: Florida

WHY Jingwei



Proven Leadership on past and current Fort Lauderdale Projects.

Jingwei has served as Project Manager and Asset Management Engineer on multiple City of Fort Lauderdale initiatives, including the Watershed Asset Management Plan (WAMP) and the Lincoln Park Playground Soil Management Plan—demonstrating deep familiarity with the City's environmental priorities and operational standards.



Extensive Experience with Municipal and Regulatory Coordination.

Jingwei has led permitting, reporting, and stakeholder engagement efforts across projects involving FDEP, Miami-Dade County, and other agencies—ensuring seamless communication and compliance with federal, state, and local regulations.



Resilience and Sustainability-Focused Planning.

Jingwei's work on stormwater master planning integrates climate adaptation, green infrastructure, and capital prioritization using Florida Resiliency scoring and SFWMD methodologies—directly aligning with Fort Lauderdale's goals for sustainable development.

As part of the DEP grants for Biscayne Bay Water Quality Characterization and Pollution Reduction, various projects and tasks were carried out under Phase 1 and Phase 2 Little River Pilot Projects. The purposes of the Phase 1 and Phase 2 Little River Pilot Projects are to install stormwater treatment devices in or along the stormwater infrastructure to reduce the conveyance and discharge of nutrients into the Little River, and to assess the nutrient reduction efficiencies of the devices. The scope of services includes stormwater infrastructure inspection and cleaning, water quality sampling, debris collection and analysis for the stormwater treatment devices, developed a Standard Operating Procedure (SOP) for the maintenance of the stormwater treatment devices. A detailed closeout report was prepared, summarizing all activities conducted under the grant and evaluating the nutrient and bacteria removal efficiency of stormwater treatment devices.

Stormwater Master Plan Updates

Role: Project Manager and Engineer | **Client:** Miami-Dade County | **Location:** Miami-Dade County, FL | **Professional Services:** 2020 - present

GHD is under contract to update Stormwater Master Plan (SWMP) for Miami-Dade County under the Equitable Distribution Program (EDP). The Stormwater Master Plan updates consist of four sections: system-wide groundwater elevation updates, stormwater quality updates, stormwater models updates and prioritization of capital improvement projects. The Stormwater Master Plan provides analyses that can be used as the basis for conceptual designs to improve water quality, provide aquifer recharge, facilitate infrastructure operations and maintenance, implement capital improvements to stormwater infrastructure, and implement green infrastructure strategies. SWMP includes the infrastructure designed and constructed to control discharges from rainfall events. It incorporates methods to collect, convey, store, absorb, inhibit, treat, use, or reuse water for flooding prevention or reduction, to prevent excessive drainage of environmentally sensitive lands, and to restrict environmental degradation and water pollution that would affect the quantity and quality of discharges from the system. The SWMP provides guidance to ensure compliance with Municipal, State and Federal Regulations. In addition, it evaluates flooding and water quality concerns, and addresses operations and maintenance, climate change adaptation, regulations, and funding for these activities. Following the methodology that developed in Florida Resiliency scoring system and SFWMD Resiliency Plan, SWMP provides engineering strategies and alternatives for ranking and prioritizing capital projects.

Methane and Groundwater Monitoring

Role: Project Manager and Engineer | **Client:** Target Corporation and Lowe's Companies, Inc. | **Location:** Hialeah, FL | **Professional Services:** 2014 - present

After Phase I and Phase II assessment of the Site (former Hialeah Speedway property) located in Hialeah, FL were conducted, an Engineering Control Plan in support of No Further Action with conditions was submitted and approved by Department of Regulatory and Economic Resources – Division of Environmental Resources Management (DERM) for the 27.4-acre property. The property has been capped with asphalt paved areas, sidewalks, concrete building pads, and/or two feet of clean fill. A liner was installed along the outside excavation sidewall of the perimeter exfiltration piping and an impervious liner was installed in the stormwater drainage basin on the southern portion of the property at the location of a former bermed stockpile. Since 2014, GHD has performed semi-annual interior ambient and exterior methane monitoring, groundwater elevation contouring and groundwater water quality sampling at the Site. Contingency Plans were prepared for Target Corporation in 2018 and 2023.

St. Mary's Hospital Wastewater Discharge Monitoring

Role: Project Manager | **Client:** St. Mary's Medical Center | **Location:** West Palm Beach, FL | **Professional Services:** 2018 - 2023

In accordance with the provisions of the City of West Palm Beach Sewer Use Ordinance No. 4414-12 and St Mary's Hospital 's Industrial Wastewater Discharge Permit, GHD collected composite and grab samples from the designated outfall locations on a bi-annual basis. Wastewater samples were analyzed for biochemical oxygen demand (BOD5), total suspended solids (TSS), silver and barium as 24-hour composite samples, oil and grease collected as a grab sample from each outfall location, pH and temperature (measured in the field). All analytical results were reported on an Industrial User Monitoring Report Form.

Aventura Charter High School Methane Vapor Barrier System

Role: Project Manager and Engineer | **Client:** City of Aventura | **Location:** Aventura, FL | **Professional Services:** 2014 - 2020

Designed a methane vapor barrier & venting system for Aventura Charter High School; conducted site inspections during the construction of the methane venting system; prepared of a site-specific Operations, Maintenance, and Monitoring Manual (OMMM) for Aventura Charter High School which provides descriptions of the Methane Gas Mitigation System and activities required for system monitoring, maintenance, reporting and including health and safety procedures.

Stormwater Discharge Monitoring Services

Role: Project Manager | **Client:** Port of Palm Beach | **Location:** Riviera Beach, FL | **Professional Services:** 2025 - present

Scopes including conducting quarterly visual inspections of eight designated outfalls and complete a Visual Examination Form. In addition, during or immediately following a significant rain event (defined as rainfall exceeding 0.1 inch), GHD will collect stormwater samples from the same eight outfalls. These samples will be analyzed for aluminum, copper, iron, lead, total zinc, chemical oxygen demand (COD), and total suspended solids (TSS), in accordance with the Multi-Sector General Permit (MSGP). All inspection and analytical results will be signed and sealed and submitted to the Florida Department of Environmental Protection's (FDEP).



Brian Moore, PE → Project Director

Brian Moore has more than 28 years of experience in environmental consulting. He possesses experience in a variety of engineering disciplines including civil, environmental, coastal, solid waste, water, stormwater, and wastewater. He has assumed lead roles in directing project teams and junior staff for a variety of Florida projects. Brian currently serves as GHD's Contract Manager for the State of Florida Hazardous Waste and City of Tampa solid waste contracts. Brian has served as the design engineer for a variety of design/build, permitting, solid waste, and environmental remediation projects.

PROJECT EXPERIENCE

General Environmental Engineering Consultant Services

Role: Principal-in-Charge | **Client:** City of Fort Lauderdale | **Location:** Fort Lauderdale, FL | **Professional Services:** 2016 - present

Mr. Moore has been supporting this continuous contract for the City of Fort Lauderdale since 2016 under multiwork order contract awarded for a 5-year duration, General Environmental Engineering Contract. He oversees the management of several work orders under, which have included Environmental Site Assessments, both Phase II work orders, forensic cause and origin building assessment, and impacted soils management.

Hazardous Waste Cleanup Program

Role: Contract Manager/Principal-in-Charge/Program Manager | **Client:** Florida Department of Environmental Protection | **Location:** Statewide, FL | **Professional Services:** 2021 - present

Contract Manager/Principal-in-Charge/Program Manager for GHD's FDEP Hazardous Waste Contract. GHD was selected to provide professional engineering and geological services to provide support to the FDEP Bureau of Waste Cleanup. The work includes hazardous waste site cleanup services, dry cleaning solvent cleanup program services, and assessment and cleanup of State owned lands sites. For different tasks associated with each area of site work, scopes of work, work plans, and preliminary assessments are conducted that are followed by site assessment activities. Brian is responsible for all aspects of management and execution associated with Contract. He is focused on providing clear and concise proposals that are readily approved by FDEP and tracking progress toward completion of multiple project tasks simultaneously.

Environmental Engineering Contract

Role: Contract Manager and Principal-in-Charge | **Client:** City of St. Petersburg | **Location:** St. Petersburg, FL | **Professional Services:** 2011 - present

Program/Contract Manager for GHD's continuing service Environmental Engineering Contract. GHD has been assisting the City of St Petersburg for more than 10 years with environmental engineering services. GHD has completed a variety of studies and evaluations to assist the City's capital improvement team. The activities often involve testing in support of design and permitting activities. The services may also include asbestos consulting, lead paint consulting, petroleum and hazardous materials handling, compliance inspections, testing of sediment, soil, or water, design, permitting and construction and storage tank and hazardous materials handling facilities. Brian's specific duties included overall management of multiple projects, proposal preparation, budget tracking, scheduling, milestone development, and implementation.

Years Experience

28 (total); 28 (with GHD)


Location

Tampa, FL


Qualifications/Accreditations

- MBA, Business Administration
- MSE, Environmental Engineering
- BA, Environmental Science
- AS, Science
- Professional Engineer: Florida

WHY Brian

 **Proven Success Managing Similar Contracts.** As Principal-in-Charge for Fort Lauderdale's existing General Environmental Engineering Contract since 2016, Brian has overseen multiple work orders including Phase II Environmental Site Assessments, forensic building assessments, and impacted soils management—directly aligning with the scope of services outlined in this RFQ.

 **Strong Leadership and Contract Oversight.** Brian has served as Contract Manager and Principal-in-Charge for multi-million dollar environmental contracts, consistently delivering clear proposals, budget tracking, milestone development, and regulatory compliance. His leadership ensures efficient execution and high-quality deliverables.

 **Comprehensive Technical Expertise.** Brian's background spans civil, environmental, coastal, solid waste, water, stormwater, and wastewater engineering. His portfolio includes complex remediation projects involving petroleum, hazardous waste, methane mitigation, and pesticide contamination—all of which are listed as potential service areas in this RFQ.

Larry's Chevron #47607

Role: Project Engineer | **Client:** Saber Real Estate Advisors, LLC | **Location:** Miami Beach, FL | **Professional Services:** 2015 – 2020 | **Value:** \$298K

The facility previously maintained 3 USTs, associated fuel dispensers, and a car wash. In anticipation of site redevelopment, Phase I/II ESAs were completed that confirmed a total of 5 historical discharges at the site, along with discharges associated with fueling stations located less than 100 feet north and south of the site. The nearby discharges and contamination complicated the assessment approval process with Miami-Dade County, as portions of the impacted groundwater plume was commingled. As part of the UST system removal, over 900 tons of petroleum-impacted soils and 3,300-gallons of petroleum contact water was removed for off-site disposal. The removal of impacted soil and water facilitated Miami-Dade approval and rapid implementation of the proposed site redevelopment plan.

Spruce Street Landfill #2

Role: Project Manager and Senior Environmental Engineer | **Client:** City of Tampa | **Location:** Tampa, FL | **Professional Services:** 2014 – 2018

Responsible for the preparation of a Director's Authorization Application for the redevelopment of a former City of Tampa landfill into a multi-family residential development. Activities included comprehensive soil and groundwater assessment, methane gas monitoring, and methane mitigation design. Successfully negotiated expedited approval of a Director's Authorization from the Hillsborough County Environmental Protection Commission. Following redevelopment of the property, Brian continued to assist with ongoing monitoring associated with the Site's Brownfield Site Rehabilitation Agreement and the Director's Authorization obligations. After a period of monitoring and modifications to the methane gas mitigation system, the Site was issued a Site Rehabilitation Completion Order from FDEP and Hillsborough County released the property owners from additional monitoring for methane gas.

Brownfields/Metals/Pesticides Countryside Golf Course

Role: Project Manager and Senior Environmental Engineer | **Client:** 25 Countryside West LLC | **Location:** Clearwater, FL | **Professional Services:** 2004 – 2016

Directed a comprehensive assessment of the Countryside Golf Course prior to site redevelopment. The assessment included the evaluation of soil and groundwater quality both on and off site, as well as completion of Interim Source Removal (ISR) activities. Constituents of concern included arsenic and herbicides/pesticides. The ISR activities were conducted in the area of the maintenance shed and included excavation of more than 1,600 tons of soil and recovery and treatment of over 10,000 gallons of water. Following the initial phase of testing, an off site sampling protocol was developed and negotiated with the local Regulatory officials. Soil sampling was conducted on residential properties and in right of way areas. The Site Assessment activities were completed and the comprehensive Site Assessment Report (SAR) was subsequently approved by the FDEP. Following completion of the site assessment, a Remedial Action Plan was prepared that recommended soil management through disposal and on-site blending. Upon approval, over 30,000 tons of arsenic - impacted soils were excavated from the site and over 5,000 yards of soil was blended on site to meet regulatory cleanup levels. Following soil remediation, Natural Attenuation Monitoring was completed and a Conditional site closure was issued by the FDEP.

Water Quality Sampling

Role: Project Director | **Client:** City of Fort Myers | **Location:** Fort Myers, FL | **Professional Services:** 2013 – present

GHD assisted in the development of the Manuel Branch (WBID 32401) TMDL Monitoring and Assessment Plan for the City of Fort Myers. As part of the study, BMPs recommendations were made regarding street sweeping, golf course stormwater system retrofits, and public education programs for garbage dumping, pet waste, feeding wildlife, and septic system maintenance. Starting in 2013, GHD began providing water quality monitoring and reporting services in support of the City's NPDES MS4 storm water permit compliance program. Surface water is collected monthly from sites located along or within Billy Creek, Manuel Branch, Carrell Canal, Winkler Canal, the North Colonial Waterway, and the Downtown Basin. GHD maintains data in an EQUS database and provides client-specific programming to present 12-month rolling averages for concentrations of each parameter at each sample location. Programming is specifically set up to avoid skews by eliminating zero values and using one-half the detection limit for non-detect results.

Aventura Charter High School Methane Vapor Barrier System

Role: Principal-in-Charge | **Client:** City of Aventura | **Location:** Aventura, FL | **Professional Services:** 2014 – 2020

Designed a methane vapor barrier & venting system for Aventura Charter High School; conducted site inspections during the construction of the methane venting system; prepared a site-specific Operations, Maintenance, and Monitoring Manual (OMMM) for Aventura Charter High School which provides descriptions of the Methane Gas Mitigation System and activities required for system monitoring, maintenance, reporting and including health and safety procedures.

Solid Waste Services Contract

Role: Program Manager | **Client:** City of Tampa | **Location:** Tampa, FL | **Professional Services:** 2010 – present

Brian serves as the Program Manager for GHD's solid waste contract with the City of Tampa. Under this contract, GHD supports the City be conducting various assessment and monitoring services for the City's historic landfill program. The City has identified 49 former dump sites that require periodic investigation, testing, and mitigation in order to address the presence of buried solid waste and landfill generated gases.



Nick Bragaia, PE

→ QA/QC

Nick Bragaia has over seven years of experience working on various interdisciplinary engineering projects. His academic background is in ocean engineering, with an emphasis on coastal modeling investigations and coastal resiliency studies. He is versed in coastal processes and performs calculations related to determining metocean conditions, climate data investigations, and the design of coastal structures. He is experienced in technical documentation encompassing feasibility studies, design reviews, and technical plan package submittals.

PROJECT EXPERIENCE

Surveying & GIS Mapping of Unverified Stormwater Assets (Red Dots)

Role: Project Engineer | **Client:** City of Fort Lauderdale | **Location:** Fort Lauderdale, FL | **Professional Services:** 2021 - 2023

The City of Fort Lauderdale, FL is interested in developing a comprehensive GIS based database containing stormwater assets throughout the city limits. Stormwater Inlets, manholes, weirs, and other control structures that are tributary to two pump stations are of particular interest. Nick provided field inspection, survey, and instrument installation services at over 1,400 stormwater structure locations. Typical data collected at each structure included X,Y,Z location, connectivity, flow direction, and condition. Nick assisted with the installation and subsequent operation and maintenance of two flow meters and rain gauges at the two pump stations to monitor the fluctuations and seasonality of rainfall and stormwater flow. This information will be used to inform a predictive asset management plan to prioritize assets at risk of failure or under performance during critical times.

Environmental Engineering Consulting Services

Role: Project Engineer | **Client:** Miami-Dade County RER-DERM | **Location:** Miami-Dade County, FL | **Professional Services:** 2023 - 2024

This project was focused on water quality monitoring and sampling of selected stormwater inlet and catch basins throughout Miami-Dade County, FL. In an effort to improve the water quality of the surface water canal system throughout the County, treatment devices have been installed throughout select locations in the collection network. Nick provided field crew and sampling oversight of this Program alongside a team of environmental technicians. The analysis data was provided to the County to inform how the system was performing.

Beach Erosion Control: Modeling, Planning and Design Services

Role: Coastal Engineer | **Client:** Miami-Dade County | **Location:** Miami-Dade County, FL | **Professional Services:** 2020 - present

Miami-Dade County beaches are known worldwide as a prime tourist destination and are important to the local economy. The County's beaches also provide resiliency and storm protection for billions of dollars in beachfront infrastructure and create habitat for protected animal species, including sea turtles. As part of the County's Sea Level Rise Strategy, GHD developed a coastal modeling tool (hydrodynamic, wave, and sediment transport) to aid in identifying and developing cost effective mitigation and adaptation strategies to maintain a resilient coastline, both now and into the future. GHD is now assisting the County with obtaining a permit modification to streamline truck haul beach nourishments along 13 miles of beach shoreline and developing a preliminary breakwater design to mitigate an erosion hotspot located on Miami Beach.

Years Experience

7 (total); 5 (with GHD)

Location

West Palm Beach, FL

Qualifications/Accreditations

- MS, Civil and Coastal Engineering
- BS, Ocean Engineering
- Professional Engineer: Florida
- Envision Sustainability Professional, ENV SP

WHY Nick



Proven Success on Fort Lauderdale

Projects. Nick has directly supported the City of Fort Lauderdale on initiatives such as the Stormwater Asset Management Program, where he inspected and surveyed over 1,400 stormwater structures and helped install flow meters and rain gauges to inform predictive asset management.



Broad Experience Across Florida

Municipalities. His portfolio includes work for Miami-Dade County, Palm Beach County, City of Fort Myers, and Monroe County, covering beach erosion control, seawall replacements, tidal restoration, and water quality monitoring—demonstrating his versatility and alignment with Fort Lauderdale's needs.



Strong Technical and Regulatory

Capabilities. Nick has contributed to FEMA-funded berm restoration projects, joint coastal permit applications, and environmental monitoring programs. His work includes sediment analysis, shoreline trend studies, and grant-informed design strategies.

Curry Hammock State Park Tidal Restoration

Role: Coastal Engineer | **Client:** FDEP | **Location:** Marathon, FL | **Professional Services:** 2022 – 2023

Curry Hammock State Park is located along US Highway 1 (US 1) in Marathon, Monroe County, Florida. During the development of this area and the construction of US 1 during the last century (early 1900s), the historical tidal connections between the Florida Bay and the Atlantic Ocean were filled in. This tidal restoration project aimed to restore the historical tidal connections at the two sites by re-establishing circulation between the surface waters of the Atlantic and Florida Bay. Nick provided coastal modeling and engineering services to design the tidal restoration structure and quantify the benefits to the water quality of the park. Nick also provided calculations to inform the sizing of rock armor protection for the adjacent shorelines.

Hurricanes Matthew & Irma FEMA Berm Restoration

Role: Coastal Engineer | **Client:** St. John's County | **Location:** St. John's County, FL | **Professional Services:** 2021 – 2023

The passing of Hurricane Matthew in 2016, along with Hurricane Irma in 2017, caused significant coastal erosion throughout segments of shoreline in St. John's County. The county obtained FEMA funding to construct a beach fill project to recover the sand losses sustained throughout these storm events. Nick provided coastal engineering services, including the analysis of 20 years of historic shoreline positional data to quantify shoreline movement trends throughout the 20.2-mile Project Area. He also provided an analysis on the sediment samples obtained throughout the foreshore and nearshore zones to visualize typical grain size distributions along each shoreline reach. Additionally, Nick assisted in the formation of a joint coastal permit (JCP) application, providing input on how the design of the beach fill project will not alter the coastal processes or navigational practices native to the project.

Mid-Town Seawall Replacement

Role: Coastal Engineer | **Client:** Town of Palm Beach | **Location:** Palm Beach, FL | **Professional Services:** 2020 – present

Nick is supporting the design, permitting, and bid phase services associated with the replacement of an aging section of an existing seawall fronting the Atlantic Ocean. The project aims to provide storm protection for Ocean Boulevard, which serves as the hurricane evacuation route for this segment of the Island. The project comprises approximately 2,700 linear feet of seawall protecting Ocean Boulevard along a very popular public beach in the heart of Palm Beach. Nick provides coastal engineering services along with scour and vulnerability assessments to support the design of the new seawall.

Matheson Hammock Park Seawall Replacement

Role: Coastal Engineer | **Client:** Miami-Dade County | **Location:** Miami, FL | **Professional Services:** 2021 – present

This project comprised a replacement of 675 linear feet of sea wall on the upland side of a marina to mitigate sea level rise and sunny day flooding events that limit public enjoyment of this iconic Miami park. The project is step one by the client to ensure the protection of the 630-acre Matheson Hammock Park located along the western shoreline of Biscayne Bay, which has been open to the public since 1930. The historic park includes a 243-slip marina, restaurant, large wading lagoon and beach, mangrove trails, and numerous historic buildings and structures constructed of Miami's oolitic limestone. Critical challenges include conflicts with a historic building and utilities, planning accommodations for future park projects, and considering alternatives within grant funding limitations.

Port Everglades Harbor Monitoring – Dredging & Beach Nourishment

Role: Engineer | **Client:** US Army Corps of Engineers (USACE) | **Location:** Fort Lauderdale, FL | **Professional Services:** 2020 – 2021

Port Everglades located in Fort Lauderdale, FL underwent maintenance dredging of approximately 200,000 cy of sediment to maintain appropriate depths to accommodate the high frequency of deep-draft container ships, gas carriers, and cruise ships that the port serves. Nick was a part of the field team that provided in-water sampling services to collect water quality samples and provide turbidity monitoring throughout the pre-dredge, during-dredge, and post-dredge phases. Beach nourishment on the shoreline adjacent to the port was observed and monitored throughout the sand placement activities. Nick assisted in the data collection, analysis, and subsequent reporting deliverables throughout the project lifecycle.

Naval Air Station Key West Dredge Readiness Plan Development

Role: Coastal Engineer | **Client:** USACE | **Location:** Key West, FL | **Professional Services:** 2023 – 2024

The Key West Harbor Channel is historically a low shoaling channel due to natural hardbottom and limited sediment sources. Shoaling material typically consists of rock, sands, and silt. Currently there are no active permits for dredge material placement. Previously utilized sites include the Fleming Key upland Dredge Material Management Area (DMMA) and the EPA designated ocean dredge material disposal site (ODMDS). The Corps estimates it could take up to 18 months to secure the required clearances and permits (from FLDEP, NOAA NMFS, USFWS, etc.) to perform any maintenance dredging. Nick is assisting with formulating a Dredge Readiness Plan for the USACE and Naval Air Station (NAS) Key West. The Plan will outline required short term actions for dredge readiness with estimated costs and timelines, and recommendations for material placement and management over the long term (present to 50 yrs) that incorporates beneficial use of dredge material (BUDM).



Edwin Siersema, PG

→ **Site Assessment Task Manager**



With 38 years of consulting services experience in hydrogeology, environment, and waste management, Edwin has proven his ability to effectively develop clients, lead staff, and deliver environmental projects to closure. He directs evaluations of site assessment plans, develops site conceptual models and reviews geologic reports for accuracy. He oversees soil and groundwater assessments and specializes in well installation, sampling and analysis plans, subsurface investigation and evaluation, contamination assessments at petroleum and non-petroleum contaminated sites, emergency response, Phase I and Phase II environmental audits, and state-program projects for petroleum, dry cleaners, and brownfield sites. He has provided environmental consulting services for a broad spectrum of environmental projects for private and public clients and at commercial and industrial facilities, often saving clients time and money in closing sites by applying risk-based corrective actions including RMO level I, II and III. He reviews all data associated with site closures and certifies reports as applicable. He also oversees decommissioning, removal and transfer or disposal and well abandonment and system shutdown.

PROJECT EXPERIENCE

Tampa Livestock – Parcel A

Role: Project Manager | **Client:** Port Tampa Bay | **Location:** Gibsonton, FL | **Professional Services:** 2025

Project Manager in 2015 on behalf of Port Tampa Bay to conduct a site assessment at the Brownfield Area that included 30 acres of land which was previously utilized as a fish hatchery and solid waste disposal area. Evaluated the extent of buried debris and the extent of volatile organic compounds, semi-volatile organic compounds, pesticides, polychlorinated biphenyls, metals, nitrates, ammonia, total dissolved solids and total recoverable petroleum hydrocarbons in groundwater. In 2025, conducted monitoring well installation to evaluate groundwater quality trends to establish “stable and/or shrinking” criteria for conditional closure in accordance with Chapter 62-780.680, Florida Administrative Code.

