King
ENGINEERING ASSOCIATES, INC.

Pinellas County

Pinellas County

145-0035-NC (SS)

Engineering Consulting Services

Cross Bayou Canal Flood Control Improvements

ORIGINAL

King
ENGINEERING ASSOCIATES, INC.

4921 Memorial Highway
Suite 300
Tampa, FL 33634
Phone: 813-880-8881
Fax: 813-880-8882

January 29, 2015

Pinellas County Board of County Commissioners
400 S. Fort Harrison Avenue
Annex Building – 6th Floor
Clearwater, FL 33756

RE: Cross Bayou Canal Flood Control Improvements
RFP 145-0035-NC (SS)

Dear Selection Committee Members,

King Engineering Associates, Inc. (King) appreciates this opportunity to present our qualifications in response to the County's Request for Qualifications to provide engineering consulting services for the Cross Bayou Canal Flood Control Improvements. In accordance with the County's Request, we have enclosed one (1) original and eight (8) electronic media (CD) copies of our proposal detailing our qualifications, technical management and project approach, and references for similar, successfully completed work.

Unique Qualifications – King has been providing multi-discipline engineering/consulting services for local governments on the west coast of Florida since we opened our doors in 1977. We have been a consultant to Pinellas County since 1992; during which time, we have performed multi-discipline services under our continuing services contracts, and as a result, we know the services and standards the County expects and have demonstrated our success in performing them.

Direct Personal Experience - The King Team is ahead of the competition when it comes to this project. We have already performed a series of fundamental investigations and services directly related to the County's Cross Bayou Canal Flood Control Improvements project. *Key services and experience of the King Team include:*

Project Specific Experience of Key Team Leaders - King developed the Preliminary Feasibility Study for the Cross Bayou Canal (CBC) Phase 1 Maintenance Project which included a broad assessment of the Cross Bayou Canal system associated with the CBC Maintenance Project including discussions with local dredge contractors, geotechnical assessments, utility coordination and preliminary agency contacts on behalf of the County.

Peer Review - King conducted the peer review of the CBC Watershed Model and as a result, we know the model's uses and limitations, therefore enabling us to efficiently modify the model for potential alternative project design assessments as will be required to complete the project design and secure project permits.

Familiarity W/Cross Bayou Canal Corridor - King is highly familiar with a majority of the CBC Flood Control project area and the history of this system due to our engineering services provided in the design and permitting of the Largo Wet Weather Pumping System, including utility assets proximal to the project as well as ecological and geological conditions of the CBC south of 150th Avenue.

Regulatory Knowledge - King has fostered an excellent working relationship with the local regulatory agencies, in particular with the USACE (Ms. Tracy Hurst) in the permitting of various creek and channel restoration projects throughout Pinellas County using innovative approaches that emphasize "soft structures" and environmentally friendly designs.

Design Experience - Serving as a consultant for the SWFWMD SWIM Program over the past 25 years, King has successfully completed over 15 restoration projects involving large water resource projects similar to the CBC Flood Control Project.

Dredging Experts - King Team Member BCG Engineering and Consulting, Inc. has "hands on" design and construction experience in successfully completing canal/levee dredging projects located within urbanized corridors; more than any other local firm available to the County.

Envision™ Expertise - Greeley and Hanson, LLC will provide accredited Envision™ Sustainability Professionals including Freddy Betancourt, who participated in a preliminary Envision™ assessment presented to Pinellas County Staff (*January 2014*) and John Lenti, who is an ISI Certified Envision™ Verifier and Trainer.

Local Cultural Resources Experience - Joan Deming, of Archeological Consultants, Inc. has performed a preliminary review of available records in the project corridor and will provide cultural services for the project. Their effectiveness with coordinating findings with SHPO should facilitate permitting greatly.

Appraisal Services - Stephen J. Cross, SR/WA of RTD Group, LLC, a Florida Licensed Real Estate and Engineering company, brings 33 years of direct, relevant experience in managing acquisition and appraisal project services. Due to the history of the CBC, the number of parcels abutting the system and the possibility that the CBC system itself may have shifted overtime, the need to identify and address property issues early is critical.

Peter Nikolov, EPN Group has worked on Pinellas County projects for 30 years and brings significant knowledge related to drainage and channel improvement projects having completed channel and dredging improvement projects for Pinellas County and surrounding areas including Curlew Channel, Cross Bayou Basin and Joe's Creek, among others.

Geotechnical Services - Driggers Engineering Services, Inc. (DESI), a licensed and certified geotechnical firm based in Pinellas County, performed geotechnical investigation and testing on the Cross Bayou Canal sub-bottom and have archived soil core samples.

Approach to Your Project – We have prepared an in-depth, project specific approach to your project (located in SF 330, Section H) discussing key issues of this project. These include:

- Permitting by proposing pre-scheduling of an early agency coordination meeting to get agency input and "buy in" on approach before 30% design begins, submitting early permit applications at the 45% design level to initiate review and facilitate permit acquisition within the County's proposed schedule;
- Rapid deployment of surveying, geotechnical, cultural and environmental teams to collect data and conduct assessments, including interactive H&H modeling to obtain critical design parameters needed to incorporate Envision™ aspects to meet the 30% design milestone and identify any red flag issues as early in project schedule as possible;
- Early confirmation on what County-owned parcels or other public lands that may be considered for project use, including areas for contractor access, staging and spoil disposal; and
- Maintaining an effective Public Awareness Campaign to facilitate project implementation and permitting.

The King Team, *ready right now*, brings significant and directly related experience to this project. We look forward to the opportunity to continue to assist the County with the Cross Bayou Canal Flood Control Improvements project.

Sincerely,

Thomas M. O'Connor, P.E.
President

Pete Bottone
Sr. Environmental Scientist

/etl

Attachment

Introduction

Pinellas County

145-0035-NC (SS)
Engineering Consulting Services
Cross Bayou Canal Flood Control Improvements

King
ENGINEERING ASSOCIATES, INC.

Introduction

Specific Professional Services to be Offered

King Engineering Associates, Inc. will provide the following core services, utilizing in-house personnel to complete the Scope of Services for the Pinellas County Cross Bayou Canal Flood Control Improvements project:

- Civil Engineering
- Water Resources / Drainage Engineering
- Hydraulic/Hydrologic Modeling
- Ecological Services
- Permitting
- Surveying/Mapping
- GIS
- Construction Management
- Transportation / Traffic / Maintenance of Traffic
- Landscape Architecture

In addition to our in-house services listed above, King will be utilizing the following subconsultants and services as needed to form a comprehensive team for this project.

- *BCG Engineering & Consulting - Dredging Engineering / Expertise*
- *Greeley and Hansen, LLC - Envision / ISI / Sustainability*
- *Driggers Engineering Services, Inc. - Geotechnical Engineering*
- *RTD Group - Appraisal Services*
- *EPN Group -Hydraulic / Hydrological Modeling, Permitting, Erosion Control*
- *Archaeological Consultants, Inc. -Archeological / Historical Services*

The project will be executed entirely from our Tampa office.

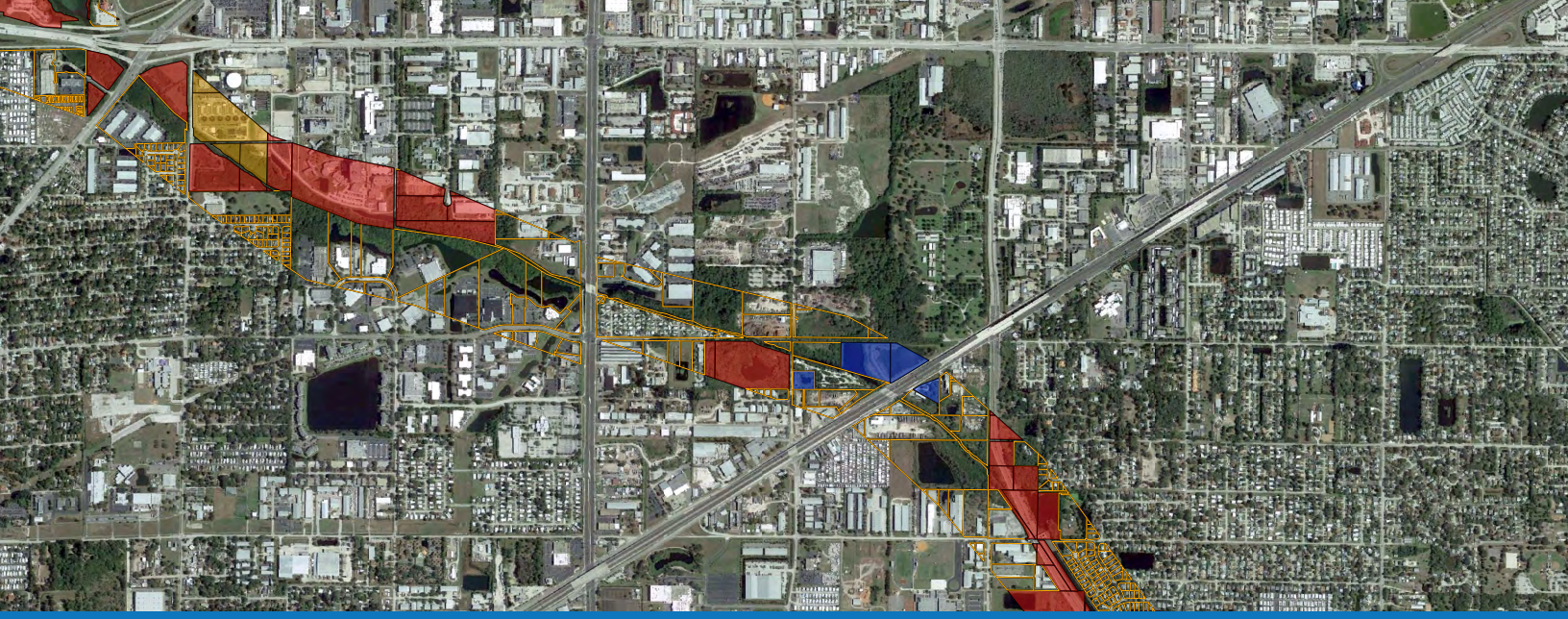


Table of Contents

1 Standard Form 330

Pinellas County

145-0035-NC (SS)
Engineering Consulting Services
Cross Bayou Canal Flood Control Improvements

King
ENGINEERING ASSOCIATES, INC.

ARCHITECT - ENGINEER QUALIFICATIONS

PART I - CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATON *(City and State)*

Engineering Consulting Services
Cross Bayou Canal Flood Control Improvements
Pinellas County, FL

2. PUBLIC NOTICE DATE	3. SOLICITATION OR PROJECT NUMBER
January 29, 2015	**#145-0035-NC (SS)**

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE **Thomas M. O'Connor, P.E. - President**

5. NAME OF FIRM
King Engineering Associates, Inc.

6. TELEPHONE NUMBER	7. FAX NUMBER	8. E-MAIL ADDRESS
813-880-8881	813-880-8882	toconnor@kingengineering.com

C. PROPOSED TEAM

	(Check) PRIME	(Check) J-V	(Check) SUB	9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
a.	√			**King Engineering Associates, Inc.** ☐CHECK IF BRANCH OFFICE	4921 Memorial Highway Suite 300, Tampa, FL 33634	Civil Engineering Water Resources / Drainage Engineering Hydraulic/Hydrologic Modeling Ecological Services Permitting Surveying/Mapping GIS Construction Management Landscape Architecture
c.			√	**BCG Engineering & Consulting** ☐CHECK IF BRANCH OFFICE	3012 26th Street Metairie, LA 70002	Dredging Engineering / Expertise
d.			√	**Greeley and Hansen, LLC** ☒CHECK IF BRANCH OFFICE	1715 N. Westshore Boulevard Ste 464 Tampa, FL 33607	Envision / ISI
e.			√	**Greeley and Hansen, LLC** ☒CHECK IF BRANCH OFFICE	100 South Wacker Drive Suite 1400 Chicago, IL 60606	Envision / ISI
f.			√	**Driggers Engineering Services, Inc.** ☐CHECK IF BRANCH OFFICE	12220 49th Street North Clearwater, FL, 33762	Geotechnical Engineering
g.			√	**RTD Group** ☐CHECK IF BRANCH OFFICE	1957 Arrowhead Drive, NE Suite 200 St. Petersburg, FL 33703	Appraisal Services
h.			√	**EPN Group** ☐CHECK IF BRANCH OFFICE	9634 Maypan Place Largo, FL 33777	Hydraulic / Hydrologic Modeling Permitting, Erosion Control
i.			√	**Archaeological Consultants, Inc.** ☐CHECK IF BRANCH OFFICE	8110 Blaikie Ct. Suite A Sarasota, FL 34240	Archeological

D. ORGANIZATIONAL CHART OF PROPOSED TEAM ☒ *(Attached)*

Organizational Chart

RFP #145-0035-NC(SS)
Engineering Consulting Services
Cross Bayou Canal Flood Control Improvements

Subconsultants
1. Greeley and Hansen
2. BCG Engineering & Consulting, Inc.
3. Driggers Engineering Services, Inc.
4. EPN Group
5. RTD Group, LLC
6. Archaeological Consultants, Inc.

Client Manager
Thomas O'Connor, PE

Project Coordinator
Pete Bottone

Ecological Services
Brian Skidmore
Michael Palmer
Ben Ballard
Jason Jendrucko

Hydraulic / Hydrologic Modeling
Peter Nikolov, PE 4
Agustin Maristany, PE
Adam Marshall, PE

Dredging
David Dodgen, PE 2
Ike Mayer, PE 2
Sudhir Mehta, PE 2
Cecil Soileau, PE, DWRE 2

Permitting
Michael Palmer
Jason Jendrucko
Peter Nikolov, PE 4

Slope Stabilization / Erosion Control / Maintenance
Adam Marshall, PE
Kyle Smith, PE
Peter Nikolov, PE 4

Envision / ISI
Freddy Betancourt, PE, LEED 1
John Lenti, AIA, LEED, ENV SP 1
Nita Naik, PE, LEED 1

Geotechnical
Jamie Driggers, PE 3
Wayne Driggers, PE 3

Archaeological
Joan Deming 6
Lee Hutchinson 6

Land Appraisal
Stephen Cross, SR/WA 5

Construction Management
Kyle Smith, PE
Orlando Serrano, Jr.

GIS
Chris Hutton
Ben Ballard

Survey / Mapping
J. David Greer, PSM
Greg Baksis, PSM

Landscape Architecture
Elizabeth Lyon-Hall, RLA

Transportation / Traffic
John Seals, PE

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Thomas M. O'Connor, P.E.	**Client Manager**	**32**	**25**

15. FIRM NAME AND LOCATION *(City and State)*

King Engineering Associates, Inc., Tampa, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.S., Civil Engineering	**Professional Engineer Florida, No. 39593**

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Organizations: Water Pollution Control Federation, American Society of Civil Engineers

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: **Coral Creek Ecosystem Restoration - SWFWMD Charlotte County, FL**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: Ongoing; CONSTRUCTION *(if applicable)*: Phase 1A and 1B 2014 Phase 2 to Commence 2015

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Principal-in-Charge for this SWFWMD project consisting of 2,600 acre restoration project. Project involved developing a conceptual master plan for the project area, development of a watershed model, public meetings, and developing projects from the master plan for which King will provide design, permitting, and construction. This project also included removal of dense vegetation /debris followed by the dredging of approximately 15,000 cy of accumulated sediments for existing degraded canal. Cost: Phase 1A and 1B: $665,000 Ph 2 - TBD

b.

(1) TITLE AND LOCATION *(City and State)*: **Alligator Creek Restoration - SWFWMD Charlotte County, F L**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2010; CONSTRUCTION *(if applicable)*: 2016/2017 - est

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Principal-in-Charge for this SWIM sponsored stormwater treatment / improvement project for Pinellas County. Project included design of wetland monitoring plan and collected periodic monitoring data (plant survival and establishment, water levels, wildlife usage, etc.) Also obtained agency concurrency regarding achievement of success criteria. The primary stormwater retrofit component of this project will include dredging of 18,000 cy of material from an existing ditch network to create a 1.8 acre filter marsh system that will collect stormwater from six crossdrains. Cost: $1.3 million

c.

(1) TITLE AND LOCATION *(City and State)*: **Palm River Restoration - SWFWMD Hillsborough County, FL**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: Ongoing; CONSTRUCTION *(if applicable)*: 2015 est

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Principal-in-Charge overseeing the Palm River Restoration project, a SWFWMD - SWIM project cooperatively funded by the Florida Department of Transportation. This project is a multi-faceted restoration project design covering a 28 square mile, highly urbanized watershed in the City of Tampa and Hillsborough County. Overseeing services which include the preparation of a Feasibility Study, preliminary and final design plans and the permitting of multiple stormwater retrofit and wetland/shoreline habitat restoration projects within the Palm River/McKay Bay Basin. Project components includes 2D hydrodynamic modeling, data collection, land survey, pollutant loading/treatment efficiency, dredging, spoil disposal and bank stabilization assessments within the C-135/Palm River. Cost Estimate: $1,157,019

d.

(1) TITLE AND LOCATION *(City and State)*: **Hydrologic and Wetland Restoration of Myakka State Forest SWFWMD, Manatee County, FL**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: Ongoing; CONSTRUCTION *(if applicable)*: Ongoing

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Principal-in-Charge for the design and implementation of wetland and hydrological restoration of impacted (drained) wetlands on the 7,318 acre District-owned Myakka State Forest (MSF) property managed by the Department of Forestry (DOF). The project consisted of the design/construction of a geoweb ditch block structure within a large drainage ditch to raise SHW elevations back to pre-drained conditions and divert surficial flows back to the Oyster Creek Headwaters System. To facilitate restoration of historic hydroperiods a 250-foot long geoweb, drivable weir structure and raised maintenance road will be constructed at the system's outfall with the Newgate Waterway. King performed surface water and H&H Modeling to determine on-site and off-site impacts related to the various design alternatives proposed, engineering and ecological analysis/design, permitting, preparation of construction plans and technical specifications; bidding and construction observation. Cost: TBD

e.

(1) TITLE AND LOCATION *(City and State)*: **River Tower Restoration and Stormwater Project - SWFWMD Southwest Florida Water Management District - Tampa, FL**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2011; CONSTRUCTION *(if applicable)*: 2013

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

King performed modeling (SWMM-ICPR), full design, permitting (ERP &USACE), and construction management services. The project involved a stormwater retrofit component to construct a 2-acre wet pond on a City of Tampa site to provide water quality benefits to an over 200 acre watershed of the Hillsborough River along I-275 in Tampa, Florida. The project diverted flows from a 78" stormwater line under an existing FDOT overpass into the proposed pond site with a new outfall into the existing Hillsborough River. The weir structure for the pond was designed around the existing wastewater utilities crossing the site. Additionally, the project involves habitat restoration along 1,200 feet of river shoreline Cost: $2.1 million

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
Peter J. Bottone	**Project Coordinator**	a. TOTAL **33**	b. WITH CURRENT FIRM **9**

15. FIRM NAME AND LOCATION *(City and State)*
King Engineering Associates, Inc., Tampa, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.A. Biology, University of South Florida, 1982	

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Cross Bayou Canal Maintenance Project Phase 1
Pinellas County, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2012	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Project Manager responsible for conducting a Preliminary Feasibility Study (FS) for Pinellas County targeting the proposed implementation of maintenance dredging, vegetation and debris removal project with in a highly urbanized 1.4 mile section of Cross Bayou Canal between 102nd Ave. and Ulmerton Road to relieve flooding concerns. The Phase 1 Project entailed the review of County and historical data, collection of preliminary engineering, bathymetric and ecological field data, along with limited geotechnical testing to characterize the proposed dredge sediments for assessing dredging alternatives and disposal methods. A Technical Memorandum was prepared discussing the preliminary findings, potential construction approaches, estimated costs and project constraints relative to proceeding to final design, permitting and construction.

b.

(1) TITLE AND LOCATION *(City and State)*
Haynsworth Tract - Sawgrass Lake Regional Water Management Facility-Pinellas County, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
1998	1999

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Environmental Project Manager responsible for environmental assessment/design elements of the Preliminary Engineering Report, final design and permitting for the stormwater retrofitting of a former borrow pit within the 35 acre site. Tasks included County and regulatory agency coordination, wetland delineations, habitat quality assessment and wetland planting design of a 16-acre joint wetland treatment and habitat creation project for the County owned park/educational facility co-funded by SWFWMD. Project included the proposed dredging to create sump areas, bank excavation/re-grading to stabilize slopes and create littoral shelves and cypress wetlands, identification of sensitive upland and protected species habitats and the incorporation of these habitat mosaics into the long-range management plan for the park.

c.

