

Original

Statement of Qualifications

Civil



Utilities



Solid Waste



Coastal



Environmental



# City of Key West

# General Engineering Services

RFQ No. 17-002

**ch2m.**<sup>SM</sup>

April 2017

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April 19, 2017

City of Key West  
Office of the City Clerk  
1300 White St.  
Key West, FL 33040

Subject: Statement of Qualifications for Request for Qualifications No. 17-002, General Engineering Services

Dear Members of the Selection Committee:

As an island community, Key West presents unique challenges in the management of its storm water, wastewater, and solid waste, and in the development of buildings and coastal facilities. The environmental ecosystem of the Florida Keys is fragile, and its water resources are critical to Key West's vitality.

The CH2M team will continue to provide the City of Key West with experienced professionals who are recognized leaders in their areas of expertise and are familiar to City staff. For more than 25 years, CH2M has provided a wide range of services to the City and other local clients, and requests that it be considered to perform the services listed below:

- **Civil Engineering.** One of CH2M's core businesses is facilities, buildings, and civil design. Our capabilities range from the design of treatment plants and operations buildings that can withstand hurricane force winds to high-visibility administration buildings, town centers, and resort facilities. Our team bring capabilities in transportation, surveying, geotechnical, and site civil, such as our work on the City's Transit Development Plan 10 year update as well as completing the City Key West Pavement Management and Assessment Report. We also can provide sustainability and LEED-accredited services and are widely recognized for the industry's definitive manual on designing facilities for hot, humid climates. CH2M is a pre-qualified Florida Department of Transportation (FDOT) contractor with an extensive list of FDOT-certified staff to deliver projects that meet FDOT standards and requirements.
- **Utilities.** CH2M can provide the City with the full range of utilities engineering and construction services. Our team brings the breadth of wastewater services, from sewer conveyance to conventional or advanced wastewater treatment and design-build delivery capabilities. Our work at the Richard A. Heyman Environmental Protection Facility, including the recent headworks modifications, will help this state-of-the-art facility treat wastewater flow more efficiently as well as treating additional flow to the plant during extreme weather conditions for years to come. Stormwater management in Key West is particularly challenging because of the low ground elevations, high groundwater elevations, and need to protect the near-shore water quality. To overcome these physical constraints, CH2M assisted the City in preparing the 2012 Stormwater Master Plan identifying and prioritizing proposed stormwater improvement projects. In coming years, many more stormwater improvement project will be needed and CH2M's experience in successfully designing, permitting, and providing construction assistance with storm water facilities in Key West and other coastal South Florida communities will shorten the learning process and allow for efficient project execution.
- **Solid Waste.** CH2M has been a reliable source of support for solid waste management in the Florida Keys for more than 25 years. Most recently, we helped the City develop design-build procurement documents for construction of a new solid waste transfer station and obtain interim solid waste management capabilities at the Southernmost Waste-to-Energy (SWTE) Facility while the new transfer station was being built. In addition, we conducted a site assessment and prepared an Interim Remedial Action Plan for the SWTE site. We also assisted the City with documentation of the closure of SWTE and the Stock Island Landfill to satisfy "due diligence" requirements for construction of a bus terminal at the SWTE Site.
- **Coastal Facilities.** CH2M excels in coastal facility design, both for trade and cruise industry operations. While our coastal facility experience spans the country, we also bring extensive experience in South Florida. We have supported the Canaveral Port Authority and the City of Jacksonville with literally hundreds of coastal engineering projects and tasks. For the City of Key West, we have provided improvements for Mallory Square Wharf, and currently the Outer Mole pier, and currently the Zero Duval Seawall and Mallory T-Pier Rehabilitation project that enhance both the safety and the useful lives of both these facilities.

- **Structural Engineering.** CH2M can provide the City with a full range of structural engineering support. We provided a structural condition assessment of the Glynn Archer Facility where it was determined that the existing structure was not capable of supporting the additional loads required to function as a City Hall. We have also provided numerous structural engineering designs and services from Stormwater Injection Pump Stations to Wastewater Pump Stations, VFD Buildings, platforms and modifications to the Headworks structure. We conducted a structural condition assessment of the Richard A. Heyman Environmental Protection Facilities and based on the condition assessment, we designed and implemented remediation options to keep the plant structurally sound for another 25 years of operation.

Our team's ability to provide all the services identified in the RFQ offers the City of Key West continuity, economies of scale, and integrated solutions for its projects. We also offer the services of 490 multi-disciplinary staff in Florida in nine offices (four of which are design centers), and our subconsultants, Nutting Engineers of Florida and Avirom & Associates, to meet any of the City of Key West's project needs.

Sirpa H. Hall, P.E., is a duly authorized officer of the company empowered with the right to bind the firm. Evidence of that authority is provided in *Section 7. Required Documentation*. Our Program Manager, Sean McCoy, P.E., welcomes your questions and the opportunity to discuss our submittal.

*We are eager to continue a great working relationship.*

**CH2M HILL ENGINEERS, INC.**



Sirpa H. Hall, P.E.  
CH2M Designated Manager



Sean McCoy, P.E.  
CH2M Program Manager for City of Key West



# 1. Firm's Specialized Experience and Technical Competence in the Listed Disciplines

The City of Key West is unique because of its island geography, rich cultural history, and economy driven by a mix of tourism, the U.S. Navy, and the fishing industry. It is also unique because of its location within the Florida Keys National Marine Sanctuary. Population growth, development, and a changing regulatory climate have created additional environmental and economic issues that the City and its consultants must address during the project delivery process.



For more than 25 years, the CH2M team has helped the City of Key West protect and enhance the unique and fragile Keys environment through technically and environmentally sound projects.

For more than 25 years, CH2M has assisted the City in implementing projects that have cost-effectively and safely improved its solid waste, storm water, sewer, and coastal

facilities, while protecting and even enhancing the unique and fragile Keys environment. These projects include storm water management; sewer system rehabilitation and improvements; upgrades and improvements to the advanced wastewater treatment plant; solid waste management and permitting activities for the Southernmost Waste-to-Energy (SWTE) facility, Stock Island landfill, and new solid waste transfer facility; and seawall and pier improvements.

These projects, which have helped improve the quality of life in Key West, have familiarized our team with the City's facilities and staff, community needs, and local agencies such as HARC, the City of Key West Tree Commission, other City permitting departments, Monroe County, Florida Keys Aqueduct Authority (FKAA), South Florida Water Management District (SFWMD), Florida Department of Environmental Protection (FDEP), Florida Department of Transportation (FDOT), and U.S. Navy. This first-hand knowledge and experience gives us a sound foundation for implementing the City's future projects.

## Overview of CH2M

Established as a four-man partnership in 1946, CH2M welcomed Apollo Global Management LLC in 2015 as an investment partner to help our firm maintain financial health and grow to meet the enormous infrastructure needs around the globe in transportation, water, energy and the

CH2M—Integrated Engineering Solutions for the City of Key West

environment. In line with the tradition of employee-ownership at CH2M, our employees and former employees remain the largest group of stockholders following our partnership with Apollo and are the majority members of the Board of Directors.

CH2M has consistently been ranked among the top design firms in the United States. We are currently ranked among the top 3 in program management, sewer/wastewater, and construction management-for-fee. CH2M's stature as one of the nation's largest environmental design consulting firms offers Key West an extensive array of services, staff, and management expertise that is unmatched in the consulting industry. It is this reputation and level of expertise that assures Key West of success in its water and wastewater system development.

**ENR** ranks CH2M  
Engineering News-Record  
**Top 500 Design Firms Sourcebook**  
**Ranked in the World's Top 3 Design Firms**

- 1st Sewerage and Solid Waste
- 1st Wastewater Treatment Plants
- 2nd Water Treatment and Desalination Plants
- 2nd Site Assessment and Compliance
- 2nd Water Supply
- 2nd Highways
- 3rd Transportation
- 3rd Top 25 Pipelines
- 4th Government Offices
- 5th Airports
- 7th Bridges

*2016 ENR Rankings Reflect CH2M Ability to Meet All Aspects of Your Infrastructure Needs, All Under One Roof*

**Leadership in a variety of water, wastewater, and related disciplines offers innovative solutions that maximize long-term value to our clients.**

The firm's growth can be attributed to its dedication to client service, providing top-quality environmental engineering services, and a constant quest for technological advancement. Our ability to partner with clients such as Key West has been pivotal to this growth. By selecting CH2M to provide the required professional engineering consulting services, Key West will have access to the people, facilities, and technologies that will keep the City in the forefront of infrastructure improvements.

## CH2M “Vital Statistics” for 2016:

- 18,286 projects
- 4,004 unique clients
- Performed work in 95 countries and 8 sovereign states/territories
- \$5.2 billion gross revenues

### CH2M Among “World’s Most Ethical Companies”

CH2M has been named one of the World’s Most Ethical Companies by the Ethisphere Institute for eight consecutive years.

CH2M is one of only 124 companies in the world receiving this honor for 2017. We earned a coveted place on the list by going beyond legal minimums, introducing innovative ideas to benefit the public and consistently upping the ante for what it takes to be an ethical leader.



*“CH2M has proven to be one of the world leaders in upholding high ethical standards, making it a true standout in its industry, especially as unethical business actions and decisions grab headlines each day. The competition for this year’s list was very strong and we applaud CH2M for rising to the top. CH2M recognizes that being ethical is not only the right thing to do, it is also good business practice and leads to more successful and profitable operations.”*

**Alex Brigham,**  
Executive Director, Ethisphere Institute

With advice such as “Integrity is the all-important prerequisite to employment,” CH2M’s *Little Yellow Book* (written by one of the firm’s co-founders, Jim Howland) continues to guide the firm’s management practices and how the company operates and interacts with clients and community stakeholders. Open, two-way communication at all levels of the organization engages employee-owners in candid dialogue on how to resolve issues and improve the firm’s ethics program.



For Winter Park’s Swoope WTP project, CH2M designed the facility to complement the Revivalist style of the surrounding neighborhood.

As employee-owners and members of the communities where the firm works, CH2M employees embrace all elements of corporate citizenship. Sustainable solutions are incorporated into our projects and each year the firm sets more ambitious goals for reducing its internal environmental footprint through a rigorous Environmental Management System. CH2M partners with strategic non-governmental organizations, including Water For People, Engineers Without Borders-USA, Engineers Week, Bridges to Prosperity and a host of local community organizations, to provide financial, in-kind, leadership, and volunteer support to assist in providing clean water, safe infrastructure, and educational outreach.

## Civil Engineering

Civil engineering, including facilities and building design, is a core CH2M competency. Each year, we design and manage the construction of more than \$3 billion in new facilities for public and private clients worldwide. As engineering becomes more complex and costly, it has become increasingly important that the owner’s investment in facilities is optimized. For this reason, our civil engineering services focus on architectural and engineering designs that result in high-performance, environmentally sound, and cost-effective buildings and structures, as demonstrated by the design-build criteria we developed for the City’s new solid waste transfer station and categorical exclusion and design efforts for the Transit Facility to be located at the SWTE Facility.

**Transportation.** We understand the City’s transportation related challenges as we assisted with the completion of the City’s Transit Development Plan 10 year update as well as the City Key West Pavement Management and Assessment Report. We also made repairs to the Watson Blvd. bridge as part of our Continuing Contract for On Call Professional Engineering Services with Monroe County, Florida. This two-lane bridge provided the sole access to residences and businesses on the northern portion of Big Pine Key and No Name Key. The project was administered through the Florida Department of Transportation (FDOT) Local Agency Program (LAP).

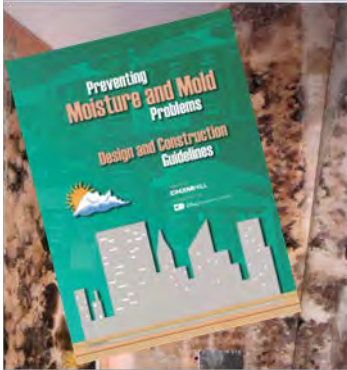
**Building/Facilities Systems.** In coastal areas of Florida such as Key West this means special attention must be paid to such elements as building envelope design; salt air and corrosion issues; moisture barriers; and heating, ventilating, air conditioning (HVAC) system design and commissioning, and raising sea level.

**Architectural.** Our firm’s architects often develop designs for clients who require that their projects fit within a regional context, respect historical precedents, and meet aesthetic standards. We have experience in a wide range of projects, ranging from office buildings to historical renovations, for a variety of industrial and utility buildings.

Our automated systems use design software to place intelligent graphical elements in a

drawing. These programs allow our architects and engineers to place and scale three-dimensional components in a design file. Our increased use of visualization software, specifically in terms of three-dimensional renderings, can enable us to give Key West staff a tour of our design, and renders often difficult-to-read design drawings nearly obsolete. We utilized this expertise in our work with HARC to blend the individual wastewater pump station's electrical buildings into the different historical areas within Key West.

## Experience in Hot, Humid Climates



**CH2M's leadership in building design and construction in hot, humid climates will help prevent the mold and mildew problems that can plague municipal buildings in Florida.**

Successful building and civil engineering, design and construction in the Florida Keys must address such environmental factors as high-moisture loads, corrosive sea air, raising sea level. The CH2M Advanced Facilities Group's practice in Florida is founded on the principles of sound design and construction in hot, humid climates. In fact, we, literally, "wrote the book" on the topic in

partnership with Disney Development Corporation, who had experienced mold and mildew problems in some of its facilities in Orlando. CH2M not only helped Disney rehabilitate these facilities, but co-authored a manual on facility design and construction to prevent future problems in their facilities. CH2M has worked with several coastal states to develop responses to the projected rise in sea level and the impact of coastal damage due to frequent and greater storms. For example, CH2M holds a call-in contract with the Port Authority of New York and New Jersey to provide expert professional architectural/engineering design and post contract award services for federally-funded Superstorm Sandy-related repair and resiliency projects at various Port Authority facilities. Resiliency projects covered under the contract include design of mitigation measures to prevent and/or mitigate future damage to Port Authority assets caused by severe meteorological events, for example, hurricane and flood. CH2M has also worked on numerous coastal wetlands restoration projects for the state of Louisiana and other Gulf Coast states.

## Sustainable Design and LEED

CH2M is dedicated to sustainable "green" solutions for our clients that, while reducing the negative impacts on the environment, also reduce their operating costs. The U.S. Green Building Council (USGBC) developed the LEED program to quantify good environmental design. The comfort of occupants within environmentally sound buildings is directly measurable to their productivity, further reducing costs associated with any

given building. From programming to design to commissioning, CH2M's experience with all aspects of the LEED certification process will help Key West to realize cost savings as well as the benefits associated with public stewardship of the sensitive Florida Keys environment.



**CH2M's leadership in building and facility design is demonstrated by the City of Seattle's receipt of a Gold LEED® Award for the Cedar WTF designed by our firm.**

Our team can address the City's preferences for a sustainable, neighborhood-friendly design through a variety of methods. During facility design, we can incorporate Green Building Criteria, such as selecting energy efficient equipment, installing water-reduction features, using passive ventilation and daylighting, selecting recycled materials, and providing water-efficient landscaping. Potential innovative design concepts include:

- "Green" design features
- Rainwater collection system for watering the grounds
- Low task lighting to minimize impacts on neighbors
- Planting of trees and landscaping to redirect views of the facility
- Reusing parts of original or historical buildings, where practical

In Key West, an important element of sustainable design is the protection of cultural and historical resources and designs that reflect the prevailing architecture. CH2M is adept in performing site investigations that ensure that cultural and historical artifacts are not impacted and in designing facilities that complement an area's architectural style.

## Ability to Provide Full Range of A/E Services

CH2M's facility services encompass all phases of project development and delivery, from strategic planning and financing through design, construction, operations and maintenance (OMI), and long-term sustainable development. The City of Key West's building/facility projects will benefit from our ability to provide the full range of services, including:

- Site and master planning
- Infrastructure planning
- Site, civil, and landscape design



- Facilities design and engineering
- Geotechnical engineering
- Structural engineering
- Architecture and interior design
- Sustainable design
- Structural engineering
- Electrical engineering
- Instrumentation and control engineering
- Communications systems design and engineering
- Mechanical engineering
- HVAC engineering
- Permitting: Federal, State and Local
- Commissioning
- Value engineering
- Constructability reviews Facility condition assessments
- Building forensics
- Indoor air quality and litigation support
- Energy and environmental services
- Security
- Construction management
- Design-build

Our ability to provide the full range of building/facility services will ensure that the City's designs are cost-effective to construct and operate, complementary to their physical surroundings, and in compliance with prevailing codes.

## Utility Engineering Services

### Stormwater



**Because of the local geography, flooding can easily impact Key West's environmental resources and water quality.**

Several factors affect storm water management in Key West. The area's nearshore water quality is easily impacted by land development, and unmanaged storm water can transport significant loads of sediment and associated contaminants, such as bacteria, animal waste, fertilizers, pesticides, oils, and heavy metals. Federal and state regulations and National Pollutant Discharge Elimination System (NPDES) statutes address the need to manage not only storm water quantity, but storm water quality as well. Diligent operations and maintenance and new capital improvements to retrofit existing developed areas are necessary to improve storm water runoff quality.

Because of Key West's low ground elevations and high groundwater elevations, which are near the ground surface at some locations during high tide, traditional drainage swales,

gravity drainage wells, and outfall systems do not always correct flooding problems. Water quality best management practices (BMPs) for storm water, which provide treatment, are also impacted by Key West's low-lying areas, where elevations are critical in determining a successful project. Consequently, few storm water BMPs used in other locales are effective in Key West.



**The pump-assisted storm water injection wells implemented by our team have helped resolve chronic flooding in key tourist areas.**

To overcome these physical constraints, CH2M assisted the City in preparing the 2012 Stormwater Master Plan identifying and prioritizing proposed stormwater improvement projects. The Master Plan used ICPR modeling to determine existing and post improvement flood staging of 5, 10, 25, and 100 year storm events and a list of proposed improvement projects. These projects included storm water pump assisted wells, gravity injection wells with triple-chamber baffle boxes, catch basins, drainage pipes, pavement and curb restoration, and ADA-compliant sidewalk restoration. These facilities will further improve storm water management on the island.

Over the coming years more storm water improvement projects will be needed. CH2M's experience in successfully designing, permitting and providing construction assistance with storm water facilities in Key West and other coastal South Florida communities will shorten the learning process and allow for efficient project execution.

### Sewer

The City of Key West is to be commended for its proactive approach to improvement of its wastewater treatment and transmission facilities. The CH2M team has been involved in many of these improvements, providing an unparalleled understanding of the City's existing facilities and future needs. We have provided most of the City's wastewater planning, design, construction, and operations services for the past 30 years.

### Treatment Facilities

The award-winning Richard A. Heyman Environmental Protection Facility (EPF), is current with respect to existing technology and regulatory requirements. By law, the City was required to provide advanced wastewater treatment (AWT) by 2010.



CH2M assisted the City in the design, permitting, and construction of the AWT filter system, which went online in 2001, and the ultraviolet (UV) disinfection system, which went online in 2007, and the Headworks Modification project which was completed in 2012.

The UV disinfection system has allowed the City to replace the chlorine gas disinfection system, improving site safety. The City has also completed construction of the second, deep injection well for effluent disposal and abandoned the ocean outfall per FDEP requirements.



The Headworks Modifications allow the City to treat wastewater flow more efficiently as well as treating additional flow to the plant during extreme weather conditions.

### Transmission

CH2M worked with the City to complete the sewer system rehabilitation program, the results of which have dramatically reduced influent to the Richard A. Heyman EPF.

Flows at the EPF now average 4.2 MGD, as opposed to previous flows of 7 to 8 mgd.

### Water, Electrical, Communications

CH2M has worked with the City to complete treatment plant and city wide projects, such as upgrades to the existing HVAC system and replacement of the emergency generator enclosure at the Wastewater treatment plant, providing generators and updating control systems at the major stormwater and sewer pump stations throughout the City.



CH2M's assistance with the Solid Waste Transfer station has allowed the City to utilize the existing SWTE site for a transit facility.

### Solid Waste

CH2M assisted the city with the Design Build contract and construction of the Solid Waste Transfer station completed in 2009. Upon completion of the Transfer Station, CH2M assisted the city with the closure of the SWTE facility for construction of the new Transit Facility.

CH2M recently assisted the City with documenting and applying for Certification of Completion of Long Term Care of the Stock Island Landfill.

We have done and continue to provide the City's solid waste needs including services in these areas:

- **Solid waste permitting.** CH2M has assisted the City with preparation of solid waste transfer station operations permit, renewal of the closure permit for the Stock Island Landfill, and certification of final closure for the SWTE site.
- **Facilities closure and demolition.** CH2M assisted the City with construction oversight, sampling, and monitoring of closure and demolition activities at the SWTE site.
- **Planning and financial services.** If needed, CH2M can assist the City with rate studies, financial and facilities planning, post-closure care estimates and financial responsibility, and bonding.
- **Sampling and analyses.** Specific services that may be included under this activity include follow-up sampling following demolition of the SWTE facility, environmental assessments, groundwater and surface water sampling and analyses, and other related monitoring activities.

### Ability to Provide Full Range of Solid Waste Services

To ensure that the City's solid waste need

s continue to be met, it needs a consulting firm that can provide comprehensive, full-service capabilities, including engineering, design, surveying, permit preparation, contract specifications, bid and proposal documents, technical review and ranking of contractors, environmental assessments, construction administration, and owner project representation services related to operation, new construction, permit modification, construction improvements, rehabilitation and/or retrofit of solid waste facilities.

In the past 5 years, CH2M has undertaken more than 970 waste management projects worldwide. This experience covers the full range of waste management services for all types and sizes of clients, including federal, state, and county agencies; large municipalities; small communities; industry; and private solid waste management companies. Our municipal solid waste management experience in Florida spans the state, and includes the City of Key West and Dade, Orange, Hillsborough, Citrus, Alachua, Collier, Indian River, and Escambia counties.



Improvements to pump station and utilization of abandoned piping have allowed the City to increase flows to the Richard A. Heyman EPF.

This experience provides the following advantages when performing the City's solid waste projects:

- Local knowledge and understanding of the City's needs and expectations
- Full-service, networked offices worldwide
- Local knowledge of City's needs and expectations
- Expert staff in related disciplines
- Extensive global project and program management experience
- Regulatory knowledge and experience
- Advanced design, analysis, and support systems
- Proven cost, schedule, and quality control methods
- Design, construction, and operation services
- In addition, CH2M can provide the following value-added services for the City's projects:
  - Surveying
  - Hurricane response
  - Debris removal and monitoring
  - Wetlands and ecological services
  - Stormwater and surface water management
  - Contamination assessment
  - Leachate treatment and management
  - Materials recovery, processing, and reuse
  - Waste generation and composition studies
  - Composting systems and odor control

These services can help keep the City on the cutting edge of solid waste technology.

## Coastal Facilities

Key West's viability as a port of call is an important aspect of its attraction as a tourist destination. The strength of the CH2M team is that we can provide any type of coastal facility service that might be required, whether it be cruise or commerce-related. We understand the City's coastal needs can be diverse. For the last 13 years as one of the City's Ports and Marinas Engineering Consultants, and before that for several studies for the City, Carnival Cruise Lines, and the Pier B owner, we provided a broad array of professional services that have enhanced port operations on the island. These services have included:

- **Engineering reports of condition surveys** for infrastructure at Mallory Wharf, Charter Boat Row, and House Boat Row, including scuba diving engineering inspections, post-Wilma hurricane damage assessments, critical foundation designs, and recommendations for designs under new hurricane codes
- **Design-build delivery of a cruise security shelter** that was completed within budget and schedule.

- **Design, Permitting, Construction** of the Mallory Square Wharf replacement and T-pier improvements, Zero Duval seawall repairs, Navy Mole electrical Improvements and bay bottom geotechnical exploration.

CH2M's Ports and Maritime Group can provide comprehensive, full-scale services for the City's coastal facilities. Our experience in designing coastal facilities for some of the world's largest ports, provides the expertise needed to be meet any of the City's needs.



Improvements to Mallory Square Wharf have enhanced safety as well as visual appeal.

## Structural Engineering

CH2M has been providing structural engineering services to the City of Key West since 1988.

### Ability to Provide Full Range of Structural Engineering Services

The CH2M team offers the City full service structural engineering support based on our extensive experience, capabilities and knowledge. Our Projects with the City will have full access to skillful staff from our local offices as well as from our offices nationwide.



Strengthening of the bulkheads and seawalls in the Keys, will provide greater protection during storm events.

We will work in a spirit of collaboration and be a key part of the City's planning, design and construction team. Our structural engineers will contribute to all stages of the design process from feasibility to construction and on to the refurbishment and decommissioning of projects as needed. We strive to contribute significantly to the overall sustainability of projects, both in terms of the initial construction and the life cycle costs.

We offer innovative yet simple approaches to the City's structural engineering projects with all types of construction materials including aluminum, concrete, cold formed steel, masonry, structural steel, and wood.

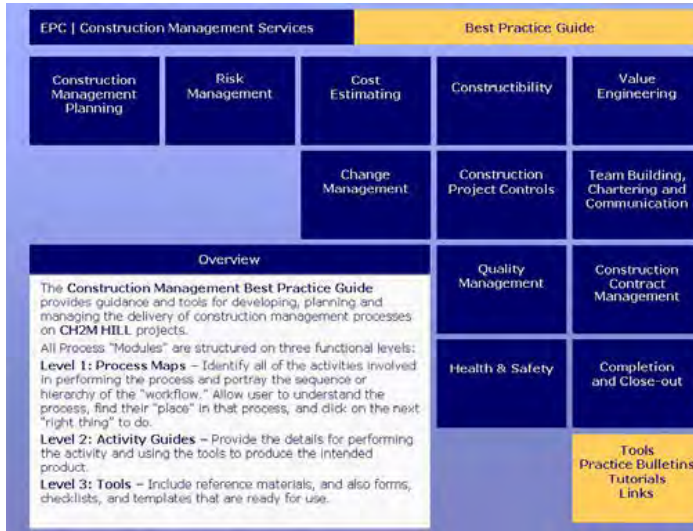
## Construction Management

Our team's construction management approach for SFWMD's projects is to develop and use "best practice" processes and tools to deliver a quality project, instituted through a best practice framework that is used in the delivery of all CH2M construction projects. This framework is based on more than 70 years of experience in delivering construction management

services, with guidance provided by organizations and institutions specializing in construction and project management (e.g., CMAA, ASCE, CII, and PMI).

CH2M has more than 450 individuals dedicated to the delivery of quality in constructed projects. Construction management by experts in the field, such as our proposed CM Lead Jim Rabideau, ensures the facilities we construct perform effectively for years to come. Also, this expertise will serve the City well in negotiating a fair price for changed work and ensuring that the terms of the contract are met.

### CH2M Best Construction Practices On-Line Tool



All CH2M teams have immediate access to our Best Construction Practices On-Line Tool, which provides guidance and tools for managing change and other vital aspects of the construction process.

## Construction Management Plan

The key to a successful project is communication and organization. Thus, a CH2M construction manager's first task is to develop a construction management plan (CMP) that contains an organizational chart of key participants and the flow of communications between them. Each party—owner, contractor, engineer—provides input on the mission, vision, and critical success factors of the project, and each party endorses the use of the plan. The responsibilities of the respective parties involved in construction of the project will be detailed through flow charts and responsibility matrixes for each contract process from preconstruction through contract closeout and final payment. This flow from organization chart and communication, through process and document control, and on to record information and closeout helps to ensure a quality, operable, and maintainable facility for years to come.

During construction, the construction manager will ensure that the City obtains quality construction and completion of the project on time and within budget. He will be responsible for coordinating all aspects of the construction phase services, including inspections, schedule reviews, meetings, submittal reviews, change orders, and request for information. He will also coordinate with the appropriate design engineers to

ensure construction issues are handled in a timely manner and will lead a team of local inspectors, which will be available to conduct inspections on a regular basis.

## Construction Quality Assurance/Quality Control

CH2M has developed QA/QC procedures that ensure a high-quality project is constructed within budget and schedule while we maintain a non-adversarial role in the field. These procedures provide the means for the personnel overseeing the construction to implement and maintain QA/QC plans that will result in the constructed product that the City expects.

