LANGAN

ENGINEERING & ENVIRONMENTAL SERVICES

Qualifications for:

Request for Qualifications No. 14-004: Environmental Engineering Services

Prepared for:

The City of Key West

9 July 2014

Environmental

Site/Civil

Geotechnical

Earthquake/Seismic

Surveying/Mapping

Traffic/Transportation

Natural Resources/Permitting

Sustainable Design

Parkside Corporate Center
15150 NW 79th Court, Suite 200
Miami Lakes, FL 33016
786.264.7200

1 800 3 LANGAN www.langan.com

LANGAN

Technical Excellence
Practical Experience
Client Responsiveness

9 July 2014

Ms. Sue Snider
Purchasing Clerk
City of Key West
3126 Flagler Avenue
Key West, FL 33040

Re: The City of Key West
Environmental Engineering Services Request for Qualifications
RFQ No. 14-004

Dear Ms. Snider:

Langan Engineering and Environmental Services, Inc. welcomes the opportunity to respond to this Request for Qualifications (RFQ) for Environmental Engineering Services for the City of Key West. We have reviewed the RFQ and in response present the requested qualification information. Our submittal includes one original, one copy, and two digital copies of our RFQ response.

The Miami Lakes office, founded in 1974, comprises over 35 professionals providing environmental, geotechnical, and civil engineering services to Florida, the Caribbean, and Latin America. The Miami-based Langan team has been called upon by numerous local governments and private sector clients, and we have established long-term relationships with counties, cities, and government agencies. This team is enhanced by the participation of Buchart Horn, Inc., experts in coastal engineering. The Langan team will provide the City of Key West with unsurpassed environmental engineering services.

If we are awarded this contract, we will provide the City of Key West with proof of adequate insurance coverage and city licenses.

We appreciate the opportunity to submit our qualifications and look forward to working with the City of Key West. Please contact us if you have questions or concerns.

Sincerely,

Langan Engineering and Environmental Services, Inc.

Vincent D. Yarina

Vincent D. Yarina, P.G., CEM
Senior Associate/Vice President

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Company Profile

FIRM PROFILE

Langan provides an integrated mix of engineering and environmental consulting services in support of land development projects, corporate real estate portfolios, and the oil and gas industry. Our clients include public agencies, institutions, corporations, developers, property owners, and energy companies around the world.

Founded in 1970, Langan employs more than 800 professionals in its Elmwood Park, NJ headquarters and among 18 regional offices in the United States:

- Miami, FL
- New York, NY
- White Plains, NY
- New Haven, CT
- Trenton, NJ
- Philadelphia, PA
- Bethlehem, PA
- Doylestown, PA
- Pittsburgh, PA
- Arlington, VA
- San Francisco, CA
- Oakland, CA
- Sacramento, CA
- San Jose, CA
- Irvine, CA
- Bismarck, ND
- Akron, OH
- Houston, TX

Langan's broad range of services includes the following:

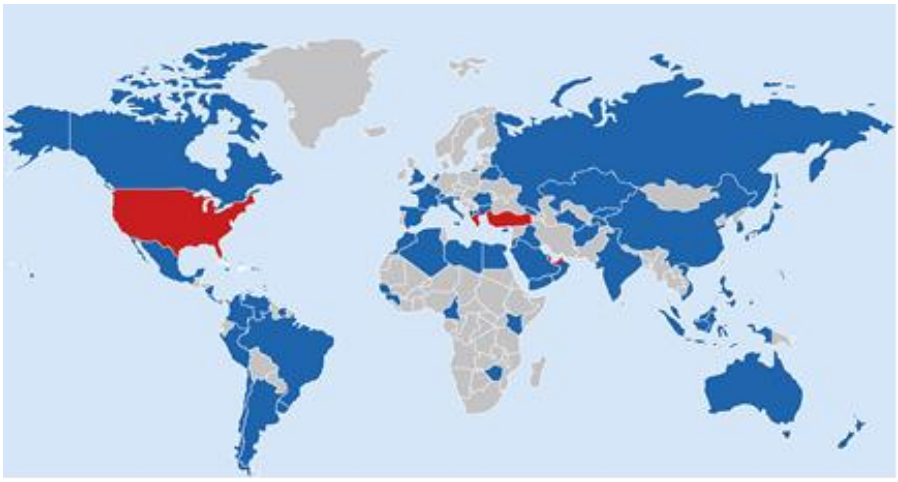
- Environmental Engineering
- Geotechnical Engineering
- Site/Civil Engineering
- Surveying
- 3D Laser Scanning
- Building Information Modeling (BIM)
- Natural Resources Assessments & Permitting
- Earthquake/Seismic
- Landscape Architecture Planning
- Transportation/Traffic Engineering
- GIS/Data Management Services
- Asbestos, LBP, Indoor Air Quality/Mold Consulting
- Demolition Engineering
- Foundation Design

Langan's reputation has been forged by providing innovative site engineering solutions, from conception through completion, that address various technical and regulatory challenges and/or complex subsurface conditions. Langan is a recognized leader in our field earning major awards for design and engineering excellence.

LANGAN INTERNATIONAL

Langan International, a wholly-owned subsidiary of Langan Engineering, Environmental, Surveying and Landscape Architecture, DPC, provides land development engineering and environmental consulting for private developers, public agencies, property owners and institutional clients around the world.

From its headquarters in New York, and other "international" cities around the country, Langan International supports development projects throughout the Middle East, Europe, Asia, Africa, Central America, South America and the Caribbean. From the firm's strategically located international offices in Abu Dhabi, Dubai, Doha, Istanbul and Athens, Langan provides in-country expertise and resources to manage complex projects beyond the borders of the U.S. Together, the domestic and international offices of Langan perform around-the-clock in the process we call "reverse-off-shoring" to meet project deadlines and exceed expectations for global clients.



Blue denotes countries where Langan has worked; red denotes countries where Langan has offices

Langan International offices are located in:

- Abu Dhabi, UAE
- Athens, Greece
- Doha, Qatar
- Dubai, UAE
- Istanbul, Turkey
- New York City, NY
- Los Angeles, CA
- Miami, FL
- San Francisco, CA
- Washington, DC

ENVIRONMENTAL ENGINEERING

TECHNICAL AND REGULATORY KNOWLEDGE

Langan works with project teams to provide leading-edge, focused, streamlined investigations and risk-based remediation. We excel in promoting and gaining regulatory acceptance of risk based strategies to obtain cost effective site closures. Langan possesses expertise in a wide variety of projects including state Voluntary Programs, Brownfields, RCRA, State and Federal Superfund, Manufactured Gas Plants (MGP) and Storage Tank programs.

LANGAN ENVIRONMENTAL SERVICES:

- Risk-Based Corrective Action
- Brownfields
- Storage Tank Management
- Due Diligence Support
- Environmental Assessments
- Site Characterization
- Permitting/Regulatory Approvals
- Remediation Design/ Oversight
- Water Resources/Supply
- Hydrological Investigations
- Wastewater and Stormwater Permitting
- Air Modeling
- GIS/Database Management
- Environmental Impact Statements (EIS)
- Manufactured Gas Plant Remediation Services
- Asbestos/Lead-Based Paint Abatement
- Management of PCB-Containing Materials
- Indoor Air Quality/Mold
- Demolition
- Waste Management
- Compliance Auditing
- Ecological Risk Assessment
- Human Health Risk Assessment
- Site Feasibility Studies
- Remediation by Natural Attenuation
- Expert Witness
- Exposure Assessments
- Free Product Volume and Mobility Modeling

GEOTECHNICAL ENGINEERING

FOUNDATIONS YOU CAN TRUST

Langan was founded as a geotechnical consulting company in 1970, and geotechnical engineering remains a core discipline at Langan today. We work closely with our clients and the design and construction team to engineer cost-effective geotechnical solutions appropriate for proposed structures and the governing site conditions.

Our reputation as a premier geotechnical consultant has been earned by managing hundreds of projects involving complex, technically challenging sites where highly specialized site preparation, foundations, and fast-track engineering solutions are required.

LANGAN GEOTECHNICAL SERVICES:

- Subsurface Investigations
- Foundation Design
- Materials Analysis
- Soil and Rock Mechanics
- Retaining Structures
- Slope Stabilization
- Soil Improvement/ Ground Modification
- Dewatering Design and Permitting
- Subsurface Structure Design
- Excavation Support and Underpinning Design
- Earthquake/Seismic
- Geological Mapping of Rock Slopes
- Mine Investigations/ Studies
- Hydrogeology
- Earth and Rock Fill Dams
- Tunnels/Microtunneling
- Seawalls, Piers and Bulkheads
- Dredging
- Vibration Monitoring
- Pre-Construction Conditions Surveys
- Value Engineering
- Construction Documents
- Contractor Support Services
- Engineering Services During Construction
- Forensic Engineering/ Expert Testimony
- Cost Estimates

SITE/CIVIL ENGINEERING

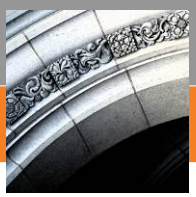
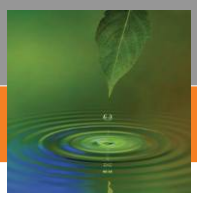
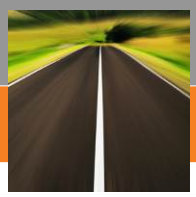
RESPONSIVENESS THAT DELIVERS RESULTS

As an integral component of the design team, Langan works closely with the owner to develop conceptual site plans and realistic cost estimates. Our deadline-oriented professionals are available to our clients 24/7 to ensure timely approvals and permits to advance projects toward construction, occupancy, and ultimately revenue. Langan also supports projects with construction inspection and overall project management.

LANGAN SITE/CIVIL SERVICES:

- Project Management
- Site Feasibility Studies
- Conceptual Planning
- Site Engineering & Planning
- Grading & Drainage Design
- Stormwater Management Design
- Value Engineering
- Sanitary Treatment Plant Design
- Utility Infrastructure Design
- Water Supply/Hydrological Investigations
- Permitting/Regulatory Compliance
- Wetland Delineation/ Mitigation
- Landscape Architecture
- Regulatory Negotiation
- Survey-Boundary/ Topographical/GPS
- Traffic/Transportation Engineering
- Waterfront Systems Design
- Property Acquisition Support
- Conceptual Reuse Planning
- Funding Identification/Grant Assistance
- Regulatory Coordination/ Compliance
- Decommissioning/ Demolition Design
- Construction Management
- Construction Inspection
- CADD/GIS/Computer Animations
- SITEOPS® Optimization Services

FIRM PROFILE

Buchart Horn, Inc.

A full-service international engineering and architectural firm, Buchart Horn, Inc. was founded in 1945 by friends Clair S. Buchart, AIA and Russell E. Horn, PE. Buchart Horn was one of the first professional consulting companies to combine engineering and architecture under one roof. That innovation was fueled by a simple premise: it was better for clients if engineers and architects would cooperate rather than compete on projects. Simple ideas are often the most powerful; today the firm's professional and support personnel serve local, state, and federal government clients around the world.

Our professional design services focus on three crucial areas essential to every community: Transportation (roads, highways, and bridges); Environmental (water and wastewater treatment systems and strategies to protect and improve our natural environment); and Architecture (designing the buildings where we live, work, learn, and play). Our clients range from local, county, state, and federal governments to large and small private sector clients.

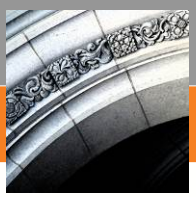
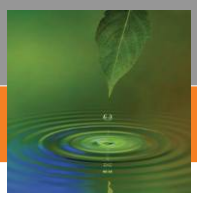
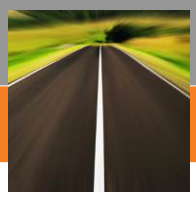
By designing and shaping infrastructure for the future, Buchart Horn promotes safe travel, protects the environment, safeguards drinking water, enhances local commerce and recreation, and creates attractive surroundings, thereby strengthening our communities.

Locations

Our firm has offices in:

Headquarters:	York, PA
Pennsylvania:	Center Valley, Harrisburg, New Cumberland, Pittsburgh, State College
Florida:	Lake Placid
Louisiana:	Baton Rouge
Maryland:	Baltimore
Mississippi:	Batesville
New Jersey:	Marlton
Tennessee:	Memphis
Virginia:	Winchester
West Virginia:	Charleston
Washington, DC	
Germany:	Frankfurt, Kaiserslautern

BUCHART HORN, INC.
Strengthening Communities®

Environmental

Safe drinking water is a requirement, not an option. Buchart Horn engineers safeguard the water that flows from our kitchen faucets by protecting our water at its source – the groundwater aquifer, wells, reservoirs, rivers, and streams. Development of any kind affects water quality: Septic systems must be maintained and their contents treated off site. Stormwater runoff has to be controlled. Treatment plants take in waste and release water that doesn't degrade our streams and rivers. There's a lot of engineering in a glass of water.

Architecture

Look around you and you'll likely see examples of how architecture adds or detracts from the task at hand. Lighting, the sense of space or confinement, isolation or community, soothing aesthetics or jarring incongruity; each can add to or detract from our enjoyment and productivity at home, school, work, or play. Architects enhance our ability to learn, improve our chances to heal, accelerate our productivity, and make it easy for us to navigate an unfamiliar airport by applying their skills and imaginations to the use of shapes, light, and colors that complement the purpose of each building they design.

Transportation

Getting from point A to point B sounds simple, but it takes a dedicated team of professional planners, environmental scientists, engineers, landscape architects, and surveyors to determine the best location for roads, highways, and bridges – and that's just the beginning. Next, the design must satisfy codes, suit its surroundings, promote safety, and address environmental considerations. In essence, our transportation engineers design your trip from point A to point B, allowing you to get there quickly, safely, and with the least possible impact upon the environment.

Construction Services

Engineers and architects not only design projects, they identify the best methods and specify the best materials to be used during construction. No matter how complete and thoughtful the plan, however, site conditions may demand changes and alterations to design elements, construction processes, or specifications. Unavailability of specified materials could threaten construction delays. The construction firm wants to make changes, but who decides which changes are in the best interests of the client? Our Construction Services team serves as the client's representative and protects their interests during the construction process.

BUCHART HORN, INC.
Strengthening Communities®

MARINE AND COASTAL ENGINEERING

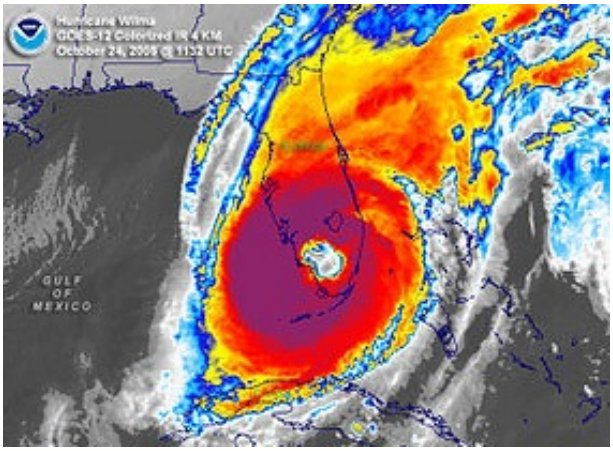
Buchart Horn's marine and coastal engineering resources include comprehensive waterfront, marine, and coastal engineering services. Services include feasibility assessments, environmental assessments and remediation, planning, coastal modeling, marine structural engineering, marine geotechnical engineering, waterfront facilities design, threat and vulnerability assessment, and program and construction management for a myriad of waterfront, marine, and coastal projects worldwide. Each project is customized to the client's unique needs.

From waterfront amenities and recreational marinas, to industrial and commercial port facilities, to military coastal structures and floodwall protection systems, our projects incorporate the most advanced designs, sustainable solutions, and practices.

BH can address all environmental facets associated with the complexities of marine and coastal projects. Additionally, BH professionals are well versed and experienced in regulatory compliance for facilities of all types, with lessons learned from a diverse array of projects across the United States and beyond.

BH's marine and coastal engineering services also include feasibility analysis for varied project types including waterfront industrial, military, and private development facilities. Included in our firm's portfolio of clients is the US Navy, for which we routinely provide feasibility assessments under multi-year IDIQ contracts.

Coastal Modeling and Hydrodynamic Engineering



The BH marine and coastal team has extensive experience on a wide variety of waterfront and coastal development projects in regions exposed to some of the most difficult environments in the world. Our team has used the most advanced coastal modeling software available to understand the coastal processes at work in these environments and assure robust designs capable of withstanding hurricanes and other powerful weather events such as nor'easter winter storms and tsunami events.

BUCHART HORN, INC.
Strengthening Communities®

MARINE AND COASTAL ENGINEERING

BH's coastal and hydrodynamic engineering services include inlet analysis and design, coastal analysis, tidal and wave action studies, breakwater structures, shore protection, beach re-nourishment programs, dredging studies and design, navigation issues, environmental permitting assistance, and hydrographic studies.

BH's highly experienced coastal engineering team understands the nature and complexity of coastal problems and considers all advantageous and detrimental physical and environmental effects, while comparing the overall cost and benefits to the project.

Marine Structural Engineering

BH's marine structural engineering services reach a broad market. Specialty services include heavy industrial waterfront facilities such as vessel berthing piers, recreational marinas, vessel mooring fields, bulkheads and seawalls, and shoreline flood protection structures, as well as structural investigations and restorations for storm-damaged structures. Frequently these marine/coastal structures are accompanied by upland structures.

The BH team also provides professional design services for boat dry rack storage buildings, clubhouses and harbormaster buildings, ship's retail store, and a wide array of luxury resort amenities. Our team has vast experience in the marine structural arena and is always looking to improve the safety, comfort, quality, and life cycles of structure designs, while looking for ways to minimize costs to the client.

Small Craft Harbors and Marinas

With a team-based approach including the developer, upland architecture, and local and environmental agencies, the Buchart Horn marina design team succeeds in combining the desired aesthetics, operational effectiveness, cost control, and creative solutions to the challenges of the environment and local marine habitat. Our team brings a vast array of experience and disciplines to marina design including comprehensive master plans to create the right relationship between land and water based structures. Our team has successfully administered these key marina planning and design services for more than 75 marinas worldwide just in the past decade alone for a large diversity of clients.

Most recently, BH was retained to provide professional design services for a second five-year contract to the US Navy Commander, Navy Installations Command, in which BH was the only firm awarded multi-year contracts for both Project Validation Assessments (market and engineering feasibility studies), and Request for Proposal Development for both design-bid-build and design-build projects.

BUCHART HORN, INC.
Strengthening Communities®

MARINE AND COASTAL ENGINEERING

BH's **Waterfront Engineering** services include:

- Pre-development services
- Feasibility assessments
- Regulatory compliance
- Environmental assessments
- Site evaluations and due diligence
- Waterfront programming and planning
- Support facilities

BH's **Marine Engineering** services include:

- Seaport facilities
- Marina facilities
- Waterfront recreation structures
- Piers and wharves
- Mooring analysis and structures
- Bulkheads, seawalls, and quay walls
- Shoreline protection and stabilization
- Structural condition assessments
- Flood protection
- Navigation structures
- Dry rack boat storage facilities
- Corrosion technologies

BH's **Coastal Engineering** services include:

- Coastal processes analysis
- Tidal and wave action studies
- Climate change and sea level rise studies
- Inlet analysis and design
- Breakwater structures
- Shore protection
- Beach re-nourishment programs
- Dredging studies and design
- Navigation issues
- Regulatory permitting
- Hydrographic surveys

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2

Relevant Experience

Contaminated Site Investigation and Remediation Services

LANGAN

MONROE COUNTY LANDFILL GROUNDWATER MONITORING

SERVICES:

- *Environmental*

LOCATION:

Cudjoe Key, Long Key and Key Largo, Florida

CLIENT:

Monroe County

REFERENCE:

Monroe County Public Works
Rosa Washington, Senior Solid Waste Administrator
1100 Simonton Street, Room 2-131
Key West, FL 33040
Washington-rosa@monroecounty-fl.gov
305.292.4432

COST:

$35,000 (Langan Estimated Fee)

KEY PERSONNEL:

Daniel Spector, PG, LEP
Vince Yarina, PG, CEM

Langan is monitoring groundwater semi-annually at three county landfills – Cudjoe Key, Long Key, and Key Largo – as part of the county's solid waste permits from the Florida Department of Environmental Protection.

The project involves collecting samples from 11 monitoring wells and one surface water location, in accordance with Chapter 62-701, Florida Administrative Code. Analytical parameters for groundwater are: cadmium, chromium, nickel, lead, and zinc by EPA Method 6010B; mercury by EPA Method 7470A; total organic carbon by EPA Method 5310C; nitrate (as N) and nitrite (as N) by EPA Method 353.2; total nitrate/nitrite by EPA Method 353.2; Kjedhal nitrogen by EPA Method 351.2; Total nitrogen (lab calculation); phosphorus (as P) by EPA Method 365.4; total dissolved solids by EPA Method SM2540C; and total suspended solids by EPA Method SM2540D. Analytical parameters for surface water are: total aluminum, arsenic and iron by EPA Method 6010B; sulfate by EPA Method 300.0; chloride by EPA Method 300.0; chemical Oxygen Demand by EPA Method SM5220D; ammonia by EPA Method 350.1; and fecal coliform by EPA Method SM9222D.

Under separate purchase orders, Langan repaired an aboveground well riser and will prepare documentation on behalf of the county that will support a request to reduce the number of analytes required by the monitoring program.

LANGAN

PAN AM TRACT 1 SOAKAGE PIT ASSESSMENT AND REMOVAL

SERVICES:

- *Environmental Assessment*
- *Environmental Oversight During Construction*

LOCATION:

Miami International Airport
Miami, Florida

CLIENT:

Miami-Dade Aviation Department

REFERENCE:

Gustavo Leal
Miami-Dade Aviation Department
4200 NW 36th Street
Miami, FL 33166
gleal@miami-airport.com
305.876.7796

COST:

$124,000 (Langan's Fee)

KEY PERSONNEL:

Vincent Yarina, PG, CEM
Daniel Spector, PG, LEP

The Miami-Dade Aviation Department (MDAD) contracted Langan to assess the nature and extent of contamination in and around 11 soakage pits, which MDAD had to remove to make way for a utility corridor. The pits were installed more than 40 years ago; tenants washed and repaired airplanes near the pits, which collected the runoff from those operations. The $129,000 project (drilling and laboratory costs were handled directly by the client) included more than 200 soil samples, 45 groundwater samples, and 175 samples for field screening of petroleum hydrocarbon vapors.