(1) TITLE AND LOCATION *(City and State)*
Lake Panasoffkee Restoration Project
Sumter County, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2000	2004

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Principal Scientist responsible for project coordination, permit application preparation, SAV mapping/analysis, wetland and protected species impact assessments and QA/QC document review for the restoration of this ±4,600-acre SWIM priority waterbody. This cooperative effort between the SFWMD and the FWC entailed the dredging of 8.6 million cy of unconsolidated fine sediments and the construction of a 548-acre upland Contained Disposal Facility (CDF). Design included provisions to maintain a minimum, 60% SAV coverage in the lake during dredge operations by using a phased approach. Restored 1,977 acres of valuable fishery/SAV habitats. Cost $26 million

d.

(1) TITLE AND LOCATION *(City and State)*
Tampa Bay SWIM Habitat Restoration Projects
Tampa, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
1990-2005	1991-2006

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Project Ecologist responsible for the design and implementation of over 17 major habitat restoration projects including 9 award winning designs for the SWFWMD SWIM Program within the Tampa Bay region. Responsibilities included habitat quality assessment, wetland delineation, mapping, restoration design, plans preparation, project coordination and permitting. Projects of note include: Lowry Park Shoreline, Spring and Hamilton Creek, Cockroach Bay Phase I and 1B, MacDill AFB Shoreline Phase 1, Boca Ciega Bay (Millennium) Park; Harbor Palms Park, Howard Frankland, Little Bayou Park, Joe's Creek, Terra Ceia Causeway, and Thonotosassa Park (Baker Creek)

e.

(1) TITLE AND LOCATION *(City and State)*
Hammock Park and Lake SueMar Natural System Restoration Project - Dunedin, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2008-2009	2009-2010

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Hammock Park. Responsible for the preparation of environmental assessment/design, permitting and construction services for the restoration of a 15-acre hardwood hammock system via diversion of stormwater from Channel "C" using a weir and a series of fords in the City-owned park. The project also entailed the dredging and bank stabilization of 1300-feet of Channel C that included innovative use of geoweb slope stabilization utilizing a wildflower/native grass hydroseeding application that expedited permitting. Activities included wetland delineations, historical/existing hydroperiod assessments, floral and faunal inventories, protected species surveys, habitat quality assessments, regulatory agency coordination and permitting. **Lake SueMar** aspect consisted of the design, permitting and construction of a stormwater retrofit project targeting the enhancement of the 3.6 acre man-made lake by dredging and re-contouring the system to create sumps, deepwater habitats and an extensive littoral shelf area. The project required wetland delineations, vegetated mapping, listed species surveys, habitat quality assessment, and wetland design. Hammock Park Cost: $1.1 million Lake SueMar Cost: $880,000

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
Brian K. Skidmore	**Ecological Services**	a. TOTAL **25**	b. WITH CURRENT FIRM **20**

15. FIRM NAME AND LOCATION *(City and State)*
King Engineering Associates, Inc., Tampa, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.S., Biology, University of South Florida, 1990	**Florida Fish and Wildlife Conservation Commission Scientific Collecting Permit No. WV00465** **Authorized Gopher Tortoise Agent GTA-12-00016**

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*
Memberships: Florida Native Plant Society, Tampa Bay Builders Association, Tampa Bay Aquarium Society, American Killifish Association, and North American Native Fishes Association **Awards:** St. Petersburg Stormwater Retrofit WESR Project

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Terra Ceia Aquatic Preserve Ecosystem Restoration Project
SWFWMD – Hillsborough County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2005	2008

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Environmental scientist assisting with restoration design for this 1,600-acre habitat creation, restoration and enhancement project. Overall services included extensive habitat mapping, conceptual design, survey base data collection, final design, permitting, bidding construction management. Regrading of wetlands was completed to enable plant removal and replanting to facilitate the construction of braided tidal creeks and channels through dredging. This project represents the largest undertaking of habitat restoration to date by SWFWMD/SWIM in the Tampa Bay Estuary system with 220 acres of wetland creation, restoration and enhancement and 1,000 acres of upland restoration and enhancement. Cost: $3.3 million

b.

(1) TITLE AND LOCATION *(City and State)*
Palatlakaha River Restoration Project
Lake County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2012	2013

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Ecological Services Manager responsible for oversight and QC review of environmental support services for this proposed drainage improvement and wetland restoration project. Project involved development of a watershed model and dam structure removal/replacement evaluation, within a watershed area of over 200 square miles. Coordinated evaluation and characterization of wetland systems along the channelized river course in order to identify potential hydrologic impacts and restoration opportunities. Conducted habitat and listed species assessment and wetland delineation at control structure locations. Coordinated state and federal environmental permitting efforts. Cost: $402,506

c.

(1) TITLE AND LOCATION *(City and State)*
Coral Creek Ecosystem Restoration, SWFWMD
Charlotte County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ongoing	Phase 1A and 1B 2014Ph

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Ecological Services Manager responsible for oversight and QC review of conceptual habitat restoration master plan preparation and the construction design/ implementation of two habitat restoration projects on the 2,600-acre Coral Creek Property, which also included removal of dense vegetation /debris followed by the dredging of approximately 15,000 CY of accumulated sediments for existing degraded canal. Project included removing vegetation/debris and dredging approximately 15,000 CY of accumulated sediments from the existing, degraded canal to create a filtermarsh system. Project activities included hydroperiod assessments, WQ/hydrological analysis, protected species evaluations, ecosystem restoration design, multi-agency coordination and permitting. Critical project elements include analysis of hydrological and salinity effects related to the potential removal of dam structure on the West Branch of Coral Creek and diversion of flows leaving the Rotonda West development to restore historic site hydrology. Ph 1A and 1B, includes a filter marsh and weir structure in the Rotunda River outfall canal to provide for State WQ treatment to address County's relocated Weir No. 5. Cost: Ph 1A – 1B: $665,000 Ph 2 - TBD

d.

(1) TITLE AND LOCATION *(City and State)*
Lake Thonotosassa Shoreline Restoration – SWFWMD-
SWIM Hillsborough County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2000	2000

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Environmental scientist assisted with the design, permitting and construction management of a freshwater marsh creation and restoration project along Lake Thonotosassa, an 819 acre for which FDOT mitigation funds were used for the construction and planting of this project. Project involved restoration of 100 acres of disturbed and dewatered freshwater marsh habitat along the lake's eastern shoreline that was used as improved pasture. The project also involved the dredging / excavation of a shoreline dike system and significant regrading to restored pasture. The rehydrated areas were replanted with desirable freshwater vegetation. A structure was designed and constructed to divert flow from Baker Creek, the major tributary to the lake, through the restored freshwater marsh prior to discharge into the lake. Cost: $740,603

e.

(1) TITLE AND LOCATION *(City and State)*
Parcel M11 at Wiregrass Ranch, Infrastructure and Wetlands
E27 and E29 Creation and Enhancement, Pasco County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2010	2012

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Ecological Services Manager, responsible for mapping of onsite land use / cover types, species surveys, jurisdictional wetland limits, state and federal wetland permitting and wetland construction oversight for approximately 40 acres of wetland and floodplain enhancement. Coordinated with site contractor and regulatory agencies to ensure that project construction was in conformance with permitted design.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Michael D. Palmer	**Ecological Services Permitting**	**30**	**27**

15. FIRM NAME AND LOCATION *(City and State)*
King Engineering Associates, Inc., Tampa, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*
B.S., Biology, University of Central Florida, 1985

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*
Memberships: Gopher-Tortoise Council, **Awards:** 1996 Picnic Island "Award for Environmental Excellence for Habitat Restoration/Enhancement" from TBAEP, Terra Ceia Award **Certifications:** Florida Fish and Wildlife Conservation Commission, Scientific Collecting Permit No. WV00464, FWC Gopher Tortoise Agent Permit No. GTA-09-00026

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Palm River Restoration Feasibility Study & Conceptual Design Report - Hillsborough County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ongoing	2015 est.

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Served as Habitat Restoration Design Coordinator for the Palm River Restoration Feasibility Study and Conceptual Design Report, a SWFWMD/SWIM project cooperatively funded by the FDOT. The Palm River Restoration area of analysis included a 28 square mile, highly urbanized watershed in the City of Tampa and Hillsborough County. The project Feasibility Study analyzed numerous potential habitat restoration and water quality improvement project areas, ranked the potential sites based on numerous factors (ownership, access, potential nutrient loading reductions, cost, etc.), and preliminary/conceptual design plans for multiple recommended construction projects within the overall watershed. Project components included 2D hydrodynamic modeling, flood and scour analysis, data collection, hydrographic and land survey services, pollutant loading/treatment efficiency, dredging analysis, spoil disposal and bank stabilization assessments within the C-135/Palm River, a USACE regulated floodway. Cost Estimate: $1,157,019

b.

(1) TITLE AND LOCATION *(City and State)*
Terra Ceia Aquatic Preserve Ecosystem Restoration Project – Manatee County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2005	2008

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Served as Project Manager and Chief Habitat Restoration Designer for this ±1,600-acre SWFWMD/SWIM habitat creation, restoration and enhancement project. Overall services included extensive habitat mapping, conceptual design, survey base data collection, final design, permitting, bidding assistance and construction management. This project represents one of the largest habitat restoration projects completed by SWFWMD/SWIM in the Tampa Bay Estuary system, with approximately 220 acres of wetland creation, restoration and enhancement and approximately 1,000 acres of upland restoration and enhancement. Provided construction management and oversight, and worked closely with District, contractor and engineer during all phases of project construction. Cost: $3.3 million

c.

(1) TITLE AND LOCATION *(City and State)*
Palatlakaha River Restoration
Lake County Water Authority

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2010	2014

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Environmental Scientist responsible for ecological evaluation, listed species assessments, wetland delineation and preliminary feasibility analysis for the Palatlakaha River Restoration Project in Lake County. Evaluated environmental effects of proposed project and assisted with state and federal regulatory permitting and project design. This project involved evaluation of existing manually operated radial gate dam structures along the river, preparation of final design plans for the structure modification and permitting to remove the radial gates. Cost: $402,506

d.

(1) TITLE AND LOCATION *(City and State)*
Palm River Restoration - Dredge Disposal Area Restoration Project - Hillsborough County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ongoing	2012

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Manager for the design, permitting and construction management associated with a 14 acre habitat restoration project along the eastern shoreline of McKay Bay. The project involved the re-grading design of the existing shoreline to incorporate new intertidal marsh wetland creation areas adjacent to the existing three dredge disposal cells that were originally constructed by the USACE for the maintenance dredging of the C-135/Palm River drainage channel. Intertidal connections were dredged between McKay Bay and the existing riparian mangrove habitat areas and the newly constructed intertidal salt marsh areas. Spoil generated from the construction activities was used to re-grade the internal slopes of the existing dredge disposal cells to provide stable slopes for long-term maintenance. Cost: $531,641

e.

(1) TITLE AND LOCATION *(City and State)*
Lake Thonotosassa Shoreline Restoration - SWIM Project, Hillsborough County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2000	2000

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Manager for the design, permitting and construction management of a freshwater marsh creation and restoration project along Lake Thonotosassa, an 819 acre lake located in eastern Hillsborough County, Florida. FDOT mitigation funds were used for the construction and planting of this project. The project involved restoration of approximately 100 acres of disturbed and dewatered freshwater marsh habitat along the lake's eastern shoreline. The project also involved the removal of a shoreline dike system and significant re-grading of the restoration areas, followed by replanting with desirable freshwater vegetation. A structure was designed and constructed to divert flow from Baker Creek, the major tributary to the lake, through the restored freshwater marsh prior to discharge into the lake. The project required permits from the U.S. Army Corps of Engineers, Florida Department of Environmental Protection and Hillsborough County. Cost: $740,693

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
E. Peter Nikolov, PE	**Hydraulic / Hydrologic Modeling Slope Stabilization/Erosion Control/Maintenance / Permitting**	**30**	**< 1**

15. FIRM NAME AND LOCATION *(City and State)*
EPN Group. Largo FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS / Civil Engineering MS / Civil Engineering	**FL/PE – Civil #38766**

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*
Over 30 years of civil engineering experience with roadway, drainage, stormwater/watershed modeling, channel improvements, permitting, sidewalk, trail, utility, construction and other engineering related projects. Member of Florida Engineering Society / American Society of Civil Engineers / American Society of Highway Engineers / Florida Institute of Consulting Engineers.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Curlew Creek Channel-A Improvements
Pinellas County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2012	2013

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☐ Check if project performed with current firm

Project Manager. The project area experienced extensive flooding and erosion due to the urbanized area and high flow conditions. The basin drains a portion of Pinellas County and the City of Dunedin and discharges to St. Joseph Sound. A watershed model using ICPR was completed to determine the flows, velocities and water surface elevations for varies storm events. An erosion and sediment analysis was also completed due to the severe bank failures along the channel. Construction plans and complete specifications were prepared for the improvements. The improvements consisted of dredging the channel, widening the channel, upgrading storm culverts and stabilizing the side banks. There was significant removal of exotic plantings as part of the channel widening. The channel profile was re-established for proper drainage conveyance. Coordination with the surrounding public was critical for successful implementation of the improvements. Permitting was prepared and approved through SWFWMD and ACOE.

b.

(1) TITLE AND LOCATION *(City and State)*
Clam Bayou Estuary Restoration

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2010	2010

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☐ Check if project performed with current firm

Principal. The project is located in the Clam Bayou drainage basin south of 22nd Avenue South adjacent to the City of Gulfport and the City of St. Petersburg. The estuary provides beneficial environments including marsh, mangrove forests and other natural vegetation. The habitat includes wading birds, crabs, dolphins and manatees and many others in the deeper waters of Boca Ciega Bay. The purpose of the project was to provide recovery of the environment by providing habitat enhancement, wetland restoration / enhancement and reduction in sewage overflows in the area. In order to meet the goals, the project involved significant dredging of Clam Bayou to restore the original bottom. The dredging depth was from 1 to 6-feet in order to remove the muck and other sediment. The project was completed in phases and part of the SWIM program at SWFWMD.

c.

(1) TITLE AND LOCATION *(City and State)*
McKay Creek Drainage Improvements
Largo, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2010	2010

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☐ Check if project performed with current firm

Project Manager. Completed a Master Plan evaluation, hydrologic and hydraulic analysis (5,600 acre basin), scour and sedimentation determination, stormwater and environmental permitting, and development of potential solutions to alleviate flooding. The study recommended improvements to reduce erosion / siltation in the channel and contain the 25-year storm event in the channel banks and the 100-year storm event not to flood structures. The project involved dredging and slope protection for a segment of the channel.

d.

(1) TITLE AND LOCATION *(City and State)*
Joe's Creek Channel Improvements
Pinellas County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2010	2010

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☐ Check if project performed with current firm

Project Manager. Project entailed a watershed and hydraulic analysis (9,000 acre basin), channel conveyance improvements, scour and sedimentation determination and development of water quality improvements within the watershed and associated streams. The Joe's Creek contributing area is an urban watershed which outfalls into a tidal water body (Boca Ciega Bay). The constraints of urban development have narrowed the confines of the creeks contributing to the outfall (Joe's Creek and Miles Creek). These constraints have resulted in generation of high stream velocities in some places and erosion is occurring in some areas, especially in channel skews. The channel needed to be dredged and widened to provide the flow conveyance. Over 35,000 cy of muck material was hydraulically dredged and pumped to settle into a multi-cell staging pond system. The side slopes were protected from erosion with open-cell interlocking blocks which also allowed vegetation re-establishment.

e.

(1) TITLE AND LOCATION *(City and State)*
Allen's Creek Basin Improvements
Clearwater, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2010	2010

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☐ Check if project performed with current firm

Project Manager. The project was a cooperative effort between the City of Clearwater, Pinellas County and SWFWMD. A complete hydrologic / hydraulic model was developed for the 1,500-acre subbasin to determine flows, velocities, treatment volume, attenuation volume including design alternatives and costs. Improvements included channel widening, channel rerouting, dredging, bank stabilization, storm drain replacement, mitigation plantings along with sediment control and interlocking block to eliminate the majority of the sedimentation issues.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Agustin Maristany, P.E.	**Hydraulic / Hydrologic Modeling**	**36**	**6**

15. FIRM NAME AND LOCATION *(City and State)*

King Engineering Associates, Inc., Doral, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Master of Science, Civil Engineering, 1979, University of Texas Bachelor of Science, Civil Engineering, 1978, University of Puerto Rico	**Professional Engineer Florida, No. 33351**

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: **South Florida Water Management District S-124 Control Structure Design, Broward County, Florida**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2009 — CONSTRUCTION *(if applicable)*: 2009

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Task Manager for the hydraulic and civil design for the replacement of the S-124 Control Structure on the L-35A Canal for the South Florida Water Management District (SFWMD) with an estimated construction cost of $3.9M. The replacement structure consisted of a triple 8' x 6' concrete box culvert with remotely operated slide gates, a design capacity of 550 cfs, hardened control room, and back-up power supply. Civil design plans and specifications included site plan, grading, drainage, levee access ramp, construction sequencing plan, vehicle barrier gate, floating trash barrier, security fence, warning signs, demolition and erosion/scour control plan, and canal stabilization treatments. Cost: $56,415

b.

(1) TITLE AND LOCATION *(City and State)*: **South Florida Water Management District, EAA Bolles Canal Basis of Design Report, Palm Beach County, Florida**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2006 — CONSTRUCTION *(if applicable)*: 2007

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Principal-in-Charge for the basis of design report for an 8-mile canal capacity expansion from 300 to 1,500 cfs. Services included hydraulic modeling, evaluation of alternative cross-sections and alignments to accommodate design flow and irrigation demands; establishment of design criteria (bank slopes, bank elevation, bottom widths, maintenance easements), erosion control; identification of ROW impacts; resolution of utility conflicts and impacts to existing infrastructure (roads, bridges, culverts, appurtenant structures, pump stations, control structures); recommendation on construction methods, handling, storage, and disposal of excess material, and detailed cost estimates.

c.

(1) TITLE AND LOCATION *(City and State)*: **Central Broward Water Control District, C-11 West Basin Stormwater Master Plan, Broward County, Florida**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2004 — CONSTRUCTION *(if applicable)*: 2006

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Project Manager for the development of a stormwater master plan for the C-11 West Basin, a 72 -square-mile highly urbanized watershed. Major tasks included a facilities inventory and mapping, development and calibration of a stormwater model (XP-SWMM), evaluation and recommendation of alternatives for flood control and water quality enhancement, preparation of capital and operation & maintenance costs, and recommended priorities for a $3M capital improvement plan. Alternatives evaluated included pump stations, canal dredging, and culvert improvements. The XP-SWMM model consisted of over 2000 nodes including 250 sub-basins, 58 miles of canals, 364 culverts, 5 pump stations, and 20 control structures.

d.

(1) TITLE AND LOCATION *(City and State)*: **Battelle Memorial Institute Coastal Peer Review Louisiana**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2010 — CONSTRUCTION *(if applicable)*: N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Independent external peer review services of the USACE Integrated Feasibility Study and Environmental Impact Statement for the LCA-Small Diversion at Convent/Blind River. The study area is 165 square miles. Panel member responsible for the review of several hydrologic and hydraulic models used to assess current conditions and the effectiveness of new infrastructure proposed to reintroduce freshwater, sediments, and nutrients to the Maurepas Swamp, approximating the natural historic flooding cycle, to rehydrate wetlands, restore sediment deposition, and reduce salinity to compensate for the negative effects of reduced seasonal floodplain inundation from the Mississippi River, sea level rise, and land subsidence. Cost:$17,600

e.