## Surveying and GIS Mapping

Our subconsultant, Aviom & Associates, offers extensive land surveying experience in Monroe County and throughout the Florida Keys, dating back to 1981 when the firm was established. This long-term presence provides Aviom & Associates with the knowledge and expertise necessary to fulfill geographic information system (GIS) mapping, and land surveying services under this contract. Additionally, Aviom & Associates brings a successful history in Key West, including work such as U.S. Navy construction easements, providing base surveys for storm water and wastewater design projects, and mapping for contamination assessment projects. Services included aerial and conventional topographic mapping, establishing National Geodetic Vertical Datum (NGVD) benchmarks, global positioning system (GPS) controls, utility locations, and inverts. The firm also researched and recovered right-of-way and property control monuments, and calculated plats and rights-of-way for development of the base map.

## Additional Geotechnical Services

Based in South Florida, our proposed Geotechnical Services subconsultant Nutting Engineers of Florida (Nutting) brings a comprehensive range of geotechnical exploration and engineering services, including soil borings and groundwater well drilling, monitoring of pile installation, groundwork modification and chemical grouting procedures, quality control/quality assurance testing of construction materials, and structural inspections (special/threshold) of structures.

Nutting has extensive geotechnical, testing and inspection experience throughout the City of Key West and all the Keys, for project types not limited to new roadway and infrastructure including stormwater and wastewater improvements, airfield improvements, new buildings, renovations and additions, docks/piers and seawalls. Other Florida Keys experience, some of which required the use of barge drilling, includes the City of Key West Improvement Program projects, proposed Dolphin and Sailfish Piers replacement, Truman Waterfront Park Improvements, Central Cudjoe Key Regional Wastewater System Extension, Key Haven Utility Improvements.

## Laboratory Services

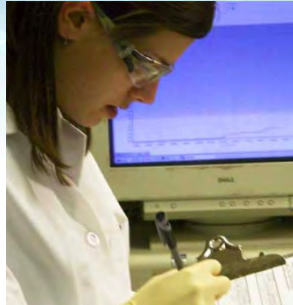
CH2M's Applied Science Laboratory (ASL) is an integral part of CH2M's multidiscipline approach to project delivery, offering integrated, comprehensive environmental engineering laboratory and analytical services to our project teams. Using the latest scientific tools and best practices, ASL staff and resources help clients achieve real-world solutions to current challenges. Our network of scientists, located in offices throughout North America, work interactively on project teams, resulting in superior communication, management, and project delivery of our exacting laboratory services. Core business areas served include the following:

- Groundwater treatment
- Water supply treatment
- Wastewater treatment/Facility operations
- Hazardous waste investigations and remediation
- Solid waste management
- Air quality management
- Sediment and Tissue management
- Vapor Intrusion studies
- Process engineering
- Ecological assessments
- Human health and ecological risk
- Resource management/Green chemistry

To serve these core businesses, we have laboratory units that perform the following:

- Laboratory Consulting Services
- Conventional Wet Chemistries/Physical Tests
- Inorganics and Trace Metals Analyses
- Volatile Organics Analyses
- Semi-volatile Organics Analyses
- Air sampling and Analysis (ambient, indoor/outdoor, soil vapor, process emissions)
- Process Engineering Support
- Treatability/Applied Research Testing
- Bioassay/Toxicity Testing
- Close Support Lab Operations
- Sampling Programs

CH2M's ASL serves the full breadth of laboratory services projects, including the following.



A mission solely dedicated to serving CH2M's core business clients distinguishes ASL from commercial laboratories.

### Water, wastewater, sediment, solid waste and hazardous waste testing:

- Comprehensive Environmental, Compensation, and Liability ACT (CERCLA-Superfund)
- Resource Conservation and Recovery Act (RCRA) Subtitle C, D and E Requirements
- U.S. Department of Defense (DOD), Air Force Center for Engineering and the Environment (AFCEE), Navy, and Corps of Engineers (COE), Air National Guard (ANG)
- National Pollutant Discharge Elimination System (NPDES) Permits and Clean Water Act (CWA) Requirements
- Safe Drinking Water Act (SDWA) Requirements

### Ambient air and process emission testing in support of:

- U.S. Environmental Protection Agency (EPA), Code of Federal Regulation (CFR) 40 Part 60 Clean Air Act (CAA) Requirements and Permits
- Criteria Pollutant Regulations
- Hazardous Organic National Emission Standards for Hazardous Air Pollutants (HON/NESHAP) Regulations
- Emission Abatement Equipment Selection and Performance
- Vapor Intrusion studies

### Bioassay, aquatic, and terrestrial toxicity testing:

- NPDES permit testing and CWA Requirements
- Hazardous waste designation
- Bioaccumulation studies
- Marine and freshwater static and flow-through
- Acute, short-term, partial life cycle and comprehensive chronic testing
- Sediment toxicity with invertebrates
- Terrestrial testing with nutsedge, lettuce, blue grass, hyalella, earthworms, and spring tails

### Treatability and process engineering evaluations:

- Biological treatment
- Physical treatment
- Chemical treatment
- Solids treatment
- In situ treatment
- Off-gas treatment

## Project and Program Delivery

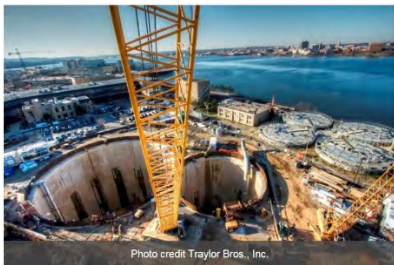
As a project and program manager, CH2M can integrate program management, design, and construction as a single entity due to our experience in program management. CH2M has been consistently ranked as one of the top program management firms by ENR. Industry-leading program experience includes the 2012 Olympics and the expansion of the Panama Canal to include a third set of locks. CH2M has

tested experience of successfully guiding Request for Qualification/Request for Proposal (RFQ/RFP) document development and managing a P3 procurement process for public agencies. This includes response evaluation and stakeholder involvement and negotiations, through financial close.

We routinely clients on transaction strategy and innovative technical and contractual solutions targeted at maximizing value. Our advisory services specialize in assisting clients with the selection and delivery of major infrastructure projects, very often within complex financial constraints. We are at the forefront of structuring P3s in which risk is tightly controlled, asset performance is assured, and shareholder value is maximized. Combined with our unparalleled knowledge of infrastructure and asset management, we offer clients exceptional service and exceptional value.

## Award-Winning Work

CH2M has received some of the industry's highest awards for technical achievement and innovations, and has managed and delivered some of the largest water and wastewater programs in the world. Our services have helped clients achieve national recognition and win numerous awards, including:



CH2M was lead designer for the award-winning Blue Plains Tunnel, completed in 2016. The project was deemed by ENR 2016's best overall in terms of teamwork, safety, overcoming challenges, innovation and quality.

- **2016 Overall National Best of the Best Project** by ENR for the CH2M-designed DC Water Blue Plains Tunnel. The project also received the Best Water/Wastewater Project award for 2016. ENR selected the Blue Plains Tunnel from over 700 projects nominated through regional competitions in 2016. The tunnel also received the 2016 Best Project Overall award for the Mid-Atlantic Region by ENR. The Blue Plains Tunnel, deemed best overall in terms of teamwork, safety, overcoming challenges, innovation and quality.
- **Plant Operations Excellence Award** by The Florida Department of Environmental Protection (FDEP), for the CH2M-operated Key West Richard A. Heyman Wastewater Treatment Plan. The award is presented annually to facilities that demonstrate a commitment to excellence in management, operations, and maintenance. (2014)
- **Achievement Award in Technology Merit: Climate Change Risk Modeling and Assessment** from the *Climate Change Business Journal* (CCBJ) in 2015 for an assessment of projected sea level rise, extreme rainfall, and wind; modeling the extent of inundation and storm surge; and evaluating the risk and cost of those climate change factors


to wastewater facilities in Miami-Dade's \$3.3B Ocean Outfall Legislation Program.

- **Business Achievement Award** from The Environmental Business Journal and the Climate Change Business Journal for outstanding business performance in the environmental and climate change industries.
- **Diversity Initiatives Runner-Up**, Direct Employers Association (2014)
- **The Florida Keys Aqueduct Authority's Floridan Aquifer Desalination Facility** project located in Florida City, Florida has been recognized with an "Award of Excellence" in the Public Works category by *Southeast Construction* magazine.
- **Construction Management Association of America Project Achievement Award** in the Program Management/Program Phase, Infrastructure category for the City of Fort Lauderdale's upgraded Peele-Dixie WTP
- **Grand Award** for the Integrated Resource Management Approach and Membrane Treatment Plant in Boynton Beach
- **Florida Project of the Year by the American Society of Civil Engineers** for the Bonita Springs Utilities East Water Reclamation Facility
- **Engineering Excellence Grand Award** by the Florida Institute of Consulting Engineers for the Orlando Utilities Commission Facility Automation and Information Management
- **Engineering Excellence Honor Award** from the Florida Institute of Consulting Engineers for the City of Cocoa Water Supply Development Program
- **One of the World's Most Ethical Companies** by the Ethisphere Institute for 9 consecutive years (2009-2017)
- Recipient of **9 OSHA Voluntary Protection Program Star Awards for Safety** in last 7 years
- Two **Dwight D. Eisenhower Awards for Excellence** in the use of small businesses as subcontractors

We are proud of our record of performance, and through technical innovations and strong project controls, we will continue to achieve expedited delivery, significant cost savings, and stringent program objectives for Key West.



**Section 2**  
Professional Qualifications  
of Personnel



## 2. Professional Qualifications and Capacity of Staff Personnel

The ability to provide top quality services in all the work areas identified in the City of Key West's RFQ requires a team with multi-disciplinary capabilities and experience working in the unique Florida Keys environment. The CH2M team consists of the most experienced staff from CH2M's Florida offices, as well as subconsultants Nutting Engineers and Aviom & Associates, both locally based in South Florida.

These staff have been organized to leverage our team's knowledge of the City's existing storm water, wastewater, solid waste, facilities/buildings, and coastal facilities, as well as its plans for the future. Our team also represents some of South Florida's most experienced environmental and construction management specialists, who understand the unique challenges associated with development in Key West.

### **Program Manager, Sean McCoy, P.E.**

Sean McCoy has managed many projects for the City of Key West since relocating to the islands in 2012. He has significant experience and a strong academic background in civil engineering, with an emphasis in pipeline design and construction, pipeline hydraulics, and water resources.

He is experienced in engineering design of large-diameter water conveyance pipelines and appurtenances, mechanical valve vault design, sanitary sewers, storm drainage systems, and small diameter water distribution lines. Sean also has experience in construction management, resident engineering duties, services during construction, and inspection of constructed pipelines.

He has served in management roles for Stormwater and Wastewater Projects for the City of Key West including George Street Stormwater Basin Improvements, North Simonton Stormwater Emergency Outfall, Pump Station F Improvements, Variable Frequency Drive Upgrades to Pump Stations A, B, C, D, and DA, R.A.H. Environmental Protection Facility (EPF) Concrete Repairs, and R.A.H. EPF Administration Building Roof Replacement.

Sean has specific experience with the Florida Keys Aqueduct Authority (FKAA) through his work on the Cudjoe Regional Wastewater Program. For that project, he assisted with contractor submittal reviews and provided construction inspection/observations for gravity and force main sewers as well as new water distribution systems

### **Other Key Team Members**

Sean will be supported by key staff who are experienced in a wide array of specialties, many of whom have extensive experience working in Key West and other areas of the Florida Keys.

### **Principal-in-Charge, Walt Schwarz, P.E.**

Walt Schwarz, PE, has extensive experience and knowledge of the complex issues surrounding all water and wastewater utility issues throughout the Keys.

He brings 40 years of professional engineering, consulting and construction experience covering a broad spectrum of civil engineering projects, including water supply, treatment, pumping, distribution, and storage; wastewater collection, transmission, pumping, and treatment; solid waste planning and management; roadway planning, design, and construction; environmental analysis; and site remediation. He specializes in water and wastewater conveyance technologies, including pumping systems, condition assessment and trenchless construction and rehabilitation.

Recently, he led CH2M's program support effort for the successful delivery of the Cudjoe Regional Wastewater Program (CRWWP) – a collaborative effort between FKAA and CH2M.

Prior to managing the FKAA project, he was responsible for delivery of more than 300 design projects that exceeded \$691 million in infrastructure work for the City of Fort Lauderdale.





**Principal-in-Charge**  
Walt Schwarz, PE

**Program Manager**  
Sean McCoy, PE

**Senior Consultants**  
Mike Stickley, PE  
Jeff Lehnen, PG

**Civil Engineering**  
Dean Garcia, PE

**Civil Engineering**  
Dean Garcia, PE  
Rich Morrison, PE

**Architectural**  
Adam Dolsak  
Maureen Kussler, LEED AP  
Beth Trautwein, RA, LEED AP

**Landscape Architecture**  
Scott J. Barber, RLA

**LEED**  
Maureen Kussler, LEED AP  
Beth Trautwein, RA, LEED AP

**Transportation**  
Sirpa H. Hall, PE  
Randy Mock, PE

**Geotechnical**  
Jose Ramos, PE  
Keith Chee-A-Tow PLS \*

**Land Surveying & GIS Mapping**  
Richard Wohlfarth PE/BIN \*

**Utility Engineering**  
Randy Boe, PE

**Advanced Wastewater Treatment**  
Randy Boe, PE  
Chris Carr, PE

**Transmission/Collection**  
Hank Postrozny, PE  
Tao Fu, PE  
Rich Morrison, PE

**Stormwater**  
Mitch Griffin, PhD, PE  
Dan Suarez

**Modeling**  
Helen Lu, PE  
Howard Lurk

**Hydrogeology**  
Gerrit Bulman, PG  
Mark Schilling

**Value Engineering**  
Dean Garcia, PE

Dean Garcia, PE  
Randy Boe, PE

**Solid Waste**  
Bo Bruner, PE

**Facilities**  
Bo Bruner, PE  
Daniel Dietch, CDT

**Permitting**  
Martha Burlingame

**Coastal Engineering**  
Max Mozo, PE

**Ports/Seawalls**  
Max Mozo, PE

**Permitting**  
Jim Moore  
Martha Burlingame

**Design-Build**  
Katus Watson, PE, DBIA  
David Schoster, PE

**Structural Engineering**  
Clement Anson, PE

Del Lange, PE  
Mark Chrzanowski, PE

**Construction Management**  
James Rabideau

**Services During Construction**  
James Rabideau  
Carl Easton  
Mark Schilling

**Document Control**  
Molly Fritch  
Donna Henley

▪ Nutting Engineers  
\* Aviom & Associates

Technical Resources				
<b>Facility Automation</b> Brian Stark Bernie Jacobsen, PE	<b>Financial/Rate Studies</b> Dave Green	<b>Electrical</b> P.Y. Keskar, PhD, PE David Nicholson, PE	<b>Instrumentation &amp; Controls</b> P.Y. Keskar, PhD, PE Brian Stark Jessica Knight, PE	<b>Cost Estimating</b> Pete Bredehoeft, CPE Erika Smith
<b>Facility Operations</b> John Bartelmo	<b>Mechanical/HVAC</b> Angel Valiente, PE			

## Task Managers

Task managers have been identified for all the areas of expertise identified in the City's RFQ: civil engineering, utilities engineering including storm water and sewer, solid waste, coastal, and structural. Our task managers represent some of our firm's most experienced, senior engineers, all of whom have extensive experience working in the Florida Keys:

- **Civil Engineering, Dean Garcia, P.E.** Mr. Garcia is a senior design manager and senior consultant with extensive experience in coordinating disciplines, preparing design documents, managing design for master services agreements, providing design input for developing task orders, and organizing client meetings. Mr. Garcia brings extensive project design and client coordination experience in Key West for a wide variety of projects. He has provided design and task management for general and CIP engineering contracts with local agencies in the Keys over the past 10 years and has successfully delivered these design projects. Additionally, his experience includes project management, design, permitting, bid phase services, and construction management for stormwater, wastewater, solid waste, water, storm drainage, and stormwater management facilities and environmental projects.
- **Utilities Engineering, Randy Boe, P.E.** Located in our 145-person design center in Gainesville, Randy Boe is a highly respected sewer engineer who brings more than 20 years of experience in the study and detailed design of wastewater treatment processes, including bioselectors, biological nutrient removal, grit removal, screening, aeration, membrane bioreactors, digestion, dewatering, disinfection, equalization, and clarification. Mr. Boe is CH2M's Regional Technology Leader for Wastewater Treatment in the Eastern Region.
- **Solid Waste, Bo Bruner, P.E.** Bo Bruner is well known to the City of Key West from the solid waste management services he has provided to the City over the past 25 years. In addition to the City's solid waste transfer station, closure of the SWTE facility, the Long Term Care Completion Certification of the Stock Island Landfill and previous Class I landfill work, he has provided solid waste management services for numerous other Florida clients, including Orange, Citrus, Hillsborough, Pasco, and Alachua counties.
- **Coastal Facilities, Max Mozo, P.E.** Max Mozo's 22 years of experience in the design, investigation and management of various civil and structural projects has been particularly focused on ports and waterfront facilities. His responsibilities include project management and structural design of waterfront projects. His project background includes the design and inspection of several waterfront

facilities for Jacksonville Port Authority (JAXPORT), Port Canaveral, the Florida Department of Transportation, and various private industries. He brings Key West experience as lead engineer of the Mallory Square Wharf Replacement project.

- **Structural Engineering, Clement Anson, P.E.** Mr. Anson is a Senior Structural Engineer skilled in all phases of engineering operations. His experience includes Water and Wastewater Treatment Plants, Design Build Projects and International Projects for both private and public projects. His 27 years of structural engineering experience in Water and Wastewater Treatment Plants and Industrial Facilities include Design Build as well as Design, Bid and Build projects. His special areas of expertise include reinforced concrete tanks, reservoirs, and foundations, structural steel, reinforced concrete and masonry buildings, pile foundations and retaining walls. His experience in Florida includes projects for Jacksonville, Cocoa, Collier County, Tampa.
- **Construction Management, Jim Rabideau.** Mr. Rabideau currently supports the inspection activities of the resident engineering inspector for several water and wastewater-related projects throughout South Florida, including projects for the South Florida Water Management District (SFWMD). Mr. Rabideau also serves as the project/construction manager for several projects throughout Florida, ranging in value from \$200,000 to more than \$25 million. For the past 8 years, Mr. Rabideau has served as the Group Leader for the South Florida area of CH2M's Construction Management Services Group. Mr. Rabideau implemented safety training in the South Florida area, including site safety coordinator certification, as required by CH2M, for all field personnel who manage projects.

## Senior Consultants

Senior consultants will act as resources to our team during predesign, final design, and other key aspects of project delivery. Each of our senior advisors, listed below, is an experienced, senior-level engineer or scientist that is considered an expert in his respective area of expertise:

- **Mike Stickley, P.E.** Mr. Stickley is a project manager, lead designer, and construction manager with more than 25 years of experience on numerous water and wastewater treatment plant, conveyance, and storage projects. He has extensive experience with the design of ductile iron, fiberglass, and high density polyethylene pressure and gravity systems. In addition, he has served as the lead designer, design manager, and/or senior consultant for numerous new pump station project or projects involving the rehabilitation of existing pump stations. His experience in the Keys includes work as

Senior Reviewer for the Cudjoe Regional Wastewater Transmission System project.

- **Jeff Lehnen, P.E.** Mr. Lehnen is a principal hydrogeologist with more than 39 years of experience in Florida regarding water resource permitting, planning, design, construction. He has proven experience and recognition for his skills with solving complex water resources issues and for providing guidance to clients and regulatory agencies on difficult policy and regulatory issues. Mr. Lehnen has expert witness experience for water use, water quality criteria exemption, solid waste, and power plant water supply projects. He has also been involved with numerous projects in the Keys and South Florida.

## Support Staff

More than 50 CH2M in-house staff members will support our key team members in a wide range of architectural and engineering specialties, including landscape architecture, design-build, facility automation, facilities operation, financial, funding, information technology, mechanical, electrical, civil, structural, building services, and geotechnical.

These technical resources, as well as our more than 100 staff in South Florida and 490 staff statewide, will ensure that our program manager Sean McCoy has all the resources needed in-house to deliver the City's projects on time and within budget.

## Resumes

Resumes for our task leads are included at the end of this section.

# Sean McCoy, PE

## Project Manager

### Education

M.S., Civil Engineering, emphasis on Hydraulics, Utah State University  
B.S., Civil Engineering, Colorado State University

### Professional Registration

Professional Engineer: FL

### Distinguishing Qualifications

- ★ Experience with the City of Key West managing stormwater and wastewater projects.
- ★ Project team member on Cudjoe Regional Wastewater Program for the Florida Keys Aqueduct Authority (FKAA).
- ★ Experience as a Project Manager includes coordinating remote teams, developing Task Orders, managing budgets, and coordinating invoices.
- ★ Experienced in engineering design of large-diameter water conveyance pipelines and appurtenances, mechanical valve vault design, sanitary sewers, storm drainage systems, and small diameter water distribution lines.
- ★ Experienced in construction management, resident engineering duties, services during construction, and inspection of constructed pipelines.

### Relevant Experience

Mr. McCoy has managed numerous storm and wastewater projects for the City of Key West since arriving in the islands. He has significant experience and a strong academic background in civil engineering, with an emphasis in welded steel pipe design and construction, pipeline hydraulics, and water resources.

### Representative Projects

**Management Roles, Stormwater and Wastewater Projects, City of Key West, FL.** As project manager, coordinating disciplines, preparing design documents, permitting applications, monthly project status reports, developing task orders, coordinating invoices, and client meetings for the following projects: George Street Stormwater Basin Improvements, North Simonton Stormwater Emergency Outfall, Pump Station F Improvements, Variable Frequency Drive Upgrades to Pump Stations A, B, C, D, and DA, R.A.H. Environmental Protection Facility (EPF) Concrete Repairs, and R.A.H. EPF Administration Building Roof Replacement.

**Cudjoe Regional Wastewater Collection and Transmission Systems, FKAA, Florida Keys, FL.** Assisted with contractor submittal reviews and provided construction inspection/observations for gravity and force main sewers as well as new water distribution systems.

**Resident Project Representative, CWP, Vineyard Connector Segment, Central Utah Water Conservancy District, Lindon and Lehi, UT.** This segment was designed

by CH2M and constructed by Condie Construction Company with a scheduled completion date. This final segment of the CWP connecting all previous segments consists of 35,234 feet of 60-inch mortar-lined, tape and mortar-coated welded steel pipe. Pipeline appurtenances include a well field valve and meter vault, and 9 smaller vaults for air release/vacuum valves, blow off, and manway access. Construction along this alignment is mainly located within landowner easements bordering the North edge of Utah Lake around and through many natural springs. The groundwater elevation for this segment is generally 2-3 feet below existing grade. This alignment required installation of one 72" casing which was pipe-rammed beneath a Union Pacific railroad spur, and a 72" casing which was micro-tunneled beneath UPRR and UDOT light rail main lines.

**Resident Project Representative, CWP, North and West Segments, Central Utah Water Conservancy District, Saratoga Springs, UT.** This segment was designed by CH2M and constructed by Whitaker Construction. This segment of the CWP consisted of 15,300 feet of 48-inch, and 13,700 feet of 60-inch mortar-lined, tape and mortar-coated welded steel pipe. This alignment included one bore and jack tunnel installation beneath a 4-lane state road. Pipeline appurtenances included 3 turnout/flow control vaults, and 8 air release/blow off/access manways. Construction along this alignment bordered residential neighborhoods within city streets, with 4,200 feet paralleling a Bureau of Reclamation irrigation channel.

**Resident Project Representative, CWP, 800 North Aqueduct Extension Project; Central Utah Water Conservancy District; Orem UT.** This segment was designed by MWH Global, and constructed by Vancon. Mr. McCoy provided Construction Management and Services During Construction for 2 miles of 48-inch mortar-lined, tape and mortar-coated welded steel pipe. Pipeline appurtenances included a flow control/turnout vault, a second turnout vault, and 2 air release/vacuum valve vaults.

**United States Marine, 1989-1993.** Served with the 1<sup>st</sup> and 3<sup>rd</sup> Surveillance, Reconnaissance, and Intelligence Group (SRIG).

# Walt Schwarz, PE, F.ASCE

## Principal-in-Charge

### Education

M.S., Civil Engineering, University of Massachusetts  
B.S., Civil Engineering, University of Delaware

### Professional Registration

Professional Engineer: FL, NY, CT, MA, NH, VT

### Distinguishing Qualifications

- ★ Brings experience with the City of Key West
- ★ More than 40 years of professional consulting experience covering a broad spectrum of civil engineering projects, including water supply, treatment, pumping, distribution and storage, wastewater collection, transmission, pumping and treatment, solid waste planning and management, roadway planning design and construction, environmental analysis, and site remediation
- ★ Responsible for delivery of more than 300 design projects that exceed \$691 million in infrastructure work for the City of Fort Lauderdale
- ★ Project manager for water and wastewater conveyance and treatment plant projects, pump station and neighborhood improvement projects throughout South Florida
- ★ Specialized experience in water and wastewater conveyance technologies, including pumping systems and trenchless construction and rehabilitation
- ★ Named 1996 Engineer of the Year by the Palm Beach Branch of the American Society of Civil Engineers

### Relevant Experience

Walt Schwarz, PE, has extensive experience and knowledge of the complex issues surrounding all water and wastewater utility issues throughout the Keys.

He brings 40 years of professional engineering, consulting and construction experience covering a broad spectrum of civil engineering projects, including water supply, treatment, pumping, distribution, and storage; wastewater collection, transmission, pumping, and treatment; solid waste planning and management; roadway planning, design, and construction; environmental analysis; and site remediation. He specializes in water and wastewater conveyance technologies, including pumping systems, condition assessment and trenchless construction and rehabilitation.

### Representative Projects

**Program Manager/Chief Engineer, Cudjoe Regional Wastewater Program, FCAA, Florida Keys, FL.** Mr. Schwarz was responsible for planning and executing the project work plan and the major task elements within the established schedule and budget. daily basis. He served as the primary point of contact for all communications between FCAA and the project team. His specific responsibilities included maintaining and coordinating the efforts of all task leads working on

various project components; conveying FCAA's concerns, guidelines, and needs to the members of the project team; assisting with staff selection for task assignments; and planning the work in detail and communicate the project plan to FCAA and project team by developing detailed project procedures, defining project deliverables, scheduling activities, monitoring and allocating available budget, defining staff responsibilities, and outlining, implementing and assuring compliance with the quality management plan

**Client Service Manager, Cities of Boca Raton, Key West, Miami Beach, Martin County Utilities, Coconut Creek, West Palm Beach, and Fort Lauderdale, FL.** Assist in the development and implementation of utility master improvement plans the development and implementation of capital improvement plans for water and wastewater utilities.

**Project/Design Manager, Hilton Haven Water and Sewer Improvements, City of Key West/FCAA, FL.** Project and design manager for a gravity sewer system, pump station and water main replacement to serve water front homes on Hilton Haven in Key West. Site conditions required specific access planning due to limited roadway width and pile supported pipe installation to overcome poor subsurface conditions.

**Project Engineer, Cudjoe Key Pipe Condition**

**Assessment, FCAA, Florida Keys, FL.** Project engineer to determine if an abandoned water main could be used as a sleeve for the installation of a new force main in FDOT right of way. Evaluated potential technologies, obtained cost proposals, and monitored inspection activities.

**Senior Consultant, Lower Keys Regional Transmission**

**Main, FCAA, Florida Keys, FL.** Senior consultant and technical reviewer for the design of pump stations and force mains for a regional wastewater transmission system in the lower Keys.

**Project Manager, Sigsbee Force Main and Wastewater Collection System Evaluation and I&I Study, City of Key West, FL.**

The Sigsbee force main project consisted of construction of the 2.5-mile Sigsbee force main, 6,000-foot replacement of the Pump Station B Force Main, and landside replacement of the 30-inch-diameter ocean outfall in the City of Key West. All projects were completed simultaneously on schedule and under the estimated project cost. On the wastewater collection system evaluation, acted as project manager for the development of design alternatives and the preparation of contract documents leading to the replacement of 20,000 feet of deteriorated sewers for the Key West Naval Air Station. Project was completed within the allocated design and construction budget, reduced the need for one lift station, and provided service to previously unserved areas.

**Senior Consultant, J. Robert Dean WTP, FCAA, Florida**

**Keys, FL.** Senior consultant and technical assistance during the construction phase of a new nanofiltration WTP at the Florida City facility.

**Project/Design Manager, District G Water Main**

**Upgrades, FCAA, FL.** Project and design manager for the replacement of water mains concurrent and coordinated with the City of Key West sewer replacement in the same project area.