After the assessment, Langan provided full-time environmental oversight of the removal of the soakage pits to ensure that the construction contractor handled and disposed of free product and contaminated soil and groundwater according to FAA, MDAD, and state and county regulations.

LANGAN

FORMER BUILDING 1034
MIAMI INTERNATIONAL AIRPORT

SERVICES:

- *Environmental Assessment*

LOCATION:

Miami International Airport
Miami, Florida

CLIENT:

Miami-Dade Aviation Department

REFERENCE:

Gustavo Leal
Miami-Dade Aviation Department
4200 NW 36th Street
Miami, FL 33166
gleal@miami-airport.com
305.876.7796

COST:

$31,000 (Langan's Fee)

KEY PERSONNEL:

Vincent Yarina, PG, CEM
Daniel Spector, PG, LEP

The Miami-Dade Aviation Department (MDAD) contracted Langan to assess groundwater and soil contamination at the site of a former underground storage tank (UST) that had been removed when the north runway was built at Miami International Airport (MIA). The site is now in a swale on the south side of an active runway in the airside operations area (AOA). All work has been done between 11 p.m. and 7 a.m. to accommodate air traffic. The assessment included sampling previously installed wells, installing and sampling new wells, and collected relative tops of casing to determine groundwater flow. Langan monitored groundwater quality for one year and worked with RER and MDAD to prepare a Declaration of Restrictive Covenant and an Engineering Control Plan. The DRC included an institutional control limiting the use of the property to an airport, an institutional control for groundwater, and an engineering control for soil.

LANGAN

FORT LAUDERDALE/HOLLYWOOD INTERNATIONAL AIRPORT
T-4 REMEDIATION

SERVICES:

- *Work Plan Development*
- *Geotechnical Evaluation of Soil Conditions*
- *Soil Pre-characterization*
- *Well Installation and Abandonment*
- *Open-excavation Air-sparging*
- *Environmental Observation During Construction*

LOCATION:

Fort Lauderdale, Florida

CLIENT:

Cummings-Balfour Beatty

REFERENCE:

Mike Lanciault
James A. Cummings, Inc.
3575 N.W. 53rd Street
Fort Lauderdale, FL 33309
954.733.4211
mlanciault@jamesacummings.com

COST:

$191,000 (Langan's Fee)

KEY PERSONNEL:

Vincent Yarina, PG, CEM
Daniel Spector, PG, LEP

Langan was contracted to provide environmental services during utility construction in a petroleum-impacted area near the western gate of Fort Lauderdale/Hollywood International Airport.

The services include:

- Characterizing soil before excavation to determine which soil can be reused and which soil must be removed for off-site disposal
- Providing a geotechnical evaluation of soil conditions;
- Developing a comprehensive work plan for the entire project
- Developing a baseline of groundwater quality in advance of construction
- Abandoning monitoring wells in the construction footprint
- Observing the removal and segregation of impacted soil
- Sparging the open excavation to remove volatile petroleum compounds
- Reinstalling and sampling monitoring wells after construction

The project is expected to be completed in the spring of 2014. Because this is an active airport, much of the work has to be done at night when airport traffic is lighter.

LANGAN

BP SUPERSTOP 441

SERVICES:

- *Environmental Site Assessment*
- *Remedial Design and Implementation*
- *Regulatory Support*

LOCATION:

Fort Lauderdale, FL

CLIENT:

AIG Property Causality

REFERENCE:

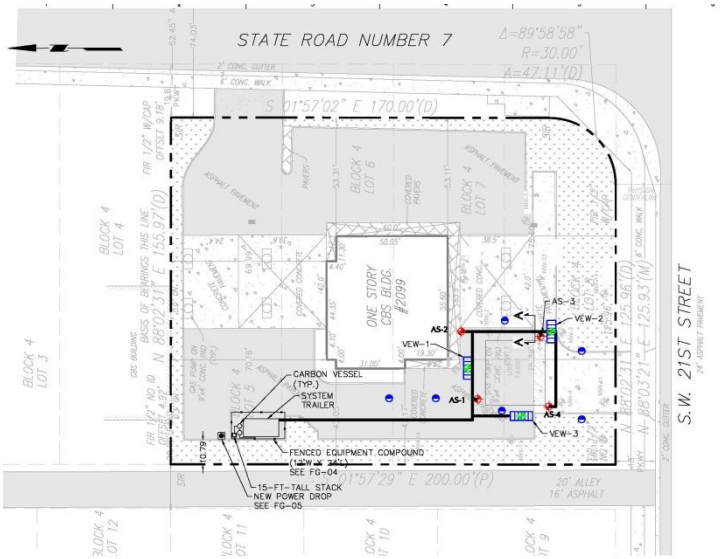
Nanda Thalasila
AIG Property Causality
101 Hudson Street, Floor 31
Jersey City, NJ 07302
Nanda.thalasila@aig.com
201.631.7225

COST:

$175,000 (Langan's Fee)
$85,000 (Construction Cost)

KEY PERSONNEL:

Vincent Yarina, PG, CEM
Daniel Spector, PG, LEP
Raymond Lees, PE, CHMM
Fangmei Zhang, PhD, PE



Langan was contracted to provide environmental consulting services for a retail gas station in Davie, Florida. A Discharge Report Form was filed in July 2008 for the 0.7-acre site and documented the petroleum products impact in groundwater. Langan has conducted and/or obtained the following through working with the Broward County and FDEP since July 2009:

- Soil and groundwater delineation, and Site Assessment Report approval;
- Natural Attenuation Plan approval;
- Interim Source Removal;
- Natural Attenuation Monitoring for five quarters; and
- Remedial Action Plan Approval Order for a groundwater remediation.

The approved groundwater remediation system consists of an air sparging system coupled with soil vapor extraction, and an emission control system using activated carbon vessels. The objective of remediation is to reduce the concentrations of contaminants of concern to below their Natural Attenuation Default Criteria set forth in Chapter 62-777, Florida Administrative Code. The system is expected to be operated for six months to achieve the remedial goal. Post-active remediation monitoring will continue quarterly for one year until contaminants concentrations are at or below their groundwater cleanup target levels according to Chapter 62-777, Florida Administrative Code.

Currently Langan is obtaining applicable permits through the Broward County to implement the groundwater remediation system. The system is expected to start up in the middle of June 2014.

LANGAN

151 AT BISCAYNE LANDING

SERVICES:

- *Site/Civil Engineering*
- *Geotechnical Engineering*
- *Methane Mitigation System Design*

LOCATION:

North Miami, FL

CLIENT:

Hellinger Penabad Companies

REFERENCE:

Glenn Gutheil
Hellinger Penabad Companies
235 Altara Avenue
Coral Gables, FL
ggutheil@hellingerco.com
305.442.3108 ext. 239

COST:

$126,000 (Langan's Fee)

KEY PERSONNEL:

Vincent Yarina, PG, CEM
Daniel Spector, PG, LEP
Raymond Lees, CHMM
Fangmei Zhang, PhD, PE

The site is a part of a former Class I Landfill (aka Munisport Landfill). An amenities complex is proposed to service the residents at two existing condominium towers, and consists of a swimming pool, a guard house, four facility buildings/structures, an athletic court and a children's play area. Langan's services for the redevelopment include:

- Designing a methane gas management system, and supporting the construction permitting;
- Providing site civil engineering services, including paving, grading and drainage design, water and sewer design, and associated permitting through various agencies; and
- Conducting geotechnical engineering and providing recommendations for foundation support of the proposed amenities complex.

LANGAN

TRADEMARK METALS RECYCLING (SUNSHINE FACILITY)

SERVICES:

- *Stormwater Management System*
- *Engineering Control Plan*

LOCATION:

Opa Locka, Florida

CLIENT:

Trademark Metals Recycling, LLC

REFERENCE:

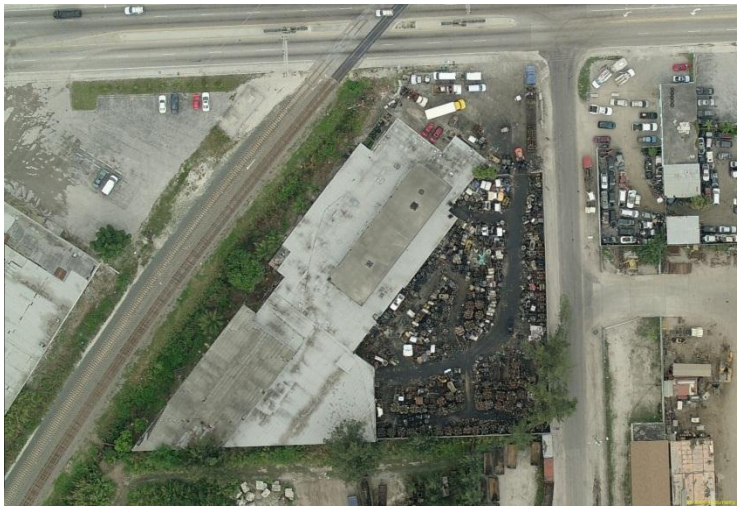
Brenda Anderson
Trademark Metals Recycling, LLC
400 North Ashley Drive, Suite 200
Tampa, FL 33602
banderson@tmrecycling.com
813.677.4771

COST:

$221,000 (Langan's Fee)

KEY PERSONNEL:

Daniel Spector, PG, LEP
Leonardo Rodriguez, PE
Michael Carr, PE, LEED AP



For conditional closure under Chapter 62-780, Florida Administrative Code, Trademark Metals Recycling, LLC (TMR) agreed to an engineering control (EC) that comprises cover the recycling facility with asphalt, concrete, or two feet of clean fill. Because additional impervious surface would generate more runoff, Langan redesigned the facility's stormwater management system (SWMS) to include a 4-acre retention pond and additional catch basins and piping. Langan designed the additional impervious surface to be part of the SWMS, with the proper elevations and slopes. Langan prepared and submitted permit drawings and responded to RFIs from RER. TMR elected to complete the SWMS/EC in three phases and asked Langan to observe the construction to confirm that it was done in substantial compliance with the permit drawings. After TMR completed Phase I in 2013, Langan submitted a Phase I Engineering Control Plan Implementation Report. TMR completed Phase II in April 2014 and Langan will submit the implementation report by the end of May. TMR plans to complete Phase III in 2015.

Industrial Hygiene Services

LANGAN

JL AUDIO AIR EMISSIONS REPORT

SERVICES:

- *VOC Emission Calculations*
- *Preparation of Annual Air Report*

LOCATION:

Miami, Florida

CLIENT:

JL Audio

REFERENCE:

Rene Espinosa
JL Audio
10369 North Commerce Parkway
Miramar, FL 33025
954.520.0970
respinosa@jlaudio.com

COST:

$13,000 (Langan's Estimated Fee)

KEY PERSONNEL:

Vincent Yarina, PG, CEM

Langan performs monthly VOC emission calculations for speaker manufacturer JL Audio to comply with it Florida air-emissions permit.

Langan calculates the monthly VOC emissions produced by each manufacturing process based on the material usage and VOC content of each chemical. The calculations are tailored to each manufacturing process, such as open or closed molding.

Langan also calculates the annual VOC emissions and prepares the company's Annual Air Emissions Report, which is submitted to Florida for permit compliance.

LANGAN

MIAMI VA MEDICAL CENTER

SERVICES:

- *Noise Evaluation*
- *Lockout/Tagout*

LOCATION:

Miami, Florida

CLIENT:

Miami VA Medical Center

REFERENCE:

Luis Collado
Miami VA Medical Center
1201 NW 16th Street
Miami, FL 33125
305.575.7000
Luis.collado@va.gov

COST:

$3,500 (Langan's Estimated Fee)

KEY PERSONNEL:

Vincent Yarina, PG, CEM
John Magnavita, PG

Langan was asked by the Miami VA Medical Center to conduct a noise evaluation of the incinerator area and to monitor the incinerator operators and loading dock personnel to determine their noise exposures and whether or not they required hearing protection.

The evaluation included noise dosimetry of two incinerator operators and a loading-dock worker to evaluate noise exposures during their work shifts. Noise mapping of the incinerator area was conducted, using a sound-level meter with an octave-band filter to identify the locations and frequencies of noise that provided the greatest exposure to workers.

The results were used select the proper engineering controls and hearing protection that would be most effective in protecting workers.

Langan also developed written lockout/tagout procedures for over 200 pieces of equipment at the Miami VA Medical Center. The lockout/tagout project involved an evaluation of energized equipment that had a potential to release stored energy. Langan worked closely with hospital health and safety and engineering personnel to write a comprehensive lockout/tagout program to prevent worker injuries during maintenance of the equipment.

Underground Storage Tank Site Services

LANGAN

RYDER DAVIE ENGINEERING SERVICES

SERVICES:

- *Environmental Engineering*
- *Geotechnical Engineering*
- *Site/Civil Engineering*
- *Permitting and Regulatory Support*
- *Construction Engineering Oversight*

LOCATION:

Davie, Florida

CLIENT:

Ryder Transportation Services

REFERENCE:

Carrie Vinch
Ryder Transportation Services
160 Lawrenceville Pennington Road
Lawrenceville, NJ 08648
609.895.8500
cvinch@ryder.com

COST:

$141,000 (Langan Fee)

KEY PERSONNEL:

Daniel Spector, PG, LEP
Leonardo Rodriguez, PE
Michael Carr, PE, LEED AP

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Under its PSA with Ryder Transportation Services, Langan provided the following services at Ryder's facility in Davie, Florida:

Site/Civil: Engineering design for the demolition of the current underground storage tank (UST) system, the construction of a new UST/AST system, and the expansion of the stormwater management (SWM) system to relieve the constant flooding.

Geotechnical: Geotechnical evaluation of the subsurface, with recommendations concerning shoring of the excavations.

Environmental: Environmental oversight of the UST system and the SWM system upgrade.

Permitting and Regulatory Support: Complete permitting services, from initial discussions with the supervising agencies to final permitting and project closeout.

Construction Engineering Oversight: Engineering oversight of the construction of the new SWM.

This is a high-profile project for Ryder because it is one of the largest of its kind for the company. Langan worked closely with Ryder's construction contractor and subcontracted the services of a public land surveyor, a structural engineer, and an electrical engineer.

LANGAN

TRADEMARK METALS RECYCLING (EVERGLADES FACILITY)

SERVICES:

- *Spill Prevention, Control, & Countermeasures (SPCC)*
- *Groundwater Monitoring for Solid Waste Operating Permit*

LOCATION:

Opa Locka, Florida

CLIENT:

Trademark Metals Recycling, LLC

REFERENCE:

Brenda Anderson
Environmental Manager
Trademark Metals Recycling LLC
5220 Dover Street
Tampa, Florida 33619
813.677.4471

COST:

$221,000 (Langan's Fee)

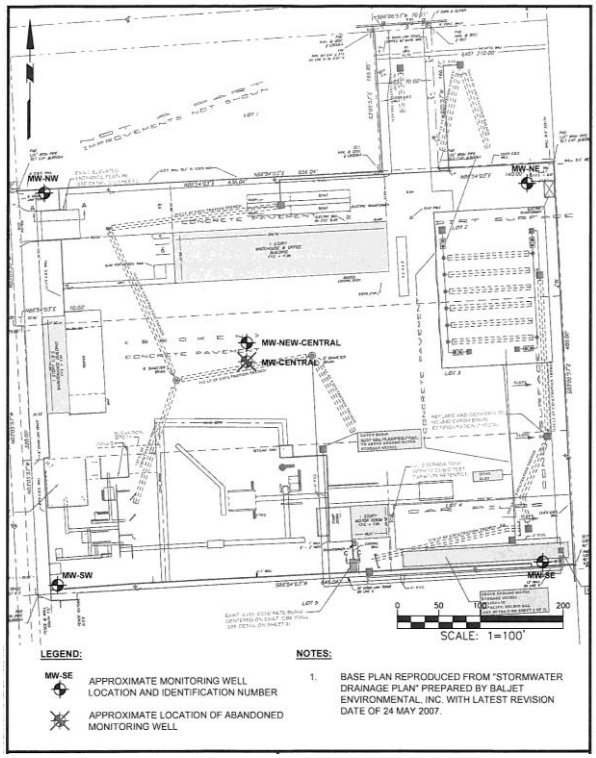
KEY PERSONNEL:

Vince Yarina, PG, CEM
Daniel Spector, PG, LEP

Langan was contracted to continue a groundwater monitoring program for the Trademark Metals Recycling (Everglades) facility in Opa Locka, Florida as part of the facility's solid waste annual operating permit.

The monitoring program includes sampling five shallow monitoring wells semi-annually for the following contaminants of concern: total recoverable petroleum hydrocarbons, ammonia, and nine metals (arsenic, barium, cadmium, chromium, iron, lead, mercury, selenium, and silver), and reporting the results to the Miami-Dade County Department of Permitting, Environment and Regulatory Affairs (PERA).

Langan coordinates field work with facility management to minimize disruption to facility operations and to ensure the health and safety of Langan personnel. Langan manages the off-site waste disposal and agency notification of field work.



LANGAN

TRADEMARK METALS RECYCLING (SUNSHINE FACILITY)

SERVICES:

- *Spill Prevention, Control, & Countermeasures (SPCC)*
- *Groundwater Monitoring for Solid Waste Operating Permit*
- *Groundwater Monitoring for Conditional Closure*

LOCATION:

Opa Locka, Florida

CLIENT:

Trademark Metals Recycling, LLC

REFERENCE:

Brenda Anderson
Environmental Manager
Trademark Metals Recycling LLC
5220 Dover Street
Tampa, Florida 33619
813.677.4471

COST:

$221,000 (Langan's Fee)

KEY PERSONNEL:

Vince Yarina, PG, CEM
Daniel Spector, PG, LEP

Langan was contracted to design and implement groundwater monitoring programs for the Trademark Metals Recycling (Sunshine) facility in Opa Locka, Florida. The first program is required as part of the facility's solid waste annual operating permit to monitor facility operations on groundwater quality. The second program is required as part of qualifying for conditional closure to monitor groundwater quality at the facility boundaries.

Langan designed both monitoring program (i.e., determined well locations and construction and contaminants of concern), secured approval from the Miami-Dade County Department of Permitting, Environment and Regulatory Affairs, installed and developed the monitoring wells, and implemented the monitoring.

The monitoring program for the operating permit is semi-annual and continuous and was initiated in 2010 with four monitoring wells. The monitoring program for the conditional closure is quarterly for at least one year and was initiated in 2012 with five monitoring wells.

The monitoring programs include sampling for the following contaminants of concern: volatile organic aromatics, volatile organic halocarbons, polycyclic aromatic hydrocarbons, total recoverable petroleum hydrocarbons, isopropylbenzene, trimethylbenzenes, ammonia, iron, arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver. Langan manages the off-site waste disposal and agency notification of field work. Langan coordinates field work with facility management to minimize disruption to facility operations and to ensure the health and safety of Langan personnel.

LANGAN

FONTAINEBLEAU HOTEL AND CONDOMINIUM

SERVICES:

- *Geotechnical Engineering*
- *Phase I & II Environmental Site Assessments (ESA)*
- *Asbestos Survey*
- *Tank Closure Assessment*
- *Coastal & Environmental Regulatory Consulting Services*

LOCATION:

Miami Beach, Florida

CLIENT:

Turnberry Associates

ARCHITECT:

HKS and NBWW

STRATEGIC PARTNER:

Walter P. Moore Consulting Engineers

REFERENCE:

Bud Hall
Turnberry Associates
19950 West Country Club Drive
Aventura, FL 33180
305.937.5537
305-607-2799 (mobile)
bhall@turnberry.com

COST:

$1.9 Million (Langan's Estimated Fee)

KEY PERSONNEL:

Vincent Yarina, PG, CEM
John Magnavita, PE

Langan performed a geotechnical engineering study for the 36-story tower and the adjoining podium and garage. Langan evaluated the use of long & short augercast pile alternative for support of the tower. After extensive interaction and evaluation, the short pile alternative was chosen resulting in substantial foundation cost savings.

Langan performed a comprehensive and innovative pile load testing program and our evaluation of the results of the load test led to further shortening of the piles. Langan inspected the installation of piles, and evaluated and successfully coordinated the connection of the 2-level garage, 6-level podium and the 36-story tower.

A Phase I and Phase II Environmental Site Assessment (ESA) was also conducted by Langan at this hotel-resort property. As part of this ESA, a geophysical investigation was performed to map out the existence of utility lines, foundations, or any other buried structures. Additionally, we conducted an asbestos survey to meet permit requirements for several on-site structures slated for demolition.

The ESA activities prompted the discovery of an improperly abandoned underground petroleum storage tank. A tank closure assessment was subsequently conducted by Langan. The closure assessment included the collection and analysis of soil and groundwater samples in accordance with Florida Department of Environmental Protection (FDEP) and Miami-Dade County Department of Environmental Resources Management tank closure requirements.

Langan provided coastal and environmental regulatory consulting services, which addressed mandatory permitting requirements in accordance with FDEP. This required close coordination with the architects, owner, and FDEP to assure that the design and construction of structures and hardscapes east of the Coastal Construction Control Line (CCCL) were in compliance with FDEP coastal regulations.