(1) TITLE AND LOCATION *(City and State)*: **Baker County Stormwater Master Plan Baker County, FL**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2008 — CONSTRUCTION *(if applicable)*: N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Project Manager for a Comprehensive Stormwater Master Plan for the 589-square-mile county. The objective of the master plan was to develop baseline information about the watershed, prepare a hydrologic and hydraulic model of the major streams, develop floodplain maps of the county, identify problem areas, develop recommendations for engineering solutions and permitting requirements, prepare cost estimates, and develop a capital improvement plan.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Adam Marshall, P.E.	**Hydraulic / Hydrological Modeling Slope Stabilization / Erosion Control Maintenance**	**8**	**2**

15. FIRM NAME AND LOCATION *(City and State)*

King Engineering Associates, Inc., Tampa, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Master, Biological & Environmental Engineering, 2002 BS, Biological & Environmental Engineering, 2001 Cornell University, Ithaca, NY	**Florida Professional Engineer No. 71533**

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Cross Bayou Canal Watershed Model Review & Maintenance Dredging, Pinellas County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2012	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Conducted an Independent Peer Review of the watershed hydrologic and hydraulic model prepared by the County's consultant. Services required the analysis of GIS-based spatial data, basin delineations, rainfall and hydrologic assumptions, node placement and storage, hydraulic assumptions, channel geometry, boundary conditions, and the validity of the model calibration/ verification procedures used. Utilized channel geometric cross-sectional data stored in GIS to calculate estimated sediment removal volumes for canal dredging project. Cost: N/A

b.

(1) TITLE AND LOCATION *(City and State)*
**C-111 Spreader Canal (SFWMD)
Everglades National Park, FL**

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2010	2010

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Reviewed plans, specifications, hydrologic and hydraulic modeling in ICPR and HEC-RAS, and earthwork quantity computations for this Everglades restoration project. Compiled data from a 7 person team and integrated into a project summary Excel spreadsheet that was updated and distributed for weekly meetings and contained all pertinent design information for the project in an easily accessible graphical and tabular format. Project included construction of over 20 miles of levees, two pump stations, 23 weirs, a 3 mile long water mounding channel, and three retention ponds with areas ranging from 150-180 acres as part of an Aceler8/CERP project for SFWMD. Authored and reviewed much of the final design report. Coordinated extensively with estimating department for takeoffs and quantities for this project to create an OPCC for the client and to create a separate bid proposal from our company for construction. Cost: $100 million

c.

(1) TITLE AND LOCATION *(City and State)*
**Hydrologic and Wetland Restoration of Myakka State Forest
Manatee County, FL**

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ongoing	Ongoing

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Modeling and design of hydrologic and wetlands restoration project for a 10,000 acre preserve in Sarasota County. Analyzed existing models and data to identify flow paths through the site and existing flood levels. Used modeling to identify and design wetland areas used for restoration and rehydration. Cost: TBD

d.

(1) TITLE AND LOCATION *(City and State)*
Coral Creek Ecosystem Restoration, Southwest Florida Water Management District, Charlotte County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ongoing	Ph 1A &1B-2014 Phase 2 to commence 2015

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Design of hydraulic structures and analysis of earthwork quantities for a restoration project in Charlotte County. This project entailed restoration of manmade canals facilitated by regulating tidal flows into and out of the canals, which worked to support the local ecological system. Phase 1A and 1B Cost: $665,000, Phase 2 Cost: TBD

e.

(1) TITLE AND LOCATION *(City and State)*
Two Rivers (Pasco County) Preliminary Drainage Study, Pasco County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2014	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Project Engineer responsible for development of the existing conditions model covering approximately 13 square miles within the Hillsborough River Basin. Waterbodies studied for the DRI included a portion of New River, Indian Creek, and two unnamed tributaries to the Hillsborough River. ArcView and aerial topographic surveys were used to identify basin boundaries and generate CN value data tables. TR-55 was used to compute CN and Tc values. Ad.I.C.P.R. was used to perform hydraulic routing. Extensive tailwater sensitivity analysis was done at potential interconnection points with New River. Cost: N/A

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Sudhir Mehta PE	**Dredging Engineering / Expertise**	**38**	**2**

15. FIRM NAME AND LOCATION *(City and State)*

BCG ENGINEERING & CONSULTING INC., Metairie, Louisiana

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Master of Science / Structural Engineering Bachelor of Science / Civil Engineering	**Professional Engineer Louisiana / Civil**

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
General DeGualle Ave Major Drainage Canal Improvements, New Orleans Louisiana

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ongoing	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Role: Structural Engineer. Project included dredging of 6000 LF of a major urban canal to 82' wide by 12' deep to improve conveyance, overall drainage, add storm control structures and reduce on-going maintenance. Work included hydraulic analysis, dredging design, plans and permitting. Improvements included 5' high by 40' wide pile founded concrete flume and lateral control structures. Client: New Orleans Sewerage & Water Board. Cost: $40 million

b.

(1) TITLE AND LOCATION *(City and State)*
Florida Ave Major Drainage Canal Improvements, New Orleans, Louisiana

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2012	2015

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Role: Structural Engineer. Project included design for improvements to 6000 LF of this 25' wide by 8' deep earthen canal to a pile founded concrete canal flume measuring 44' wide by 13' deep to convey storm runoff to a new 4300 cfs pump station at the hurricane protection levee. Project required relocation of several railroad tracks and utilities. Client: New Orleans Sewerage & Water Board. Cost: $100 million

c.

(1) TITLE AND LOCATION *(City and State)*
Florida Ave Emergency Canal Restoration, New Orleans, Louisiana

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2014	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Role: Structural Engineer. Project included emergency repair to a collapsed 5' high concrete canal retaining wall and 300' of 54" sewer force main. The collapse was a result of overloading along the upper bank of a major 65' wide by 12' deep drainage canal. Work included design for 300 LF of canal and force main, dredging to restore canal section and installation of a new structural concrete 25' wide by 5' high concrete flume to restore failed bank with 1:3 side slopes. Client: New Orleans Sewerage & Water Board. Cost: $240,000

d.

(1) TITLE AND LOCATION *(City and State)*
Lake Hermitage Marsh Restoration, Plaquemines Parish, Louisiana

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2013	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Role: Structural Engineer. This project used a hydraulic dredge anchored in the Mississippi River and mined sand off the bottom down to a 90' depth using a 20 inch pipeline and two booster pumps. It routed material 7.5 miles to 2-foot deep open water in diked areas to restore 700 acres of coastal tidal marsh. A total of 7.5 million cubic yards was pumped. Client: Louisiana Coastal Protection and Restoration Authority. Cost: $46 million

e.

(1) TITLE AND LOCATION *(City and State)*
Fronting Protection, Bonnabel and Suburban Pumping Stations, Metairie, Louisiana

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2008	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Role: Structural Engineer. Responsible for the design of fronting protection across the discharge basins of both the Bonnabel and Suburban Pumping Stations. Prepared a design report and subsequent design which includes a combination of gate monoliths and T-wall monoliths and positive cutoff sluice gates. T-walls were designed to tie into the fronting protection on both sides of the pumping stations. Cost: $38 million

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Ike Mayer PE	**Dredging Engineering / Expertise**	**47**	**20**

15. FIRM NAME AND LOCATION *(City and State)*

BCG ENGINEERING & CONSULTING INC., Metairie, Louisiana

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Master of Science / Civil Engineering Bachelor of Science / Civil Engineering	**Professional Engineer Louisiana / Civil** **Professional Engineer Arizona / Civil** **Professional Engineer Nevada / Civil**

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Society of American Military Engineers, Certified Bridge Inspector, Rotary International Service 1996-2004

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: **Bonnabel Canal Improvements Metairie, Louisiana**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2014 — CONSTRUCTION *(if applicable)*: N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Role: Structural Engineer. Project involved planning and design for canal dredging, widening and bank stabilization to improve drainage through 2000 LF of a 65' wide by 12' deep canal. Prepared an engineering alternative report to evaluate alternatives for canal improvement including full u-shaped concrete flume; concrete flume with low walls and upper banks slope paved; concrete lined trapezoidal section; and sheet pile with rock lined side slopes. The work included complete plans and specifications as well as restoring an eroded bank along rear yards of private residences by driving steel sheet pile and back filling with soil and capping with a 4" concrete sloped slab. Client: Jefferson Parish. Cost: $6 million

b.

(1) TITLE AND LOCATION *(City and State)*: **Lake Hermitage Marsh Restoration Plaquemines Parish, Louisiana**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2013 — CONSTRUCTION *(if applicable)*: 2006

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Role: Structural Engineer. This project used a hydraulic dredge anchored in the Mississippi River and mined sand off the bottom down to a 90' depth using a 20 inch pipeline and two booster pumps. It routed material 7.5 miles to 2-foot deep open water in diked areas to restore 700 acres of coastal tidal marsh. A total of 7.5 million cubic yards was pumped. Client: Louisiana Coastal Protection and Restoration Authority. Cost: $46 million

c.

(1) TITLE AND LOCATION *(City and State)*: **South Florida Water Management District Everglades Restoration Project-Pump Stations G-370/372 Palm Beach County, Florida**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2004 — CONSTRUCTION *(if applicable)*: N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Role: Structural Engineering Manager. Responsible for design and layout of entire structure consisting of sub-structure, super-structure, service bridge and screen-trash rake system; suction/discharge basins including sheet pile tie back walls and approach channels, armoring slopes and bottoms; and flood protection levees. Responsible for design of formed suction intake and siphonic discharge recovery for seven 925 cfs vertical axial flow pumps. Cost: $56 million

d.

(1) TITLE AND LOCATION *(City and State)*: **Pumping Station S-127 Improvements Lake Okeechobee, Buckhead Ridge, Florida**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2008 — CONSTRUCTION *(if applicable)*: N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Role: Project Manager. Project included dredging 1500 LF of the L-48 canal to increase the canal conveyance to pump station 127. The work consisted of deepening the 60' wide canal bottom by 4 feet, removing some 13,500 cys, constructing fill site areas between bank and levee by diking perimeter, and placing dredged material for future beneficial use. Client: South Florida Water Management District. Cost: $4.5 million

e.

(1) TITLE AND LOCATION *(City and State)*: **USACE New Orleans District Bayous Bienvenue and Dupre Control Structures, St. Bernard Parish, Louisiana**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2006 — CONSTRUCTION *(if applicable)*: N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Role: Structural Engineer. Responsible for repair of damages to Bayous Bienvenue and Dupre Control Structures from Hurricane Katrina. Structures were breached with scour holes as deep as 35 feet. Prepared plans and specifications and provided EDC for the refurbishment of the structural, mechanical and electrical features that were damaged. Cost: $16 million

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
John Lenti, AIA, LEED AP, ENV SP	**Envision Specialist**	**25**	**8**

15. FIRM NAME AND LOCATION *(City and State)*

Greeley and Hansen (Chicago, Illinois)

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
M.Arch. - Architecture B.S. - Architecture	**Licensed Architect - IL** **ENV Sustainability Professional** **LEED Accredited Professional** **National Council of Architectural Registration**

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Certified Envision™ Verifier, Certified Envision™ Trainer, American Institute of Architects

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: **New York City Department of Environmental Protection (NYC DEP) 26th Ward Wastewater Treatment Plant (WWTP), Brooklyn, New York**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: Ongoing; CONSTRUCTION *(if applicable)*: N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Lead Architect for NYCDEP 26th Ward Wastewater Treatment Plant (WWTP) Preliminary Treatment Reliability Improvements. John led the preparation of construction documents and specifications. Coordinated design of support buildings, including rehabilitation of existing personnel area. Led ISI Envision registration and verification. Coordinated documents for PDC approval. Facilitated sustainability workshop with DEP staff.

b.

(1) TITLE AND LOCATION *(City and State)*: **Duck Donut Pond Outfall Improvements, Tampa, Florida**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2011; CONSTRUCTION *(if applicable)*: N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

The Duck Pond Outfall Improvements involved the project coordination; preliminary engineering; preparation of plans, specifications, and construction cost estimate; permitting; public information for the installation of a stormwater pump station and improvements to several conveyance facilities; 1,400 LF of 42-inch diameter force main and connection to an existing 54-inch diameter force main. Construction Services for the 113th Ave. Stormwater Force Main and drainage improvements (the Duck Pond Outfall Improvements less the pump station), involves quality control, conducting project team meetings, responding to requests for information, preparation of supplemental drawings, review of submittals, site visits, preparation of certificate of completion, start-up assistance, and preparation of record drawings. Greeley and Hansen will be performing a sustainability self-assessment in 2015. Cost: $6 million

c.

(1) TITLE AND LOCATION *(City and State)*: **Chicago Department of Water Management, Central Park Avenue Pumping Station, Chicago, Illinois**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2007; CONSTRUCTION *(if applicable)*: N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Project Architect for the City of Chicago Department of Water Management, Central Park Condition Assessment, IL. Responsibilities included developing condition assessment report for historic facilities as well as reviewing potential energy saving measures and other sustainable initiatives as a sustainability self-assessment.

d.

(1) TITLE AND LOCATION *(City and State)*: **Largo Wastewater Reclamation Facility Disinfection and Effluent Pumping Station Improvements, Largo, Florida**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: /2014; CONSTRUCTION *(if applicable)*: In Progress

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Project consists of complete engineering services for replacement of the existing chlorine and sulfur dioxide gas disinfections systems and effluent pump station modifications, effluent meter upgrades, and reclaimed water separation and metering at the Largo WWRF, in response to a Consent Order. The C.O. is based on reducing the concentration of disinfection byproducts. In addition of providing design and permitting services, John participated in the stormwater design, erosion and sedimentation control design and Envision self-assessment. Cost: $19 million

e.

(1) TITLE AND LOCATION *(City and State)*: **Muncie Sanitary District UN Disinfection and Miscellaneous Plant Improvements, Muncie, Indiana**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: Ongoing; CONSTRUCTION *(if applicable)*: N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Project architect and lead sustainability professional for Muncie Sanitary District (MSD) UV Disinfection and Miscellaneous Plant Improvements Project. Due to federal requirements for storage and handling of gaseous chlorine and future wet weather flows, MSD plans to convert to UV disinfection. John facilitated several workshops with the client to discuss viable paths toward enhanced triple bottom-line performance. Further, the relative value of discreet sustainability initiatives was reported by overall contribution to Envision level of achievement and cross-referenced by return on capital investment. John's assistance provided the owner a defensible decision making strategy toward achieving their sustainability goals.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
Freddy Betancourt, PE, LEED AP, ENV SP	**Envision / ISI**	a. TOTAL **15**	b. WITH CURRENT FIRM **13**

15. FIRM NAME AND LOCATION *(City and State)*

Greeley and Hansen (Tampa, Florida)

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
M.S. - Environmental Engineering B.S. - Civil Engineering	**Board of Professional Engineers - FL** **ENV Sustainability Professional** **LEED Accredited Professional**

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

American Water Works Association, Florida Water Environment Association – Chair of West Coast Chapter

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Bud 5-R Urban Dispersed Well Collection Main
Tampa, Florida

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2011 — CONSTRUCTION *(if applicable)*: 2012

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Project Engineer. Project included consists of design, permitting, and construction of well pumping equipment, a well house for an existing test/production well, and 5,600 LF of (12 through 16-inch diameter) raw water transmission main, which will convey the produced raw water to an existing collection main in the vicinity of Wheeler Road at Seffner-Valrico Road. Mr. Betancourt in addition of providing design, permitting and construction services provided a sustainability assessment for the project. Ultimately, the client decided to include an array of solar panels to provide auxiliary power to the well house equipment.Cost: $1.6 million

b.

(1) TITLE AND LOCATION *(City and State)*
Duck Donut Pond Outfall Improvements
Tampa, Florida

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2011 — CONSTRUCTION *(if applicable)*: 2013

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Project Engineer. The Duck Pond Outfall Improvements design and construction services for a 100 CFS stormwater pump station and improvements to several conveyance facilities; 1,400 LF of 42-inch diameter force main and connection to an existing 54-inch diameter force main. The pump station included four 400 HP submersible pumps and was intended to alleviate flooding in the Fowler and 30th area of Tampa. In addition to providing design, permitting and construction services for this project, Mr. Betancourt assisted in an Envision Self-Assessment for the project and provided a detail Construction Surface Water Management Plan for this project and design of Best management Practices (BMPs). Cost: $6 million

c.

(1) TITLE AND LOCATION *(City and State)*
Largo Wastewater Reclamation Facility Disinfection and Effluent Pumping Station Improvements, Largo, Florida

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2014 — CONSTRUCTION *(if applicable)*: Ongoing

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Project Manager. Project consists of complete engineering services for replacement of the existing chlorine and sulfur dioxide gas disinfections systems and effluent pump station modifications, effluent meter upgrades, and reclaimed water separation and metering at the Largo WWRF, in response to a Consent Order. The C.O. is based on reducing the concentration of disinfection byproducts. In addition of providing design and permitting services, Mr. Betancourt participated in the stormwater design, erosion and sedimentation control design and Envision self-assessment. Cost: $19 million

d.

(1) TITLE AND LOCATION *(City and State)*
Cypress Street Outfall Upgrade
Tampa, Florida

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2014 — CONSTRUCTION *(if applicable)*: Ongoing

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Project Engineer. Project consists of the design and construction of 724 ft of 12'x4' box culvert, 817 ft of twin 9'x7' box culverts, large junction chamber in North Boulevard and Cass St, and an open channel outfall to the river to alleviate flooding primarily along Rome Avenue and Cypress Street. In addition to providing design, permitting and construction services for this project, Mr. Betancourt assisted erosion and sediment control design, as well as design and implementation of Best Management Practices (BMPs). Cost: $12.4 million

e.

(1) TITLE AND LOCATION *(City and State)*
Southwest Water Reclamation Facility Reclaimed Water System Improvements, St. Petersburg, Florida

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2005 — CONSTRUCTION *(if applicable)*: 2007

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Project Engineer, Project consisted of design and permitting of improvements to the reclaimed water system, including a new reclaimed 10 MGD reclaimed water storage tank, at the Southwest Water Reclamation Facility (SWWRF). The new equipment consisted of piping, valves, electrical equipment in new buildings, and instrumentation upgrades. The stormwater improvements comprised modeling using ICPR; preparation; backfilling a large portion of a reclaimed water storage pond; and improvements to the stormwater conveyance system including coordinating the discharge of the system with that of the adjacent land owner. Modifications included improvements to the drainage system, an enlargement to an existing pond,

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Kyle D. Smith, P.E.	**Slope Stabilization / Erosion Control Maintenance and Construction Management**	**9**	**9**

15. FIRM NAME AND LOCATION *(City and State)*
King Engineering Associates, Inc., Tampa, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.S., Civil Engineering, South Dakota State University, 2005	**Professional Engineer Florida, No. 71509**

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*
AutoCAD Civil 3D Proficiency

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Coral Creek Habitat Restoration, Projects 1A and 1B
Southwest Florida Water Management District SWIM
Charlotte County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ongoing	Ph 1A and 1B 2014 Ph 2 – commence est 2015

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Project Engineer assisting in the design, permitting and limited construction services of Phases 1A and 1B of a conceptual habitat restoration master plan for a 2,600-acre Coral Creek Property within the FDEP's Charlotte Harbor Aquatic State Buffer Preserve. The watershed involves a large contributing basin consisting of residential development that was previously permitted to redirect all flows to the Coral Creek West Branch. The ultimate goal is to provide a design that restores flow to the East Branch without impacting the residential development. Activities include hydrological analysis including ICPR modeling of historic, existing and proposed drainage conditions and design of a filter marsh treatment system. The filter marsh was created by removing vegetation/debris and dredging approximately 15,000 CY of accumulated sediments from the existing, degraded canal. Also involved with construction bidding assistance, shop drawing review, as-built review and project certification. Phase 1A and 1B Cost: $665,000

b.

(1) TITLE AND LOCATION *(City and State)*
Palm River Restoration Southwest Florida Water Management District SWIM, Hillsborough County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ongoing	2015 Est

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Project Engineer responsible for the design and permitting of a conceptual stormwater retrofit and habitat restoration master plan involving several water quality improvement opportunities within the 13,000 acre highly urbanized Palm River/McKay Bay Watershed. Activities include extensive research of several reports and permits within the project basin, identifying potential stormwater retrofit project sites, preparing conceptual designs and preparing a feasibility report.Cost Est 1,157,019

c.