**Program Management Team Design Manager/Chief Engineer, WaterWorks 2011 Water and Wastewater**

**Infrastructure Program, City of Fort Lauderdale, FL.**

Provided design management and construction phase services for multiple projects, as well as value engineering for the gravity sewer component that saved the client more than \$11 million. Extensive improvements and additions have been recommended and planned throughout the water and wastewater conveyance systems to improve capacity and operation.

**Project Manager, Transmission Main at Membrane WTP, City of Boca Raton, FL.**

Responsible for the design and permitting of a 36-inch raw water transmission main, 20-inch concentrate force main, and 8-inch wastewater force main to support the City's new membrane WTP.

**Project Manager, Wellfield and Transmission Main, City of Delray Beach, FL.**

Responsible for project management, master planning, civil, geotechnical, electrical, and structural engineering, environmental/permitting, groundwater modeling, land development, hydrogeological, and cost estimating oversight on the Morikami Park wellfield project.

**Project Manager, Wastewater Lift Station, City of**

**Boynton Beach, FL.** Responsible for project coordination and construction activities for the wastewater treatment lift station drainage and force main improvements.

**Project Manager, A1A Force Main, City of Fort**

**Lauderdale, FL.** Responsible for the planning, design, and construction of 11,000-linear feet of a 24-inch force main, including a directionally drilled crossing of the Intracoastal Waterway.

**Project Manager, 4th Avenue Force Main (Sub-Aqueous Crossing), City of Fort Lauderdale, FL.**

Responsible for the planning, design, and construction of a 2,200-linear feet, directionally drilled crossing of the New River with a 20-inch force main.

# Mike Stickley, PE

## Senior Consultant

### Education

M.E., Civil Engineering, University of Virginia  
B.S., Civil Engineering, University of Virginia

### Professional Registration

Professional Engineer: AL, GA, VA, NC, LA, KY

### Distinguishing Qualifications

- ★ Brings experience in the Florida Keys
- ★ Currently serves as a Conveyance Technology Lead for CH2M's Southeast Region
- ★ Extensive experience with the design of ductile iron, fiberglass, and high-density polyethylene pressure and gravity systems
- ★ Master editor for several CH2M conveyance specifications to include ductile iron pipe, manholes, manhole rehabilitation, pre-stressed concrete cylinder pipe rehabilitation with carbon fiber
- ★ Has served as the lead designer, design manager, and/or senior consultant for numerous new pump station project or projects involving the rehabilitation of existing pump

### Relevant Experience

Mr. Stickley has served as a project manager, lead designer, and construction manager for numerous water and wastewater treatment plant, conveyance, and storage projects. He has extensive experience with the design of ductile iron, fiberglass, and high density polyethylene pressure and gravity systems. In addition, he has served as the lead designer, design manager, and/or senior consultant for numerous new pump station project or projects involving the rehabilitation of existing pump stations.

### Representative Projects

**Senior Reviewer, Cudjoe Regional Wastewater Transmission System, FCAA, Florida Keys, FL.** Project provides for the sizing and design of pump station and transmission mains to sewer seven of the islands that make up the Florida Keys. Project involves approximately construction of nine major lift stations along with over 14 miles of transmission mains. This will be a manifolded system complicating design and making sizing and control of pump stations and transmission mains complicated. The existing bridges will be used to support the transmission mains between the islands.

**Senior Reviewer/Design Coordinator, Fairbanks Avenue Gravity Sewer, Pump Station, and Force Main, City of Orlando, FL.** Currently serves as the senior reviewer and design coordinator on a project that provides for the construction of a gravity sewer, pump station, and force main to service a section of Fairbanks Avenue. This is a

very active road so construction conditions are difficult and require the use of innovate construction techniques and project phasing. In addition, this new pump station and force main are being “manifolded” into an existing network with other pump stations complicating the hydraulics and making proper pump and control design critical for proper operation of the overall conveyance system. The preliminary project design is complete with anticipation of final design starting in mid-2009.

**Design Manager/Mechanical Designer, Work Package 4, Oak Street Pump Station Relocation, New Orleans, LA.** This project provides for replacement of pumps, piping, valves and other mechanical gear within the Oak Street Pump Station. This station is located on the City side of the New Orleans levee system and was constructed in 1929. The original equipment still operates however it is inefficient and maintenance intensive. As part of this project three 80 mgd double suction pumps will be installed. This is a complex project due to the location which will require construction adjacent to a levee and integration requirements with the Sewerage & Water Board’s power plant. In addition, the power source for this project is 25 hz rather than 60 hz making it a very complex and unique project. This project is currently in construction.

**Lead Designer, Influent Pump Station and Treatment Plant Rehabilitation, St. Charles Parish, LA.** In 2010 several structures within two active wastewater plants owned and operated by St. Charles Parish in Louisiana where determined to have been severely damaged by



hydrogen sulfide induced corrosion. This project requires completion of detailed condition assessment, alternative analysis, repair method and coating system selection, design, coordination of work, and monitoring the contractor's work in the field. One project that included rehabilitation of the two treatment plants' influent wet wells required construction of a secondary wet well so that the primary could be removed from service for an extended period. This secondary wet well was an innovative cost savings approach since it allowed one of the existing influent pumps to be easily relocated to the secondary well and operated by the existing controls and variable frequency drives. In addition to the cost savings this approach also removed much of the risk associated with lengthy bypass pumping operations. The rehabilitation of the wastewater treatment plants was completed in early 2012.

**Senior Conveyance Technologist, Miami-Dade OOL Program, Miami, FL.** Serve as a senior reviewer and technologist for work being performed as part of the Miami Dade Water and Sewer Department Ocean Outfall Legislation Project. Work as part of this project included reviewing design reports and concepts and providing technical support to the project team.

**Design Manager/Mechanical Designer, Fort Benning Wastewater Interconnection Project, Columbus Water Works, GA.** Project included an alternatives analysis, design, and services during construction for a system to convey sanitary sewer flow. Designed approximately 20,000 lf of 20-inch, high-density polyethylene force main and approximately 21,000 lf of 30-inch ductile iron force main that included a 300-foot aerial crossing using an existing bridge for support. Three pump stations were also designed and constructed as part of the project. This is a "manifolded" conveyance system complicating the design and operation of the system.

**Senior Technical Reviewer, South Mainland Water Transmission Main, City of Cocoa, FL.** Serves as the technical resource for the ductile iron piping system and as a technical lead for the engineering team. Project involves installation of ductile iron pipe ranging in size from 48 inches to 6 inches. Sections of the pipe are being installed by tunneling and through wetlands complicating construction.

**Design Manager/Lead Mechanical Designer, Pump Station and Transmission Main System, Gulf Power, Pensacola, FL.** Design manager and lead mechanical designer of a pump station and transmission main system to convey effluent from an industrial wastewater treatment plant into two wells that will inject the water approximately 2,000 feet below grade. Due to the nature of the water and projected 500-psi operating pressure specialized pumps and materials of construction for all components in contact with the water were required. The pumps are multistage centrifugal of super duplex stainless steel construction. The overall conveyance system is designed for an operating pressure of 740 psi to allow upgrades if required should injection pressures or capacity requirements change. All metallic components within the system to include valves are Hastelloy C 276 construction. Surge control is also a major part of the design due to the anticipated static pressures in the well.

**Design Manager/Mechanical Designer, Upper North Oconee Interceptor Project, Athens-Clark County, GA.** Completed the design of approximately 2.4 miles of gravity sewer ranging in size from 54 to 42 inches as part of the Upper North Oconee Interceptor project. The purpose of this project was to increase the existing system capacity and replace lines that allowed significant inflow/infiltration into the system. Design requirements included staged construction to allow the existing system to remain in service. Project also included bypass pumping of over 20 mgd along several sections of the project for tie-ins to the existing system. The work was in a very environmentally sensitive area adjacent to the North Oconee River. Project included numerous jack and bores under roads along with tunneling of a large section of the sewer through a congested area and under a hillside.

**Project Manager/Design Manager, River Interceptor Rehabilitation, Columbus Water Works, GA.** Project and design manager for rehabilitation of a 72-inch river interceptor. Work included completion of an alternatives analysis, design, and services during construction for repair and rehabilitation of 1,250 lf of reinforced concrete pipe and the associated manholes that had been severely degraded due to high levels of hydrogen sulfide in the wastewater the pipe conveys. Project involved bypassing flows in excess of 40 mgd during lining operations. This pipe is the main line that conveys wastewater from the City of Columbus and surrounding areas to the WWTP, complicating the construction and requiring extensive bypass pumping plans and requirements.

**Lead Designer, Athens Wastewater Treatment Plant Influent Pump Station Project, Athens, AL** This project provided for the replacement of three 135 horsepower submersible wastewater pumps that were obsolete and expensive to operate and maintain along with piping and valves. Due to peak flows experienced at the plant and limited capacity of the existing pumps a goal of the project was to install new pumps with a higher capacity to prevent surcharging of the collection system without exceeding the 140 hp limitation of the existing electrical gear that was to be reused. In addition, the project required design of a method to allow bypassing the existing wet well while the pumps, piping and valves were replaced. An innovate, cost effective approach for bypassing the station was developed and the pumps were replaced in stages to allow the remaining pumps

to be used in the event the bypass system failed. The new pump installed provided an overall increase in capacity of over 10 mgd.

**Design Manager/Mechanical Designer, Hillabee Water Transmission Main Replacement, City of Alexander City, AL.** Lead mechanical and project manager for the replacement of a 16-inch steel water transmission main. This existing steel main was in poor condition and had frequent breaks and leaks resulting in damage to state highway under which it was buried. Work completed included system modeling, surveying, and construction inspection services. The teaming approach in the completion of the construction between the contractor, CH2M, and City water staff resulted in the construction being completed below budget.

# Jeff Lehnen, PG

## Senior Consultant

### Education

B.S., Geology, University of Florida

### Professional Registration

Professional Geologist: FL

### Distinguishing Qualifications

- ★ Brings experience in the Florida Keys, Monroe County, and South Florida
- ★ Extensive experience with CUP, construction and testing of deep, large-diameter Floridan aquifer water supply wells, UIC, and ASR wells throughout Florida
- ★ Expert witness experience for water use, water quality criteria exemption, solid waste, and power plant water supply projects
- ★ Permitting and negotiation experience with FDEP throughout the state, EPA, and water management districts

### Relevant Experience

Mr. Lehnen brings extensive hydrogeologic experience to the City's general engineering services contract. He has more than 39 years of experience in Florida with shallow aquifer monitoring and characterization, large-diameter, Floridan aquifer water supply wells, ASR wells, Class I and V injection wells, and multi-zone Floridan monitoring wells. He is a hydrogeologist for projects involving groundwater flow models, geophysical logs, geologic data, hydraulic tests, and groundwater quality data. He has extensive field experience during the construction and testing of wells of all sizes and has permitting and negotiation experience with FDEP throughout the state, EPA, and SFWMD and SJRWMD. He is also familiar with water resources management and environmental law, and has served as an expert witness for Administrative Hearings for Duke/Progress Energy, Manatee County, Stone Container, and JEA.

Additionally, Mr. Lehnen has extensive experience with aquifer pumping tests, groundwater flow models, geophysical logs, geologic data, hydraulic tests, and water quality data to optimize the design of production, injection, ASR, and monitoring wells. He has proven experience and recognition for his skills with solving complex water resources issues and for providing guidance to clients and regulatory agencies on difficult policy and regulatory issues.

### Representative Projects

**Senior Hydrogeologist, Wellfield Protection Services, FCAA, Florida City, FL.** Project involves wellfield protection services at the J. Robert Dean WTP. As senior hydrogeologist, providing QC review, technical guidance, and data interpretation on the project.

**Senior Consultant, RO DIW at J. Robert Dean WTP, FCAA, Florida City, FL.** Project involved an RO DIW at the J. Robert Dean WTP. Served as a senior consultant. Advised project team on injection well testing and well completion decisions and interpretations.

**Senior Hydrogeologist, Water Use Permit Application and Evaluations, Gainesville Regional Utilities, FL.** Led the groundwater evaluation aspects of the water use permit renewal. The SJRWMD NCF model was used to develop a local wellfield model with refined model cell sizes, detailed surficial aquifer characterization, and extensive wetland impact simulations resulting from pumping the Floridan aquifer. SJRWMD finally agreed there were no detrimental impacts to wetlands around the wellfield. The SJRWMD NEF regional model was used to evaluate regional impacts to lakes in the Keystone Heights area. The SRWMD NF model was also used to evaluate impacts to springs on the Santa Fe and Suwannee Rivers resulting from pumping at GRU's wellfield.

**Field Hydrogeologist, Nine DIWs at South District WWTP, Miami-Dade Water and Sewer Department, FL.** Provided onsite coordination, drilling oversight, hydraulic testing, geophysical logging, and well design services. Also served as technical advisor during the EPA AO negotiations in the 1990s and provided technical studies and evaluations in support of the AO Plan of Study.

**Senior Hydrogeologist, Wellfield Optimization and Consolidation Program, JEA, FL.** Assisted with the development of the Water Treatment Plant Consolidation Plan, which became the basis of the Wellfield Optimization and Consolidation Program. Assisted with CUP and negotiations, wellfield planning, and used the Northeast Florida Regional model of the region to optimize wellfield

configurations and pumping allocations to meet future demands while minimizing the threat of up-coning of poor quality water from saline zones in the Floridan aquifer.

**Hydrogeologist, Various Projects, City of West Melbourne, FL.** Provided hydrogeologic services to the City of West Melbourne for nearly 20 years. Responsible for the design, permitting, construction, and startup of the City's Class I injection well system in 1986. Assisted with securing the FDEP operating permit, rehabilitating the monitoring wells, designing a replacement deep zone monitoring well, and several mechanical integrity tests. Currently leading the capacity re-rate testing for the injection well system.

**Project Manager/Senior Hydrogeologist, Various Class I Injection Well Systems, Various Locations, FL.** Worked on more than 25 Class I and V injection well systems. Responsible for design, permitting, and construction of 1,000- to 3,500-foot wells, monitoring wells, effluent pumping stations, and instrumentation. Experience includes permitting and design of the first fluid seal Class I well for Hercules, Inc.; installation of stainless steel and fiberglass-reinforced plastic tubing in injection wells for industrial clients; large volume acidization of deep wells for rehabilitation of capacity, mechanical integrity testing at pressures up to 550 psi, and APT in monitoring wells, water supply, and injection wells.

**Project Manager, ASR Feasibility Study, SFWMD, FL.** Project manager for the preparation of the ASR feasibility screening tool developed under the Alternative Water Supply Strategies program. The publication presents a methodology for evaluating the water resources needs, hydrogeologic and water quality factors, and costs of alternatives necessary to evaluate whether ASR is a feasible option at a site or facility.

**Project Manager and Lead Hydrogeologist, Paradise Run 50 MGD ASR Demonstration Project, SFWMD, Okeechobee, FL.** After the 2004 and 2005 hurricane seasons, the SFWMD implemented projects under the

Lake Okeechobee and Estuaries Recovery Program that are designed to divert surface waters from the northern Okeechobee basins, store water upstream of the Lake, and treat waters reaching the Lake to improve water quality. Under this program, CH2M led a site selection process for a 50 mgd ASR well system that will meet the goals of the LOER program.

**Lead Hydrogeologist, Gulf Power Plant Smith, Panama City, FL.** Senior hydrogeologist leading the injection well work for Gulf Power Company (GPC) at Plant Smith. The injection system will inject cooling tower blowdown using municipal sanitary reclaimed wastewater as the makeup water source. CH2M provided hydrogeologic services to drill and test a 7,000 ft deep exploratory well to evaluate potential injection zones and determine their capacity for disposal. A good injection zone was found in the Cretaceous Age Tuscaloosa sands between 5,000 and 7,000 feet. He led the expansion of the injection system with the addition of 2 Eocene injection wells completed between 1,200 and 2,400 ft. The expanded system will allow scale up to not only dispose of cooling tower blowdown but to also include ash pond water. The injection system will allow GPC to eliminate a significant nutrient load from the surface water systems around Bay County.

**Wellhead Protection Ordinance Development, JEA, Jacksonville, FL** Assisted JEA with evaluating a draft implementation plan for the City of Jacksonville's wellhead protection ordinance. Helped develop an alternative approach that focused on identifying and addressing potential pathways through the confining beds thereby protecting the resource. Developed a public information presentation and white paper and assisted JEA with presentations at the JEA management level, the City's attorneys, and the EQD environmental committee, and a mayor's special subcommittee. The revised approach was eventually adopted by the City and the wellhead protection ordinance was re-written.

# Dean Garcia, PE

## Civil Engineering Task Manager / Value Engineering

### Education

M.S., Civil Engineering, South Dakota School of Mines and Technology  
B.S., Civil Engineering, South Dakota School of Mines and Technology

### Professional Registration

Professional Engineer: FL, TN, CO

### Distinguishing Qualifications

- ★ Brings experience with FCAA
- ★ Extensive project design and client coordination experience in Key West and throughout the United States for a wide variety of projects
- ★ Design manager for a variety of water and wastewater projects in Florida
- ★ Has provided design management for multiple general engineering contracts with local agencies in the Florida Keys over the past 10 years; has successfully delivered numerous design projects under these contracts

### Relevant Experience

Mr. Garcia is a senior design manager with extensive experience in coordinating disciplines, preparing design documents, managing design for master services agreements, providing design input for developing task orders, and organizing client meetings. Additionally, his experience includes project management, design, permitting, bid phase services, and construction management of various stormwater, wastewater, solid waste, water, storm drainage and stormwater management facilities, and environmental projects.

### Representative Projects

**Design Manager, Rowlett Creek RWWTP Peak Flow Management Improvements and Lower Rowlett Creek and Lower Cottonwood Creek Lift Stations, North Texas Municipal Water District, TX.** Design was completed in November 2016, bid, and construction started in March 2017. The design included modifications to the plant influent pipelines and flow structures, additional pipelines and force mains ranging in size from 24-inch to 60-inch pipe, replacement of two existing headworks with a combine 60 mgd headworks that included relocation of bar screens, a new bar screen, vortex grit removal system, 60 mgd flow splitter structure that divides flow between the two existing onsite treatment plants and the wet weather pump station, a 60 mgd wet weather pump station installed in an existing tank, a 17.5 MGD Membrane Filtration System, a 60 MGD in-line UV system, a 60 mgd post aeration system, 4 emergency generators and related electrical, and a new plant instrumentation and control system. The project also included electrical upgrades to

the Lower Rowlett Creek Lift Station and a new 20 mgd Lower Cottonwood Creek Lift Station with additional offsite pipelines. A pre-selection process was utilized to define the actual process manufacturers for design requirements for the grit removal system, membrane filtration system and the UV system. The design included the requirements that the existing plants components could not be offline during construction for any extended period and there was to be no impact to treatment. The plant odor control system had to be maintained during construction even while components of the system were being relocated to new processes. The construction duration is 3 years and includes a complex sequence of construction to provide for the client's requirements on plant operation, odor control and numerous limitations due to the congested plant site.

**Design Manager, Claude H. Dyal Water Treatment Plant Surface Water Plant Clearwell Addition and Reject Pond Rehabilitation, City of Cocoa, FL.** Design was completed in July 2015 and is under construction. The design included a 700,000 gallon in-ground concrete clearwell with concrete roof and internal concrete baffle walls; a 30 mgd transfer pump station building with 3 vertical turbine pumps and electrical room; yard piping improvements; various electrical and instrumentation and control improvements; demolition and replacement of the existing 1.3 million gallon reject storage pond concrete liner and underdrain system; diversion vault; modifications to the reject pond inlet pipe discharge, structural, electrical, mechanical, instrumentation and control modifications to the existing reject pond decant pump station and an isolation valve vault.

**Design Manager/Project Manager, Claude H. Dyal Water Treatment Plant LOX Conversion, City of Cocoa, FL.**

Design was completed in March 2013 and the project was bid and construction started in January 2014. The project consists of modifications to the existing ozonation system that include demolition of two air compressor systems, two desiccant dryer systems and other miscellaneous items; a new liquid oxygen system with associated piping and appurtenances; a new nitrogen boost system with associated piping and appurtenances; modification to the ozonation system piping and appurtenances; new ozone generator dielectrics; new building HVAC; electrical improvements; miscellaneous controls and instrumentation improvements; and modifications to the ozone diffusers and ozone contact chambers. The project was completed in November 2015.

**Design Manager/Project Manager, Wewahootee Pump Station Improvements, City of Cocoa, FL.**

Design was completed in June of 2013 and the project was bid and awarded in June of 2013. The project consists of upgrades to the existing pump station at the Wewahootee WTP and included 4 new 200 horsepower 7,000 gpm centrifugal pumps with new suction and discharge piping and valves, demolition of an existing 16-foot diameter, 165 foot tall steel standpipe with associated piping, yard piping improvements to provide redundancy to the common 42" pipeline carrying flow from the well fields to the Sulfureator Ground Storage Tanks, addition of a 165-foot communications tower, electrical improvements, update to the existing plant SCADA system, miscellaneous architectural improvements to the pump building including a new shower and restroom facilities, HVAC and a potable water treatment system for plant personnel. The project was completed well keeping the facility online and operational. The project was completed in August 2015.

**Design Manager, Cudjoe Regional Wastewater Inner Islands Collection System and Transmission System, Florida Keys Aqueduct Authority, Florida Keys, FL.** Design was completed in 2012 and bid in 2013. The project consists of approximately 10 miles of force main ranging in size from 8-inch to 16-inch, two bridge crossings at Bow Channel and Kemp Channel, two wastewater pump stations with associated electrical, odor control, instrumentation and control system, and appurtenances. The project included the preliminary design to provide wastewater collection and treatment for the unincorporated portion of Monroe County. The project was then divided into an inner island phase, an outer island phase and a wastewater treatment phase. The design for the inner islands provided guidance and standards for the design of the outer island phase. The design included utilizing an existing 18-inch steel pipe as a carrier pipe for the force main where possible to minimize construction in

mango swamps and wetlands. Environmental investigations were conducted to determine limits of the affected areas, and recommended mitigation. The design included coordination and guidance to the engineers designing the other phases to deliver a coordinated and complete package to the client. Construction will be complete in the summer 2017.

**Design Manager, J. Robert Dean WTP RO Expansion, FKAA, Florida City, FL.** The RO expansion consists of a 6-mgd RO membrane facility; chemical storage and feed pumps for sulfuric acid, sodium hypochlorite, sodium hydroxide, and membrane scale inhibitor; 32mgd transfer pumps station; 6-mgd degassifier with chemical scrubber; approximately 6,000 linear feet of well collection piping 12-inch, 16-inch, and 20-inch; and associated electrical and miscellaneous piping and controls. The RO facility consists of four 1.5-mgd membrane trains with five 2-mgd RO feed pumps (1 standby), three preliminary cartridge filters, membrane cleaning system, control room, electrical room, chemical feed rooms, and appurtenances.

**Project Manager, Richard A. Heyman Environmental Protection Facility Headworks Modification, City of Key West, FL.** Project consists of removal of the walls and roof of the second floor of the building and opening it to atmosphere, addition of an influent channel with mechanical bar screen, repair of all concrete channels, replacement of two mechanical bar screens, grit classifiers and separators, grit pumping system, and grit blowers. Conversion of the abandoned plant outfall line to an influent pipeline that allowed the City to split the wastewater collection system on the island. Installation of a new 30-inch plant influent pipeline from the beginning of the outfall line, on the plant site, to the headworks facility. Replacement and updating of the headworks electrical system and the I&C system. Project is in construction and scheduled for completion in December 2011.

**Design Manager, Buckman WRF BNR Modification and Grit Removal Facility, JEA, Jacksonville, FL.** The 52-mgd Buckman WRF project involves BNR modification and a grit removal facility. Project consisted of reviewing and existing design for the BNR and updating the contract documents and adding additional scope. The grit removal facility consists of six grit basins, dewatering pumps, grit removal system, modifications to the plant influent diversion box, demolition of the existing grit system, electrical, and I&C. The design includes temporary structures to keep the plant in operation during construction without a degradation of treatment. Project has been bid and construction will start in December 2011. Project was a fast track project to meet a consent decree for the facility. The project is on schedule and within budget.

**Design Manager, Northwest Regional WTP, JEA, Jacksonville, FL.** The WTP consists of a 2.0 million gallon storage tank; four high service pumps (two at 3,500 gpm and two at 1,500 gpm); expandable process building housing the high service pumps, electrical, SCADA, maintenance area, and control area; wastewater lift station with wet well and submersible pumps; JEA standard SCADA system; 10,000-gallon sodium hypochlorite tank with skid mounted feed pumps in a containment area underneath a canopy; standard JEA security system; 1,500-KW emergency generator; two finished water exit points; 2,000 feet of 24-inch finished water ductile iron pipe to tie into the distribution system; stormwater system; site access road; electrical system and space for a possible hydrogen sulfide removal system. The design is substantially completed and construction delayed due to funding issues. Project re-started in 2016 with design requirements updated to account for revised treatment capacity.

**Project Manager, Regional Water Treatment Facilities at Yankee Lake, Seminole County, FL.** Project consists of a 10-mgd raw water pump station expandable to 55 mgd located on a canal adjacent to the St. Johns River, approximately 5 miles of HDPE raw water pipelines, 10-mgd Actiflo system, two gravity thickeners, recovery basin with pump station, chlorine contact basin with pump station, dewatering building with belt filter press, 1.5-MG ground storage tank, polymer building for the Actiflo system, chemical facilities, stormwater system, and appurtenances. The raw water pipelines traverse

wetlands, wildlife conservation area, and scrub jab conservation area. The canal discharge into the St. Johns River will be modified to allow for flow into the canal at a velocity that will not trap aquatic species. This requires dredging the river, diverting flow from the canal into the wetlands and sheeting the canal to maintain the required volume for the pump station. A consumptive use permit for the St. Johns River was obtained along with permits from USACE, FDEP, U.S. Fish and Wildlife, and a submerged lands easement.

**Design Manager, Walker Springs Wastewater Storage Facility, Knoxville Utility Board, TN.** The storage facility consists of a diversion structure located on a 24-inch trunk sewer, 14.64-mgd pump station to pump flow into the storage basin, grinder station upstream of the pumps, 3.25-MG pre-stressed concrete storage basin, an odor control facility, and associated piping, valves, gates, manholes, and accessories. The pump station has five adjustable speed ITT/Flygt submersible pumps in a rectangular, divided wet well. Rated capacity of 14.64 mgd is provided with the largest pump out of service. Three grinders with submersible motors are installed prior to the pump chamber. Each grinder is mounted on rails to facilitate removal for maintenance and repair. Rated capacity will be 7.1 mgd with one grinder out of service. The storage basin will be a circular, pre-stressed concrete tank with a storage volume of 3.25 MG. The facility was one of three designed and built for the program. The wastewater storage facilities were designed and constructed within budget and schedule.

# Randy Boe, PE

## Utility Engineering Task Manager

### Education

M.S., Environmental Engineering, Virginia Polytechnic Institute and State University  
B.S., Civil Engineering, Virginia Polytechnic Institute and State University

### Professional Registration

Professional Engineer: FL, NC, TX

### Distinguishing Qualifications

- ★ Brings experience in the Florida Keys
- ★ Over 20 years of experience in the study and detailed design of wastewater treatment processes
- ★ Experienced in providing engineering services in support of wastewater treatment plant operations
- ★ Experienced in biological system modeling and biological nutrient removal systems, open channel and pumped hydraulic systems analysis and evaluation, and MBR design
- ★ Regional Practice Leader for Wastewater Treatment in CH2M's South Region

### Relevant Experience

Mr. Boe brings extensive experience in wastewater process design, specializing in the planning, design, study, modeling, and operation of wastewater treatment facilities. He is experienced in a variety of wastewater treatment processes, including selectors, BNR, grit removal, screening, aeration, MBRs, digestion, dewatering, disinfection, equalization, and clarification.

### Representative Projects

**Lead Process Engineer, Bonita Springs Utilities East Water Reclamation Facility, Bonita Springs, FL.** Mr. Boe served as lead process engineer for the design of a 4 mgd membrane bioreactor facility for Bonita Springs Utilities' East Water Reclamation Facility. Responsibilities included overall process modeling and design, MBR system design for a biological nitrogen removal process, equalization facility sizing, aeration system, and flow and mass balances. The project was delivered as a design-build project with startup in April 2007. The WRF is a 100 percent reuse facility and also includes reject water storage, waste activated sludge storage and thickening, centrifuge dewatering, and heat drying of waste sludge. The initial design capacity is 4 mgd, but the overall facility is laid out for expansion to 16 mgd. The drying facility serves both the East WRF and West WRF or sludge from a total plant capacity of 11 mgd. Mr. Boe served as the lead process engineer for membrane supplier pre-selection and startup as well. Construction cost for the facility was \$52.2 million. Project was selected as the Florida Section ASCE 2008 Project of the Year and received the Design Build Institute of America Award of Excellence in 2008. In 2014,

the facility was recognized by the FWEA with the Earle B. Phelps Award in the advanced secondary-treatment category. The award recognizes the wastewater-treatment facility that has maintained the highest removal of major pollution-causing constituents from its effluent. The facility also won the first place Small Operating Projects Biosolids Award, which recognizes and promotes the safe management, public acceptance and beneficial use of biosolids.