Real Estate Development Support Services

LANGAN

MARLINS BALLPARK AND PARKING GARAGES

SERVICES:

- *Construction Dewatering Consultation, Design and Permitting*
- *Environmental Consulting*
- *NPDES Stormwater Permitting*

LOCATION:

Miami, Florida

CLIENTS:

Florida Marlins, L.P.
Hunt Moss Joint Venture
Suffolk Construction
Baker Concrete

CLIENT REFERENCE:

Pat Delano
Florida Marlins, L.P./Hunt Moss JV
1380 NW 6th Street, Unit 1
Miami, FL 33125
pdelano@huntconstructiongroup.com
305.325.0577

COSTS:

$635 million (Estimated Construction)
$202,065 (Langan's Fee)

KEY PERSONNEL:

Vincent Yarina, PG, CEM
Daniel Spector, PG, LEP
John Magnavita, PE

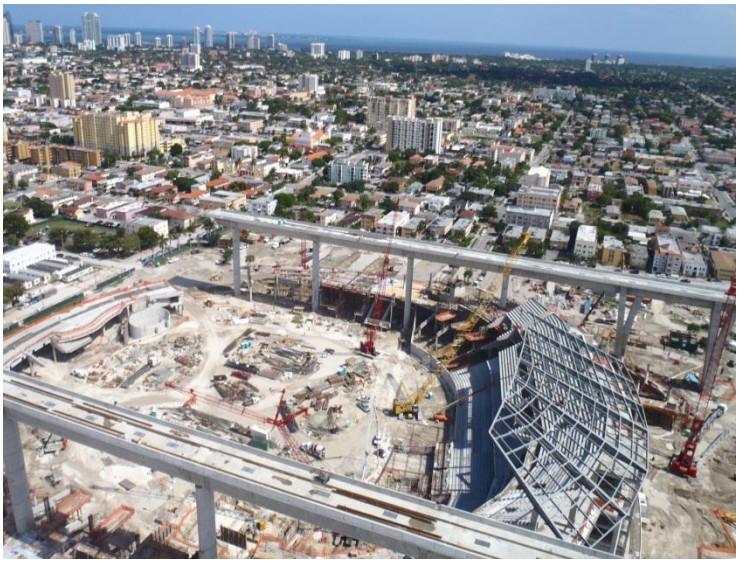


Photo Courtesy of David Brantley

The project involved the construction of the Marlins Ballpark and surrounding four parking garages. The site, the former Orange Bowl, was contaminated by arsenic in the soil and groundwater. The groundwater was very shallow and required dewatering to enable construction. Excavations were to occur in the Miami Limerock, which is highly permeable but not suitable for many methods of dewatering.

Multiple contractors retained Langan to provide dewatering design and permitting services for multiple phases of the foundation and utility construction at the entire project site. Langan designed a construction dewatering system that treated the highly turbid dewatering effluent for both suspended solids and arsenic. The system consisted of open sump pumps that were pumped into on-site exfiltration trenches or deep wells. Langan permitted the dewatering system with the Miami Dade County Department of Environmental Resources Management and South Florida Water Management District. The team also permitted the use of drainage wells to receive the effluent with the Florida Department of Environmental Protection. In addition, Langan provided consultation and testing services regarding the management of on-site contaminated soils and imported fill.

Langan's services allowed the project begin on time and the system worked successfully, allowing dewatering to continue without ceasing for permit violations.

The work was conducted on a highly accelerated schedule to comply with Major League Baseball's opening day requirements.

LANGAN

FONTAINEBLEAU DEWATERING SERVICES

SERVICES:

- *Dewatering Design*
- *Permitting*
- *Groundwater Monitoring During Construction*

LOCATION:

Miami Beach, Florida

CLIENT:

Turnberry Associates

REFERENCE:

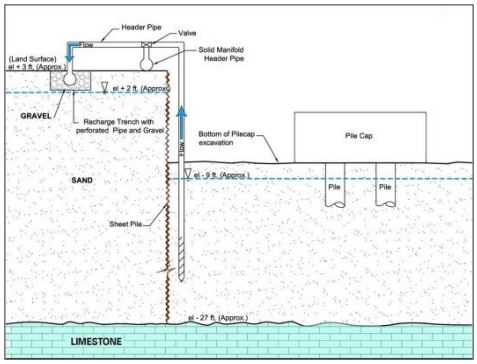
Bud Hall
Turnberry Associates
19950 West Country Club Drive
Aventura, FL 33180
305.937.6262

COST:

$250,000 (Langan's Fee)

KEY PERSONNEL:

Vincent Yarina, PG, CEM
Daniel Spector, PG, LEP
John Magnavita, PE



Langan designed a dewatering system that would allow construction to proceed on schedule without causing a plume of contaminated ground water to migrate into the excavations.

Langan designed a system that divided the dewatering into phases based on the size and depth of the excavations, and which required the largest and deepest excavations to be sheet piled. Langan demonstrated to the regulatory agency that the system would minimize the potential for plume migration. The agency approved the plan. Langan monitored groundwater levels and contaminant concentrations during construction and modified the dewatering plan to accommodate changes in the construction process.

Langan worked closely with the regulatory agency to resolve problems before they affected the construction schedule.

Langan's design, monitoring, and regulatory agency relationships saved the client hundreds of thousands of dollars that the client would have had to spend to treat contaminated ground water if dewatering had pulled contamination into the excavations.

LANGAN

RYDER SYSTEM DUE DILIGENCE SERVICES

SERVICES:

- *Phase I Environmental Site Assessment (ESA)*
- *Phase II Environmental Site Assessment (ESA)*
- *Regulatory Compliance Audit*

LOCATION:

Miami, Riviera Beach, and Orlando, Florida

CLIENT:

Ryder System, Inc.

REFERENCE:

Nanci Tellam
Ryder System, Inc.
11690 NW 105 Street
Miami, FL 33178
305.500.4635
ntellam@ryder.com

COST:

$10,000 (Subcontractor fee)
$50,000 (Langan fee)

KEY PERSONNEL:

Vince Yarina, PG, CEM
Daniel Spector, PG, LEP

Ryder System contracted Langan to provide confidential due diligence services during negotiations for a property transaction involving four truck rental and maintenance facilities.

Services included preparing Phase I Environmental Site Assessments (ESAs) according to ASTM Standard Practice E-1527-05, implementing Phase II ESAs, and reviewing each facility's regulatory compliance with regard to storage tanks, industrial waste discharge, and other environmental compliance concerns. During the Phase II ESA, Langan supervised a direct-push subcontractor and collected soil, groundwater, and sediment samples. Ryder handled analytical services directly with its contract laboratory.

Langan completed the investigations concurrently and on time and within budget.

Because of the confidential nature of the negotiations, Langan personnel signed non-disclosure agreements and interacted only with the property owners while on site.

This was a challenging project in part because the property owner was not forthcoming regarding historical documentation of environmental conditions. The project scope had to be adjusted as Langan and Ryder uncovered new information.

Coastal Engineering Services

REPRESENTATIVE PROJECTS

Mulberry Cove Marina Expansion
Jacksonville Naval Air Station, Jacksonville, Florida

Client:

NAS Jacksonville
1072 Ranger Street S
Jacksonville, FL 32212

Contact:

Dave Munnell
(901) 874-6667

Cost:

$3,900,000

Completion:

2013

Key Personnel:

George A. Tibedo, PE
Michael A. Giovannozzi, PE

Naval Air Station Jacksonville is one of the Navy's primary facilities for antisubmarine warfare readiness. The installation is a multi-mission base and is the third largest naval installation in the United States, boasting more than 23,000 civilian and active-duty personnel. These personnel have come to rely on the Mulberry Cove Marina for recreation and water access to the area's surrounding attractions. However, Hurricanes Jeanne and Frances in 2004 caused extensive damage to the facility and it was no longer considered viable. As part of the Installation's Master Plan vision, our design performed a Project Validation Assessment (PVA) to assess the best replacement plan from the standpoint of consumer demand, market competition, cost, and financial viability.

The primary emphasis of the assessment was to determine the size and layout of the new marina and determine its expected profitability and return on investment. The PVA team evaluated the proposed site, potential alternative sites, and the required size and scope of the facility as it relates to potential profits. Cost estimates for the proposed improvements and the facility's future financial performance were prepared. The assessment included an investigation of the existing conditions at the facility including marina docks, perimeter basin protection, jet-ski and fishing boat rental docks, harbormaster and retail buildings, dry boat storage, boatyard repair center, fueling facility, trailered parking, boat ramps, swimming beach, and recreational outdoor green spaces. A wind-wave and hydrodynamic analysis was performed to determine the susceptibility of the marina site to tropical and hurricane force conditions and an appropriate floating wave attenuation system was selected. Marine and upland surveys of the project site were also performed.

BUCHART HORN, INC.
Strengthening Communities®

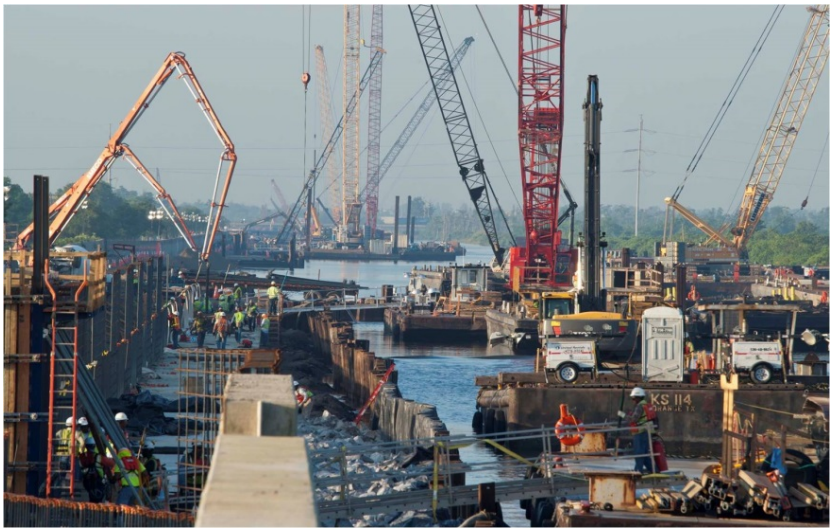
REPRESENTATIVE PROJECTS

Based on the PVA assessment and recommendations, our team prepared full design/bid documents for bidding purposes for the marina's final design and construction, which were completed in early 2013.

The project replaced the entire existing marina facility with new concrete floating docks and included state-of-the-art floating wave attenuator perimeter protection systems. The new marina facility berths 96 craft and sailing vessels. Each boat slip is served by domestic water and electric services. Shore-mounted facilities include a sewage pump-out station in addition to the existing fueling station and dispensing system was modified as part of this redevelopment.

REPRESENTATIVE PROJECTS

Fronting Protection for Jefferson Parish Pumping Stations
USACE New Orleans District, Louisiana



Client:

US Army Corps of Engineers
New Orleans District
PO Box 60267
New Orleans, LA 70160

Contact:

Walter Baumy
Engineering Division Chief
(504) 862-2656

Cost:

$80,000,000

Completion:

September 2006 (design)

Key Personnel:

George A. Tibedo, PE

The US Army Corps of Engineers (USACE) established Task Force Guardian immediately after Hurricane Katrina hit the Louisiana and Mississippi coasts in August 2005. Task Force Guardian's main mission was to repair and restore the Hurricane and Storm Damage Risk Reduction System (HSDRRS) to pre-Katrina conditions. The system is comprised of numerous features including levees, flood walls, flood gates, surge barriers, and pump stations.

The overall goal of this contract was to evaluate and apply new, enhanced design criteria and methodologies to create higher and stronger hurricane floodwater fronting protection for pumping stations in Jefferson Parish, LA. As part of the consultant team selected by the New Orleans District to provide engineering services for the contract, our team prepared a design report, structural analysis, and construction plans and specifications for T-wall monolith floodwall structures and foundation systems to protect several of the pumping stations including the Bayou Segnette Old and New, Westwego 1 and 2, Westminster, Ames, and Mt. Kennedy.

The new fronting protection included the design of new concrete T-wall structures uniquely situated at each site to provide a flood barrier between the pump station outfall pipes and the high-water side of the site. In most cases, the work necessitated the extension of existing discharge pipes further away from the pump station and through the new fronting walls.

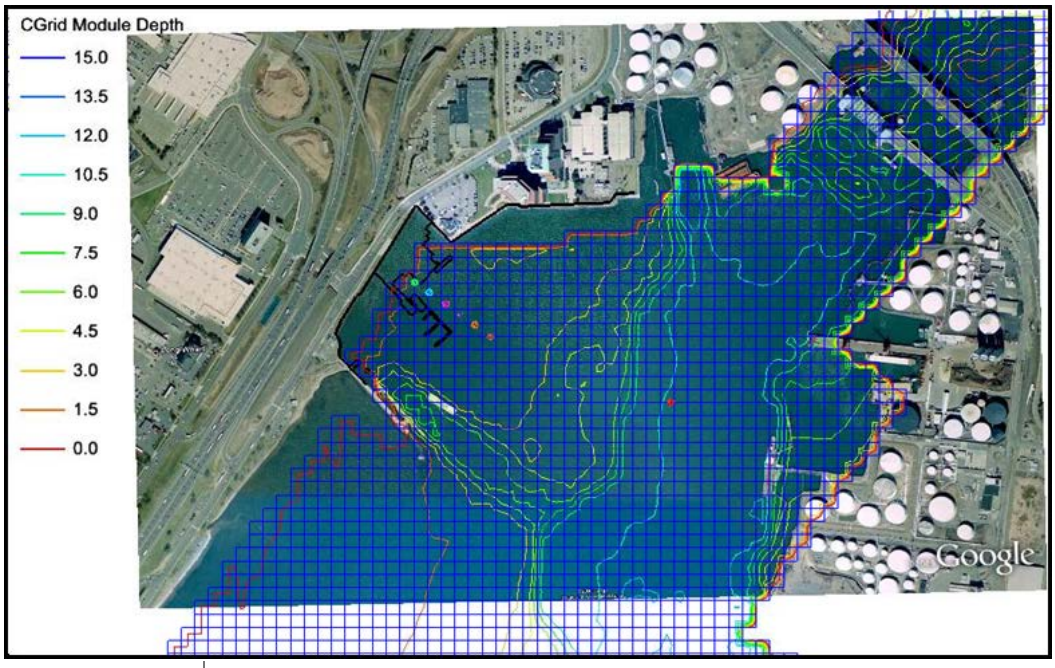
The USACE's preferred wall system for this project was the concrete T-wall, a type of cantilevered retaining wall system. The walls were conceived to be deep pile-supported and included a sheet pile cut-off wall below the foundation cap to negate under-flowage below structures. Fronting walls included the necessary road and access gates demanded by each site and tie in at the existing levees.

This project is an integral component of the HSDRRS, for which our team received two Certificates of Appreciation.

BUCHART HORN, INC.
Strengthening Communities®

REPRESENTATIVE PROJECTS

Canal Dock and Long Wharf Redevelopment
Connecticut Department of Transportation, New Haven, CT



Client:

Langan Engineering and Environmental Services

Contact:

Phil Ogden
Senior Vice President
Gencom Gorp
(305) 442-9808

Cost:

$29,500,000

Completion:

January 2011

Key Personnel:

George A. Tibedo, PE
Michael A. Giovannozzi, PE

Located between the Quinnipiac River to the north and the Long Wharf Park waterfront, the marina site has an exclusive location at the center of the new Canal Dock Park and Long Wharf Park Redevelopment. The site provides expansive views of the Harbor with high visibility from the water, Long Wharf Pier, Long Wharf Drive, and the adjacent shore of the Harbor. A historic scheme draws from the history of the site and harbor as well as the historic Adee Boathouse. The project incorporated intense research of the site's context, similar facilities in other cities, understanding of the physical constraints and ecological resources of the site, and the input of the community stakeholders who will use the completed facility. The Canal Dock Park Marina facilities include the transient Canal Dock Marina for day use patrons, and ADA compliant Kayak Dock for persons with limited mobility and ADA compliant Rowing Docks for the surrounding area's rowing population. The developed designs reflect both the needs and aspirations for the site.

The Client's objective was to establish a signature destination for public access to New Haven's waterfront to provide a recreational and cultural resource for the city and a critical part of the revitalization of Long Wharf and the reconnection of this waterfront to city's core. This project builds on and ties together many other city efforts in the area including improvements to Long Wharf Pier, the completion of the Farmington canal Greenway, redevelopment of the Long Wharf Area, and the reconstruction of I-95 and the Q Bridge.

REPRESENTATIVE PROJECTS

Our team was commissioned to perform a full wind wave hydrodynamic model of both the Long Island Sound and New Haven Harbor, and to undertake a full feasibility study for the proposed marina and waterfront development at Canal Dock Park and Long Wharf. Our role also included development of conceptual and final designs for the marina facilities, determination of flood loads for all waterfront structures including the 50,000 SF concrete platform and 30,000 SF Adee Boathouse, and bulkhead and soft shoreline protection systems. The key element of our team's involvement included:

- Wind wave hydrodynamic model and assessment
- Marina feasibility and viability study
- Design of the marina dock facilities including the Canal Dock Marina transient docks, ADA compliant kayak dock, and ADA compliant sliding-seat and fixed-seat rowing docks
- Design of floating wave attenuators
- Contribution to the comprehensive master plan
- Management of the coastal flood hazard load determination process
- Input into the wider project scheme including fixed platform, boathouse, and shore protection designs

A wind wave hydrodynamic study was performed to facilitate the design of marine components for the multi-use waterfront project. Environmental parameters considered including selection of design wind speeds, wind direction, extreme water levels, and tidal currents. The analysis used a spectral wave model developed by the USACE to determine the design waves at the site and an advanced hydrodynamic model to determine water currents. The USACE guidance on sea-level rise was used in conjunction with historic water level data for a nearby tide station to determine a 100-year water level.

Concept alternatives of the floating dock facilities were considered in terms of form configuration, orientation, design, and anchorage to explore a full range of design options. The 26-slip marina and the rowing dock facility were optimized to allow the maximum number of boats to be launched simultaneously, to provide protection against undesirable wave action from the harbor, and to provide adequate maneuvering space on the dock, the kayak dock ramp, access gangway, and while navigating in the water. The rowing dock was designed for launching and retrieving rowing shells including a wide access gangway capable of allowing two teams carrying shells simultaneously on the gangway. All docks are concrete floating systems designed for a 3.5-foot wave height. The transient dock facility has dry pipe fire protection system, life-saving equipment in the form of life ring holders and lift rings, lighting fixtures, convenience potable water and electric service, and signage. The Rowing Dock facility was designed using a match-cast concrete system by Bellingham Marine to facilitate a very wide surface free from anchorage piles. Anchorage for the Rowing Docks is provided using an elastomeric mooring and seabed anchor system.

3

Key Personnel

PROJECT TEAM

Langan's local Miami Lakes office provides fully-integrated environmental, site/civil, and geotechnical engineering services; and we view this as an advantage for any sized project. Our multidisciplinary team works together to develop solutions that consider all aspects of the a project, allowing our team to see the "big picture" where we are able to anticipate problems, devise innovative solutions, accelerate schedule, and save money. In addition, our staff members have worked on numerous projects together and understand the typography and sensitive ecosystem of Southern Florida well.

Langan's management approach starts with a single point of contact and a multi-point infrastructure Quality Assurance for each project. All environmental work will be completed under the supervision of Vince Yarina, PG, CEM. Vince brings over twenty years of experience and leads the Miami Lakes' environmental group. Daniel Spector PG, LEP, will act as Project Manager and also brings with him over twenty years of experience in the environmental and water resources field. Both Vince and Daniel have worked on numerous similar environmental projects together for local and municipal agencies. Fangmei Zhang, PhD, PE, will be assigned as the Resident Project Representative and has experience providing on-site guidance for similar remediation projects.

Langan will assume the project lead and provide full environmental engineering services for the project. We have enlisted the services of Buchart Horn, Incorporated as sub-consultants to provide coastal engineering services. George Tibedo, PE, brings over twenty-six years of coastal engineering services to the team. Mr. Tibedo has managed dozens of waterfront marine and coastal engineering projects for municipal and local entities. He will also provide the City of Key West with owner project representation services throughout the duration of the project. The Langan team will be responsible for the delivery of those services and documentation described under the RFQ.

Effective communication and teamwork are crucial to the success of any project. Constant client interface and absolute responsiveness is what differentiates the Langan and Buchart Horn team from the competition. We are pleased to commit the time and resources required for this project, and to manage a comprehensive integration of technology and staffing which will allow us to effectively and efficiently meet the project schedule.

Please see resumes for further detail on individuals relevant experience and expertise following this section.

Vincent D. Yarina, PG, CEM

Senior Associate
Environmental Assessment, Water Resource Management

22 years in the industry ~ 16 years with Langan

Mr. Yarina has 22 years of environmental and geological engineering experience in Florida, Nevada, California, the northeast United States, and abroad. Mr. Yarina is a Senior Associate in the Miami office and leads Langan's environmental practice in Florida with a national client base that includes Fortune 500 companies, financial institutions and institutional investors. Mr. Yarina has worked with the Florida Department of Environmental Protection's (FDEP) Bureau of Waste Cleanup, the Nevada Division of Environmental Protection (NDEP) Bureau of Corrective Actions, and the California Regional Water Quality Control Board Los Angeles (RWQCB) on projects ranging from tank closures to site assessments to remedial actions.

Mr. Yarina's environmental consulting experience includes performing numerous Phase I and Phase II Environmental Site Assessments and groundwater impact studies, development of remedial investigation plans, implementation of remedial plans, well and boring installation, groundwater and soil sampling, construction dewatering, regulatory permitting, and performing and analyzing aquifer pump test data using MODFLOW and other computer modeling software.

Mr. Yarina has presented on the subject of Phase I ESAs, All Appropriate Inquiry, and environmental due diligence to the Florida Chamber of Commerce's Semi-Annual Environmental Permitting Conferences and Florida Brownfield Association's Annual Conference, to the Environmental Bankers Association, and to RTM.

Selected Projects

Monroe County Landfill Groundwater Monitoring, Cudjoe Key, Long Key, and Key Largo, FL- Mr. Yarina led the monitoring of groundwater in three county landfills – Cudjoe Key, Long Key, and Key Largo – as part of the county's solid waste permits from the Florida DEP. The monitoring was performed semi-annually and involved collecting samples from 11 monitoring wells and one surface water location, in accordance with Chapter 62-701, Florida Administrative Code.