(1) TITLE AND LOCATION *(City and State)*
Palatlakaha River Restoration
Lake County Water Authority, Lake County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2014	2014

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Project Engineer involved in the design, permitting and limited construction services of a water control structure removal/replacement evaluations for the Palatlakaha River Restoration Project in Lake County. The overall contributing area of the Palatlakaha River watershed is over 200 square miles with the river exceeding flows of 1000 cfs during the flood flow "gates open" condition. For this project, the drainage study area was limited to the 50 square mile drainage basin from Cherry Lake to the outfall at Lake Harris. In order to quantify the upstream contributing area, flood frequency analyses were performed using USGS flow data at gage stations along the river to quantify the flood frequency inflows. This project involved evaluation of existing manually operated radial gate dam structures along the river, preparation of final design plans for the structure modification and permitting with the goal of removing the manual operations of the radial gates. Other activities included permit research, analysis of existing rainfall and flow data, H&H analysis, and statistical analysis of historic flow data. Performed construction services including bidding assistance, shop drawing review, construction observation, as-built survey verification and project certifications. Cost: $402,506

d.

(1) TITLE AND LOCATION *(City and State)*
Woodlawn Terrace Floodplain Project
City of Clearwater, Clearwater, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2013	2014

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Project Engineer responsible for the design and permitting of a floodplain storage area that was designed to compensate for potential flooding concerns as a result of the design of storm sewer system improvement done for an upstream neighborhood. The design included diversion of water from a creek and routed through a meandering channel-like storage area located on the City of Clearwater property. Duties included H&H analysis, development of design plans and permitting. Cost: $827,800

e.

(1) TITLE AND LOCATION *(City and State)*
River Tower Restoration and Stormwater Project

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2011	2013

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Project Engineer responsible for the design and permitting of a stormwater retrofit and shoreline restoration project in a highly urbanized watershed in the City of Tampa along the Hillsborough River. Activities include research of historic plans and permits within the project basin, hydrologic and hydraulic analysis of the watershed, development of construction plans and agency permitting. Project to be bid this year. Cost Estimate: $2,242,000

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
F. Jaime Driggers, P.E.	**Geotechnical**	**43**	**33**

15. FIRM NAME AND LOCATION *(City and State)*

Driggers Engineering Services, Inc., Clearwater, Florida

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS - University of Florida - Civil Engineering - 1969 MS - University of Florida - Civil Engineering; Geotechnical - 1971	**Professional Engineer, State of Florida No. 16989**

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

American Concrete Institute, Florida Engineering Society
National Society of Professional Engineers American Society of Civil Engineers

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Cross Bayou Canal Geotechnical Services; Sub-Bottom Sampling Pinellas County, FL	2012	2012

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Provided geotechnical investigation and testing on the Cross Bayou Canal sub-bottom.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
San Salvador Drainage Improvements Dunedin, FL	2012	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Provided geotechnical investigation and testing for Drainage Improvements, together with value engineering recommendations for footings, etc.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Homeland Basin Drainage Study Pinellas Park, FL	2009	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Geotechnical subsurface investigation, materials classification testing, groundwater evaluation, engineering analysis and report

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Longboat Key Interconnect Project Longboat Key, FL	2013	N/A

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Provided geotechnical investigation including barge borings for a Subaqueous Crossing.

e.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Force Main, Gravity Sewer & Lift Station #85 St. Petersburg, FL	2012	2013

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Geotechnical investigation for new lift station as well as over 8 miles of pipeline through urban areas.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
J. David Greer, PSM	**Surveying / Mapping**	**39**	**11**

15. FIRM NAME AND LOCATION *(City and State)*

King Engineering Associates, Inc., Tampa, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
	Professional Surveyor and Mapper Florida, No. LS5189

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Basin 27 Channel
Pinellas County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ongoing	2015 est.

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Project Survey Manager overseeing topographic survey for Basin 27 Channel 1 for the County in preparation of dredging Basin 27 from Indian Rocks Road to 8th Avenue SW.

b.

(1) TITLE AND LOCATION *(City and State)*
Three Ponds at Three Lakes Subdivision
Pinellas County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ongoing	TBD

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Survey Project Manager overseeing the topographic survey services for two habitat restoration projects on the 2,600-acre Coral Creek Property within the FDEP's Charlotte Harbor Aquatic State Buffer Preserve for the SWFWMD SWIM program.

c.

(1) TITLE AND LOCATION *(City and State)*
Highland Avenue Preliminary Roadway Reconstruction and Stormwater Retrofit
Largo, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2012	2012

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Project Survey Manager overseeing survey for the design to expand an existing borrow pit to treat stormwater runoff from a mainly untreated residential/commercial intensive land use basin by diverting flows from an existing ditch and low flows from an adjacent storm sewer as well as provide enhancement of recreational trails for public use. The proposed stormwater treatment facility was constructed on city owned property adjacent to Highland Avenue and employ low impact development designs and concepts within the Highland Avenue right-of-way to further enhance the project and provide additional water quality treatment.

d.

(1) TITLE AND LOCATION (City and State)
Southwest Florida Water Management District (SWFWMD)
Myakka State Forest Hydrologic Restoration
Sarasota County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ongoing / Surveying completed 2010	Ongoing

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Project Survey Manager performing topographic surveys for which King's Ecological Department is providing the design, permitting and construction services for the hydrological restoration of this District owned property.

e.

(1) TITLE AND LOCATION *(City and State)*
Wet Weather Force Main and Pumping Program
Largo, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2013	2015

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Survey Manager for boundary, right-of-way and topographic surveys for 6 upgraded wastewater pump stations, ±7 miles of replacement 8"-16" wastewater force mains, 5 miles of new 20"-30" force main and remote monitoring and control equipment. Cost: $35 million

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT	20. EXAMPLE PROJECT KEY NUMBER 1

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if Applicable)
Alligator Creek Restoration ***Charlotte County, FL***	Ongoing	2016 est.

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Southwest Florida Water Management District	Stephanie Powers	813-985-7481

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

Project objective is the enhancement, restoration, and creation of coastal ecosystems habitats, and water quality improvements for the Charlotte Harbor Estuarine system, a SWIM Priority water body. This is a cooperative project with the Florida Department of Environmental Protection (FDEP) who owns and manages the 1,600 acre tract known as "Alligator Creek," as part of the Charlotte Harbor Preserve State Park (CHPSP). The project site is located south of Punta Gorda, between Burnt Store Road and the East Wall of Charlotte Harbor in Charlotte County, Florida.

King was tasked with the design, environmental permitting, bid preparation and construction management of Projects No.'s 4, 5, 6, 7, and 15 as identified in the Alligator Creek Conceptual Habitat Restoration Plan; collectively known as Alligator Creek Habitat Restoration Project-Phase 3. **The primary stormwater retrofit component will consist of the dredging of 18,000 cubic yards of material from an existing ditch network to create a 1.8 acre filter marsh system that will collect stormwater from six cross drains for polishing in created marshes prior to discharging back into Whidden Branch Creek.**

To ensure the proposed improvements would not result in a negative offsite impact, King conducted a detailed H&H modeling analysis of the existing array of drainage ditches bisecting the project site and convey over 750 acres of offsite drainage.

The project design focuses on the restoration of historic hydroperiods, hydropatterns, salinity gradients and sheet flow for a complex coastal habitat mosaic containing over 100 acres of palustrine, oligohaline and estuarine wetland communities within the project area, while enhancing the water quality entering the headwaters of Whidden Branch Creek system and Charlotte Harbor. In addition, the project also targets the removal of 110 acres of exotic/invasive vegetation, primarily dense stands of Brazilian pepper, and selective stormwater enhancements, and recreational features. The project design will accommodate park management objectives as well as existing listed species and archaeological resources.

It is anticipated that the Project will help in the hydrological restoration of important tidal creek and lagoonal habitats, transitional habitats, freshwater marshes, ponds and uplands. Restoration of these communities will help offset habitat impacts and losses suffered throughout Charlotte Harbor and will prove valuable for the public and for thousands of coastal species that use the Charlotte Harbor ecosystem.

Cost: $1.3 million

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE – Prime
a.	**King Engineering Associates, Inc.**	Tampa, FL	Civil Engineering, Water Resources / Drainage Engineering, Hydraulic / Hydrologic Modeling, Ecological Services, Permitting, Surveying/Mapping, GIS, and Construction Management

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT	20. EXAMPLE PROJECT KEY NUMBER 2

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if Applicable)
Coral Creek Ecosystem Restoration ***Charlotte County - FL***	Ongoing	Phase 1A & 1B: 2014

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Southwest Florida Water Management District	Stephanie Powers	813-985-7481

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

King is currently under contract to the SWFWMD to provide continuing professional engineering and ecological services for a joint FDEP/SWFWMD SWIM habitat restoration project located on the 2,600-acre Coral Creek Preserve within the Charlotte Harbor Preserve State Park. Project services for this phased project included development of a Master Conceptual Plan, and the design, permitting and construction related services in implementing multiple large scale restoration activities that required dredging, excavating and backfilling of disturbed habitats in concert with hydrological enhancements.

The initial phase consisted of a Feasibility Study and a development of a Master Conceptual Plan for the entire property in 2009 that included: historical accounts, trend analysis (1930-2008); listed species and cultural resource assessments; exotic/nuisance plant inventories; water quality analysis; H&H and salinity modeling.

The next phase, Projects, 1A and 1B (recently completed) involved final design, permitting, bid/spec preparation and construction observations services. **This phase included construction of a filter marsh system that required removal of dense vegetation/debris followed by the dredging approximately 15,000 CY of accumulated sediments from the existing, degraded canal. Construction included a maintenance berm, littoral zones, and a 140-foot long weir that re-routed flows from the RWD back into the East Branch to emulate the historic condition.**

King is currently in final design and permitting of the 325 acre, Phase 2 Project that entails the dredging and re-grading of an abandoned canal network to restore/enhance over 75 acres of palustrine and estuarine wetlands identified as critical juvenile tarpon habitat by FMRI. The project will also restore coastal flatwood habitats harboring a large population of the threatened gopher tortoise. Project Construction is anticipated to commence in winter of 2015.

Overall, the Conceptual Plan developed by King targeted hydrological restoration of over 585 acres of degraded wetland/slough systems and proposed enhancements to the 200-acre West Branch Impoundment through removal of an existing 700-foot long concrete dam. The plan integrated proposed park improvements while enhancing the permitted stormwater management systems and flood protection for the adjacent Rotonda West Development (RWD) and over 174 individual in-holding parcels.

In support of the project design, King also developed a proprietary ICPR model of the 12,000-acre RWA basin to simulate pre- and post-project conditions to assist with design and permitting of the projects. The study also included an evaluation of pollutant loading and stormwater retrofit opportunities to address Total Maximum Daily Load (TMDL) concerns for nutrients within the East Branch of Coral Creek, a FDEP 303(d) listed impaired waterbody.

Phase 1A and 1B Cost: $665,000
Phase 2 Cost: TBD

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE – PRIME
a.	**King Engineering Associates, Inc.**	Tampa, FL	Civil Engineering, Water Resources / Drainage Engineering, Hydraulic / Hydrologic Modeling, Ecological Services, Permitting, Surveying/Mapping, GIS, and Construction

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT	20. EXAMPLE PROJECT KEY NUMBER 3

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if Applicable)
Terra Ceia Ecosystem Restoration Project, Phase I ***Hillsborough County, FL***	2005	2008

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Southwest Florida Water Management District	Dr. Brandt Henningsen	(813) 985-7481

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

King was contracted by the District's SWIM Section to provide design, permitting and construction administration for a restoration project within the Terra Ceia Aquatic and Buffer Preserve. The 1,600 acre property is jointly owned by the District and the Florida Department of Environmental Protection (FDEP). **The project required the dredging and excavation of former agricultural lands, and drainage canals in providing approximately 200 acres of estuarine habitat restoration and 400 acres of upland habitat restoration**. The project **represents one of the largest restoration projects undertaken by the District.** Permits were obtained from the U.S. Army Corps of Engineers and the FDEP.

Elements of the project design included the re-grading of disturbed wetlands to facilitate nuisance species removal and replanting with desirable salt marsh grass species, the re-grading/dredging of agricultural ditches and associated spoil mounds to facilitate the construction of braided tidal creeks and channels, the re-grading/dredging of agricultural fields and ditches to allow tidal exchange and planting with selected salt marsh grass species, freshwater wetland creation, and extensive nuisance/exotic species removal and replanting with desirable upland species.

Within the Terra Ceia property, the existing cultural and historical resources were initially identified and mapped pursuant to the completion of a Level 1 cultural resource survey. The nature and location of each identified cultural resource was taken into account in the development of the conceptual design for the overall project. At the time that construction plans were prepared, any cultural resource areas that fell adjacent to proposed work areas were located using mapping grade GPS equipment and incorporated into the construction plans to ensure that the construction of habitat restoration areas would not imply impacts to existing cultural resources.

The project received a "Second Place Future of the Region Award" from the Tampa Bay Regional Planning Council. King also received accolades from review agencies, the project Cooperator and Construction Contractor for the quality and accuracy of the ecosystem restoration plan set.

King provided full-time construction management and oversight. Earthwork elements of the project included over 200 acres of estuarine wetland creation and restoration, including creation of hydrologic connections to tidal creeks and estuarine waters.

Cost: $3.3 million

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE - PRIME
a.	**King Engineering Associates, Inc.**	Tampa, FL	Civil Engineering, Water Resources, Hydraulic / Hydrologic Modeling, Ecological Services, Permitting, and Construction Management

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT	20. EXAMPLE PROJECT KEY NUMBER 4

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if Applicable)
Hammock Park / Lake SueMar ***Dunedin, FL***	2008/2009	2009/2010

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
City of Dunedin	Doug Hutchens	727-298-3005

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

Hammock Park is a unique 75-acre natural park and preserve that includes a mixed hardwood forest and supports various forms of wildlife and vegetative communities. King developed a conceptual plan targeting both the enhancement of the 15-acre wetland hammock and a 3.6 acre man-made lake via dredging of over 20,000 CY of sediments and re-contouring of the lake as a stormwater retrofit component. The project resulted in the diversion and treatment of approximately 255 acres of urban watershed contributory to Cedar Creek. Activities included wetland delineations, hydroperiod evaluation, floral and faunal inventories, listed species surveys, habitat quality assessment, wetland enhancement and aquascape design that integrates into the expansion of Hammock Park System.

Lake SueMar was originally an artificial lake that was excavated in the 1960s to provide fill and stormwater retention for the abutting residential development. King's project design involved a diversion control structure on Channel A near Lake SueMar and two overflow weirs along the banks of the lake adjacent to Channels A and C for division of runoff into the lake. **The design included the removal of 2 acres of dense vegetative cover followed by the dredging of over 20,000 CY of sediments, the re-contouring of the lake to include two sediment sumps near the channel inflows and the excavation of a deep permanent pool area for treatment purposes.** Construction of extensive littoral zones and tree islands were also included to provide further habitat enhancement and water quality benefits to the lake as well as Cedar Creek system and St. Joseph's Sound. The project required modeling of Channels A & C and Lake SueMar, with Cedar Creek as its outfall. Cost: $880,000

The **Hammock Restoration** aspect involved the construction of a channel control structure and two overflow weir structures to divert flow from an existing man-made channel into a 15-acre adjacent forested wetland system to improve hydration of the existing wetland system. **Additionally, the project entailed the dredging and bank stabilization of 1300-feet of Channel C that included innovative use of geoweb slope stabilization utilizing a wildflower/native grass hydroseeding application that expedited permitting.** Project provided channel embankment stabilization to the existing channel, which has experienced chronic erosion and impacts to private property adjacent to Hammock Park. King also developed a hydrological and ecological monitoring program to assess the effectiveness of the project improvements, and make recommendations consistent with an adaptive management approach. Cost: $1.1 million

Both projects were jointly funded by the SWFWMD in consideration of the water quality benefits. Construction plans were developed for both projects. Permitting included Individual ERP from SWFWMD and a US Army Corps of Engineers (USACE) Nationwide permit were obtained. Construction observation services were provided for the duration of construction.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE - PRIME
a.	**King Engineering Associates, Inc.**	Tampa, FL	Civil Engineering, Water Resources / Drainage Engineering, Hydraulic / Hydrologic Modeling, Ecological Services, Permitting, Surveying/Mapping, GIS, and Construction Management

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT	20. EXAMPLE PROJECT KEY NUMBER 5

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if Applicable)
Lake Thonotosassa Shoreline Restoration ***Hillsborough County, Florida***	2000	2000

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Southwest Florida Water Management District	Lizanne Garcia	813-985-7481

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

King was contracted by the District to design, permit and manage the construction of a freshwater marsh creation and restoration project along Lake Thonotosassa, an 819-acre lake located in eastern Hillsborough County, Florida. FDOT mitigation funds were used for the construction and planting of this project.

The project involved the dredging and excavation of over 45,000 CY of sediments/fill from approximately 100 acres of disturbed freshwater marsh habitat along the lake's eastern shoreline that was historically converted to improved pasture. The restored areas were replanted with desirable freshwater vegetation and a weir structure constructed to divert flow from Baker Creek, the major tributary to the lake, through the restored freshwater marsh prior to discharge into the lake.

The project was successful in providing removal of both nutrients and suspended solids from Baker Creek prior to entering the lake, as well as return the former value to fish and wildlife habitat along the eastern shoreline of the lake. Permits were obtained from the U.S. Army Corps of Engineers, Florida Department of Environmental Protection and Hillsborough County.

King assisted the District with the construction bidding process, and was also responsible for construction management and oversight. The project construction involved significant grading, dredging, embankments, diversion structures and habitat creation.

Cost: $740,693

Post-Flooding

Pre-Flooding

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE - PRIME
a.	**King Engineering Associates, Inc.**	Tampa, FL	Civil Engineering, Water Resources, Hydraulic / Hydrologic Modeling, Ecological Services, Permitting, Surveying/Mapping, GIS, and Construction Management

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, If not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY NUMBER **6**

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if Applicable)
Joe's Creek Channel Improvements **Pinellas County, FL**	2010	2010

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Pinellas County	Ivan Fernandez	727-464-3654

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

This was a significant channel improvement project for Pinellas County. The channel limits extended from 66th Street to downstream of 54th Avenue North. The channel was located in a brackish water zone due to the proximity of Boca Ciega Bay.

The project entailed a watershed and hydraulic analysis (9,000 acre basin), channel conveyance improvements, scour and sedimentation determination and development of water quality improvements within the watershed and associated connecting streams.

The Joe's Creek contributing area is an urban watershed which outfalls into a tidal water body (Boca Ciega Bay). However, the constraints of urban development have narrowed the confines of the creeks contributing to the outfall (Joe's Creek and Miles Creek). These constraints have resulted in generation of high stream velocities in some places and erosion is occurring in some areas, especially in channel skews. The hydraulic goal was to reduce the localized flooding in the area and contain the 25-year storm event within the channel confines.

The channel needed to be dredged and widened to provide the flow conveyance. Over 35,000 cy of muck material was hydraulically dredged and pumped to settle into a multi-cell staging pond system. The channel side slopes were protected from erosion with open-cell interlocking blocks which also allowed vegetation re-establishment. The downstream habitat area was later also dredged and re-established to provide environmental benefit to the eco-system.

Permits were prepared and approved through the various agencies including SWFWMD and ACOE.

A public involvement and communication plan was also implemented to advice the residents and stakeholders surrounding the project of the proposed improvements and schedule for construction.
Cost: $12 million

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE -
a.	**EPN Group**	Largo, FL	Personal Experience Peter Nikolov

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, If not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY NUMBER **7**

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if Applicable)
Curlew Creek Channel-A Improvements **Republic Dr to Belcher Rd**	2012	2013

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Pinellas County	Nancy McKibben	727-464-4812

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

The project limits extended along Curlew Creek Channel-A from Republic Drive to Belcher Road.

The project area experienced extensive flooding and erosion due to the urbanized area and high flow conditions. The basin drains a portion of Pinellas County and the City of Dunedin and discharges to St. Joseph Sound.

A watershed model using ICPR was completed for the watershed to determine the flows, velocities and water surface elevations for varies storm events. The area experienced significant flooding and erosion due to the urbanized natural of the watershed. The area also had many homes very close and adjacent to the top of channel banks. The channel also had areas of exotic plantings that needed to be removed.

An erosion and sediment analysis was completed due to the severe bank failures along the channel. The channel had a curvilinear alignment that added to the channel erosion. Channel erosion protection alternatives were developed and implemented.

Construction plans and complete specifications were prepared for the channel improvements. The improvements consisted of dredging the channel, widening the channel, upgrading storm culverts and stabilizing the side banks and channel bottom.

There was significant removal of exotic plantings as part of the channel widening. The channel profile was re-established for proper drainage conveyance. A separate environmental shelf was constructed on one side of the channel bottom to provide mitigation and habitat refuge.