**Senior Process Engineer, Process Alternatives for Nitrogen and Phosphorus Removal, Mainstreet WRF, Gainesville Regional Utilities, FL.** Responsible for evaluation of process alternatives for nitrogen and phosphorus removal at the GRU Mainstreet WRF. The study included evaluation of alternatives for addressing TMDL requirements for nitrogen (TN < 8 mg/L) in the surface water discharge to Sweetwater Branch, which ultimately discharges to Alachua Sink. Phosphorus removal (TP < 0.3 mg/L) was also evaluated as it pertained to wetland polishing treatment in a constructed wetland leading to Paynes Prairie (wetland design by others). Several processes were evaluated at the screening level using existing tankage. Stress testing of the existing process was also conducted to investigate the full treatment potential of the existing plant. Field data was collected at near design capacity by taking a treatment train out of service including profiles of nitrogen, phosphorus, DO and other operational parameters along the treatment train. Chemical addition for phosphorus removal was also field tested. Field data collected during stress testing was used to calibrate process models and



evaluate operational scenarios over the full range of expected annual load and temperature profiles.

**Senior Technologist, Miami-Dade County Ocean Outfall Legislation Program, FL.** Served as task leader for evaluation, assessment, and development of a Preliminary Plan to satisfy Ocean Outfall Legislation requirements for the existing South District (112.5 mgd), Central District (143 mgd) and North District (120 mgd) Wastewater Treatment Plants. Responsibilities included gathering background information, performing field inspection and condition assessments, preparation of preliminary engineering reports, development of wet weather treatment alternatives, and production of a comprehensive implementation plan for carrying out planned improvements. The project required close coordination between collection and conveyance system planning and other on-going consent decree work by other consultants.

**Process Engineer, WRF No. 3, City of Ocala, FL.** Lead process engineer for development of overall process flow and mass balance diagrams and hydraulic profiles for a 4-mgd WRF. Responsibilities also included design of the biological nutrient removal system, clarifiers, return activated sludge pumping station, waste activated sludge pumping station, scum pumping station, disinfection, and chemical feed facilities.

**Senior Technical Consultant, JEA Blacks Ford WRF Phase 4 Expansion, Jacksonville, FL.** Provided senior process review and guidance for the design of a \$40 million expansion of the Blacks Ford WRF from 3 mgd to 6 mgd including alternatives evaluations for liquid stream and biosolids processing. The facility produces unrestricted public access quality reuse water and also has a permitted discharge to the Blacks Ford Swamp. Conventional activated sludge, membrane bioreactors, and oxidation ditch treatment alternatives were evaluated for liquid side treatment. Four solids treatment options were investigated including Class A and Class B options. The design ultimately included two oxidation ditches in a 5 stage Bardenpho configuration for biological nitrogen and phosphorus removal to meet stringent 5/5/3/1 discharge limits for BOD/TSS/TN/TP. Other project components included headworks, odor control, secondary clarifiers, chemical feed systems, filtration, UV disinfection, centrifuge dewatering, reclaimed water storage, and reclaimed water distribution pumping. Cost effective repurposing of existing sequencing batch reactors for aerobic sludge digestion and reject storage was also incorporated into the design.

**JEA Buckman WRF BNR and Plant Upgrades, Jacksonville, FL.** Senior technology consultant and QC reviewer for this project to implement nitrogen removal and grit removal system improvements at this 35 mgd facility. Process modeling was performed to evaluate options to retrofit the existing aeration basins to achieve 6 mg/L of total nitrogen to achieve compliance with the anticipated TMDL for the facility. A step-feed configuration was selected for implementation to achieve the total nitrogen goal as well as reduce solids loading to the secondary clarifiers during high flows experienced during wet weather. A unique grit removal approach was developed utilizing and modifying existing pre-aeration tanks for the purpose of providing operations with a simple, reliable, robust, and easy to maintain grit system. BNR related design modifications included addition of baffle walls and mixers to process basins, supplemental carbon feed system for backup carbon source, flow distribution gates, internal recycle pumping, gate replacement, secondary clarifier modifications, improvements to address foam/scum on the aeration basins, sidestream treatment of centrate from dewatering operations, diffuser modifications, and instrumentation and control system improvements. Challenges of the project included construction sequencing while maintaining plant operations at the facility that includes common wall construction between many of the structures. Construction was completed in 2014.

**Treatment Process Lead Engineer, Regional WWTP Conceptual Design Study, North Texas Municipal Water District, Wylie, TX.** Responsible for evaluation of wastewater treatment aspects of planning for future growth in the Upper East Fork service area with a 50 year planning horizon. The study encompasses all aspects of the treatment and conveyance system with a primary goal of protecting the quality of Lavon Lake which is a critical drinking water supply source for the District. Current treatment capacity of the Upper East Fork system is 88 mgd. The study consolidated growth projections from multiple member and customer cities, and considered future flows of up to 210 mgd including selection of the best alternative for a range of possible future growth and discharge requirement scenarios considering life cycle cost and non-cost criteria. The study includes development of near-term implementation steps for treatment and conveyance and a solution with the flexibility to adapt to changing long-term needs as they become better defined over time.

# Bo Bruner, PE

## Solid Waste Task Manager | Facilities

### Education

M.S.C.E, Sanitary Engineering, University of Kentucky  
B.S., Civil Engineering, University of Kentucky

### Professional Registration

Professional Engineer: FL, GA

### Distinguishing Qualifications

- ★ More than 40 years of solid waste management and regulatory experience
- ★ Extensive experience with permitting design and construction of solid waste landfills, including liner systems, leachate control systems, landfill gas system, and associated infrastructure
- ★ Extensive experience conducting site assessments, preparing RAPs, and designing landfill closure systems
- ★ Extensive experience in the development of landfill gas utilization projects.
- ★ Former Member of Florida Center for Solid and Hazardous Waste Management Advisory Board

### Relevant Experience

Mr. Bruner has more than 40 years of experience working on solid waste projects, including conducting landfill design and permitting projects, contamination assessments, and remedial investigation/feasibility studies. He has served as Solid Waste Project Manager for the City of Key West and Orange, Alachua, Citrus, Indian River, St. Johns, Osceola, and Escambia counties in Florida. He has been a moderator for a course in leachate and gas management for the Center for Training Research and Education in Environmental Occupations and has been an instructor for Leachate Liner and Collection System training course for SWANA.

### Representative Projects

**Project Manager, Stock Island Class I Landfill Closure, City of Key West, FL.** Assisted the City with the design, permitting, and construction services for the two-phase closure of the 20-acre Stock Island Landfill. Prepared closure design plans, including drawings and specifications for Phase 1 and Phase 2 closure. The cover system design included installation of a 30-mil PVC membrane, 18-inch drainage sand, and native vegetation. Designed a stormwater management system, gas vents, articulating block revetment (won an International Achievement Award from Industrial Fabrics Association International), and wetland mitigation.

During 2015, Mr. Bruner assisted the City with the preparation of *Certification of Completion of Long-Term Care Report for the Stock Island Landfill*, which was accepted by FDEP removing the City from FDEP oversight of long-term care requirements and financial responsibilities.

**Project Manager, Solid Waste Transfer Stations, City of Key West, FL.** Served as project manager for a solid waste transfer stations for the City. CH2M prepared a design criteria package and RFP for procurement of a design-build contractor for construction of the transfer station. Facilities included in the design criteria package were the transfer station building, scalehouse and scales and a combined office/maintenance building. In addition to the design criteria package and RFP, CH2M assisted the City with procurement of a solid waste processing facility for construction of the transfer station and provided service during design and construction by the design-build contractor.

**Project Manager/Project Engineer/Senior Consultant, Continuing Engineering Services for Solid Waste Projects, Orange County, FL.** Served as project manager, project engineer, and senior consultant on a task order contract with Orange County. Solid waste management projects performed included preparation of solid waste permit applications for landfill construction and operation; preparation of contract documents and services during construction for Class I and Class III landfill expansions, Class I and Class III landfill closures, and a landfill gas recovery system; preparation of a request for proposals and landfill gas right agreement for utilization of recovery landfill gas at the Stanton Power Plant operated by the Orlando Utilities Commission; preparation of air permit applications for landfill gas emissions evaluation and management; preparation of closure/long-term care financial assurance reports; and evaluation of the County's solid waste collection system. Current ongoing project with Orange County include Class I landfill closure, Class I landfill disposal area design and permitting, and transfer station design and permitting.

**Project Manager, Alachua County Southwest Landfill, Alachua County, FL.** Over a 15-year engineer-of-record history for the Alachua County Southwest Landfill, provided the following services: cover systems for a sludge and bulky waste disposal area and closed 11-acre and 30-acre disposal areas; clay cover system for the closed 11-acre Class I disposal and bulky waste areas; design of liner system and leachate collection and treatment system for 12.5-acre disposal area; design of leachate discharge facility; design of Section 2 of the lined disposal area (approximately 15 acres); and design of an active gas collection and flaring system for landfill gas and odor control. The County received a National Association of Counties' Achievement Award for community service for their remediation and improvement program at the Southwest Landfill.

**Project Manager, Cell 7B Phase 2 Sequential Closure, Orange County, FL.** Managed the design and construction of a 22.5-acre landfill closure utilizing geosynthetic materials, stormwater management system, and active

landfill gas collection system. Developed a preliminary design plan that was accepted by FDEP for the Phase 2 sequential closure. The plan evaluated geosynthetic material alternatives, stormwater control facilities and landfill gas collection wells and piping. The plan recommended the use of a 40-mil linear low-density polyethylene geomembrane (a geosynthetic material) overlain by 18 inches of protective soil and 6 inches of top soil.

**Senior Design Consultant, Landfill Design and Permitting, Citrus County, FL.** Provided technical assistance during the planning phase of our previous continuing contract with the County. This included attending client meetings. Prepared the financial responsibility cost estimates for the Citrus County Landfill for 3 years. Served as senior consultant during the Phase 1A permitting, design, and construction. Conducted periodic site visits and provided technical assistance during construction. Prepared the Certification of Construction Completion.

# Max Mozo, PE

## Coastal Engineering Task Manager

### Education

B.S., Civil Engineering, Florida State University

### Professional Registration

Professional Engineer: FL

### Distinguishing Qualifications

- ★ Civil infrastructure design expertise in planning and design of marine and waterfront structures
- ★ Waterfront engineering experience includes the design of dry dock facilities, deep sheet pile bulkheads, container facilities, bulk material terminals, service piers and marginal wharves
- ★ Experience in mooring analysis and system design, including the development of several heavy weather plans
- ★ Project background includes the design and inspection of several waterfront facilities for the Jacksonville Port Authority, Port Canaveral, FDOT, and various private industries

### Relevant Experience

Mr. Mozo is a structural design engineer with 22 years of experience in the design, investigation, and management of various civil and structural projects. His responsibilities include project management and structural design of waterfront projects.

### Representative Projects

**Engineer-of-Record, Mallory Square Wharf Replacement, City of Key West, FL.** For the design of the replacement wharf at Mallory Square in Key West. Designed and detailed the replacement structure. Performed bidding and construction services for this highly visible project. Mallory Square is a congested, pedestrian heavy waterfront structure and cruise berth. The replacement was phased to allow for continued operations.

**Deputy Project Manager, Miscellaneous Waterfront Infrastructure Program, City of Jacksonville, FL.** Responsible for several independent projects within the larger program. Types of projects include deep water bulkhead inspections and review of costs of new Riverwalk development of projects subject to city financing. Provided direct assistance to the director of public works during City Council meetings. Responsible for design of LaSalle Street bulkhead, Marco Lake bulkheads, Northbank Riverwalk emergency repairs and the Fort George River Taxi facility.

**Project Manager, General Engineering Services, Canaveral Port Authority, Port Canaveral, FL.** Responsible for overall program of work. Serves as the main point of contact for all work with the Authority. Participates in weekly meetings with the Authority's Chief Engineer to discuss ongoing projects. Provides

support to the Chief Engineer with regard to monthly commission meetings as required. Responsible for the processing and related structural analysis for crane access requests. Responsible for coordinating tenant plan reviews and updating lease maps, base maps, facility as built records, and other operational maps. Serves as the point of contact for construction services and other field issues. Responsible for budgeting, invoicing, and overall project management of all Authority-related projects.

**Project Manager, Talleyrand Berths 4, 5, and 6 Bulkhead Replacement Study, JAXPORT, Jacksonville, FL.** Responsible for the production of the study at the Talleyrand Marine Terminal. The study focused on several replacement options for the aging bulkheads at Berth 4, 5 and 6. A parametric study of various locations of the wall was performed to determine the most economical solution. The final determination of the recommended alternate was made based upon feasibility of the construction as well as relative cost effectiveness.

**Senior Structural Engineer, 2008 Facility Inspections, JAXPORT, Jacksonville, FL.** Responsible for the above water structural inspections of the Mayport and Fort George Ferry Slips, existing cruise terminal dock, and Tri Level RoRo facility. Also responsible for the review of subconsultant inspection reports and final overall reporting of the structural condition of these facilities.

**Project Engineer, Berths 4 and 5 Reconstruction at Talleyrand Marine Terminal, JAXPORT, Jacksonville, FL.** Inspected 1,400 feet of marginal wharf and sheet pile wall along the St. Johns River. This inspection was part of the rehabilitation of the prestressed deck panel replacement. The inspection consisted of an above

water inspection of the concrete pile caps as well as the concrete cap for the sheet pile.

**Project Manager, Charles Rowland Drive Realignment, Canaveral Port Authority, Port Canaveral, FL.** Currently serving as project manager for the construction services phase of this project, which involves the realignment of the main access road serving Cruise Terminals 8 and 10. Project also includes development of additional parking spaces. Project is the first phase of four projects in the CT-8 and CT-10 area and requires significant interfacing with these future projects. Responsibilities on this project include reviewing submittals and RFIs, attendance at biweekly construction meetings, and resolution of field issues.

**Project Manager, Heavy Lift Analysis Berth 31, JAXPORT, Jacksonville, FL.** Responsible for the 3D Finite Element Analysis of Berth 31 with regard to the accommodation of the lifting and rail transport of a 470 kip transformer. AREMA structural rating was used to determine adequacy of the existing structure. The condition of the existing structure was taken into consideration for viable locations for the loading of the dock.

**Project Engineer, New Bulk Terminal, Dames Point Marine Terminal, JAXPORT, Jacksonville, FL.** Designed the bulkhead and relieving platform for the new bulk terminal. Also analyzed the mooring and berthing forces for the design ship and designed the mooring system. Special consideration was given to the extremely high lateral forces generated by the offloaded piles of aggregate at the site.

**Lead Structural Engineer, Jacksonville Shipyards, Landmar Group, Jacksonville, FL.** Project involves the waterfront structural design of \$370 million public-private development located in downtown Jacksonville. Project scope includes replacement of the original Jacksonville Shipyard bulkhead and provisions for the extension of the City of Jacksonville's Riverwalk. Tasks on the project included the design of 5,000 feet of deep dredge bulkhead, analysis of soil improvement techniques, 7,000 lf of pile supported platform to support landscaped riverwalk, and repairs to an existing steel sheet pile cellular cofferdam structure.

# Clement Anson, PE

## Structural Engineering Task Lead

### Education

M.S., Civil Engineering, South Dakota State University  
B.S., Civil Engineering, South Dakota State University

### Professional Registration

Professional Engineer: FL, WI

### Distinguishing Qualifications

- ★ Senior Structural Engineer skilled in all phases of engineering operations. Experience includes Water and Wastewater Treatment Plants, Design Build Projects and International Projects. Experience includes working on both private and public projects
- ★ Special areas of expertise include reinforced concrete tanks, reservoirs, and foundations, structural steel, reinforced concrete and masonry buildings, pile foundations, and retaining walls

### Relevant Experience

Mr. Anson has 27 years of structural engineering experience with extensive experience in Water and Wastewater Treatment Plants and Industrial Facilities. These various projects included Design Build as well as Design, Bid and Build projects. He is very detailed, conscientious and quality-focused.

### Representative Projects

**Design Engineer, W.B. Casey Water Reclamation Facility Expansion, GA.** Member of design team for upgrade and addition to an existing facility. New structures included WAS Thickening, UV Disinfection, Effluent Flume, Cascade Aerator, Effluent Splitter Structure and Electrical Building.

**Lead Engineer, Water Treatment Plant Expansion, Catoma, AL.** Responsible for upgrade and addition to an existing facility. New structures included Clarifiers and Aeration Tanks. Renovation and rehabilitation work included Preliminary Treatment Facilities and Secondary Clarifiers.

**Lead Engineer, Water Treatment Plant Expansion, Jacksonville, FL.** Responsible for upgrade and addition that included a 1 million gallon prestressed concrete water storage tank, Pre-engineered metal Process Building and concrete containment structure with steel canopy for storage of sodium hypochlorite tanks.

**Lead Engineer, Clearwell Expansion Project, City of Cocoa, FL.** Responsible for the design of 700,000-gallon cast-in-place below grade concrete water storage tank on auger cast deep pile foundation.

**Lead Engineer, Public Works Department, Collier County, FL.** Responsible for design services of rehabilitation and additions to existing pump station. Included miscellaneous foundations for equipment.

**Lead Engineer, Tampa Electric Company, Water Reclamation Treatment Plant, Tampa, FL.** Responsible for design services of concrete structures for biofilter tanks, Densadag tanks, and pump station with sheet piling retaining walls.

**Lead Engineer, City of Gwinnett, Crooked Creek Water Reclamation Facility, Gwinnett County, GA.** Responsible for the design of new operations building and maintenance additions. Buildings were made of steel frames with metal siding, concrete foundations, and steel joists with metal roofs.

**Lead Engineer, City of Naperville, Wastewater Treatment Plant, Naperville, IL.** Responsible for the design services for biosolids thickening and digestion additions and improvements. Structures included pump stations, membrane thickening building, digestion aeration building, centrifuge building, gravity belt thickening building, and digester tanks.

**Lead Engineer, Village of New Lenox, Wastewater Treatment Facilities, New Lenox, IL.** Responsible for design of filter building, splitter boxes, chlorine contact tank, and miscellaneous structures for upgrade of existing facilities.

**Lead Engineer, City of Tacoma, Tacoma Central Treatment Plant Upgrade and Expansion, Tacoma, WA.** Responsible for the design services for biosolids thickening and digestion additions and improvements. Structures included pump stations, membrane thickening building, digestion aeration building, centrifuge building, gravity belt thickening building, and digester tanks.

**Lead Engineer, City of Waukesha, Wastewater Treatment Facilities, Waukesha, WI.** Responsible for design of junction chambers, blower building, RAS/WAS building, administration building, addition of miscellaneous structures, and modification to existing facilities.

**Lead Engineer, City of Manitowoc, Wastewater Treatment Facilities, Manitowoc, WI.** Responsible for design of upgrade and addition to existing facilities.

**Lead Engineer, City of Bedford, Wastewater Treatment Facilities, Bedford, IN.** Responsible for design of fine screen building, clarifiers, aeration tanks, RAS/WAS pump station, chlorine contact tank, chemical building, sludge storage tank, miscellaneous structures upgrade, and addition to existing facilities.

**Lead Engineer, City of Zimmerman, Wastewater Treatment Facilities, Zimmerman, MN.** Responsible for design of pretreatment building, sludge storage tanks, blower buildings, UV building upgrade, and addition to existing facilities.

**Lead Engineer, City of Kasson, Wastewater Treatment Facilities, Kasson, MN.** Responsible for design of carousel-type oxidation ditch; mixing basins for biological phosphorus removal; return sludge pumping facilities; ultraviolet disinfection facilities; backup chemical feed facilities; revision to existing laboratory and control building; and reed beds for sludge treatment and storage.

# Jim Rabideau

## Construction Management Task Lead

### Education

Local 323 JATC Electrical Apprenticeship (ASET Equivalency)

### Professional Registration

Electrical Journeyman's License: Florida (Lic # 2901, 1998)

National Electrical Contractors Association (NECA)  
Electrical Estimating and Project Manager

Estimation Inc. Electrical Estimating and Advance  
Electrical Estimating

### Distinguishing Qualifications

- ★ Supports the inspection activities of the resident engineering inspector for several water and wastewater-related projects throughout South Florida, including projects for the South Florida Water Management District (SFWMD)
- ★ Project/construction manager for several projects throughout Florida, ranging in value from \$200,000 to more than \$25 million
- ★ Group Leader for the South Florida area of CH2M's Construction Management Services Group
- ★ Implemented safety training in the South Florida area, including site safety coordinator certification, as required by CH2M, for all field personnel who manage projects

### Relevant Experience

Mr. Rabideau is experienced in construction management services, such as construction project management, program management, estimating, scheduling, and cost control. He provides electrical inspections, submittal reviews, functional testing, and startup observations. Mr. Rabideau is actively involved in the pre-bid quality control review process for many projects, as well as providing project management and designing complete electrical systems. Currently, he supports the inspection activities of the resident engineering inspector for several water and wastewater-related projects throughout South Florida, including projects for the South Florida Water Management District (SFWMD). For these projects, Mr. Rabideau is responsible for submittal reviews, cost controls, specialty inspections, close-out, and personnel on these projects. Mr. Rabideau also serves as the project/construction manager for several projects throughout Florida, ranging in value from \$200,000 to more than \$25 million.

For the past 8 years, Mr. Rabideau has served the group leader for the South Florida area of the firm's Construction Management Services Group in addition to his individual project management duties. As part of these duties, he handles personnel-related issues and has demonstrated strong people skills in dealing with his staff. He has also given exceptional service to both internal and external clients, providing the proper information and/or personnel

for a particular project or problem. As group leader, Mr. Rabideau implemented safety training in the South Florida area, including site safety coordinator certification, as required by CH2M, for all field personnel who manage projects.

### Representative Projects

**Project Manager, CMS GEPS Contract, SFWMD, West Palm Beach, FL.** Responsible for work order development, negotiations, implementation, and staffing of work order contracts, as well as the project management of contracts awarded. Representative projects include South Florida Water Management District (SFWMD) A-1 Flow Equalization Basin: Mr. Rabideau is CH2M's Project Manager for this project and the Construction Manager for the site services. Mr. Rabideau has been involved from the beginning of the project with work order preparation, scoping, and negotiations. As part of CH2M's Construction Services, Mr. Rabideau assisted the District PM with construction management, daily management of the construction contract, and handled all communication with the contractor. Mr. Rabideau coordinated with all District project stakeholders including the Field Station staff, SCADA engineers, operational Water Managers, Facilities for communications set up, etc.; Golden Gate No. 3, Naples, FL: Coordinated staff assignments for inspection services for this three-bay inflatable bladder type gate structure replacement. Project included site/civil, structural, demolition, electrical, and controls;



Environmental Services Laboratory, West Palm Beach, FL: Project involved the 3rd party construction management of the Environmental Service Laboratory building. Project was a state-of-the-art laboratory consolidating SFWMD's Ecological and Water Quality groups into one facility. The construction management team achieved LEED Gold certification. Responsibilities included work order preparation, team assembly, coordinating subconsultants for survey, geotechnical engineering, materials testing, and inspection services.

**Construction Manager, Nanofiltration WTP, Coral Springs Improvement District, FL.** Responsible for inspection staff onsite and management of the contractor and construction contract for this \$24 million WTP expansion project. Provided support of the startup of the facility and interfaced and managed programmers and instrumentation contractor for the SCADA system.

**Construction Manager, Treatment Wetland Park, Village of Wellington, FL.** Construction manager for the conversion of WWTP percolation ponds into a passive recreational wetland park that includes vegetation planting, elevated and at-grade boardwalks, and hydraulic structures to maintain the necessary wetland hydration. Provided design constructability review, value engineering, bid document preparation assistance, bid phase services, and budgeting assistance.

**Construction Manager, Bentley Project as Part of Wetland Restoration Program (WRP), NRCS, Hendry County, FL.** Assisted project manager with the preparation of the work order proposal and construction staffing of this project. Developed staffing plan, budget, logistics, and managed field inspection staff. This WRP project was to restore drained pine flatwoods back to natural wetland conditions. Culverts were replaced and a geocell low water crossing was installed. In addition to the Bentley Ranch project, developed budgets for construction field personnel for the Blackwater Plantation, C.A. Thomas, Otter Slough, and Conservation Fund projects.

**Construction Manager, M-Canal, U.S. Department of Agriculture (USDA) Emergency Watershed Protection Project, City of West Palm Beach, FL.** Construction manager for this USDA grant/NRCS emergency watershed protection hurricane repair and tree removal mitigation project. Project includes bank regrading and stabilization, revetment repair, and removal of trees and debris that would impact canal flow. Project includes construction management and federal reporting for reimbursement under the USDA grant. Responsibilities included site assessment, establishing work zone boundaries, assisting in design and bid document preparation, identifying native species, construction management, coordinating construction inspection, staffing, expense/time reporting,

logistics coordination, budgeting, reviewing and approving contractors pay applications, and assisting with preparation of reimbursement documentation to USDA/NRCS.

**Project Manager, Boynton Beach Fire Rescue Station No. 2, City of Boynton Beach, FL.** Provided construction services for a new more than 10,000-square-foot, four-bay fire rescue station. The facility is an advanced fire station with hardening features to withstand 145 mph hurricane force winds. The facility includes living quarters for nine fire rescue personnel who are on call 24 hours a day, 7 days a week. The facility included commercial kitchen/dining areas, locker room, laundry area with contaminated clothing extractor, community media center, exercise area, and an advanced communications watch commander's area. For operation during emergency operations the facility was provided with generator and fuel storage with containment facilities, and advanced communications systems. The project also included demucking, civil, storm drainage and retention systems, and landscaping.

**Project Manager, Intracoastal Park Pavilion, City of Boynton Beach, FL.** Providing construction services for a new approximately 10,000-square-foot community pavilion at the City's Intracoastal Park. The facility is two-story community pavilion used for special events and as a rental facility. The facility includes commercial kitchen/dining areas, elevator, large gathering areas. The entire facility, both the first and second floor, are completely encircled with wrap around porches, metal roof, and feature "Key West" style architecture. As a result of the location of this facility being right on the Intracoastal Waterway and across the water from an inlet to the ocean, this facility is constructed with hurricane hardening features and utilized materials that are corrosion resistant. The project also included demucking, civil, storm drainage and retention systems, and landscaping.

**Group Leader/Project Consultant, WaterWorks 2011 Water and Wastewater Infrastructure Program, City of Fort Lauderdale, FL.** Provided direct supervision, through the program construction manager, over resident project managers, construction managers, estimators, schedulers, and project/document control specialists. Responsible for staffing levels and ensuring that the correct staff were assigned to the program. Developed electrical and I&C/supervisory control and data acquisition (SCADA) design standards for the replacement and additions of sewage lift stations for the program. Construction cost was \$768 million.

**Project Manager, Membrane Softening Process Addition, City of Boca Raton, FL.** Project manager for CH2M's

inspection and startup services for the construction of the City's new 40-million-gallons-per-day (mgd) membrane softening plant. Involved in the day-to-day inspection of the electrical and instrumentation systems of this facility, as well as the startup and verification of the new I&C of this project. Involved in all phases of the construction of this plant from the beginning ground work to the startup of equipment. Project consisted of construction of a membrane treatment facility that contained ten 3.5-mgd nanofiltration trains and two 2.5 mgd nanofiltration trains. Project also included new electrical system for entire combined utilities complex, raw water pump station, pressure filters, cartridge filters, cleaning system, degasifiers, odor control scrubber system, blowers, transfer pump station, new chemical systems, and upgrades to the existing WTP. Inspection and oversight of civil and yard piping including 60-inch prestressed concrete cylinder pipe, PVC pressure yard piping, HDPE pressure piping, and ductile iron pipe. Inspected structural construction of buildings from footers and floor slabs to precast concrete roof panels. Construction cost was \$55 million.