Fontainebleau Resort Dewatering Services, Miami Beach – Mr. Yarina led the effort to design a dewatering system that would allow construction to proceed on schedule without causing a plume of contaminated ground water to migrate into the excavations. Langan designed a system that divided the dewatering into phases based on the size and depth of the excavations, and which required the largest and deepest excavations to be sheet piled. Langan demonstrated to the regulatory agency that the system would minimize the potential for plume migration. The agency approved the plan. Langan monitored groundwater levels and contaminant concentrations during construction and modified the dewatering plan to accommodate changes in the construction process.

Education

M.Sc., Engineering Geology, 1998
Drexel University

B.S., Earth Science (Geology), 1992, Pennsylvania State University

Professional Registration

Registered Professional Geologist in Pennsylvania (PG-03260-E) and Florida (PG0002077)

Certified Environmental Manager in Nevada (CEM No. 2104)

40-hour OSHA Health and Safety Training Certificate

INSTEP Licensed Environmental Professional (LEP No. 73)

LANGAN

Marlins Ballpark Arsenic Assessment and Dewatering Services, Miami – The site, the former Orange Bowl, was contaminated by arsenic in the soil and groundwater. Contractors retained Langan to provide dewatering design and permitting services for multiple phases of the foundation and utility construction. Under Mr. Yarina's direction, Langan designed a construction dewatering system that treated the highly turbid dewatering effluent for both suspended solids and arsenic. The system consisted of open sump pumps that were pumped into on-site exfiltration trenches or deep wells. Langan permitted the dewatering system with the Miami-Dade County Department of Regulatory and Economic Resources and the South Florida Water Management District. The team also obtained permits from the Florida Department of Environmental Protection to discharge the effluent to deep drainage wells. Langan provided consultation and testing services regarding the management of on-site contaminated soils and imported fill.

BP Superstop, Fort Lauderdale, FL – Mr. Yarina is managing the cleanup of dissolved BTEX + MTBE plume at an independent station. The cleanup is in the characterization remedial selection phase and work is being monitored by the Broward County Environmental Protection Department. The site is currently in an approved monitored natural attenuation plan.

Miami VA Medical Center, Miami, FL. Mr. Yarina served as Project Manager for a noise evaluation conducted for the Miami VA Medical Center's incinerator operators and loading dock workers to evaluate their noise exposures from the incinerator equipment. The scope of work included noise dosimetry of the incinerator and loading dock works as well as noise mapping of the incinerator and loading dock work areas. The data was then used to determine proper engineering controls and PPE necessary to protect the workers.

151 at Biscayne Landing, North Miami, FL – Former Class I Landfill. Project includes designing a methane gas management system and providing site civil engineering services including paving, grading and drainage design, water and sewer design, and associated permitting through various agencies.

Pan Am Tract 1 Soakage Pit Assessment and Removal, Miami, FL - Mr. Yarina led the assessment of sediment, soil, and groundwater at nine soakage pits used by aircraft maintenance companies and at seven other nearby contaminated locations. The $50,000 project (drilling and laboratory costs were handled directly by the client) included more than 200 soil samples, 45 groundwater samples, and 175 samples for field screening of petroleum hydrocarbon vapors. After the assessment, Langan provided environmental oversight of the removal of the soakage pits to ensure that the contractor handled and disposed of contaminated soil and groundwater according to Federal Aviation Administration, Miami-Dade Aviation Department (MDAD), and state and county regulations.

Building 1034 Site Assessment and Natural Attenuation Monitoring, Miami, FL – Mr. Yarina led the assessment of soil and groundwater contamination at the site of a former building that is now a swale between a runway and a taxiway. All work has been done between 11 p.m. and 7 a.m. to accommodate air traffic. The assessment included sampling previously installed wells, installing and sampling new wells, and collected relative tops of casing to determine groundwater flow. Langan monitored groundwater quality for one year and is working with DERM and MDAD to prepare a conditional closure assessment.

Ryder Transportation Services, FL - Ryder System contracted Langan to provide confidential due diligence services during negotiations for a property transaction involving four truck rental and maintenance facilities. Services included preparing Phase I Environmental Site Assessments (ESAs)

according to ASTM Standard Practice E-1527-05, implementing Phase II ESAs, and reviewing each facility's regulatory compliance with regard to storage tanks, industrial waste discharge, and other environmental compliance concerns. During the Phase II ESA, Langan supervised a direct-push subcontractor and collected soil, groundwater, and sediment samples.

Prudential Real Estate Investors Due Diligence Portfolio, Broward County – Mr. Yarina managed the due diligence services for a portfolio of 16 properties. The services comprised 16 Phase I ESAs and two Phase II ESAs, which had to be completed in three weeks. Mr. Yarina led a team that included three project managers and four staff personnel.

Morgan's Point Specialist Remediation Consultant Services, Bermuda – Mr. Yarina is the project manager/project executive for the cleanup of a 283-acre former U.S. Naval Annex. Langan's role is Supervising Remediation Consultant on behalf of the Bermudan Government. Langan's responsibility is to validate remediation of land that the government will transfer to a development company to create a mixed-use waterfront resort. Remediation includes removing lead and asbestos from hundreds of buildings, remediating petroleum-contaminated soil and groundwater associated with leaks from underground fuel tanks, distribution pipelines, a waste-oil and jet-fuel-polluted cave system, and a landfill.

Former Auto Toy Store Remediation and Soil Management Plan, Fort Lauderdale – Mr. Yarina was project manager for a site assessment and remedial action for petroleum and chlorinated solvent plumes. Characterization consisted of numerous direct-push samples and monitoring wells. The remedial alternative analysis focused on pump-and-treat, source removal, and air sparging/vacuum extraction with ozone. Mr. Yarina was involved in negotiations with Broward County to get approval for the technology that was finally selected – air sparging. Langan prepared a plan to manage contaminated soil during construction. The plan indicated areas of contaminated soil and provided the general contractor with guidelines to manage and dispose of the excavated soil. Langan worked with the contractor to identify contaminated soil from areas where it had not been previously identified.

Miami Science Museum Dewatering Consultation and Permitting – Mr. Yarina was project manager for this project. Langan provided environmental services related to dewatering analysis and preparation of a dewatering plan and design details for the proposed Miami Science Museum. Langan also provided consultation to assist the general contractor with securing the required dewatering permits from the South Florida Water Management District. Langan monitored dewatering during the construction phase of the project.

Dosal Tobacco Corporation, Miami, FL – Mr. Yarina conducted noise dosimetry, noise mapping, and dust monitoring at the facility. The noise and dust monitoring were conducted on workers who loaded tobacco, who used cigarette-making and packing machines, and who made filters.

JL Audio Air Emissions Report, Miami, FL – Mr. Yarina performs monthly VOC emission calculations for speaker manufacturer JL Audio to comply with it Florida air-emissions permit. In addition, he calculates the monthly VOC emissions produced by each manufacturing process based on the material usage and VOC content of each chemical. The calculations are tailored to each manufacturing process, such as open or closed molding.

Daniel Spector, PG, LEP

Senior Project Manager
Hydrogeology, Water Resources,
Contamination Assessment/Remediation

22 years in the industry ~ 10 years with Langan

Mr. Spector has 22 years of experience in the environmental and water resources fields. His area of concentration is hydrogeology and he has investigating aquifer properties for more than 130 stormwater drainage well projects. His hydrogeology experience includes looking for sources of water for major development projects in Nicaragua and Colombia. He is experienced in the application of county, state, and federal laws and regulations and has worked on state and local government and agency projects. He has contamination assessment and remediation experience, designing and implementing assessments of petroleum and non-petroleum contaminated groundwater and soil.

Mr. Spector's experience includes interpreting seismic data and quality control, including calibration of seismic interference and real-time monitoring of data collection, in the Gulf of Mexico and offshore Brazil.

Education

B.A., Geology
CUNY, Hunter College

M.S., Geosciences
Florida International University

Professional Registration

Registered Professional Geologist in FL (No.1999) and AL (No. 1093)

Licensed Environmental Professional (No. 161)

Selected Projects

Monroe County Landfill Groundwater Monitoring, Cudjoe Key, Long Key, and Key Largo, FL- Mr. Spector managed the monitoring of groundwater in three county landfills – Cudjoe Key, Long Key, and Key Largo – as part of the county's solid waste permits from the Florida DEP. The monitoring was performed semi-annually and involved collecting samples from 11 monitoring wells and one surface water location, in accordance with Chapter 62-701, Florida Administrative Code.

Miami International Airport, Miami, FL
Mr. Spector has done environmental work at Miami International Airport (MIA) since the early 1990s. Since coming to Langan in 2004, Mr. Spector has managed nearly $500,000 worth of petroleum contamination assessment projects for the Miami-Dade Aviation Department (MDAD) under the Miami-Dade County Equitable Distribution Program. Langan's services have included environmental compliance, site assessments, and environmental oversight during construction. The work requires access to airside operations areas and adherence to safety and security requirements imposed by the Federal Aviation Administration and the Department of Homeland Security. Representative projects are described below:

Building 1034 Site Assessment and Natural Attenuation Monitoring – Mr. Spector managed the assessment of soil and groundwater contamination at the site of a former building that is now a swale between a runway and a taxiway. All work has been done between 11 p.m. and 7 a.m. to accommodate air traffic. The assessment included sampling previously installed wells, installing and sampling new wells, and collected relative tops of casing to determine groundwater flow. Langan monitored groundwater quality for one year and is working with DERM and MDAD to prepare a conditional closure assessment.

Pan Am Tract 1 Soakage Pit Assessment and Removal - Mr. Spector managed the assessment of sediment, soil, and groundwater at nine soakage pits used by aircraft maintenance companies and at seven other nearby

contaminated locations. The $50,000 project (drilling and laboratory costs were handled directly by the client) included more than 200 soil samples, 45 groundwater samples, and 175 samples for field screening of petroleum hydrocarbon vapors. After the assessment, Langan provided environmental oversight of the removal of the soakage pits to ensure that the contractor handled and disposed of contaminated soil and groundwater according to Federal Aviation Administration, Miami-Dade Aviation Department (MDAD), and state and county regulations.

Tenant Environmental Compliance Audits - Mr. Spector managed the audits of airport tenants as part of MIA's ISO 140001 certification. With a budget of $50,000, Langan evaluated tenants' underground and aboveground storage tank systems, wastewater systems, hazardous materials storage and disposal, permit compliance, environmental management systems, and oil pollution management. Langan compared the tenant's practices and procedures to federal requirements in CERCLA, SARA, RCRA, TSCA, CAA, CWA, OPA, and SDWA and to state and local rules and regulations. Langan ranked deficiencies on a scale ranging from Priority 1 (an active threat to health or the environment) to Priority 4 (a deficiency that does not represent regulatory non-compliance and that can be addressed with a best management practice [BMP]). Langan's recommendations for corrective action ranged from providing secondary containment for 55-gallon drums of waste oil, to chaining oxygen cylinders to a secure structure, to labeling drums properly, to maintaining a written contingency plan, to containing wastewater, to developing a BMP to recycle solid wastes.

Building 857 Site Assessment – Mr. Spector managed an assessment of possible free product along a utility corridor under an airside service road. The investigation included direct-push soil and groundwater sample collection and monitoring well installation. As a result of the investigation, Langan recommended no further action without conditions for soil and groundwater.

Building 2120 Isopropyl Benzene Assessment - Mr. Spector manages the assessment of a groundwater isopropyl benzene plume under and around a building that houses jet engine test cells. Data indicate that the plume extends vertically to at least 30 ft and might be the result, at least in part, of discharges from abandoned industrial waste and jet fuel lines. The assessment budget is expected to exceed $100,000.

Comprehensive Feasibility Study and Groundwater Modeling - Mr. Spector managed a comprehensive feasibility study for groundwater remediation on the west side of MIA, as well as an airport-wide model of groundwater flow under the influence of a municipal wellfield.

Avis-Budget Group, Miami, FL- Langan provided environmental oversight during the removal of two 10,000-gal USTs at a Budget facility in Miami. During excavation, Langan identified petroleum-impacted soil and free product on the ground water. Langan coordinated the excavation and disposal of the impacted soil and the removal of the free product. Langan submitted a closure assessment report to DERM, documenting the field and laboratory results.

Chlorinated Solvent Assessment, Fontainebleau Hotel, Miami Beach, FL Mr. Spector is one of the project managers for an assessment of a plume of chlorinated solvents that were discharged during dry-cleaning operations that ended in 2005. The plume had migrated vertically through 30 ft of fine carbonate beach sand and had concentrated at the interface with an indurated coralline limestone. The assessment presented particular challenges because Langan had to conduct its investigation on an active construction site in the basement of the hotel.

Ryder Transportation Services, FL – Under Langan's national contract with Ryder Transportation Systems, Mr. Spector has managed Langan's environmental and engineering services at 15 Ryder facilities in Florida, including in Miami, Davie, Riviera Beach, Orlando, Tampa, Jacksonville, and Sarasota. Langan's services have included groundwater monitoring programs, site assessments, storage tank closure assessments, storage tank engineering design, stormwater engineering design, and permitting. Representative projects are described below.

Due Diligence Assessments
Ryder System contracted Langan to provide confidential due diligence services during negotiations for a property transaction involving four truck rental and maintenance facilities. Services included preparing Phase I Environmental Site Assessments (ESAs) according to ASTM Standard Practice E-1527-05, implementing Phase II ESAs, and reviewing each facility's regulatory compliance with regard to storage tanks, industrial waste discharge, and other environmental compliance concerns. During the Phase II ESA, Langan supervised a direct-push subcontractor and collected soil, groundwater, and sediment samples.

Davie, Florida
Mr. Spector managed the $330,000 engineering design and oversight of the replacement of underground storage tanks (USTs) and the expansion of the stormwater management system at the Davie facility. Langan designed and permitted the new systems through FDEP, the Broward County Environmental Protection Department (EPD), and the Town of Davie, provided engineering and environmental oversight during construction, managed and coordinated the disposal of petroleum-impacted soil and ground water, and completed a closure assessment for the old USTs. Following construction, Langan designed and completed a complex assessment of eight areas of concern (AOCs) in which petroleum contamination had been identified during construction. Because Langan had removed as much contaminated soil as possible during construction, the site assessment phase was relatively quick and limited to four AOCs. Langan is working with ED to complete the assessment phase.

Marlins Ballpark Arsenic Assessment and Dewatering Services, Miami
The site, the former Orange Bowl, was contaminated by arsenic in the soil and groundwater. Contractors retained Langan to provide dewatering design and permitting services for multiple phases of the foundation and utility construction. Langan designed a construction dewatering system that treated the highly turbid dewatering effluent for both suspended solids and arsenic. The system consisted of open sump pumps that were pumped into on-site exfiltration trenches or deep wells. Langan permitted the dewatering system with the Miami-Dade County Department of Regulatory and Economic Resources and the South Florida Water Management District. The team also obtained permits from the Florida Department of Environmental Protection to discharge the effluent to deep drainage wells. Langan provided consultation and testing services regarding the management of on-site contaminated soils and imported fill.

BP Superstop, Fort Lauderdale, FL – Mr. Spector is managing the cleanup of dissolved BTEX + MTBE plume at an independent station. The cleanup is in the characterization remedial selection phase and work is being monitored by the Broward County Environmental Protection Department. The site is currently in an approved monitored natural attenuation plan.

151 at Biscayne Landing, North Miami, FL – Former Class I Landfill. Project includes designing a methane gas management system and providing site civil engineering services including paving, grading and drainage design, water and sewer design, and associated permitting through various agencies.

Trademark Metals Recycling, Opa Locka, FL – Project includes the redesign of the recycling facility's stormwater management system to include a 4-acre retention pond and additional catch basins and piping. Langan is also providing the facility an Engineering Control Plan. Phase I and II have been completed and TMR plans to complete Phase III in 2015.

Raymond Lees, PE, CHMM

Senior Associate

Remediation, Water Quality, Site Characterization, Environmental Site Assessments

26 years in the industry ~ 2 years with Langan

With over twenty-six years of experience, Mr. Lees is an environmental and civil engineer with extensive consulting experience, providing a broad range of environmental services to private, public, and federal sector clients. His areas of expertise include water quality, permitting, remediation, site characterization, technology evaluation, construction, operation and maintenance of treatment systems, and industrial wastewater treatment. Mr. Lees has been a project director, project manager, project engineer, principal-in-charge, or technical reviewer on over 200 projects, predominantly in the private sector. He has extensive experience with design/build/operate arrangements of complex remediation systems involving a full range of remedial technologies. He conducts conceptual and detailed design projects that include technology screening, procurement, detail engineering drawings/specifications, and permitting. His experience also includes project management of industrial projects identified as RCRA and CERCLA sites, as well as provision of litigation support on various environmental projects. Mr. Lees is extensively involved in business development activities on national and regional client accounts and is the account manager for five accounts. In the past, Mr. Lees has served as an engineering manager and operations manager of offices where he was responsible for overall management of the technical and administrative staff assigned to projects and for business development.

Selected Projects

BP Superstop, Fort Lauderdale, FL – Project involves the cleanup of dissolved BTEX + MTBE plume at an independent station. The cleanup is in the characterization remedial selection phase and work is being monitored by the Broward County Environmental Protection Department. The site is currently in an approved monitored natural attenuation plan.

151 at Biscayne Landing, North Miami, FL – Former Class I Landfill. Project includes designing a methane gas management system and providing site civil engineering services including paving, grading and drainage design, water and sewer design, and associated permitting through various agencies.

Pennsylvania Department of Environmental Protection: Act 2 Cleanup, PA – Negotiated site-specific cleanup goals for closure of the site. Dual-phase extraction technology was implemented at the site for soil and groundwater remediation.

North Penn Superfund Site, PA – Managed RD/RA at a fractured bedrock site impacted with chlorinated compounds and chromium in the groundwater. Developed a SCM and conducted a pilot test to potentially modify the pump and treat technology ROD.

Education

M.E., Environmental Engineering
Clemson University

B.S., Civil Engineering
Drexel University

Professional Registration

Professional Engineer (PE): PA, DE, OH, NY, NJ, & FL (FL No. 76245)
Certified Hazardous Materials Manager (CHMM)

Professional Affiliations

American Academy of Environmental Engineers, Chief Examiner

American Society of Civil Engineers, Philadelphia Section, Chair Env. Group-1998

Chi Epsilon – National Civil Engineering Honor Society

National Society of Professional Engineers

Project Management Institute

Water Pollution Control Federation

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RCRA SITE Decommissioning, PA – Managed the decommissioning/ demolition of a 225,000 square feet manufacturing facility. Decommissioning activities included the former metal plating areas and former wastewater treatment facility.

TSCA PCB Site, PA – Managed the characterization and remedy design of a site impacted with PCB's in soil and groundwater using the TSCA self-implementing risk assessment alternative under the PADEP/EPA MOU policy.

Alternative Energy Project, Lancaster, PA – Managed the regulatory (State, local) permit/ordiance processes for construction of an alternative energy facility (ethanol).

Recycling Facility, Bucks County, PA – Managed the regulatory (Federal, State, local) permit process of the design/construction of a hydrocarbon recycling facility.

RCRA Remedial Feasibility Investigation, PA – Managed the RFI, CMS and CMI for an active fabrication facility. Contaminated media (volatile organic compounds and metals) consisted of groundwater, fractured bedrock, soil and sediment. An interim corrective action involving groundwater recovery and treatment was implemented to control off-site migration of impacted groundwater. The final remedy incorporated a TI waiver, Environmental Covenant (institutional controls) and a hydraulic barrier.

CERCLA Remediation Project, Pennsylvania – Managed the final detail design, construction procurement, and construction startup of a CERCLA remedy involving a sheet pile wall, soil/groundwater dewatering, soil excavation in wet conditions with off-site disposal (TSCA and nonhazardous), building decontamination, UST removals, soil capping, and sediment removal/capping. The final design required remedy enhancements to various design elements, agency approval, public comment, and construction estimating. Overall cost was $20MM.

PPC Plan, Pennsylvania – Managed a Preparedness, Prevention and Contingency Plan for a major pharmaceutical company. The site was a research facility with USTs, incinerators and on-site waste storage and treatment facilities.

Superfund Remediation, West Chester, Pennsylvania – Managed the design and installation of two groundwater remediation systems for the capture and treatment of VOCs. Involves fate and transport / numerical modeling in fractured bedrock environment for the capture of the plumes.

RCRA Interim Corrective Action, Pennsylvania – Managed the remedial design and construction of a groundwater recovery and treatment system for a site impacted with chlorinated volatile organic chemical contamination. The treatment system consisted of air stripping, vapor-phase groundwater activated carbon, and liquid-phase granular activated carbon polishing. An NPDES water quality permit is required for discharge of the treatment system and stormwater.

RCRA RFI/CMS/CMA, Pennsylvania – Investigated and characterized volatile organic compounds and metals in groundwater, fractured bedrock, soil and sediment for volatile organic compounds and metals. An interim corrective action involving groundwater recovery and treatment was designed and implemented to control off-site migration of impacted groundwater.

John Magnavita, PE

Senior Project Manager
Geotechnical Engineering

22 years in the industry ~ 22 years with Langan

Mr. Magnavita has 22 years of geotechnical engineering experience at Langan. His practical experience was gained by working on projects in Florida, Nevada, Virginia, Delaware, Connecticut, New York, New Jersey and Maryland.

Mr. Magnavita's geotechnical engineering experience includes foundation design, engineering inspection and monitoring of shallow and deep foundations for high-rise developments; monitoring and designing preloading of organic soils for low-rise residential structures; preloading of loose sand for high-rise structures; slope stability analysis; evaluation of deep construction excavations in fine-grained soils; evaluation of construction dewatering techniques for mass excavations in various soil types; and development of load test programs for deep foundations. He has extensive office and field experience including developing earthwork site preparation procedures for large-scale projects, developing technical specifications for shallow and deep foundations, in-situ testing of soil and rock samples; monitoring pre-, during, and post-construction settlements, and designing and inspecting large-scale dewatering systems.