3400 Pendola Point

Role: Project Manager | **Client:** Port Tampa Bay | **Location:** Tampa, FL | **Professional Services:** 2025

Project Manager for the assessment of background conditions at former Cemex facility. Developed sampling plan and conducted field activities to evaluate potential soil and groundwater impacts from previous land use. The Site encompasses eight acres of land located at the west end of Pendola Point Road that was leased by Port Tampa Bay (PTB) to a Cemex portland cement storage facility and Vulcan Materials. Between the years 1984 and 2014, the Site structures included an office building, four steel silos and associated transfer piping/ancillary equipment, wooden storage warehouses, metal storage buildings and truck scales. The facility also maintained above ground storage tanks (AST) containing diesel fuel and gasoline. Soil and groundwater samples were collected and analyzed for polynuclear aromatic hydrocarbons (PAH), volatile organic compounds (VOC), total recoverable petroleum hydrocarbons (TRPH) and heavy metals. Several heavy metals were detected but were below their respective cleanup target levels per Chapter 62-777, Florida Administrative Code.

Winners Metals Brownfield Site

Role: Project Director | **Client:** Port Tampa Bay | **Location:** Tampa, FL | **Professional Services:** 2021

Project Director under Continuing Consultant Services with Port Tampa Bay (PTB) directing services to conduct site assessment, remediation, closure and baseline environmental site assessment (BESA) at the former Winners Metals Brownfield Site. The Winner Metals site consists of 38 acres of land located within the industrial area of Port Tampa Bay. Between 1985 and 2007, portions of the Site were occupied by several metal recycling facilities. PTB entered the Winner Metals site into a Brownfield Site Rehabilitation Agreement (BSRA) in December 2010. Completed the delineation of soil and groundwater impacted by polynuclear aromatic hydrocarbons (PAHs), heavy metals, total recoverable petroleum hydrocarbons, volatile organic compounds, and polychlorinated biphenyls. Remedial actions to

Years Experience

41 (total); 9 (with GHD)

Location

Tampa, FL

Qualifications/Accreditations

- BS, Geology
- Professional Geologist: Florida

WHY Edwin

✓ Decades of Site Assessment Expertise.

With over 41 years of experience in environmental site assessments and 9 years with GHD, Ed brings unmatched depth in evaluating complex sites across Florida, including Brownfields, landfills, and industrial properties.

✓ Specialist in Florida Regulatory Compliance.

Ed has extensive experience applying Florida Administrative Code Chapters 62-780 and 62-777 to site closures, groundwater monitoring, and risk-based corrective actions—ensuring full regulatory alignment for Fort Lauderdale’s environmental projects.

✓ Proven Success Managing Brownfield Projects.

He has led assessments and remediation efforts for high-profile Brownfield sites such as the Winners Metals site and the Former Tampa Jai Alai landfill redevelopment, demonstrating his ability to manage complex contamination scenarios and secure conditional closures.

close the Site included the placement of two feet of fill over the contaminated soils to mitigate direct exposure and implement restrictive covenants for the engineering control. The defined groundwater impacts were managed by monitoring groundwater concentrations over time and implementing groundwater use restrictions as the institutional control. In 2021, a lease agreement between PTB and a potential tenant to lease and develop the Site required a BESA. Based upon the historical Site data, developed and implemented a sampling plan to evaluate current soil, groundwater and soil gas conditions. The chemicals of concern included heavy metals (arsenic and chromium), benzo(a)pyrene, benzene, PAHs and polyfluoroalkyl substances (PFAS). Soil gas analysis detected concentrations of benzene. However, additional evaluation of the soil gas results using EPA's Vapor Intrusion Screening Levels (VISL) calculator and the Johnson and Ettinger Vapor Intrusion Model indicated the detected benzene in soil gas would not pose a risk to worker safety during intrusive construction activities, would not pose a vapor intrusion risk inside the completed facility, and would not represent a vapor intrusion risk to worker safety inside the completed facility.

International Ship Repair and Detsco Terminal

Role: Project Manager | **Client:** Port Tampa Bay | **Location:** Tampa, FL | **Professional Services:** 2021

Project Manager for the development and implementation of two brownfield site assessments at ship repair facilities located on Ybor Channel at Port Tampa Bay. Contaminants of concern included metals, semi-volatile and volatile organic compounds. The Site properties consisted of over 12 acres of land located at the northeast end of Ybor Channel. The Sites have been utilized for industrial use as a ship repair and retrofitting facility for many years. The Sites contain large maintenance shops, office building, sand blasting operations, metal working areas, engine parts storage areas, storage silos, equipment laydown areas, storage trailers and multiple dry docks. The contaminants of concern include volatile organics (BTEX and solvents), polynuclear aromatic hydrocarbons (PAHs), heavy metals and low pH levels in soil and groundwater. The low pH conditions were related to the historical stockpiling of elemental sulfur in the central portion of the Site. The presence of PAHs in soil and heavy metals in soil and groundwater are related to background conditions for the property that was filled with dredge materials. Utilized the Incremental Sampling Methodology (ISM) in accordance with the Interstate and Regulatory Council (ITRC) to evaluate background concentrations of contaminants in the dredge fill material and contaminants related to historical on-site railroad tracks. Site rehabilitation would include limited source removal activities and the use of engineering/institutional controls. Groundwater monitoring would be used to establish stable/shrinking conditions for the groundwater plume. The results of the ISM sampling determined that the detected contaminants in soils in the dredge fill materials and railroad track decision units were representative of background conditions that exceeded soil criteria and were not part of a discharge. The ISM data was also used to define the limits of soil contamination between background conditions and a discharge within the property boundaries.

Former Tampa Jai Alai "Cortona" Brownfield Site Assessment

Role: Project Manager | **Client:** Confidential Client | **Location:** Tampa, FL | **Professional Services:** 2025

Project Manager for the assessment of groundwater impacts from a former City of Tampa solid waste landfill. The Site consists of over 18 acres of land that was formally used as a landfill by the City of Tampa in the 1950's and is currently redeveloped with the Cortona apartment complex. In 2016, the Hillsborough County Environmental Protection Commission (EPC) issued a Director's Authorization Permit (DA) that approved the redevelopment of the historic landfill. The Site entered into a Brownfield Site Rehabilitation Agreement (BSRA) in 2017. Site construction activities began in 2017 and were completed in 2018. The construction activities included excavation and on-Site processing and sorting of buried solid waste. In 2019, post-construction groundwater assessment activities included the installation and sampling of six shallow monitoring wells. Subsequent to the construction of the apartment complex, the evaluation of the extent of groundwater impacts from the former landfill included the installation of numerous on-Site and off-Site monitoring wells at depths ranging from 12 feet to 65 feet below land surface. The assessment also included the sampling and analysis of groundwater samples from an on-Site 150-foot-deep irrigation well. The groundwater assessment included the installation and evaluation of water quality to evaluate background conditions in accordance with Chapter 62-780, Florida Administrative Code (FAC). The current contaminants of concern included arsenic, iron, manganese and total dissolved solids (TDS). Trend analyses of the analytical data were evaluated using the Mann-Kendall statistical program. The groundwater assessment is currently undergoing quarterly sampling to further evaluate concentration trends with the goal of closing the Site in accordance with Risk Management Option III per Chapter 62-780.680, FAC.



Jeremy Hess, PE

→ **Planning and Design Task Manager**

Jeremy has 18 years of experience in environmental consulting and engineering. His expertise includes assessment and remedial design of facilities involving petroleum, solvent, and metal-impacted soil and groundwater. His project management and design experience include both state-funded cleanup programs and private-client projects throughout Florida. Jeremy has been the engineer of record on a variety of projects including soil and groundwater assessment, remedial design, remedial action implementation, pilot testing, operation and maintenance (O&M), post-active-remediation monitoring (PARM), and natural attenuation monitoring (NAM). His experience with remedial design and implementation involves technologies including Air Sparging and Soil Vapor Extraction (AS/SVE), pump and treat, Multi-phase Extraction (MPX), Liquid Phase Hydrocarbon (LPH) recovery, In-Situ Chemical Oxidation (ISCO), bioaugmentation/biostimulation injections, and conventional and Large Diameter Auger (LDA) excavations.

PROJECT EXPERIENCE

Petroleum Restoration Program

Role: Project Manager/Engineer of Record | **Client:** FDEP | **Location:** Statewide, FL | **Professional Services:** 2017 - present

Project manager and engineer of record for hundreds of FDEP funded sites of various scopes including remedial design, pilot testing and reporting, soil and groundwater assessment, operation and maintenance of active remediation systems, post-active remediation monitoring, and natural attenuation monitoring. Mr. Hess has extensive experience with the FDEP guidance Chapter 62-780, Florida Administrative Code for contaminated site cleanup criteria and has employed a wide variety of remedial technologies including AS/SVE, groundwater pump and treat, MPX, LPH collection, excavation and dewatering, and ISCO injections.

Port Everglades Bulkhead Replacement

Role: Senior Engineer | **Client:** USACE | **Location:** Fort Lauderdale, FL | **Professional Services:** 2020 - present

Port Everglades, in cooperation with Broward County, is replacing over 9,000 linear feet across nine separate aging bulkheads throughout the port. GHD was selected as a subconsultant on the TY Lin International Team to provide deep-water marine structural engineering, corrosion protection, berthing and mooring analysis, civil and utility engineering, geotechnical investigations and foundation engineering, scour analysis and protection, benthic habitat surveys, regulatory permitting, construction estimating and scheduling, and construction services over seven to ten years. GHD is currently leading the contamination assessment effort, field investigations, and corrosion protection design. Field investigations and design began in the summer of 2021 and are ongoing.

Hazardous Waste Cleanup

Role: Senior Design Engineer | **Client:** FDEP | **Location:** Statewide, FL | **Professional Services:** 2017 - present

Development of Remedial Action Plans (RAP) and Interim Source Removal (ISR) Plans to address impacts identified at waste clean-up program facilities. Mr. Hess has experience with a variety of remedial technologies including Soil Vapor Extraction (SVE), groundwater pump and treat, and biostimulation/bioaugmentation injections.

Years Experience

18 (total); 8 (with GHD)

Location

Tampa, FL

Qualifications/Accreditations

- MSCE, Civil Engineering
- BS, Civil Engineering
- BS, Environmental Science
- Professional Engineer: Florida

WHY Jeremy

✓ **Extensive Remedial Design Experience Across Florida.** With 18 years of environmental consulting experience and 8 years at GHD, Jeremy has served as engineer of record and project manager for hundreds of contaminated site projects statewide, including petroleum, solvent, and metal-impacted sites.

✓ **Expert in Regulatory Compliance and Closure Strategies.** Jeremy is deeply versed in Florida's Chapter 62-780 cleanup criteria and has successfully led projects through remedial design, implementation, and closure—including achieving Site Rehabilitation Completion Orders (SRCO) and No Further Action (NFA) determinations.

✓ **Innovative and Versatile Remediation Technologies.** His design portfolio includes advanced technologies such as Air Sparging/Soil Vapor Extraction (AS/SVE), Multi-phase Extraction (MPX), In-Situ Chemical Oxidation (ISCO), bioaugmentation, pump-and-treat systems, and large diameter auger excavations.

FDEP Forensics Program

Role: Senior Design Engineer | **Client:** FDEP | **Location:** Statewide, FL | **Professional Services:** 2018 – present

Perform detailed review of complex sites to gain information on property history and previous assessment and remediation activities and coordinated site reconnaissance to develop conceptual site models. He generated site-specific sampling plans to evaluate contaminant plumes and potential sources, then coordinated the assessment field activities and analyzed data. He also provided technical conclusions on the status, location, source, and stability of the contamination, as well as recommendations for continued delineation and proposed remedial strategies. Mr. Hess managed a forensic investigation to evaluate potential sources of carcinogenic polycyclic aromatic hydrocarbons (PAHs) present in shallow subsurface soils at eleven (11) benzo(a)pyrene impacted facilities. Findings from the study aided in the development of a methodology for determining the petrogenic vs pyrogenic nature of the identified impacts using multiple lines of evidence.

Port Everglades Environmental Corporation

Role: Senior Design Engineer | **Client:** FDEP | **Location:** Fort Lauderdale, FL | **Professional Services:** 2013 – 2016

Project management of multiple free-product recovery systems, involving in-well scavenger units with aboveground storage for recovered product. Large-scale free-product assessment at the facility included investigating port common areas, seawall areas, and adjacent major oil terminal facilities. Assessment work entailed detailed file reviews of 16 facilities, site reconnaissance of 24 areas, and access agreements to five adjacent terminal facilities. Jeremy also provided environmental support during the installation of a dockside fire suppression system.

Grapeland Baseball Complex

Role: Senior Design Engineer | **Client:** City of Miami | **Location:** Miami, FL | **Professional Services:** 2023 – present

The City of Miami is in the process of upgrading the Grapeland Baseball Complex. The complex is situated in a location previously utilized by the City of Miami as an incinerator ash disposal facility. Mr. Hess completed additional soil and groundwater assessment work prior to the initiation of the renovation activities. Mr. Hess prepared and submitted a soil management plan, dust control plan, and a health and safety plan (HASP) to be utilized during construction. He is coordinating the environmental oversight of the construction work including soil profiling/management and air monitoring per DERM requirements. The project is ongoing and expected to be completed in late 2025.

Williams Air Conditioning & Heating

Role: Engineer of Record | **Client:** Jacksonville, FL | **Location:** Jacksonville, FL | **Professional Services:** 2017 – 2025

Mr. Hess developed a RAP for the installation of an AS/SVE system to address soil and groundwater petroleum impacts. To address the groundwater plume, which had migrated underneath the warehouse facility, the design included treatment wells inside and outside the warehouse, as well as directionally drilled process piping. The remediation system operated for six quarters before the site transitioned to PARM. After completing four quarters of PARM, No Further Action (NFA) was recommended, and a Site Rehabilitation Completion Order (SRCO) was achieved for the facility in January 2025.

Pharmco Laboratories Inc.

Role: Engineer of Record | **Client:** Pharmco Laboratories Inc. | **Location:** Titusville, FL | **Professional Services:** 2018 – present

Mr. Hess developed a RAP for installing a groundwater recovery system to address a large 1,2 dichloroethane (1,2-DCA) plume. Remedial system design included four submersible recovery well pumps, a six-tray low-profile air stripper, two 600-pound granular activated carbon (GAC) vessels, and four effluent injection wells. Contaminant concentrations have recently decreased sufficiently to allow the bypass of the GAC vessels and system operation is ongoing. Approximately 50 pounds of contaminant mass have been removed during system operation since startup.

Bazarte Rene

Role: Engineer of Record | **Client:** Confidential | **Location:** Tampa, FL | **Professional Services:** 2017 – 2019

Mr. Hess developed a limited-scope remedial action plan for the excavation of benzo(a)pyrene impacted soil. Delineation was completed using the applicable Alternative Soil Clean-up Target Level (ASCTL) and three hundred tons of impacted soil were excavated to the delineated limits. A conditional site rehabilitation completion order was achieved for the facility in January 2019. The selected closure strategy avoided additional assessment and excavation efforts, minimizing the time and cost to closure.



Jesse Davis, PE

→ **Construction Support Services Task Manager**

Jesse has 17 years of experience in coastal engineering and has provided design, permitting, environmental field assessments, and construction phase services for projects located throughout the United States (East coast, West coast, & Great Lakes Region), the Caribbean, and South America. Career highlights include playing a key role (from conception to construction) for the permitting, design, and construction of a nature-based island storm protection system in Fort Pierce, Florida that was the recipient of the 2016 ASCE-COPRI Project Excellence Award for large projects; the construction of an 11.6 acre artificial reef off the Port of Miami; and the design/construction engineering services for a 1,500 foot shoreline stabilization project on Whidbey Island in Puget Sound, WA that was recognized in NAVFAC’s Environmental Restoration News as a success story.

PROJECT EXPERIENCE

Beach Erosion Control: Modeling, Planning and Design Services

Role: Project Manager | **Client:** Miami-Dade County | **Location:** Miami-Dade County, FL | **Professional Services:** 2020 – present

Miami-Dade County beaches are known worldwide as a prime tourist destination and are important to the local economy. The County’s beaches also provide resiliency and storm protection for billions of dollars in beachfront infrastructure and create habitat for protected animal species, including sea turtles. As part of the County’s Sea Level Rise Strategy, GHD developed a coastal modeling tool (hydrodynamic, wave, and sediment transport) to aid in identifying and developing cost effective mitigation and adaptation strategies to maintain a resilient coastline, both now and into the future. GHD is now assisting the County with obtaining a permit modification to streamline truck haul beach nourishments along 13 miles of beach shoreline and developing a preliminary breakwater design to mitigate an erosion hotspot located on Miami Beach.

Matheson Hammock Park Seawall Replacement

Role: Project Manager | **Client:** Miami-Dade County | **Location:** Miami, FL | **Professional Services:** 2021 – present

This project comprised a replacement of 675 linear feet of sea wall on the upland side of a marina to mitigate sea level rise and sunny day flooding events that limit public enjoyment of this iconic Miami park. The project is step one by the client to ensure the protection of the 630-acre Matheson Hammock Park located along the western shoreline of Biscayne Bay, which has been open to the public since 1930. The historic park includes a 243-slip marina, restaurant, large wading lagoon and beach, mangrove trails, and numerous historic buildings and structures constructed of Miami’s oolitic limestone. Critical challenges include conflicts with a historic building and utilities, planning accommodations for future park projects, and considering alternatives within grant funding limitations.

Legion Park: Seawall to Living Shoreline Conversion

Role: Project Manager | **Client:** City of Miami | **Location:** Miami, FL | **Professional Services:** 2022 – present

The City authorized GHD to perform a structural evaluation of the stability of the piles in December 2022 and to perform a regulatory and agency review to determine what steps would be necessary to secure the site while the City considered overall Project direction. A drone aerial and 4D topographic survey was completed to aide in the stabilization plan for the previously excavated area. Design of the temporary structure included stable stone sizing and underlayment (foundation). Rock tonnage and backfill quantity estimates were calculated based on the design approved by the City. GHD corresponded with regulatory agencies to obtain authorization for the temporary design. The City hired GHD to provide construction oversight while the Contractor stabilized the site.

Years Experience

19 (total); 7 (with GHD)

Location

Miami, FL

Qualifications/Accreditations

- MS, Ocean Engineering
- BS, Ocean Engineering
- Professional Engineer: Florida
- Envision Sustainability Professional, ENV SP

WHY Jesse

- Extensive Experience in Construction Phase Services.** Jesse has overseen construction activities for marina developments, dredging operations, sediment modeling, and shoreline stabilization projects, ensuring regulatory compliance and technical excellence throughout implementation.
- Sustainability Credentials and Regulatory Alignment.** As a Florida Registered Professional Engineer and Envision Sustainability Professional (ENV SP), Jesse brings a strong foundation in sustainable design and construction practices that meet both engineering and environmental standards.
- Award-Winning Construction Leadership.** Jesse led the permitting, design, and construction of a nature-based island storm protection system at Fort Pierce City Marina. This project, which earned the 2016 ASCE-COPRI Project Excellence Award, exemplifies his ability to integrate environmental resilience into coastal construction.

Historic Turtle Kraals & C Dock Assessment - Key West

Role: Project Manager and Engineer of Record | **Client:** City of Key West | **Location:** Key West, FL | **Professional Services:** 2019 – 2022

GHD was contracted by the City of Key West to perform a visual condition assessment, develop restoration recommendations and determine the level of effort required to permit and construct an historically accurate restoration of the concrete pile pens that define the Historic Turtle Kraals within the Key West Bight Marina at the Historic Seaport.

MSC Cruises Terminal Expansion at PortMiami

Role: Project Manager and Engineer of Record | **Client:** MSC Cruises | **Location:** Miami, FL | **Professional Services:** 2019 – 2022

MSC Cruises is proposing a new terminal expansion to be located along the eastern end of Dodge Island. GHD was retained by Arquitectonica, and later DeSimone, on behalf of MSC Cruises to provide coastal and mooring basis of analysis report that includes the development of site environmental conditions, recommended dredge elevations to maintain safe underkeel clearance and scour potential during vessel arrival/departure, mooring and berthing analysis that includes a passing vessel study, a top of wall assessment, and the recommendation of a minimum finished floor elevation for the terminal building based on storm surge, wave overtopping, and sea level rise projections.

Rockledge 'A' Muck Removal

Role: Deputy Project Manager and Senior Coastal Engineer | **Client:** Brevard County Natural Resources Management Department | **Location:** Rockledge, FL | **Professional Services:** 2019 – 2024

The Indian River Lagoon is suffering from a significant decline in overall water quality due to nutrient flux from muck sediments that have deposited into the Lagoon. Brevard County and other stakeholders are pursuing dredging projects to remove these harmful deposits. The Rockledge A site, comprising about 46 acres, is located adjacent to the Indian River Isles community. The GHD Team has conducted a multi-beam bathymetric survey and the acquisition of vibracores to map and characterize the deposits and are currently evaluating the sediment physical and chemical properties. Sub-bottom profiling will also be conducted to further refine and correlate the extent of the muck sediments in the project area.

NASA Causeway East Muck Removal Project

Role: Deputy Project Manager and Senior Coastal Engineer | **Client:** Brevard County | **Location:** Rockledge, FL | **Professional Services:** 2020

Brevard County retained GHD and Team member Oceanside Solutions to investigate a 75-acre borrow area located just north of the causeway in Titusville, FL. The GHD Team has performed a bathymetric survey verification and collected vibracores to characterize the muck deposits that have accumulated within this former dredge hole utilized to construct the causeway. Sediment physical/compositional and chemical analyses are currently in progress to further define the muck deposit. The GHD Team will transmit a report to Brevard County with the results of these investigations, with a map of the deposit limits for County consideration to advance the project to detailed design and permitting (and ultimately, construction).

Reach 2 Dune Forepassing

Role: Senior Coastal Engineer | **Client:** Town of Palm Beach | **Location:** Palm Beach, FL | **Professional Services:** 2017

Engineer responsible for the preparation of permit and construction documents to support a dune construction project fronting approximately 1,800 linear feet of shoreline. The project is located south of historic sand bypassing and dredging disposal from the maintenance dredging of the federally maintained Lake Worth Inlet. The dune volumes, while anticipated to be modest at approximately 10 cubic yards per foot of shoreline, represents the first time that direct sand placement will occur on this segment of the Town's shoreline. Shoreline conditions did not allow for the construction of the project in early 2018 as anticipated.

Titusville Railroad Bridge Pit Muck Removal Project

Role: Deputy Project Manager and Senior Coastal Engineer | **Client:** Brevard County | **Location:** Titusville, FL | **Professional Services:** 2020

Brevard County retained GHD and Team member Oceanside Solutions to investigate two sites in Titusville, FL. The East and West Borrow Pit planform areas of investigation are 65 and 30 acres, respectively. The GHD Team performed a bathymetric survey verification of the site in advance of collecting a series of vibracores to characterize the muck deposits. Sediment physical/compositional and chemical analyses will be performed on samples extracted from the deposit. The GHD Team will transmit a report to Brevard County with the results of these investigations, with a map of the deposit limits for County consideration to advance the project to detailed design, permitting and construction.



Jenna Martin, PE

→ **Testing & Inspections Task Manager**

Jenna has over 16 years of progressive experience in the field of environmental engineering. She provides project management activities over a range of projects, including management over petroleum hydrocarbon impacted facilities under State cleanup contracts throughout Florida. In addition, Jenna performs project activities including preparation of assessment and remedial documents, assimilation and review of field data, research, and reporting for various engineering projects.

PROJECT EXPERIENCE

Petroleum Restoration Program

Role: Project Manager | **Client:** FDEP | **Location:** Statewide, FL | **Professional Services:** 2015 - present

Jenna manages site assessment and remedial work, including operation and maintenance, for numerous former and active petroleum facilities being addressed under the Florida Department of Environmental Protection's State-funded petroleum cleanup program. She implements streamlined soil and groundwater assessments at a variety of sites to address subsurface petroleum impacts and coordinates with the State to implement cost effective approaches. Jenna has experience with a variety of remedial technologies including Air Sparging (AS) and Soil Vapor Extraction (SVE), excavation and dewatering, large diameter auger excavations, and innovative remediation approaches incorporating advanced oxidation technologies utilizing In-Situ Chemical Oxidation (ISCO) injections. Jenna's responsibilities include assessment planning, proposals, fieldwork coordination, correspondence with regulatory agencies and clients, invoicing and financial tracking, and reporting.