Coordination and communication with the surrounding public and stakeholders was critical for successful implementation of the improvements.

Permitting was prepared and approved through SWFWMD and ACOE. Cost: $7 million

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE -
a.	**EPN Group**	Largo, FL	Personal Experience Peter Nikolov

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, If not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **8**

21. TITLE AND LOCATION *(City and State)*

Pumping Station S-127 Improvements
Duckhead Ridge, FL

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (if Applicable)
2015	

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
South Florida Water Management District; W. Palm Beach, FL	Richard Virgil	561-682-6759

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

BCG Engineering & Consulting, Inc. (BCG) provided design, preparation of plans and specifications and post-design construction engineering service for an upgrade of the facilities at Pump Station S-127. Pump Station S-127 is a five (5) bay station with a total capacity of 625 cfs. The project consisted of deepening the L-48 by 4 feet for 1500 feet; adding a new suction basin and service bridge; the widening and elevating the site and construction of a new Emergency Operations Control Facility; an automated trash rake system; the upgrade and automation of the culvert gate structure, and expansion of the existing paved areas at the existing S-127 Pump Station site.

The design of the L-48 canal deepening consisted of utilizing a hydraulic dredge to remove 13,500 cubic yards of material and place in diked fill areas between the canal bank and Hoover Dike. The fill area included a water return control structure to return the discharge water back into the canal. This structure was located on the opposite end of the dredge discharge to allow for sediment settlement minimizing sediment concentrations from returning back to canal.

The design of the operations Control Facility includes ADA compliance and a 140' free standing communications tower with foundation, parking areas, potable water supply, electrical and standby power systems, HVAC, and septic system. Building was designed to resist a 150 MPH wind.

The design of the trash rake system included a service bridge, trash racks, trash rakes, wing walls and electrical power and controls.

Construction engineering services includes site visits, addressing Request for Information (RFI), review of test data, review of shop drawings, review of submittals and other data to ensure compliance with the design.

Surveying, geotechnical and electrical engineering services were performed by subconsultants to BCG.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE - PRIME
a.	**BCG Engineering & Consulting**	Metairie, LA	Project manager; Civil, Structural, Mechanical and Environmental Engineering

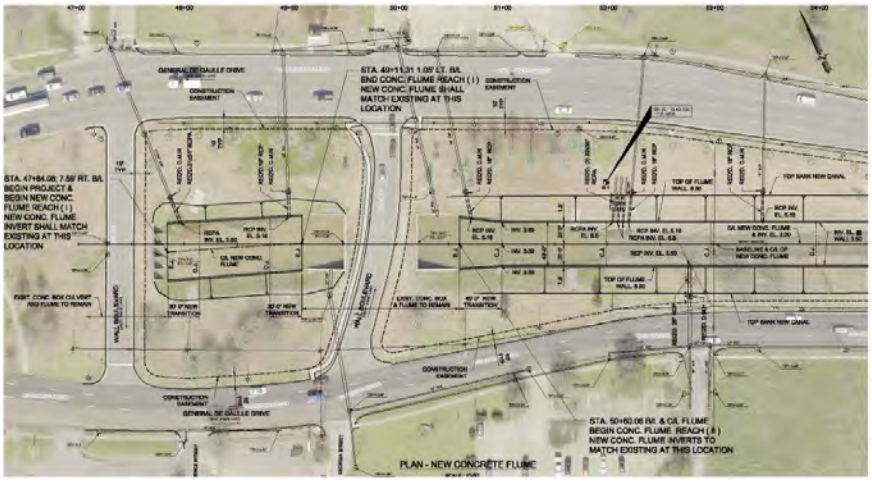
F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, If not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY NUMBER **9**

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if Applicable)
Gen. De Gaulle Dr. Canal Improvements Wall Blvd. to Behrman Place, New Orleans, LA.	Ongoing	

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Sewerage & Water Board of New Orleans	Joseph Becker	504-585-2365

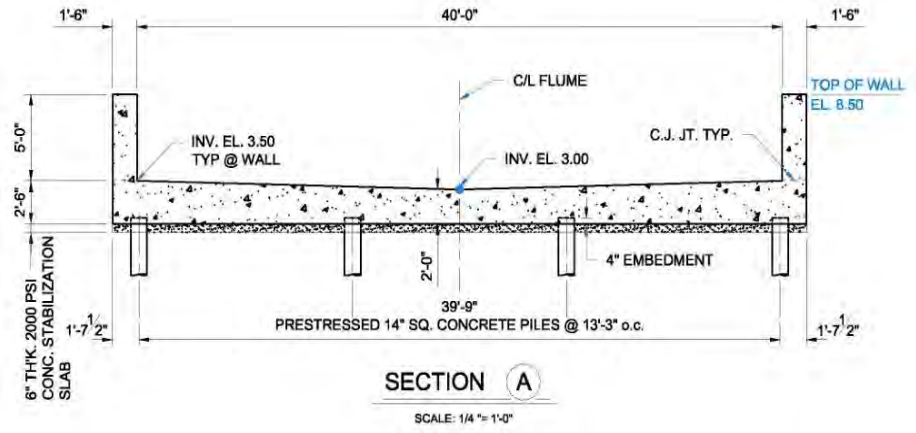
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)



BCG Engineering & Consulting, Inc. performed the concept engineering , hydraulic analysis, dredging design, detailed design, plans preparation and permitting to improve the conveyance of the existing median earthen canal by deepening the canal, placing a cast in place concrete bottom flume founded upon concrete piles to prevent settlement due to the soft soils present. BCG performed the hydraulic design utilizing the SWMM fluid dynamic computer model to size the improvements to convey storm runoff for a 10 year design event. BCG also performed a benefit cost analysis to determine project feasibility.

BCG designed the dredging to utilize dewatering canal reaches and bucket dredge removal of material to be hauled to a commercial landfill.

This project improves approximately 6000 LF of a major urban canal to a width of 82-feet and to a depth of 12-feet. Other improvements included storm water control structures to reduce on-going maintenance in the canal. BCG will perform construction administration once construction begins. Project construction budget is estimated at $40 million



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE - PRIME
a.	**BCG Engineering & Consulting**	Metairie LA	Project manager; Civil, Structural, Mechanical and Environmental Engineering

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, If not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY NUMBER **10**

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if Applicable)
NYC DEP 26th Ward Water Pollution Control Plant (WPCP) Brooklyn, NY	2014	2015

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
New York City Department of Protection	Daniel Solimando, PE	718-595-5045

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

Under this contract, Greeley and Hansen designed sustainability and resiliency improvements to NYC DEP's 26th Ward Wate Pollution Control Plant (WPCP) in Brooklyn, NY. This project increased reliability of preliminary treatment, improved flow distribution at the plant, and enhanced the solids handling facilities. The related WERF research resulted in minimizing resources, specifically sodium hydroxide, that saved $8.7 M in life cycle costs. The Envision™ rating system developed by the Institute for Sustainable Infrastructure (ISI) was utilized for evaluating and improving the project's sustainability. A Life-Cycle-Analysis (LCA) based on Envision™ approved ISO standards for various architectural and structural components was undertaken during detailed design to understand the environmental impacts of products and processes with specific focus on critical factors like global warming potential and energy demand potential.

This project is the first step on the path for the NYC DEP to achieve their long-range vision for sustainable wastewater treatment in New York City. This long-term vision positions the 26th Ward WPCP as a model for the NYC DEP's wastewater treatment plants in terms of safety, performance, operations and sustainability.

Envision™ Rating System

The Envision™ Checklist was integrated early into the design process to identify and increase the number of sustainable features, such as preference for manufacturers with sustainable policies and practices, energy efficiency and reduction in consumption, reuse of existing structures, incorporation of emergency operations, reduction of risks, accommodations to changing operating environment throughout the project life cycle, and specifying indigenous and non-invasive landscaping. The Envision™ Rating System was utilized during detailed design to aid in evaluating and selecting levels of achievement for individual project features. This allowed for benchmarking the sustainable performance and identification of potential incremental improvements. The resulting design achieved an impressive self-assessment rating system score in the Gold award spectrum. The owner is submitting the final Envision assessment for verification and award. The Envision™ tools provide a system for an organized and comprehensive evaluation of project features, aid in the decision process for selecting alternate features, and encourage documentation of decisions resulting in resilient, high performance infrastructure that improves the community quality of life.

Early Optimization Yields Compliance with Reduced Resource Consumption

Greeley and Hansen work with operations and process engineering staff at 26th Ward to develop and understand the alkalinity balance in the WWTP and create a business case for the elimination of caustic addition to the WWTP to support nitrification in sidestream (AT3) and mainstream reactors. The reduction in chemical dosing has had no perceivable impact on plant performance and is projected to save NYC DEP's operations bureau $8.7M in present value costs and 8,000 tons CO2e over a 20-year timeline.

Planning and Design Services focused on Operational Efficiency

As the Engineer of Record (EOR), Greeley and Hansen is providing all engineering study, permitting, design and design services during construction for the project. This includes additions and modifications to the raw sewage high level pumping and flow distribution, primary settling and sludge processing and the sodium hydroxide (caustic) system. These modification will provide more reliable raw sewage pumping and preliminary treatment for the current wet weather plant capacity of 170 MGD.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Greeley and Hansen LLC	New York, NY	Prime Consultant

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS

26. NAMES OF KEY PERSONNEL (From Section E, Block 12)	27. ROLE IN THIS CONTRACT (From Section E, Block 13)	28. EXAMPLE PROJECTS LISTED IN SECTION F (Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role.)									
		1	2	3	4	5	6	7	8	9	10
Thomas M. O'Connor, PE	Client Manager	X	X	X	X	X					
Peter J. Bottone	Project Coordinator	X	X		X						
Brian K. Skidmore	Ecological Services	X	X	X	X	X					
Michael D. Palmer	Ecological Services / Permitting	X	X	X		X					
E. Peter Nikolov, PE	Hydraulic / Hydrologic Modeling / Erosion Control Permitting						X	X			
Agustin Maristany, P.E.	Hydraulic / Hydrologic Modeling				X						
Adam Marshall, P.E.	Hydraulic / Hydrologic Modeling Slope Stabilization Erosion Control / Maintenance		X								
Sudhir Mehta PE	Dredging Engineering / Expertise									X	
Ike Mayer PE	Dredging Engineering / Expertise								X		
Freddy Betancourt, PE, LEED AP, ENV SP	Envision / ISI										
John Lenti, AIA, LEED AP, ENV SP	Envision / ISI										X
F. Jaime Driggers, PE	Geotechnical										
Kyle D. Smith, PE	Slope Stabilization / Erosion Control / Maintenance Construction Management	X	X		X						
J. David Greer, PSM	Survey / Mapping	X	X								

29. EXAMPLE PROJECTS KEY

NO	TITLE OF EXAMPLE PROJECT (FROM SECTION F)	NO	TITLE OF EXAMPLE PROJECT (FROM SECTION F)
1	**Alligator Creek Restoration**	6	**Joe's Creek Channel Improvement**
2	**Coral Creek Ecosystem Restoration**	7	**Curlew Creek Channel-A Improvements**
3	**Terra Ceia Ecosystem Restoration Project**	8	**Pumping Station S-127 Improvements**
4	**Hammock Park / Lake SueMar**	9	**Gen. De Gaulle Dr. Canal Improvements**
5	**Lake Thonotosassa Shoreline Restoration**	10	**NYC DEP 26th Ward Water Pollution Control Plant**

H. ADDITIONAL INFORMATION

EXPERIENCE SPECIFIC TO THE CROSS BAYOU FLOOD CONTROL IMPROVEMENTS PROJECT

King Engineering Associates, Inc. has been a consultant to Pinellas County *since 1992* performing civil, water resources, and utilities engineering, and modeling, ecological, and land surveying services. In this capacity, we have performed these varied services for the County under a number of miscellaneous consultant services contracts (i.e. Environmental Support Services; Roadways, Drainage, Structural, Civil, Traffic Engineering, Land Survey and Mapping and Utilities Engineering Consulting Services) over this period of time.

- **PREVIOUS EXPERIENCE** - In 2012, King and team member Driggers Engineering Services, Inc. (DESI) conducted a detailed, preliminary assessment of the Cross Bayou Canal (CBC) system in assisting the County with developing a dredging and maintenance approach to address flooding concerns between 102 Avenue and Ulmerton Road. Under the CBC Phase 1 Maintenance Project, King provided many of the same services the County is seeking for this project, including:
  - Historical overview
  - Preliminary Dredging Design
  - Engineering
  - Ecological Assessment & Permitting
  - Geotechnical Assessments
  - Survey
  - Utility Coordination
  - Cost Estimates

- **PEER REVIEW** - King conducted the peer review of Jones Edmunds & Associates, Inc. (JEA) CBC Watershed Model for the County. As a result, King is highly familiar with the model its uses and limitations, thus eliminating the learning curve in allowing King the ability to efficiently use and modify the model for potential alternative project design assessments as required under this RFP.

- **FAMILIARITY W/ CBC CORRIDOR** - King is highly familiar with a majority of the CBC Flood Control Project area and the history of this system associated with the recent design and permitting of the Largo Wet Weather Pumping System. This consolidated effort provided extensive insight regarding the various municipality jurisdictions, their management teams and processes, including utility assets proximal to the project as well as ecological and geological conditions of the CBC south of 150th Avenue, associated with the horizontal directional drill installation of 635 lf of pipeline, from 150th Avenue under the CBC to the City of Largo Treatment Plant.

- **REGULATORY KNOWLEDGE** - King has fostered an excellent working relationship with the local regulatory agencies, in particular with the USACE (Ms. Tracy Hurst) in the permitting of various creek and channel restoration projects throughout Pinellas County using innovative approaches that emphasize “soft structures” and environmentally friendly designs. For this reason, King was brought in under contract in two recent cases by local municipalities to “re-assess” and modify a prior consultants design approach regarding channel stabilization in order to secure project permits from the USACE.

- **DESIGN EXPERIENCE** - King has extensive experience in the analysis, design, permitting and construction related services for large scale ecosystem/wetland restoration projects and stormwater retrofit projects throughout the West Coast of Florida, particularly in the Tampa Bay Region. Serving as a consultant for the SWFWMD SWIM Program over the past 25 years, King has successfully completed over 15 restoration projects, including key personnel proposed under this RFP that have collectively completed over 30 SWIM projects to date, many of which have won awards. These large water resource projects are similar to the CBC Flood Control Project in that they require an experienced management team, utilizing a multi-disciplined approach to successfully navigate the projects through complex, project design, permitting and construction challenges.

H. ADDITIONAL INFORMATION

- **DREDGING EXPERTS** - King Team Member BCG Engineering and Consulting, Inc. has "hands on" design and construction experience in successfully completing canal/levee dredging projects located within urbanized corridors than any other local firm available to the County.

EXCEPTIONAL RESOURCES and CAPABILITIES TO PROPERLY PROVIDE THE SERVICES FOR THIS PROJECT

We have assigned a uniquely qualified team of professional engineers and scientists – specializing in civil engineering, dredging, H& H modeling, geotechnical engineering, construction administration, environmental design and permitting, with a focus on achieving EnvisionTM / sustainability goals. The following are biographic highlights of key project team members:

KING ENGINEERING ASSOCIATES, INC.

Pete Bottone, our proposed Project Coordinator, brings 33 years of experience in the field of ecological sciences, specializing in the management, design and permitting of large-scale ecosystem and wetland restoration projects for the SWIM and CERP (Everglades) Programs, FWC and FDEP. Serving as Project Manager, he was responsible for preparing the **Preliminary Feasibility Study for the CBC Phase 1 Maintenance Project** included as an attachment with the County's RFP for this project. He has provided similar services on a number of Pinellas County projects as well, including the McMullen Booth Regional Mitigation Bank, the Haynsworth Tract/Sawgrass Lake Stormwater Project and the Bayside Bridge and has been the Project Manager for over 30 SWIM /CERP habitat restoration of which 9 have received awards in the environmental design category.

He currently serves as an expert Independent External Peer Reviewer panel member for Battelle in the review of large (>$50M) **USACE sponsored coastal projects in Florida and Louisiana under WRDA provisions, several of which involved significant dredging aspect (i.e. Port Everglades deepening project).**

Tom O'Connor, PE is a registered P.E., has and is currently serving as Principal-in-Charge for King's consulting services performed for **eight (8) Southwest Florida Water Management District (District) projects** involving restoration **dredging / excavation, debris and nuisance removal, plantings, stormwater retrofit, and various other components similar to this project.**

King members **Adam Marshall, PE** conducted an **Independent Peer Review of the Cross Bayou Canal Watershed Model** prepared by the County's consultant, while **David Greer, PSM** directs King's surveying services for a multitude of Pinellas County projects including the CBC and the Basin 27 Channel in preparation of dredging.

Peter Nikolov, EPN Group has worked on Pinellas County projects for 30 years and brings significant knowledge related to drainage and channel improvement projects having completed channel and dredging improvement projects for Pinellas County and surrounding areas including Curlew Channel, Cross Bayou Basin and Joe's Creek, among others.

BCG Engineering and Consulting, Inc. will be bringing their dredging and materials management expertise to this project. Team members include:

- **Cecil Soileau PE** has 51 years civil and hydraulic engineering and previously employed by USACE New Orleans District for 30 years.
- **Ike Mayer PE** has 48 years of experience in engineering design and construction throughout Louisiana Mississippi and Florida. Previously employed by the USACE for 14 years.
- **Sudhir Mehta PE** has 37 years of experience in civil and structural engineering involving dredging projects of major urban canal systems to accommodate control systems, levees, and pipelines.

H. ADDITIONAL INFORMATION

Greeley Hanson, LLC – will provide accredited Envision™ Sustainability Professionals including Freddy Betancourt, who participated in a preliminary Envision™ assessment presented to Pinellas County Staff (*January 2014*) and John Lenti, who is an ISI Certified Envision™ Verifier and Trainer.

Joan Deming, of Archeological Consultants, Inc., brings nearly 40 years' local experience in cultural resource assessment and management and has performed a preliminary review of available records proximal to the project and they will provide cultural services for the project.

WILLINGNESS AND ABILITY TO MEET SCHEDULE AND BUDGET BASED ON CURRENT AND PROJECTED WORKLOAD

Extensive Resources and Backup Staffing - King has 104 professionals, technicians and support staff to draw upon for this contract, 80 of which work from our Tampa office. Although we don't anticipate needing to do so, we can call on qualified personnel at our other offices located in Miami and Sarasota, for assistance. Our team has reviewed their current and forecasted workload and have determined immediate and sustained availability to remain involved throughout the projects duration. They chart below depicts our teams workload commitment which drops off as projects are completed.

KEY STAFF COMMITMENT

NAME	February-15	March-15	April-15	May-15	June-15	July-15	August-15	September-15	October-15	November-15	December-15	January-16
Thomas M. O'Connor, PE	70%	70%	70%	65%	65%	65%	65%	65%	65%	65%	60%	55%
Peter J. Bottone	70%	70%	68%	68%	65%	65%	55%	55%	55%	50%	40%	40%
Brian K. Skidmore	70%	70%	60%	65%	65%	65%	55%	55%	55%	50%	50%	45%
Michael D. Palmer	60%	60%	60%	50%	50%	50%	50%	40%	40%	40%	40%	40%
Benjamin Ballard	65%	65%	65%	60%	60%	55%	55%	55%	50%	40%	40%	40%
Jason Jendrucko	75%	75%	70%	70%	70%	70%	65%	65%	65%	65%	50%	50%
Agustin Maristany, P.E.	80%	80%	75%	75%	75%	70%	70%	70%	65%	65%	60%	60%
E. Peter Nikolov, PE	85%	85%	85%	85%	80%	80%	80%	75%	75%	70%	70%	70%
Adam Marshall, PE	65%	65%	65%	60%	60%	60%	60%	55%	55%	50%	40%	40%
Sudhir Mehta PE	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%
David Dodgen PE	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Ike Mayer PE	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%
Cecil Soileau PE, PLS, DWRE	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%	40%
Freddy Betancourt, PE, LEED AP, ENV SP	40%	40%	40%	40%	40%	40%	40%	50%	50%	50%	50%	50%
Nita Naik, PE, LEED	0%*	0%*	0%*	0%*	50%	50%	50%	50%	50%	50%	50%	50%
John Lenti	45%	45%	45%	45%	45%	45%	45%	50%	50%	50%	50%	50%
F. Jaime Driggers, P.E.	65%	65%	70%	70%	50%	50%	50%	50%	40%	40%	35%	30%
Wayne S. Driggers, PE	75%	75%	75%	70%	70%	70%	60%	60%	60%	50%	50%	50%
Joan Deming	50%	50%	50%	45%	45%	40%	35%	35%	35%	35%	30%	30%
Lee Hutchinson	50%	50%	50%	45%	45%	40%	35%	35%	35%	35%	30%	30%
Kyle D. Smith, P.E.	75%	75%	75%	70%	70%	70%	70%	65%	65%	65%	65%	65%
Orlando Serrano, Jr.	60%	60%	60%	50%	50%	50%	50%	40%	40%	40%	40%	40%
J. David Greer, PSM	65%	65%	65%	60%	60%	55%	55%	55%	50%	40%	40%	40%
Stephen J. Cross, SR/WA	80%	80%	80%	80%	70%	70%	70%	65%	65%	65%	60%	60%
Chris R. Hutton	70%	70%	68%	68%	65%	65%	55%	55%	55%	50%	40%	40%
Elizabeth Lyon-Hall, RLA, LEED AP	55%	60%	65%	50%	50%	45%	45%	40%	40%	40%	40%	40%
John Seals, PE	70%	70%	60%	65%	65%	65%	55%	55%	55%	50%	50%	45%

H. ADDITIONAL INFORMATION

SCHEDULE AND BUDGET CONTROLS

To best serve Pinellas County, we will be implementing the following proven cost-effective, responsive approach for this project.