Selected Projects

The Marlin's Ballpark and Parking Garages, Miami, FL - Designed a large-scale dewatering system for the contractor to facilitate construction of below-grade structures and foundations. The dewatering system was designed to meet the aggressive construction schedule requirements and address on-site environmental concerns regarding soil and groundwater. Designed water treatment systems to work in conjunction with dewatering activities. Developed and managed operations and maintenance procedures to allow effective operation the dewatering system. Engineered environmental controls of during construction contaminated groundwater effluent to meet regulatory standards. Participated in numerous project team and regulatory meetings for this complex dewatering project and assisted with the dewatering permitting process.

Fontainebleau Resort, Miami Beach, FL - Conducted and managed asbestos surveys and asbestos abatement monitoring for this one million square foot project that was built in the 1950s and had undergone numerous renovations. The facility consisted of a 17-story, a 15- story and 10-story hotel buildings, 4-story convention center, 3-story dinner theater, a shopping mall and numerous back-of-house areas. The asbestos surveys were conducted while the facility was occupied, which required extensive coordination with the owner and operations management such that the inspections could be conducted thoroughly and efficiently. The asbestos survey required about two months of inspection work. Significant quantities of asbestos-containing material (ACM) were identified throughout the facility. The asbestos abatement of this facility required about 11 months

Education

M. Sc., Engineering (Geotechnical)
The University of Florida

B. Sc. Civil Engineering
The University of Florida

Professional Registration

Licensed Professional Engineer in Florida (No. 54826)

Affiliations

American Society of Civil Engineers

Construction Association of South Florida

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and costs were in excess of $2.5 million. Mr. Magnavita reviewed prospective abatement contractor's work plans and budgets, assisted the owner in the selection process, coordinated pre-bid and pre-abatement work meetings with local regulators present to assure that the contractor's work plan and methods would be in compliance with local and federal regulatory requirements. He coordinated asbestos abatement project monitoring and provided asbestos abatement closure reports to the owner.

The Auto Toy Store, Fort Lauderdale, FL - Performed a pre-demolition asbestos survey for a cluster of auto sales and service store structures consisting of 20,000 ft^2 of floor space.

The Cipriani (Former The Saxony Hotel), Miami Beach, FL - Performed and managed asbestos surveys for this 14-story hotel structure, which was constructed in 1949, and consists of numerous types of ACM. Because of the lack of information in the form of floor plans and mechanical drawings, Mr. Magnavita developed detailed maps of ACM present throughout the facility, which included over mile of asbestos pipe insulating materials, HVAC ducts, asbestos flooring, and numerous miscellaneous materials. Mr. Magnavita assisted the client in selecting asbestos contractors by reviewing work plans and coordinating pre-bid meetings along with regulators, such that the handling and disposition of friable and non-friable ACM in poor condition were properly addressed. Mr. Magnavita coordinated and supervised asbestos abatement project monitoring services such that asbestos removal was conducted in accordance with federal and local regulatory standards.

999 Brickell Avenue, Miami, FL - Performed a due diligence asbestos survey for this 11-story commercial office building with approximately 110,000 ft^2 of floor space. Conducted follow-up pre-renovation asbestos surveys for the building manager, which were comprehensive and resulted in asbestos abatement cost savings.

New World Tower, Miami, FL - Conducted a due diligence asbestos survey for this 30-story commercial office tower as well as assisting with an indoor air quality assessment.

Mother Earth Market, Gainesville, FL - Performed a pre-demolition asbestos survey for this 10,000 ft^2 grocery store facility built in the 1960s.

Costco, Kendall, FL - Performed a pre-renovation asbestos survey for this retail structure consisting of 40,000 ft^2 of floor space.

Citibank Facility, Miami, FL - Performed a pre-demolition asbestos survey for bank facility consisting of 10,000 ft^2 of floor space.

999 Brickell Avenue, Miami, FL - Performed a due diligence asbestos survey for this 11-story commercial office building with approximately 110,000 ft^2 of floor space. Conducted follow-up pre-renovation asbestos surveys for the building manager, which were comprehensive and resulted in asbestos abatement cost savings.

321 Development Project (Former Fashion Mall), Plantation, FL - Conducted and supervised asbestos surveys for the inspection and sampling of several thousand feet of retail and office space. The project consisted of the thorough and timely inspection of two department stores, several retail spaces in the three-level mall complex and a seven-story office building. He also assisted the building owner in filing notification documents to the local and state regulatory agencies, developed and reviewed asbestos abatement contractor work plans, coordinated and supervised asbestos abatement monitoring of the contractor's work. Prepared final closure reports for each phase of demolition work such that planned demolition and renovation areas could be re-occupied.

Leonardo Rodriguez, PE

Senior Project Manager
Project Management, Site Engineering / Land Development, Hydraulics & Hydrology

24 years in the industry ~ 6 years with Langan

Mr. Rodriguez has over 24 years of Civil Engineering experience of which approximately seven years have been as project manager. He has been the primary point of contact for public and private sector clients for projects ranging from Municipal utility improvements, roadway resurfacing and reconstruction, as well as County local and area wide drainage improvements. Mr. Rodriguez has spearheaded the Environmental Resource Permit (ERP) and Corp of Engineer Dredge and Fill permitting efforts on numerous projects. He is intimately familiar with the Miami-Dade Water and Sewer Department (MDWASD) standards and specifications as well as with the permit process through the Miami-Dade County Department of Planning, Environmental and Regulatory Affairs (PERA), the City of Doral Works Department, the South Florida Water Management District, the Florida Department of Environmental Protection and US Army Corp of Engineers.

Education

M. Sc., Environmental Engineering
Florida International University

B. Sc., Civil Engineering
University of Miami

Professional Registration

Licensed Professional Engineer, Florida (No. 54858)

Selected Projects

Fontainebleau East and West, Miami, FL - Assisted client in the site plan approval process and various public hearings to develop a site plan for this 125 acre land developed project being constructed on the site of a former golf course. Directed the water management study to size lakes and maximize the water front buildable area for the client; and the design of the water distribution system, the sanitary sewage collection and transmission system consisting of two sanitary sewage pumping stations. Coordinated all permitting with the Miami-Dade County Public Works Department and the Miami-Dade County Department of Environmental Resources Management. Initiated all contact with the South Florida Water Management District and directed the preparation of an Environmental Resource Permit (ERP). (Project Manager)

Trademark Metals Recycling, Opa Locka, FL – Project includes the redesign of the recycling facility's stormwater management system to include a 4-acre retention pond and additional catch basins and piping. Langan is also providing the facility an Engineering Control Plan. Phase I and II have been completed and TMR plans to complete Phase III in 2015.

Ryder Transportation Services, Davie, FL – Project includes engineering design and oversight of the replacement of underground storage tanks (USTs) and the expansion of the stormwater management system at the Davie facility. Langan designed and permitted the new systems through FDEP, the Broward County Environmental Protection Department (EPD), and the Town of Davie, provided engineering and environmental oversight during construction, managed and coordinated the disposal of petroleum-impacted soil and ground water, and completed a closure assessment for the old USTs. Following construction, Langan designed and completed a complex assessment of eight areas of concern (AOCs) in which petroleum contamination had been identified during construction. Because Langan had removed as much contaminated soil as possible during construction, the site assessment phase was relatively quick and limited to four AOCs. Langan is working with ED to complete the assessment phase.

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NW 22nd Water Quality Improvements, Opa-Locka, FL - Commissioned by the Miami-Dade County Department of Environmental Resources Management (DERM), this project entailed the analysis of the existing 36" diameter reinforced concrete pipe positive outfall system from Alibaba Avenue to the Comfort Canal. The existing outfall system was modeled using ADICPR. Two diversion control structures were designed to divert storm water runoff from the existing system to the proposed exfiltration trench to provide the necessary water quality and then divert the runoff back to the existing system and ultimately to the canal. A project specific maintenance of traffic plan was prepared to address temporary traffic control through the work site. (Project Manager)

Bel Aire Drainage Improvements, Miami-Dade County, FL - Designed the water quality and drainage improvements for approximately four miles of roadway for the Miami-Dade County Department Environmental Resources Management (DERM). The work entailed the design of an interconnected hybrid exfiltration trench – positive outfall system discharging to a County Canal. (Senior Civil Engineer)

Cutler Cay, Miami, FL - Designed the Civil Engineering infrastructure improvements associated with this 250 acre land development project located in Miami-Dade County between Old Cutler Road and coastal wetlands abutting Biscayne Bay. The work entailed design of the water management and drainage system consisting of a 30 acre lake and a hybrid exfiltration trench - positive outfall system. In addition, designed a donation Miami-Dade Water and Sewer Department (MDWASD) sanitary sewage pumping station with associated 8" diameter force main requiring the hot tap of a 48" diameter force main along Old Cutler Road. Also designed the potable water distribution system also donated to MDWASD. Coordinated the efforts of a biologist and spearheaded the permitting efforts associated with a DERM Dredge and Fill Permit, a DEP ERP Permit and a US Army Corp of Engineers (COE) Dredge and Fill Permit. Construction phase services were also provided. (Project Manager)

Country Walk Drainage Improvements, Miami, FL - Designed the water quality and drainage improvements for approximately two miles of roadway for the Miami-Dade County Department Environmental Resources Management (DERM). The work entailed coordinating the surveyor, and geotechnical testing consultant, reviewing the survey for areas prone to ponding and designing localized solutions. Exfiltration trench systems were designed to address ponding. (Project Manager)

Meadow Wood Cedar Creek Drainage improvements, Miami-Dade County, FL - Designed the water quality and drainage improvements for approximately six miles of roadway for the Miami-Dade County Department Environmental Resources Management (DERM). The work entailed the design of an interconnected hybrid exfiltration trench – positive outfall system discharging to a County Canal through various control structures. (Project Manager)

MIA Supplemental Storm Water Treatment Units, Miami, FL - Senior Civil Engineer tasked with the design of storm water treatment units to treat runoff from the terminal area water shed of Miami International Airport. The work entailed evaluating the stormwater quality constituents that required removal and coordinating the development of the structural plans as well as the aircraft maintenance of traffic plans. Close coordination was maintained with the Miami-Dade County Aviation Department during the evaluation of the various commercially available treatment units. Vortechnic units were selected and full construction documents were developed taking into consideration limited available foot print area and FAA crane height constraints around the terminal building.

Michael Carr, PE, LEED AP

Project Engineer
Site Engineering / Land Development, Hydraulics & Hydrology

9 years in the industry ~ 9 years with Langan

Mr. Carr has nine years of experience in civil engineering projects. His specialization includes site engineering, hydraulics and hydrology, storm drainage, water distribution systems and sanitary sewerage (including Low Head Pressure systems, gravity, and pump stations) conveyance design.

Mr. Carr's experience includes land development design for sites of new commercial and residential development and redevelopment, regulatory permitting processes, and construction support and coordination. A listing of example projects that Mr. Carr has been involved with is provided below.

Selected Projects

Ryder Transportation Facility Improvements, City of Davie, FL - Ryder Transportation Facility is an existing Ryder truck repair, rental and refueling center serving the greater Fort Lauderdale Area. The existing site was experiencing frequent flooding that would disrupt daily operations. An extensive site investigation and research was conducted to determine the cause of the frequent flooding. It was determined that the existing exfiltration trench was in poor condition due to poor maintenance. Langan provided Ryder with a cost effective solution to the frequent flooding on a fast-track timeline required by Ryder. The permitting was expedited due to the coordination with the City of Davie and Broward County Environmental Protection Division.

Trademark Metals Recycling, Opa Locka, FL – Project includes the redesign of the recycling facility's stormwater management system to include a 4-acre retention pond and additional catch basins and piping. Langan is also providing the facility an Engineering Control Plan. Phase I and II have been completed and TMR plans to complete Phase III in 2015.

Various Reasonable Assurance Reports, Miami-Dade and Broward County, FL – Completed geotechnical borings for stormwater drainage wells reasonable assurance reports according to FDEP standards at multiple sites throughout multiple sites in Miami-Dade and Broward County.

SLS Brickell – Miami, FL - Project Engineer for this 465-ft hi-rise mixed-use tower in the downtown Miami area. Design challenges included the relatively large elevation change across the site and to meet the drainage requirements presented when designing an FDOT right-of-way. In addition to providing site/civil engineering services, we are currently providing final construction documents for the project and will be coordinating with the FDOT, City of Miami, Miami-Dade County RER, and Miami-Dade County Water and Sewer Department for the required permits.

University Village Phase II Water Main Extension, Coral Cables, FL - Project Engineer responsible for the design, permitting and construction administration of 500 feet of 16" diameter water main along SW 57th Avenue between Corniche and Mataro Avenue. SW 57th Avenue (Red Road) is an FDOT right-of-way and therefore, an FDOT Right-of-Way permit was required as well as maintenance of traffic (MOT) plan. Permits from DERM,

Education

B.Sc., Civil Engineering
Pennsylvania State University

Professional Registration

Licensed Professional Engineer, Florida (No. 72424)

Certifications

40-hour HAZWOPER, OSHA

Nuclear Moisture-Density Gage Certified

Florida Qualified Stormwater Management Inspector

city of Coral Gables and the Health Department were also obtained. Construction administration services included shop drawing review, site observations, addressing RFIs and as-built and conveyance review.

Banco Santander, Miami, FL - Project Engineer on this proposed office tower at 1401 Brickell will span 52 stories and include an 11-story parking garage structure. Design elements include the development of the site plan by reviewing the site access conditions, availability of utility services, and regional drainage and stormwater management issues. Close coordination with the City of Miami Public Works Department, the City of Miami Fire Department, the Miami-Dade County Department of Environmental Resources Management, the Miami-Dade Water and Sewer Department, and the Florida Department of Transportation was maintained as the site plan was developed and refined.

Flagler Station Building 34, Miami, FL - Project Engineer for this 252,000 SF warehouse located on a 13 acre vacant parcel in the industrial park Flagler Station. Services included utility design, which included water services and a minor sanitary sewer main extension, and stormwater management design permitted through the South Florida Water Management District. Additional services included site layout assistance, truck circulation analysis and permitting services through various regulatory agencies operating Miami-Dade County.

University of Miami Frost School of Music, Coral Gables, FL- Project Engineer on this expansion project which will provide the world class Frost School of Music with new cutting edge practice studios, classrooms and recital halls. Services include complete site/civil engineering and regulatory permitting services for Phase I of the project. Langan is currently in the process of obtaining permits for the proposed improvements through PERA, MDWASD, Miami-Dade Health Department, and Coral Gables Fire Department.

University of Miami Life Science Park, Miami, FL- Project Engineer on this extensive 1.4 million SF research and development complex was constructed in phases and consists of numerous mid-rise buildings and associated multi-level parking structures. Prepared paving, grading and drainage plans to expand the surface parking field by 131 parking stalls. Preparation of the construction documents included drainage calculations for five drainage wells, catch basins and conveyance piping. We also prepared plans for the construction of a 1,500 gallon grease trap that will serve a new restaurant tenant. Langan obtained a “Drainage Connection Permit” from the Florida Department of Transportation (FDOT) which was required because the project abuts NW 7 Avenue, an FDOT operated roadway.

Promenade at Coconut Creek, City of Coconut Creek, FL- Project Engineer. The Promenade at Coconut Creek is a lifestyle center located on a 23-acre site featuring an upscale mixed use center includes 250,000 square feet of retail and restaurant space, 50,000 square feet of office space and a seven-story 456 residential unit building. The design includes site planning, stormwater management design including approximately 3,500 linear feet of exfiltration trench, plat amendment, traffic analysis, and utility coordination services. Florida Green Building / LEEDS certification were incorporated into the design.

Fangmei Zhang, PhD, PE

Environmental Engineer

9 years in the industry ~ 1 year with Langan

Ms. Zhang brings over 9 years of experience in the design and management of civil and environmental engineering projects, and field activities. Her experience is inclusive of expertise in ESA, remedial investigation and feasibility studies, soil/groundwater remediation techniques, contaminant transport and groundwater modeling, solid waste management system design and landfill redevelopment permitting, and stormwater management system design and permitting. Ms. Zhang brings vast knowledge of federal and state environmental regulations

Selected Projects

BP Superstop, Fort Lauderdale, FL
Project involves the cleanup of dissolved BTEX + MTBE plume at an independent station. The cleanup is in the characterization remedial selection phase and work is being monitored by the Broward County Environmental Protection Department. The site is currently in an approved monitored natural attenuation plan.

151 at Biscayne Landing, North Miami, FL
Former Class I Landfill. Project includes designing a methane gas management system and providing site civil engineering services including paving, grading and drainage design, water and sewer design, and associated permitting through various agencies.

4401 NW 87 Avenue, Doral, FL
Project manager for this 4.2-acre contaminated site which consists of soil management for construction and obtaining site closure approval. Responsibilities included Conducted technical reporting or review, DRC preparation, and project management.

Mizner Lakes Apartments, West Palm Beach, FL
Engineer/Manager for dewatering permitting approval for a groundwater contaminated site for redevelopment, and dewatering monitoring during construction. Responsibilities included conducting dewatering evaluation and calculations, technical reporting, and project management

Miami International Airport, Building 1034, Miami, FL
Project Engineer for this project which included the assessment of soil and groundwater contamination. All work has been done between 11 p.m. and 7 a.m. to accommodate air traffic. Responsibilities included preparing a Declaration of Restrictive Covenant. Langan is working with DERM and MDAD to prepare a conditional closure assessment.

Education

Ph.D., Civil Engineering, Case Western Reserve University

M.S., Environmental Engineering, Tongji University, Shanghai, China

B.S., Environmental Engineering, Southeast University, Nanjing, China

Professional Registration

Registered Professional Engineer in FL (No. 70325) and OH

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Former Hector Millan Parcel File No. 07-405, Miami Dade County, FL
Project manager for solid waste investigation and delineation for a 4.5-acre vacant site. Responsibilities included conducting technical reporting, engineering cost estimate, and project management

Former American Diversified Products, Inc., Miami, FL
Project Engineer. Responsibilities included coordinating field activities and technical report reviewing.

The Saxony Hotel & Residences, Miami Beach, FL
Project Engineer for this 14-story hotel structure, which was constructed in 1949, and consists of numerous types of ACM. Responsibilities included performing dewatering monitoring coordination for field activities and results submittal with team member, client and regulatory agent.

14400 NE 20th Lane, North Miami, FL
Project Engineer for this project consisting of a monitoring reporting for an ongoing SVE/AS remediation system. Responsibilities included conducting technical report writing and/or reviewing.

Old Spanish Village, Coral Gables, FL
Engineer for environmental due diligence series for a residential/commercial site. Responsibilities included conducting field activities coordination and technical reporting.

Nathan T. Allison

Senior Staff Scientist
Industrial Hygiene & Indoor Air Quality

9 years in the industry

Nathan T. Allison, has been performing environmental assessments and environmental studies for over 8 years. He has conducted Phase I ESA's, water intrusion and building envelope investigations, mold assessments, mold remediation oversight, asbestos inspections and abatement oversight, lead-based paint surveys, noise evaluations, chemical exposure monitoring, and indoor air quality. Mr. Allison also holds a number of other government and private certifications which can be found on this resume.

Selected Projects

Broward County Court House, Ft. Lauderdale, FL - Mr. Allison performed air sampling for crystalline silica (quartz, cristobalite, and tridymite) and total particulates (not otherwise regulated) to evaluate exposure conditions for employees working within the construction areas.

18 Building Apartment Complex, Coconut Creek, FL - Mr. Allison performed water intrusion analysis and radon testing in a 396 unit apartment complex. The scope of work included inspection of units for evidence first and secondary water damage and project oversight for radon testing and installation radon mitigation control systems.

The following projects were performed outside of Langan:
Checca Lodge Resort, Key Largo FL - *Mr. Allison was responsible for conducting a pre-domolition asbestos survey of the entire main hotel prior to demolition. Mr. Allison conducted abatement monitoring and post abatement clearance sampling.*

15-story Condominium Building, Aventura, FL - *Mr. Allison provided project oversight for a lead in drinking water evaluation if the building. Provided collection of water samples and designed a risk assessment plan for remediation.*

Florida Turnpike Enterprise, Throughout FL - *Mr. Allison conducted asbestos surveys, lead based paint inspections and TCLP analysis for numerous bridges throughout Florida. Projects included asbestos sampling and analysis, XRF lead based paint inspections, TCLP sampling and project management.*

Hobby Lobby, Multiple Locations, South FL - *Mr. Allison conducted due-diligence testing for lead-based paint and asbestos for future store locations throughout South Florida and Tampa.*

Holiday Inn Hotel, North FL - *Mr. Allison served as Project Manager while conducting an HVAC evaluation and Water Intrusion Investigation of all rooms of the hotel. The scope of work included, moisture mapping, infrared imaging, visual observations, intrusive investigation, bio-aerosol sampling. Mr. Allison also conducted project oversight of the remediation of water damaged building materials, and HVAC repairs following the initial investigation.*

Education

B.S. Environmental Science
University of Florida

Professional Registration

AHERA Certified Asbestos Supervisor & Building Inspector

NIOSH 582 Equivalent Microscopy Certification

EPA-Lead-Based Paint Risk Assessor and Inspector

Florida Licensed Mold Assessor

HAZWOPER

Affiliations

Indoor Air Quality Association

Construction Association of South Florida

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Multi-Million Dollar Condominium, West Palm Beach, FL - *Mr. Allison coordinated the removal of mold contaminated drywall from a multi-million dollar condominium unit that had flooded. The scope of work included collection of bio-aerosol samples in conjunction with mold remediation activities. Mr. Allison also supervised the replacement of new building materials following the remediation process.*

Large Multi-Building Hospital, Martin County, FL - *Mr. Allison served as Project Manager while coordinating and supervising the removal of water damaged building materials from various areas of the hospital. The scope of work included the collection of bio-aerosol and microbial volatile organic compound samples in conjunction with mold remediation activities.*

National Department Store, South FL - *Mr. Allison conducted HVAC evaluations, water intrusion evaluations, and asbestos surveys in a number of stores throughout South Florida. The scope of work included, moisture mapping, infrared imaging, visual observations, intrusive investigation, bio-aerosol sampling, and asbestos sampling. Mr. Allison also conducted project oversight of the remediation of water damaged building materials & asbestos abatement.*

Lowes Hotel, New Orleans, LA - *Mr. Allison was project lead of a team conducting a Water Intrusion/Mold Assessment for the 20 + story property after sustaining damage from Hurricane Katrina. The scope of work included collection of bio-aerosol samples in conjunction with mold remediation.*

KEY PERSONNEL

George A. Tibedo, PE

Senior Coastal Engineer

Education:

PhD Candidate
Ocean Engineering
Florida Atlantic University

Master of Engineering
Ocean Engineering
Florida Atlantic University

Bachelor of Science
Ocean Engineering
Florida Atlantic University

Associate of Science
Engineering
Salem State College

Registrations/Certifications:

Professional Engineer: FL

Years' Experience:

26

Professional Affiliations:

American Society of Civil Engineers

Institute of Transportation Engineers

Rotary International

Mr. Tibedo has more than 26 years of engineering design and construction management experience on waterfront marine and coastal engineering projects including structural, marine, coastal, civil, and geotechnical disciplines, as well as commercial office and retail buildings, industrial and military buildings, and structure rehabilitation. Representative projects include waterfront modifications, recreational and industrial marinas, bulkheads, seaport piers and wharfs, container yards, fendering systems, retaining wall structures, seaport cruise terminals, office facilities, parking garages, dredging and beach nourishment projects, greenfield site development, and EPA Superfund sites.