**Electrical Inspector, Reverse Osmosis (RO) Water Treatment Plants (WTPs), Florida Keys Aqueduct Authority (FKAA), Marathon and Stock Island, FL.**

Performed specialty electrical inspections on the Marathon and Stock Island RO WTPs. Observed electrical subcontractors' work and ensured that the work was completed to the satisfaction of FKAA and in accordance with the contract documents. Construction cost was \$12 million.

**Assistant Project Manager/Construction Inspector, J. Robert Dean WTP High Service Pump Station Electrical System Improvements, Florida Keys Aqueduct Authority (FKAA).**

Project roles included assistant project manager, designer, and construction inspector. Performed detailed design, construction inspection, and oversight of replacement high voltage motor control center and replacement feeders for high service pumping station. This project was completed in September of 2001 to the satisfaction of the client.



# 3. Past Work Experience

## Summary of Representative Experience

As an island community, Key West presents unique challenges in the management of its wastewater, storm water, and solid waste and in the development of buildings and coastal facilities while protecting the environment.

CH2M welcomes this opportunity to continue to serve the City of Key West as its general engineering consultant to provide planning, design, permitting, bid phase, and construction and certification phase services for the City's evolving infrastructure, utility system and facilities.

To ensure success in addressing these challenges, the firms comprising the CH2M team are experienced in the successful delivery of similar projects for the City and other local clients.

Our team offers extensive knowledge of your existing utility system; in-depth knowledge of the many wastewater issues that must be addressed; world-renowned engineering expertise; and keen understanding of current state and federal regulatory action that will directly affect the City's operation. These attributes will help to ensure that individual assignments undertaken by CH2M are completed in a timely, cost-effective manner, and that our recommended solutions are technically sound and clearly address the interests of the City of Key West.

CH2M is fully committed to providing all levels of support needed for the City of Key West's utility system and facilities improvements. CH2M's Project Manager, Sean McCoy, who is based in the lower Keys, assures the City a team that has relevant experience with and knowledge of working in Key West and can get off to a fast start and achieve early and continuous successes.

This section highlights CH2M's local Florida Keys experience, followed by an overview of the firm's qualifications general engineering consulting, including a variety of innovative services that may be relevant to the City, such as program management, planning and management consulting, alternative delivery, operation and maintenance, funding assistance, security vulnerability assessments, and public

outreach. Descriptions of recent projects completed by the project team that most resemble the City's anticipated scope under this contract are highlighted for consideration.



CH2M's proposed Program Manager, Lower Keys resident Sean McCoy, P.E., at work in a wetwell on the Wastewater Pump Station H & B Rehabilitation project for the City of Key West.

Firmly rooted in solving civil/structural, utility, solid waste, and coastal facilities engineering in South Florida, our team brings the City a promise: that we will bring to this contract the best and brightest technologists schooled in treatment processes, hydrology, hydrogeology, water quality, wastewater treatment and disposal, seawall repair, architectural-engineering services including landscape architecture, LEED™ certification, transportation and permitting. Because our team is based locally and has a long history not only with South Florida issues but specifically with the City, we offer a solid foundation from which to respond with technically sophisticated, applicable, and practical solutions to every facet of this contract.

# Representative Experience

## General Engineering Services, Key West, FL



CH2M has successfully provided a variety of planning, engineering, construction, and design-bid-build services to the City for more than 32 years, including generator systems for wastewater pump stations and UV disinfection system.

**Client:** City of Key West

**Client Representative:** John Paul Castro, Utilities Director, 305.809.3902

### Years Completed

Professional Services: Ongoing  
Construction Services: Ongoing

### Project Value

~\$400,000 (to date)

### Firms/Staff Involved with this Project:

**Firm Name:** CH2M

**Role:** Prime contractor 100% responsible for project delivery

**Firm Name:** Aviom & Associates

**Role:** Surveying Subconsultant

**Firm Name:** Nutting Engineers of Florida

**Role:** Geotechnical Subconsultant

### Relevance to Key West's Contract/Special Features

- We have successfully delivered more than 100 projects – all to the client's satisfaction
- Have provided a variety of planning, engineering, construction, and design-build services over the past 26 years
- Complex program involved simultaneous projects, many completed under strict deadlines and involving coordination with the Navy and its accounting policies, residential neighborhoods, and regulatory agencies
- For WWTP, produced cost savings measures while simultaneously preserving current level of service

- For WWTP, provided design and construction services to bring WWTP into AWT compliance 10 years prior to the first FDEP deadline
- Extensive involvement by proposed team members

### Scope

Since 1985, CH2M has been working with the City of Key West to provide a variety of planning, engineering, and construction services. In 1998, the City undertook a multi-year, \$70 million program to completely rehabilitate its wastewater collection and conveyance system. The overall program required planning to improve on system configurations, where possible, coordinating construction to reduce impact on tourism activities, and using materials and construction methods that would be cost-effective and durable in the Key West environment.

### Civil, Utilities, and Environmental Engineering

Services we have provided over the years include project management; master planning; civil, process, geotechnical, electrical, HVAC, and structural engineering; public involvement; hydraulic modeling; environmental/permitting; stormwater modeling; hydrogeological; cost estimating; financial assistance; construction management and administration; and design-build.

### Solid Waste

CH2M has been providing the City with a wide variety of solid waste management services since the early 1990s when the City experienced problems in securing a State-issued operating permit for its landfill and faced the need for financial planning to address the landfill's eventual closure. Services have included Southernmost Waste to Energy (SWTE) Facility design, permitting, alternatives evaluation of solid waste management, bid solicitation services for design-build, and services during construction.

### Coastal

Our experience in designing coastal, municipal waterfront, cargo, cruise, and ferry related facilities for some of the world's largest ports, provides the expertise needed to be meet any of the City's needs. CH2M designed and provided construction oversight for the wharf at Mallory Square in Key West, which was near the end of its service life and needed to be replaced—and at the same time needed to be faithful to the architectural design guidelines of Old Town Key West. The facility serves as the waterfront edge of a vibrant public square with many public uses. Replacing the failing wharf required a solution that minimized the impact of the construction on the daily Sunset Celebration that takes place at the square and on cruise ship activity. A robust design to survive damage from surge and waves generated by hurricanes was developed. Precast concrete elements were used where possible to speed the construction and to improve the quality of the construction.

In a previous design-build project for the City, CH2M designed and constructed the Cruise Ship Security Shelter at

Mallory Wharf, which also needed to follow the City's architectural guidelines for Old Town.

**Representative projects for CH2M's GEC with City of Key West within the past 5 years**

Project	Discipline	Year Completed
George Street Stormwater Basin Improvements	Ut	2013
Patricia and Ashby Stormwater Pump Station Emergency Discharge Outfall	Ut	2013
Headworks Improvements at Richard A. Heyman Environmental Protection Facility	Ut	2011
Wastewater Pump Station F Upgrades	Ut	2016
Condition Assessment Glynn Archer School facility	Cv	2012
Navy Mole Pier Electrical Distribution System Upgrades	Cs	2012
Concrete Repairs Richard A. Heyman EPF and Fleming Key Bridge	Cv	2016
VFD Upgrades to Wastewater Pump Station A, B, C, D, and DA	Ut	Ongoing
North Simonton Stormwater Emergency Outfall	Ut	2015
Lift Station Condition Assessment Report	Ut	2015
Wastewater Pump Station H and B Rehabilitation	Ut	Ongoing
Effluent Pump FP-3-1 Control and VFD Replacement	Ut	Ongoing
Zero Duval Seawall/Mallory T-Pier Improvements	Cs	2017
Long Term Care Completion Certification of the Stock Island Landfill	SW	2016

**Key:** Cv Civil      Cs Coastal      SW Solid Waste      Ut Utilities

Other representative projects for this contract outside of the 5-year timeframe include:

- Stormwater Master Plan
- Generator Enclosure at WWTP
- Pavement Assessment
- Solid Waste Landfill Liner Repair
- White Street Stormwater Pump Station
- Construction Management Training
- Stormwater Well Rehabilitation
- Stormwater Gravity Injection Wells Phase VI
- HVAC Replacement at the WWTP Operations Building
- Engineering Report for Proposed Stormwater Improvements in the George Street Drainage Area
- Sigsbee Force Main Upgrade Evaluation and Pump Station "F" Modifications Technical Memorandum
- Bus Transit Facility and SWTE Demolition, Groundwater, and Soil Sampling

- 10-year Transit Development Plan
- HVAC System Replacement and Upgrades at the City of Key West Police Station
- Stormwater Improvements of the North Duval Drainage Area
- Mallory Square Wharf Design and Services During Construction
- MS-4 Stormwater Permitting
- WWTP Operation and Solids Building Roof Repairs
- Generator Systems for Wastewater and Stormwater Pump Stations
- SWTE Facility Design-Build Solicitation Assistance and Services During Construction
- UV Disinfection System at WWTP
- Solid Waste Processing Facility Permit Assistance
- Mallory Square Security Shelter Design-Build
- Lift Station Rehabilitation
- Flagler Interceptor Phase 2 Rehabilitation
- Airport Wastewater Collection and Transmission System
- Sigsbee Force Main, Pump Station B Force Main
- 10-mgd WWTP
- DIWs
- Pump-Assisted Stormwater Drainage Wells
- Districts A, B, C, E, F, and G Sewer Replacement Projects
- Nutrient Removal Facilities at WWTP
- Facilities Plan
- Landside Replacement of Ocean Outfall
- Wastewater Rate Study
- Bond Feasibility Study
- Waste Disposal Alternatives Evaluation
- Costs and Finance Study
- Permitting and Closure
- Land Use Master Plan for Stock Island Solid Waste Facility
- Simonton Drainage Outfall Preliminary Design
- Harbor Front Remediation
- Outfall Mixing Zone for Cyanide
- Southernmost Waste to Energy (SWTE) Facility design, permitting
- Evaluation of solid waste management alternatives
- Garrison Bight Marina Condition Survey & Engineering Report
- Cruise Ship Pier Security Structure

## Property Condition Assessment of the Glynn Archer School, City of Key West, FL



CH2M's proposed rendition of the conversion of the school facility to a new City Hall.

**Client:** City of Key West, FL

**Client Representative:** John Paul Castro, Utility Director,  
(305) 809-3902

### Years Completed

Professional Services: 2012

Construction (If applicable): N/A

### Project Value

\$364,588

### Firms/Staff Involved with this Project

**Firm Name:** CH2M: Dean Garcia

**Role:** Prime contractor 100% responsible for project delivery

**Firm Name:** Nutting Engineers

**Role:** Geotechnical Engineering, EE&G Environmental Services

### Relevance to Key West's Contract/Special Features

- Information obtained by the geotechnical investigation was used in the structural analysis to determine the loading capacity of the existing structure and the ability to meet the 2010 Florida Building Code requirements for the facility use to be reclassified for use as a City Hall.

### Scope

In May 2012, at the request of the City of Key West, CH2M performed a Property Condition Assessment (PCA) on the Glynn Archer School located at 1300 White Street, Key West, Florida.

The PCA was performed in general conformance with ASTM E 2018 and with general industry standards. The property includes several buildings. Building "A", "B", & "D" were constructed in 1926. Building C was constructed in 1955.

The City requested the PCA to determine if Buildings "A" & "B", including the auditorium is structurally sound for an adaptive reuse as a City Hall Complex. Building "C" will be demolished to provide space for parking, drives, landscaping and open spaces. Buildings "D" (Original Gymnasium) and "E"

(Boys and Girls Club) will be retained by the Monroe County School Board.

The condition assessment addressed the following items:

- Structural Integrity
- Architectural Issues
- Environmental Assessments
- Building Services Issues
- Electrical Issues
- Geotechnical

The inspection, testing and condition assessment of the Glynn Archer School facility included Building A, Auditorium, and Building B.

The structural team inspected each building to obtain sufficient information to perform a structural analysis. The information was obtained by the following:

- CH2M retained the services of a licensed and bonded general contractor and roofer to complete the removal and repairs to the existing building.
- Sheathing Investigation:** Remove 6'-0" by 6'-0": area of existing roof membrane and roof roofing material down to the top of sheathing. The top of sheathing was exposed and clear of debris (14 locations) to obtain measurements and determine the condition of the roofing system
- Access Holes:** 24" by 24" access holes were cut in the existing ceiling and first floor to expose the existing floor and roof structure (Beams and Joists) members (54 locations) to determine the structural component of each building and the condition of the building system.
- Concrete Wall:** Concrete core samples (3 3/4" diameter) were taken for compressive strength, chloride content and determine reinforcement in the concrete wall. Samples were taken at 2 to 3 feet above top of window opening (8 locations) and send to a laboratory for analysis.
- Wall Openings:** The bottom of wall was exposed by cutting 12" by 16" openings and the top of the wall above the drop ceiling was exposed by cutting 12" by 16" opening (13 locations) to determine the type and condition of the structural system.
- Floor Openings:** Access to the foundation was provide by cutting 24" by 24" minimum openings in the first floor (4 locations). This provided access to the foundation for measurements and condition assessment of the foundation.
- The building structural information obtained member sizes, locations and connections to perform a structural analysis of each building and to provide suggestions for

retrofitting the building to meet 2010 Florida Building Code and hurricane requirements. The results of the structural analysis were used to determine if the existing structure had sufficient structural capacity for use as City Hall.

The architectural testing and evaluation included the following:

- Foundation
- Floor Systems
- Exterior Walls/Windows
- Roof System
- Insulation
- ADA Compliance
- Code Compliance
- Life safety component
- Adaptive Reuse

Destructive test methods were performed to determine the assembly and condition of the building's exterior envelope and interior components.



Core samples of the roof systems were taken to identify membrane, insulation and type of decking. Portions of the interior ceilings were removed to observe the underside of the decking. Portions of the interior walls were removed to determine insulation type and wall components. Samples of each system were tested to determine if they contain hazardous materials. The openings described in the structural task were used for the architectural assessment.

Environmental inspection and testing focused on determining the location and extent of materials containing asbestos, lead and/or mold contamination; (in accessible areas of Bldg A, B, C and Auditorium)

CH2M retained the services of a certified industrial hygiene consulting firm. A Certified Industrial Hygienist (CIH) was onsite to examine materials, collect samples of representative materials, and to test for lead containing materials. The CIH was trained and certified for asbestos (Licensed Asbestos Consultant in accordance with Florida Statutes, Chapter 469) and mold (state licensed mold assessor).

- **ASBESTOS.** The CIH conducted a walk-through of the interior and exterior of the subject buildings to visually assess suspect friable and non-friable asbestos-containing materials (ACM) for condition, homogenous areas, and functional spaces. Representative bulk samples were collected from the interiors/exteriors and roofs of the 3 structures and transport the samples to an in-house asbestos laboratory for analysis. A maximum of 175 samples will collected to assess each reasonably accessible homogenous area (HA) in the three subject structures. Bulk samples were analyzed using Polarized Light Microscopy (PLM). Any friable materials found to contain less than 10% asbestos by visual estimation required analysis by the objective Point Count Method for confirmation of asbestos content, per United States (US) Environmental Protection Agency (EPA) regulations.
- **LEAD.** The CIH conducted a limited lead-based paint survey in reasonable accessible representative rooms, common areas, and exteriors of the subject structures using the X-ray fluorescence (XRF) method of lead detection. The survey was performed using state of the art work practices based on a modified version of the protocol established by the Department of Housing and Urban Development (HUD). Confirmatory paint chip samples were to verify any "inconclusive" findings produced by the XRF method. The paint chip samples were analyzed using Atomic Absorption Spectrophotometry (AAS) methods.
- **MOLD.** The CIH conducted a walk-through inspection of the buildings using visual assessment to determine suspect mold growth on building materials. In addition, infrared thermography and direct reading moisture meters were used to determine possible areas of water intrusion into the building that could provide the moisture necessary for mold growth. Suspect mold growth samples were taken using tape surface samples that were examined using optical microscopy by an Environmental Microbiology Laboratory Accreditation Program (EMLAP) certified laboratory.

CH2M assessed the types and condition of HVAC and plumbing in the buildings (Bldg A, B, C and Auditorium.) We interviewed school maintenance staff to obtain information on the current and past condition and problems of the plumbing in the building. We used crawl spaces to determine the location and sizes of domestic water and sewer piping and the location of connections to the city utility piping mains. The access was coordinated with the access required for structural and architectural considerations.

We provided a report detailing the location and condition of existing HVAC-related equipment and its suitability for reuse in the planned city hall. The report detailed the condition of the domestic water and sewer piping and its suitability for reuse.





The geotechnical investigation and evaluation included the following:

- CH2M retained the services of a professional Geotechnical Engineering Subconsultant to provide subsurface investigations.
- Four (4) test borings were performed to determine the soil loading capacity for the school site. The borings were also used to determine the type(s) of soil on the site, ground water elevation and depth to rock.
- Samples were obtained from each boring for soil and groundwater analysis for cyanide, arsenic and Volatile Organic Carbons (VOC).

The electrical investigation and evaluation included the following:

- Inspection of main electrical service and distribution panels
- Inspection of concealed conductors and raceways in two locations in each building
- Inspect conductors and raceways above the dropped ceilings in several locations within each building
- Inspect concealed conductors and raceways above fixed ceilings utilizing opening cut for structural and architectural inspections.
- A general overview inspection of all existing electrical feeders and sub-feeders for each building.

## Cudjoe Regional Wastewater Inner Islands Collection and Transmission Systems, Key West, FL



Complete Cudjoe Regional AWRF with Deep Well construction underway

**Client:** Cudjoe Regional Wastewater Program, Florida Keys Aqueduct Authority (FKAA), Key West, FL

**Client Representative:** Tom Walker, Deputy Executive Director, Florida Keys Aqueduct Authority, 305.296.2454; [twalker@fkaa.com](mailto:twalker@fkaa.com)

### Years Completed

Professional Services: 2012

Construction Services (If applicable): 2017

### Project Value

\$200,000,000 (Constructed)

### Firms/Staff Involved with this Project

**Firm Name:** CH2M: Sean McCoy and Walt Schwarz

**Role:** Prime contractor 100% responsible for project delivery

**Firm Name:** Avirom & Associates

**Role:** Surveying and GIS

**Firm Name:** Nutting Engineers

**Role:** Geotechnical Engineering

### Relevance to Key West's Contract/Special Features

- Engineering Design and Construction Management Experience. CH2M performed multiple roles to assist with the completion of this program beginning with the initial master planning, through conceptual design and modeling of the pumping and conveyance system and final design of the Inner Island master pump stations and force mains. As program managers for construction, CH2M assisted with contract management of all the construction contracts, provided engineering services during construction to address design changes and served as Engineer of Record for construction. CH2M managed all the program documents and

construction contracts as well as permitting and resolution of environmental issues that arose during construction.

- Financial Planning. CH2M developed the original financial plan for the project to determine the design constraints mandated by available funding. Rate structures and impact fees had already been established on a county-wide basis and were incorporated into the financial planning for this program. CH2M monitored overall program expenditures to maintain cash flow via draws from the available funding sources and managed the State Revolving Fund process to take advantage of the low interest loans.
- Public Relations. The public outreach effort for this program was primarily handled using in-house resources; however, CH2M assisted FCAA with presentation materials, informational brochures, construction progress maps and an interactive program website. CH2M also provided expert witness support to assist with legal actions opposed to the implementation of the program.
- Program Management. CH2M developed a program management plan for the construction and connection phase of the program. The plan included prioritizing projects, scheduling, coordinating with other area construction activities, budget management, document management and weekly project summaries. CH2M also managed the construction contract progress including progress meetings, pay requests, project changes and permit compliance. CH2M provided expert specialty inspectors where needed and provide construction inspection service assistance during peak activities. CH2M coordinated permit close-out and completion of accurate project record drawings.

**As a local, full-service firm, CH2M has been responsive to our needs and has provided excellent design and construction management services. They are technically very competent and have effectively managed and delivered our projects.**

Tom Walker, P.E., Deputy Executive Director,  
Utility Operations, FCAA (2014)

### Scope

CH2M assisted with the overall design development of the regional collection and transmission system spanning over 30 miles and 8 populated islands. Considerations included type of collection (gravity, low pressure, vacuum), number and location of treatment facilities, design and construction standards and limitations to the areas served by the system. The system configuration was based on meeting the environmental requirements (nutrient discharge) that

created the need for the system, constructability in isolated areas and what type of system could be constructed for the available funding. CH2M developed documentation and provide support to assist the owner and supporting agencies with putting together the funding packages necessary to move ahead with the project. Phased implementation of the project was not required once full funding was achieved.

CH2M provided construction phase program management including scheduling, submittal review, construction contract management, permitting and certification, document management, engineering services during construction and assistance to the owner in supporting the public outreach components. Public outreach included presentation materials for public meetings and development and maintenance of a project website.

## North Simonton Stormwater Emergency Outfall, City of Key West, FL

**Client:** City of Key West

**Client Representative:** John Paul Castro, Utilities Director, 305.809.3902

### Years Completed

Professional Services: 2012-2014

Construction Services (If applicable): 2014-2015

### Project Value

\$112,117 Design

\$1,029,227,50 Construction

### Firms/Staff Involved with this Project

**Firm Name:** CH2M: Sean McCoy, Dean Garcia, Del Lange, Jose Ramos, Erika Smith

**Role:** Prime contractor 100% responsible for project delivery

**Firm Name:** Avirom & Associates

**Role:** Surveying and GIS

**Firm Name:** Nutting Engineers

**Role:** Geotechnical Engineering

### Relevance to Key West's Contract/Special Features

- CH2M filed permits for construction and operation of the emergency outfall, to allow use during high volume rain events, and in the case of "imminent flooding"
- Our knowledge and longstanding presence in Key West allowed us to identify a solution in coordination with the city, plan, permit, design, model, bid, and construct a facility which alleviated flooding and reduced Stormwater staging times along some of the lowest elevations in the city.

### Scope

This area of the City is near the highest use retail district on the island, making projects here more complicated to mobilize and build. The Simonton Beach Pressure-Assisted Well project constructed in 2003 helped to reduce flooding in the immediate area, but the wells at this location in the City do not have the same capacity as others constructed on the island.

Although recent projects have installed more gravity wells upstream of North Simonton that improve the severity score of this area (from the StormWater Master Plan completed 2012), during high flow storm events, the pump station overflows and plugs the well, which then needs to be taken offline for cleaning. The potential flooding impacts required the city to design and construct a pipeline that connects to the existing pump station SWS-5, and terminates at a new stormwater outfall structure at the north end of Simonton.

This project also included a new emergency generator mounted on a raised platform above the flood elevation.

As the City's Engineer, we provided engineering services for the design, permitting, bid phase and construction phase services for the North Simonton stormwater outfall, connecting piping, and emergency generator with platform at the north end of Simonton Street. Our specific services included the following:

- Conceptual Design and review of two (2) outfall route alternatives and a recommendation
- Proposed layout of the site with the emergency generator platform
- Detailed design for the chosen outfall route alternative with emergency generator with platform
- Preparation of Bid Documents
- Bid Phase Services
- Construction Phase Services



## Variable Frequency Drive Upgrades to Wastewater Pump Stations A, B, C, D and DA, City of Key West, FL



**Client:** City of Key West, FL

**Client Representative:** John Paul Castro, Utilities Director, 305.809.3902

### Years Completed

Professional Services: 2013

Construction: Ongoing, Final Completion May 2017

### Project Value

\$206,192 Design

\$3,962,090 Construction

### Firms/Staff Involved with this Project

**Firm Name:** CH2M: Sean McCoy, Dean Garcia, Beth Trautwein, Del Lange, Jose Ramos, Erika Smith

**Role:** Prime contractor 100% responsible for project delivery

**Firm Name:** Charley Toppino & Sons, Inc.

**Role:** Construction Contractor

### Relevance to Key West's Contract/Special Features

- CH2M used historic wastewater flow rates to project energy consumption for the proposed VFD upgrades. Our calculations and modeling show that the City will enjoy energy savings between 10%-25% per month depending on time of year.
- Reliability, rehabilitation, modernization, and sustainability are priorities for municipalities everywhere. This project shows CH2M's ability to aid the City's utility department beginning with identification of the problem, and weighing the benefits, to completion of the engineered and constructed final project.

### Scope

The City of Key West and CH2M performed pump drawdown tests on nine pump stations ("A", "B", "C", "D", "DA", "F", "Q", "S", and Sigsbee) during the preliminary design of the Pump Station F Improvement project. The tests results

were compared to existing pump curves to determine the operating efficiency of the pumps.

The results of the pump drawdown tests showed that most of the pumps were operating inefficiently. The pumps appear to be operating to the right of their curves (i.e., low pressures, and therefore, higher flows). Although higher flows are desirable, operating to the right of their curves indicates that the pumps are cavitating, causing additional maintenance, such as the frequent replacement of impellers and motors. In addition, the pumps are frequently cycling on and off, which results in higher energy costs and shorter motor life.

The low pressures appear to be attributed to the pipe rehabilitation that occurred in the 1990s, which reduced infiltration and inflow into the wastewater collection system. Since 2001, the flows to the WWTP have been significantly reduced, decreasing from 8.2 million gallons per day (mgd) to approximately 4 mgd. The lower flow produces lower system pressures causing pumps to operate to the far right of their curves, and in some cases off the curve.

Cavitation causes excessive vibration, which has been observed at these pump stations. The effects of cavitation and the frequent cycling of the pumps have resulted in the replacement of motors, motor starters, and the rebuilding or replacement of impellers.

To rectify inefficient operation and excessive maintenance, The City decided to add Variable Frequency Drives (VFD) to the drive units at Pump Stations A, B, C, D and DA. This will allow the pumps to operate more efficiently, minimize the number of start and stops, and decrease damage to the impellers and motors caused by cavitation and excessive vibration. The addition of the VFDs also will allow the pumps to operate when the flows to the pump stations are minimal by operating at a lower speed and during large storm events the pumps will be able to ramp up to the maximum speed to accommodate higher flows. With the addition of the VFDs, the pumps will operate towards the center of their curves, where the pumps are most efficient.

CH2M prepared a technical memorandum, which investigated historical flow rates and energy consumption for the proposed VFD upgrades. Our calculations and modeling show that the City will enjoy energy savings between 10%-25% per month depending on time of year.

As the City's Engineer, we provided engineering services for the preparation of a preliminary engineering design memorandum on potential energy savings, detailed design, permitting, bid phase, and construction services for the VFD upgrades to Pump Station A, B, C, D and DA.

## Watson Boulevard Bridge Repairs, Monroe County, FL



The two-lane Watson Blvd. bridge provides the sole access to residences and businesses on the northern portion of Big Pine Key and No Name Key.

**Client:** Florida Department of Transportation Local Agency Program (LAP)

**Client Representative:** Judith Clarke, Monroe County Engineering Department, 305.295.4329

### Years Completed

Professional Services: 2011

Construction (If applicable): 2014

### Project Value

\$370,000

### Relevance to Key West's Contract/Special Features

- Federal and State agency coordination and permitting for Construction in Sensitive Areas.



- Full Service Engineering services, from evaluation, through engineering design, to services during construction, and project close out.

### Firms/Staff Involved with this Project

**Firm Name:** CH2M: Randy Mock

**Role:** Prime contractor 100% responsible for project delivery

### Scope

Old SR 940 Leg A / Watson Blvd. Bridge (Bridge No. 904310) repair was a task order in CH2M's Continuing Contract for On Call Professional Engineering Services with Monroe County, Florida. The Watson Blvd. Bridge, on Big Pine Key, spans an unnamed channel and was constructed in 1965. It had a sufficiency rating of 39.7, was classified as Structurally Deficient, and therefore required repair. This two-lane bridge provided the sole access to residences and businesses on the northern portion of Big Pine Key and No Name Key.

Deficiencies consisted of extreme deterioration of the prestressed superstructure slabs. The entire superstructure was replaced, while utilizing the existing substructure. CH2M's full engineering services included data collection, inspection, survey, permitting, conceptual design and final design of structural, phase construction, roadway, cost estimating, specifications, maintenance of traffic, permitting, utility coordination, signing & marking, and services during construction.



Due to the sole access issue, vehicular maintenance of traffic was of paramount importance, and maintenance of marine traffic under the bridge was also accommodated. The new replacement superstructure utilized prestressed slabs with a composite reinforced concert topping. The project was administered through the Florida Department of Transportation (FDOT) Local Agency Program (LAP).



# 4. Ability to Perform Services Expeditiously

## Local Presence

Our Key West and South Florida staff bring a solid understanding of the environmental and technical issues associated with executing civil, sewer, storm water, solid waste, coastal, and building projects in the Florida Keys.