7-Eleven Food Store

Role: Project Engineer | **Client:** FDEP | **Location:** Fort Pierce, FL | **Professional Services:** 2017 - present

Managed the installation, startup, and operation and maintenance of an air sparge (AS)/soil vapor extraction (SVE) system in Fort, Pierce, FL to address petroleum impacts to the soil and groundwater. Current analytical results indicate the soil and groundwater impacts have decreased to concentrations below State cleanup levels, and the site will be transitioning into post-active remediation monitoring.

Mims Property

Role: Project Engineer | **Client:** FDEP | **Location:** Jacksonville, FL | **Professional Services:** 2014 - present

Developed a Remedial Action Plan to address petroleum constituents in the soil and groundwater at a former gas station site, which included excavation via large diameter augers (LDA), conventional excavation, and in situ chemical oxidation (ISCO) via chemical injections. GHD utilized LDAs to protect the integrity of an adjoining sidewalk during the excavation activities. GHD performed chemical injections within the sidewalk to address the soil and groundwater impacts, which were not accessible for excavation. Jenna managed the implementation of the remedial activities as well as post-active remediation monitoring which is ongoing.

Division of Forestry - White City WC

Role: Project Engineer | **Client:** FDEP | **Location:** Wewahitchka, FL | **Professional Services:** 2014 - present

Developed a Remedial Action Plan to address petroleum constituents in the soil and groundwater at the Division of Forestry facility, which is operated by the Florida Department of Agriculture Division of Forestry. The Remedial Action Plan included excavation via LDAs, conventional excavation, and ISCO chemical injections. GHD performed excavation activities at three areas of concern identified

Years Experience

16 (total); 16 (with GHD)

Location

Tampa, FL

Qualifications/Accreditations

- MS, Environmental Engineering
- BS, Environmental Engineering
- Professional Engineer: Florida

WHY Jenna

- Extensive Experience in Field Testing and Data Analysis.** Jenna has led pilot testing efforts across multiple facilities under FDEP's Petroleum Restoration Program, including Air Sparging/Soil Vapor Extraction (AS/SVE) and ozone injection feasibility studies. She oversaw field data collection, sample analysis, and reporting—ensuring accurate and actionable design recommendations.
- Specialist in Forensic Environmental Investigations.** As a Senior Design Engineer in the Department's Forensics Program, Jenna manages complex site investigations, verification assessments, and closure evaluations. Her work includes identifying co-mingled contaminant sources and previously undetected free product releases.
- Trusted Partner for Complex Environmental Testing.** Jenna is routinely assigned to Florida's most challenging and high-priority sites, where her testing and inspection expertise helps resolve complex contamination scenarios and guide regulatory-approved remediation strategies.

during assessment activities. GHD utilized LDAs to excavate contaminated soils adjacent to a workshop and conventionally excavated the remaining areas. GHD performed ISCO chemical injections to address the downgradient groundwater plume. Jenna managed the implementation of the remedial activities as well as post-active remediation monitoring which is ongoing.

Friendly Food Mart

Role: Project Engineer | **Client:** FDEP | **Location:** Tallahassee, FL | **Professional Services:** 2015 – present

Developed a Remedial Action Plan to address petroleum impacts in the groundwater at an active service station, which included ISCO chemical injections. GHD has performed two rounds of chemical injections with subsequent post-injection monitoring. Jenna managed the implementation of the chemical injection and monitoring activities, with a third round of injections and additional monitoring scheduled.

AS/SVE Pilot Testing

Role: Project Engineer | **Client:** FDEP | **Location:** Various Sites, FL | **Professional Services:** 2017 – present

Performs AS/SVE pilot testing at various sites within the state of Florida to evaluate the feasibility of AS/SVE as an appropriate technology to expedite remediation. Jenna assists with the collection and assimilation of field data during the pilot tests, analysis of the field data, reporting, and recommendations of design parameters based on the results of the pilot tests.

Verification Sampling

Role: Project Engineer | **Client:** FDEP | **Location:** Statewide, FL | **Professional Services:** 2018 – present

Manages verification soil/groundwater sampling at various sites throughout Florida to confirm data collected by others. Jenna coordinates the field activities, which include the collection of soil samples, installation of groundwater monitoring wells, and/or supplemental groundwater water sampling. Ms. Martin evaluates the analytical results and prepares reports summarizing the field activities and analytical results for submittal to FDEP.

120,000-Acre Due Diligence Project

Role: Project Engineer | **Client:** FDEP | **Location:** Lee and Hendry County, FL | **Professional Services:** 2015

Assisted with a large-scale due diligence project covering approximately 120,000 acres in Lee and Hendry Counties, Florida, including aerial photograph and regulatory database reviews.

Former Detsco and International Ship Repair Sampling

Role: Project Engineer | **Client:** Trans-Continental Marine Repair and Drydock Corporation | **Location:** Tampa, FL | **Professional Services:** 2013

Conducted a Phase I ESA on a 21-acre ship repair and retrofitting facility and performed regulatory review of documented site assessment activities performed under an open Consent Order and Brownfield Site Rehabilitation Agreement.



Craig Kruempel

→ Natural and Cultural Resources Task Manager

Craig has more than 41 years of experience providing clients with coastal zone resource planning, documentation, permitting, and monitoring services. His extensive experience includes the development and implementation of comprehensive characterization, monitoring, and restoration program documents with an emphasis on natural hardbottom and artificial marine habitats. Craig has over 38 years of compliance and coordination experience implementing the National Environmental Policy Act (NEPA) regulations for federal agency actions, with a comprehensive understanding of State and Federal coastal resource permitting requirements. Additional areas of specialization include physical and biological assessments and project effect determinations, and he has served as team leader and principal scientist since 1988 for numerous field investigations and site assessments. He has served as project manager on numerous linear projects, including offshore energy project proposals. He has extensive experience overseeing shore protection project construction, including beach nourishment, and dune restoration activities throughout the Southeastern United States. As a consultant to the National Oceanic and Atmospheric Administration, he served as project manager and senior consulting scientist for four (4) large-scale reef restoration projects resulting from ship grounding incidents in Puerto Rico and the Florida Keys.

PROJECT EXPERIENCE

Surveying & GIS Mapping of Unverified Stormwater Assets (Red Dots)

Role: Field Operations/Logistical Support | **Client:** City of Fort Lauderdale | **Location:** Fort Lauderdale, FL | **Professional Services:** 2021 - 2023

Craig supported GHD as part of an overall management plan implementation for the City of Fort Lauderdale's stormwater assets. A desktop review of the City's geodatabase was performed by GHD to identify specific assets within the City's network that require supplemental data collection on location and flow characteristics. After specific asset needs were defined, Craig is supporting the Project by serving as part of the citywide assessment and data collection team of the stormwater infrastructure assets for the purpose of populating the City's existing Geographic Information System (GIS). Craig is also assisting the team on project logistics, scheduling, and the installation of flowmeters at select locations within the City's stormwater infrastructure

Naval Air Station Key West Dredge Readiness Plan Development

Role: Senior Marine Scientist & Permitting Specialist | **Client:** USACE | **Location:** Key West, FL | **Professional Services:** 2023 - 2024

Craig supported the GHD Team in the development of a Dredge Readiness Plan for the USACE. The Plan outlined required short term actions for dredge readiness with estimated costs and timelines, and recommendations for material placement and management over the long term (present to 50 years). The plan incorporated beneficial use of dredge material strategies to address resiliency needs and sea level rise projections for the area. Craig supported the project with preliminary permitting efforts and State and Federal regulatory agency coordination.

Port Everglades Harbor Monitoring - Dredging & Beach Nourishment

Role: QA/QC | **Client:** USACE | **Location:** Fort Lauderdale, FL | **Professional Services:** 2020 - 2021

Craig served as QA/QC and coordinated logistics associated with a scope of work that included providing water quality monitoring services to support the USACE Operation and Maintenance (O&M) dredging event for Port Everglades Harbor in Florida. The services include on-site inspection, monitoring, reporting, and oversight at the Federal Channels of Port Everglades, FL. A robust monitoring program was refined and implemented to collect sediment samples at fixed locations, water quality (turbidity and TSS) at fixed as well as variable sites, and ADCP data collection during the O&M navigation dredging at the Port.

Years Experience

40 (total); 7 (with GHD)

Location

West Palm Beach, FL

Qualifications/Accreditations

- MS, Coastal Zone Management
- BS, Biology
- NEPA Certificate Program Coursework

WHY Craig



Decades of Specialized Experience.

With 40 years of experience in environmental and coastal resource management, Craig brings deep expertise in integrating natural and cultural resource considerations into complex infrastructure and shoreline projects.



Past Experience with the City.

Craig played a key role in the City of Fort Lauderdale's stormwater asset mapping initiative, helping to identify and assess unverified infrastructure across the city. He supported field operations, coordinated logistics, and assisted with the installation of flowmeters—contributing to the development of a more complete and functional GIS database for the City's stormwater system.



Active Contributor to Statewide Environmental Policy.

Craig serves on multiple Florida Department of Environmental Protection (FDEP) working groups and regional initiatives, including the Southeast Florida Coral Reef Initiative and the FSBPA, reinforcing his leadership in shaping best practices for environmental stewardship.

Matheson Hammock Park Seawall Replacement

Role: QA/QC | **Client:** Miami-Dade County | **Location:** Miami, FL | **Professional Services:** 2021 – present | **Value:** \$494K

Miami-Dade County Parks, Recreation & Open Spaces Department (PROS) desires to replace approximately 675 linear feet of sea wall within Matheson Hammock Park as a single component of a broader plan to mitigate frequent flooding and enhance the resiliency of the Park and its critical and historic infrastructure. Mr. Kruempel is supporting the field investigations as the Senior Marine Scientist and lead for environmental permitting for the Project.

Coastal Consulting Services

Role: Senior Marine Scientist & Permitting Specialist | **Client:** Miami Dade County RER-DERM | **Location:** Miami, FL | **Professional Services:** 2023 – present

The Miami-Dade County Division of Environmental Resources Management (DERM), Department of Regulatory and Economic Resources (RER) retained GHD to provide coastal modeling, planning, permitting, and design services to unify the State and Federal regulatory approvals to address coastal erosion and storm-induced shoreline impacts along over 13 miles of the Miami-Dade County shoreline. The shoreline of interest extends from FDEP reference monuments R-7 to R-74 and comprises beach shorelines extending from a northern boundary of Sunny Isles to the Government Cut north jetty. Mr. Kruempel is supporting the client during preliminary State and Federal regulatory agency coordination that will lead to existing authorization to allow shore protection projects to advance within virtually all managed shorelines of Miami-Dade County.

Mid-Breton Sediment Diversion Project Environmental Impact Statement (EIS)

Role: Technical Reviewer | **Client:** Louisiana Coastal Protection and Restoration Authority | **Location:** Plaquemines Parish, LA | **Professional Services:** 2022 – present

The Mid-Breton Sediment Diversion Project involves construction of a sediment diversion through a federally maintained levee in order to allow sediment, freshwater, and nutrients from the Mississippi River to flow into the Breton Sound Basin in order create, preserve, restore, and sustain wetlands and counteract the effects of subsidence, sea level rise, recent hurricane events, and the Deepwater Horizon oil spill. Federal and state regulatory agencies participating in the project include the U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, NOAA-National Marine Fisheries Service, Louisiana Department of Wildlife and Fisheries, Louisiana Coastal Protection and Restoration Authority, Louisiana Department of Transportation and Development, and Louisiana Department of Environmental Quality.

As part of the regulatory permitting process, GHD has been contracted by CPRA to prepare an EIS which addresses the public interest review requirements of USACE Regulatory Program Regulations, so that the EIS provides the information needed for USACE's permit decision-making process. Craig supported the development of the EIS by providing technical review of the coastal science portions of the draft document with an emphasis on fisheries and aquatic resources.

Rockledge 'A' Muck Removal

Role: Coastal Resources Lead | **Client:** Brevard County Natural Resources Management Department | **Location:** Rockledge, FL | **Professional Services:** 2019 – 2024

The Rockledge A site, comprising about 46 acres, is one of the sites identified within the Save Our Indian River Lagoon (SOIRL) Plan. It is located approximately 3 miles north of the Pineda Causeway and was identified by Brevard County as an area of soft sediments that should be further investigated. The intent of the project was to map, characterize and undertake design and permitting of a muck dredging/removal project. GHD provided the following services to Brevard County:

- Bathymetric survey of the 46-acre project area.
- Geophysical survey of the sediment horizons using parametric sub-bottom.
- Vibracore acquisition to characterize the sediments within the project boundaries and ground-truth the geophysical survey.
- Physical/compositional and chemical analyses and reporting of the sediments.
- Environmental resource mapping and characterization of submerged aquatic vegetation, oyster reef and sensitive marine habitats located

Beach Erosion Control: Modeling, Planning and Design Services

Role: Senior Marine Scientist & Permitting Specialist | **Client:** Miami-Dade County | **Location:** Miami, FL | **Professional Services:** 2020 – present

The Miami-Dade County Division of Environmental Resources Management (DERM), Department of Regulatory and Economic Resources (RER) retained GHD to provide coastal modeling, planning, permitting, and design services to identify and mitigate coastal erosion hotspots along approximately 13 miles of the Miami-Dade County shoreline. The shoreline of interest extends from FDEP reference monuments R-7 to R-74 and comprises beach shorelines extending from a northern boundary of Sunny Isles to the Government Cut north jetty. Mr. Kruempel supported the client during preliminary State and Federal regulatory agency coordination that will lead to existing authorization modifications to allow shore protection projects within a broader segment of the County's shoreline by Miami-Dade County and the USACE, Jacksonville District.



Lori Coolidge, PE

→ **Water Quality Task Manager**



Lori is a Geologist with eighteen years of progressive experience in the field of geology, focusing on environmental and geotechnical investigations. Lori has performed work related to the identification of geologic hazards, which included performing field investigations for the presence and potential for sinkhole activity, slope stability, and mine subsidence. She has provided support for geotechnical evaluations in Florida, Tennessee, Alabama, Pennsylvania, Virginia, and Kentucky. Since 2013, Lori has actively participated in over 600 Phase I/II due diligence environmental assessments and has performed field data/sample collection, preparation of assessment documents, assimilation and review of field data, and research and reporting for various environmental engineering projects. As a certified asbestos inspector, management planner, and project designer, Lori has assisted in the sampling and preparation of multiple NESHAP pre-renovation and demolition asbestos surveys. While managing either defined tasks or overall projects, Lori understands that adhering to defined project schedules and budgets and prompt communication with clients is key.

PROJECT EXPERIENCE

General Environmental Engineering Services Continuing Contract

Role: Technical Advisor | **Client:** City of Fort Lauderdale | **Location:** Fort Lauderdale, FL | **Professional Services:** 2020 - 2025

Lori supported the Surveying & GIS Mapping of Unverified Stormwater Assets by assisting the City in a third-party review of water quality data which will be used to further identify possible illicit drainage connections, non-point sources of pollution associated with stormwater, and ultimately recommended additional sampling strategies and management plans to assist the City with monitoring and continued improvement of surface water quality.

Backup Deep Injection Well RO Water Treatment Plant

Role: Project Manager | **Client:** City of Fort Myers | **Location:** Fort Myers, FL | **Professional Services:** 2020 - 2025

Lori served as the Project Manager for the Design & Permitting of the City of Fort Myers Backup Deep Injection Well for the Reverse Osmosis Water Treatment Plant. The project was executed through the Design-Build-Bid Delivery System, with construction commencing in October 2023 and completed at the beginning of 2025. The project was completed on schedule and under budget.

Southern Hillsborough County Aquifer Recharge Program (SHARP)

Role: Project Manager | **Client:** Southern Hillsborough County | **Location:** Hillsborough County, FL | **Professional Services:** 2024

Lori served as Project Manager for the Hillsborough County SHARP project and assisted with permitting, design, and construction oversight for the expansion of the County’s South Hillsborough Aquifer Recharge system that will eliminate the County’s discharges to Tampa Bay, improve groundwater levels in southern Hillsborough County, and provide an additional source of groundwater to meet regional water supply demands.

MS4 Sampling and Microbial Source Tracing Study

Role: Project Manager | **Client:** City of Fort Myers | **Location:** Fort Myers, FL | **Professional Services:** 2025

Lori oversaw monthly MS4 permit monitoring for over five years and identified potential point sources of bacteria in surface water bodies city-wide. This microbial source tracing study included the use of sampling, stakeholder engagement, and the implementation of a management plan to find and eliminate detected sources. Completed a Pollution Reduction Plan for the City, which was accepted by the EPA as an alternative water quality plan.

Years Experience

18 (total); 1 (with Colliers)

Location

Tampa, FL

Qualifications/Accreditations

- BS, Geology
- Professional Geologist: Florida
- OSHA 40 Hour Hazardous Waste Operations and Emergency Response (HAZWOPER)

WHY Lori

Extensive Experience in Surface Water Quality Programs. Lori has led water quality monitoring efforts for municipalities across Florida, including Fort Myers, Naples, and Clearwater. Her work includes sampling logistics, QA/QC review, and data trend analysis for MS4 permit compliance and pollution reduction planning.

Trusted Advisor for the City. As Technical Advisor for the City of Fort Lauderdale, Lori conducted third-party reviews of water quality data to identify illicit discharges and non-point source pollution. Her recommendations informed targeted sampling strategies and long-term surface water management plans.

Broad Environmental Assessment Background. With over 600 Phase I/II environmental site assessments completed, Lori brings deep expertise in contaminant identification, field sampling, and regulatory compliance across a wide range of urban and natural settings.



Daniel Wolf, PE, CIH, CGC

→ Asbestos Services

Daniel Wolf has over 35 years of environmental and industrial hygiene (IH) experience. His broad and varied experience includes the assessment and remediation of contaminated groundwater and soil; IH consulting; asbestos and lead-based paint (LBP) consulting; indoor air quality (IAQ)/mold and radon consulting, hazardous waste management, and noise assessments and controls. Daniel has performed numerous IAQ, chemical exposure, and potent compound assessments for volatile organic compounds (VOC), solvents, metals, dusts, pesticides, and pharmaceutical compounds. He has designed, installed, and operated dozens of groundwater and soil remediations systems throughout Florida for the removal of petroleum compounds, metals, and solvents. He has performed bench-scale and field pilot tests to develop data for full-scale design. Daniel has also performed groundwater and soil assessments for complex geological formations including clay, limestone, with perched and confined aquifer units. He has managed numerous petroleum cleanup assessment and remediation projects, that have utilized air sparging, vacuum extraction, chemical injections, bioremediation, and thermal treatment and treatment technologies such as air stripping, activated carbon adsorption, filtration, liquid/liquid separation, thermal incineration, chemical addition, etc. He has also designed and installed recovery wells and trenches, cutoff and treatment walls, and groundwater recirculation systems. Daniel is responsible for providing senior technical review and oversight for engineering and IH projects and for project and financial management of complex engineering and environmental projects.

PROJECT EXPERIENCE

Asbestos Surveys and Asbestos Abatement Management

Role: Technical Manager | **Client:** Regency Centers | **Location:** US

Responsible for the technical management and support for over three hundred (300) pre-renovation and/or demolition asbestos surveys for retail spaces within multi-tenant shopping centers throughout the Southeast. Reviewed asbestos abatement specifications for tenant spaces and/or buildings that required asbestos abatement. Provided senior technical support for fieldwork and reports.

Indoor Air Quality (IAQ) Services, Asbestos Services, and IH Services

Role: Senior Technical Support | **Client:** Walmart Corporation | **Location:** US

Provided ongoing senior technical support and review for IAQ and mold services, asbestos services, and IH services. Performed IAQ assessments for dusts, VOCs, asbestos, and other contaminants. Prepared construction/renovation air monitoring programs for work areas and perimeters.

Industrial Hygiene Emergency Response

Role: Technical Manager | **Client:** Confidential National Bank | **Location:** South Florida

Senior technical lead/CIH for this project which provided emergency response services for over twenty (20) bank facilities in southeast and southwest Florida after severe rains and flooding in late 2020. Asbestos and mold assessments, asbestos abatement oversight, and remediation services were conducted.

Years Experience

35 (total); 12 (with APEX)

Location

Tampa, FL

Qualifications/Accreditations

- BS, Chemical Engineering, Colorado School of Mines
- Licensed Professional Engineer No. PE46774, Florida
- American Board of Industrial Hygiene Certified Industrial Hygienist (CIH), No. 8228 CP
- Licensed Asbestos Consultant No. AX87, Florida
- EPA Certified LBP Risk Assessor No. LBP-R-1155089-2
- Licensed Mold Assessor No. MRSA260, Florida
- Licensed Pollutant Storage System Contractor No. PCC1256866, Florida
- Licensed, Mold Assessor and Remediator, and Radon Measurement and Mitigation Specialist No. R2203, R2209, Florida
- Certified General Contractor, Florida

WHY Daniel



Extensive Experience. Daniel is intimately familiar with the regulations and requirements for asbestos remediation.

IAQ/Mold/Asbestos Surveys and Abatement

Role: Technical Project Manager | **Client:** SunTrust Banks | **Location:** Virginia

Provided ongoing technical program management for numerous SunTrust facilities throughout Virginia. Work includes IAQ/Mold surveys, demolition and pre-renovation asbestos surveys, asbestos and mold abatement plans/specifications, abatement oversight/sampling, and post-abatement inspections and clearance sampling. Responsible for technical training, development of standard work procedures and report formats, project workplan development, and final review of all technical deliverables.

AHERA Asbestos Inspections

Role: Project Manager | **Client:** Pinellas County Schools | **Location:** Pinellas County, FL

Managed 3-year AHERA re-inspections for 95 Pinellas County schools. Work included review of each school's management plan for previous asbestos containing material (ACM) surveys, 6-month inspection forms, and response actions. Inspections were performed for each school to confirm the condition of existing ACM, survey areas of new construction or renovations for ACM, and sample suspect materials that were not previously tested. Project manuals for each school were updated with current information and recommendations were made for abatement/management of damaged and newly discovered ACM. Designed a database to store and manage all collected information and inspection schedules to minimize future data collection and reporting costs.

Technical Program Management

Role: Technical Program Manager | **Client:** SunTrust Banks | **Location:** Southeast US

Technical program management for over 150 SunTrust facilities throughout the eastern US. Work includes IAQ/Mold surveys, demolition and pre-renovation asbestos surveys, asbestos and mold abatement plans/specifications, abatement oversight/sampling, and post-abatement inspections and clearance sampling. Responsible for technical training, development of standard work procedures and report formats, project workplan development, and final review of all technical deliverables.

Asbestos Identification and Abatement/IAQ Services

Role: Technical Manager | **Client:** SunTrust Banks | **Location:** FL, GA, and TN

Responsible for providing asbestos consulting services at hundreds of facilities in the southeast. This includes collection of samples, completing chain of custody, lab analysis and report generation. Additionally, provides oversight/clearance samples for asbestos abatement projects. Responsible for providing IAQ emergency assessments. Assessments include moisture surveys, infrared thermal imaging assessments, spore trap air sampling, IAQ parameter measurements (Temp, RH, CO, carbon dioxide [CO₂]) development of remediation protocols and post remediation assessments.

Mold/Moisture Assessment and Office Building Remediation

Role: Senior Technical Lead | **Client:** JLL-United Health Care | **Location:** Tampa, FL

Performed an IAQ/mold assessment of a 65,000 square foot office building that included a visual inspection for mold/water damage, IAQ parameter measurements (temperature, relative humidity, carbon dioxide and carbon monoxide), moisture measurements of building materials, airborne and surface mold spore sampling, and an asbestos containing materials survey of areas that would likely be disturbed during mold remediation.

Asbestos and Mold Assessment and Remediation Services

Role: Technical Manager | **Client:** Southeastern Grocers | **Location:** Florida

Responsible for the inspection of suspect asbestos and mold-impacted materials within supermarket buildings. Prior to the removal of the moisture-impacted building materials, an AHERA building survey was conducted in accordance with NESHAP, 40 CFR, Subpart M., to identify any potential ACM that will be disturbed during remedial activities. Managed mold remediation and asbestos abatement activities when applicable. Following remedial activities, post-remediation verification PRV sampling activities were initiated to evaluate bio-aerosol levels.

04

→ Approach to Scope of Work

→ Approach to Scope of Work

Understanding of the City's Needs, Goals, and Objectives

GHD strives to understand the City's needs, goals, and objectives so that each project can be relatable and completed with the City's overarching goals in mind. For this contract, our **Project Manager, Jingwei Li, PE**, will coordinate all General Environmental Engineering Consultant Services. Ms. Li will serve as the City's primary point of contact. Jingwei has been assisting the City with numerous multi-disciplined projects for the past several years and has developed a strong rapport with City staff. She will remain involved for the duration of this contract.

GHD understands that the City desires to continually enhance the beauty, aesthetics, and environmental quality of its neighborhoods while continuing to establish itself as one of the most desirable locations for new, expanding, or relocating businesses. Today, Fort Lauderdale supports a diverse range of industries, including marine, manufacturing, finance, real estate, high technology, avionics, aerospace, and film and television production.