Upon being notified of a project assignment, we will develop a project specific Project Management Plan (PMP), that will serve as the project management reference guide for use by the County and King. Key elements of the PMP are:

- Identification of project goals and success factors (i.e., impacts to adjacent land owners/businesses, permitting and government agency requirements, potential land acquisition needs, etc.);
- Defining the scope of services, schedule, financial plan/budget, and team members;
- Defining communication and deliverables; and
- Conceptual review for systems improvements.

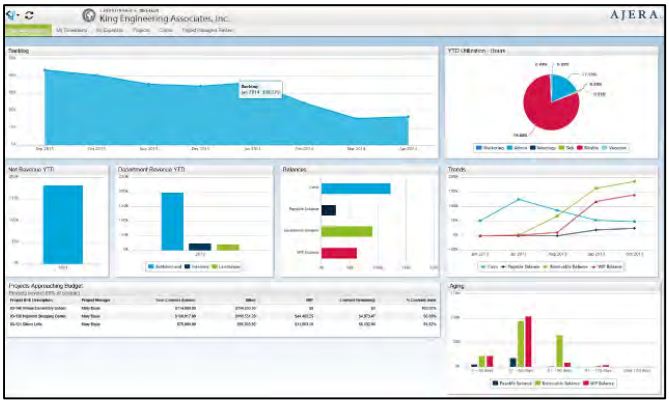
Based on that meeting, we will submit a draft Scope of Services and Fees, a SureTrak **critical path schedule**, a project-specific **Project Management Plan** (PMP), and **Communication Plan** to the County for review and feedback. Upon agreement, the documents will serve as reference guides by the King Team and the County for maintaining the schedule, budget, and procedures for each assignment.

Weekly and Monthly Project Review Meetings. At a fixed time each week**, internal meetings** are held by King Team members to discuss pertinent project developments, upcoming deadlines, and technical or administrative concerns. King will also hold project review meetings with the County's Project Manager and staff, on a minimum monthly basis to review project status, upcoming efforts and items of potential concern.

On a monthly basis, **Earned Value Analysis** will also be used to monitor the schedule and budget for each project by the PM estimating effort complete for each task (the Earned Value) and plot this amount along with the actual cost of preparing the work against the cumulative curve.

Project Management System

Our in-house computer based **Ajera Management Information System** tracks time sheet entries and project expenses daily for comparison against remaining budgeted hours and fees. The system immediately updates costs by task on a real-time basis and is available on a "Dashboard" (illustration) on the Project Manager's computer desktop.



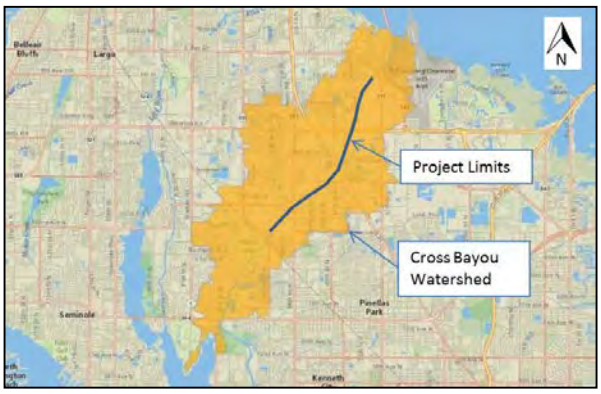
Quality Control Process. King's established QA/QC process is key to maintaining budget and schedule. This process includes:

1) *Project Specific Tailored Project Management and Communications Plan;*
2) *Peer reviews, focusing on "lessons learned" from previous projects;*
3) *Design and permitting requirement checklists;*
4) *Constructability and Construction Cost Estimate review at each milestone;*
5) *Review of all deliverables by the Principle–in-Charge, Quality Assurance / Quality Control Officer and the Project Manager; and*
6) *Continuous monitoring of project needs, Earned Value Analysis and the Project Management Plan.*

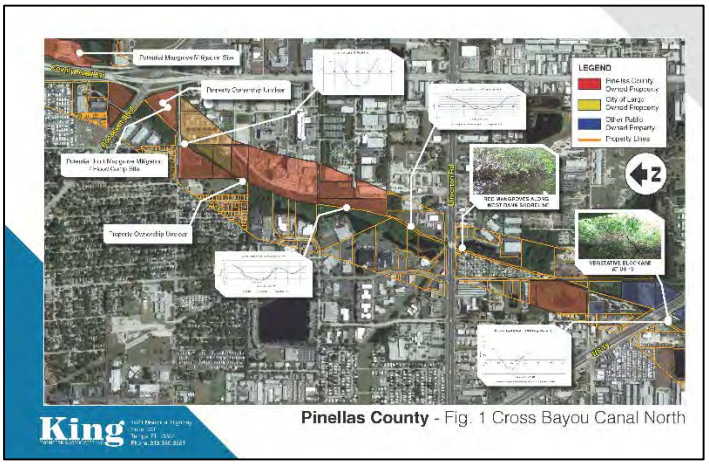
H. ADDITIONAL INFORMATION

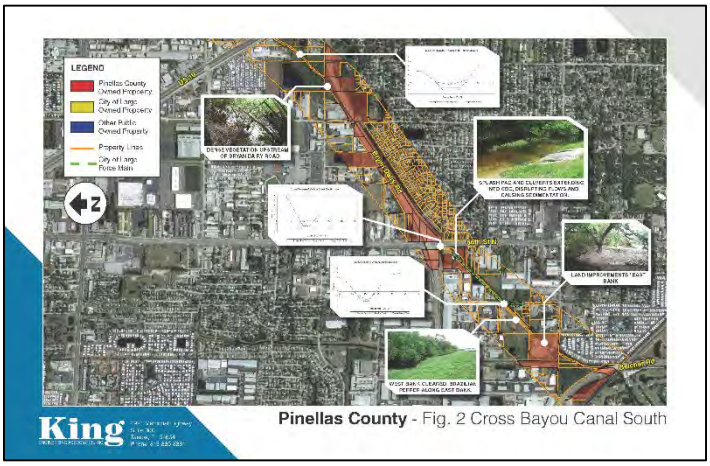
TECHNICAL APPROACH

PROJECT GOALS AND UNDERSTANDING - King is highly familiar with the unique conditions, constraints and challenges associated with enhancing the existing Cross Bayou Canal system having assisted the County with development of the CBC Phase 1 Maintenance Project-Preliminary Feasibility Study (October 2012) conducted in concert Cross Bayou Watershed Management Plan (CBWMP) work. Specifically, this entailed assisting the County in addressing flooding concerns (level of service), repeated property losses, public safety, water quality degradation and implementation of BMPs, while balancing these needs with protecting the environment as well as public/ private interests.



To accomplish the County's objective, the King Team will provide necessary professional engineering, surveying, geotechnical, environmental, archaeological and appraisal services to assess, design and implement the most cost-effective solution based on the recommended "Alternative 1" configuration presented with in the Alternatives Analysis developed under the CBWMP. This alternative targets the removal of vegetation/debris, along with the dredging and removal of approximately 38,500 cubic yards (CY) of sediments by extending King's identified maintenance area (Alternative 2) between 102nd Avenue North and Ulmerton Road, an additional ±5,500 feet northward to the 150th Avenue North Bridge, for a total length of nearly 16,500 linear feet. **In addition, the Project shall also be developed and delivered to the standards suitable for submittal to the Institute for Sustainable Infrastructure (ISI) to achieve Bronze recognition or greater per the ISA Envision Infrastructure Rating System.** Ultimately, the designed Project will need to meet the County's expectations regarding flood control, level of service, water quality and sustainable maintenance objectives, while being completed within the allotted budget and project schedule of 330 days from County NTP.





Larger Versions of Figures 1 and 2 are located in Section 6- Additional Information

EXISTING CONDITIONS - Originally constructed in the early 1900's to facilitate the draining of lowlands for agricultural purposes, the existing ±7,700 acre CBC watershed has been a source of recurring maintenance (erosion, sedimentation, debris accumulations) and flooding issues for Pinellas County dating back to at least the 1960's. With the intensive urbanization of the CBC watershed, these conditions have become more prevalent, resulting in more frequent flooding events, significant degradation of water quality, habitat and the proliferation of exotic/nuisance plant species sustained by the inability of the County to effectively access and maintain the CBC system. **Figure 1**, located in Section 6 - Additional Information, depicts various aspects of the CBC system.

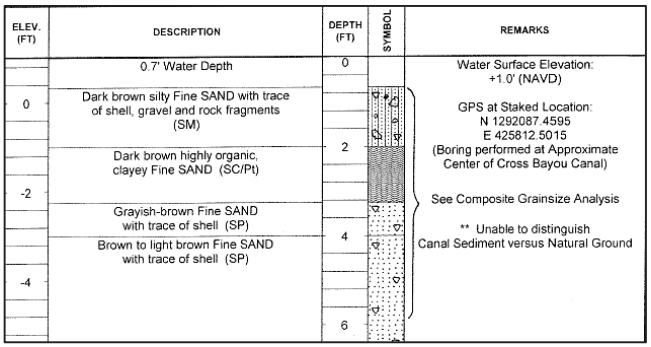
H. ADDITIONAL INFORMATION

Canal Characteristics - The CBC is a man-made, tidally influenced canal system with fringing Mangrove and Brazilian Pepper habitats frequently present along a majority of the canal banks. Salinity fluctuates based on tide and seasonality, but generally ranges between 0-2 ppt in the CBC south of Ulmerton Road, and can be over 15 ppt northward of this point. In cross section, the CBC varies in width (from 37 to 120 feet wide @ T.O.B.), but the typical cross section can be generally described as approximately 50-55 feet wide at T.O.B, with 2:1 to 3:1 side slopes down to the channel bottom. Water depths recorded by King at the approximate center line of the CBC ranged from 0.5' to 6.6 feet deep at MHW, with corresponding channel bottom elevations of 0.0' to – 5.2' NAVD. South of Ulmerton Road. North of Ulmerton Road to the 150th Ave Bridge, the channel is more tidally influenced and generally deeper, ranging from -2.1' to-4.6' NAVD. Predicted tidal elevations (for what period) within the CBC near Ulmerton Road (Tidal Station # 6342) were a Mean Low Water (MLW) of -0.3' NAVD and a Mean High Water (MHW) of 0.86' NAVD, with tidal amplitude of 1.2 feet near Safety Harbor (LABINS).

Stormwater Facilities, Structures etc. - Due to the extensive urbanization within the watershed and development that abuts the CBC system, a number of stormwater pipes are present in the CBC. King has noted the presence of a number of stormwater features, such as, culverts, splash pads, spill ways, rip rap, utility casings that encroach into the CBC system below the T.O.B. and in some cases, within the existing flow-way. Furthermore, in some areas (i.e. Mariner's Cove MHP and Bellview Nursery) situated along the CBC, additional structures such as docks, sheds, dog kennels or other similar assets appear to encroach into the CBC system as well. These concerns will need to be identified and addressed during early project design.

CBC Sediments - CBC sediments were characterized by King and sub-consultant Driggers Engineering Services, Inc. (DESI) as part of the CBC Maintenance Project. Sediment cores were collected at representative CBC Sections, to a minimum depth of -8 ft, classified and the estimated depth of the original CBC excavation interpreted by DESI. Both composite samples as well as individual fractions encompassing proposed dredging depths were evaluated for grain size analysis and fines in accordance with ASTM D 244. **In fact, representative sediment cores obtained during the original study remain archived by DESI and are available for testing as may be applicable to facilitate early analysis and an overall cost savings.**

Fines content (≤ 0.074 mm) of the tested sediments and/or fractions ranged from as low as 2% up to 53% of the all the fractions tested within the proposed dredge depth to elevation -4.3' NAVD. The fines fraction was typically comprised of grain sizes in a near 50/50 mix of silts (0.074 and 0.005 mm) and clays (< 0.005 mm), with silts ranging from 2-25% and clay/colloidal material ranging from 0-18% in the applicable fractions; and therefore, on a volumetric basis, the project sediments can be best described as silts and fine sands.



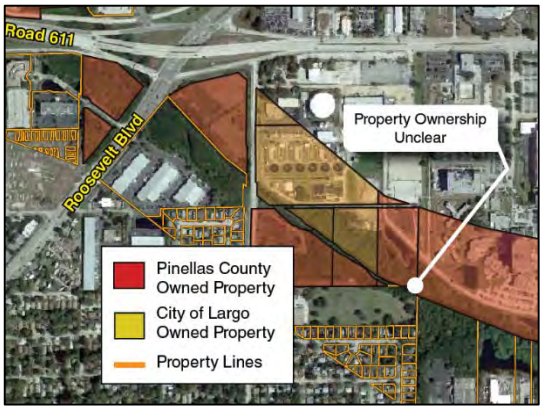
Wetlands/Vegetation - Very little emergent marsh or submerged aquatic vegetation (SAV) is currently present within the waterway. However, forested estuarine habitats (mangrove) are commonly present along the intertidal portions of the CBC from the MLW elevation (-0.3' NAVD) to just above the MHW elevation (0.86' NAVD). The occurrence of large areas of mixed mangrove habitats is most prevalent north of Ulmerton Road. *Preliminarily, approximately 10 acres of fringing mangrove/Brazilian Pepper habitats exist with the immediate CBC waterway within the project limits.* This habitat type is considered by the state and federal agencies (i.e. NMFS) as sensitive wetland communities and Essential Fish Habitat (EFH). *Thus impacts to these systems, will likely require a significant level of impact minimization analysis and potentially mitigation for impacts during USACE and State permitting*.

H. ADDITIONAL INFORMATION

In many cases, these areas have become excessively overgrown with lateral branches, roots, and dead wood extending out into the waterway resulting in some cases with the channel being been completely blocked (i.e south of US 19 Bridge) **(See Figure 1).** In turn, this has accelerated the accumulation of additional debris trash, flotsam, etc., within these constricted areas along with significant sediment deposition.

Listed Species - King conducted an update of the previous GIS based preliminary assessments of listed species occurrences conducted for the CBC Maintenance Project and again, found no significant concerns. In general, the potential presence of listed species such as nesting wading birds or Osprey, the Wood Stork and the West Indian Manatee which could be potentially encountered in the project footprint will be addressed during the project permitting efforts and through adherence to construction related protocols.

Parcel ownerships, Easements, Rights-of-way - Familiarity with the CBC corridor gained through King's preliminary work associated with the CBC Maintenance Project revealed that clear, dedicated County access or rights-of-way may not encompass all portions of the existing CBC system. In some cases the CBC seemingly bisects private properties or could result in the disturbance or the need to gain access through other private properties to facilitate proposed project activities, including long-term maintenance objectives.



Existing Utilities - As part of the CBC Maintenance Project, King conducted preliminary utility coordination effort (Sunshine Ticket #213206355) along CBC between Ulmerton Rd. and 102 Avenue. *Over 18 utility entities responded, with a least seven (7) deemed to be in potential conflict with proposed dredging work including fiber optic cables, Florida Gas Transmission and force mains, reclaimed and potable water lines.* The utility interests that were preliminarily identified as having the greatest potential for conflict is Pinellas Park's force main and potable water pipelines running along and crossing CBC between 102 Ave. and Ulmerton Rd. along with the City of Largo 18" force main and 12" reuse lines along the west side of CBD between 126th and 58th Street **(See Figure 2, located in Section 6 – Additional Information).**

PROPOSED PROJECT APPROACH, KEY ISSUES and SOLUTIONS

Utilizing the King Team's collective experience and detailed knowledge of the CBC system, our approach to providing the necessary services to meet the project purpose, schedule and budget is centered on rapid mobilization of in-house engineers, survey crews, ecologists, along with local geotechnical, archaeological, appraisal services to obtain project data immediately upon County NTP.

Concurrent with this effort, Early Project Coordination with the County Project Delivery Team and Regulatory Agencies in concert with an active Public Awareness campaign will be integral to developing a consensus and in preparing a responsive Preliminary Design Technical memorandum and 30% design within 90 days from NTP. This is critical in that, any missteps here will significantly affect the ability to deliver the project on schedule and within budget in meeting the County's expectations. With this in mind, King has prepared an overview to our project approach discussing key issues and solutions considered for implementing the CBC Flood Control project. **Figure 1**, located in Section 6 - Additional Information, identifies some key elements discussed relative to the proposed project approach.

H. ADDITIONAL INFORMATION

KEY ISSUES AND SOLUTIONS

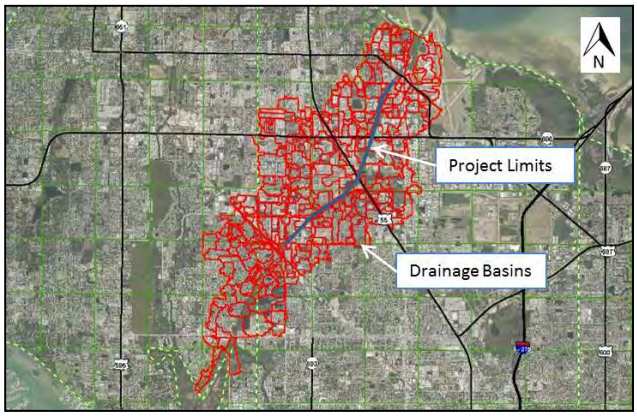
1. **Drainage Modeling** - King did the peer review of the final ICPR watershed model and is very familiar with the model parameters, inputs and outputs and what is required for the project improvements and permitting.

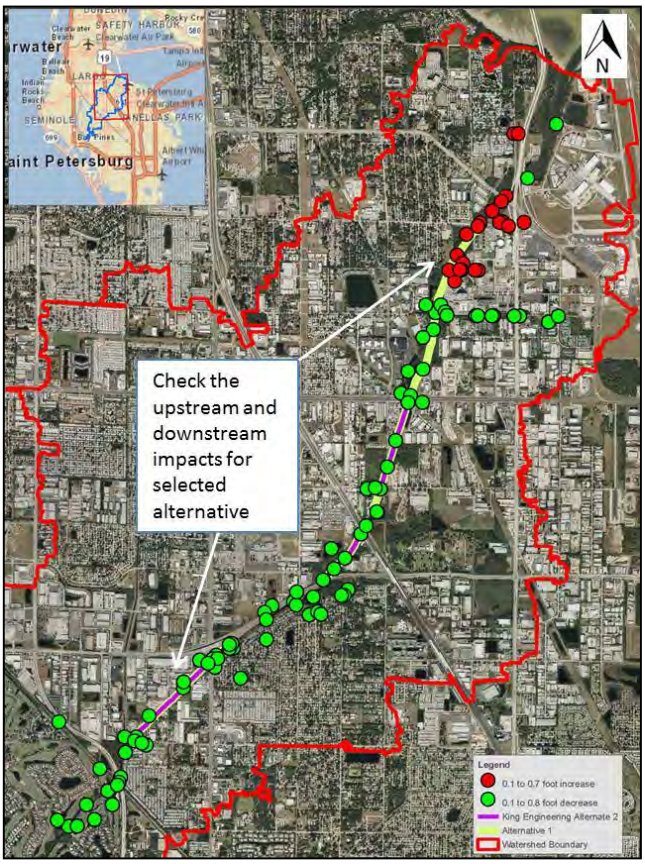
   - The watershed model was completed to SWFWMD standards. A digital terrain model was created from the LiDAR data was used to develop the watershed/sub-basin boundaries, storage and conveyance. A geodatabase was created in accordance with SWFWMD standards for the field inventory, soils, land use, water quality and stream gage data. The analysis also determined floodplains in accordance with the current SWFWMD requirements and updated information compared to the existing FEMA floodplains.