Canal Dock and Long Wharf Redevelopment, Connecticut Department of Transportation, New Haven, CT. Project Manager responsible for full wind-wave hydrodynamic model of Long Island Sound and New Haven Harbor, full feasibility study for the proposed marina and waterfront development at Canal Dock Park and Long Wharf, development of conceptual and final designs for the marina facilities, determination of flood loads for all waterfront structures including the 50,000 SF concrete platform and 30,000 SF Adee Boathouse and bulkhead and soft shoreline protection systems.

NAS Mulberry Cove Marina, NAS Jacksonville, FL. Project Manager responsible for a 96-slip naval recreational marina consisting of floating docks with full utilities at the Naval Air Station base in Jacksonville, FL. The work included a Project Validation Assessment, wind-wave and hydrodynamic analysis, design of a floating wave attenuation system, preparation of project specifications and designs, conducting reviews and evaluations of construction proposals for the project, and engineering construction oversight.

Fronting Protection, Jefferson Parish Pump Stations, US Army Corps of Engineers, New Orleans District, New Orleans, LA. Project Manager responsible for evaluation, analysis, and design of new or upgraded floodwall protection monoliths, gate structures, discharge tubes, and stilling basins designed to upgrade the level of flood protection immediately around the seven primary Jefferson Parish Pump Stations. Geotechnical changes included analysis and design of deep pile foundation systems and global stability issues related to massive T-wall monoliths and elevated design criteria following the Hurricane Katrina disaster. Techniques such as deep soil mixing were designed into the project specifications to mitigate the effects of extremely unstable deep soils allowing the implementation of conventional, more cost-effective foundation systems and solutions. This work resulted in the award of two Certificates of Appreciation.

KEY PERSONNEL

Michael A Giovannozzi, PE

Senior Coastal Engineer

Education:

Master of Engineering
Civil (Coastal) Engineering
University of Delaware

Bachelor of Engineering
Civil Engineering
University of Delaware

Registrations/Certifications:

Professional Engineer: FL, AL, TX, GA, SC, MD, NJ

Years' Experience:

14

Professional Affiliations:

American Society of Civil Engineers

PIANC

Association of Coastal Engineers

Mr. Giovannozzi is a senior coastal engineer with more than 14 years of experience in coastal and waterfront development projects including project management, marina planning and design, environmental assessments, beach nourishments, and coastal engineering design. His expertise includes wave and hydrodynamic studies, beach nourishments, physical and numerical modeling, feasibility studies, coastal and marine structures, and innovative shore protection structures. His field experience includes data collection, coastal damage assessments, and construction inspections/oversight. He is highly capable in an array of numerical modeling techniques and is well-versed in the latest coastal design manuals such as CEM, SPM, and CIRIA Rock Manual. He has also managed multi-discipline teams in the planning and design of high-profile international waterfront development projects.

Guyana Sea Defence, Ministry of Public Works, Georgetown, Guyana. Coastal Engineer responsible for the rehabilitation/replacement of degraded coastal defense sea walls along the Atlantic Coast and riverine shorelines in Guyana. Performed wave and hydraulic stability calculations, wave runup and overtopping, scour assessment and the detailed designs sheet pile bulkheads and armor stone revetments.

Mangrove Restoration Program, Ministry of Agriculture, Geogetown, Guyana. Coastal Engineer responsible for the design of low-cost, innovative coastal structures to protect mangrove reforestation projects along the Atlantic Coast of Guyana.

Shoalwater Flood Damage Reduction Project, Tokeland, WA. Coastal Engineer responsible for the design and construction of a beach nourishment and sand dune placement for the protection of a sensitive marine habitat and flood damage reduction to upland infrastructure. Performed wave and hydraulic modeling, evaluated shoreline erosion, and designed the construction sequencing and temporary berm design for dewatering of hydraulically dredge sand material for the construction of a beach fill and dune creation.

Wind Wave and Hydrodynamic Study at Canal Dock Park, New Haven, CT. Coastal Engineer responsible for a pier, boathouse, and marina facility at Long Wharf in New Haven's waterfront. Performed detailed wind-wave and hydrodynamic numerical modeling and provided environmental loadings (storm surge, wave heights, and currents) to support the design of a pile-supported structure and small boat marina facility for the City of New Haven and Connecticut Department of Transportation.

Coastal Structure Inspections, PacNW Coast and Puget Sound, WA. Led team of engineers for annual inspections of coastal and maritime structures for the Seattle District Corps of Engineers including rubble mound revetments, breakwaters, and jetties; concrete and timber bulkheads, training walls, and piers; and floating concrete wave attenuators. Provided assessment of current conditions, prioritized repairs, and provided recommended repair plans and cost estimates.

4

Management Approach

STATEMENT OF PROPOSED WORK OBJECTIVE AND SCOPE

Langan Engineering and Environmental Services, Inc. provides engineering and environmental consulting services for private developers, public agencies, property owners, and institutional clients around the world. Founded in 1970, Langan employs more than 800 professionals in its Elmwood Park, New Jersey headquarters and among 18 regional offices. Langan is listed among the Top Design Firms and Top Green Design Firms in Engineering News Record. We specialize in:

- Site assessment, design, and remediation;
- Brownfield redevelopment;
- Transactional due diligence;
- Natural resources and ecological restoration;
- Regulatory compliance and permitting; and
- Air quality and industrial hygiene.

Langan's heritage in geotechnical engineering has instilled an understanding throughout the firm for strong foundations – for structures and business relationships. And at the base of every relationship is trust. How do we earn your trust? Simple: perform at the highest level possible, which means being the best. Through four decades of organic growth – no mergers, no acquisitions – we have developed a highly-entrepreneurial culture that embodies: Technical Excellence, Practical Experience, and Client Responsiveness. To be the best requires that we combine these attributes in everything we do for our clients. That's how we exceed delivery expectations. That's how we meet schedules and save our clients money. And that's why clients select and stay with Langan. They want and deserve the best … and that's all we know how to be.

When it comes to environmental solutions, all clients want to do the right thing, but they also need to know the right way. Langan partners with you as a technical and regulatory advocate. We work with you to overcome complex scientific obstacles and guide you through complicated government policies so that you can achieve your objectives. Our success spans four decades, a testament to the longevity of our client relationships and our ability to provide innovative and integrated services for every type of environmental challenge. Put simply, it's environmental advocacy, from initial investigation to final design, so that you can do the right thing… the right way.

One of Langan's project management goals is to make our team seamless from the City of Key West's point of view. When they discuss a scope of work with the Langan project manager, the City of Key West managers can be confident that our response will be comprehensive and thorough – one point of contact to our full range of environmental services.

Langan's operating philosophy can be summarized as: "Client Responsiveness – Technical Expertise – Practical Experience." Behind that philosophy is a commitment to assist the City of Key West as it "conducts environmental assessment, remediation, permitting, and regulatory compliance activities in support of City of Key West operations and land acquisition objectives.

The following sections discuss in more detail our methodologies for the environmental services required under this contract.

PROJECT MANAGEMENT AND QUALITY ASSURANCE/QUALITY CONTROL

Langan is committed to providing quality engineering and environmental services. We recognize that our success and our clients' success depend on the efforts of our employees and the corporate commitment to quality, technical excellence, practical experience and responsiveness. Our primary objective is to ensure that the services and products provided by

Langan meet the requirements of applicable regulations, codes, standards, contracts, and technical specifications, as well as client expectations.

Planning, achieving, and verifying quality are the responsibilities of managers. Producing quality work is the responsibility of the company and each Langan employee. Principals, associates, and project managers are accountable for ensuring that the work performed in their discipline, or on their project, meets or exceeds the quality standard set by the company. Work products must satisfy the quality needs of our clients. For employees to deliver a high-quality product, managers must ensure that the services and products provided to their clients, both internal and external, are fully and clearly understood by those providing the services. Managers are responsible for ensuring that adequate procedures, equipment, technologies, resources, documentation, services, and supplies are provided for the production of products that meet the standards established for acceptance.

The steps required to ensure and to document that appropriate quality processes have been implemented will vary with the deliverable and the end use of the deliverable. Consequently, staff and managers bear the responsibility for reviewing their tasks in light of company policies and procedures and for ensuring that policies and procedures appropriate to the task are applied. The intent is not to stifle productivity with unnecessary documentation and procedures, but to ensure that prudent and appropriate steps are taken and documented so that we can stipulate that our products and services are of the quality reasonably achievable relative to their intended use.

Quality Assurance/Quality Control (QA/QC) procedures are not the responsibility of one individual or group, but of all employees and subcontractors in all project-related functions. For each project, Langan will utilize a project team with varying QA/QC responsibilities to ensure that work is effectively managed and produces consistently high-quality results. It is the responsibility of project team management, which includes designated Quality Assurance staff, to ensure that QA/QC activities take place at all levels in the project organization, and that personnel associated with the project have a high level of quality control awareness and commitment.

QA/QC PERSONNEL RESPONSIBILITIES

The Project Manager is responsible for Langan's work on the project, including compliance with state and federal regulations, quality assurance, achieving objectives, staffing, scheduling, and cost controls. The Project Manager's responsibilities include:

- Evaluating staff QA training needs and arranging for such training with the QA/QC Officer;
- Participating in a systematic planning process;
- Assuring that a QA plan is prepared and approved (internally and by our clients, as applicable) before a project begins;
- Ensuring that sampling, analyses, and data management procedures are documented, adequately reviewed, and consistent with accepted scientific principles and EPA mandates; and
- Ensuring that QA-related disputes are resolved in a timely manner and corrective actions are implemented.

The QAP describes the policies and practices for a planned and disciplined approach to achieve the standards for quality, safety, and reliability of products and services supplied by Langan. It is structured to meet recognized quality standards such as the American National Standards Institute/American Society for Quality Control (ANSI/ASQC) E4-1994, American National Standard Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs.

MANAGEMENT APPROACH

ANSI/ASQC E4-1994 is a consensus document that describes basic, mandatory specifications and non-mandatory guidelines by which a quality system for environmental programs can be planned, implemented, and assessed. EPA's quality assurance program is based upon this consensus document. Langan's QA/QC program is tailored to meet EPA QA/R-2, EPA Requirements for Quality Management Plans. QA/R-2 is the policy document containing the specifications and requirements for quality management plans for organizations with which EPA has external agreements.

Langan recognizes three control components for achieving quality standards, each of which will be delineated within project-specific comprehensive plans and will be implemented to ensure that quality standards are met. The Preparation component includes the steps necessary to ensure that Langan personnel understand their roles and responsibilities before beginning work. The Preliminary component includes a check of all Preparation work to ensure compliance with contract requirements. The Final component comprises the performance and documentation of activities to ensure continued compliance.

The Langan system of QA/QC is based on a defined system by which personnel, materials, and services are inspected for compliance with specifications. This system is established through a series of periodic checkpoints or control tests. When a deficiency is identified, work proceeds along clearly defined paths to remedy the problem. During each phase of quality control, each member of the Langan management team has responsibilities that contribute to ensuring that the quality standards of a project are being met.

The assignment of specific duties and administrative functions for a project task will vary according to the work to be performed, contract requirements, and other factors, and will be determined as early as possible. The lines of authority governing administrative and project personnel will be established before beginning work on the project.

Langan procedures provide measures for ensuring that personnel performing quality-affecting activities receive training commensurate with the skill levels needed and that only qualified personnel are assigned to quality-related tasks. Langan management is responsible for assessing areas of responsibility to develop appropriate training, which is formally documented.

Measures will be implemented to ensure that regulatory requirements, design bases, and technical and quality requirements are included or referenced in procurement documents for materials, equipment, or services. Procurement documents will be reviewed before release by QA/QC personnel and other appropriate technical disciplines to ensure that technical and quality control requirements are included.

Where design activities apply to quality-related components or services, measures are established to translate applicable regulatory requirements into accurate design, procurement, and procedural documents. Design documents will include appropriate standards. Measures will be established and implemented to ensure that applicable design basis and regulatory requirements are correctly translated into specifications, drawings, work-plan procedures, or instructions.

Langan personnel who use measuring and testing equipment are responsible to verify that the instruments have not exceeded calibration due dates and to remove the instrument from service if the calibration date has expired, or the instrument is suspected to need repair or be out of calibration due to damage. Langan personnel will select instruments that fit the required range, tolerance, type, and accuracy as specified in pertinent documents (such as operating procedures) to verify conformance to the specified criteria.

DOCUMENTATION

Special documents (such as instructions, procedures and drawings where applicable) will be used to describe the methods for handling, storage, packaging, shipping, and preservation of items. These instructions will be in accordance with design requirements and applicable codes, standards and regulations. Qualified personnel will be assigned to minimize deterioration of the items. General marking and labeling for packaging, shipping, handling, and storage of items will be adequate to identify, maintain, and preserve shipment. Special environments or special controls will be identified. Preservation, handling, and shipment of environmental samples will strictly follow requirements of the FDEP SOP and other environmental data collection documents, including sampling and analysis plans.

Quality system documents and records, both hardcopy and electronic, will be identified by the Project Manager. Corporate-level quality system documents will be identified by the QA/QC Officer. Langan will use EPA records management guidance documents to supplement Langan's records management and control practices. The following (most current versions of) EPA documents may be used as guidance:

- *Records Management Manual (2160)*, USEPA, OIRM
- *IRM Policy Manual (2100)*, Ch. 10, Records Management, USEPA, OIRM
- *Managing Electronic Records (Instructional Guide Series)*, National Archives and Records Administration (NARA)
- *Disposition of Federal Records: A Records Management Handbook*, NARA

PROJECT MANAGEMENT

Langan uses a Management Information System (MIS) for planning, scheduling, tracking, and reporting, including MS Project, Gantt Charts, Excel spreadsheets, and web-based portals with calendar functions. We also use Deltek Vision software for budgeting, invoicing, and project cost tracking for multiple-phase projects or for projects performed for clients who require the use of such a system. These programs are updated and evaluated periodically in order to identify areas that may be improved. We also review commercially available software and developing programs within Langan and implement upgrades into the existing programs. Personnel required to use the MIS and Vision software will be trained in the formats and applications as modifications are made.

Langan's Information and Technology Department is responsible for hardware, software, and communication technology used on our computing platforms, including Wide Area Networks, personal computers, Local Area Networks, and servers. The following (most current versions of) EPA documents may be used as guidance:

- *Records Management Manual (2160)*, USEPA, OIRM
- *IRM Policy Manual (2100)*, Ch. 10, Records Management, USEPA, OIRM

The IT Department's procedures include:

- Developing, installing, testing, using, maintaining, and controlling computer hardware and software used in environmental programs to ensure they meet technical and quality requirements and directives;
- Assessing the impact of changes to user requirements and the hardware and software on performance;
- Evaluating hardware and software to ensure they meet user requirements and comply with contractual requirements and standards;
- Ensuring that data and information produced from, or collected by, computers meet requirements and standards.

Langan's computer software includes, but is not limited to, design, data handling, data analysis, modeling of environmental processes and conditions, operations, or process control of environmental technology systems (including automated data acquisition and laboratory instrumentation), and databases containing environmental data.

Langan uses a systematic planning process for environmental programs, following EPA's guidance document QA/G-4 for the establishment of the Data Quality Objective process. The Project Manager is responsible for using and documenting this process. The QA Team provides technical support to the Project Manager.

Langan develops SOPs for routine technical and administrative activities to ensure uniform quality of products and processes. SOPs will describe their purposes and specific steps and techniques, and will be written clearly and concisely in a manner readily understood by a person knowledgeable of the technical or administrative concept of the procedure or process. Any staff member can identify the need for a SOP and, if knowledgeable of the particulars of a procedure or process, may also write such SOP. For City of Key West projects, Langan will adhere to the guidelines provided in the Florida Department of Environmental Protection Standard Operating Procedures (rev. 2008).

HEALTH AND SAFETY

Langan is proud that our OSHA Recordable Incident Rate has not had any recordable incidents in the first two quarters of 2014. The primary responsibility of project management is the health and safety of the Langan team. A healthy and safe work environment is not only the right of each team member, it is also a critical component of our QA/QC program – only healthy and safe team members can produce quality work.

PROPERTY ACQUISITION

This section describes the Langan team's methodology for complex pre-transactional environmental assessments. The objectives are to identify and investigate environmental concerns associated with proposed City of Key West acquisitions and, with confirmed environmental concerns, to provide corrective action recommendations and costs based on the City of Key West's intended and interim uses.

The approach will be implemented in two phases, Phase I and Phase II, which might run concurrently, depending on the particular site. Phase I is based on the principles recommended in ASTM E 1527-13, at a minimum. The Phase I involves research on the historical uses of the property, identifying existing regulatory file information for the property, and a site reconnaissance with interviews to determine the current and historical uses and conditions of the property. Phase II involves sampling soil, sediment, groundwater, and surface water for laboratory analysis to determine whether these media have been adversely affected by current or historical activities.

Langan will require the City of Key West to provide preliminary information on the property, e.g. location, acreage, owner, etc. Once this information is known, Langan uses available websites, e.g., Publication of Archival, Library & Museum Materials, Google Earth, Aerial Pictometry, and its internal Site Analyzer, to view current and historical aerial photographs and to evaluate current and historical property uses. If practical, Langan will visit the site to evaluate access requirements, sampling logistics, and uses of the property.

The Phase I portion will identify environmental concerns. The Phase II field investigation will verify the presence or absence of environmental concerns.

Phase I Environmental Assessment

Objective

The Phase I ESA objective is to identify recognized environmental conditions associated with the Property. According to ASTM E1527-13 (*Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*):

> 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 any 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 future release to the environment. De minimis conditions are not recognized environmental conditions.

Historical Records and Standard Environmental Records Review

Langan will review readily available data from standard sources for information on the historical development and use of the property:

- Boundary survey;
- Topographic maps;
- Sanborn fire insurance maps;
- Title and deed book information (chain of title), if provided by the City of Key West;
- Aerial photographs;
- City directories; and,
- The environmental studies provided by the City of Key West.

Through the services of a database search company, Langan will review standard environmental records sources from federal, state, and local environmental regulatory agencies for information on sites of environmental concern, compliance enforcement actions, investigations involving hazardous material or wastes, and of underground storage tanks (USTs). The minimum search distances will be in accordance with ASTM Practice E1527-13. In addition, if the property or adjacent properties are identified in the source listings, Langan might contact federal, state, and local agencies on a confidential basis to obtain information regarding potential impact to the Property.

Site Reconnaissance

In conducting the site reconnaissance, an environmental professional will attempt to observe:

- The property itself, to assess past or current use, and the potential for impact to soil, groundwater, and surface water based on identified use(s);
- Evidence of stressed vegetation, disturbed topography, soil/asphalt staining, surface water or groundwater sheen, or odors;
- The exterior and the interior of existing structures;
- Evidence of use or dumping of solid waste, hazardous materials, and construction debris;
- Topographic features indicating extensive use of non-native fill on the property;
- Evidence of the use of PCBs, petroleum products or other chemicals (e.g., USTs or aboveground storage tanks, drums, etc.), and other obvious environmental indicators (e.g., monitoring wells);
- Evidence of potable wells, irrigation wells, septic tanks, heating oil tanks, or other underground structures; and,
- Neighboring sites to assess the potential impact of their operations on the property.

Interviews

A Langan environmental professional will attempt to interview the property owner(s), on-site management and maintenance personnel, and other knowledgeable personnel (identified by the City of Key West) regarding past or present site activities relating to environmental concerns. Langan will contact local government agencies and the local fire department for information regarding potential environmental concerns on the property, if necessary.

Evaluation and Report

Langan will evaluate the findings and suspect environmental concerns to assess the potential for recognized environmental conditions in connection with the Property. If we identify recognized environmental conditions, we will notify the Client. Langan will present the results of the Phase I ESA in a formal report, which will include:

- A description of the property and the surrounding area;
- Significant data gaps that affect the ability of Langan to identify recognized environmental conditions;
- Findings of suspect recognized environmental conditions, historic recognized environmental conditions and de minimis conditions;
- Opinions on the significance of those conditions, and;
- Conclusions with respect to recognized environmental conditions.

Non-Scope ASTM Services

The scope of services for a Phase I ESA does not typically include asbestos, lead-based paint, radon, lead in drinking water, wetlands, regulatory compliance, cultural and historical resources, industrial hygiene, health and safety, ecological resources, mold or endangered species. Langan can include these services in our scope of work.

Phase II Environmental Assessment

If the Phase I ESA identifies recognized environmental concerns and the City of Key West decides to investigate those concerns, Langan will propose a Phase II ESA, the methodology for which is described in the following section on assessment.