In order to accomplish this goal, the City plans to complete a variety of Community Investment Plan (CIP) projects over the coming years. For the majority of these projects, General Environmental Engineering Consulting Services will be required. The City's goals and objectives necessitate the need for a responsive Team that provides timely, cost-effective, and technically sound solutions. We have assembled a strong local team of experienced GHD professionals and subconsultants that will assist the City with continuing to meet its needs, goals, and objectives. In addition, our local GHD staff can call upon any of our experts worldwide to provide innovative solutions to the challenges facing the City. All of GHD's experts will be available to the City under this contract.

Vision, Ideas, and Methodology

The ongoing relationship between GHD and Fort Lauderdale is foundational to the development and maintenance of a city's infrastructure and quality of life, setting the stage for the execution of a wide variety of projects - ranging from waterworks and environmental assessments to the integration of sustainability and resilience initiatives. The effectiveness of our contract thus far is proof of the clarity of vision, the quality of ideas brought to the table, and the robustness of the methodologies proposed in all our projects.

Under this contract, our GHD Team will continue to provide vision, ideas, viable solutions, and well-developed plans to accomplish City projects. Our vision for this General Environmental Engineering Consulting Services contract is to be prepared, by staying connected with City staff and the community. By remaining engaged with City staff and the community, GHD will support a prosperous community that will remain united and a strong urban center in South Florida.

Approach to Projects

To accomplish our role in accordance with the City's needs, goals, and objectives, GHD has established a standard approach that enables all aspects of project management, technical understanding, quality assurance/quality control (QA/QC), as well as health and safety, are delivered seamlessly to the City. These key components to project delivery are consistent with GHD's overall mission of providing lasting community benefit together with our clients. Our approach to project delivery is also consistent with our values of safety, teamwork, respect, and integrity. A summary of our approach to providing the scope of work is included below.

Strong Project Management: GHD's strategy is designed to ensure the efficient completion of each task, in scope, within budget, and on schedule. Our guiding principles for successful management of any contract are organizational simplicity to ensure accountability and effective communication. GHD recognizes that meeting project schedules/budgets requires four essential elements:

- A clear and concise understanding of the task elements
- An in-depth understanding of our staff capabilities and identification of the personnel required to complete each task efficiently
- Consistent communication of the schedule and budget requirements to ensure all team members are administratively connected to the project
- Diligence and transparency in the tracking of the progress of each task

GHD has successfully managed the City's current Environmental Engineering Consultant Services contract through clear and consistent communications by our Project Manager. Jingwei is ultimately responsible for overall technical and administrative management. Under this contract, Jingwei will become an extension of the City staff and serve as the primary point of contact. For continuing service contracts, multiple projects may be ongoing simultaneously, utilizing different resources within the firm. As such, our Project Manager is the essential link between the various projects and the City's

PROJECT MANAGER RESPONSIBILITIES

Client Interface

- » Communication
- » Negotiate Work Plans
- » Cost Estimates
- » Schedule Tracking
- » Technical Discussions
- » Milestones
- » Invoicing
- » Issue Resolution

Team Director

- » Communication
- » Assign Tasks
- » Allocate Resources
- » Establish Technical Requirements
- » Monitor Progress (Milestones & Budget)
- » Corrective Actions
- » Issue Resolution

Corporate Liaison

- » Communication
- » Subcontractor Management
- » Contracting
- » Public Relations
- » Review Work Product
- » Invoicing
- » Issue Resolution

representatives. Regardless of the task or project, the City can feel comfortable that Jingwei will be available to answer questions regarding the progress or status of any active task.

GHD also currently holds similar continuing service contracts with the City of Miami, City of Fort Myers, Miami-Dade County, Tampa Bay Water, Port Tampa Bay, Hillsborough County, and Lee County. Under each of these contracts, the key to successful project completion is centralized project management. In each instance, the Project Manager acts as the direct line of communication for our clients.

Project Management Approach: The Project Manager develops a team based on the understanding of the needs of the project, which could include internal professional or support staff, and/or subconsultants. Once the Team is identified, the schedule and budget information are provided, and the work scope is implemented. All along, the Project Manager evaluates progress and prioritizes tasks as necessary to meet the project schedule. If additional resources are necessary, the Project Manager has the authority to call upon additional staff and/or subconsultants.

Under the proposed General Environmental Engineering Consulting Services contract, we intend to put into action four activities that have continued to result in successful project outcomes for the City. These four activities are the framework for successful project completion.

- 1. Initial Site Visit.** An initial site visit establishes rapport with the City representative and an appreciation for the circumstances of the site. During the visit, a request is made to obtain site figures, utility location maps (where appropriate), and features are identified that may pose a hazard or hindrance to the project Team, the public, or the City. To deliver the appropriate work product, we also inquire about the objective of the services requested and how the services fit into the overall project, including the schedule. The initial site visit provides the basis for the detailed scope of work.
- 2. Detailed Scope of Work.** The scope of work is the project’s “road map.” The successful progress of any task can be attributed to the clarity with which the work task has been understood by key personnel. As in the past, we emphasize the preparation of a correct and detailed scope of work to launch each task.
- 3. Monthly Project Summaries.** Many City Purchase Orders can be completed within one or two months. Short-term tasks rarely result in budget and schedule conflicts. GHD prepares monthly summary reports for all projects to keep the City’s Project Manager current.
- 4. Communications.** GHD’s technicians and professional engineers are accustomed to maintaining continuous communication with the Project Manager during the completion of projects. We can be on a project site within hours of notification. GHD can also provide night and weekend availability to the City. E-mail and/or text messages concerning project conditions, site access agreements, and regulatory issues have proven to be a successful communication tool while completing assigned tasks. The City may recall GHD’s responsiveness during the emergency wastewater response in December 2019.

By using our standardized approach to managing this contract, projects will remain on schedule and within budget. GHD is

familiar with the City’s process for reviewing proposals, issuing purchase orders, and invoicing. GHD understands that following the initial discussion with the City’s Project Manager and completion of the site visit (if required), a detailed scope of work will be developed by GHD that reflects the understanding of the overall objectives and detailed tasks that need to be completed. Once the scope of work and cost estimate are submitted, work cannot proceed until a Purchase Order is issued through the City’s Purchasing Department. Similarly, following completion of a particular task, a detailed invoice will be prepared that reflects the specific items completed and the percentage of task completion. GHD will provide detailed information on all our invoices, along with the City-issued Standard Purchase Order number.

Approach to Various Type Projects



Technical Approach: The GHD Team thrives as a result of our demonstrated experience in successfully delivering a broad range of environmental engineering projects throughout South Florida. Our goal is to create and maintain a professional partnership with all our clients and subconsultants, with equal emphasis on both project delivery and overall client needs. We are committed to the many relationships that result from the successful completion of projects, as they are the avenue through which we help our clients achieve their short and long-term project goals. When environmental engineering design is required, our design philosophy includes simplicity, functionality, and flexibility as summarized below:

- **Simplicity:** Remains the basis for design, highlighting and emphasizing the essential, core purpose.
- **Functionality:** Maintaining focus on the overall objectives ensures quality while conforming to cost constraints
- **Flexibility:** Enables teams to adapt to changing circumstances, respond to uncertainty, and manage risks effectively

The GHD Team will utilize a phased approach that ensures a timely, efficient and cost-effective delivery. This focus will continue throughout the project and through to final design plans or investigative reporting. Our team will deliver a complete, comprehensive suite of services that will result in successful project outcomes. Our approach to the execution of any type and size project for this contract is shown in the figure on the previous page.

Quality Assurance/Quality Control (QA/QC) Approach

GHD believes that corporate QA/QC is essential to delivering the consistent quality service expected by our clients. GHD's quality commitment to our clients is reflected in our Quality System Policy statement, which reads:

"We will continually improve the quality of our services through the implementation of a Quality Management System and on-going training of our employees. Our objective on all projects is to meet and exceed the expectations of our clients by providing quality services in a responsive, safe, and cost-effective manner."

Because GHD is registered under the ISO 9001:2015 Quality System Program, we share success at meeting and exceeding clients' needs as evidenced by the high percentage of repeat business that GHD has experienced and the results of client feedback questionnaires. The following is a summary of the results of client feedback received to-date under our ISO 9001:2015 Program.

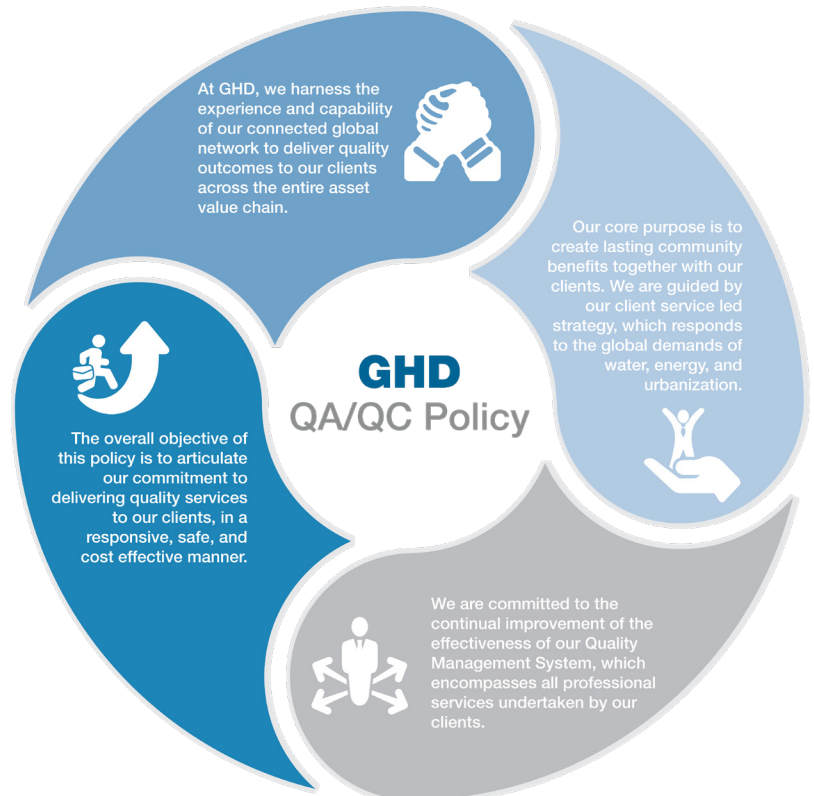
In addition to our ISO 9001:2015 Program, GHD has developed and implemented extensive in-house training programs to ensure quality and consistency across the organization. These programs include project management training, standard operating procedures for all field-related activities, health and safety training, and contract specification preparation, along with frequent seminars and presentations regarding laws, regulations, and new technologies.

GHD has established a strong network of technically qualified, safe, and competitively priced subconsultants

and specialty service providers across North America. Our subcontracting procedures are also part of GHD's ISO 9001:2015 Program, which provides a process for verifying that all subconsultants meet the necessary technical, safety, insurance, integrity, and other related requirements to satisfy the specific needs of the client and project. GHD maintains a resourceful internal database of pre-approved subconsultants in many areas, which have already established minimum contract language, health and safety performance, and technical merit stipulations. Through our national work volume for numerous different clients, we are often able to secure very competitive rates that are passed on to our clients.

Subconsultants procured by GHD to conduct field services for our projects are expected to follow all applicable laws and regulations with respect to safety. Additionally, GHD and/or our clients may require additional safety items and functions as part of our projects. GHD has initiated a safety and health subcontractor evaluation process as part of our ISO 9001:2015 Program. The subconsultant safety evaluations are conducted by the Health, Safety, and Environment (HSE) Team for each new subconsultant and on an annual basis for each existing subconsultant.

For any given assignment under this Environmental Engineering Consulting Services contract, GHD will implement our corporate procedures for QA/QC. Therefore, the procedures for quality control will match the corporate guidelines for a particular activity. For example, Jingwei, working with our proposed QA/QC Manager, Mr. Nick Bragaia, will help ensure appropriate peer review levels for design plans. Similarly, Nick will verify that only pre-approved and qualified subconsultants perform support services under this contract.



Health & Safety

GHD believes that our employees are the company's most valuable resource and that they deserve the right to practice their profession in a safe working environment. GHD's senior management ranks safety as its highest priority. We seek to create a culture in which HSE principles are at the forefront of everyone's mind and part of everyday business.

We are committed to leading industry practice by minimizing injury, ill health, and our impact on the environment, as well as preventing pollution. As evidence of this commitment, GHD dedicates a corporate Principal to oversee and monitor GHD's overall HSE program. A significant portion of our client base is private sector organizations and have strict HSE requirements that we have used to establish this safety culture as a core company attribute and aligns directly with their safety culture



Safety Means Awareness
Responsibility Teamwork

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We are committed to leading industry practice by minimizing injury, ill health, and our impact on the environment, as well as preventing pollution. As evidence of this commitment, GHD dedicates a corporate Principal to oversee and monitor GHD's overall HSE program. A significant portion of our client base is private sector organizations and have strict HSE requirements that we have used to establish this safety culture as a core company attribute and aligns directly with their safety culture

GHD encompasses both risk management and behavior-based safety as a proactive approach to HSE. Our behavior-based safety program is called Safety Means Awareness Responsibility Teamwork (SMART). The SMART program was developed to provide the foundation for continuous improvement in our safety performance and serve as a vehicle by which we sustain the importance of health and safety management in our daily activities. Our goal with respect to safety performance is for each employee to consider safety a service that we provide to our clients. GHD has implemented a behavior-based health and safety training program to ensure that our employees perform in such a manner that health and safety are second nature.

All GHD employees are required to complete a training matrix form on which their supervisors can identify all of the specific job function training, Quality Systems training, and health and safety training that they will be required to complete. This training matrix is reviewed and updated annually as part of each employee's performance review. Once the supervisor has identified all required training, the supervisor then arranges for the employee to receive the training. This training may include courses that can be delivered live by our own internal staff through online courses or by a qualified external trainer.

Employees are not permitted to work in the field until they have satisfactorily completed all required regulatory and company-

specific training. New hires at GHD are also required to initially conduct their field assignments under the watchful eye of a more senior employee. Each employee is empowered with Stop Work Authority to address any unsafe conditions or unsafe acts at their work sites. GHD has an HSE Team that supports both field and office operations with direct 24-hour coverage. Our goal is an incident-free environment for all stakeholders.

Scheduling Methodology

GHD has demonstrated its ability to meet the City's schedule and budget requirements for the past 15 years, and we are confident we can continue to perform for the City. Successful projects are dependent on a mutual understanding of Client objectives followed by the integration of four major components: scope, deliverables, budget, and schedule. To achieve proper integration, a system must be built around a strong management Team and effective management practices. The basic elements of GHD's project management approach (as detailed herein) include developing a realistic scope of services, effectively controlling schedule and budget, assuring proper data management, addressing health and safety issues, ensuring quality deliverables, and promptly undertaking corrective actions when needed.

GHD's proposed schedule methodology is to develop and maintain a project schedule for each assignment once the City issues a Purchase Order. The schedule is established around parameters identified by the City during the initial development of the project scope. GHD endeavors to minimize scheduling delays and budget irregularities by the following primary control strategies

- Periodic (up to weekly if warranted) preparation/ monitoring of project schedules and budgets to ensure that the necessary resources are available for the project tasks to be effectively completed
- Frequent intra-company communication
- Empowering our technical staff with reasonable decision-making authority to allow for projects to continue on schedule without undue need for an "executive decision"
- Ensuring timely and proper documentation as tasks are completed, particularly in instances where unforeseen circumstances may result in an impact on the overall schedule and/or budget
- Frequent quality assurance reviews and audits addressing client or other project-specific performance requirements

GHD understands that unexpected circumstances may arise (for instance, emergency response, natural disasters, etc.) from time to time that require immediate and responsive actions. GHD also routinely engages in responses associated with pollutant storage tank closure assessment, incident/discharge investigations, petroleum contamination assessments and remediation, environmental site assessments, remedial cost analyses, industrial hygiene and indoor air quality services, contaminated site management, and safety evaluations. In many instances, the City may require immediate response of qualified personnel to a particular project within hours. Along with engineers and geologists, GHD staff also includes industrial

hygienists, general contractors, certified hazardous material managers, and Occupational Safety and Health Administration (OSHA) trained professionals. GHD's robust HSE Program will be a benefit to the City. Qualified HSE staff are available to assist with contaminated site management, contamination control, and site/building cleanup.

One of the primary management tools used by GHD to track and control both schedule and budget is our BST Cost/Project Management Control System. This software package is used for scheduling, planning, proposal development, and resource/cost tracking, as well as cost performance measurement/analysis and pricing. The system is flexible and can be tailored to multiple project types and invoicing arrangements. During project implementation, all time assigned to a project is documented on time sheets, which are completed daily and approved by supervisors. Time sheets are entered electronically, and hours billed to projects are directly transferred to the BST system for project management. Supervisors and our accounting staff review expense reports for correctness and conformance to contract reimbursement protocols.

Billing information such as direct labor, laboratory fees, equipment charges, and overhead costs can be easily separated for review at any instance during the life of the project, or after completion. Project performance can be measured by comparing financial data against a baseline budget. A time-phased view of hours budgeted and hours needed to complete the project can be obtained. A project history prepared using the BST software addresses important project tracking aspects and affords GHD a practical understanding of schedule and budget as a project progresses.

By developing a realistic scope of services and schedule, GHD can effectively manage and execute work in the optimum time by monitoring project schedules and budgets through our primary project management tool (BST). Additionally, if unforeseen circumstances arise, GHD will provide timely and proper documentation to the City with details regarding potential impacts to schedule and/or budget, along with proposed mitigation options.

Workload

As the prime consultant, GHD recognizes the importance of workload projections. We review our workload projections weekly as part of our project management meetings, but we can adapt on a daily basis to respond to various project demands. These reviews include evaluating project objectives, scopes, types of service to be performed, and personnel allocation. Workload allocation charts are available for all staff to review. We encourage "bottom up" communications to our management team so that "reality checks" can be made on both current time commitments and as new work is awarded. This activity is an integral part of our overall project management system.

The City will benefit from access to our highly qualified, motivated, and committed personnel dedicated to providing the necessary services to support this contract. GHD is large enough to provide uninterrupted, quality services throughout the life of the contract, but small enough to commit our most qualified personnel to the task. Our Team's extensive resources

will have a positive impact on the project schedule, completion, and the avoidance of delays, even during peak demand periods.

GHD already has in place appropriate backup staffing for this contract to assist with any unforeseen circumstances at the planning or implementation phases of the project. After many years providing services to our clients, GHD has found that being proactive not only reaffirms our commitment to our clients, but also ensures proper and timely completion of all tasks assigned by the client. According to our projections and previous work history, we are effectively staffed to provide the environmental engineering services necessary to the City throughout the duration of this contract.

We are committed to meeting the challenges and "last-minute" complications that can interfere with project deadlines. Furthermore, the proximity of our staff and resources allows for a quick response in the instance of an out-of-the-ordinary event. Simply stated, the GHD Team can effectively provide the services as required, and believes that this is a distinguishing attribute of our dedication to client service

Available Facilities, Technological Capabilities, and Resources

Based on our experience working for the City for the past 15 years, GHD recognizes the 'needs' and 'goals' of the City. We understand the "ultimate goal of the City is to create a sustainable community to ensure adequate resources are available for future generations." GHD and our subconsultants are all located within South Florida and will be available to the City for the duration of this contract. GHD's West Palm Beach office maintains the full-time staff and houses the necessary equipment and infrastructure to support the City under this important contract. All of the work conducted under this contract will be performed by or directed by GHD staff from our West Palm Beach office.

Our Team is fully capable of responding, and has successfully responded, to many of the scope of services listed in this solicitation. GHD can provide all the services needed to assist the City's mission to seek a better quality of life for all residents by limiting waste, preventing pollution, maximizing conservation, promoting efficiency, and developing local resources to enhance the economy. Sustainability also requires development and redevelopment in the City be coordinated with public investments in alternative transportation modes, enabling the City to accommodate the projected population and allow for expanded economic and cultural activity.

Beyond our local environmental capabilities, GHD maintains a connected global network serving the markets of water, energy and resources, environment, property and buildings, and transportation. Through this connected global network, the City will have access to a broad range of technical capabilities, which help our clients continually adapt and change. Examples of our technological capabilities include GHD Digital, which combines the knowledge of people with new technologies and systems to help our clients embrace rapidly emerging digital advancements and generate value. Similarly, GHD Advisory addresses the need for business outcomes that challenge the

status quo in our rapidly changing environment. GHD Advisory addresses everything from Asset Management to Regulation and Access in order to improve and maximize efficiencies, reliability, and effectiveness.

Key Team Member Availability

Team Member	Role	Availability
Jingwei Li	Project Director	45%
Brian Moore	Project Manager	50%
Nick Bragaia	QA/QC	45%
Edwin Siersema	Site Assessment Task Lead	45%
Jeremy Hess	Planning & Design Task Lead	45%
Jesse Davis	Construction Support Services task Lead	50%
Jenna Martin	Testing & Inspection Task Lead	40%
Craig Kruempel	Natural & Cultural Resources Task Lead	45%
Lori Coolidge	Water Quality Task Lead	40%
Daniel Wolf	Asbestos	35%

Addressing the City’s Needs

GHD is very familiar with the City’s Adopted Community Investment Plan for fiscal years 2025 - 2029 and the latest update to the City Commission’s strategic 2035 Vision Plan: Fast Forward Fort Lauderdale, Sustainability Action Plan, the Draft 2040 Comprehensive Plan: Advance Fort Lauderdale, and Southeast Florida Regional Climate Change Compact’s Regional Climate Action Plan. Many of the CIP projects will likely require environmental engineering or natural resource support services.

The City’s CIP has a unique and important responsibility to delineate what the community needs to build now and what it will need to build in years to come. This must be done in a strategic, careful, and impactful way to maximize economic development and improve quality of life in line with the City Commission’s vision and policy. The projects in the CIP provide the basic necessities, such as municipal waterworks and other amenities, which make Fort Lauderdale a desirable community to live, work, and play. Projects considered in the CIP can be either capital improvements or capital maintenance projects.

Prioritization criteria and a scoring matrix were developed for the Adopted Fiscal Year 2025 - 2029 CIP to rank projects for inclusion in the plan. There are ten criteria that were used by the CIP Project Review Team to evaluate the adopted projects. Each CIP Project Review team member scored projects from zero to two for each of the ten criteria, and then a total score was calculated for the project, based on the criteria’s weight.

We view our role as a continuation of this effort, as we establish a work scope for these projects as they are assigned. **Included below are details regarding our technical capabilities for the required disciplines and how they relate to the City’s CIP.** We are uniquely positioned to remain an important partner to the City as we have been providing consistent comprehensive environmental engineering services, supporting the City of

Fort Lauderdale’s environmental infrastructure and engineering needs through a flexible, task-order-based approach, for over 15+ years.

GHD and its highly credentialed specialty subconsultants have the experience and are qualified and able to continue to provide all the anticipated services. For ease in review, we have grouped the requested services into larger subheadings.

I. Regulatory Compliance & Permitting

Achieving successful regulatory compliance and permitting hinges on several essential principles. First, it requires a thorough understanding of applicable local, state, and federal laws as well as the nuances of agency guidelines. Early and ongoing communication with regulatory bodies and stakeholders is vital, fostering transparency and preventing misunderstandings or delays. Comprehensive documentation and accurate reporting ensure that all permit applications and supporting materials meet agency standards. Incorporating environmental best practices – such as low-impact system design, rigorous site assessments, and diligent monitoring – demonstrates a commitment to sustainability and compliance. Engaging our experts will position the City of Fort Lauderdale to navigate the complex landscape of permitting efficiently and responsibly.

The City has identified the following relevant service areas:

1) Prepare permit applications and attend meetings with various permitting agencies

Our Team has been actively involved in a variety of environmental permitting activities including those for:

- » Stormwater
- » Title V & Non-Title V Air
- » Industrial Pretreatment
- » Submerged Land Lease Renewal
- » Port and Canal Dredging
- » Consumptive Use
- » Shore Protection Projects
- » Potable Drinking Water
- » Domestic and Industrial Wastewater
- » Traffic (Concurrency)
- » Coastal Infrastructure

The City has identified a number of projects that will likely require significant permitting and meetings. For example, the Broward County Segment II Beach Nourishment project (P12247) involves the placement of beach-compatible sand along 4.9 miles of Broward County coastline between the Hillsboro Inlet and the Port Everglades. This project includes beach nourishment at Pompano Beach and Lauderdale-By-The-Sea, beach restoration at northern Fort Lauderdale (between Flamingo Ave and Terramar St.), and dune construction within the Lauderdale-By-The-Sea and Fort Lauderdale segments. Beyond Federal permitting, these types of projects often involve adjacent landowners who have differing views and concerns regarding scheduling and disruption.