Since 1985, CH2M has been a part of the Florida Keys' engineering community. During that time, we have assisted the Keys' municipalities with developing water, sewer, and storm water infrastructure. Our resources in Florida include 490 multi-disciplinary staff in nine offices spanning from the Pensacola to Miami, and including our Fort Lauderdale office, which will provide prompt response to the City of Key West's project needs.

*Both Sean McCoy, our proposed Program Manager, and Walt Schwarz, our Principal-in-Charge, live and work in the Keys.* Due to the evolving nature of work and the workplace, CH2M has empowered many high-performing staff like Sean and Walt to work from their home offices, enabling them to be more flexible and mobile in meeting our clients' needs. Like many companies, we are moving away from fixed offices toward a more fluid, virtual workplace that allows us to respond both locally and globally as the project demands.

Aside from our trusted subcontractors Avirom & Associates and Nutting Engineers for Surveying/GIS Mapping and additional Geotechnical Services respectively, all services for the City will be performed by CH2M in house staff.



**Our proposed Program Manager and Principal-in-Charge both live and work in the Keys.**



## Expeditious Service

The proximity of our project leadership gives the benefit of immediate responsiveness and increased accessibility, as well as local presence, commitment, and familiarity. Our key project leadership are civic-minded and vested in the City of Key West providing excellent services to resident and visitors. They will provide our other South Florida project staff with the facilities, equipment, and resources needed to cost-effectively complete project tasks locally, including fast-track critical path projects, while ensuring the highest levels of quality and safety. This on-the-spot service, whether it be for emergency response projects or for long-term projects requiring multiple disciplines and tasks, offers the flexibility, depth, and mix of technical skills and resources to meet a variety of needs.

CH2M can also provide the City of Key West with the resources of three in-state design centers located in Gainesville (full-service) and Tampa and Jacksonville (highways, bridges, and ports).

Our Florida offices are currently delivering major designs, all of which are on or ahead of schedule. Because of the considerable resources in our design centers, including more than 260 staff and more than 60 CAD/CAE workstations, these projects will not affect our ability to deliver the City's designs within schedule.

One of the greatest strengths of the CH2M team is that we have more than enough staff, resources, and availability to begin the City's projects immediately and to make them our top priority until completion. Our resources in South Florida, combined with proven processes for project delivery, make it possible to deliver multiple projects for the City simultaneously and to staff them with experienced, top-tier talent.

## Availability of Key Team Members

Understanding that leadership and continuity are essential to managing multiple projects, the City's full-service contract manager will be program manager Sean McCoy's primary assignment. A resident of the lower Keys, Sean is a proven program manager who has successfully delivered numerous City of Key West projects.

Equally important to rapidly initiating and completing the City's projects is the availability of key staff. We will provide

**CH2M offers a team that provides proven responsive service, and the ability to perform concurrent execution of project tasks.**

general engineering services to Key West's projects through our South Florida offices.

All project activities will be coordinated through Sean, our Key West-based program manager. Technical and administrative support will be provided by staff from primarily our Miami, Fort Lauderdale, Naples, and Gainesville offices.

In addition to their familiarity with Key West and extensive similar experience in the Florida Keys, our key team members have been selected for their ability to begin work immediately and to provide the required level of effort until their respective projects are completed.

## Depth of Resources Available to Key West

Our extensive network of offices enables us to customize services to meet client needs at the local level by drawing on our in-house resources and our nationally-recognized specialists from approximately 20,000 employees and 156 offices across the globe. We provide a broad range of services worldwide that are available to Key West in addition to the resources outlined in this SOQ and in the region, including staff with expertise in capital planning, project development and finance, program management, design, construction, and facility operations.

## Management Approach

### Effectively Managing a General Services-Type Contract

By its very nature, a general engineering services contract requires a strong level of commitment from a consulting firm. Individual project teams may be formed and disbanded as specific projects are undertaken and completed, and the firm must have the resources to

### Office Locations of Subconsultants

#### Avirom & Associates

Key West Office  
402 Appelrouth Lane, Suite 2E  
Key West, FL 33045  
305.294.7770 (phone)

Avirom & Associates also has offices in Boca Raton and Stuart, Florida.

#### Nutting Engineers of Florida

Miami-Dade Office  
2051 NW 112<sup>th</sup> Avenue,  
Suite 126  
Miami, FL 33172  
305.557.3083 (phone)

Nutting Engineers of Florida also has offices in Boynton Beach and Port St. Lucie, Florida.

respond to fluctuating demands of such a contract. Also, continuity and clear understanding of Key West's interests must be maintained throughout the life of the contract.

CH2M has always addressed Key West's needs by providing general engineering services as a long-term program, firmly committing the team to Key West to accommodate changing project requirements. The firm's size and multidisciplinary staff can accommodate such flexible contractual requirements and changing project demands. Local program manager Sean McCoy will coordinate the utilization of resources to match the technical needs of individual task orders and assignments to ensure that the goals of each project are consistent with Key West's long-term interests. We will continue to utilize staff who have worked on Key West projects in the past and who are familiar with your staff and processes. These team members bring local knowledge and experience from years of working with Key West staff and understanding Key West's operation and engineering requirements, needing NO learning curve, and therefore can and will deliver any required services immediately upon notice to proceed.

As one of Key West's current general engineering consultants, CH2M offers experience in executing general engineering contracts, as well as having successfully helped dozens of clients in the implementation of diverse and aggressive capital improvement programs. We will ensure responsiveness, immediate client service, commitment of an outstanding, familiar staff of recognized industry experts, and provide access to comprehensive resources in virtually any discipline, system operations, facility design, and delivery method that Key West may require under this contract.

## Supporting Key West as an Extension of Staff

We take our responsibility for ensuring that projects are within budget, on time, and to the satisfaction of Key West seriously. Our program manager can quickly mobilize a team of proven professionals who provide a strong combination of technical knowledge, local familiarity, and experience. At Key West's direction, CH2M can assist in coordinating, prioritizing, managing, and implementing the task orders that will make up this contract. CH2M will continue to provide highly qualified staff familiar to Key West to assist with any general design projects, including

*"CH2M is one of the few consultants I can count on to act as an extension of my staff. When I need help and need it now, I know that CH2M will deliver."*

**Fred Partin**  
**Former Executive Director**  
**Bonita Springs Utilities**

studies and reports, master planning, quality control (QC) reviews, and construction.

## Maximizing the City's Involvement Enhances Team's Understanding of Goals

CH2M encourages Key West's involvement during the scope, planning, and implementation stages. We propose the following ways to maximize City involvement and awareness:

- Work directly with Key West staff to develop project scopes
- Regularly scheduled progress meetings and workshops
- Project deliverables defined as multiple sub-elements (for example, technical memoranda and draft versions of reports) throughout the project and provided to Key West for review and comments
- Written requests for specific information and data from Key West

## An Organizational Structure Delivers Immediate and Responsive Service

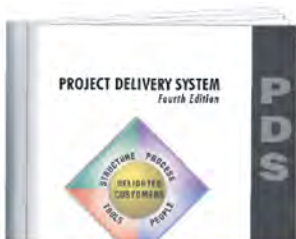
CH2M offers a team that provides proven responsive service and the ability to perform concurrent execution of project tasks. We have served in a similar role for numerous clients and have successfully executed or managed hundreds of individual task orders or projects across a host of disciplines and delivery methods. CH2M will serve as prime consultant to Key West and will provide a single point of contact and total accountability through one experienced program manager, Sean McCoy. He will be fully supported and guided by our principal-in-charge, Bill Beddow. Through their combined leadership, CH2M will effectively serve Key West and will ensure that appropriate expertise and capabilities are made available and drawn upon, as needed, to support task order assignments with individuals drawn from our in-house staff—many of whom have previously worked on Key West projects. This practice has proven to be an effective means of accessing industry-recognized experts cost-effectively.

Our organizational structure ensures that all separate tasks are integrated and that task leads are under the overall control of the program manager. This type of organization facilitates clear communication and clear expectations, and provides an ongoing opportunity for an exchange of information among CH2M and Key West staff.

Attention to client service is a key priority for the project team, including an unwavering dedication to outstanding performance, on time delivery, and timely correction of service problems. Key West is assured that our local program manager will do what it takes to correct any issue that may arise on this contract. From within the extensive

staff resources of CH2M, we have filled key positions with individuals who have demonstrated not only outstanding technical knowledge, but also an ability to get the job done on time and within budget. Our key task managers will be supported by a technical resources group that provides experts in a host of disciplines who will be brought in as active participants, as needed, during project development and implementation. *Section 2 – Key Personnel* describes the roles and experience of our key management team and provides resumes for all team members.

## Proven Five-Step Project Delivery System Ensures that Schedules and Budgets are Met



### Project Delivery System Five-Step Process

- 1 Charter Team**  
Establish roles and responsibilities, develop team, and establish and follow communication protocols
- 2 Plan Project**  
Document work definition, work scheduling, resource planning, deliverables, reviews, and performance measures in an approved work plan
- 3 Endorse Project**  
Achieve full endorsement of work plan/schedule by client, project team, and key stakeholders
- 4 Manage Change**  
Plan for change and follow a process to provide quality through managed project change
- 5 Close Project**  
Identify, budget, and implement closing and learning activities throughout the project

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**Our proven project delivery process promotes benchmark performance in meeting schedule and budget goals while also assuring client-value service and an unyielding commitment to quality.**

As a top-tier consulting engineering firm, CH2M considers project delivery a core competency. Our Project Delivery System (PDS) is a structured process that our project managers are trained to utilize on projects. This tool creates a framework for successful project delivery that includes accountability, responsiveness, trust, and communication among stakeholders.

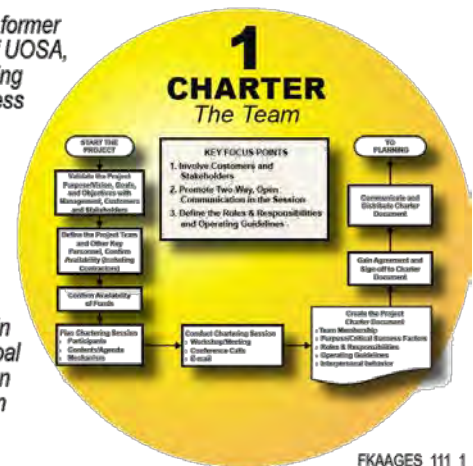
The most successful projects involve collaboration between the client and project team. Through workshops, CH2M will work closely with Key West and its stakeholders to clearly establish the optimum path forward. Workshops will be conducted at various project phases, including kick-off, to support clear communications and precise understanding among team members and stakeholders. Through clearly defined processes, our team focuses on client needs and satisfaction, guided by five critical steps that are critical to project success: Team Chartering, Planning, Endorsing, Managing Change, and Closing

In effect, CH2M's PDS is a perpetual project control plan that supports effective management of critical project components, including:

- Team Building and Cohesiveness
- Budget and Schedule Adherence
- Communication
- Change Management
- Quality Control

### Team Chartering Is Innovative Approach to High Performance Team Building

*Millard Robbins, Jr., former executive director of UOSA, testified that chartering allowed him to express his non-contractual goals, such as not inconveniencing the neighborhood and maintaining the Authority's environmentally sensitive position in the community—and in the profession—a goal that would have been difficult to describe in specifications.*



FKAAGES\_111\_1

Team chartering will coalesce into a high-performance team dedicated to the success of Key West. CH2M's textbook titled *Project Delivery System, A System and Process for Benchmark Performance* describes chartering as "the act of guiding a team through the process of defining itself: its purpose, scope, goals, behaviors, expectations, roles, responsibilities." Simply stated, chartering is a fast and extremely effective method of aligning team members and focusing on understanding how success is to be achieved and measured. Chartering is the one tool that is most tangible and effective in project delivery and is a very human way to understand, relate, and work together. It requires renewal on a regular basis as teams change and goals are revised.

The chartering process is the most effective method of establishing working relationships, and enables team leaders to refine their understanding of the goals of both the project and Key West staff and leadership.

### **Achieving Coordination Through Continual Communications**

Effective communication and mutual understanding between client and consultant are the foundation of outstanding service. Ongoing involvement of Key West staff is critical, and will be facilitated through workshops, meetings, documentation, onsite preliminary design, formal and informal training, and continual communications between key members of the project team and Key West's staff to forge a cohesive team focused on project priorities.

Through the many projects that we have managed and implemented, we have developed proven project management approaches that have involved major coordination among several parties, where there are multiple projects, multiple design and construction packages, accelerated schedules, and fixed budgets.

Through the formal management process described in this section, effective coordination has been a hallmark of our service, and the result has been strong performance and achievement of client objectives. This experience will be a major benefit to Key West.

### **Change Management Strategies Keep Projects on Course**

Anticipating and managing change is critical to the success of project delivery and implementation. Many changes will occur over the CIP's multi-year duration, including regulatory climate, political administration, technological advances, staffing, and service area boundaries. A change management strategy will keep the project on course to a successful finish.

The project control tools described earlier will reposition the project when events change, and will allow corrective action to be taken. This is a continuous process throughout the life of the project. As changes of significance occurs, they will be incorporated into a revised plan, work breakdown structure, and schedule and cost profile. Project goals, objectives, and progress will be periodically reviewed for their ability to realistically meet them against changed climate, and the plan will be flexible enough to allow reaction to change and adjustment to Key West goals.

### **Proactive Quality Control Ensures Cost-Effectiveness**

Our QC program is a management system designed to ensure that project activities comply with the contract, design, and workmanship requirements. At CH2M, what sets us apart from many other consulting firms is our culture of quality management. Our quality management starts at the beginning of the project—sometimes described as being “baked into” our processes, not “frosted on top.” CH2M will implement an effective QC program for design and construction projects, structured design reviews, documentation, and inspection of all construction activities, but also through proactive planning of each activity and procurement, inspection, and documentation of design and construction activities, project startup, and operations.

Quality is viewed as a complete process, not just the result of reviews, tests, and inspections. It means ensuring that all materials and workmanship meet or exceed expected levels. We will manage the design project so that project standards are met the first time because we are aware that repetitive attempts and rework adversely affect project cost, schedule, and team morale.





## 5. Ability to Complete Required Services with In-house Staff

### In-House Staffing Resources

One of the greatest strengths of the CH2M team is that we have more than enough staff, resources, and availability to begin the City's projects immediately and to make them our top priority through completion.

Our resources in South Florida, combined with proven processes for project delivery, make it possible for us to deliver multiple projects for the City simultaneously and to staff them with experienced, top-tier talent.

As noted in other sections, CH2M has been a part of the Florida Keys' engineering community since 1985. During that time, we have assisted the Keys' municipalities with developing water, sewer, and storm water infrastructure. Our resources in Florida include 490 multi-disciplinary staff in nine offices spanning from the Pensacola to Miami, and including our Fort Lauderdale office, which will provide prompt response to the City of Key West's project needs.

Our Key West and South Florida staff bring a solid understanding of the environmental and technical issues associated with executing civil, sewer, storm water, solid waste, coastal, and building projects in the Florida Keys.

Aside from our trusted subcontractors Avirom & Associates and Nutting Engineers for Surveying/GIS Mapping and additional Geotechnical Services respectively—who are also known to the City from their prior work—all services for the City will be performed by CH2M in-house staff.

CH2M can provide the City of Key West with the talents available in three in-state design centers, located in Gainesville (full-service) and Tampa and Jacksonville

(highways, bridges, and ports). Technical and administrative support will be provided by staff primarily from our Miami, Fort Lauderdale, Naples, and Gainesville offices.

Our Florida offices are currently delivering major designs, all of which are on or ahead of schedule. Because of the considerable resources in our design centers, including more than 260 staff and more than 60 CAD/CAE workstations, these projects will not affect our ability to deliver the City's designs within schedule.

### Designated Support Staff

More than 50 CH2M in-house staff members will support our key team members in a wide range of architectural and engineering specialties, including landscape architecture, design-build, facility automation, facilities operation, financial, funding, information technology, mechanical, electrical, civil, structural, building services, and geotechnical.

These technical resources, as well as our more than 100 staff in South Florida and 490 staff statewide, will ensure that CH2M has all the resources needed in-house to deliver the City's projects on time and within budget.

### Global Breadth and Depth of In-House Staff

The tables on the following pages demonstrate both the breadth and depth of our in-house resources by discipline on a global scale and our licensed professional staff as of the date of this Statement of Qualifications. CH2M's designated project team for the City of Key West can call upon these supplemental staff resources at any time if needed.

Table 5-1. Total CH2M Employees by Discipline

<b>19,663 Total Employees</b>		
Acoustical Engineer: 1	Environmental Scientist: 486	Oceanographer: 3
Administrative: 3,577	Executive Management: 14	Operations & Maintenance: 2,638
Architect: 161	Fire Protection Engineer: 133	Planner—Urban/Regional: 181
Biologist: 125	Foundation/Geotechnical Engineer: 310	Process Engineer: 357
CADD Technician: 52	GIS Specialist: 117	Procurement Specialist: 401
Cartographer: 13	Geologist: 167	Program Manager: 280
Chemical Engineer: 16	Hazardous Waste Specialist: 3	Project Controls: 358
Chemist: 68	Hydraulic Engineer: 17	Project Manager: 1,882
Civil Engineer: 592	Hydrologist: 80	QA/QC Specialist: 138
Coastal Scientist: 3	Industrial Engineer: 16	Risk Assessor: 20
Communications Engineer: 1	Industrial Hygienist: 9	Safety/Occupational Health Engineer: 242
Computer Programmer: 79	Instrumentation & Controls Engineer: 193	Sanitary Engineer: 32
Construction Craft: 319	Interior Designer: 4	Scheduler: 64
Construction Engineer: 121	Intern: 179	Security Specialist: 14
Construction Inspector: 12	IT Professional: 398	Soils Engineer: 2
Construction Manager: 579	Land Surveyor: 55	Structural Engineer: 519
Corrosion Engineer: 2	Landscape Architect: 6	Technician/Analyst: 648
Cost Engineer/Estimator: 155	Materials Engineer: 1	Toxicologist: 8
Designer: 1,048	Mechanical Engineer: 310	Transportation Engineer: 974
Ecologist: 10	Mining Engineer: 1	Value Engineer: 1
Economist: 22	Munitions Response: 22	Water Resources Engineer: 704
Electrical Engineer: 310	Not Yet Assigned: 20	
Electronics Engineer: 3	Nuclear Engineer: 21	
Environmental Engineer: 366		

\*As of April 17, 2017.

Table 5-2. CH2M Employees with Professional Registrations

Registration/License	Data Supported #'s
Professional Engineers (any discipline)	2,029
Professional Geologists	186
Registered Architects	77
Green Project AP (LEED, Green)	288
Licensed/Certified Planners	15
Certified Construction Manager (CCM)	20
Certified Hazardous Materials Manager (CHMM)	13
Certified Health Physicist (CHP)	1
Certified Industrial Hygienist (CIH)	7
Certified Professional Wetland Scientist (PWS)	13
Certified Safety Professional (CSP)	21
Certified Senior Ecologist	5
Registered Landscape Architects (RLA)	10
Registered/Professional Land Surveyors (RLS)	20
Project Management Professionals (PMP)	149





# 6. Other Certifications

## LEED Certification

CH2M has been an active leader in the worldwide movement toward sustainable environmental design. We have assisted hundreds of clients in the past five years develop projects to LEED standards and have assisting in guide clients in gaining LEED certification for many of those projects. We can guide your project through the environmental, economical, and social aspects of sustainable building services and recommend cost-efficient features and materials.

CH2M has a total of 288 staff who are LEED Accredited Professionals (LEED AP) and can assist Key West with incorporating sustainable development practices and guide the City through LEED certification programs.

LEED AP staff on our proposed team include:

- Maureen Kussler, LEED AP
- Beth Trautwein, RA, LEED AP

## FDOT Certified Staff Professionals

CH2M staff possess the breadth of FDOT certifications as demonstrated in the list below. The City can count on CH2M to provide resources and solutions that meet FDOT standards and specifications based on the depth of our certified staff resources. Because we enjoy the benefit of large staff resources, additional staff certifications are continually being added. Among the Florida Department of Transportation certifications possessed by CH2M staff are the following:

- Field Inspector Specification
- ACI Field Testing Technician
- Advanced Work Zone Traffic Control
- Asphalt Paving
- Bridge Load Rating
- Bridges: Miscellaneous Structures
- Concrete Field Technician
- Construction Project Management (CPM)
- Controlled Access Highway Design
- Conventional Bridge Inspection
- Department of Environmental Protection Stormwater Management Inspection
- Drill Shaft Inspection
- Earthwork Construction Inspection

- Concrete Specification Section 346
- Concrete Specification Section 400
- Final Estimates Management
- Guardrail Installation and Inspection
- Lighting
- LIMS – Laboratory Information Management
- Major Bridge Design - Steel
- Major Highway Design
- Minor Bridge Design
- Minor Highway Design
- Pile Driving Inspection
- Plant Inspection
- Quality Control Management
- Signing, Pavement Marking and Channelization
- Traffic Control & Maintenance of Traffic
- Traffic Safety

This list is not inclusive but represents the many of the key areas for which our staff is certified.

## Other Certifications

A summary of our firm-wide staff certifications includes:

- Professional Engineers (any discipline): 2,029
- Professional Geologists: 186
- Registered Architects: 159
- LEED AP: 288
- American Institute of Certified Planners (AICP): 15
- Certified Construction Manager (CCM): 20
- Certified Hazardous Materials Manager (CHMM): 13
- Certified Industrial Hygienist (CIH): 7
- Certified Professional Wetland Scientist (PWS): 13
- Certified Safety Professional (CSP): 21
- Certified Senior Ecologist: 5
- Registered Landscape Architects (RLA): 10
- Registered/Professional Land Surveyors (RLS): 20
- Project Management Professionals (PMP): 149



## 7. Required Documentation

The following required affidavits and certification are provided in this section:

- Evidence of Duly Authorized Signer
- Anti-Kickback Affidavit
- Public Entity Crimes Certification
- Equal Benefits for Domestic Partners Affidavit
- Cone of Silence Affidavit
- Acknowledgement of Addendums #1 and #2



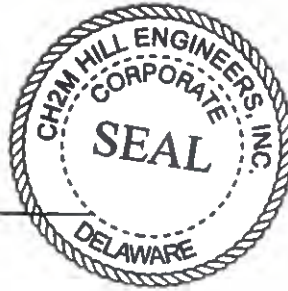
**SECRETARY CERTIFICATE**

I, Cheryl J. Rimas, Assistant Secretary of CH2M HILL Engineers, Inc., hereby certify that:

Sirpa Hall is Designated Manager of CH2M HILL Engineers, Inc., and has been granted authority in accordance with our Signature Authority Policy to execute documents on behalf of the company.

Dated this 12th day of April, 2017.

Cheryl J. Rimas, Assistant Secretary



State of Colorado  
County of Douglas

Subscribed and sworn to before me by Cheryl J. Rimas this 12th day of April 2017.


Notary Public



**ANTI-KICKBACK AFFIDAVIT**

STATE OF FLORIDA                    )  
                                                  : SS  
COUNTY OF MONROE                )

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:   
Sirpa Hall, P.E., Designated Manager

Sworn and subscribed before me this

3rd day of April, 2017.

Stacey Robin Smith  
NOTARY PUBLIC, State of Florida at Large

My Commission Expires: 4/1/19



**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. RFQ No. 17-002 for
  
2. This sworn statement is submitted by CH2M HILL Engineers, Inc.  
(Name of entity submitting sworn statement)  
whose business address is 9191 S. Jamaica Street, Englewood, CO 80112-5946  
\_\_\_\_\_ and (if applicable) its Federal  
Employer Identification Number (FEIN) is #32-0100027 (If the entity has no FEIN,  
include the Social Security Number of the individual signing this sworn statement.)
  
3. My name is Sirpa H. Hall, P.E. and my relationship to  
(Please print name of individual signing)  
  
the entity named above is Designated Manager.
  
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(1)(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.)

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 General Services.)

(Signature) \_\_\_\_\_

(Date) \_\_\_\_\_

STATE OF \_\_\_\_\_

Florida

COUNTY OF \_\_\_\_\_

Monroe

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

Sirpa H. Hall, P.E.  
(Name of individual signing)

who, after first being sworn by me, affixed his/her signature in the

space provided above on this 3rd day of April, 2017.

My commission expires: 4/1/19  
NOTARY PUBLIC

Stacey Robin Smith



**EQUAL BENEFITS FOR DOMESTIC PARTNERS AFFIDAVIT**

STATE OF Florida )  
 : SS  
COUNTY OF Monroe )

I, the undersigned hereby duly sworn, depose and say that the firm of CH2M HILL Engineers, 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: *Sirpa H. Hall*  
Sirpa H. Hall, P.E., Manager of Projects

Sworn and subscribed before me this

3rd day of April, 2017.

*Stacey Robin Smith*  
NOTARY PUBLIC, State of Florida at Large

My Commission Expires: 4/1/19





**EQUAL BENEFITS FOR DOMESTIC PARTNERS AFFIDAVIT**

STATE OF Florida )  
 : SS  
COUNTY OF Monroe )

I, the undersigned hereby duly sworn, depose and say that the firm of CH2M HILL Engineers, 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: [Signature]  
Sirpa H. Hall, P.E., Designated Manager

Sworn and subscribed before me this  
3rd day of April, 2017.

Stacey Robin Smith  
NOTARY PUBLIC, State of Florida at Large

My Commission Expires: 4/1/19



**City Ordinance Sec. 2-799**

**Requirements for City Contractors to Provide Equal Benefits for Domestic Partners**

(a) Definitions. For purposes of this section only, the following definitions shall apply:

- (1) **Benefits** means the following plan, program or policy provided or offered by a contractor to its employees as part of the employer's total compensation package: sick leave, bereavement leave, family medical leave, and health benefits.
- (2) **Bid** shall mean a competitive bid procedure established by the city through the issuance of an invitation to bid, request for proposals, request for qualifications, or request for letters of interest.
- (3) **Cash equivalent** means the amount of money paid to an employee with a domestic partner in lieu of providing benefits to the employee's domestic partner. The cash equivalent is equal to the employer's direct expense of providing benefits to an employee for his or her spouse.

The cash equivalents of the following benefits apply:

- a. For bereavement leave, cash payment for the number of days that would be allowed as paid time off for the death of a spouse. Cash payment would be in the form of the wages of the domestic partner employee for the number of days allowed.
  - b. For health benefits, the cost to the contractor of the contractor's share of the single monthly premiums that are being paid for the domestic partner employee, to be paid on a regular basis while the domestic partner employee maintains such insurance in force for himself or herself.
  - c. For family medical leave, cash payment for the number of days that would be allowed as time off for an employee to care for a spouse who has a serious health condition. Cash payment would be in the form of the wages of the domestic partner employee for the number of days allowed.
- (4) **Contract** means any written agreement, purchase order, standing order or similar instrument entered into pursuant to the award of a bid whereby the city is committed to expend or does expend funds in return for work, labor, professional services, consulting services, supplies, equipment, materials, construction, construction related services or any combination of the foregoing.
  - (5) **Contractor** means any person or persons, sole proprietorship, partnership, joint venture, corporation, or other form of doing business, that is awarded a bid and enters into a covered contract with the city, and which maintains five (5) or more full-time employees.
  - (6) **Covered contract** means a contract between the city and a contractor awarded subsequent to the date when this section becomes effective valued at over twenty thousand dollars (\$20,000).

- (7) **Domestic partner** shall mean any two adults of the same or different sex, who have registered as domestic partners with a governmental body pursuant to state or local law authorizing such registration, or with an internal registry maintained by the employer of at least one of the domestic partners. A contractor may institute an internal registry to allow for the provision of equal benefits to employees with domestic partner who do not register their partnerships pursuant to a governmental body authorizing such registration, or who are located in a jurisdiction where no such governmental domestic partnership registry exists. A contractor that institutes such registry shall not impose criteria for registration that are more stringent than those required for domestic partnership registration by the City of Key West pursuant to Chapter 38, Article V of the Key West Code of Ordinances.
  - (8) **Equal benefits** mean the equality of benefits between employees with spouses and employees with domestic partners, and/or between spouses of employees and domestic partners of employees.
- (b) Equal benefits requirements.
- (1) Except where otherwise exempt or prohibited by law, a Contractor awarded a covered contract pursuant to a bid process shall provide benefits to domestic partners of its employees on the same basis as it provides benefits to employees' spouses.
  - (2) All bid requests for covered contracts which are issued on or after the effective date of this section shall include the requirement to provide equal benefits in the procurement specifications in accordance with this section.
  - (3) The city shall not enter into any covered contract unless the contractor certifies that such contractor does not discriminate in the provision of benefits between employees with domestic partners and employees with spouses and/or between the domestic partners and spouses of such employees.
  - (4) Such certification shall be in writing and shall be signed by an authorized officer of the contractor and delivered, along with a description of the contractor's employee benefits plan, to the city's procurement director prior to entering into such covered contract.
  - (5) The city manager or his/her designee shall reject a contractor's certification of compliance if he/she determines that such contractor discriminates in the provision of benefits or if the city manager or designee determines that the certification was created, or is being used for the purpose of evading the requirements of this section.
  - (6) The contractor shall provide the city manager or his/her designee, access to its records for the purpose of audits and/or investigations to ascertain compliance with the provisions of this section, and upon request shall provide evidence that the contractor is in compliance with the provisions of this section upon each new bid, contract renewal, or when the city manager has received a complaint or has reason to believe the contractor may not be in compliance with the provisions of this section. This shall include but not be limited to providing the city manager or

his/her designee with certified copies of all of the contractor's records pertaining to its benefits policies and its employment policies and practices.