GIS and Data Management

Langan utilizes the latest CADD, GIS, and Data Management software applications to analyze and design cost-effective solutions to our clients' problems. Our CADD-GIS group provides custom training, programming, and technical support to our staff and to our clients in Autodesk's Map, Land Desktop and Civil 3D, as well as ESRI's ArcGIS suite of applications, including ArcMap, ArcEditor, ArcInfo, and their extensions. Langan utilizes SITEOPS software for value engineering and to provide design optimization of land development projects. We use Earthsoft's EQuIS Chemistry and Geology products to manage large datasets for our environmental projects, and GIS, Rockworks, GMS, and EVS to visualize the data. Langan also uses 3D Studio and various post production products to generate computer generated animations of our clients' projects, allowing them to see the virtual design before construction. Langan provides our clients with easy access to their project data by developing Extranets and Sharepoint data portals that allow for easy data exchanges. Our web designers can develop custom web-based applications using ESRI's ArcIMS and ArcGIS Server to further leverage our clients' data.

Site Development Services

Langan works with clients from the conceptual site plan stage through completion of construction. Our services include:

- Evaluating land-use options in light of environmental issues;

- Preparing permitting packages and responding to requests for information during the permitting process;
- Developing and assisting with the permitting of dewatering systems. For contaminated sites, regulatory agencies are concerned that dewatering does not move the contaminated groundwater into uncontaminated areas, and that contaminated dewatering effluent is properly managed;
- Working with clients and contractors to minimize the impact of environmental issues (e.g., contaminated soil) on the construction schedule and budget; and
- Working with regulatory agencies to reduce the time and effort necessary to get to regulatory closure.

ASSESSMENT / REMEDIATION

This section describes the Langan team's methodology regarding assessment and remediation.

The Langan team's geologists, environmental engineers, and hydrogeologists provide a diverse range of services for environmental and engineering projects, including groundwater monitoring compliance programs, groundwater management plans, remedial investigations, remedial design, dewatering systems, product recovery, engineering geology studies, groundwater supply studies, aquifer tests, groundwater models, and expert testimony.

Regulatory Framework

Site assessment and remediation take place within the regulatory framework of Chapter 62-780 of the Florida Administrative Code, and in some cases, within the regulatory framework of municipal codes. Subsequent steps include understanding: which cleanup target levels (Chapters 62-302, 62-550, and 62-777, FAC) apply, based on the medium affected and the intended land use; how to characterize and dispose of non-hazardous waste (Chapter 62-713, FAC) and hazardous waste (Chapter 62-730, FAC); and how to conduct field work properly (Chapter 62-160).

Site Assessments

The Langan team's hydrogeological investigations to characterize groundwater and surface water conditions will include:

- Determining geologic and hydrogeologic conditions and evaluating lateral and vertical variations in the hydrogeologic framework through detailed logging of test borings, geologic mapping, and use of downhole and surface geophysical techniques.
- Establishing horizontal and vertical groundwater flow conditions and interaction with surface water features by installing monitoring wells and piezometers and by collecting surface water measurements.
- Evaluating surface water/groundwater resources, including planning and management studies for local, state, and federal agencies.
- Evaluating temporal variations in site surface/groundwater hydrologic conditions through continuous surface/groundwater water-level measurements to evaluate tidal, seasonal, and anthropogenic fluctuations.
- Preparing conceptual models utilizing graphical interpretation and presentation tools, published digitized topographic and geologic base maps, database management systems, and sophisticated three-dimensional computer modeling and presentation software.
- Preparing geologic and hydrogeological reports detailing our findings of local and regional conditions supported by cited published references, professional data collection records, and graphical and tabular illustrations.

Remediation Design

From the initial site assessment phase through remedial investigation and design, the team's scientists and engineers will work to develop a practical site conceptual model for each project. Our emphasis is on understanding the interaction of contaminant release and migration mechanisms with the environment to design effective and technically feasible remedies. We focus on risk-based remedial objectives throughout all phases of the remedial project.

The remedial action phase begins when the regulatory authority determines that the site assessment is complete, i.e., that the contaminant plumes have been delineated horizontally and vertically in all contaminated media. The initial task of the remedial phase is to evaluate remedial options:

- Is the contamination in soil, in ground water, in surface water, or in more than one medium? Remedial technologies are designed for particular media or combinations of media.
- What is the nature of the contamination – petroleum hydrocarbons, metals, pesticides, etc.? A remedial technology that is designed for petroleum hydrocarbons might not be applicable to metals, for example.
- What is the extent of the contamination – is it confined to a small area or has it migrated away from the source? Is the source of contamination continuing to discharge? Is the contamination present as a liquid or a solid? If the source is still present, then source removal might be selected as one of the remedial options. If the contamination is dispersed, then source removal might not be cost effective.
- What are the advantages, disadvantages, and potential capital and O&M (operation and maintenance) costs for possible remedial technologies? Considerations include regulatory hurdles, remedial action by-products and degradation compounds, and time to cleanup.

Services that might be required during the remedial evaluation include:

- Analytical and numerical modeling of groundwater flow and mass transport conditions to support exposure assessments and site-specific risk-based corrective action remediation programs.
- Geochemical characterization of contaminant plumes to support natural attenuation for petroleum hydrocarbon and chlorinated hydrocarbon remediation programs, including evaluation of primary and secondary lines of evidence to assess plume stability.
- Detailed geochemical analysis of aerobic and anaerobic plume conditions to determine the intrinsic bioattenuation processes occurring within the plume.
- Determination of plume attenuation rates through mass balances, smear zone calculations, and analytical models.
- Graphical interpretation of attenuation processes through plotting of geochemical data to illustrate degradation and transformation mechanisms.
- Design of active and passive groundwater remediation hydraulic control systems by conducting hydraulic analysis, pilot testing programs, and computer modeling.

Remedial options range from source removal of hot spots or free product, to in-situ chemical oxidation, to soil vapor extraction, to dozens more technologies. One property might require a mix of remedial options. The results of the remedial evaluation, including pilot tests of the selected remedy, will be submitted to the regulatory agency in the form of a Remedial Action Plan (RAP) or Limited Scope Remedial Action Plan. The Langan team will use the data to design the most cost effective and technically feasible remedial alternative. The remedial alternative depends highly on the contaminant type and mass, media affected, geologic and hydrogeologic conditions, etc. Langan's remedial design specifications will provide specific guidelines for the remedial contractor.

Future Land Use

Interim and future land use is considerations when evaluating remedial options. Depending on the terms of the property transaction, either the previous owner or the City of Key West will be responsible for remediating contamination associated with the previous or interim land use. However, the future land use will be the City of Key West's responsibility.

Regulatory Considerations

Langan has extensive experience working with the South District Office of FDEP and with Monroe County. Langan has a reputation with these agencies as being knowledgeable and ethical in our dealings with our clients. Langan personnel have negotiated consent agreements and obtained permits from regulatory agencies for many environmental services.

STORAGE TANK MANAGEMENT

This section describes the Langan team's methodology regarding storage tank management.

Langan has provided expert technical oversight and hydrogeologic evaluation of complex sites that have or had USTs, in accordance with Chapter 62-761, FAC (Underground Storage Tank Systems), Chapter 62-762, FAC (Aboveground Storage Tank Systems), Chapter 62-780, FAC (Contamination Site Cleanup Criteria), and FDEP's "Storage Tank System Closure Assessment Requirements" (STSCAR, April 1998). We understand that local program administrators sometimes have differing interpretations of the STSCAR.

Our projects have included innovative remedial and investigation strategies to achieve closure for UST cases initiated by previous consultants. Langan has been the liaison between the client and regulatory agencies and effectively managed sites requiring comprehensive assessments and skilled regulatory negotiations. For many remedial investigations, Langan applies risk-based corrective action to evaluate petroleum releases and assess remediation requirements. This has included natural attenuation, source removal, passive and active product recovery, soil and multi-phase vapor extraction, and impermeable barriers.

Langan has designed UST and AST systems for clients in several states, including Florida. Our Florida engineering experience includes designing, permitting, and providing construction oversight for storage tank systems in compliance with the requirements of Chapter 62-761 and Chapter 62-762, FAC, as well as providing permitting and construction oversight for the removal of non-compliant systems. We understand that the permit process for a storage tank system often entails permitting by other local agencies, and therefore the permitting process should begin as early as possible in advance of construction.

Langan will:

- Sample and gauge compliance wells;
- Design storage tank systems;
- Prepare permitable storage tanks system plans;
- File Discharge Report Forms with FDEP;
- File Incident Notification Forms with FDEP;
- Prepare Tank Closure Assessment Reports in accordance with FDEP's STSCAR;
- Screen soil using an organic vapor analyzer;
- Obtain tank closure permits;
- Collect confirmation excavation sidewall soil samples;
- Oversee contractor installation of tanks, piping, and dispensers;
- Sample ground water;
- Install monitoring wells; and
- Sample soil for disposal.

Regulatory Issues/Site Remediation

When storage tank systems leak and laboratory analysis confirms soil and groundwater contamination or free product is present, the first step toward remediation is notifying the FDEP with a Discharge Notification Form. The responsible party is expected to complete a site assessment to delineate the horizontal and vertical extent of contamination in all affected media. The Site Assessment Report (SAR) documents the delineation activities and must recommend no further action, no further action with conditions, monitored natural attenuation, or remedial action. When the agency has approved the SAR, the responsible party must implement the SAR recommendations. If remediation is necessary, Langan and EESI can implement in-situ technologies to clean the site effectively and efficiently.

Spill Prevention, Control, and Countermeasures (SPCC) Plans

The Langan team has many years of experience writing and revising SPCC plans and updating such plans as federal and state regulations evolve. Langan can inspect the City of Key West's facility to identify oil storage, spill scenarios, employee training, tank inspection, and material handling procedures and their associated descriptions within the plan. When we identify compliance deficiencies, we will develop distinct sections of the SPCC plan to address these items. These section will include descriptions of facility operations and the certifications needed specific to SPCC regulations, as well as a regulatory cross-reference table to assist the reader in quickly identifying information located elsewhere in the plan that fulfill SPCC requirements.

AIR EMISSIONS CONTROL

The Langan team has a broad base of experience assisting our clients with meeting their specific air compliance requirements mandated by federal, state and local regulatory agencies. We understand each facility is different and we work as a client advocate and liaison with regulators to develop the most practical permitting strategies for the needs of the client.

We have effectively managed projects from obtaining exemptions for insignificant sources to state-only operating permits up to Title V compliance of major sources. We have obtained installation, plan approval, preconstruction, and operating permits and renewals. Prescreening modeling, best available control technology evaluations and compliance reviews are additional services we perform.

Langan also offers the following air emissions services:

- Clean Air Act compliance audits
- Emissions calculations
- Minor Source Operating Permits
- Emissions inventories
- Visible emissions monitoring
- Control technology evaluations
- NESHAP applicability determination
- Compliance reporting
- Risk management planning
- Air dispersion modeling

As an advocate for our clients, Langan tracks the regulatory process and alerts our clients when proposals such as new requirements of the National Emissions Standards for Hazardous Air Pollutants (NESHAP) or NESHAP Maximum Achievable Control Technologies will impact their operations. We distill burdensome regulations down to just the elements you need to know. We determine the potential effects of the new programs, comment on the proposals and, if

finalized, develop specific client strategies for implementation. Langan also has experience with preparing periodic compliance reports and emission inventories for submittal in the specific format requested including agency specific software applications.

ASBESTOS

Langan is an asbestos consulting business that is qualified by our in-house licensed asbestos consultant (John Magnavita), as required by Florida Administrative Code. Our asbestos consulting services include performing asbestos surveys, preparing asbestos management plans, preparing asbestos abatement work plans and conducting abatement project monitoring for final clearance. Langan has provided these services nationally for about 25 years and locally for about seven years. We have been involved in many large asbestos projects in Florida, the northeast United States, (New York, New Jersey, etc.), and Las Vegas, Nevada.

Based on our local experience, Langan has established itself as a respected asbestos consulting firm that understands asbestos regulatory requirements associated with each local regulatory body, such as the Broward County Pollution Prevention, Remediation and Air Quality Division, and the Florida Department of Environmental Protection, and understands our client's project requirements, such as schedule and costs, by being responsive to our clients and keeping them informed in real time of our progress and findings.

We have experienced personnel, who are certified in Florida under the Asbestos Hazardous Emergency Response Act, and trained specifically to identify building materials that are suspected asbestos-containing material (ACM). We submit bulk samples of suspect ACM to nationally accredited laboratories that are certified to conduct asbestos fiber analysis. We prepare professional reports for our clients, with detailed descriptions of ACM and suspect materials that are confirmed to be non-ACM through laboratory analyses. Our reports also contain ACM location maps so that ACM can easily be located and quantified. The asbestos survey report can be submitted to the local regulatory agency to satisfy the NESHAP 10-day pre-demolition and pre-renovation notification requirements. Langan also provides independent asbestos removal project monitoring, as mandated by Florida Administrative Code, to assure that ACM is properly removed from the building under OSHA guidelines. Langan prides itself on conducting these services thoroughly and efficiently.

HAZARDOUS WASTE MANAGEMENT

This section describes the Langan team's methodology regarding hazardous waste management.

Hazardous waste management is governed by Chapter 62-730, FAC. The Langan team can review a facility's hazardous waste management program (HWMP) either within the context of a broader environmental compliance audit or as a standalone item. We can help a new facility develop a HWMP and we can help a facility stay in compliance with its permit requirements as a small quantity generator (SQG) or a large quantity generator (LQG).

For a facility with a generator permit, the Langan team can review the facility's permit; compare the facility's current operations and processes to the permitted conditions in regard to quantities of hazardous waste, and number and types of hazardous waste streams; and evaluate whether the facility maintains complete and timely records (analytical test reports, waste reports, signed disposal manifests), and submits complete and timely biennial and exception reports.

The Langan team can review operations to determine whether:

- Hazardous wastes are properly stored in containers, tanks, drip pads, or containment

buildings, and within secondary containment;
- Incompatible hazardous wastes are stored separately;
- Hazardous wastes are properly marked and labeled, including with the accumulation date;
- Fire suppression equipment is available and in working order in the storage area(s);
- Personnel inspect the hazardous waste storage area(s) weekly;
- The facility has an established personnel training program to educate workers on the proper handling of hazardous waste, and that personnel are using proper personal protective equipment;
- Hazardous waste is not stored on site longer than 90 days from the date of accumulation;
- The facility has properly packaged the hazardous waste to prevent leakage by following Department of Transportation requirements;
- The Uniform Hazardous Waste Manifests are properly completed; and
- The facility has an emergency response plan, which is readily available to all personnel.

And because the City of Key West is legally liable for the hazardous waste that it generates, Langan can work with the City of Key West to ensure that:

- The facility is using a licensed hazardous waste hauler for transport;
- The transporter has the proper placards to identify the characteristics and dangers associated with the waste;
- The designated transport, storage, and disposal facility (TSDF) is licensed to accept the specific hazardous wastes; and
- The TSDF has a record of providing timely copies of signed and dated manifests.

MANAGEMENT APPROACH

For every project, BH carefully selects a group of professionals best-suited to meet the specific needs of our clients.

BH uses senior staff to manage projects to ensure quality standards of results for each individual client. Our Project Manager for coastal engineering is George A. Tibedo, PE, who has more than 26 years of professional engineering experience in design and construction management for a wide array of specialty waterfront marine and coastal engineering projects including coastal, marine, structural, civil, and marine geotechnical disciplines. Mr. Tibedo's holistic approach and understanding of all facets of the project elements allows for a cohesive and efficient design result.

Mr. Tibedo's project experience includes waterfront modifications, coastal restoration, coastal protection, hurricane strengthening, waterfront destinations/attractions, greenways/blueways, mixed-use development, urban design/cultural, land and public transport access, greenfield sites, environmental constraints and permitting, integrated coastal zone management, operational procedures/hurricane preparedness, sustainability and ecology, and accessible designs.

Representative projects include dredging and beach nourishment, navigation, recreational and industrial marinas, vessel mooring fields, vessel fueling and sanitation, bulkheads/seawalls, boat ramps, seaport piers and wharfs, container yards, fendering systems, retaining wall structures, seaport cruise terminals, boutique lodging, retail, food and beverage, and other amenity facilities.

Our long-time working relationship with Langan Engineering will allow us to complete the work in a seamless manner, as if we were one firm.

Quality Control/Reporting Systems

Project Manager Concept

Each project requires diverse technical expertise from numerous specialists and individuals. In order to manage the flow of information, BH employs a Project Manager approach to guide and coordinate all project activities. The Project Manager coordinates all technical and administrative project matters between the client and our staff. This approach allows us to respond quickly and efficiently to all requests and questions from the client as well as simplifying the lines of communications.

Standard Operating Procedures

BH uses standard operating procedures adapted to suit project requirements to achieve a quality product every time. Key examples include our Project Managers' Manual, Project Work Plan, and checking procedures.

Project Work Plans

The Project Manager prepares a Work Plan at the start of each project. This plan includes information on the client's project goals, a scope of work, code and regulation requirements, budgets, quality control activities, deliverables, and schedules. One area of special interest is entitled "Concerns" where the project team is directed to specific areas requiring special attention. The project plan is reviewed by management and others who

may be knowledgeable about the project. After approval, copies are distributed to the project team members including the client, so everyone will clearly understand the agreed upon scope of work and methods of execution. The project Work Plan is updated when changes are needed as the project develops.

Decision Making

We involve our clients in the decision-making process beginning with the Work Plan. Our role is to work with you as a client to develop alternatives and technical solutions, present applicable pros and cons, and make recommendations. For the upgrades of the two SPS, we have provided alternatives and suggestions for the success of this project.

Quality Control/Quality Assurance

As Project Manager, Mr. Tibedo will develop a detailed Quality Control Plan during the project planning stage. This Quality Control Plan will set forth specific responsibilities and timing for quality control efforts. The use of our design review and checking system process saves our clients time and effort, and results in a higher quality design by our ability to efficiently manage each step in the facility design review and implementation process. The procedure ensures all the required elements are effectively incorporated into the project.

In general, the BH plan is founded upon and responds to the client's project specific quality requirements. This plan is distributed to and used by all members of the project team to ensure quality performance. As the work proceeds, individual members of the team are monitored to confirm their efforts are properly directed toward the project goals. Then, as delineated in the Quality Control Plan, more experienced staff members perform periodic reviews at pre-determined stages during the design of the project.

Internal quality assurance, coordination, schedule, and cost control procedures are integral to BH's work process as our firm strives to exceed our client expectations. This commitment has led BH to initiate, more than 20 years ago, a firm-wide program for Continuous Quality Improvement. Today, those techniques are recognized as the Total Quality Management process.

The QA/QC strategies we have implemented include:

- Management and staff training
- Management and staff commitment
- Internal guidance publications
- Project planning
- Client communications
- Internal communication
- Standard details
- Graphic standards
- Standard specifications
- Specifications and estimating specialists
- Standards committee
- Computer software committee
- Technical reference library
- Program review committee
- Post occupancy visit
- Design Review and Checking System; e.g., DrChecks, RediCheck

Program Review Committee

BH is proud of the reputation it has earned for dependability. Our commitment to quality control facilitates delivery of reliable service during the life of the contract. We have developed and use a program review committee (Committee) as a means for enhancing the technical quality of a project at key stages of development. This Committee composed of senior personnel who are not involved in the project on a daily basis will review the project at selected levels of completion. These experienced personnel will compare the development of the project to the goals previously established. They will also look for specific issues where difficulties have been noted from prior projects. The Committee is employed to bring knowledge from a wide range of experience to current work.

Client Contact and Project Monitoring

Keeping the client informed is of paramount importance to us. In addition to regular communications concerning various subjects of project development, we provide a monthly progress report showing services completed, information needed during the next period, tasks scheduled to be completed, technical issues requiring client input, invoicing status, etc. Data for these reports is compiled from staff and consultant reports.

BH maintains a full-time staff of IT professionals to maintain our information systems. These individuals, under our direct control, are responsible for our computers, software, networks, e-mail, and voice mail and are responsible for staying current with technology. All this has resulted in an extremely reliable information system with which we conduct our business.

5

Required Forms & Licenses

ANTI-KICKBACK AFFIDAVIT

STATE OF FLORIDA)
: SS
COUNTY OF Miami-Dade)

I, the undersigned hereby duly sworn, depose and say that no portion of the sum herein bid will be paid to any employees of the City of Key West as a commission, kickback, reward or gift, directly or indirectly by me or any member of my firm or by an officer of the corporation.

By: _____
Vincent Yarina, PG, CEM, Senior Associate

Sworn and subscribed before me this

2nd Day of July, 2014.

Corinthia Seiler
NOTARY PUBLIC, State of Florida at Large

My Commission Expires: 5/14/2018

CORINTHIA SEILER
Notary Public - State of Florida
My Comm. Expires May 14, 2018
Commission # FF 099219
Bonded Through National Notary Assn.

SWORN STATEMENT UNDER SECTION 287.133(3)(a)
FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICE AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted with Bid, Bid or Contract No. 14-004 for Environmental Engineering Services for the City of Key West RFQ

2. This sworn statement is submitted by Langan Engineering and Environmental Services, Inc.
(Name of entity submitting sworn statement)

whose business address is Parkside Corporate Center, 15150 NW 79th Court, Suite 200 Miami Lakes, FL 33016 and (if applicable) its Federal Employer Identification Number (FEIN) is 22-3167382 (If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement.)

3. My name is Vincent Yarina, PG, CEM and my relationship to
(Please print name of individual signing)

the entity named above is Senior Associate.

4. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including but not limited to, any Bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, material misrepresentation.

5. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(l)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication guilt, in any federal or state trial court of record relating to charges brought by indictment information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

6. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means

    1. A predecessor or successor of a person convicted of a public entity crime: or

    2. An entity under the control of any natural person who is active in the management of t entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

7. I understand that a "person" as defined in Paragraph 287.133(1)(8), Florida Statutes, means any natural

person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which Bids or applies to Bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

8. Based on information and belief, the statement, which I have marked below, is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies.)

X Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989.

___The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989, AND (Please indicate which additional statement applies.)

___There has been a proceeding concerning the conviction before a hearing of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer did not place the person or affiliate on the convicted vendor list. (Please attach a copy of the final order.)

___The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove the person or affiliate from the convicted vendor list. (Please attach a copy of the final order.)