The Fort Lauderdale Executive Airport’s (FXE) plans for a one-thousand-foot extension of Runway 9 (P12588). This type of capital improvement requires permitting and coordination through the Federal Aviation Authority and the Florida Department of Transportation (FDOT) and often requires public meetings to address, for example, concerns regarding noise and pollution. GHD has substantial experience with large

multi-agency permitting projects that also include a community engagement element.



The City is also planning the design and construction of a new water treatment plant at the Prospect Lake wellfield (P12765). This \$250 million project will require extensive permitting and compliance with the latest regulations pertaining to emerging contaminants such as per- and polyfluoroalkyl substances (PFAS).

We have coordinated permitting activities with several government agencies, including the USACE, SFWMD, FDEP, USEPA, Broward County Environmental Permitting Division, as well as numerous counties and municipalities throughout South Florida.

We have worked with hospitals, port sugar distribution and storage facilities, and beverage packaging companies to obtain industrial wastewater pretreatment permit renewals and to coordinate associated permit compliance sampling activities. We worked with the Country Pure (juice packaging facility) staff and the City of Deland Public Works Director in a collaborative effort to modify that City's pretreatment ordinance to allow for higher solid waste disposal to the sewer system.

For Country Pure Foods, we obtained the permit renewal for their potable water treatment system, prepared the documentation, and obtained a new permit for the consumptive use groundwater permit through the St. Johns River Water Management District.

2) *Make written or verbal reports to the City Commission, County Commission, and state Regulatory agencies*

GHD has an outstanding track record of preparing written reports and presenting findings and recommended response actions to City and County Commissions and State Regulatory agencies. GHD's local staff includes environmental professionals who are experienced in delivering their results and recommendations in a way that can be tailored to meet the City's needs, to effectively communicate work, findings, issues, etc. We are adept at effective engagement, transforming passive audiences into active partners, enriching decision-making, and ensuring better outcomes for all.

Oftentimes, there is also a required element of community engagement. Effective community engagement is both an art and a science - rooted in empathy, strategy, and ongoing learning. By prioritizing inclusivity, transparency, respect, clear communication, collaboration, adaptability, accountability,

and long-term commitment, organizations and leaders can build trust, inspire participation, and create meaningful, lasting impact.

Each of the contracts described below relied on extensive communication and, in many cases, public outreach to effectively and efficiently coordinate the client's objectives with stakeholders:

- FDEP - Ongoing contracts for hazardous waste, dry cleaning and petroleum cleanup projects
- Florida Department of Environmental Protection Petroleum Restoration Contract (ongoing)
- School Board of Palm Beach County - Water Quality and Piping Corrosion Evaluation Services
- City of Tampa - Environmental and Engineering Services Contract
- City of Fort Myers - Brownfields and Redevelopment Services
- City of Fort Myers - Reclaimed Water System Improvement
- City of Riviera Beach - Contamination Assessment and Remediation
- Town of Palm Beach - General Environmental and Engineering Services



Communication with City, County, and State agency Project Managers is vital to the process of interfacing with commission, council, and regulatory representatives. Status updates and discussions of authorized services, results, regulatory requirements, recommended options, economic benefits, and budgeting are typical of such public reporting actions. GHD's presentations are specifically developed to address the target audience.

GHD supported the City by evaluating potential soil lead impacts near FXE. GHD completed testing and supported the City by presenting results and preparing for a potential presentation to a variety of stakeholders

GHD staff routinely make technical presentations to many trade conferences and short schools, including the Florida Chamber Foundation's Annual Environmental Permitting School, Florida Water Resources Conference, American Water Resources Association, and the Florida Remediation Conference.

3) Assist in applying for and obtaining grants, including the preparation of grant applications, meeting with public/officials, and performing other services in connection with grant applications

Among the grants available to municipalities and local governments, Community Development Block Grants (CDBG), FDOT and FAA grant funds, and Stormwater 319H grants may have significant future potential for the City of Fort Lauderdale. In GHD's experience, the preparation of successful grant applications is a multi-layered process that blends strategic planning, compelling storytelling, and diligent attention to administrative detail. By understanding the funder's priorities, crafting a clear and feasible project, building a qualified team, and embracing best practices in writing and organization, you significantly increase your chances of securing the funding needed to bring your vision to life.

Our grant writing and administration experience includes funding for infrastructure, housing, and public spaces (including the Florida Recreation Development Assistance Program, or FRDAP, for a public park). The GHD Team assisted in the writing of, and/or administered grants for housing construction under various programs including HUD Section 202 Elderly Housing projects (current 29 unit project near Fort Myers), Low Income Housing Tax Credit applications, HOME Investment Partnership applications, US Department of Agriculture (USDA) Rural Development, Florida Housing Finance Corporation (FHFC) Supportive Housing for Persons with Disabilities, and FHFC Supportive Housing for Homeless Persons and Families (current 15 unit project for Gulfstream Goodwill Industries). In addition, we have written and administered HUD CDBG small cities grant applications for the City of Lake Worth on infrastructure and park improvements and have been the Project Manager for construction of 46 units of affordable housing under HUD NSP2, which utilized the CDBG platform for a non-profit consortium partner with the Lake Worth Community Redevelopment Agency.

In addition, our team wrote and assisted with EPA Brownfield grant applications across the country for multiple municipalities and community-based organizations, and, locally, multiple grants for the Treasure Coast Regional Planning Council (TCRP) and the City of Ft. Pierce Redevelopment Agency. Our grant writing team specialize in obtaining EPA brownfield funding of all types for the clients that we work with. GHD's grant writers have assisted communities in securing millions of dollars of EPA brownfield funding since 2018. We specialize in helping our clients obtain EPA grant funding as an initial step to building a long-term successful and sustainable brownfield program. We also are continuously looking to position clients to obtain other forms of available funding, such as FDEP Stormwater Revolving Loan fund, Resilient Florida Program, TBA Grants to cities directly from FDEP, and regional support from local regional planning councils (TCRPC and SFRPC) that which have sub-grant capabilities and loan funds, which could potentially be used on a variety of community-based projects.

4) Review existing ordinances and guidelines and assist in developing new ordinances and guidelines or amendments to existing ordinances and guidelines

As cities evolve amid shifting demographics, advancing technologies, and mounting environmental pressures, the need for robust municipal ordinances becomes increasingly

urgent. The ordinances of the future must transcend traditional boundaries and be crafted with foresight, strategic vision, and inclusive principles. Their creation is not merely an exercise in regulation, but a commitment to shaping vibrant, resilient, and equitable communities.

GHD's extensive professional experience throughout North America has allowed us to support our governmental clients in the review and recommendation for revision of ordinances and guidelines. Our professionals not only have a comprehensive understanding of the planning, science, and engineering needed to manage natural and human assets, but we have the practical experience necessary to make realistic and meaningful changes to local guidance in order to address long-term needs.

As an example, GHD has extensive experience with the requirements of Targeted Brownfield Assessment (TBA). As a member of the American Society for Testing and Materials (ASTM), we actively participated in forming the national guidelines, which have become the E1527 Phase I Environmental Site Assessment (ESA) standards establishing ESA practices that satisfy the due diligence responsibilities of participants involved in commercial real estate transactions for CERCLA protection. In fact, GHD has the distinction of employing one of only eight trainers selected and certified by ASTM to teach the Standards throughout the United States. Beyond his duties as an ASTM trainer for the past 20 years, Nicholas Albergo recently served on both the ASTM and National Groundwater Association (NGWA) Brownfields Task Groups, which assisted the EPA in the negotiated rulemaking process in developing the standards and procedures for the All Appropriate Inquiries Rule. The AAI Rule establishes the process for evaluating a property's environmental conditions and assessing potential liability for any contamination.

5) Assist City in implementing and maintaining compliance with federal, state, county and municipal laws, rules, regulations and ordinances

Assisting clients with implementing and complying with environmental rules and regulations is among GHD's core competencies. The first step in compliance is to assess the applicable rules and regulations and ensure that the City is clear on what is being asked of them. In order to accomplish that, GHD proposes to set up a compliance dashboard to define and describe these requirements. This includes a summary of the myriad of related environmental permits, ordinances, etc., including reporting requirements, permit renewal dates and all associated milestones and deadlines.

The next critical component is assignment of task responsibility. Be it a consultant to the City, a City employee, a contract employee, etc., our experience dictates that each regulatory compliance task or deadline needs to be assigned a specific person responsible for its execution or monitoring. Assignment of responsibility to each task can be documented by preparation of a RASIC matrix. RASIC stands for:

- **R**esponsible (person)
- **A**ccountable (could be the same person or a supervisor)
- **S**upport (person(s) to help accomplish defined activity)
- **I**nformed (manager or supervisor to periodically updated)
- **C**onsulted (senior manager or technical advisor used in a consulting capacity)

20) Inspection services to monitor possible, threatened or actual contamination and remediation activities

The City's infrastructure and facilities that support the services rendered to its business community, residents, and guests offer many opportunities for environmental liabilities, especially potential sources of contamination. Compliance with regulatory rules and guidelines, permits, or licenses offers the best means to minimize possible or threatened contamination. Infrastructure elements like potable water treatment plants and the associated distribution system components, wastewater treatment plants and the associated collection system components, equipment and vehicle maintenance facilities, public works facilities, transportation terminals, and public service centers (City Hall, emergency responder facilities, and community centers) have the potential to impact the environment by threatened or actual contamination that may require remedial response.



Meeting the City's goals of sustainability by limiting waste, preventing pollution, maximizing conservation, and promoting efficiency for these facilities will be best achieved through the development and implementation, or review and improvement, of compliance programs, including Best Management Practices (BMPs) and Maximum Achievable Control Technologies (MACTs) that promote the sustainability goals. GHD can offer the City experienced staff who have written and/or audited sustainability reports. If given the opportunity to conduct a sustainability audit for the City, GHD would start with a review of the City's existing compliance programs and practices. This is followed by audits of facilities without existing programs and inspections of facilities with existing programs.

30) Assist City to prepare environmental permits applications, respond to Request for Additional Information (RAI), and obtain environmental permits associated with seawall work, canal maintenance, dredging, or any dredging work for marine facilities

Seawall reconstruction and dredging projects, often critical for shoreline protection, flood management, and navigational improvements, are subject to a variety of environmental regulations. These regulations ensure that such projects are conducted in a manner that minimizes impacts to water quality, habitats, and surrounding communities. Projects involving these activities may require a myriad of permits, such as:

- Clean Water Act Section 404 Permit (USACE): Required for the discharge of dredged or fill material into waters of the United States, including wetlands. Most seawall and dredging projects will require authorization under this federal permit.

- Water Quality Certification (Section 401, State Environmental Agency): States must certify that the proposed project will comply with applicable water quality standards. This certification is often a prerequisite for federal permitting.
- Coastal Zone Management Act Consistency Determination: For projects located within the coastal zone, applicants must demonstrate consistency with state coastal management programs.
- State or Local Environmental Permits: Depending on the jurisdiction, additional permits may be required for construction in or near water bodies, such as state dredge and fill permits, shoreline alteration permits, or local building permits.
- National Pollutant Discharge Elimination System (NPDES) Permit: Construction activities that disturb land or discharge stormwater may require coverage under the state or federal NPDES permit program.
- Endangered Species Act Consultation: If the project may affect federally listed species or critical habitat, consultation with the U.S. Fish and Wildlife Service or NOAA Fisheries may be necessary.
- Historical and Cultural Resource Review: If construction affects areas of historical or archeological significance, review under the National Historic Preservation Act may be required.

The City owns approximately five miles of seawalls. Many of these seawalls are adjacent to City-owned roadways and show signs of deterioration and potential failure. Seawall failure could negatively impact navigation, threaten the stability of the soil embankment, and ultimately cause roadway failure. As a coastal community, the City must prepare for the impacts of climate change. Expected sea level rise according to the 2019 Unified Sea Level Rise Projection for SE Florida is 10 to 17 inches above 2000 mean sea levels by 2040 and 21 to 40 inches above 2000 mean sea levels by 2070. Many of the City-owned seawalls are currently being overtopped during extreme high tides on a regular basis. The City's Seawall Master Plan provides guidance on which seawalls need to be replaced and elevated in five-year planning increments. To meet community needs for an improved level of service due to a sea level rise and increased storm events, the City must address the current height of seawalls.



The City has identified numerous seawall restoration or replacement projects, some of which are quite large and prominent. For example, the Riverwalk Seawall Partial Restoration Northside (P11722) project involves the picturesque Riverwalk, which serves as the cornerstone of the City's arts, science, cultural, and historic district that features the Broward Center for the Performing Arts, Museum of Discovery and Science, NSU Art Museum Fort Lauderdale, and Fort Lauderdale History Center. Las Olas Boulevard has gained international acclaim as Fort Lauderdale's centerpiece of fashion, fine dining, and entertainment.

Other projects include:

- » P12695 Hendricks Isle Seawalls Replacement
- » P12330 City-Owned Seawall Restoration and Replacement
- » P12337 Cordova Road Seawall Replacement
- » P12549 Seawall Maintenance
- » P12726 Merle Fogg Seawall Replacement
- » P12728 Southeast Isles Seawall Replacement
- » P12895 Las Olas Marina Seawall Replacement

Another example project includes the dredging of various canals throughout the City to provide proper flow of stormwater from drainage canals and channels (P12264). This work also includes the navigation of vessels and the conveyance of stormwater in navigable canals. The scope of the project includes dredging the bottom canal channel to a maximum of five (5) feet below mean low water elevation. This will be completed to comply with the City's canal dredging criteria and ensure all stormwater outfalls are clear.

When initiating these types of projects, GHD will:

- Consult with relevant federal, state, and local agencies early in project planning
- Prepare necessary technical studies, such as hydrologic modeling, habitat impact assessments, and sediment analyses
- Engage with the public and stakeholders to address concerns and gather input
- Develop mitigation measures to minimize adverse environmental effects, such as best management practices for erosion control, turbidity reduction, and habitat restoration

We pride ourselves in preparing as complete an application as practicable to minimize the request(s) for additional information that the agencies require to deem the application/file complete. We will communicate openly with both you and the agencies to ensure that this iterative process is reduced. Once the file is deemed complete, we will maintain that communication and coordination to ascertain the specific conditions of the upcoming Notice of Intent to Issue from the FDEP, and similar requirements as may be imposed by the USACE and the federal commenting agencies (Environmental Protection Agency, US Fish and Wildlife Service, and National Marine Fisheries Service). We will strive to ensure that the conditions of the permit are fair, reasonable, and in accordance with the applicable laws and rules that bind the agencies in their granting of such approvals

II. Monitoring & Sustainability

6) Provide testing or monitoring services with respect to environmental measurements

With a range of services that includes Air Quality Testing and Evaluation, Brownfield Redevelopment, Building Sciences, Construction and Decommissioning, Emergency Management/Response, Environmental Site Assessment and Remediation, GHG Assurance, Municipal Infrastructure Planning and Design, Noise and Vibration Consulting, Risk Assessment, Safety and Industrial Hygiene, Sediment Management, Surface Water Resource Management, Water Quality Evaluations, Sustainability Evaluations, UST & AST Management, Waste Management, and Water/Wastewater Planning, Design, and Process Consulting, GHD is well-positioned and experienced at identifying and providing testing and monitoring services for environmental measurements relevant to the City's spectrum of facilities and services.

We are aware that the Public Works Department has ongoing needs in connection with its Waterway Quality Monitoring Program. Still, there are other types of monitoring services that GHD can assist with. For example, there are flow monitoring requirements associated with many scheduled sewer rehabilitation projects including, the Rio Vista Sewer Basin D-43 (P11566), Victoria Park Basin A19 (P11563), Flagler Heights SWR Basin A-21 laterals (P12049), Downtown Sewer Basin Ps A-7 (P11991), Tarpon River A-11 (P12464), Harbor Beach D-34 (P12465) and Basin B-6 (P11664) rehabs. There is also the deepwell mechanical integrity testing and pipe replacement project (P12798) and the Prospect Wellfield Electric Studies and Testing (P12400).

Based on experience, we are aware that the City periodically requires assistance with air (odor) and noise complaints. In cases such as perceived violations of noise threshold ordinances by City systems or facilities and offensive odor or gaseous vapor migration from City systems or facilities, where field screening and monitoring (for noise dosimetry, vibrational effects, ambient exposure values, or physical and chemical parameters) is appropriate, the GHD Team will determine and then provide the data necessary to evaluate the environmental or health and safety issues. In cases where quantification and definition of released contaminants are required, as a prelude to the development of a remedy, more extensive sampling, monitoring, and testing of various media (air, water, soil, sediment, waste) by an independent analytical laboratory service will be necessary to quantify the degree and distribution of contaminants. Projects involving such qualitative and quantitative measurements will provide support to the City's goal of sustainable community development and redevelopment.

An example of GHD's support of the City with regard to environmental measurement is the emergency response for air monitoring services related to the release of untreated wastewater in the Rio Vista neighborhood. From December 23, 2019, through January 2, 2020, GHD collected periodic air samples in various locations within the neighborhood to help the City evaluate overall air quality. The methods and results of this assessment are posted on the City's website.

22) Carbon footprint audits for select facilities or infrastructure

In an era of growing environmental awareness, organizations and municipalities increasingly recognize the need to assess and reduce their carbon footprints. Carbon footprint audits provide a structured, comprehensive way to account for greenhouse gas (GHG) emissions associated with operations, products, or services. These audits serve as foundational steps for sustainability strategies, regulatory compliance, and broader climate action goals.

Conducting a carbon footprint audit is not merely a technical exercise – it is a strategic endeavor requiring careful planning, robust methodologies, engagement with stakeholders, and ongoing commitment to improvement.

GHD can provide world-class carbon footprint assessments and audit capabilities to the City of Fort Lauderdale, in a manner that only an international Firm with a local presence can offer. We can provide the same greenhouse gas verification services we have performed for colleges, power generation stations, landfills, hospitals, and various manufacturing facilities.

In addition, GHD can offer carbon disclosure project (CDP) reporting services. CDP is a non-governmental organization that partners with entities such as investors, companies, and municipalities to measure their environmental footprint, with the underlying goal of greenhouse gas (GHG) emissions reduction and environmental sustainability. The core component of CDP is a voluntary reporting registry where organizations are encouraged to submit carbon data that is subsequently entered into a CDP database – a global system allowing for the disclosure, management, and dissemination of environmental information.



GHD developed a carbon footprint for a natural gas refinery. The footprint used data previously generated for the client by GHD for other regulatory reporting requirements. GHD completed an energy-efficiency study of combustion processes at the facility, together with a fugitive emissions assessment, which provided various valid data relating to GHG emissions.

Following this, GHD developed conversion protocols to calculate carbon dioxide equivalent emissions for sources of carbon dioxide, carbon monoxide, and methane.

GHD's Sustainable certifications and accreditations include:

- Designated Operational Entity (DOE) under the United Nations Framework Convention on Climate Change (UNFCCC)

- ISO 14065 – American National Standards Institute (ANSI) for ISO 14064, Parts 1,2, and 3
- California Air Resources Board (CARB)
- Climate Action Reserve (CAR)
- CSA Group Registries
- Verified Carbon Standard (VCS)
- The Climate Registry (TCR)
- The Gold Standard Foundation

GHD's long history of providing comprehensive engineering and environmental auditing/due diligence services to a wide variety of clients uniquely qualifies GHD in the areas of Corporate Social Responsibility (CSR), sustainability reporting, and climate change services.

GHD possesses a wide-ranging portfolio of completed projects that respond to the challenges of climate change and include matters related to air emissions, waste management, utilities, data management systems, monitoring, and reporting.

23) Sustainability evaluation reports

The City's Sustainability Action Plan goal is to provide stakeholders with improved efficiency, an improved quality of life, eco-prosperity, and climate resiliency will be best achieved by making sustainable decisions that integrate the elements of Environment, Economy, and Social Equity.

GHD has extensive experience advancing community resilience to sea-level rise and coastal hazards through a three-pronged approach:

1. Integrate climate science into an actionable framework
2. Maximize community benefits through nature-based solutions
3. Reduce greenhouse gas (GHG) emissions in all project phases

Many projects are underway to support the City's strategic plan and annual commission priorities, focusing on sustainability and resilience. These typically include significant permitting as a component of completion, as do any efforts within the consolidated downtown master plan, which was created for the City's future as a dense, walkable, mixed-use urban area that includes open space provisions.

We actively integrate the best available climate science into all our projects, ensuring designs are built to last into the future. Our resilience team focuses on ensuring local climate projections are readily available and translated into actionable frameworks for engineers and planners. We are also at the forefront of providing local resilience strategies in the context of larger regional approaches to resilience, leveraging existing collaborations and partnerships (e.g., Southeast Florida Climate Change Compact) to ensure tangible results. This approach ensures all our projects are resilient to current and future conditions.

Additionally, we work with communities to identify what solutions maximize benefits for coastal stakeholders by actively working with interdisciplinary teams to assess a range of potential projects, ranging from hardening the shoreline (i.e., seawalls) to softer approaches such as beach nourishment. We have a particular strength in implementing and monitoring nature-based solutions (i.e., dune restoration, artificial reefs) which maximize environmental and social benefits for shorelines.

Finally, as projects are being designed, our team looks for opportunities to reduce greenhouse gas emissions during all phases of the project. All designs integrate innovative climate mitigation and energy efficiency strategies, while also considering how to minimize a project's carbon footprint throughout the construction phase. This ensures broader community sustainability goals are leveraged while simultaneously achieving coastal resilience.

26) Water quality evaluations

Since the mid-1970s, members of our project team have been actively involved in water quality characterization projects in South Florida on canals, rivers, and Lake Okeechobee. GHD engineers and scientists in our West Palm Beach, Florida office are routinely collecting surface water and groundwater samples from a variety of canals and ponds for nutrients, contaminants such as arsenic and various pesticides, and microbiological (coliforms and fecal streptococcus).

There are numerous projects where the City will require assistance with water quality evaluations. For example, the River Oaks Stormwater Improvement project (P11868). This project is one of the seven priority neighborhoods that made up Phase 1 of the Stormwater Masterplan Program. The River Oaks neighborhood is currently under construction as part of the 1st tranche of neighborhoods for the project. This project is part of the in-kind water quality consent order. This project funds a survey, conceptual design, final design, hydraulic modeling, permitting, and installation of improved stormwater infrastructure in the River Oaks neighborhood.



Benthic Habitat Assessments

Benthic habitat surveys are a critical tool for characterizing environmental baseline conditions, evaluating ecological function, and generating data required to support regulatory compliance, impact assessments, restoration planning, and resource management strategies. The GHD team has extensive expertise conducting benthic surveys across Florida in support of permit applications, mitigation design, Environmental

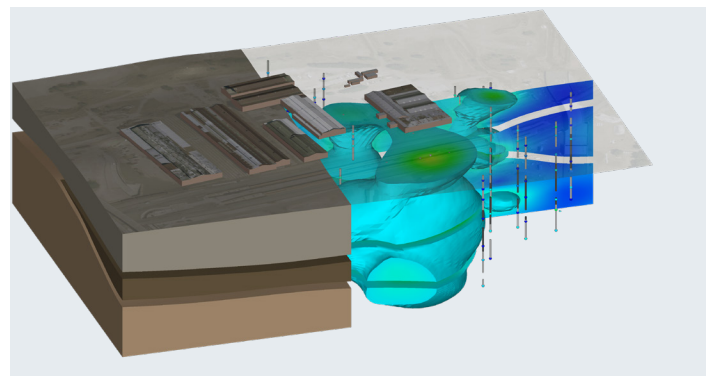
Impact Statements (EIS), compliance monitoring, and site characterization for infrastructure and coastal planning.

Our South Florida-based scientists are well-versed in the physical, chemical, and biological drivers that influence benthic community structure, resilience, and ecosystem services. For over two decades, our team has implemented benthic assessment programs throughout South Florida and the Caribbean, working in coordination with county governments, state and federal regulatory authorities, and commenting agencies including the Florida Fish and Wildlife Conservation Commission, NOAA's National Marine Fisheries Service, and the U.S. Fish and Wildlife Service.

Our scientific diving team has extensive experience in the design and execution of monitoring programs for nearshore hardbottom resources affected by beach nourishment activities, as well as structural assessments of seawalls, bulkheads, and other marine infrastructure for the presence of sensitive coral resources. We routinely conduct protected species surveys (e.g., *Acropora* spp., Queen conch), implement coral relocation and post-relocation monitoring associated with dredging and marine construction, and perform siting and clearance surveys to support artificial reef deployment and submarine utility corridors. All surveys are executed by qualified marine scientific divers following agency-approved protocols and established scientific methodologies. Collected data are used to develop geospatially referenced habitat maps, quantitative resource inventories, and statistically robust analyses that result in defensible documentation for permitting, compliance verification, and project planning

III. Site Assessment, Testing, and Remedial Plans

GHD initiates all site assessment and testing efforts with the development of a Conceptual Site Model (CSM). We view the CSM as a fundamental tool in environmental site assessment, serving as a visual and narrative representation of site conditions, potential sources of contamination, migration pathways, and potential receptors. The CSM helps stakeholders synthesize available data, identify data gaps, and guide further investigation or remediation efforts. A well-constructed CSM is essential for effective decision-making and risk management throughout the site assessment process.