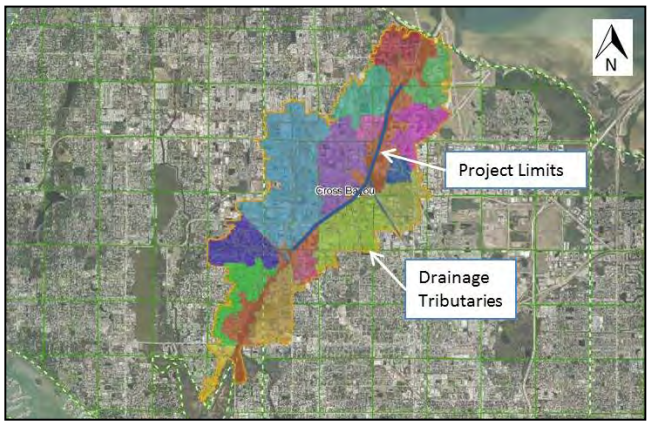
   - There is significant flooding along the canal during the 25-year and 100-year storm events. Our goal will be to alleviate the severe flooding along the channel limits with our modeling project approach described below.

   - The model analysis confirmed that channel improvements made northeast of Bryan Dairy Road reduced the water surface elevations for the majority of the channel as much as 0.8 feet in the 100-year storm event except for the area north and south of 150th Avenue. The flow rates increased in this location causing the stages to increase by as much as 0.65 feet higher due to constriction at the 150th Avenue Bridge, culverts under Roosevelt Boulevard and the Bayside Bridge.

   - The majority of the flooding occurs during the 100-year storm event and when canal stages are above 6.0-feet. The model does show that the stage recovery time improves by up to 4-hours from existing conditions.







Our approach to the stormwater modeling will be as follows:

- Perform a scenario analysis of different typical sections along the project limits taking into account available right-of-way to accommodate the proposed sections
  - Prepare a detailed stormwater model for each alternative
  - Determine the flowrates, velocities and water surface elevations
  - Evaluate potential erosion for each alternative
  - Determine the maintainability of each alternative
  - Determine the risk analysis for each alternative

- Check the upstream and downstream impacts of the alternative cross sections
- Select the proposed alternatives for the channel improvements, including the creation of natural flood compensation sites
- Check for no adverse impacts
- Finalize the model for the selected alternatives based on the above
- Check for no adverse impacts
- Coordination with the permitting agencies to get buy off on the proposed allowable impacts

2. Dredging Methods & Disposal

Previous assessments by King indicated the following generalized 4-Step approach to providing maintenance to the CBC:

- Step 1- Vegetation and Debris Removal & Trimming- Remove/treat (herbicide) exotic vegetation, primarily Brazilian pepper and Australian pine along the banks and extending into the CBC. Trim mangroves (and other woody vegetation) along the canal shoreline from (MLW) up to a minimum 12 feet in height above MLW (11.7' NAVD) in any areas where mangroves may be retained to achieve a minimum clear width of 25 feet horizontally across the waterway. A portion of the work will need to occur waterside, by specially equipped barges with cutting heads.

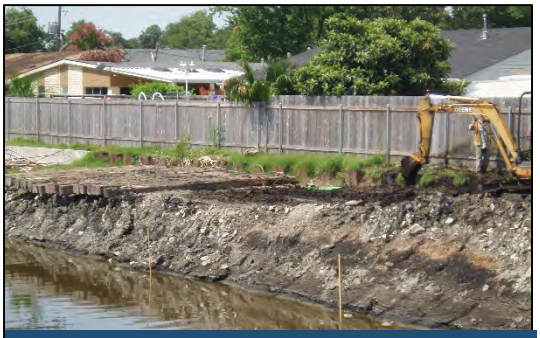
- Step 2- Removal, relocation and/or repair of affected utilities, other structures and assets within work area.

- Step 3-Maintenance Dredge- Perform maintenance dredging of all portions of the CBC area preliminarily identified as having an average channel bottom elevation above-3.3' NAVD (-3 ft MLW) to achieve a target -4.3' NAVD (-4.0 ft MLW) bottom elevation including a planned 1' over dredge. The typical design cross-section would utilize a minimum dredge slope of 3:1 to best match the existing grade and would result in a minimum channel width of 35 feet at MHW, with a channel bottom width of 5 feet. Sufficient BMPS (i.e. double row of floating turbidity curtains) will be put in place to contain turbidity and erosion during the work in compliance with State WQ standards and approved mixing zones.

- Step 4- Canal Bank Restoration-Restore all structures, and stabilize canal banks with erosion control products, with terracing and stabilized by advanced hydroseeding methods or sodding.

Based on the field conditions present while minimizing the need to acquire properties, easements or right-of-ways, three (3) options for conducting the project dredging were considered.

Option 1 – Mechanical Dredging. Based primarily on overall cost-effectiveness, Option 1 would be utilized in areas where there is adequate right of way in which to place excavation equipment and to provide for haul truck access for sediment loading/hauling. This method allows the canal to be dredged in the dry by installing low flow (portable) dams across canal at each end of a work segment (typically 400-500 feet in length) followed by dewatering of the captive canal to allow equipment to work in the dry. As part of this process a by-pass flow pipe/system will be installed between segments to maintain base flows and to keep the canal level low. This method is very efficient, and because of the phasing aspect, could integrate well with proposed flood control management during construction in concert with the results on the interactive modeling described above. Depending on the width and depth of the canal the length between dams will vary. This was the method used by team member, BCG in constructing the G-370 & G-372 pumping stations for the SFWMD in Palm Beach County.



Pumping Station S-127 Dredging
SWFMD, Duckhead Ridge, FL

CONS - This technique carries some risk associated with flood events while tending to be more impactive to existing bank/slope areas, structures, private properties and the environment (i.e. more re-suspension of sediments and vegetative mangrove impacts along the shoreline).

Option 2 - Hydraulic Dredging. In deeper and wider canal reaches, the use hydraulic dredging of sediment comprised primarily of unconsolidated fine sands/silts can often be effective, with less impact to bank/slope areas, structures, private properties and environmental areas. This can be achieved with the use of smaller equipment, such as an 8" "swinging ladder" type dredge that could be effectively deployed in narrow, shallow waterways similar to the CBC while minimizing impacts to sensitive environmental areas (i.e. mangroves). This method will require the construction of a receiving, diked disposal and/or dredged sediment processing area to place the hydraulically pumped sediments. Also, required is the construction of a discharge channel or pipe to return the water back into the canal being dredged. This method was used in the deepening of the L-48 canal at the SFWMD S-127 Pump Station on Lake Okeechobee Pete was this BCG.

CONs - The use of hydraulic dredging requires close monitoring of the fill area for dike maintenance and discharge to keep from overflowing the perimeter dikes while maintaining WQ, and will require multiple (1-2 acre) de-watering sites for sediment handling within a Confined Disposal Facility (CDF) or geotube storage configuration located in relative close proximity (3500 ft) to the dredge work due to the linear nature of the project.

Option 3 – Combination of Mechanical and Hydraulic Dredging. King anticipates that a combination of both techniques could be utilized to cost-effectively conduct the maintenance activities for the CBC Flood Control Improvements as both construction techniques have specific benefits, limitations, project design and permitting constraints unique to each.

In addition, review of existing land uses and available parcel information indicate that some adjacent properties in both public and private ownership, including parcels owned by Pinellas County or other municipalities (City of Largo, Pinellas Park) potentially suitable for implementing both methodologies are available. The large scale use of land based dredging in this application may require the use of some private properties along the CBC.

Terra Ceia Ecosystem Restoration Project, Phase I - Hillsborough County, FL

Utilizing this hybrid approach, certain segments of the CBC would lend themselves to a particular method. As an example, the upper portions of the CBC from the 150th Avenue Bridge southward approximately 2500 feet appears to have relatively deeper depths in the canal center (-2.8 to -4.6 ft NAVD) in the current condition, while supporting a dense mangrove fringe. In this scenario, following the clearing/trimming of existing mangroves to achieve the requisite clear area, a hydraulic dredge could be deployed from Pinellas County's property west of the CBC and the canal dredged southward of this point, with back pumping of sediments to open lands owned by the County or City of Largo for processing and hauling. Areas north of this may not need to be dredged as adequate depths are present and the existing mangrove habitats can be preserved, thus balancing the need for impact consist with ENVISION goals while reducing mitigation requirements.

By contrast, certain segments of the CBC, such as southwest of Bryan Dairy Road/66th Street, the area just north east of Bryan Dairy Road or north of Ulmerton Road adjacent to the County Jail facilities appear to have sufficient right-of-way or County-owned access to allow the use of mechanical dredging.

Dewatering of Sediments

Should hydraulic dredging be utilized, the use of a sand wheel or similar process equipment will be used at a suitable adjacent site in the canal, approximately 1-2 acres in size, to separate granular material (> 200 mesh) from fines for wet dredged material and will be loaded via an end loader to trucks for hauling or stockpiling onsite. This material will be dry and will pass paint filter test; and therefore, can be used for beneficial resuse immediately. This process will include a weir that will allow

fines (< 200 mesh) or floating debris to pass. A scalper will be used to remove debris while the fines will be pumped into a thickener and polymers added to coagulate the unconsolidated material. The overflow will be returned to the canal and the underflow material pumped to geotubes to drain for a period of time, then hauled to a confined disposal site or landfill.

Dredge Material Disposal

Based on the preliminary geotechnical assessments and proposed dredging methods, it is anticipated that a significant portion of the dredged sediments will be available for beneficial uses. One option was based on previous discussions with the County regarding the beneficial use of Joe's Creek dredging project for structural fill at the County's building facilities located at 22211 US 19 Hwy, Clearwater. In this regard, the County had indicated previously to King both the availability of a County-owned site for stockpiling and the need for suitable structural fill for subsequent use for future public works projects. Some of these potential sites were identified above.

A second option that was preliminarily explored by King, was the potential use of suitable dredged material for use as cap material for the County's Solid Waste Facility landfill located within 5 miles of the CBC corridor. In addition, the use of the landfill as a potential disposal site for unsuitable materials or percipients (coagulated flocculants) generated by dredge dewatering operations will also be important consideration for this project in order to reduce hauling distances and disposal costs.

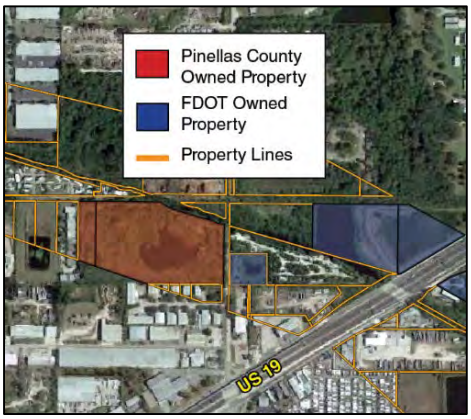
Other key items related to this will be potential Maintenance of Traffic (MOT) plans and coordination with FDOT and the County regarding the use and restoration of the roadway for hauling etc. and the use of watertight trucks should hauling of wet material be required.

3. Property Access

Familiarity with previous County coordination with the regulatory agencies in establishing a basis of ownership or rights-of way regarding rights to work within at least a portion of the CBC to satisfy an SWFWMD agency sufficiency question implicated the following documents:

- 1931 Affidavit Deed 1410 pg 199-204; 1930 Largo to County Deed 879 pg 461;
- 1968 Pinecrost Land. Co. to Bardmoor Realty Co. Deed O.R. Bk. 2938 pg 303-313;
- 1943 PCBCC minutes pgs 573-574; 1944 PCBCC minutes pg 326

King understands, that Pinellas County held preliminary discussions with various property owners which abut the CBC (i.e. William Neiding, Layman's Building Materials). Through this outreach effort, it is King's understanding that the County received positive feedback from a number of adjacent property owners regarding the potential use of portions of their property for access, staging and/or temporary construction activities. Regardless, due diligence pertaining to establishing the status of all properties, easements, right-of-ways along the CBC is recommended in order to prevent any property rights issues or conflicts later in the project design. This effort will be accomplished early in design following updated survey work since water ways move over years to ensure the necessary easements exists and coordinate these findings with the County should new easements be required or recommended.



In support of the County's continued effort to utilize County lands, King has identified a number of County-owned parcels as well as other public (Largo, Pinellas Park and FDOT)parcels that will assessed for potential project uses such as contractor staging, maintenance access, dredge/spoil processing, flood compensation and mitigation purposes.

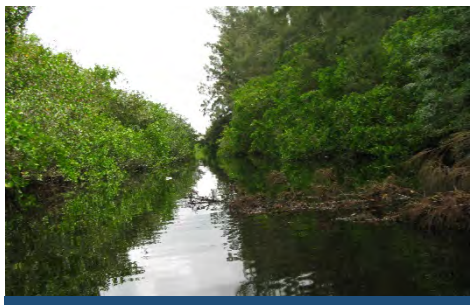
H. ADDITIONAL INFORMATION

4. Permitting

In order to obtain permits and maintain the project schedule, a proactive coordination effort will need to be undertaken in partnering with the various regulatory. This will need to occur as early in the schedule as possible. This early coordination effort can result in a significant savings in time and budget later in the project design should a re-design be required or should an Individual Permit (IP) be required with associated review time frames that typically extend beyond 180 days. With this in mind, and given the potential for ecological impacts associated with this project, the following challenges and solutions are proposed:

- *Conduct an Early Agency Coordination Meeting* (scheduled in advance) immediately upon contract NTP. **This process is facilitated by King Team's knowledge of the project specifics and the extensive data/design alternatives already available.** King is aware of previous application (#654725) submitted 9/14/11 by the County for a maintenance exemption to perform work within the CBC that was essentially approved by the SWFWMD. King would pursue re-verifying the applicability of utilizing the maintenance exemption approach as the primary focus for the work as applicable. While early coordination by the County and King with the USACE (Ms. Tracy Hurst) was not initially as successful in that she indicated an IP would be required, other potential permitting approaches that may implicate a "maintenance" of a flood facility should still be aggressively pursued. This may be potentially addressed through a NWP 31, Maintenance of Existing Flood Control Facilities, which could significantly reduce permitting timeframes, a viable approach given the information available to establish a "maintenance baseline" condition and flood capacity which is paramount to the use of this NWP. This information will include historical accounts, the 1963 Pinellas Co. Drainage Basin Study and the results of King's geotechnical assessment conducted under the CBC Maintenance project which implicates the "historic" canal bottom depths. Regardless, key issues will need to be vetted relative to mangrove impacts (Essential Fish Habitat), mitigation, WQ, mixing zones and ESA (i.e West Indian Manatee) so they can be addressed early in project design.

- *Evaluate Mitigation Options.* Due to the potential of impacting sensitive wetland and Federal Essential Fisheries Habitats (EFH), particularly mangroves, obtaining a buy in on mitigation approach by the agencies will be a critical for securing project permits. Based on recent Corps guidance, the use of approved Mitigation Banks (MB) are mandated as the preferred method. Currently, the availability of a MB within the Tampa Bay or Coastal Basins appears limited to the Tampa Bay Mitigation Bank, with an available balance of only 3.33 mangrove credits as of 12/23/14. With a projected project impact ranging between 5 to 10 acres of mangrove habitats, currently available credits will not be solely sufficient for permitting. As a result, a combination of available MB mangrove credits and County sponsored mitigation may be required. King has local knowledge of the CBC watershed, and Tampa Bay through extensive involvement with the District's SWIM program and previous County mitigation banks that will facilitate a cost-effective solution. Currently, there are known County owned properties north of 150th Avenue, and adjacent to the St Pete Airport that could be utilized to offset the impacts within the basin. However to minimize the need for this mitigation, our approach would be to first minimize mangrove impacts where feasible.



Looking north up open canal section Mangrove Shoreline

- *Initiate Wetland Jurisdictional Determination (JD) Survey.* As part of the accelerated data collection efforts, a complete JD line will need to be established early in project design. King is aware of several permits obtained by FDOT for CR 296 (#43008209) and U.S. 19 that contain approved wetland JDs that can be incorporated into our project to reduce time/cost. Remaining areas will be delineated via GPS per acceptable protocols pre-approved by the agencies to expedite JD line approvals and reduce costs.

H. ADDITIONAL INFORMATION

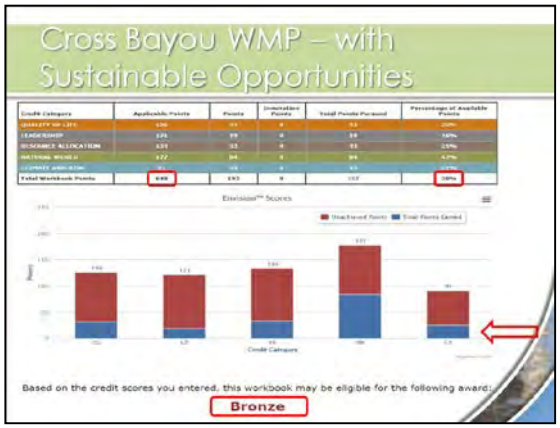
- *State Submerged Lands (SSL).* King has provided early coordination with FDEP-State Lands as part of the CBC Maintenance Project and have determined that ***no*** SSL will be involved south of 150th Ave, and north of 102 Avenue.

- *Address Potential Offsite Flood Impacts.* In the JEA Report, implementation of Alternate 1 resulted in some increases of flood levels elsewhere. In addition to modeling work to identify improvements to the canal configuration to mitigate these localized effects, other potential solutions such as a creation of a joint floodplain compensation/mangrove mitigation area on County owned property would be assessed via H&H modeling to address the increased flooding at the 150th Avenue Bridge, while providing needed mangrove mitigation.

- *Integrate Long-Term Maintenance Protocols into the Permit* in concert with proposed project improvements and to ensure the ability of the County to maintain the system as a condition of the permit for a specified period (i.e. 25 year etc.). This important aspect is often overlooked, but repeated discussions with the USACE and experience in working with various Port Authorities mandate the reliance on such conditions to ensure continued maintenance of their facilities with minimal regulatory oversight. These will minimally include the identification of acceptable sediment disposal sites/techniques and the installation of sediment benches to allow quick assessment of accumulated sediment depths relative to triggering a maintenance event. Similarly, specific conditions will be incorporated into the permit that allow the removal, trimming and maintenance of mangroves or other vegetation on a regular basis without mitigation requirements.

- *Early Permit Submittals.* Following County approval of the 30% Design, an early permit package will be submitted at the 45% design level to facilitate agency review and identification of permitting issues that can be incorporated into the 60% and 90% designs, while expediting the acquisition of permits.

5. ISI Envision Infrastructure Rating System



The King Team fully understands the County's sustainability goals for this project and the importance of using the ISI ENVISION™ Infrastructure Rating as a benchmark to quantify metrics on the sustainability efforts equivalent to a Bronze recognition or greater. Our team includes Greeley and Hansen, a top ENR 200 national engineering firm, who is a charter member of Envision ISI and was instrumental in the development and testing of the ISI rating tools prior to the release to the public.

Ms. Naik and Mr. Betancourt, local King Team members with Greeley and Hansen, have a head start on the sustainability assessment for this project. During ISI Envision informational sessions held for Pinellas County Staff early last year, they were able to evaluate Pinellas County's standard practices and identify opportunities to increase achievable points to almost 30% of the minimum applicable categories, which is greater than what would be needed for a bronze award. **At that time it was determined 43 of the 55 Envision Credits to be evaluated would be applicable to this project.**

Our design team will engage the Envision™ Specialists early in the project to identify the easiest achievable sustainability opportunities that have the least time impact and/or lowest implementation costs. Once concurrence with County's staff is achieved, our Envision™ Specialist will create a log to track the applicable credits and provide the required documentation. Periodic checks will be made between the design team and the Envision™ Specialists to substantiate that proper documentation is being collected and incorporated into the contract documents.