- (7) The contractor may not set up or use its contracting entity for the purpose of evading the requirements imposed by this section.

- (c) Mandatory contract provisions pertaining to equal benefits. Unless otherwise exempt, every covered contract shall contain language that obligates the contractor to comply with the applicable provisions of this section. The language shall include provisions for the following:

- (1) During the performance of the covered contract, the contractor certifies and represents that it will comply with this section.
- (2) The failure of the contractor to comply with this section will be deemed to be a material breach of the covered contract.
- (3) If the contractor fails to comply with this section, the city may terminate the covered contract and all monies due or to become due under the covered contract may be retained by the city. The city may also pursue any and all other remedies at law or in equity for any breach.
- (4) If the city manager or his designee determines that a contractor has set up or used its contracting entity for the purpose of evading the requirements of this section, the city may terminate the covered contract.

- (d) Enforcement. If the contractor fails to comply with the provisions of this section:

- (1) The failure to comply may be deemed to be a material breach of the covered contract; or
- (2) The city may terminate the covered contract; or
- (3) Monies due or to become due under the covered contract may be retained by the city until compliance is achieved; or
- (4) The city may also pursue any and all other remedies at law or in equity for any breach;
- (5) Failure to comply with this section may also subject contractor to the procedures set forth in Division 5 of this article, entitled "Debarment of contractors from city work."

- (e) Exceptions and waivers.

The provisions of this section shall not apply where:


- (1) The contractor does not provide benefits to employees' spouses.
- (2) The contractor is a religious organization, association, society or any non-profit charitable or educational institution or organization operated, supervised or controlled by or in conjunction with a religious organization, association or society.
- (3) The contractor is a governmental entity.

- (4) The sale or lease of city property.
- (5) The provision of this section would violate grant requirement, the laws, rules or regulations of federal or state law (for example, The acquisition services procured pursuant to Chapter 287.055, Florida Statutes known as the "Consultants' Competitive Negotiation Act").
- (6) Provided that the contractor does not discriminate in the provision of benefits, a contractor may also comply with this section by providing an employee with the cash equivalent of such benefits, if the city manager or his/her designee determines that either:
  - a. The contractor has made a reasonable yet unsuccessful effort to provide equal benefits. The contractor shall provide the city manager or his/her designee with sufficient proof of such inability to provide such benefit or benefits which shall include the measures taken to provide such benefits or benefits and the cash equivalent proposed, along with its certificate of compliance, as is required under this section.
- (7) The city commission waives compliance of this section in the best interest of the city, including but not limited to the following circumstances:
  - a. The covered contract is necessary to respond to an emergency.
  - b. Where only one bid response is received.
  - c. Where more than one bid response is received, but the bids demonstrate that none of the bidders can comply with the requirements of this section.
- (f) City's authority to cancel contract. Nothing in this section shall be construed to limit the city's authority to cancel or terminate a contract, deny or withdraw approval to perform a subcontract or provide supplies, issue a non-responsibility finding, issue a non-responsiveness finding, deny a person or entity prequalification, or otherwise deny a person or entity city business.
- (g) Timing of application. This section shall be applicable only to covered contracts awarded pursuant to bids which are after the date when this section becomes effective.

**INDEMNIFICATION**

To the fullest extent permitted by law, the CONSULTANT expressly agrees to indemnify and hold harmless the City of Key West, their officers, directors, agents, and employees (herein called the "indemnitees") from liabilities, damages, losses and costs, including, but not limited to, reasonable attorney's fees and court costs, such legal expenses to include costs incurred in establishing the indemnification and other rights agreed to in this Paragraph, to persons or property, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the CONSULTANT, its Sub-consultants or persons employed or utilized by them in the performance of the Contract. Claims by indemnitees for indemnification shall be limited to the amount of CONSULTANT's insurance or \$1 million per occurrence, whichever is greater. The parties acknowledge that the amount of the indemnity required hereunder bears a reasonable commercial relationship to the Contract and it is part of the project specifications or the bid documents, if any.

The indemnification obligations under the Contract shall not be restricted in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the CONSULTANT under workers' compensation acts, disability benefits acts, or other employee benefits acts, and shall extend to and include any actions brought by or in the name of any employee of the CONSULTANT or of any third party to whom CONSULTANT may subcontract a part or all of the Work. This indemnification shall continue beyond the date of completion of the work.

CONTRACTOR: CH2M HILL Engineers, Inc.  
9191 S. Jaimca Street  
Englewood, CO 80112-5946  
Address  
  
Signature  
Sirpa H. Hall, P.E.  
Print Name  
Designated Manager  
Title  
April 3, 2017  
Date

SEAL:

CONE OF SILENCE AFFIDAVIT

STATE OF Florida )  
 : SS  
COUNTY OF Monroe )

I the undersigned hereby duly sworn depose and say that all owner(s), partners, officers, directors, employees and agents representing the firm of CH2M HILL Engineers, 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).

*Sirpa H. Hall* (Sirpa H. Hall, P.E.)  
(signature) 4/3/17  
(date)

Sworn and subscribed before me this

3rd Day of April, 2017.

Stacey Robin Smith  
NOTARY PUBLIC, State of Florida at Large

My Commission Expires: April 1, 2019



**City Ordinance Sec. 2-773. - Cone of silence.**

- (a) *Definitions.* For purposes of this section, reference to one gender shall include the other, use of the plural shall include the singular, and use of the singular shall include the plural. The following definitions apply unless the context in which the word or phrase is used requires a different definition:
- (1) *Competitive solicitation* means a formal process by the City of Key West relating to the acquisition of goods or services, which process is intended to provide an equal and open opportunity to qualified persons and entities to be selected to provide the goods or services. Competitive solicitation shall include request for proposals ("RFP"), request for qualifications ("RFQ"), request for letters of interest ("RFLI"), invitation to bid ("ITB") or any other advertised solicitation.
  - (2) *Cone of silence* means a period of time during which there is a prohibition on communication regarding a particular competitive solicitation.
  - (3) *Evaluation or selection committee* means a group of persons appointed or designated by the city to evaluate, rank, select, or make a recommendation regarding a vendor or the vendor's response to the competitive solicitation. A member of such a committee shall be deemed a city official for the purposes of subsection (c) below.
  - (4) *Vendor* means a person or entity that has entered into or that desires to enter into a contract with the City of Key West or that seeks an award from the city to provide goods, perform a service, render an opinion or advice, or make a recommendation related to a competitive solicitation for compensation or other consideration.
  - (5) *Vendor's representative* means an owner, individual, employee, partner, officer, or member of the board of directors of a vendor, or a consultant, lobbyist, or actual or potential subcontractor or sub-consultant who acts at the behest of a vendor in communicating regarding a competitive solicitation.
- (b) *Prohibited communications.* A cone of silence shall be in effect during the course of a competitive solicitation and prohibit:
- (1) Any communication regarding a particular competitive solicitation between a potential vendor or vendor's representative and the city's administrative staff including, but not limited to, the city manager and his or her staff;
  - (2) Any communication regarding a particular competitive solicitation between a potential vendor or vendor's representative and the mayor, city commissioners, or their respective staff;
  - (3) Any communication regarding a particular competitive solicitation between a potential vendor or vendor's representative and any member of a city evaluation and/or selection committee therefore; and
  - (4) Any communication regarding a particular competitive solicitation between the mayor, city commissioners, or their respective staff, and a member of a city evaluation and/or selection committee therefore.
- (c) *Permitted communications.* Notwithstanding the foregoing, nothing contained herein shall prohibit:
- (1) Communication between members of the public who are not vendors or a vendor's representative and any city employee, official or member of the city commission;
  - (2) Communications in writing at any time with any city employee, official or member of the city commission, unless specifically prohibited by the applicable competitive solicitation.
    - (A) However, any written communication must be filed with the city clerk. Any city employee, official or member of the city commission receiving or making any written communication must immediately file it with the city clerk.
    - (B) The city clerk shall include all written communication as part of the agenda item when publishing information related to a particular competitive solicitation;



- (3) Oral communications at duly noticed pre-bid conferences;
- (4) Oral presentations before publically noticed evaluation and/or selection committees;
- (5) Contract discussions during any duly noticed public meeting;
- (6) Public presentations made to the city commission or advisory body thereof during any duly noticed public meeting;
- (7) Contract negotiations with city staff following the award of a competitive solicitation by the city commission; or
- (8) Purchases exempt from the competitive process pursuant to section 2-797 of these Code of Ordinances;

(d) *Procedure.*

- (1) The cone of silence shall be imposed upon each competitive solicitation at the time of public notice of such solicitation as provided by section 2-826 of this Code. Public notice of the cone of silence shall be included in the notice of the competitive solicitation. The city manager shall issue a written notice of the release of each competitive solicitation to the affected departments, with a copy thereof to each commission member, and shall include in any public solicitation for goods and services a statement disclosing the requirements of this ordinance.
- (2) The cone of silence shall terminate at the time the city commission or other authorized body makes final award or gives final approval of a contract, rejects all bids or responses to the competitive solicitation, or takes other action which ends the competitive solicitation.
- (3) Any city employee, official or member of the city commission that is approached concerning a competitive solicitation while the cone of silence is in effect shall notify such individual of the prohibitions contained in this section. While the cone of silence is in effect, any city employee, official or member of the city commission who is the recipient of any oral communication by a potential vendor or vendor's representative in violation of this section shall create a written record of the event. The record shall indicate the date of such communication, the persons with whom such communication occurred, and a general summation of the communication.

(e) *Violations/penalties and procedures.*

- (1) A sworn complaint alleging a violation of this ordinance may be filed with the city attorney's office. In each such instance, an initial investigation shall be performed to determine the existence of a violation. If a violation is found to exist, the penalties and process shall be as provided in section 1-15 of this Code.
- (2) In addition to the penalties described herein and otherwise provided by law, a violation of this ordinance shall render the competitive solicitation void at the discretion of the city commission.
- (3) Any person who violates a provision of this section shall be prohibited from serving on a City of Key West advisory board, evaluation and/or selection committee.
- (4) In addition to any other penalty provided by law, violation of any provision of this ordinance by a City of Key West employee shall subject said employee to disciplinary action up to and including dismissal.
- (5) If a vendor is determined to have violated the provisions of this section on two more occasions it shall constitute evidence under City Code section 2-834 that the vendor is not properly qualified to carry out the obligations or to complete the work contemplated by any new competitive solicitation. The city's purchasing agent shall also commence any available debarment from city work proceeding that may be available upon a finding of two or more violations by a vendor of this section.

(Ord. No. 13-11, § 1, 6-18-2013)



THE CITY OF KEY WEST

Post Office Box 1409 Key West, FL 33041-1409 (305) 809-3883

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**ADDENDUM NO. 1**

**GENERAL ENGINEERING SERVICES / RFQ # 17-002**

**March 20, 2017**

This addendum is issued as supplemental information to the RFQ for clarification of certain matters of both a general and a technical nature. The referenced Request for Qualifications (RFQ) package is hereby amended in accordance with the following items:

**On Page 2 of 49 Please make the following change:**

For information concerning this Request for Qualifications please contact **Janet Muccino, Project Manager**, Engineering Services Department only in writing and requests for information must be received at least ten (10) days prior to the date fixed for opening of responses to RFQ. The contact email address is [jmuccino@cityofkeywest-fl.gov](mailto:jmuccino@cityofkeywest-fl.gov). The City's "Cone of Silence" Ordinance Section 2-773 does not allow verbal communication.

**On Page 9 of 49 Please make the following change:**

**Contacts:**

All requests for information should be only in writing and emailed to **Janet Muccino, Project Manager** at [jmuccino@cityofkeywest-fl.gov](mailto:jmuccino@cityofkeywest-fl.gov) and requests for information must be received at least ten (10) days prior to the date fixed for the opening of responses to the RFQ. Any and all such interpretations and any supplemental instructions will be in the form of written addendum to the RFQ. If City issues an addendum, the Respondent has sole responsibility to receive any such addendum or any interpretations shall not relieve such Respondent from any obligation under his response as submitted. All addenda so issued shall become a part of the Contract document.

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

A handwritten signature in blue ink, appearing to read "Janet Muccino", is written over a horizontal line.

Signature

CH2M HILL Engineers, Inc.

Name of Business



THE CITY OF KEY WEST

Post Office Box 1409 Key West, FL 33041-1409 (305) 809-3883

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**ADDENDUM NO. 2**

**GENERAL ENGINEERING SERVICES / RFQ # 17-002**

**April 12, 2017**

This addendum is issued as supplemental information to the RFQ for clarification of certain matters of both a general and a technical nature. The referenced Request for Qualifications (RFQ) package is hereby amended in accordance with the following items:

- 1.) I was curious if for this contract, and MEP firm can apply as Prime for our area of discipline? Or would we need to team with other engineers – i.e. civil, structural, etc.

**An MEP can be prime; however, this RFQ is for general engineering services spanning the disciplines identified in the RFQ and teaming would be required. Discipline specific contracts will not be awarded**

- 2.) No 'Scope of Work' (listed on Page 7) has been provided for "Structural Engineering" services, mentioned on Page 4. Please clarify.

**Consultant team shall include licensed structural professional engineer/structural engineering firm to support evaluation and design of buildings (renovation and new), foundations, roof systems, coastal engineering, etc.**

- 3.) ***ADD THE FOLLOWING TO ARTICLE 4 / PART 3 / DRAFT AGREEMENT***

**ARTICLE 4**

**TERM OF AGREEMENT; TIME FOR PERFORMANCE; CONTRACTOR DAMAGES;**

4.6 The CONSULTANT shall provide design assistance to City staff and attend City Commission Meeting(s) should an omission, lack of detail or design considerations result in a Change Order issued by the Contractor against the City utilizing plans prepared and sealed by CONSULTANT. This assistance will be provided at no charge to the City to allow CONSULTANT the opportunity to address the issue leading to the Change Order to the satisfaction of the City Commission.

- 4.) Consultant team shall include licensed Landscape Architect/Landscape Architectural firm to support landscape and irrigation system design requirements. Experience with local landscaping conditions and plant materials preferred.

All Bidders shall acknowledge receipt and acceptance of this Addendum No. 2 by submitting the addendum with their proposal. Proposals submitted without acknowledgement or without this Addendum may be considered non-responsive.



CH2M HILL Engineers, Inc.

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Signature

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Name of Business

**AVIROM & ASSOCIATES, INC.**  
**Required Documentation**

**ANTI-KICKBACK AFFIDAVIT**

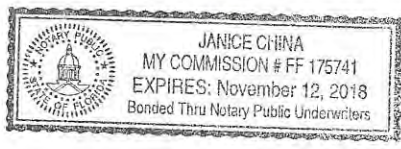
STATE OF FLORIDA                    )  
                                                  : SS  
COUNTY OF MONROE                )  
                                          Palm Beach

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: Michael D. Aviom  
Michael D. Aviom, President

Sworn and subscribed before me this  
6 day of April, 2017.

NOTARY PUBLIC, State of Florida at Large  
My Commission Expires: Janice China



**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. RFQ No. 17-002 for  
"General Engineering Services"

2. This sworn statement is submitted by Avirom & Associates, Inc.  
(Name of entity submitting sworn statement)

whose business address is 50 SW 2nd Avenue, Suite 102, Boca Raton, FL 33432

\_\_\_\_\_ and (if applicable) its Federal  
Employer Identification Number (FEIN) is 59-2101822 (If the entity has no FEIN,  
include the Social Security Number of the individual signing this sworn statement.)

3. My name is Michael D. Avirom and my relationship to  
(Please print name of individual signing)

the entity named above is President.

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(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of 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 the 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.)

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 General Services.)

(Signature) *M. D. Avrom*

(Date) April 6, 2017

STATE OF FLORIDA

COUNTY OF PALM BEACH

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

**Michael D. Avrom**  
(Name of individual signing)

who, after first being sworn by me, affixed his/her signature in the

space provided above on this 6 day of April, 2017.

My commission expires:  
NOTARY PUBLIC

*Janice China*





**INDEMNIFICATION**

To the fullest extent permitted by law, the CONSULTANT expressly agrees to indemnify and hold harmless the City of Key West, their officers, directors, agents, and employees (herein called the "indemnitees") from liabilities, damages, losses and costs, including, but not limited to, reasonable attorney's fees and court costs, such legal expenses to include costs incurred in establishing the indemnification and other rights agreed to in this Paragraph, to persons or property, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the CONSULTANT, its Sub-consultants or persons employed or utilized by them in the performance of the Contract. Claims by indemnitees for indemnification shall be limited to the amount of CONSULTANT's insurance or \$1 million per occurrence, whichever is greater. The parties acknowledge that the amount of the indemnity required hereunder bears a reasonable commercial relationship to the Contract and it is part of the project specifications or the bid documents, if any.

The indemnification obligations under the Contract shall not be restricted in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the CONSULTANT under workers' compensation acts, disability benefits acts, or other employee benefits acts, and shall extend to and include any actions brought by or in the name of any employee of the CONSULTANT or of any third party to whom CONSULTANT may subcontract a part or all of the Work. This indemnification shall continue beyond the date of completion of the work.

CONTRACTOR: Avirom & Associates, Inc.  
50 SW 2nd Avenue, Suite 102  
Boca Raton, Florida 33432

SEAL:



Address

Michael D. Avirom

Signature

Michael D. Avirom

Print Name

President

Title

April 6, 2017

Date

**EQUAL BENEFITS FOR DOMESTIC PARTNERS AFFIDAVIT**

STATE OF FLORIDA )  
: SS  
COUNTY OF PALM BEACH )

I, the undersigned hereby duly sworn, depose and say that the firm of Avirom & Associates, 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.

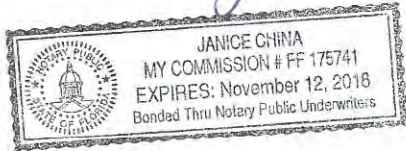
By: Michael D. Avirom  
Michael D. Avirom, President

Sworn and subscribed before me this

6 day of April, 2017.

NOTARY PUBLIC, State of Florida at Large

My Commission Expires: Janice China



**City Ordinance Sec. 2-799**

**Requirements for City Contractors to Provide Equal Benefits for Domestic Partners**

(a) Definitions. For purposes of this section only, the following definitions shall apply:

- (1) **Benefits** means the following plan, program or policy provided or offered by a contractor to its employees as part of the employer's total compensation package: sick leave, bereavement leave, family medical leave, and health benefits.
- (2) **Bid** shall mean a competitive bid procedure established by the city through the issuance of an invitation to bid, request for proposals, request for qualifications, or request for letters of interest.
- (3) **Cash equivalent** means the amount of money paid to an employee with a domestic partner in lieu of providing benefits to the employee's domestic partner. The cash equivalent is equal to the employer's direct expense of providing benefits to an employee for his or her spouse.

The cash equivalents of the following benefits apply:

- a. For bereavement leave, cash payment for the number of days that would be allowed as paid time off for the death of a spouse. Cash payment would be in the form of the wages of the domestic partner employee for the number of days allowed.
  - b. For health benefits, the cost to the contractor of the contractor's share of the single monthly premiums that are being paid for the domestic partner employee, to be paid on a regular basis while the domestic partner employee maintains such insurance in force for himself or herself.
  - c. For family medical leave, cash payment for the number of days that would be allowed as time off for an employee to care for a spouse who has a serious health condition. Cash payment would be in the form of the wages of the domestic partner employee for the number of days allowed.
- (4) **Contract** means any written agreement, purchase order, standing order or similar instrument entered into pursuant to the award of a bid whereby the city is committed to expend or does expend funds in return for work, labor, professional services, consulting services, supplies, equipment, materials, construction, construction related services or any combination of the foregoing.
  - (5) **Contractor** means any person or persons, sole proprietorship, partnership, joint venture, corporation, or other form of doing business, that is awarded a bid and enters into a covered contract with the city, and which maintains five (5) or more full-time employees.
  - (6) **Covered contract** means a contract between the city and a contractor awarded subsequent to the date when this section becomes effective valued at over twenty thousand dollars (\$20,000).

- (7) **Domestic partner** shall mean any two adults of the same or different sex, who have registered as domestic partners with a governmental body pursuant to state or local law authorizing such registration, or with an internal registry maintained by the employer of at least one of the domestic partners. A contractor may institute an internal registry to allow for the provision of equal benefits to employees with domestic partner who do not register their partnerships pursuant to a governmental body authorizing such registration, or who are located in a jurisdiction where no such governmental domestic partnership registry exists. A contractor that institutes such registry shall not impose criteria for registration that are more stringent than those required for domestic partnership registration by the City of Key West pursuant to Chapter 38, Article V of the Key West Code of Ordinances.
- (8) **Equal benefits** mean the equality of benefits between employees with spouses and employees with domestic partners, and/or between spouses of employees and domestic partners of employees.
- (b) Equal benefits requirements.
- (1) Except where otherwise exempt or prohibited by law, a Contractor awarded a covered contract pursuant to a bid process shall provide benefits to domestic partners of its employees on the same basis as it provides benefits to employees' spouses.
- (2) All bid requests for covered contracts which are issued on or after the effective date of this section shall include the requirement to provide equal benefits in the procurement specifications in accordance with this section.
- (3) The city shall not enter into any covered contract unless the contractor certifies that such contractor does not discriminate in the provision of benefits between employees with domestic partners and employees with spouses and/or between the domestic partners and spouses of such employees.
- (4) Such certification shall be in writing and shall be signed by an authorized officer of the contractor and delivered, along with a description of the contractor's employee benefits plan, to the city's procurement director prior to entering into such covered contract.
- (5) The city manager or his/her designee shall reject a contractor's certification of compliance if he/she determines that such contractor discriminates in the provision of benefits or if the city manager or designee determines that the certification was created, or is being used for the purpose of evading the requirements of this section.
- (6) The contractor shall provide the city manager or his/her designee, access to its records for the purpose of audits and/or investigations to ascertain compliance with the provisions of this section, and upon request shall provide evidence that the contractor is in compliance with the provisions of this section upon each new bid, contract renewal, or when the city manager has received a complaint or has reason to believe the contractor may not be in compliance with the provisions of this section. This shall include but not be limited to providing the city manager or

his/her designee with certified copies of all of the contractor's records pertaining to its benefits policies and its employment policies and practices.

- (7) The contractor may not set up or use its contracting entity for the purpose of evading the requirements imposed by this section.
- (c) Mandatory contract provisions pertaining to equal benefits. Unless otherwise exempt, every covered contract shall contain language that obligates the contractor to comply with the applicable provisions of this section. The language shall include provisions for the following:
- (1) During the performance of the covered contract, the contractor certifies and represents that it will comply with this section.
  - (2) The failure of the contractor to comply with this section will be deemed to be a material breach of the covered contract.
  - (3) If the contractor fails to comply with this section, the city may terminate the covered contract and all monies due or to become due under the covered contract may be retained by the city. The city may also pursue any and all other remedies at law or in equity for any breach.
  - (4) If the city manager or his designee determines that a contractor has set up or used its contracting entity for the purpose of evading the requirements of this section, the city may terminate the covered contract.
- (d) Enforcement. If the contractor fails to comply with the provisions of this section:
- (1) The failure to comply may be deemed to be a material breach of the covered contract; or
  - (2) The city may terminate the covered contract; or
  - (3) Monies due or to become due under the covered contract may be retained by the city until compliance is achieved; or
  - (4) The city may also pursue any and all other remedies at law or in equity for any breach;
  - (5) Failure to comply with this section may also subject contractor to the procedures set forth in Division 5 of this article, entitled "Debarment of contractors from city work."
- (e) Exceptions and waivers.

The provisions of this section shall not apply where:

- (1) The contractor does not provide benefits to employees' spouses.
- (2) The contractor is a religious organization, association, society or any non-profit charitable or educational institution or organization operated, supervised or controlled by or in conjunction with a religious organization, association or society.
- (3) The contractor is a governmental entity.

- (4) The sale or lease of city property.
- (5) The provision of this section would violate grant requirement, the laws, rules or regulations of federal or state law (for example, The acquisition services procured pursuant to Chapter 287.055, Florida Statutes known as the "Consultants' Competitive Negotiation Act").
- (6) Provided that the contractor does not discriminate in the provision of benefits, a contractor may also comply with this section by providing an employee with the cash equivalent of such benefits, if the city manager or his/her designee determines that either:
  - a. The contractor has made a reasonable yet unsuccessful effort to provide equal benefits. The contractor shall provide the city manager or his/her designee with sufficient proof of such inability to provide such benefit or benefits which shall include the measures taken to provide such benefits or benefits and the cash equivalent proposed, along with its certificate of compliance, as is required under this section.
- (7) The city commission waives compliance of this section in the best interest of the city, including but not limited to the following circumstances:
  - a. The covered contract is necessary to respond to an emergency.
  - b. Where only one bid response is received.
  - c. Where more than one bid response is received, but the bids demonstrate that none of the bidders can comply with the requirements of this section.
- (f) City's authority to cancel contract. Nothing in this section shall be construed to limit the city's authority to cancel or terminate a contract, deny or withdraw approval to perform a subcontract or provide supplies, issue a non-responsibility finding, issue a non-responsiveness finding, deny a person or entity prequalification, or otherwise deny a person or entity city business.
- (g) Timing of application. This section shall be applicable only to covered contracts awarded pursuant to bids which are after the date when this section becomes effective.



**City Ordinance Sec. 2-773. - Cone of silence.**

- (a) *Definitions.* For purposes of this section, reference to one gender shall include the other, use of the plural shall include the singular, and use of the singular shall include the plural. The following definitions apply unless the context in which the word or phrase is used requires a different definition:
- (1) *Competitive solicitation* means a formal process by the City of Key West relating to the acquisition of goods or services, which process is intended to provide an equal and open opportunity to qualified persons and entities to be selected to provide the goods or services. Competitive solicitation shall include request for proposals ("RFP"), request for qualifications ("RFQ"), request for letters of interest ("RFLI"), invitation to bid ("ITB") or any other advertised solicitation.
  - (2) *Cone of silence* means a period of time during which there is a prohibition on communication regarding a particular competitive solicitation.
  - (3) *Evaluation or selection committee* means a group of persons appointed or designated by the city to evaluate, rank, select, or make a recommendation regarding a vendor or the vendor's response to the competitive solicitation. A member of such a committee shall be deemed a city official for the purposes of subsection (c) below.
  - (4) *Vendor* means a person or entity that has entered into or that desires to enter into a contract with the City of Key West or that seeks an award from the city to provide goods, perform a service, render an opinion or advice, or make a recommendation related to a competitive solicitation for compensation or other consideration.
  - (5) *Vendor's representative* means an owner, individual, employee, partner, officer, or member of the board of directors of a vendor, or a consultant, lobbyist, or actual or potential subcontractor or sub-consultant who acts at the behest of a vendor in communicating regarding a competitive solicitation.
- (b) *Prohibited communications.* A cone of silence shall be in effect during the course of a competitive solicitation and prohibit:
- (1) Any communication regarding a particular competitive solicitation between a potential vendor or vendor's representative and the city's administrative staff including, but not limited to, the city manager and his or her staff;
  - (2) Any communication regarding a particular competitive solicitation between a potential vendor or vendor's representative and the mayor, city commissioners, or their respective staff;
  - (3) Any communication regarding a particular competitive solicitation between a potential vendor or vendor's representative and any member of a city evaluation and/or selection committee therefore; and
  - (4) Any communication regarding a particular competitive solicitation between the mayor, city commissioners, or their respective staff, and a member of a city evaluation and/or selection committee therefore.
- (c) *Permitted communications.* Notwithstanding the foregoing, nothing contained herein shall prohibit:
- (1) Communication between members of the public who are not vendors or a vendor's representative and any city employee, official or member of the city commission;
  - (2) Communications in writing at any time with any city employee, official or member of the city commission, unless specifically prohibited by the applicable competitive solicitation.
    - (A) However, any written communication must be filed with the city clerk. Any city employee, official or member of the city commission receiving or making any written communication must immediately file it with the city clerk.
    - (B) The city clerk shall include all written communication as part of the agenda item when publishing information related to a particular competitive solicitation;



- (3) Oral communications at duly noticed pre-bid conferences;
- (4) Oral presentations before publically noticed evaluation and/or selection committees;
- (5) Contract discussions during any duly noticed public meeting;
- (6) Public presentations made to the city commission or advisory body thereof during any duly noticed public meeting;
- (7) Contract negotiations with city staff following the award of a competitive solicitation by the city commission; or
- (8) Purchases exempt from the competitive process pursuant to section 2-797 of these Code of Ordinances;

(d) *Procedure.*

- (1) The cone of silence shall be imposed upon each competitive solicitation at the time of public notice of such solicitation as provided by section 2-826 of this Code. Public notice of the cone of silence shall be included in the notice of the competitive solicitation. The city manager shall issue a written notice of the release of each competitive solicitation to the affected departments, with a copy thereof to each commission member, and shall include in any public solicitation for goods and services a statement disclosing the requirements of this ordinance.
- (2) The cone of silence shall terminate at the time the city commission or other authorized body makes final award or gives final approval of a contract, rejects all bids or responses to the competitive solicitation, or takes other action which ends the competitive solicitation.
- (3) Any city employee, official or member of the city commission that is approached concerning a competitive solicitation while the cone of silence is in effect shall notify such individual of the prohibitions contained in this section. While the cone of silence is in effect, any city employee, official or member of the city commission who is the recipient of any oral communication by a potential vendor or vendor's representative in violation of this section shall create a written record of the event. The record shall indicate the date of such communication, the persons with whom such communication occurred, and a general summation of the communication.