The benefits of the CSM include:

- Providing a clear framework for organizing site data and guiding investigations

- Facilitating communication among project teams, stakeholders, and regulators
- Improving risk assessment by identifying relevant exposure pathways and potential impacts
- Helping to prioritize data collection and remediation efforts

7) Asbestos, lead-based paint and radon site resting, assessment and remediation plans

GHD's long history of suspect and hazardous building material investigations, testing, and mitigation will offer a level of experience and project support that we believe will play a significant role in the execution of projects under this contract.

GHD's industry-leading corporate-based Health and Safety program ensures the provision of the proper personal worker and worksite protection protocols demanded by projects that involve the sampling of such hazardous materials. Our staff of ACGIH-certified Industrial Hygienists manage and review results from ACM, LBP, and radon testing assignments generated by our team of hazard-specific inspection, sampling, and testing experts. GHD has extensive asbestos experience with all phases of determination, quantification, and remediation design/oversight, and is prepared to conduct inspections and sampling for the presence of asbestos in any size environment.

GHD staff are also experienced in conducting surveys for lead-based paint, and the associated lead-based paint hazards in dust, soil, and water. GHD professionals are well-versed in writing lead abatement specifications and conducting lead abatement monitoring. GHD conducts economical and reliable onsite lead-based paint assessments using a portable X-ray fluorescence (XRF) analyzer. The XRF offers non-destructive analysis and provides quick and accurate measurements.

GHD personnel can monitor abatement activities, including personnel monitoring, ensure compliance with federal, state, and local regulations, as well as the requirements of the project. After the completion of a remediation project, GHD can prepare a comprehensive record of the project, including notifications to regulatory agencies, and records of air and wipe sample analysis.

8) Phase I and Phase II Environmental Site Assessments

GHD has extensive experience in providing environmental assessment services throughout the State of Florida. GHD's teams of Environmental Professionals have been performing site assessments longer than most individuals in the field today.

Phase I ESA investigations include inspections of site properties and existing structures and incorporate the review and evaluation of historic information, regulatory file records, and available site documentation. The cornerstone for conducting Phase I ESAs is to identify Recognized Environmental Conditions (REC's). Consistent with ASTM Standard E1527-21, the term "Recognized Environmental Conditions" means the presence or likely presence of any Hazardous Substances or Petroleum Products in, on, or at a Property (1) due to a release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a release to the environment. The Phase I ESA will identify areas of known or potential environmental impairment which may adversely impact public health and/or the environment at, and within the immediate vicinity of, the site. If required, GHD can also evaluate potential substantive compliance issues at a

site that could potentially result in fines or require significant capital expense.

Under the EPA AAI Rule, a Phase qualified "Environmental Professionals conduct I ESA." As the environmental due diligence standards have evolved and the minimum requirements regarding the qualifications of the "Environmental Professional" have become more stringent, the importance of having qualified individuals is more evident. As founding members of the ASTM committee that drafted the Phase I and II ESA Standards, we have, through the years, collected a tremendous database of experience, assessment tools, review aids, and questionnaires that are collectively utilized to guide our Phase I ESA investigations.

After the Phase I ESA has been completed and alternatives for managing the known or potential risk associated with the Recognized Environmental Conditions have been presented, a Phase II ESA may be warranted. GHD stresses to our Clients the importance of jointly developing the objectives for the Phase II ESA so that the scope can be appropriately designed. The scope is dependent on the objective(s) and the potential environmental liabilities identified. In some cases, sampling and analysis of environmental media are necessary to obtain confirmation of the presence or absence of environmental impacts. In other cases, the presence of contamination is known or probable. Still, it is necessary to characterize further the nature and extent of the contamination to understand the potential risk better. An important objective of the Phase II ESA involves the collection and analysis of environmental media in an efficient, cost-effective manner. GHD personnel have conducted over 1,000 similar site investigations throughout Florida. Because GHD has such extensive experience in site investigation and remediation, we are able to design, implement, and complete focused and effective sampling and analysis programs required to more fully characterize contamination, evaluate potential fate/migration mechanisms, and, if necessary, evaluate possible corrective action scenarios and their associated costs.

9, 10, 11) Ground water/soil contamination testing, assessment and remediation plans, and dewatering plume calculations for drawdown effects

GHD has completed more than 500 Site Assessments (SA) at various sites throughout Florida. The data we have collected from SA activities affords us the experience of having an inherent understanding of the intricacies of site geology, hydrology, and geochemistry in particular regions of the State. In Fort Lauderdale, hydrogeologic formations are described by the Biscayne Aquifer System, the Intermediate Confining System, and the Floridan Aquifer System. The Biscayne Aquifer is the primary source of drinking water, making it most vulnerable to impact by contaminants. The vulnerability of drinking water supply from this aquifer is evident at many of the sites we have assessed and remediated in the Fort Lauderdale area, including:

- The BMS industrial solvent cleanup site
- The Ocean Ridge Commercial Corp. leaking petroleum tank cleanup site
- Boston Man Cleaners drycleaner solvent cleanup site
- Jelliff Corp. industrial solvent cleanup site

- Monterey Golf Course and Former Deerfield Beach Golf Course Arsenic and Chlorinated Pesticides assessment and remediation
- Triple H Ranch assessment and remediation in Parkland
- The Marina Mile Business Park solvent and metals cleanup site

Rehabilitation and redevelopment of abandoned industrial complexes (i.e., Brownfields) demands the level of knowledge and experience we've gained from assessing and remediating a wide range of contaminants, occurring individually or in combination.

Due to the synergy between contaminants and the geochemistry and hydrogeology of South Florida's aquifers, a technically sound and accurate assessment is the critical key to the design and implementation of the best remedial strategy.

We have adapted many elements to streamline the SA process to provide reliable, cost-effective data that meets the SA criteria: ascertaining the source and location of release, delineating impacts in all media (unsaturated soil, saturated soil, sediments, potable-source groundwater, poor quality groundwater, fresh surface water, and marine surface water), and identifying potential receptors. Our use of emerging and established technologies like direct-push and sonic sampling (saving cost for waste generated by other techniques), micro-well installation, Modified Active Gas Sampling (MAGS) technique, real-time data acquisition by membrane interface profiling (MIP) and on-site mobile laboratory analysis, passive gas sampling, vapor intrusion sampling, and GIS mapping allows rapid, accurate, cost-effective assessment. This permits us to focus more on the evaluation of remedial strategy alternatives for the responsible party's consideration. This ultimately leads to a shorter timeframe to implement the cleanup strategy that meets the responsible party's goals.



In accordance with the FDEP's desire to populate the State's Water Assurance Compliance System (WACS) database with water quality data from sites across the state, we and our vendor analytical laboratories have been formally trained to utilize the Automated Data Processing Tool software, ADaPT, for the QA/QC validation of analytical data. ADaPT is a valuable and efficient tool that saves time and cost by rapidly reviewing and validating properly formatted field and lab analytical data for water quality assurance objectives. The added benefit is the elimination of paper submittals, promoting sustainability objectives.

The need for interim remedial measures, like source removal, is determined by an evaluation of potential impact to human and environmental receptors and a determination of the technical and economic feasibility, and probability of success, of these actions as a means for removing the majority of contaminant mass (source) to expedite site closure. Applied in appropriate circumstances, it can sometimes minimize or eliminate the need for more active site remediation efforts. We demonstrated this exact principle during our cleanup of a former Shell gas station in downtown Fort Lauderdale of a private developer. With the station's cleanup deferred to the FDEP's funded Petroleum Cleanup Program by the former owner, the private developer enlisted our assistance in completing the assessment and fast-tracking the remediation to closure. Once defined, source removal provided the best response to residual fuel impacts at the site, resulting in regulatory approval of completion within 14 months of the initiation of services. Thus, our actions resulted in a substantial reduction of time and the developer's money needed to clean up the site. Combining source removal with other active remediation techniques (like open-hole sparging or amendment applications) has also led to the reduction of time and money for cleanup completion and closure. GHD has directly performed over 100 source removals for contaminated sites throughout Florida. For sites with minor spills and impacts,

GHD routinely implements de minimis cleanups that are exempt from Chapter 62-780, FAC reporting requirements. In these instances, source removal is completed within 30 days of discovery and the removal is properly documented with any required analytical testing results.

Engineering design, as it relates to the cleanup of contaminated sites, is based upon interpretation of the assessment data, knowledge of the specified remedial technology and equipment, and authentic experience in remedial design, construction, and operation with that technology. GHD has been fortunate to work on many sites throughout Florida, the United States, and internationally that involve a variety of chemicals of concern and the remedial technologies to address these concerns. From monitoring only and enhanced attenuation to excavation, from soil vapor extraction and dual-phase extraction to chemical oxidation and co-solvent extraction, from pump and treat to augmented bioremediation, GHD has designed, procured, permitted, constructed, operated, and maintained remedial systems for sites impacted by chlorinated solvents, pesticides, metals, Polychlorinated Biphenyls (PCBs), nutrients, pH, coal tar, and petroleum compounds. Further, the majority of these sites have been located here in Florida's complicated and varying geological and hydrological environs.

GHD has a history of engineering designs that are comprehensive and practical. Many of our engineered designs have resulted in immediate approval, successful implementation, and concluded with the achievement of a Site Rehabilitation Completion Order, which is the culmination of well-planned and executed site assessment, thoughtful evaluation of remedial alternatives, effective remedial design, and successful implementation through aggressive monitoring and optimization. In the last ten years, we have been successful

at obtaining over 40 Site Rehabilitation Completion Orders or equivalent No Further Action determinations by the State of Florida for sites as a result of our remedial activities. We believe that our numerous Site Rehabilitation Completion Order (SRCO)/No Further Action (NFA) determinations for contaminated sites are proof of our ability to accomplish the proposed remediation necessary under this contract.

We are prepared to work with the City in developing comprehensive testing, assessment, and remediation plans for any media we come across. Planned CIP projects where groundwater/soil contamination testing, assessment, and remediation plans could be completed include the following:

- » NEW-471811 Parks Bond Land Acquisition
- » P10918 Fire Station 13 Replacement
- » P12797 Plant A and Former Trash Transfer Station Remediation

12) Sediment contamination testing, assessment and remediation plans

Sediments play an essential role in elemental cycling in the aquatic and terrestrial environment. They are responsible for transporting a significant proportion of nutrients and contaminants. They also mediate their uptake, storage, release, and transfer between environmental compartments. Most sediments in surface waters are derived from surface erosion. They are comprised of a mineral component, arising from the erosion of bedrock, and an organic component arising during soil-forming processes (including biological and microbiological production and decomposition). An additional organic component may be added by biological activity within the water body.

Sediment transport in rivers and canals is associated with a wide variety of environmental and engineering issues. For Fort Lauderdale, canal sediment transport into estuarine areas can be the cause of extensive environmental degradation of these marine environments. It has been estimated that the vast majority of estuarine systems throughout the US are environmentally degraded by excessive nutrient transport.

GHD has significant experience in assessing canal sediments. Studies on the Milam Dairy Canal in Miami and several canals in the farm area south of Lake Okechobee (Hillsborough, Ocean Canals), among others, have been conducted by GHD to estimate the quantity of deposited sediments and to characterize them as well chemically. These studies were completed in order to estimate the quantities of sediments that needed to be removed from the canals to restore their hydraulic capacities and also to reduce the amount of nutrient sediment transport that occurs during heavy rainfall events when the canals are flowing at high velocities.

GHD also has experience with port and marine sediment characterization and dredging projects. For the Jaxport project, GHD was responsible for estimating the sediment load in front of a 1000-foot loading dock of a private port facility on the St. Johns River. A barge was used to collect vibracore sediment samples for chemical and particle size characterization. GHD worked closely with Mr. Tim Rach, Program Administrator in Tallahassee for the submerged lands program, to determine sampling approach and chemical characterization parameters.



GHD also has experience with the design of dredge material management areas (DMMA). A temporary DMMA can be constructed, consisting of a temporary bermed area consisting of multiple cells. The solids are allowed to settle out, and the supernatant is returned to the canal as long as specified turbidity requirements are met. Gravity settling in a temporary bermed area is typically the most cost-effective means of collecting and consolidating dredged materials. Use of chemical coagulants to remove suspended sediments from the water column, or use of geotubes (similar to large bag filters) to consolidate the sediments, can be used in the event that gravity settling alone does not produce an effluent meeting the specified discharge standards.

GHD has experience with various dredging techniques including dry, hydraulic and clam shell. Each has its advantages and disadvantages and project constraints (particle size of sediments, inorganic versus organic content, project space limitations, etc.) typically define the dredging technique.

13) Atmospheric contamination testing, assessment and remediation plans

GHD has the experience, personnel and tools to conduct a wide range of atmospheric testing from landfill methane monitoring, stack testing, emergency generator exhaust testing, and domestic wastewater (hydrogen sulfide, etc.). Environmental impacts from air emission sources are a growing concern for governments and other public entities worldwide due to urban and industrial development and increased public exposure. GHD has the experience, personnel, and tools to conduct a wide range of atmospheric testing. GHD maintains the resources and expertise required to assist the City with a variety of atmospheric testing, assessment, and remediation. Services can be provided to assist with permitting, regulatory compliance, construction support, source evaluation, and/or health and safety. GHD technical experts can support field efforts by developing air dispersion models to predict the impacts from an emission source and provide a basis for completing field testing. In Florida, we have assisted the City of Newberry with weekly air monitoring at the Thompson S. Baker Cement Plant for nearly 20 years. We have also assisted with emissions evaluation at Duke Energy's Tiger Bay facility and Solicore's lithium-ion manufacturing facility.



14, 15, 16) Indoor air quality/mold contamination testing, assessment and remediation plans

GHD has performed countless indoor air quality (IAQ) assessments (air testing) of chemical and/or microbial fungal spores, etc., for several industries, municipalities (including the City), commercial establishments, and private homes. GHD’s team of industrial hygienists, engineers, and microbiologists are highly experienced in lead-based paint verification locating potential sources of water intrusion, identifying and quantifying microbial growth, detecting and mitigating radon, evaluating structural and IAQ concerns, developing remediation plans, working with contractors to ensure that remediation is properly planned and conducted (including verification sampling/assessment), and certification.

Industrial Hygiene Services/Indoor Air Quality Services:

GHD can perform all aspects of microbial air sampling and associated industrial hygiene services. Our CIHs direct field monitoring and sampling activities. Although most indoor air quality problems are associated with heating, ventilation, and air conditioning (HVAC) operations, air sampling with direct-reading instruments is necessary to identify the nature and extent of the problem. GHD’s experience in conducting cause and origin evaluations for municipal clients includes:

- Hillsborough County Brandon Library
- City of St. Petersburg Former Federal Courthouse
- Manatee County Public Works Building
- Hernando County Emergency Call Center

Mold Contamination Testing, Assessment and Remediation Plans:

GHD’s industry-leading work in forensic evaluations of residential and commercial facility mold claims for numerous insurance companies, claims adjusters, public entities, and private clients have made us the go-to company for such services. GHD’s team includes mold inspections, and our staff of ACGIH-certified Industrial Hygienists manages and reviews

results from mold testing assignments. GHD’s team experience in performing mold contamination testing and assessment for municipal and private clients includes:

- The Miami-Dade School Board
- Wauchula’s Florida Hospital and Medical Office Building
- Sebring’s Florida Hospital
- Park Vista Apartments (Sarasota)
- The North Broward Regional Service Center for the Florida Department of Management Services

CIP projects where IAQ and mold assessment services may be required include:

- » CIP Project #12526: Utilities Emergency Operations Center & Admin Building CIP Project #12526: Utilities Emergency Operations Center & Admin Bldg

IV. Specialized Reviews and Assessments

17) Brownfield compatibility legislation studies

The policies of federal and state governments can have important impacts on a municipality’s attempts to clean up and revitalize its impacted abandoned or under-used industrial and commercial sites. The federal program to identify, promote cleanup, and redevelop such sites through proper planning and evaluations is called the “Brownfields” Program.

GHD’s Brownfields revitalization team specializes in assisting municipalities, regional planning and development organizations, state agencies and community-based organizations with building successful sustainable brownfield programs to achieve their restoration and revitalization goals. Our West Palm Beach, Miami, and Tampa offices provide integrated implementation services to assist our clients in building successful programs to achieve your community revitalization goals. Our Brownfields Practice group has nearly 100 years of combined environmental site investigation and brownfield experience.

GHD staff have extensive experience in site assessments, site investigation/characterization, risk-based evaluations, remedial design and implementation, and site closure including over 400 EPA and/or FDEP funded projects. We provide a full suite of solutions integrating Conventional & Advanced Site Investigation & Remediation (CASIR) technologies to efficiently and effectively achieve site resolution focused on redevelopment. We also support redevelopment planning and real estate strategy, including conceptual design and feasibility analysis, permitting, regulatory compliance, and construction support.

All of these skills are combined into a successful “Brownfields” practice that is used to put abandoned, under-used and poorly perceived properties back into useful service for the community. As part of the Brownfields practice, GHD can also assist communities with identifying potential Brownfields properties, setting priorities, and conducting community outreach and communication. Our comprehensive services can be applied to sites as small as a corner gas station as well as large former industrial manufacturing sites. GHD can help create a new vision for contaminated properties and has the comprehensive set of skills to help communities realize their goals.



GHD staff have negotiated over two dozen Brownfields Site Rehabilitation Agreements (BSRA) with FDEP, conducted remedial cleanup activities, negotiated site closures (SRCO's) and secured millions of dollars of FDEP and EPA incentives to support community redevelopment projects from Pensacola to Pahokee.

18) Above-ground and below-ground petroleum storage tank contamination testing and evaluation

Our Team has extensive experience in the management of above ground storage tanks (AST) and underground storage tank (UST) systems. GHD staff have completed UST and AST investigation and remedial action projects at hundreds of sites throughout Florida. These services have ranged from simple removal actions to comprehensive site-wide soil and/or groundwater assessment and remediation programs. In addition, GHD is experienced in providing design and construction management services for UST and AST installations, completing necessary permitting, and performing compliance auditing work (including integrity tightness testing) associated with operating tank systems. GHD is currently supporting the FDEP Bureau of Petroleum Storage Systems as a State Contractor for the Petroleum Restoration Program (PRP), where the responsible party or real property owner has elected the FDEP to manage all aspects of the environmental site management.

GHD currently manages over 75 UST/AST sites throughout the State of Florida through the FDEP's PRP program that are in various stages of contamination assessment and remediation.

GHD maintains a large group of professionals with specific experience and expertise in the assessment, remediation, and management of oil and gas exploration and production facilities, retail marketing facilities, bulk fuel transportation facilities, and petroleum refineries.

Projects where GHD's expertise may be of assistance include the hardening of wastewater generators (FY20221048). This project is for the installation of emergency stand-by diesel generators - permanently mounted - at critical wastewater pumping stations (A-7, A-10, A-19, A-20, B-4, D-33, D-31, D-34, D-35, D-36, D-43, and D-54) to ensure continual service during power failures of the source provider and hurricane hardening.

Other CIP projects where above-ground and below-ground petroleum storage tank contamination testing and evaluation services may be required include ::

- » NEW 094105 - Prospect Wellfield West Generator Replacement
- » P12806 - Public Works Admin Bldg Generator Replacement
- » P12807 - Pumping Station D-34 Emergency Generator
- » P12529 - Effluent Pumps Standby Generator & Admin Bldg
- » P12478 - Stormstation 1 Fixed Emergency Generator
- » P12479 - Stormstation 2 Fixed Emergency Generator
- » P11589 - Fiveash WTP Disinfection Improvements

19) Endangered and/or threatened species evaluation and relocation

GHD's team of biologists have performed hundreds of protected species surveys and analyses. Our Team is thoroughly familiar with the biology and life history of Florida's protected flora and fauna, state and federal regulations and monitoring protocols pertaining to those species, and related management strategies. Our Team has led projects throughout Florida, including single and multi-species field surveys, preparation of monitoring reports, development of habitat management plans, permitting, physical relocations, GIS mapping and modeling, data management, and all aspects of regulatory coordination. GHD's Team has managed projects involving gopher tortoises, burrowing owls, Florida scrub jays, piping plovers, red knots, Florida bonneted bats, crested caracara, bald eagles, manatees,

listed coral and seagrass species, Queen Conch, and five species of sea turtles.

Our Team currently has Florida Fish & Wildlife Conservation Commission (FWC) Authorized Gopher Tortoise Agents on staff who regularly conduct 100% gopher tortoise surveys and coordinate relocations, if necessary, on sites of all scales and utilizing methods appropriate to the project schedule and physical constraints. For example, Florida Power & Light Company required gopher tortoise work at their Watts Substation in Palm Beach County where our team conducted a 100% Gopher Tortoise survey, obtained relocation permits from FWC, and utilized excavation with a backhoe as the means to capture and relocate three tortoises from the six burrows.

21) Design remediation systems related to contamination found at City sites

Engineering design, as it relates to the cleanup of contaminated sites, is based upon interpretation of the assessment data, knowledge of the specified remedial technology and equipment, and real experience in remedial design, construction, and operation with that technology. GHD has been fortunate to work on many sites throughout Florida, the United States, and internationally that involve a variety of chemicals of concern and the remedial technologies to address these concerns. From Monitoring Only and Enhanced Attenuation to Excavation, from Soil Vapor Extraction and Dual-Phase Extraction to Chemical Oxidation and Co-Solvent Extraction, from Pump and Treat to Augmented Bioremediation, GHD has designed, procured, permitted, constructed, operated, and maintained remedial systems for sites impacted by chlorinated solvents, pesticides, metals, Polychlorinated Biphenyls (PCBs), nutrients, pH, coal tar, and petroleum compounds. Further, the majority of these sites have been located here in Florida's complicated and varying geological and hydrological environs.

GHD has a history of engineering designs that are comprehensive and practical. Many of our engineered designs have resulted in immediate approval, successful implementation, and concluded with the achievement of a Site Rehabilitation Completion Order, which is the culmination of well-planned and executed site assessment, thoughtful evaluation of remedial alternatives, effective remedial design, and successful implementation through aggressive monitoring and optimization. In the last ten years, we have been successful at obtaining over 40 Site Rehabilitation Completion Orders or equivalent No Further Action determinations by the State of Florida for sites as a result of our remedial activities. We believe that our numerous Site Rehabilitation Completion Order (SRCO)/No Further Action (NFA) determinations for contaminated sites is proof of our ability to accomplish the proposed remediation necessary under this contract

24) Wetland delineations

Operating in South Florida for more than 35 years, GHD's wetland scientists and ecologists have extensive experience with natural systems in Florida, having completed habitat assessments and jurisdictional determinations throughout Florida for more than 1,000 projects. Our team has mapped expansive areas and large tracts for FDEP appraisal purposes involving photointerpretation and rigorous field investigations. Our Team includes experts on all phases of wetlands

management, including habitat characterization, wetland boundary delineation, functional mitigation assessments, including the Unified Mitigation Assessment Method (UMAM) and Wetland Rapid Assessment Procedure (WRAP), vegetative restoration and monitoring, and invasive species control. We evaluate jurisdictional wetlands in accordance with applicable Federal and state wetland criteria as set forth by the USACE 1987 Wetland Delineation Manual and Chapter 62-340, Florida Administrative Code (F.A.C.) criteria set forth by the Florida Department of Environmental Protection.

The GHD Team will assist the City in wetland jurisdictional determinations by using standard methodologies, including utilizing remote sensing and creating binding jurisdictional points along protected/sensitive wetland features. GHD's ecological team experience and competency means the City can rely on us for:

- Current comprehensive knowledge of laws governing permitting activities
- UMAM protocol wetland evaluations for site planning purposes, ecological studies, and water quality impact assessments
- Jurisdictional delineations and surveys
- Mitigation, restoration/enhancement, and preservation designs
- Post-mitigation monitoring plans and programs

Planned CIP projects that will require or benefit from GHD's Wetland Jurisdictional Determination services include:

- » CIP Project #11868: River Oaks Stormwater Analysis – our scientists also routinely establish wetland boundaries that conform to varying agency definitions

25) Environmental/social justice evaluations

Social justice is an enduring aspiration and an evolving practice across societies. As organizations and communities strive for greater equity, inclusion, and fairness, evaluating social justice initiatives becomes both a necessity and a challenge. Effective social justice evaluations not only measure progress and outcomes but also inform future actions, empower marginalized communities, and challenge systemic inequities.

GHD understands that municipalities have taken the initiative to address the economic development and environmental justice issues through redevelopment initiatives. These initiatives examine the holistic nature of social problems. The efforts typically aim to increase understanding of the interdependencies of individuals, communities, and society as a whole. The goal is to use judicious processes in generating knowledge about social problems in order to intervene to advance progress. By completing conceptualized assessments, GHD can provide details regarding actual risks and contribute to the development of evaluations that contain practical initiatives. Our efforts are focused on increasing transparency, decision-making authority (through education), and relationship building.