___The person or affiliate has not been put on the convicted vendor list. (Please describe any action taken by or pending with the Department of Environmental Services.)

Vincent D. Yarina
(Signature)

7/2/14
(Date)

STATE OF Florida

COUNTY OF Miami-Dade

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

Vincent D. Yarina who, after first being sworn by me, affixed his/her signature in the
(Name of individual signing)

space provided above on this 2nd day of July, 2014.

My commission expires: 5/14/2018 Corinthia Seiler
NOTARY PUBLIC

CORINTHIA SEILER
Notary Public - State of Florida
My Comm. Expires May 14, 2018
Commission # FF 099219
Bonded Through National Notary Assn.

EQUAL BENEFITS FOR DOMESTIC PARTNERS AFFIDAVIT

STATE OF FLORIDA)
: SS
COUNTY OF Miami-Dade)

I, the undersigned hereby duly sworn, depose and say that the firm of Langan Engineering and Environmental Services, Inc. provides benefits to domestic partners of its employees on the same basis as it provides benefits to employees' spouses per City of Key West Ordinance Sec. 2-799.

By: _____
Vincent Yarina, PG, CEM, Senior Associate

Sworn and subscribed before me this

2nd Day of July, 2014.

Corinthia Seiler
NOTARY PUBLIC, State of Florida at Large

My Commission Expires: 5/14/2018

CORINTHIA SEILER
Notary Public - State of Florida
My Comm. Expires May 14, 2018
Commission # FF 099219
Bonded Through National Notary Assn.

CONE OF SILENCE AFFIDAVIT

STATE OF Florida)
: SS
COUNTY OF Miami-Dade)

I the undersigned hereby duly sworn depose and say that all owner(s), partners, officers, directors, employees and agents representing the firm of Langan Engineering and Environmental Services, Inc. have read and understand the limitations and procedures regarding communications concerning City of Key West issued competitive solicitations pursuant to City of Key West Ordinance Section 2-773 Cone of Silence (attached).

Vincent D. Yarina

Vincent Yarina, PG, CEM, Senior Associate

Sworn and subscribed before me this

3rd Day of July, 2014.

Corinthia Seiler

NOTARY PUBLIC, State of Florida at Large

My Commission Expires: 5/14/2018

CITY OF KEY WEST
3126 Flagler Avenue
Key West, FL 33040

ADDENDUM NO. 1 – RFQ Environmental Engineering/ ITB 14-004

This addendum is issued as supplemental information to the bid package for clarification of certain matters of both a general and a technical nature. The referenced bid package is hereby addended in accordance with the following items:

RFI Questions Submitted:

1.) Does the bid require that respondents be a licensed PE?

Yes, you should include a Licensed PE on your team.

2.) Can a Prime submit as a sub to another firm? Also, can a sub-contractor submit with more than one firm?

Yes.

3.) Please confirm the attached (46 pages) is the complete PDF for the subject submittal. Page 1 of the PDF states that the document is 47 pages in length. It also states that the "Request for Qualifications" section is 10 pages in length. However, per the attached, the section is 8 pages. I just want to be sure there are no missing pages.

Yes there are 46 pages and there are only 8 pages in the RFQ section.

4.) Under the "Scope of Work" section on page 7 of the RFQ, services from a Resident Project Representative would be required. Would a RPR differ from the Engineer of Record in this instance?

Yes, the RPR is the on-site staff providing daily (or other agreed on frequency) oversight (e.g., inspection)

5.) May firms only submit for one discipline or would a sub-consultant be needed to satisfy all service requirements per submission?

Must submit for all, using a sub-consultant as necessary.

6.) Will there be any page number limitations for any part of the qualification package?

Unless otherwise so stated in the RFQ, no limit

7.) Is there an incumbent? If so, can you provide the company name?

There is not an "incumbent" relative to an Environmental-specific General Services RFQ.

8.) Just to clarify the RFQ instructions, please advise: Put COPY Response and CD-ROM in envelope, seal it, mark it COPY and place inside of Envelope with ORIGINAL Response and CD-ROM, then seal that envelope? One envelope inside of another, correct?

Correct.

9.) Signed certifications are required by prime and subs, or just prime?

Just prime

10.) Please confirm that the required forms (Anti-Kickback Affidavit, Public Entity Crimes Certification, Equal Benefits for Domestic Partners Affidavit, and Cone of Silence Affidavit) are to be completed by the prime consultant only.

Correct.

11.) Are insurance certificates required to be provided at the time qualifications packages are submitted?

Yes

12.) Is a "description of the contractor's employee benefits plan" (page 17 of the RFQ) required to be included with the executed Equal Benefits for Domestic Partners Affidavit?

No

13.) Please confirm that electronic signatures are acceptable as originals.

Electronic signatures are acceptable

All Bidders shall acknowledge receipt and acceptance of this Addendum No. 1 by submitting the addendum with their proposal. Proposals submitted without acknowledgement or without this Addendum may be considered non-responsive.

Vincent D. Yanni

Signature

Langan Engineering and Environmental Services, Inc.

Name of Business

State of Florida
Department of State

I certify from the records of this office that LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, INC. is a New Jersey corporation authorized to transact business in the State of Florida, qualified on March 16, 1993.

The document number of this corporation is F93000001369.

I further certify that said corporation has paid all fees due this office through December 31, 2014, that its most recent annual report/uniform business report was filed on January 8, 2014, and 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 Eighth day of January, 2014

Ken Detzner

Secretary of State

Authentication ID: CC4703919538

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

https://efile.sunbiz.org/certauthver.html

State of Florida
Board of Professional Engineers
2639 North Monroe Street, Suite B-112
Tallahassee, FL 32303-5268

Langan Engineering And Envir Srvs Inc
15150 NW 79TH COURT STE. 200
PARKSIDE CORPORATE CENTER
MIAMI, FL 33016

Each licensee is solely responsible for notifying the Florida Board of Professional Engineers in writing the licensee's current address.

Name changes require legal documentation showing name change. An original, a certified copy, or a duplicate of an original or certified copy of a document which shows the legal name change will be accepted unless there is a question about the authenticity of the document raised on its face, or because the genuineness of the document is uncertain, or because of another matter related to the application.

At least 90 days prior to the expiration date shown on this license, a notice of renewal will be sent to your last known address. If you have not yet received your notice 60 days prior to the expiration date, please call (850) 521-0500, or write, Florida Board of Professional Engineers, 2639 North Monroe Street, Suite B-112,Tallahassee, FL 32303-5268 or e-mail: board@fbpe.org. Our website address is http://www.fbpe.org.

State of Florida

Board of Professional Engineers

Attests that

Langan Engineering And Envir Srvs Inc

FBPE

is authorized under the provisions of Section 471.023, Florida Statutes, to offer engineering services to the public through a Professional Engineer, duly licensed under Chapter 471, Florida Statutes.

Expiration: 2/28/2015
Audit No: 228201502691

Certificate of Authorization

CA Lic. No: 6601

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

BOARD OF PROFESSIONAL GEOLOGISTS (850) 487-1395
1940 NORTH MONROE STREET
TALLAHASSEE FL 32399-0783

LANGAN ENGINEERING&ENVIRONMENTAL SERVICES,INC
RIVER DR. CENTER I
ELMWOOD PARK NJ 074070000

Congratulations! With this license you become one of the nearly one million Floridians licensed by the Department of Business and Professional Regulation. Our professionals and businesses range from architects to yacht brokers, from boxers to barbeque restaurants, and they keep Florida's economy strong.

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Our mission at the Department is: License Efficiently, Regulate Fairly. We constantly strive to serve you better so that you can serve your customers. Thank you for doing business in Florida, and congratulations on your new license!

STATE OF FLORIDA AC# 6170504
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

GB401 06/21/12 118208146

GEOLOGY BUSINESS
LANGAN ENGINEERING&ENVIRONMENTAL

IS CERTIFIED under the provisions of Ch.492 FS
Expiration date: JUL 31, 2014 L12062101460

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AC# 6170504

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
BOARD OF PROFESSIONAL GEOLOGISTS

SEQ# L12062101460

DATE	BATCH NUMBER	LICENSE NBR
06/21/2012	118208146	GB401

The GEOLOGY BUSINESS
Named below IS CERTIFIED
Under the provisions of Chapter 492 FS.
Expiration date: JUL 31, 2014

LANGAN ENGINEERING&ENVIRONMENTAL SERVICES,INC
RIVER DR. CENTER I
ELMWOOD PARK NJ 074070000

RICK SCOTT
GOVERNOR

KEN LAWSON
SECRETARY

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AC# 6230966

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
BOARD OF PROFESSIONAL GEOLOGISTS

SEQ# L12072701600

DATE	BATCH NUMBER	LICENSE NBR
07/27/2012	128019645	PG2077

The PROFESSIONAL GEOLOGIST
Named below IS LICENSED
Under the provisions of Chapter 492 FS.
Expiration date: JUL 31, 2014

YARINA, VINCENT D
11115 WHITEHAWK
PLANTATION FL 33324

RICK SCOTT
GOVERNOR

DISPLAY AS REQUIRED BY LAW

KEN LAWSON
SECRETARY

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

BOARD OF PROFESSIONAL GEOLOGISTS (850) 487-1395
1940 NORTH MONROE STREET
TALLAHASSEE FL 32399-0783

SPECTOR, DANIEL
421 NE 110 STREET
MIAMI FL 331617148

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STATE OF FLORIDA AC# 6116845
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

PG1999 05/02/12 118180403

PROFESSIONAL GEOLOGIST
SPECTOR, DANIEL

IS LICENSED under the provisions of Ch.492 FS.
Expiration date: JUL 31, 2014 L12050200953

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AC# 6116845

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
BOARD OF PROFESSIONAL GEOLOGISTS

SEQ# L12050200953

DATE	BATCH NUMBER	LICENSE NBR
05/02/2012	118180403	PG1999

The PROFESSIONAL GEOLOGIST
Named below IS LICENSED
Under the provisions of Chapter 492 FS.
Expiration date: JUL 31, 2014

SPECTOR, DANIEL
421 NE 110 STREET
MIAMI FL 331617148

RICK SCOTT
GOVERNOR

KEN LAWSON
SECRETARY

DISPLAY AS REQUIRED BY LAW

State of Florida

Board of Professional Engineers

Attests that

Leonardo Rodriguez, P.E.

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes

Expiration: 2/28/2015

Audit No: 228201518956

P.E. Lic. No: 54858

State of Florida

Board of Professional Engineers

Attests that

Raymond Edwin Lees, P.E.

FBPE
FLORIDA BOARD OF PROFESSIONAL ENGINEERS

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes

Expiration: 2/28/2015
Audit No: 228201532259 I

P.E. Lic. No:
76245

State of Florida

Board of Professional Engineers

Attests that

John Magnavita, P.E.

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes

Expiration: 2/28/2015

Audit No: 228201527060

P.E. Lic. No:
54826

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

ASBESTOS LICENSING UNIT
1940 NORTH MONROE STREET
TALLAHASSEE FL 32399-0783

(850) 487-1395

LANGAN ENGINEERING & ENVIRONMENTAL SERVICES INC
JOHN MAGNAVITA
RIVER DRIVE CENTER #1
ELMWOOD PARK NJ 07407

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STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

ZA341 ISSUED: 09/17/2013

ASBESTOS BUSINESS ORGANIZATION
LANGAN ENGINEERING & ENVIRONMENTAL SERVICES INC
JOHN MAGNAVITA

IS LICENSED under the provisions of Ch.469 FS.
Expiration date : NOV 30, 2015 L1309170004171

VIVA FLORIDA 500

The Department of State is leading the commemoration of Florida's 500th anniversary in 2013. For more information, please go to www.VivaFlorida.org.

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STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
ASBESTOS LICENSING UNIT

LICENSE NUMBER	
ZA341	

The ASBESTOS BUSINESS ORGANIZATION
Named below IS LICENSED
Under the provisions of Chapter 469 FS.
Expiration date: NOV 30, 2015

LANGAN ENGINEERING & ENVIRONMENTAL SERVICES INC
JOHN MAGNAVITA
RIVER DRIVE CENTER #1
ELMWOOD PARK NJ 07407

VIVA FLORIDA 500

RICK SCOTT
GOVERNOR

ISSUED: 09/17/2013 SEQ # L1309170004171
DISPLAY AS REQUIRED BY LAW

KEN LAWSON
SECRETARY

State of Florida

Board of Professional Engineers

Attests that

Michael Patrick Carr, P.E.

FBPE
FLORIDA BOARD OF PROFESSIONAL ENGINEERS

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes

Expiration: 2/28/2015

Audit No: 228201503565

P.E. Lic. No:

72424

GBCI

GREEN BUILDING CERTIFICATION INSTITUTE

HEREBY CERTIFIES THAT

Michael Carr

HAS ACHIEVED THE DESIGNATION OF

LEED® ACCREDITED PROFESSIONAL

BY DEMONSTRATING THE KNOWLEDGE OF GREEN BUILDING PRACTICE REQUIRED FOR SUCCESSFUL IMPLEMENTATION OF THE LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN (LEED®) GREEN BUILDING RATING SYSTEM™.

LEED AP™

Chairman	March 18, 2009	Peter Templeton, President
	Date Issued	

State of Florida

Board of Professional Engineers

Attests that

Fangmei Zhang, P.E.

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes

Expiration: 2/28/2015

Audit No: 228201524073

P.E. Lic. No:
70325

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

MOLD-RELATED SERVICES LICENSING PROGRAM (850) 487-1395
1940 NORTH MONROE STREET
TALLAHASSEE FL 32399-0783

ALLISON, NATHAN THOMAS
1500 WEST CYPRESS CREEK ROAD
SUITE 413
FORT LAUDERDALE FL 33309

Congratulations! With this license you become one of the nearly one million Floridians licensed by the Department of Business and Professional Regulation. Our professionals and businesses range from architects to yacht brokers, from boxers to barbeque restaurants, and they keep Florida's economy strong.

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STATE OF FLORIDA AC# 6130783
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

MRSA72 05/17/12 118186376

MOLD ASSESSOR
ALLISON, NATHAN THOMAS

IS CERTIFIED under the provisions of Ch.468 FS
Expiration date: JUL 31, 2014 L12051701038

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AC# 6130783

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
MOLD-RELATED SERVICES LICENSING PROGRAM

SEQ# L12051701038

DATE	BATCH NUMBER	LICENSE NBR
05/17/2012	118186376	MRSA72

The MOLD ASSESSOR
Named below IS CERTIFIED
Under the provisions of Chapter 468 FS.
Expiration date: JUL 31, 2014

ALLISON, NATHAN THOMAS
1500 WEST CYPRESS CREEK ROAD
SUITE 413
FORT LAUDERDALE FL 33309

RICK SCOTT
GOVERNOR

KEN LAWSON
SECRETARY

DISPLAY AS REQUIRED BY LAW

United States Environmental Protection Agency

This is to certify that

Nathan Thomas Allison

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as a:

Risk Assessor

In the Jurisdiction of:

Florida

This certification is valid from the date of issuance and expires October 11, 2014

FL-R-108709-1

Certification #

OCT 14 2011

Issued On

Jeanearne M. Gettle, Chief

Pesticides and Toxic Substances Branch

2:06:58 PM 6/16/2014

Licensee Details

Licensee Information

Name:	**TIBEDO, GEORGE ALLEN (Primary Name)**
	(DBA Name)
Main Address:	**227 MCCOY DRIVE** **LAKE PLACID Florida 33852**
County:	**HIGHLANDS**
License Mailing:	
LicenseLocation:	

License Information

License Type:	**Professional Engineer**
Rank:	**Prof Engineer**
License Number:	**54291**
Status:	**Current,Active**
Licensure Date:	**05/06/1999**
Expires:	**02/28/2015**

Special Qualifications	Qualification Effective
Structural 1	05/06/1999
Building Code Core Course Credit	04/26/2005

View Related License Information

View License Complaint

State of Florida

Board of Professional Engineers

Attests that

Michael A. Giovannozzi, P.E.

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes

Expiration: 2/28/2015

Audit No: 228201506710

P.E. Lic. No:
62563

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 7/8/2014

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

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

PRODUCER
Greyling Insurance Brokerage
450 Northridge Parkway
Suite 102
Atlanta GA 30350

CONTACT NAME: Jerry Noyola
PHONE (A/C, No, Ext): (770)552-4225 **FAX (A/C, No):** (866)550-4082
E-MAIL ADDRESS: jerry.noyola@greyling.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Zurich American Insurance	16535
INSURER B : American Guarantee & Liability	26247
INSURER C : Alterra Excess & Surplus Ins.	33189
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
Langan Engineering &
Environmental Services, Inc.
619 River Drive Center 1
Elmwood Park NJ 07407

COVERAGES **CERTIFICATE NUMBER:** 14-15 (Langan) **REVISION NUMBER:**

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

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT X LOC			GL09242433-02	4/1/2014	4/1/2015	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 300,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
A	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS			BAP9242432-02	4/1/2014	4/1/2015	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
B	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED X RETENTION $ 0			AUC-9242434-02	4/1/2014	4/1/2015	EACH OCCURRENCE AGGREGATE	$ 12,000,000 $ 12,000,000
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N: N If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		WC9242431-02	4/1/2014	4/1/2015	X WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
C	Professional Liability E&O-Incl. Pollution Liab.			MAX7PL0001189	4/1/2014	4/1/2015	Per Claim Aggregate	$1,000,000 $1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
The City of Key West, all Departments, Agencies, Boards, Contractor & Commissions, its officers, agents, servants & employees are named as Additional Insureds on the above referenced liability policies with the exception of workers compensation & professional liability where required by written contract. The above referenced liability policies with the exception of professional liability are primary & non-contributory where required by written contract. Waiver of Subrogation is applicable where required by written contract & allowed by law.

CERTIFICATE HOLDER
City of Key West
City Clerk
3126 Flagler Avenue
Key West, FL 33040

RFQ No. 14-004: Environmental Engineering Services

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

AUTHORIZED REPRESENTATIVE
Gregg Bundschuh/JERRY

Additional Insured – Automatic – Owners, Lessees Or Contractors – Products-Completed Operations Liability Amendment

ZURICH

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer No.	Add'l. Prem	Return Prem.
GL09242433-02	4/1/14	4/1/15	4/1/14			

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

Named Insured: LANGAN ENGINEERING AND ENVIRONMENTAL SURVEYING
Address (including ZIP Code):

This endorsement modifies insurance provided under the:

Commercial General Liability Coverage Part

A. Section **II – Who Is An Insured** is amended to include as an insured any person or organization who you are required to add as an additional insured on this policy under a written contract or written agreement.

However, if you have entered into a construction contract or construction agreement with an additional insured person or organization, the insurance afforded to such additional insured only applies to the extent permitted by law.

B. The insurance provided to the additional insured person or organization applies only to "bodily injury", "property damage" or "personal and advertising injury" covered under Section **I – Coverage A – Bodily Injury And Property Damage Liability** and Section **I – Coverage B – Personal And Advertising Injury Liability**, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or

2. The acts or omissions of those acting on your behalf,

and resulting directly from your ongoing operations or "your work" as included in the "products-completed operations hazard", which is the subject of the written contract or written agreement.

C. However, regardless of the provisions of Paragraphs **A.** and **B.** above:

1. We will not extend any insurance coverage to any additional insured person or organization:

a. That is not provided to you in this policy; or

b. That is any broader coverage than you are required to provide to the additional insured person or organization in the written contract or written agreement; and

c. Subject to Paragraphs **1.a.** and **1.b.** above and solely as respects "products-completed operations hazard" coverage, unless a claim or "suit" for damages is presented to us no later than one year from the "products-completed operations hazard" completion date deemed applicable to "your work" from which the loss originates if no time requirement for "products-completed operations hazard" coverage is stipulated in the written contract or written agreement; and

2. We will not provide Limits of Insurance to any additional insured person or organization that exceed the lower of:

a. The Limits of Insurance provided to you in this policy; or

b. The Limits of Insurance you are required to provide in the written contract or written agreement.

D. The insurance provided to the additional insured person or organization does not apply to:

"Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering or failure to render any professional architectural, engineering or surveying services including:

1. The preparing, approving or failing to prepare or approve maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; and
2. Supervisory, inspection, architectural or engineering activities.

E. The following is added to Paragraph **2.** Duties In The Event Of Occurrence, Offense, Claim Or Suit of Section **IV – Commercial General Liability Conditions**:

The additional insured must see to it that:

1. We are notified as soon as practicable of an "occurrence" or offense that may result in a claim;
2. We receive written notice of a claim or "suit" as soon as practicable; and
3. A request for defense and indemnity of the claim or "suit" will promptly be brought against any policy issued by another insurer under which the additional insured may be an insured in any capacity. This provision does not apply to insurance on which the additional insured is a Named Insured, if the written contract or written agreement requires that this coverage be primary and non-contributory.

F. For the coverage provided by this endorsement:

1. The following paragraph is added to Paragraph **4.a.** of the Other Insurance Condition of Section **IV – Commercial General Liability Conditions**:

   This insurance is primary insurance as respects our coverage to the additional insured person or organization, where the written contract or written agreement requires that this insurance be primary and non-contributory with respect to any other policy upon which the additional insured is a Named Insured. In that event, we will not seek contribution from any other such insurance policy available to the additional insured on which the additional insured person or organization is a Named Insured.

2. The following paragraph is added to Paragraph **4.b.** of the Other Insurance Condition of Section **IV – Commercial General Liability Conditions**:

   This insurance is excess over:

   Any of the other insurance, whether primary, excess, contingent or on any other basis, available to an additional insured, in which the additional insured on our policy is also covered as an additional insured on another policy providing coverage for the same "occurrence", offense, claim or "suit". This provision does not apply to any policy in which the additional insured is a Named Insured on such other policy and where our policy is required by written contract or written agreement to provide coverage to the additional insured on a primary and non-contributory basis.

G. This endorsement does not apply to an additional insured which has been added to this policy by an endorsement showing the additional insured in a Schedule of additional insureds, and which endorsement applies specifically to that identified additional insured.

All other terms and conditions of this policy remain unchanged.