(e) *Violations/penalties and procedures.*

- (1) A sworn complaint alleging a violation of this ordinance may be filed with the city attorney's office. In each such instance, an initial investigation shall be performed to determine the existence of a violation. If a violation is found to exist, the penalties and process shall be as provided in section 1-15 of this Code.
- (2) In addition to the penalties described herein and otherwise provided by law, a violation of this ordinance shall render the competitive solicitation void at the discretion of the city commission.
- (3) Any person who violates a provision of this section shall be prohibited from serving on a City of Key West advisory board, evaluation and/or selection committee.
- (4) In addition to any other penalty provided by law, violation of any provision of this ordinance by a City of Key West employee shall subject said employee to disciplinary action up to and including dismissal.
- (5) If a vendor is determined to have violated the provisions of this section on two more occasions it shall constitute evidence under City Code section 2-834 that the vendor is not properly qualified to carry out the obligations or to complete the work contemplated by any new competitive solicitation. The city's purchasing agent shall also commence any available debarment from city work proceeding that may be available upon a finding of two or more violations by a vendor of this section.

(Ord. No. 13-11, § 1.6-18-2013)

**NUTTING ENGINEERS OF FLORIDA, INC.**  
**Required Documentation**

**ANTI-KICKBACK AFFIDAVIT**

STATE OF FLORIDA                    )  
                                                  : SS  
COUNTY OF MONROE                )

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: Richard C. Wohlfarth  
Richard C. Wohlfarth, PE

Sworn and subscribed before me this

10<sup>th</sup> day of April, 2017.

Tracy L. Meeks  
NOTARY PUBLIC, State of Florida at Large

My Commission Expires: \_\_\_\_\_



**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. RFQ # 17-002 for General Engineering Services
  
2. This sworn statement is submitted by Nutting Engineers of Florida, Inc.  
(Name of entity submitting sworn statement)  
  
whose business address is 2051 NW 112 Avenue, Suite 126, Miami, Florida 33172  
  
\_\_\_\_\_ and (if applicable) its Federal Employer Identification Number (FEIN) is 59-1159182 (If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement.)
  
3. My name is Richard C. Wohlfarth, PE and my relationship to  
(Please print name of individual signing)  
  
the entity named above is Principal/Vice President.
  
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(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of 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 the 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.)

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 General Services.)

*Richard Wohlfarth*

(Signature)

April 6, 2017  
(Date)

STATE OF Florida

COUNTY OF Miami-Dade

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

Richard C. Wohlfarth, PE who, after first being sworn by me, affixed his/her signature in the  
(Name of individual signing)

space provided above on this 10<sup>th</sup> day of April 2017

My commission expires:  
NOTARY PUBLIC

*Tracy L. Meeks*



**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 Nuting Engineers of Florida, 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: Richard C. Wohlfarth  
Richard C. Wohlfarth, PE

Sworn and subscribed before me this

10th day of April, 2017

Tracy L. Meeks  
NOTARY PUBLIC, State of Florida at Large

My Commission Expires: \_\_\_\_\_



**City Ordinance Sec. 2-799**

**Requirements for City Contractors to Provide Equal Benefits for Domestic Partners**

(a) Definitions. For purposes of this section only, the following definitions shall apply:

- (1) **Benefits** means the following plan, program or policy provided or offered by a contractor to its employees as part of the employer's total compensation package: sick leave, bereavement leave, family medical leave, and health benefits.
- (2) **Bid** shall mean a competitive bid procedure established by the city through the issuance of an invitation to bid, request for proposals, request for qualifications, or request for letters of interest.
- (3) **Cash equivalent** means the amount of money paid to an employee with a domestic partner in lieu of providing benefits to the employee's domestic partner. The cash equivalent is equal to the employer's direct expense of providing benefits to an employee for his or her spouse.

The cash equivalents of the following benefits apply:

- a. For bereavement leave, cash payment for the number of days that would be allowed as paid time off for the death of a spouse. Cash payment would be in the form of the wages of the domestic partner employee for the number of days allowed.
  - b. For health benefits, the cost to the contractor of the contractor's share of the single monthly premiums that are being paid for the domestic partner employee, to be paid on a regular basis while the domestic partner employee maintains such insurance in force for himself or herself.
  - c. For family medical leave, cash payment for the number of days that would be allowed as time off for an employee to care for a spouse who has a serious health condition. Cash payment would be in the form of the wages of the domestic partner employee for the number of days allowed.
- (4) **Contract** means any written agreement, purchase order, standing order or similar instrument entered into pursuant to the award of a bid whereby the city is committed to expend or does expend funds in return for work, labor, professional services, consulting services, supplies, equipment, materials, construction, construction related services or any combination of the foregoing.
  - (5) **Contractor** means any person or persons, sole proprietorship, partnership, joint venture, corporation, or other form of doing business, that is awarded a bid and enters into a covered contract with the city, and which maintains five (5) or more full-time employees.
  - (6) **Covered contract** means a contract between the city and a contractor awarded subsequent to the date when this section becomes effective valued at over twenty thousand dollars (\$20,000).

- (7) **Domestic partner** shall mean any two adults of the same or different sex, who have registered as domestic partners with a governmental body pursuant to state or local law authorizing such registration, or with an internal registry maintained by the employer of at least one of the domestic partners. A contractor may institute an internal registry to allow for the provision of equal benefits to employees with domestic partner who do not register their partnerships pursuant to a governmental body authorizing such registration, or who are located in a jurisdiction where no such governmental domestic partnership registry exists. A contractor that institutes such registry shall not impose criteria for registration that are more stringent than those required for domestic partnership registration by the City of Key West pursuant to Chapter 38, Article V of the Key West Code of Ordinances.
  - (8) **Equal benefits** mean the equality of benefits between employees with spouses and employees with domestic partners, and/or between spouses of employees and domestic partners of employees.
- (b) Equal benefits requirements.
- (1) Except where otherwise exempt or prohibited by law, a Contractor awarded a covered contract pursuant to a bid process shall provide benefits to domestic partners of its employees on the same basis as it provides benefits to employees' spouses.
  - (2) All bid requests for covered contracts which are issued on or after the effective date of this section shall include the requirement to provide equal benefits in the procurement specifications in accordance with this section.
  - (3) The city shall not enter into any covered contract unless the contractor certifies that such contractor does not discriminate in the provision of benefits between employees with domestic partners and employees with spouses and/or between the domestic partners and spouses of such employees.
  - (4) Such certification shall be in writing and shall be signed by an authorized officer of the contractor and delivered, along with a description of the contractor's employee benefits plan, to the city's procurement director prior to entering into such covered contract.
  - (5) The city manager or his/her designee shall reject a contractor's certification of compliance if he/she determines that such contractor discriminates in the provision of benefits or if the city manager or designee determines that the certification was created, or is being used for the purpose of evading the requirements of this section.
  - (6) The contractor shall provide the city manager or his/her designee, access to its records for the purpose of audits and/or investigations to ascertain compliance with the provisions of this section, and upon request shall provide evidence that the contractor is in compliance with the provisions of this section upon each new bid, contract renewal, or when the city manager has received a complaint or has reason to believe the contractor may not be in compliance with the provisions of this section. This shall include but not be limited to providing the city manager or



his/her designee with certified copies of all of the contractor's records pertaining to its benefits policies and its employment policies and practices.

- (7) The contractor may not set up or use its contracting entity for the purpose of evading the requirements imposed by this section.

- (c) Mandatory contract provisions pertaining to equal benefits. Unless otherwise exempt, every covered contract shall contain language that obligates the contractor to comply with the applicable provisions of this section. The language shall include provisions for the following:

- (1) During the performance of the covered contract, the contractor certifies and represents that it will comply with this section.
- (2) The failure of the contractor to comply with this section will be deemed to be a material breach of the covered contract.
- (3) If the contractor fails to comply with this section, the city may terminate the covered contract and all monies due or to become due under the covered contract may be retained by the city. The city may also pursue any and all other remedies at law or in equity for any breach.
- (4) If the city manager or his designee determines that a contractor has set up or used its contracting entity for the purpose of evading the requirements of this section, the city may terminate the covered contract.

- (d) Enforcement. If the contractor fails to comply with the provisions of this section:

- (1) The failure to comply may be deemed to be a material breach of the covered contract; or
- (2) The city may terminate the covered contract; or
- (3) Monies due or to become due under the covered contract may be retained by the city until compliance is achieved; or
- (4) The city may also pursue any and all other remedies at law or in equity for any breach;
- (5) Failure to comply with this section may also subject contractor to the procedures set forth in Division 5 of this article, entitled "Debarment of contractors from city work."

- (e) Exceptions and waivers.

The provisions of this section shall not apply where:

- (1) The contractor does not provide benefits to employees' spouses.
- (2) The contractor is a religious organization, association, society or any non-profit charitable or educational institution or organization operated, supervised or controlled by or in conjunction with a religious organization, association or society.
- (3) The contractor is a governmental entity.

- (4) The sale or lease of city property.
- (5) The provision of this section would violate grant requirement, the laws, rules or regulations of federal or state law (for example, The acquisition services procured pursuant to Chapter 287.055, Florida Statutes known as the "Consultants' Competitive Negotiation Act").
- (6) Provided that the contractor does not discriminate in the provision of benefits, a contractor may also comply with this section by providing an employee with the cash equivalent of such benefits, if the city manager or his/her designee determines that either:
  - a. The contractor has made a reasonable yet unsuccessful effort to provide equal benefits. The contractor shall provide the city manager or his/her designee with sufficient proof of such inability to provide such benefit or benefits which shall include the measures taken to provide such benefits or benefits and the cash equivalent proposed, along with its certificate of compliance, as is required under this section.
- (7) The city commission waives compliance of this section in the best interest of the city, including but not limited to the following circumstances:
  - a. The covered contract is necessary to respond to an emergency.
  - b. Where only one bid response is received.
  - c. Where more than one bid response is received, but the bids demonstrate that none of the bidders can comply with the requirements of this section.
- (f) City's authority to cancel contract. Nothing in this section shall be construed to limit the city's authority to cancel or terminate a contract, deny or withdraw approval to perform a subcontract or provide supplies, issue a non-responsibility finding, issue a non-responsiveness finding, deny a person or entity prequalification, or otherwise deny a person or entity city business.
- (g) Timing of application. This section shall be applicable only to covered contracts awarded pursuant to bids which are after the date when this section becomes effective.

**INDEMNIFICATION**

To the fullest extent permitted by law, the CONSULTANT expressly agrees to indemnify and hold harmless the City of Key West, their officers, directors, agents, and employees (herein called the "indemnitees") from liabilities, damages, losses and costs, including, but not limited to, reasonable attorney's fees and court costs, such legal expenses to include costs incurred in establishing the indemnification and other rights agreed to in this Paragraph, to persons or property, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the CONSULTANT, its Sub-consultants or persons employed or utilized by them in the performance of the Contract. Claims by indemnitees for indemnification shall be limited to the amount of CONSULTANT's insurance or \$1 million per occurrence, whichever is greater. The parties acknowledge that the amount of the indemnity required hereunder bears a reasonable commercial relationship to the Contract and it is part of the project specifications or the bid documents, if any.

The indemnification obligations under the Contract shall not be restricted in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the CONSULTANT under workers' compensation acts, disability benefits acts, or other employee benefits acts, and shall extend to and include any actions brought by or in the name of any employee of the CONSULTANT or of any third party to whom CONSULTANT may subcontract a part or all of the Work. This indemnification shall continue beyond the date of completion of the work.

CONTRACTOR: Nutting Engineers of Florida, Inc.

SEAL:

2051 NW 112 Avenue, Suite 126, Miami, Florida 33172  
Address

  
Signature

Richard C. Wohlfarth, PE  
Print Name

Principal/Vice President/Director of Engineering  
Title

April 6, 2017  
Date

**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 Nutting Engineers of Florida, 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).

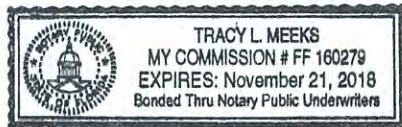
*Richard Wohlfarth*  
(signature) Richard C. Wohlfarth, PE  
April 6, 2017  
(date)

Sworn and subscribed before me this

10<sup>th</sup> Day of April, 2017

*Tracy L. Meeks*  
NOTARY PUBLIC, State of Florida at Large

My Commission Expires: \_\_\_\_\_



**City Ordinance Sec. 2-773. - Cone of silence.**

- (a) *Definitions.* For purposes of this section, reference to one gender shall include the other, use of the plural shall include the singular, and use of the singular shall include the plural. The following definitions apply unless the context in which the word or phrase is used requires a different definition:
- (1) *Competitive solicitation* means a formal process by the City of Key West relating to the acquisition of goods or services, which process is intended to provide an equal and open opportunity to qualified persons and entities to be selected to provide the goods or services. Competitive solicitation shall include request for proposals ("RFP"), request for qualifications ("RFQ"), request for letters of interest ("RFLI"), invitation to bid ("ITB") or any other advertised solicitation.
  - (2) *Cone of silence* means a period of time during which there is a prohibition on communication regarding a particular competitive solicitation.
  - (3) *Evaluation or selection committee* means a group of persons appointed or designated by the city to evaluate, rank, select, or make a recommendation regarding a vendor or the vendor's response to the competitive solicitation. A member of such a committee shall be deemed a city official for the purposes of subsection (c) below.
  - (4) *Vendor* means a person or entity that has entered into or that desires to enter into a contract with the City of Key West or that seeks an award from the city to provide goods, perform a service, render an opinion or advice, or make a recommendation related to a competitive solicitation for compensation or other consideration.
  - (5) *Vendor's representative* means an owner, individual, employee, partner, officer, or member of the board of directors of a vendor, or a consultant, lobbyist, or actual or potential subcontractor or sub-consultant who acts at the behest of a vendor in communicating regarding a competitive solicitation.
- (b) *Prohibited communications.* A cone of silence shall be in effect during the course of a competitive solicitation and prohibit:
- (1) Any communication regarding a particular competitive solicitation between a potential vendor or vendor's representative and the city's administrative staff including, but not limited to, the city manager and his or her staff;
  - (2) Any communication regarding a particular competitive solicitation between a potential vendor or vendor's representative and the mayor, city commissioners, or their respective staff;
  - (3) Any communication regarding a particular competitive solicitation between a potential vendor or vendor's representative and any member of a city evaluation and/or selection committee therefore; and
  - (4) Any communication regarding a particular competitive solicitation between the mayor, city commissioners, or their respective staff, and a member of a city evaluation and/or selection committee therefore.
- (c) *Permitted communications.* Notwithstanding the foregoing, nothing contained herein shall prohibit:
- (1) Communication between members of the public who are not vendors or a vendor's representative and any city employee, official or member of the city commission;
  - (2) Communications in writing at any time with any city employee, official or member of the city commission, unless specifically prohibited by the applicable competitive solicitation.
    - (A) However, any written communication must be filed with the city clerk. Any city employee, official or member of the city commission receiving or making any written communication must immediately file it with the city clerk.
    - (B) The city clerk shall include all written communication as part of the agenda item when publishing information related to a particular competitive solicitation;

- (3) Oral communications at duly noticed pre-bid conferences;
- (4) Oral presentations before publically noticed evaluation and/or selection committees;
- (5) Contract discussions during any duly noticed public meeting;
- (6) Public presentations made to the city commission or advisory body thereof during any duly noticed public meeting;
- (7) Contract negotiations with city staff following the award of a competitive solicitation by the city commission; or
- (8) Purchases exempt from the competitive process pursuant to section 2-797 of these Code of Ordinances;

(d) *Procedure.*

- (1) The cone of silence shall be imposed upon each competitive solicitation at the time of public notice of such solicitation as provided by section 2-826 of this Code. Public notice of the cone of silence shall be included in the notice of the competitive solicitation. The city manager shall issue a written notice of the release of each competitive solicitation to the affected departments, with a copy thereof to each commission member, and shall include in any public solicitation for goods and services a statement disclosing the requirements of this ordinance.
- (2) The cone of silence shall terminate at the time the city commission or other authorized body makes final award or gives final approval of a contract, rejects all bids or responses to the competitive solicitation, or takes other action which ends the competitive solicitation.
- (3) Any city employee, official or member of the city commission that is approached concerning a competitive solicitation while the cone of silence is in effect shall notify such individual of the prohibitions contained in this section. While the cone of silence is in effect, any city employee, official or member of the city commission who is the recipient of any oral communication by a potential vendor or vendor's representative in violation of this section shall create a written record of the event. The record shall indicate the date of such communication, the persons with whom such communication occurred, and a general summation of the communication.

(e) *Violations/penalties and procedures.*

- (1) A sworn complaint alleging a violation of this ordinance may be filed with the city attorney's office. In each such instance, an initial investigation shall be performed to determine the existence of a violation. If a violation is found to exist, the penalties and process shall be as provided in section 1-15 of this Code.
- (2) In addition to the penalties described herein and otherwise provided by law, a violation of this ordinance shall render the competitive solicitation void at the discretion of the city commission.
- (3) Any person who violates a provision of this section shall be prohibited from serving on a City of Key West advisory board, evaluation and/or selection committee.
- (4) In addition to any other penalty provided by law, violation of any provision of this ordinance by a City of Key West employee shall subject said employee to disciplinary action up to and including dismissal.
- (5) If a vendor is determined to have violated the provisions of this section on two more occasions it shall constitute evidence under City Code section 2-834 that the vendor is not properly qualified to carry out the obligations or to complete the work contemplated by any new competitive solicitation. The city's purchasing agent shall also commence any available debarment from city work proceeding that may be available upon a finding of two or more violations by a vendor of this section.

(Ord. No. 13-11, § 1, 6-18-2013)



## 8. Proof of Insurance

CH2M has enjoyed an excellent relationship with Marsh USA, Inc., our insurance broker, for more than 20 years, and continues its long-term association with its insurance underwriters. Because of our continued relations and underwriter loyalty, we have one of the broadest coverage programs in the industry with premier carriers, all of which have A.M. Best financial ratings of A or A+ XV.

All our firm's projects are underwritten by insurance carriers that provide comprehensive coverage that meets or exceeds client minimum coverages and address indemnification requirements for a range of risks (e.g., pollution liability, professional liability, excess liability, construction related risks, stop loss, property transfer, personal injury, property damage and other risks).

A standard general liability Memorandum of Insurance for our firm can be found on the following page. Once selected by the City, we will be pleased to provide a certificate of insurance in the specific amounts required.



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
04/25/2016

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).

<b>PRODUCER</b> MARSH USA INC. 1225 17TH STREET, SUITE 1300 DENVER, CO 80202-5534  15114 -MOI1-16/17	<b>CONTACT NAME:</b> PHONE (A/C, No, Ext): E-MAIL ADDRESS:	FAX (A/C, No):
	<b>INSURER(S) AFFORDING COVERAGE</b>	
<b>INSURED</b> CH2M HILL GLOBAL, INC. CH2M HILL ENGINEERS, INC. CH2M HILL E&C, INC. LOCKWOOD GREENE, INC. ET.AL.	<b>INSURER A :</b> Greenwich Insurance Company      22322	
	<b>INSURER B :</b> National Fire & Marine Insurance Co      20079	
	<b>INSURER C :</b> XL Specialty Insurance Company      37885	
	<b>INSURER D :</b> Zurich American Insurance Co      16535	
	<b>INSURER E :</b>	
	<b>INSURER F :</b>	

**COVERAGES**      **CERTIFICATE NUMBER:** SEA-002836228-18      **REVISION NUMBER:** 8

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

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> \$500,000 SIR  GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:	X	X	RGE500025505	05/01/2016	05/01/2017	EACH OCCURRENCE \$ 1,500,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,500,000 MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ 1,500,000 GENERAL AGGREGATE \$ 5,000,000 PRODUCTS - COMP/OP AGG \$ 5,000,000 \$
A	<b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS	X	X	RAD500025405	05/01/2016	05/01/2017	COMBINED SINGLE LIMIT (Ea accident) \$ 2,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED    RETENTION \$			42UMO30247601	05/01/2016	05/01/2017	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$
C	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	RWD500025205 (AOS) RWR500025305 (WI)	05/01/2016 05/01/2016	05/01/2017 05/01/2017	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
D	<b>PROFESSIONAL LIABILITY*</b>			EOC3829621-14	05/01/2016	05/01/2017	Each Claim & Aggregate Each \$2,000,000 Policy Period

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)**  
THE CERTIFICATE HOLDER IS INCLUDED AS AN ADDITIONAL INSURED ON THE GENERAL LIABILITY AND AUTOMOBILE LIABILITY POLICIES AS REQUIRED BY WRITTEN CONTRACT OR AGREEMENT. COVERAGE PROVIDED BY THE ABOVE GENERAL LIABILITY AND AUTO POLICIES SHALL BE PRIMARY AND NON-CONTRIBUTORY AND IS LIMITED TO THE LIABILITY RESULTING FROM THE NAMED INSURED'S OWNERSHIP AND/OR OPERATIONS. GENERAL LIABILITY AND AUTO LIABILITY INCLUDE SEPARATION OF INSUREDS AND NO CROSS SUITS EXCLUSION. GENERAL LIABILITY, AUTO LIABILITY AND WORKERS' COMPENSATION POLICIES INCLUDE A WAIVER OF SUBROGATION.

<b>CERTIFICATE HOLDER</b>  CH2M HILL GLOBAL, INC. CH2M HILL ENGINEERS, INC. CH2M HILL E&C, INC. LOCKWOOD GREENE, INC. ET.AL.	<b>CANCELLATION</b>  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 of Marsh USA Inc. Sharon A. Hammer <i>Sharon A. Hammer</i>
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**ADDITIONAL REMARKS SCHEDULE**

AGENCY MARSH USA INC.		NAMED INSURED CH2M HILL GLOBAL, INC. CH2M HILL ENGINEERS, INC. CH2M HILL E&C, INC. LOCKWOOD GREENE, INC. ET.AL.
POLICY NUMBER		
CARRIER	NAIC CODE	
EFFECTIVE DATE:		

**ADDITIONAL REMARKS**

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,  
 FORM NUMBER: 25 FORM TITLE: Certificate of Liability Insurance

CONTRACTOR'S POLLUTION LEGAL LIABILITY  
 INSURER E: INDIAN HARBOR INSURANCE CO.  
 POLICY NO. PEC003468105  
 POLICY TERM: 05/01/2016 - 05/01/2017  
 EACH POLLUTION CONDITION \$2,000,000  
 AGGREGATE \$2,000,000  
 \*FOR PROFESSIONAL LIABILITY COVERAGE, THE AGGREGATE LIMIT IS THE TOTAL INSURANCE AVAILABLE FOR CLAIMS PRESENTED WITHIN THE POLICY PERIOD FOR ALL OPERATIONS OF THE INSURED. THE LIMIT WILL BE REDUCED BY PAYMENTS OF INDEMNITY AND EXPENSE.



## 9. Professional Licenses

As demonstrated in the attached documentation, CH2M is licensed to operate in the State of Florida and to practice Professional Engineering, Architecture, and Construction Management/Contractor.

We are further licensed by the City of Key West and Monroe County and are pre-qualified by the Florida Department of Transportation.

# *State of Florida*

## *Department of State*

I certify from the records of this office that CH2M HILL ENGINEERS, INC. is a Delaware corporation authorized to transact business in the State of Florida, qualified on January 7, 2004.

The document number of this corporation is F04000000108.

I further certify that said corporation has paid all fees due this office through December 31, 2016, that its most recent annual report/uniform business report was filed on April 19, 2016, and that its status is active.

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

*Given under my hand and the  
Great Seal of the State of Florida  
at Tallahassee, the Capital, this  
the Sixteenth day of March, 2017*



*Ken DeFoner*  
*Secretary of State*

Tracking Number: CU4318234738

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

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



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

CH2M Hill Engineers, Inc.  
9191 S. JAMAICA STREET  
ATTN: SALLY HILL  
ENGLEWOOD, CO 80112

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](mailto:board@fbpe.org). Our website address is <http://www.fbpe.org>.

# State of Florida

## Board of Professional Engineers

Attests that  
CH2M Hill Engineers, Inc.



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: 2/28/2019

Audit No: 228201902457 R

CA Lic. No:  
25861



**STATE OF FLORIDA  
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION**

**BOARD OF PROFESSIONAL GEOLOGISTS  
2601 BLAIR STONE ROAD  
TALLAHASSEE FL 32399-0783**

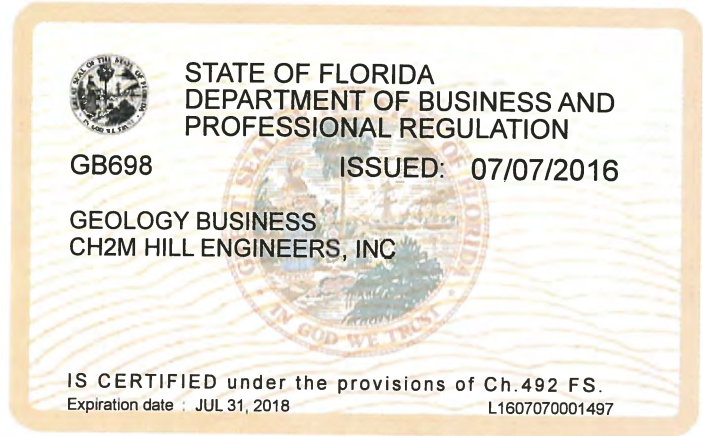
**(850) 487-1395**

**CH2M HILL ENGINEERS, INC  
9191 SOUTH JAMAICA STREET  
ATTN: SALLY HILL  
ENGLEWOOD CO 80112**

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.

Every day we work to improve the way we do business in order to serve you better. For information about our services, please log onto [www.myfloridalicense.com](http://www.myfloridalicense.com). There you can find more information about our divisions and the regulations that impact you, subscribe to department newsletters and learn more about the Department's initiatives.

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!



DETACH HERE

RICK SCOTT, GOVERNOR

KEN LAWSON, SECRETARY

**STATE OF FLORIDA  
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION  
BOARD OF PROFESSIONAL GEOLOGISTS**

<b>LICENSE NUMBER</b>	
GB698	

The GEOLOGY BUSINESS  
Named below IS CERTIFIED  
Under the provisions of Chapter 492 FS.  
Expiration date: JUL 31, 2018

**CH2M HILL ENGINEERS, INC  
9191 SOUTH JAMAICA STREET  
ATTN: SALLY HILL  
ENGLEWOOD CO 80112**



ISSUED: 07/07/2016

DISPLAY AS REQUIRED BY LAW

SEQ # L1607070001497



Florida's Full-Service Engineering Provider