GHD has participated in a variety of projects that include social justice evaluations. In particular, GHD completed the assessment and remediation of a former dry cleaning facility in Fort Lauderdale that was planned for residential use in support of the revitalization of downtown Fort Lauderdale.

Social justice evaluations are more than technical exercises—they are acts of solidarity, inquiry, and transformation. By centering equity, fostering participation, understanding context, upholding ethics, analyzing power, using creative methods, promoting learning, and aiming for system change, evaluators can ensure that their work contributes meaningfully to the pursuit of justice.

Effective social justice evaluations challenge us all to listen more deeply, think more critically, and act more boldly. Ultimately, their success lies in supporting lasting change that advances dignity, well-being, and fairness for all.

27) Historical and archaeological reviews

The GHD Team can provide historical and archaeological reviews as needed. Our team of archaeologists and architectural historians are familiar with the implementation of Section 106 and Chapter 267, Florida Statutes. Depending on the funding and/or permitting involved in a given project, we will prepare cultural resources documentation in compliance with applicable laws and agency guidance.

28) HUD/NEPA environmental assessments and remediation plans

Since our inception 40 years ago, GHD has earned a reputation for providing clients with high-quality Environmental Assessments (EAs) and Environmental Impact Statements (EIS) reports as part of federal/state land acquisitions, applications for environmental permits, and other restoration efforts. GHD offers highly trained and experienced team members for the evaluations of existing neighborhoods to determine if the impacts from proposed development and planned renovations are compatible with present neighborhood density and with specific plans for community redevelopment and revitalization as detailed in the CIP and Fast Forward strategic vision.

Project P12882 Environmental Assessment for Runway 9 Extension - will require the City to conduct an Environmental Assessment (EA) for the proposed Runway 9 western extension. The EA will describe the need for the consideration of the environmental impacts of the proposed action and alternatives. The EA will also provide a listing of the agencies consulted to document the impacts anticipated.

31) Design, install and monitor groundwater observations wells

With more than 21 years of experience in water well contracting and geologic interpretation, GHD's Florida-licensed Water Well Contractors have designed, permitted, installed, and properly abandoned numerous groundwater monitoring wells for hundreds of compliance, assessment, and remediation projects throughout South Florida. Focusing on the goal of the monitoring wells presence and purpose drives GHD's design principle and the choice of installation method. Our Broward-based drilling team has extensive knowledge, experience, and the necessary equipment available to install or abandon micro to large-scale monitoring wells for any of the City's planned projects

32) Design, install and monitor tide gauges

GHD has provided quality hydrologic monitoring equipment installation, operation, and maintenance of surface water stage pressure transducers and staff gauges for clients in the state of Florida for over 20 years, including the South Florida Water Management District (SFWMD), South Broward Drainage District, St. Lucie County, and Martin County.

33) Wetland and wetlands landscape design

Our Team has prepared numerous planting and management plans for both mitigation and public conservation lands. These projects have involved characterization and mapping of natural communities on the site, identifying constraints to resource management, and establishing and prioritizing management objectives. Baseline information is collected regarding the plants, wildlife, and hydrology. This information is then used to develop a specific plan to preserve and enhance, through appropriate native plantings, the site's natural resources while accommodating local public interests. Many restoration and preservation techniques are available for resource conservation, including the use of prescribed fire, exotic vegetation control, restoration of natural drainage patterns, and planting of native vegetation. GHD's Team staff has worked closely with clients to provide recommendations regarding the applicability and expected success of each method and identified potential sources of public funding to implement management measures.

Our Team completed development of the Smyrna Dunes Park Management Plan for the 75-acre, multi-habitat parcel in Volusia County. This plan included recommendations for best management practices for conserving protected species (beach mice, gopher tortoises, and shorebirds) and controlling exotic and nuisance vegetation (prescribed burns, pesticide application, native plantings etc.). Also, under contract to Martin County, the GHD Team regularly works with County staff to determine appropriate native wetland plantings within stormwater management areas and also provides and installs them.

34) Pond design

GHD has stormwater pond design experience which can assist the City with their stormwater needs. Some local example projects include Lamb Island Dairy and Candler Ranch, completed under contract to the South Florida Water Management District, in which stormwater swales and ponds were designed to retain nutrient runoff from Dairy Farms.

35) Nutrient removal calculations for stormwater systems

Florida's approach to managing stormwater has undergone significant updates in recent years, reflecting the state's commitment to improving water quality, reducing flooding, and enhancing resilience to climate change. The new Florida stormwater regulations establish more robust standards for the design, operation, and maintenance of stormwater management systems, with the goal of protecting natural resources and public health.

Key Elements of the New Regulations include:

- **Enhanced Water Quality Treatment.** The new rules increase requirements for pollutant removal, focusing on reducing nutrients such as nitrogen and phosphorus that contribute to harmful algal blooms. Stormwater systems must now implement higher treatment standards before discharging to surface or groundwater.
- **Green Infrastructure and Low Impact Development.** The regulations encourage the use of green infrastructure practices—such as rain gardens, permeable pavement, bioswales, and vegetated retention areas—to mimic natural hydrology and reduce runoff, promoting infiltration and evapotranspiration.
- **Design Criteria Updates.** New design standards require engineers and developers to use the most current rainfall data and consider future climate scenarios, including increased precipitation intensity and sea level rise, to ensure that stormwater systems remain effective under changing conditions.
- **Operation and Maintenance Requirements.** Ongoing inspection and maintenance of stormwater infrastructure are now mandatory. Owners must submit maintenance plans and retain records to demonstrate compliance, reducing system failures that can lead to flooding and pollution.
- **Stormwater Credits and Incentives.** The new regulations establish incentives for developers who go beyond minimum requirements, such as stormwater credits for incorporating innovative or especially effective practices.
- **Public Engagement and Transparency.** The updated rules promote greater community involvement, ensuring that the public is informed about stormwater projects and can participate in decision-making.

The words “stormwater improvement” show up 240 times in the City of Fort Lauderdale’s Adopted FY 2025–2029 Community Investment Plan. Understanding and applying these new stormwater management rules will likely represent one of the most important areas of expertise that GHD can provide the City.



Over the last 25 years, out of our West Palm Beach office (previously Wellington), GHD has completed a variety of pilot studies related to surface water and sediment nutrient removal. During this time, numerous pilot studies have been completed for the South Florida Water Management District and local County Governments to determine phosphorus and

nitrogen reduction strategies to meet TMDL and CERP-related nutrient limits. GHD has also established numerous temporary field laboratories that have included filtration, coagulation/flocculation, settleometers, and nutrient testing abilities in order to conduct real-time assessments of means to achieve stated nutrient data quality objectives.

36) Low impact stormwater system design

Low-impact stormwater system design refers to a set of strategies and engineering practices aimed at managing rainwater and runoff in a way that closely mimics natural hydrologic processes. The central idea is to minimize the adverse effects of urbanization—such as flooding, water pollution, and habitat loss—by reducing runoff volume and improving water quality at the source, rather than relying exclusively on extensive, centralized infrastructure like storm drains and retention basins. The keys to low-impact design include:

- **Preservation of Natural Features.** Protecting and integrating existing vegetation, waterways, and natural land contours to maximize infiltration and minimize disturbance.
- **Decentralized Management.** Using a network of small-scale stormwater controls distributed throughout a site to manage runoff close to where it falls.
- **Infiltration and Filtration.** Encouraging rainwater to soak into the ground through permeable surfaces, rain gardens, bioswales, and green roofs, which filter pollutants and recharge groundwater.
- **Runoff Reduction.** Capturing and slowing down stormwater with landscape features and engineered systems, thus reducing peak flows and downstream flooding.
- **Water Quality Improvement.** Using natural or engineered processes to remove pollutants (such as sediments, nutrients, oil, and heavy metals) from runoff before it reaches local rivers, lakes, or bays.

GHD has implemented a variety of low-impact stormwater practices into its designs, including:

- Rain gardens (bioretention cells)
- Permeable pavements
- Green roofs
- Bioswales and vegetated swales
- Rainwater harvesting systems (cisterns and barrels)
- Conservation landscaping (native plantings)

The benefits include reducing flooding by absorbing more water on site, improving water quality by filtering out contaminants before they enter waterways, enhancing groundwater recharge, supporting urban green space and biodiversity, and mitigating urban heat through vegetation and shading.

With less and less land available for stormwater retention, creative and more sustainable forms of stormwater retention are needed. This is especially true in the City of Fort Lauderdale. Our Team brings low-impact stormwater system design experience and permitting with micro-bioretention basins, terraced berms, bioretention basins, and grass swales.

An example of low-impact stormwater design that GHD developed was for Lamb Island Dairy, in which terrace berms were constructed across pasture area designed to increase runoff retention, evapotranspiration (ET), and phosphorous uptake.

37) Conduct greenhouse gas inventories

Greenhouse Gas (GHG) emissions have emerged as an essential issue for municipalities in part due to current or impending regulations, stakeholder concerns, client requirements, and responsible corporate citizenship. As a result, entities are facing the multiple and simultaneous challenges of meeting local and international climate change obligations. GHD's proactive approach is the development of strategies for valuating and managing GHG emissions, efficiently tracking GHG data, and reducing carbon footprints.

A number of revenue streams can be realized through effectively managing greenhouse gas emissions. The growth in both regulatory and voluntary emissions trading schemes offers revenue opportunities for municipalities that engage in early action. Compliance with the basic rules for these different systems is critical to take full advantage of potential revenues.

GHD's Greenhouse Gas Assurances Services (GGAS) Group manages and conducts verifications, validations, and reviews of greenhouse gas emission quantifications and greenhouse gas emission reduction projects. GHD has been active in the validation/verification services field since its inception and has assisted clients with the quantification of greenhouse gas emissions for over 20 years. GHD's clients include regulated emitter facilities and carbon emission reduction offset project developers.

GHD maintains several certifications and accreditations for validation/verification services and operates in numerous greenhouse gas regulatory programs and voluntary registries.

GHD's certifications and accreditations:

- United Nations Framework Convention on Climate Change
- (UNFCCC) Designated Operational Entity (DOE)
- ISO 14065 – American National Standards Institute (ANSI)
- ISO 14064 Parts 1, 2, and 3
- California Air Resources Board (CARB)
- Verified Carbon Standard (VCS)
- Intercontinental Exchange® (ICE)

In December 2021, the City Commission passed a resolution calling for net-zero greenhouse gas emissions in City operations by 2040. With approximately 27% of all greenhouse gas emissions coming from the transportation sector, a significant driver for achieving net-zero emissions in City operations will come through the transition to EVs. The City has an EV charger installation initiative (P12833).

This project is for the purchase and installation of additional electric vehicle (EV) chargers at City-owned facilities. With this project, the goal is to install approximately fifteen (15) EV chargers per fiscal year. Staff will focus on City facilities where City vehicles are parked overnight, including the following facilities: City Hall, the Parks and Recreation Headquarters, the Public Works building at NW 38th Street, and the Development Services building.

38) Similar services not specifically listed

Other services specifically not listed that we can provide to the City include:

- Post-hurricane emergency response services
- Corrosion assessments
- Hydrological monitoring platform construction services
- Odor Control Studies
- Demolition
- Potable water and wastewater forensic investigations

39) Laboratory services




Laboratory services may be required for soil, sediment, groundwater, surface water, and building materials. GHD has selected Pace Analytical Services, LLC (Pace) to conduct laboratory testing services for the City. Pace supports environmental consulting and engineering firms with a comprehensive suite of laboratory testing and project support services. Laboratories are equipped with state-of-the-art equipment and advanced analytical technologies that enable highly accurate and reliable testing results. A variety of laboratory services are expected to be required as part of executing this contract and the GHD Team is confident in Pace's ability to meet any laboratory testing required as part of the contract.



05

→ References

→ References

	Owner Contact	Project
	<p>Port Tampa Bay Christopher Cooley, Director of Environmental Affairs 1101 Channelside Drive Tampa, FL 33602 T: 813.215.0950 E: ccooley@tampaport.com</p>	<p>On-Call Environmental Engineering Services Contract 2022 - Ongoing</p> <p>GHD was selected to provide continuing environmental engineering services for Port Tampa Bay on an on-call basis. GHD assists PTB with a variety of environmental consulting services including Phase I ESAs Phase II ESAs, soil and groundwater assessment, Brownfields cleanup, and development of a Stormwater Pollution Prevention Plan (SWPPP) using the US Environmental Protection Agency Industrial SWPPP Template dated, February 25, 2021.</p>
	<p>City of Miami Keith Ng, Senior Project Manager 3500 Pan American Drive Miami, FL 33133 T: 305.416.1298 E: keithng@miamigov.com</p>	<p>Environmental Engineering Services Contract 2020 - Ongoing</p> <p>GHD has provided General Environmental Services to the City of Miami on multiple projects over the past 5 years. Services have included design, construction documents, construction administration, and reports for environmental engineering projects.</p>
	<p>Saber Real Estate Advisors, LLC Michael Klinger, Project Manager 80 Business Park Drive Suit 100, Armonk, New York, 10504 T: 786.406.1762 E: klinger@saberfund.com</p>	<p>Larry's Chevron #47607 2015 - 2020</p> <p>The Larry's Chevron #47607 was a fuel dispenser, convenience store, and car wash facility that operated through mid 2015. GHD was contracted to complete due diligence, Phase I and Phase II site assessments, and site restoration activities.</p>



06

→ **Minority/Women
(M/WBE) Participation**

→ 06 M/WBE Participation

Our firm is not currently certified as a Minority/Women Business Enterprise (M/WBE) under the Florida Small and Minority Business Assistance Act of 1985. However, GHD is fully committed to advancing supplier diversity and supporting the goals of the Florida Statutes 287.09451. We have a strong record of engaging M/WBE partners and fostering inclusive procurement practices on our projects.

Supplier Diversity Program

GHD's Supplier Diversity program is a core part of our business strategy and reflects our commitment to building strong, inclusive supply chains. We proactively partner with Minority-, Women-, and Small Business Enterprises (M/W/SBE) across all regions where we operate. Our program includes:

- Setting annual supplier diversity goals and tracking progress.
- Providing mentoring, technical assistance, and capacity-building opportunities for diverse suppliers.
- Standardizing processes for onboarding and supporting M/WBE partners, including clear expectations for health, safety, and quality.
- Maintaining regular communication and coordination with our subconsultants to ensure seamless project delivery and compliance with diversity objectives.
- Leveraging technology and project management tools to facilitate collaboration, knowledge sharing, and transparency across our project teams and supplier network.

GHD's approach to supplier diversity is rooted in our belief that inclusive procurement not only strengthens our projects but also delivers lasting value to our clients and the communities we serve. We welcome any additional guidance from the client regarding specific M/WBE goals or reporting requirements for this contract.

Previous Efforts:

- GHD routinely identifies and solicits qualified M/WBE firms for subcontracting opportunities, leveraging state and local M/WBE directories and participating in industry outreach events.
- We have successfully partnered with certified M/WBE subconsultants and suppliers on numerous public sector projects, ensuring meaningful participation and capacity building.
- Our teams have participated in networking events, pre-bid meetings, and supplier diversity forums to connect with M/WBE firms and expand our network of diverse partners.

Planned Efforts for this Contract:

- GHD will continue to actively seek out and engage certified M/WBE firms for all relevant scopes of work under this contract, including direct outreach to firms listed in the Florida Department of Management Services directory and local business organizations.
- We will document all outreach and engagement efforts and provide regular updates on M/WBE participation to the client.
- Our procurement process will include clear communication of opportunities, mentoring, and support for M/WBE partners to ensure their success and growth.

GHD is deeply committed to meaningful participation of Minority- and Women-Owned Business Enterprises (MWBE) throughout this contract. As part of our best management practices, we've partnered with a strong network of MWBE firms—many of whom have successfully supported GHD on recent projects. These trusted teaming relationships promote seamless collaboration, technical excellence, and inclusive project delivery that reflects the diversity of the communities the City of Fort Lauderdale serves.





07

→ **Sub-Consultants**

Our Subconsultants



Colliers Engineering & Design, Inc. (CED) is a multi-disciplinary professional services firm with expertise in a wide range of Engineering, Surveying, and Architecture services. In Florida, they have eight offices with over 180 employees and have been serving the local area for over 11 years. Given their staff location and availability, they will meet the City's expectations for responsiveness and are prepared to immediately provide staff and resources as needed to support this important contract.

The CED team is composed of licensed professional geologists, engineers, surveyors, and technical staff with extensive experience on a wide variety of similar contracts. CED consistently strives to provide proactive, viable solutions to local public clients and governmental agencies to help meet diverse planning, infrastructure, and capital improvement goals while maintaining function, natural resources, aesthetics, and quality of life.

Their services encompass all aspects of public endeavors including local and regional utilities, water resources, parks and recreational spaces, public facilities, roadways, and streetscape design.



APEX Companies (APEX) is a nationally recognized leader in environmental consulting and engineering, with over 35 years of experience delivering comprehensive asbestos-related services. Since 1988, APEX has supported clients across sectors with asbestos inspections, abatement project design, air sampling, and in-place management strategies. Their multidisciplinary team includes EPA- and state-accredited inspectors, Certified Industrial Hygienists, engineers, and health and safety professionals, many of whom are NIOSH-582 PAT proficient—enabling on-site PCM analyses for expedited clearance and re-occupancy. APEX's turnkey abatement solutions leverage a trusted network of qualified contractors, ensuring safe, compliant, and cost-effective execution.

The firm's capabilities extend beyond asbestos to include hazardous building materials such as lead-based paint, mercury-containing devices, PCBs, refrigerants, and more. APEX's approach is rooted in responsiveness and technical rigor, as demonstrated in high-profile projects like emergency asbestos removal for a major university lab, nationwide surveys for a financial services client, and ongoing inspections for retail REITs. Their commitment to health and safety is reinforced through their WorkSafe program and a culture of continuous improvement, making APEX a go-to partner for clients navigating complex environmental challenges. With operations in all 50 states and a reputation for excellence, APEX continues to shape safe, sustainable, and resilient environments for businesses and communities alike.



08

→ **Required
Forms**



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Addendum Acknowledgment

a. Sample Insurance Certificate

b. Local Business Preference Certification

c. DBE Preference Certification

d. Questionnaire Sheet

e. References Form

f. Non-Collusion Statement

g. Non-Discrimination Certification Form

h. E-Verify Affirmation Statement

i. Contract Payment Method

j. Bid/Proposal Certification

k. Affidavit of Compliance with Foreign Entity Laws

l. Drug-Free Workplace Programs Form



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

ADDENDUM NO. 1

Event 501
Environmental Engineering Consulting Services
ISSUED: September 10, 2025

This addendum is being issued to clarify the information in a previously answered question:

1. In our Question and Answer section within Infor, our online strategic sourcing platform, we received two questions as to whether the Trench Safety Form is required for this solicitation.

Conflicting information was inadvertently provided in response. We would like to clarify that the Trench Safety Form is not required, as this project pertains solely to professional engineering services and does not constitute a construction project. Accordingly, proposers are not required to submit the Trench Safety Form in their submittal.

All other terms, conditions, and specifications remain unchanged.

Erick Martinez
Senior Procurement Specialist

Company Name: GHD Inc.
(please print)

Bidder's Signature: *Christi Harding*

Date: 09/11/2025

AGENCY CUSTOMER ID: _____

LOC #: _____



ADDITIONAL REMARKS SCHEDULE

Page 2 of 2

AGENCY Willis Towers Watson Northeast, Inc.		NAMED INSURED GHD Services Inc. 2055 Niagara Falls Blvd., Suite 3 Niagara Falls, NY 14304	
POLICY NUMBER See Page 1			
CARRIER See Page 1	NAIC CODE See Page 1	EFFECTIVE DATE: See Page 1	

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: 25 FORM TITLE: Certificate of Liability Insurance

Umbrella/Excess Liability follows form over General Liability, Auto Liability and Employer's Liability.

Certificate Holder is included as an Additional Insured as respects to General Liability, Auto Liability and Pollution Liability where required by contract or agreement.

General Liability policy shall be Primary and Non-contributory with any other insurance in force for or which may be purchased by Additional Insured where required by contract or agreement.

Waiver of Subrogation applies in favor of Additional Insured with respects to General Liability, Auto Liability and Pollution Liability where required by contract or agreement.

Waiver of Subrogation applies in favor of Additional Insured with respects to Workers Compensation where required by written contract, agreement or permit where permissible by law or statute.

INSURER AFFORDING COVERAGE: Beazley Excess and Surplus Insurance Inc
POLICY NUMBER: D29657240601 EFF DATE: 12/01/2024 EXP DATE: 12/01/2025

NAIC#: 17520

ADDITIONAL INSURED: Y
SUBROGATION WAIVED: Y

TYPE OF INSURANCE:	LIMIT DESCRIPTION:	LIMIT AMOUNT:
Pollution Liability	Each Occurrence:	\$2,000,000
	Aggregate:	\$2,000,000

POLICY NUMBER: 0310-4497

COMMERCIAL GENERAL LIABILITY
CG 20 10 10 01

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**ADDITIONAL INSURED – OWNERS, LESSEES OR
CONTRACTORS – SCHEDULED PERSON OR
ORGANIZATION**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

<p>Name of Person or Organization:</p> <p>Where required by written contract</p>

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

A. Section II – Who Is An Insured is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of your ongoing operations performed for that insured.

B. With respect to the insurance afforded to these additional insureds, the following exclusion is added:

2. Exclusions

This insurance does not apply to "bodily injury" or "property damage" occurring after:

- (1) All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the site of the covered operations has been completed; or
- (2) That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

POLICY NUMBER: 0310-4497

COMMERCIAL GENERAL LIABILITY
CG 20 37 10 01

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**ADDITIONAL INSURED – OWNERS, LESSEES OR
CONTRACTORS – COMPLETED OPERATIONS**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name of Person or Organization: Where required by written contract
Location And Description of Completed Operations: Where required by written contract
Additional Premium: N/A

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

Section II – Who Is An Insured is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of "your work" at the location designated and described in the schedule of this endorsement performed for that insured and included in the "products-completed operations hazard".

POLICY NUMBER: 0310-4497

COMMERCIAL GENERAL LIABILITY

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

PRIMARY AND NON-CONTRIBUTORY

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

Notwithstanding any other provision of this policy to the contrary, the insurance afforded to an additional insured under this policy will be primary to, and non-contributory with, any other insurance available to that person or organization in the event a contract or agreement you enter into requires you to furnish insurance to that person or organization of the type provided by this policy.

GL 00021 00 (07/09)

WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

SCHEDULE

Name Of Person Or Organization:

Where required by written contract

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The following is added to Paragraph **8. Transfer Of Rights Of Recovery Against Others To Us** of **Section IV – Conditions**:

We waive any right of recovery we may have against the person or organization shown in the Schedule above because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a contract with that person or organization and included in the "products-completed operations hazard". This waiver applies only to the person or organization shown in the Schedule above.

Coverage Extension Endorsement



Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer No.	Add'l. Prem	Return Prem.
BAP 3757423-10	07/01/2025	07/01/2026	07/01/2025		---	---

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the:

- Business Auto Coverage Form**
- Motor Carrier Coverage Form**

A. Amended Who Is An Insured

1. The following is added to the **Who Is An Insured** Provision in **Section II – Covered Autos Liability Coverage**:

The following are also "insureds":

- a. Any "employee" of yours is an "insured" while using a covered "auto" you don't own, hire or borrow for acts performed within the scope of employment by you. Any "employee" of yours is also an "insured" while operating an "auto" hired or rented under a contract or agreement in an "employee's" name, with your permission, while performing duties related to the conduct of your business.
- b. Anyone volunteering services to you is an "insured" while using a covered "auto" you don't own, hire or borrow to transport your clients or other persons in activities necessary to your business.
- c. Anyone else who furnishes an "auto" referenced in Paragraphs **A.1.a.** and **A.1.b.** in this endorsement.
- d. Where and to the extent permitted by law, any person(s) or organization(s) where required by written contract or written agreement with you executed prior to any "accident", including those person(s) or organization(s) directing your work pursuant to such written contract or written agreement with you, provided the "accident" arises out of operations governed by such contract or agreement and only up to the limits required in the written contract or written agreement, or the Limits of Insurance shown in the Declarations, whichever is less.

2. The following is added to the **Other Insurance** Condition in the Business Auto Coverage Form and the **Other Insurance – Primary and Excess Insurance Provisions Condition** in the Motor Carrier Coverage Form:

Coverage for any person(s) or organization(s), where required by written contract or written agreement with you executed prior to any "accident", will apply on a primary and non-contributory basis and any insurance maintained by the additional "insured" will apply on an excess basis. However, in no event will this coverage extend beyond the terms and conditions of the Coverage Form.

All other terms, conditions, provisions and exclusions of this policy remain the same.

M. Temporary Substitute Autos – Physical Damage

1. The following is added to **Section I – Covered Autos**:

Temporary Substitute Autos – Physical Damage

If Physical Damage Coverage is provided by this Coverage Form on your owned covered "autos", the following types of vehicles are also covered "autos" for Physical Damage Coverage:

Any "auto" you do not own when used with the permission of its owner as a temporary substitute for a covered "auto" you do own but is out of service because of its:

1. Breakdown;
 2. Repair;
 3. Servicing;
 4. "Loss"; or
 5. Destruction.
2. The following is added to the Paragraph **A. Coverage** Provision of the **Physical Damage Coverage** Section:

Temporary Substitute Autos – Physical Damage

We will pay the owner for "loss" to the temporary substitute "auto" unless the "loss" results from fraudulent acts or omissions on your part. If we make any payment to the owner, we will obtain the owner's rights against any other party.

The deductible for the temporary substitute "auto" will be the same as the deductible for the covered "auto" it replaces.

N. Amended Duties In The Event Of Accident, Claim, Suit Or Loss

Paragraph **a.** of the **Duties In The Event Of Accident, Claim, Suit Or Loss** Condition is replaced by the following:

- a.** In the event of "accident", claim, "suit" or "loss", you must give us or our authorized representative prompt notice of the "accident", claim, "suit" or "loss". However, these duties only apply when the "accident", claim, "suit" or "loss" is known to you (if you are an individual), a partner (if you are a partnership), a member (if you are a limited liability company) or an executive officer or insurance manager (if you are a corporation). The failure of any agent, servant or employee of the "insured" to notify us of any "accident", claim, "suit" or "loss" shall not invalidate the insurance afforded by this policy.

Include, as soon as practicable:

- (1) How, when and where the "accident" or "loss" occurred, and if a claim is made or "suit" is brought, written notice of the claim or "suit" including, but not limited to, the date and details of such claim or "suit";
- (2) The "insured's" name and address; and
- (3) To the extent possible, the names and addresses of any injured persons and witnesses.

If you report an "accident", claim, "suit" or "loss" to another insurer when you should have reported to us, your failure to report to us will not be seen as a violation of these amended duties provided you give us notice as soon as practicable after the fact of the delay becomes known to you.

O. Waiver of Transfer Of Rights Of Recovery Against Others To Us

The following is added to the **Transfer Of Rights Of Recovery Against Others To Us** Condition:

This Condition does not apply to the extent required of you by a written contract, executed prior to any "accident" or "loss", provided that the "accident" or "loss" arises out of operations contemplated by such contract. This waiver only applies to the person or organization designated in the contract.

WORKERS COMPENSATION AND EMPLOYERS LIABILITY INSURANCE POLICY

WC 00 03 13

(Ed. 4-84)

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

This agreement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

Schedule

ALL PERSONS AND/OR ORGANIZATIONS THAT ARE REQUIRED BY WRITTEN CONTRACT OR AGREEMENT WITH THE INSURED, EXECUTED PRIOR TO THE ACCIDENT OR LOSS, THAT WAIVER OF SUBROGATION BE PROVIDED UNDER THIS POLICY FOR WORK PERFORMED BY YOU FOR THAT PERSON AND/OR ORGANIZATION.

WC 00 03 13
(Ed. 4-84)

© 1983 National Council on Compensation Insurance.

b. Local Business Preference Certification



LOCAL BUSINESS PREFERENCE

Section 2-199.2, Code of Ordinances of the City of Fort Lauderdale, (Ordinance No. C-12-04), provides for a local business preference.

In order to be considered for a local business preference, a bidder must include the Local Business Preference Certification Statement of this ITB, as applicable to the local business preference class claimed **at the time of bid submittal**.

Upon formal request of the City, based on the application of a Local Business Preference the Bidder shall, within ten (10) calendar days, submit the following documentation to the Local Business Preference Class claimed:

- A) Copy of City of Fort Lauderdale current year business tax receipt, **or** Broward County current year business tax receipt, **and**
- B) List of the names of all employees of the bidder and evidence of employees' residence within the geographic bounds of the City of Fort Lauderdale or Broward County, as the case may be, such as current Florida driver license, residential utility bill (water, electric, telephone, cable television), or other type of similar documentation acceptable to the City.

Failure to comply at time of bid submittal shall result in the bidder being found ineligible for the local business preference.

THE COMPLETE LOCAL BUSINESS PREFERENCE ORDINANCE MAY BE FOUND ON THE CITY'S WEB SITE AT THE FOLLOWING LINK:

https://library.municode.com/fl/fort_lauderdale/codes/code_of_ordinances?nodeId=COOR_CH2_AD_ARTVFI_DIV2PR_S2-186LOBUPR

Definitions: The term "Business" shall mean a person, firm, corporation or other business entity which is duly licensed and authorized to engage in a particular work in the State of Florida. Business shall be broken down into four (4) types of classes:

1. Class A Business – shall mean any Business that has established and agrees to maintain a permanent place of business located in a non-residential zone and staffed with full-time employees within the limits of the City **and** shall maintain a staffing level of the prime contractor for the proposed work of at least fifty percent (50%) who are residents of the City.
2. Class B Business - shall mean any Business that has established and agrees to maintain a permanent place of business located in a non-residential zone and staffed with full-time employees within the limits of the City **or** shall maintain a staffing level of the prime contractor for the proposed work of at least fifty percent (50%) who are residents of the City.
3. Class C Business - shall mean any Business that has established and agrees to maintain a permanent place of business located in a non-residential zone **and** staffed with full-time employees within the limits of Broward County.
4. Class D Business – shall mean any Business that does not qualify as either a Class A, Class B, or Class C business.

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LOCAL BUSINESS PREFERENCE CERTIFICATION STATEMENT

The Business identified below certifies that it qualifies for the local business price preference classification as indicated herein, and further certifies and agrees that it will re-affirm its local preference classification annually no later than thirty (30) calendar days prior to the anniversary of the date of a contract awarded pursuant to this ITB. Violation of the foregoing provision may result in contract termination.

(1) _____ is a **Class A** Business as defined in City of Fort Lauderdale Ordinance No. C-17-26, Sec.2-186. A copy of the City of Fort Lauderdale current year Business Tax Receipt **and** a complete list of full-time employees and evidence of their addresses shall be provided within 10 calendar days of a formal request by the City.

Business Name

(2) _____ is a **Class B** Business as defined in the City of Fort Lauderdale Ordinance No. C-17-26, Sec.2-186. A copy of the Business Tax Receipt **or** a complete list of full-time employees and evidence of their addresses shall be provided within 10 calendar days of a formal request by the City.

Business Name

(3) _____ is a **Class C** Business as defined in the City of Fort Lauderdale Ordinance No. C-17-26, Sec.2-186. A copy of the Broward County Business Tax Receipt shall be provided within 10 calendar days of a formal request by the City.

Business Name

(4) _____ requests a **Conditional Class A** classification as defined in the City of Fort Lauderdale Ordinance No. C-17-26, Sec.2-186. Written certification of intent shall be provided within 10 calendar days of a formal request by the City.

Business Name

(5) _____ requests a **Conditional Class B** classification as defined in the City of Fort Lauderdale Ordinance No. C-17-26, Sec.2-186. Written certification of intent shall be provided within 10 calendar days of a formal request by the City.

Business Name

(6) _____ is considered a **Class D** Business as defined in the City of Fort Lauderdale Ordinance No. C-17-26, Sec.2-186 and does not qualify for Local Preference consideration.

GHD Services Inc.

Business Name

BIDDER'S COMPANY: _____ GHD Services Inc. _____

AUTHORIZED COMPANY PERSON: _____ Chrissi Harding *Chrissi Harding* 09/05/2025
PRINT NAME SIGNATURE DATE

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c. Disadvantaged Business Enterprise Preference Certification



DISADVANTAGED BUSINESS ENTERPRISE (DBE) PREFERENCE

Section 2-185, Code of Ordinances of the City of Fort Lauderdale, provides for a disadvantaged business preference.

In order to be considered for a DBE Preference, a bidder must include a certification from a government agency, as applicable to the DBE Preference class claimed **at the time of bid submittal**.

Upon formal request of the City, based on the application of a DBE Preference the Bidder shall, within ten (10) calendar days, submit the following documentation to the DBE Class claimed:

- A) Copy of City of Fort Lauderdale current year business tax receipt, **or** Broward County current year business tax receipt, **or** State of Florida active registration **and/or**
- B) List of the names of all employees of the bidder and evidence of employees' residence within the geographic bounds of the City of Fort Lauderdale or Broward County, as the case may be, such as current Florida driver license, residential utility bill (water, electric, telephone, cable television), or other type of similar documentation acceptable to the City.

Failure to comply at time of bid submittal shall result in the bidder being found ineligible for the disadvantaged business preference.

THE COMPLETE DBE PREFERENCE ORDINANCE MAY BE FOUND ON THE CITY'S WEB SITE AT THE FOLLOWING LINK: <https://www.fortlauderdale.gov/home/showpublisheddocument?id=56883>

Definitions

- a. The term "disadvantaged class 1 enterprise" shall mean any disadvantaged business enterprise that has established and agrees to maintain a permanent place of business located in a non-residential zone, staffed with full-time employees within the limits of the city, and provides supporting documentation of its City of Fort Lauderdale business tax and disadvantaged certification as established in the City's Procurement Manual.
- b. The term "disadvantaged class 2 enterprise" shall mean any disadvantaged business enterprise that has established and agrees to maintain a permanent place of business within the limits of the city with a full-time employees and provides supporting documentation of its City of Fort Lauderdale business tax and disadvantaged certification as established in the City's Procurement Manual.
- c. The term "disadvantaged class 3 enterprise" shall mean any disadvantaged business enterprise that has established and agrees to maintain a permanent place of business located in a non-residential zone, staffed with full-time employees within the limits of the Tri-County area and provides supporting documentation of its City of Fort Lauderdale business tax and disadvantaged certification as established in the City's Procurement Manual.
- d. The term "disadvantaged class 4 enterprise" shall mean any disadvantaged business enterprise that does not qualify as a Class A, Class B, or Class C business, but is located in the State of Florida and provides supporting documentation of its disadvantaged certification as established in the City's Procurement Manual.



DISADVANTAGED BUSINESS ENTERPRISE CERTIFICATION STATEMENT

The Business identified below certifies that it qualifies for the disadvantaged business enterprise price preference classification as indicated herein, and further certifies and agrees that it will re-affirm its preference classification annually no later than thirty (30) calendar days prior to the anniversary of the date of a contract awarded pursuant to this solicitation. Violation of the foregoing provision may result in contract termination.

(1) _____ is a disadvantaged class 1 enterprise as defined in the City of Fort Lauderdale Ordinance Section 2-185 disadvantaged business enterprise that has established and agrees to maintain a permanent place of business located in a non-residential zone, staffed with full-time employees within the limits of the city, and provides supporting documentation of its City of Fort Lauderdale business tax and disadvantaged certification as established in the City's Procurement Manual.

Business Name

(2) _____ is a disadvantaged class 2 enterprise as defined in the City of Fort Lauderdale Ordinance Section 2-185 disadvantaged business enterprise that has established and agrees to maintain a permanent place of business within the limits of the city with a full-time employee(s) and provides supporting documentation of its City of Fort Lauderdale business tax and disadvantaged certification as established in the City's Procurement Manual.

Business Name

(3) _____ is a disadvantaged class 3 enterprise as defined in the City of Fort Lauderdale Ordinance Section 2-185 disadvantaged business enterprise that has established and agrees to maintain a permanent place of business located in a non-residential zone, staffed with full-time employees within the limits of the Tri-County area and provides supporting documentation of its City of Fort Lauderdale business tax and disadvantaged certification as established in the City's Procurement Manual.

Business Name

(4) _____ is a disadvantaged class 4 enterprise as defined in the City of Fort Lauderdale Ordinance Section 2-185 disadvantaged business enterprise that does not qualify as a Class A, Class B, or Class C business, but is located in the State of Florida and provides supporting documentation of its disadvantaged certification as established in the City's Procurement Manual.

Business Name

(5) _____ is not considered a Disadvantaged Enterprise Business as defined in the City of Fort Lauderdale Ordinance Sec.2-185 and does not qualify for DBE Preference consideration.

GHD Services Inc.

Business Name

BIDDER'S COMPANY: _____ GHD Services Inc. _____

AUTHORIZED COMPANY PERSON: Chrissi Harding *Chrissi Harding* 09/05/2025
PRINT NAME SIGNATURE DATE

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QUESTIONNAIRE SHEET

PLEASE PRINT OR TYPE:

Firm Name: GHD Services Inc.

President Theodore Whiton

Business Address:

1501 Belvedere Road, Suite #500, West Palm Beach, Florida 33406

Telephone: 813.971.3882

Fax: 813.971.1862

E-Mail Address:

Ted.Whiton@ghd.com

What was the last project of this nature which you completed? Include the year, description, and contract value.

Fort Lauderdale General Engineering Consulting Services, 2020-2025, \$600,000

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

(Phones/emails/addresses provided on following 3 forms)

- 1. Port Tampa Bay On-Call Environmental Engineering Services Contract, 2022-Ongoing, \$250,000
2. City of Miami Environmental Engineering Services Contract, 2020-Ongoing, \$varies per task order
3. Saber Real Estate Advisors, LLC; Larry's Chevron #47607, 2015-2020, \$298,960

How many years has your organization been in business?

22 years

Have you ever failed to complete work awarded to you; if so, where and why?

N/A

The name of the qualifying agent for the firm and his position is: Brian Moore, PE

Certificate of Competency Number of Qualifying Agent: Prof. Engineer #64017

Effective Date: 02/06/2006 Expiration Date: 02/28/2027

Licensed in: Florida

Engineering Contractor's License # (County/State)

Expiration Date:

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

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

QUESTIONNAIRE SHEET

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

Yes

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

Subcontractor Name

Description of Work

a) Colliers Engineering & Design

Survey Services (100%)

b) APEX Companies

Asbestos Services (100%)

c)

d)

e)

f)

g)

3. What equipment do you own that is available for the work?

Company vehicles, laptops, iPads, office phones, mobile phones, personal protective equipment, decontamination equipment, digging equipment (shovels, hand augers), typical field tools, and/or tool kits.

4. What equipment will you purchase for the proposed work?

We do not anticipate the need to purchase additional equipment, unless there is a need to purchase client-required software, field-specific disposables/one-use items including: mason jars, aluminium foil, HDEP and Silicone tubing, and/or disposable safety gloves.

5. What equipment will you rent for the proposed work?

Potential rentals could include peristaltic pump, depth to water meter, portable battery and charger, dust-monitoring stations, portable weather station, an specialized tools.

SPECIFIC REFERENCES FORM

The contractor shall have previous construction experience in the State of Florida with projects of similar scope and scale (or larger) as specified in the solicitation. Complete this form in its entirety. **Note: Do not include proposed team members or parent/subsidiary companies as references in your submittal.**

PRIME BIDDER'S NAME: GHD Services, Inc.

CLIENT NO. 1 – Name of firm to be contacted: Port Tampa Bay

Address: 1101 Channelside Drive, Tampa, FL 33602

Contact Person: Christopher Cooley, Director of Environmental Affairs

Phone No: 813.215.0950

Contact E-Mail Address: ccooley@tampaport.com

Project Performance Period: 2022 to Ongoing

Project Name: On-Call Environmental Engineering Services Contract

Location of Project: Port Tampa Bay, FL

Description of the overall scope:

GHD was selected to provide continuing environmental engineering services for Port Tampa Bay (PTB) on an on-call basis. GHD assists PTB with a variety of environmental consulting services including Phase I Environmental Site Assessments (ESA), Phase II ESAs, soil and groundwater assessment, Brownfields cleanup, and development of a Stormwater Pollution Prevention Plan (SWPPP) using the US Environmental Protection Agency Industrial SWPPP Template dated, February 25, 2021.

Description of work that was self-performed by Bidder:

Recent projects included the completion of a comprehensive soil and groundwater assessment of a former coal yard. The property was impacted with metals and polycyclic aromatic hydrocarbons (PAH). GHD developed an overall remedial plan that focused on the removal of soils containing concentrations in excess of the State's Commercial/Industrial Exposure soil cleanup target levels. GHD is also assisting with development and implementation of a groundwater monitoring plan at a Brownfield site that contained a former waste disposal area. The site is impacted with heavy metals (arsenic and iron) and total dissolved solids. GHD assisted with the development of a natural attenuation monitoring plan that was approved by Hillsborough County and is now in the Implementation phase. The ultimate goal for the site is to achieve a no further action with controls. Finally, GHD also supports PTB with NPDES compliance by conducting quarterly inspections and sampling. GHD conducts routine inspections and sampling for PTB facilities. GHD personnel also assisted with inspections at PTB tenant facilities and provided NPDES compliance training.

SPECIFIC REFERENCES FORM

CLIENT NO. 2 – Name of firm to be contacted: City of Miami

Address: 3500 Pan American Drive, Miami, FL 33133

Contact Person: Keith Ng, Senior Project Manager

Phone No: 305.416.1298

Contact E-Mail Address: keithng@miamigov.com

Project Performance Period: 2020 to Ongoing

Project Name: Environmental Engineering Services Contract

Location of Project: Miami, FL

Description of the overall scope:

GHD has provided General Environmental Services to the City of Miami on multiple projects over the past 5 years.

Description of work that was self-performed by Bidder:

GHD provides design, construction documents, construction administration, and reports for environmental engineering projects. Responsibilities included obtaining permits from agencies such as Miami-Dade DERM, FDEP, and ACOE for City projects. Additional tasks have included literature review and planning, field investigations (i.e., total site survey, geotechnical standard penetration test (SPT) borings and double-ring infiltrometer (DRI) tests, confirmatory environmental sampling for arsenic contamination, and condition assessment of infrastructure, design of new improvements, pre-construction soil remediation, post-construction services, dust monitoring, and construction oversight.

SPECIFIC REFERENCES FORM

CLIENT NO. 3 – Name of firm to be contacted: Saber Real Estate Advisors, LLC

Address: 80 Business Park Drive, Suite 100, Armonk, New York, 10504

Contact Person: Michael Klinger, Project Manager

Phone No: 786.406.1762

Contact E-Mail Address: klinger@saberfund.com

Project Performance Period: 2015 to 2020

Project Name: Larry's Chevron #47607

Location of Project: Fort Myers, FL

Description of the overall scope:

The Larry's Chevron #47607 was a fuel dispenser, convenience store, and car wash facility that operated through mid 2015. GHD was contracted to complete due diligence, site assessment, and site restoration activities.

Description of work that was self-performed by Bidder:

GHD first completed a Phase I Environmental Site Assessment (ESA), as well as a Phase II ESA. The due diligence activities were completed in anticipation of site redevelopment. Following completion of due diligence, GHD conducted removal of the underground storage tanks, associated underground piping, and dispensers. During tank closure, approximately 914.76 tons of petroleum-impacted soil was removed for off-site disposal. The soil removal process was iterative in that soil confirmation testing was conducted coincidental in order to ensure all contaminated soil was removed. Following source removal activities, additional assessment was conducted in order to meet the requirements for a completed Site Assessment. The assessment work was complicated by the presence of adjacent petroleum dispensing facilities to the north and south of the site with subsurface impacts. Additional complications involved the tidally influenced groundwater (site located on Miami Beach). GHD negotiated assessment approval following well installation (both on- and off-site) and by sampling existing off-site wells. Following Site Assessment approval, GHD recommended Natural Attenuation Monitoring in order to establish plume stability in anticipation of pursuing a Site Closure with Conditions. The Natural Attenuation Monitoring has been complicated by ongoing construction activities both on- and off-site that have resulted in damaged or destroyed monitor wells. GHD completed replacement well installation off-site and site closure.

f. Non-Collusion Statement



NON-COLLUSION STATEMENT

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

Any 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.

<u>NAME</u>	<u>RELATIONSHIPS</u>
N/A	
_____	_____
_____	_____

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

Chrissi Harding
Authorized Signature

Vice President
Title

Chrissi Harding
Name (Printed)

09/05/2025
Date

Rev 09-2022

g. Non-Discrimination Certification Form



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

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

Pursuant to 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.



Authorized Signature

Chrissi Harding, Vice President

Print Name and Title

09/05/2025

Date

h. E-Verify Affirmation Statement



E-VERIFY AFFIRMATION STATEMENT

RFQ Event No. 501: Environmental Engineering
Solicitation/Bid /Contract No: Consulting Services, Continuing Services Contract

Project Description:

The City of Fort Lauderdale is seeking the services of a qualified consulting firm or firms to provide professional services related to a continuing services contract for general environmental engineering consultant services and shall include, but not be limited to, the following services as authorized by individual task orders for individual projects.

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: GHD Services, Inc.

Authorized Company Person's Signature: *Chrissi Harding*

Authorized Company Person's Title: Chrissi Harding, Vice President

Date: 09/05/2025

i. Contract Payment Method



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

**GHD does not subscribe to P-card programs;
however, we can accept EFT payments.**

GHD Services, Inc.

Company Name

Chrissi Harding

Name (Printed)

Handwritten signature of Chrissi Harding in blue ink.

Signature

Vice President

Title

09/05/2025

Date

Rev. 09/2022_lp

City of Fort Lauderdale

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)

Address:

City: State: Zip:

Telephone No.: FAX No.: Main Contact Email Address:

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.

<input type="text" value="Theodore Whiton"/> Name	<input type="text" value="President"/> Title	<input type="text" value="Patricia Osoko"/> Name	<input type="text" value="Company Secretary"/> Title
<input type="text" value="Brian Moore"/> Name	<input type="text" value="Registered Agent"/> Title	<input type="text"/> Name	<input type="text"/> Title

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

<u>Addendum No.</u>	<u>Date Issued</u>	<u>Addendum No.</u>	<u>Date Issued</u>	<u>Addendum No.</u>	<u>Date Issued</u>
<input type="text" value="1"/>	<input type="text" value="09/10/2025"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

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:

Name (printed)

Signature

Date

Title

k. Affidavit of Compliance with Foreign Entity Laws

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)(I), 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)

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

Name: Chrissi Harding Title: Vice President Entity: GHD Services Inc.

Signature: *Chrissi Harding* Date: 9-8-2025

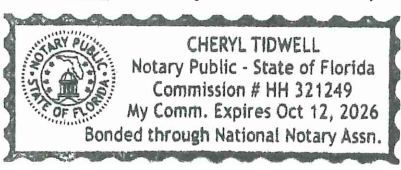
NOTARY PUBLIC ACKNOWLEDGEMENT SECTION

STATE OF Florida
COUNTY OF Hillsborough

The foregoing instrument was acknowledged before me, by means of physical presence or online notarization, this 8 day of September, 2025, by Chrissi Harding, as Vice President for GHD Services Inc., who is personally known to me or who has produced _____ as identification.

Notary Public Signature: *Cheryl Tidwell*
Print Name: Cheryl Tidwell

(Notary Seal)
My commission expires: October 12, 2026





CITY OF FORT LAUDERDALE

**SWORN STATEMENT PURSUANT TO SECTION 287.087, FLORIDA
STATUTES, ON PREFERENCE TO BUSINESS WITH
DRUG-FREE WORK PLACE PROGRAMS**

I certify that I have established a Drug Free Work Place program and have complied with the following

- a. Published and distributed to each employee a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibitions.
- b. Required all new employees to undergo laboratory testing as a condition of employment and will require all employees, as a condition of their continued employment, to undergo laboratory testing to detect illegal drug or alcohol use according to Florida Statutes 440.101 and 440.102.
- c. Ensured that applicants with a confirmed positive drug or alcohol screening test result are not considered for employment.
- d. Have tested employees when reasonably suspected of illegal drug or alcohol use.
- e. Ensured that any employee refusing to take a drug or alcohol screening test in violation of the Drug Free Work Place Policy is subject to dismissal for failure to abide by the provisions of the Policy.
- f. Informed employees about the dangers of drug abuse in the workplace, the business' policy of maintain a drug-free workplace, any available drug counseling, rehabilitation and employee assistance programs and the penalties that may be imposed upon employees for drug abuse violations.
- g. In the statement specified in subparagraph a, notified the employees that, as a condition of their employment, the employee will abide by the terms of the statement and will notify their employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States of any state, for a violation occurring in the workplace no later than 5 days after such conviction.

- h. Have required all employees to sign a copy of this statement of compliance acknowledging their understanding and agreeing to abide with the requirements of the Drug Work Place Policy.
- i. Will impose a sanction on or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community by, any employee who is so convicted.
- j. Am making a good faith effort to continue to maintain a Drug Free Work Place through implementation of this document.

BY: Chrissi Harding DATE: 09/05/2025

NAME (Printed) Chrissi Harding TITLE: Vice President

COMPANY NAME: GHD Services, Inc.

Affix Company Seal