For example, an implementable sustainable opportunity that would qualify under the Natural World Category would be to identify the end disposal of all of the clearing and grubbing performed on the canal banks. Our team will identify end disposal alternatives that are more sustainable, such as disposal at a nearby composting facility or the Pinellas County Resources Recovery Facility. The Contract documents will require the Contractor to dispose of this debris at any of the designated locations, where the value of the debris could be maximized, in lieu of a direct landfill disposal. Our team member, John Lenti is an accredited ENVISION™ Verifier and an accredited ENVISION™ Trainer will be the primary quality assurance and control specialist for the ENVISION™ process for this project.

Once all of the information is gathered, Greeley and Hansen will perform a final QA/QC, and provide any additional corrections or documentation. A complete package will be provided to you for your records. In addition, our team can apply for the ISI ENVISION™ Bronze Award on behalf of the County, if indeed the County decides to pursue recognition for their sustainability efforts.

6. ARCHEOLOGICAL /CULTURAL

Relevant Background Information

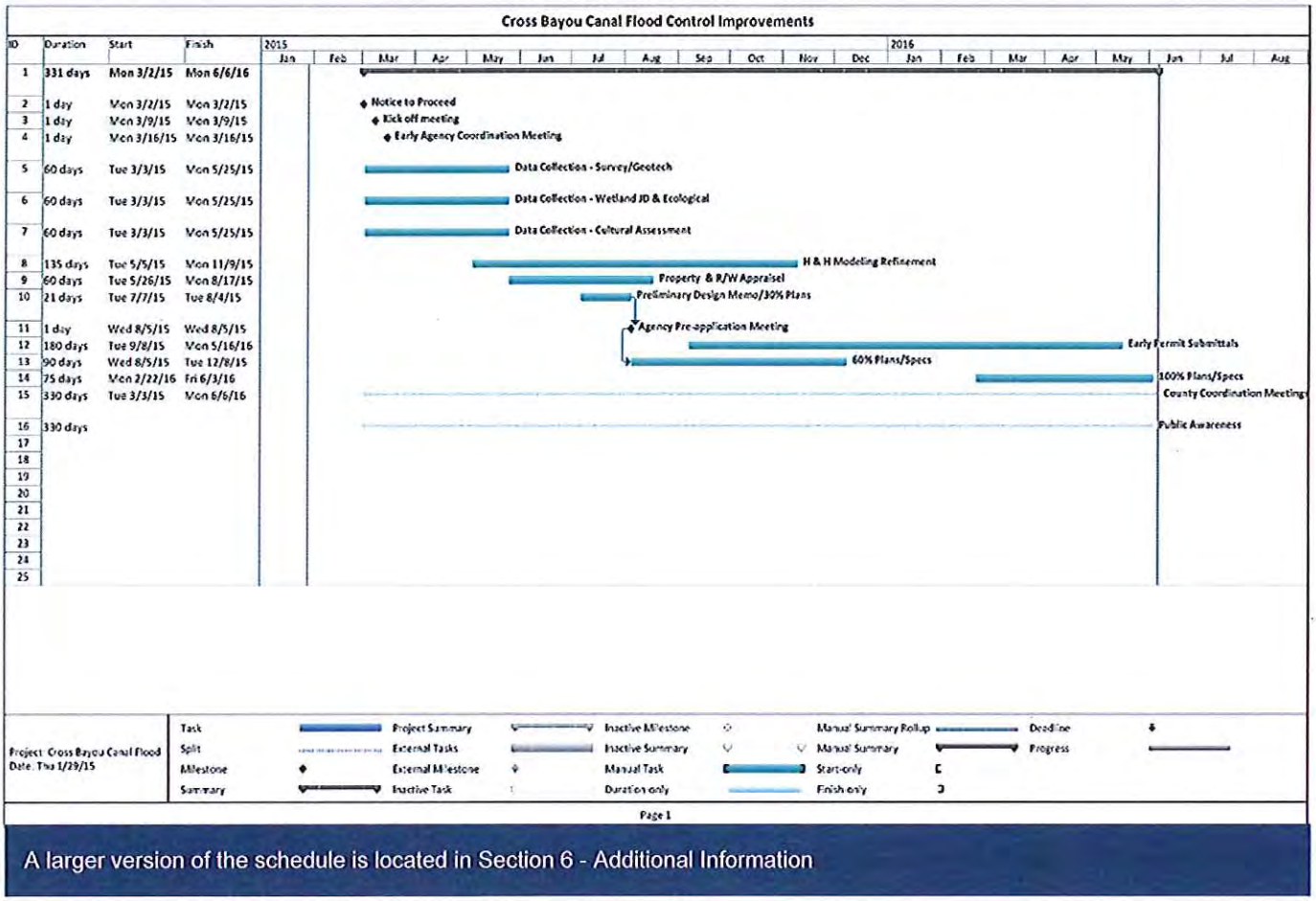
While historical accounts of significant fossil discoveries were reported by local papers during the original CBC construction in the early 1900's, a check of the digital database of the Florida Master Site File indicated only two recorded archaeological sites within 500 feet of the CBC project area. 8PI00841, the Autumn Run Subdivision Site, is recorded as an Archaic period (ca. 8500-1000 B.C.) site of indeterminate type and 8PI11174, the Pound #3 House Site. While largely urbanized and disturbed, the land immediately adjacent to the Canal may have the potential for the presence of as yet unidentified archaeological sites. Adequately addressing this element early in project development is imperative as it is can be a required concurrence item and a condition of project permit issuance in most instances so as to avoid any potential conflicts or delays in permit issuance.

Proposed Approach

King subconsultant, ACI proposes a two-step approach to address cultural resource issues for this project as may be warranted:

- Step 1- Development of a project-specific site location predictive model to address the archaeological sensitivity within the CBC corridor by examination of relevant historical and archaeological information, the development of a predictive model, field reconnaissance to "ground-truth" the validity of the model, and model refinement. The methodology, findings, and conclusions will be coordinated with the State Historic Preservation Officer (SHPO), with the final goal of obtaining concurrence incident to the project permitting requirements.
- Step 2- Based upon findings and SHPO coordination, archaeological monitoring during the dredging process may be conducted as required with on the predicted zones of site potential. The purpose of this work is to ensure that there will be no impacts to significant archaeological sites, as well as human remains, during the dredging process. The monitoring process will be documented with digital photography.

H. ADDITIONAL INFORMATION



A larger version of the schedule is located in Section 6 - Additional Information

Proposed Project Schedule

We have prepared a proposed project schedule depicting major project milestones, located in the **Section 6 - Additional Information.** Please note that we cannot control agency permitting timeframes.

I. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

31. SIGNATURE	32. DATE – 1/29/2015
33. NAME AND TITLE: **Thomas M. O'Connor, P.E. - President**	

1. SOLICITATION NUMBER *(If any)*: 145-0035-NC (SS)

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME: King Engineering Associates, Inc.		3. YEAR ESTABLISHED: 1977	4. DUNS NUMBER: 09-298-1521
2b. STREET: 4921 Memorial Highway, STE 300		5. OWNERSHIP	
2c. CITY: Tampa	2d. STATE: FL / 2e. ZIP CODE: 33634	a. TYPE: Corporation	
6a. POINT OF CONTACT NAME AND TITLE: Thomas M. O'Connor, P.E. - President		b. SMALL BUSINESS STATUS: N/A	
6b. TELEPHONE NUMBER: 813-880-8881	6c. E-MAIL ADDRESS: toconnor@kingengineering.com	7. NAME OF FIRM *(If block 2a is a branch office).*	
8a. FORMER FIRM NAME(S) *(If any)*		8b. YR. ESTABLISHED	8c. DUNS NUMBER

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) TAMPA OFFICE
02	Administrative	16	11
08	CADD Technician	15	11
12	Civil Engineer	21	12
16	Construction Manager	1	1
24	Environmental Scientist	4	4
38	Land Surveyor	4	4
39	Landscape Architect	2	1
47	Planner: Urban/Regional	2	2
52	Sanitary Engineer	12	11
58	Technician/Analyst	1	1
60	Transportation Engineer/ Planner	5	4
62	Water Resources Engineer	5	2
	Other Disciplines:		
	Surveying Crew	11	11
	Construction Field Representatives	3	3
	IT/Computer Techs	1	1
	GIS Specialist	1	1
	Total	**104**	**80**

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
A05	Airports	4
C02	Cemeteries	2
C10	Commercial Buildings	2
C15	Construction Management	5
D03	Desalination	2
E01	Ecological Investigations	3
E02	Educational Facilities	2
E09	Environmental Impact Studies	2
G01	Garages	2
H06	Highrise Buildings	1
H07	Highways/Streets/ Parking Lots	3
H10	Hotels/Motels	1
H11	Housing	6
I01	Industrial Buildings	1
I03	Industrial Waste Treatment	1
I06	Irrigation; Drainage	2
J01	Judicial/Courtroom Facilities	1
L01	Medical Research Facilities	2
L02	Land Surveying	6
L03	Landscape Architecture	2
M01	Mapping Systems	2
O01	Industrial Parks	1
P04	Pipelines	4
P05	Regional Planning	4
P07	Site Planning	5
P09	Correctional Facilities	1
R04	Recreation Facilities	1
R11	Rivers; Canals; Waterways; Flood Control	4
S04	Sewage Collection, Treatment, Disposal	5
S07	Solid Wastes; Incineration; Landfill	5
S10	Surveying; Platting; Mapping	5
S13	Stormwater	4
T03	Traffic & Transportation Engineering	6
T04	Topographic Surveying & Mapping	5
W02	Water Resources; Hydrology	2
W03	Water Supply; Treatment & Distribution	4
Z01	Zoning; Land Use Studies	1

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	2
b. Non-Federal Work	8
c. Total Work	8

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE: Thomas M O'Connor

b. DATE: 1/28/2015

c. NAME AND TITLE: Thomas M. O'Connor, P.E. - President

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any): 145-0035-NC (SS)

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work)

2a. FIRM (OR BRANCH OFFICE) NAME: BCG ENGINEERING & CONSULTING INC.		3. YEAR ESTABLISHED: 1997	4. DUNS NUMBER: 120298997
2b. STREET: 3012 26th Street		5. OWNERSHIP	
2c. CITY: Metairie	2d. STATE: LA / 2e. ZIP CODE: 70002	a. TYPE: Corporation	
6a. POINT OF CONTACT NAME AND TITLE: Ann Springston Shires PE, President		b. SMALL BUSINESS STATUS: Small Business	
		7. NAME OF FIRM *(If block 2a is a branch office)*	
6b. TELEPHONE NUMBER: 504.454.3866	6c. EMAIL ADDRESS: aspringston@bcgnola.com		

8. FORMER NAME(S) *(If any)*	8b. YEAR ESTABLISHED	8c. DUNS NUMBER
Brown, Cunningham & Gannuch Inc.	1993	120298997
Dixon & Cunningham Inc.	1976	120298997

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
02	Administrative	17	
08	CADD Technician	2	
12	Civil Engineer	5	
15	Construction Inspector	2	
23	Environmental Engineer	3	
32	Hydraulic Engineer	3	
42	Mechanical Engineer	1	
57	Structural Engineer	2	
	TOTAL	35	

10 PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number (see below)
B02	Bridges	2
C07	Coastal Engineering	3
C15	Construction Management	4
D01	Dams	1
H07	Highways/Streets	2
I01	Industrial Buildings; Manufacturing Plants	3
N02	Navigation Structures; Locks	1
P13	Power Generation	2
R11	Rivers; Canals; Flood Control	6
S04	Sewage Collection; Treatment	4
S09	Structural Design; Special Structures	3
S13	Stormwater Handling and Facilities	3

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	6
b. Non-Federal Work	6
c. Total Work	7

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000	6. $2 million to less than $5 million
2. $100,000 to less than $250,000	7. $5 million to less than $10 million
3. $250,000 to less than $500,000	8. $10 million to less than $25 million
4. $500,000 to less than $1 million	9. $25 million to less than $50 million
5. $1 million to less than $2 million	10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

31. SIGNATURE	32. DATE
Ann Springston Shires	January 21, 2015
33. NAME AND TITLE: Ann Springston Shires PE, President	

AUTHORIZED FOR LOCAL REPRODUCTION

STANDARD FORM 330 (6/2004)

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME	3. YEAR ESTABLISHED	4. DUNS NUMBER
Archaeological Consultants, Incorporated	1976	879658862

2b. STREET	5. OWNERSHIP
8110 Blaikie Court, Suite A	a. TYPE: Corporation

2c. CITY	2d. STATE	2e. ZIP CODE	b. SMALL BUSINESS STATUS
Sarasota	FL	34240	Woman-owned small business

6a. POINT OF CONTACT NAME AND TITLE	7. NAME OF FIRM (If block 2a is a branch office)
Marion M. Almy, RPA, President	

6b. TELEPHONE NUMBER	6c. E-MAIL ADDRESS
941-379-6206	aciflorida@comcast.net

8a. FORMER FIRM NAME(S) *(If any)*	8b. YR. ESTABLISHED	8c. DUNS NUMBER

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	(2) BRANCH
02	Administrative	2	
05	Archeologist	6	
48	Project Manager	2	
58	Technician/Analyst	7	
	Architectural Historian	3	
	Other Employees		
	Total		

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
E01	Archeological Investigations	5
H08	Historical Preservation	3

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	2
b. Non-Federal Work	5
c. Total Work	5

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE	B. DATE
Joan Deming	January 16, 2015

c. NAME AND TITLE
Joan Deming, RPA, Vice President

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any): 145-0035-NC

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME	3. YEAR ESTABLISHED	4. DUNS NUMBER
EPN Group	2014	07-965-5589

2b. STREET	5. OWNERSHIP
9634 Maypan Place	a. TYPE: LLC

2c. CITY	2d. STATE	2e. ZIP CODE	b. SMALL BUSINESS STATUS
Largo	FL	33777	N/A

6a. POINT OF CONTACT NAME AND TITLE	7. NAME OF FIRM (If block 2a is a branch office)
Peter Nikolov, PE, President	

6b. TELEPHONE NUMBER	6c. E-MAIL ADDRESS
727.420.2487	Peter.Nikolov@epngrp.com

8a. FORMER FIRM NAME(S) (If any)	8b. YR ESTABLISHED	8c. DUNS NUMBER
N/A	2014	07-965-5589

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
02	Administrative	1	
08	CADD Technicians	2	
48	Project Managers	1	
56	Specifications Writers	1	
58	Technicians / Analysts	1	
60	Transportation Engineers	1	
	Total	7	

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number (see below)
A05	Construction Management	1
C08	Highways, Streets, Airfield Paving, Parking Lots	1
P02	Irrigation; Drainage	1
P06	Planning (Site, Installation, and Project)	1
H09	Sewage Collection, Treatment, and Disposal	1
S04	Sustainable Design	1
	Stormwater Handling & Facilites	1
	Traffic & Transportation Engineering	1
	Education Facilites	1
	Recreational Facilites	1

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	1
b. Non-Federal Work	1
c. Total Work	1

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1.	Less than $100,000	6.	$2 million to less than $5 million
2.	$100,000 to less than $250,000	7.	$5 million to less than $10 million
3.	$250,000 to less than $500,000	8.	$10 million to less than $25 million
4.	$500,000 to less than $1 million	9.	$25 million to less than $50 million
5.	$1 million to less than $2 million	10.	$50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE: E. Peter Nikolov

b. DATE: January 29, 2015

c. NAME AND TITLE

Peter Nikolov, PE, President

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: 145-0035-NC SS

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME: Driggers Engineering Services, Inc.	3. YEAR ESTABLISHED: 1982
	4. DUNS NUMBER: 10-799-6977
2b. STREET: 12220 49th St. N.	**5. OWNERSHIP**
2c. CITY: Clearwater / 2d. STATE: FL / 2e. ZIP: 33762	a. TYPE: Corporation
6a. POINT OF CONTACT NAME AND TITLE: F. Jaime Driggers / President	b. SMALL BUSINESS STATUS: N/A
6b. TELEPHONE NUMBER: 727-571-1313 / 6c. E-MAIL ADDRESS: JDriggers@Driggers-Eng.com	7. NAME OF FIRM *(If block 2a is a branch office)*
8a. FORMER FIRM NAME(S)	**8b. YR. ESTABLISHED** / **8c. DUNS NUMBER**

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	(2) BRANCH
02	Administrative/Office	7	
15	Construction Inspection	18	
08	CADD Operators	1	
55	Soils Engineers	4	
	Drillers, Field Experienced	8	
	Total	38	

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index number *(see below)*
S05	Geotechnical Engineering	5
T02	Construction Materials Testing	5
R12	Roofing Inspection	1

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	
b. Non-Federal Work	
c. Total	

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000.
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE

b. DATE: January 20, 2015

c. NAME AND TITLE: F. Jaime Driggers, P.E., President & Chief Engineer

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: 145-0035-NC (SS)

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME: Greeley and Hansen LLC		3. YEAR ESTABLISHED: 1948	5. DUNS NUMBER: 04-569-9949
2b. STREET: 1715 N. Westshore Boulevard, Suite 464		5. OWNERSHIP	
2c. CITY: Tampa	2d. STATE: FL / 2e. ZIP CODE: 33607-3926	a. TYPE: Limited Liability Company	
6a. POINT OF CONTACT NAME AND TITLE: Federico Maisch, Executive Vice President, Eastern Operations		b. SMALL BUSINESS STATUS: No	
6b. TELEPHONE NUMBER: 804.204.2430	6c. E-MAIL ADDRESS: fmaisch@greeley-hansen.com	7. NAME OF FIRM *(If block 2a is a branch office)*: Greeley and Hansen LLC	
8a. FORMER FIRM NAME(S) *(If any)*: Pearse and Greeley / Pearse, Greeley and Hansen / Greeley and Hansen / Greeley and Hansen LLP		8b. YR. ESTABLISHED: 2001, 1932, 1920, 1914	8c. DUNS NUMBER: 04-569-9949

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	(2) BRANCH	a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
16	Construction Manager	3	0		Appraisals, Rate Studies	1
	Drafters	1	0	C15	Construction Management	2
	Facility Operation & Maintenance	1	0		Engineering Consultations and Reports	2
39	Landscape Architects	1	0	H12	Hydraulics & Pneumatics	1
58	Technician/Analyst	3	0	P05	Planning (Community; Regional; Areawide &	2
	Civil/Sanitary Engineers	132	9	R06	Rehabilitation (Buildings; Structures;	1
23	Environmental Engineer	2	0	S04	Sewage Collection, Treatment & Disposal	5
	Process Engineers	2	0		Value Engineering	1
21	Electrical Engineers	13	0		Water Reclamation	4
	Instn/Auton Specialists	3	0	W03	Water Supply; Treatment and Distribution	4
42	Mechanical Engineers	9	0			
06	Architects	5	0			
	Construction Engineers	11	1			
15	Construction Inspector	5	1			
	Construction Technicians	2	0			
	Designers/Technicians	6	0			
08	CADD Technician	9	1			
02	Administrative	60	1			
	Other Employees	0	0			
	Total	268	13			

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS
(Insert revenue index number shown at right)

a. Federal Work	1
b. Non-Federal Work	6
c. Total Work	6

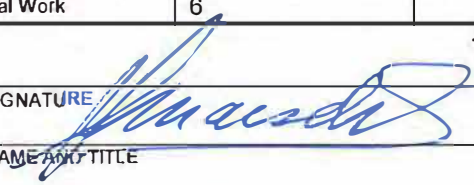
PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE



c. DATE: 1/22/15

c. NAME AND TITLE

Federico Maisch, Executive Vice President, Eastern Operations

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: 145-0035-NC (SS)

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME: Greeley and Hansen LLC	3. YEAR ESTABLISHED: 1914
	4. DUNS NUMBER: 04-569-9949
2b. STREET: 100 South Wacker Drive, Suite 1400	5. OWNERSHIP
	a. TYPE: Limited Liability Company
2c. CITY: Chicago / 2d. STATE: IL / 2e. ZIP CODE: 60606-4003	b. SMALL BUSINESS STATUS: No
6a. POINT OF CONTACT NAME AND TITLE: Federico Maisch, Executive Vice President, Eastern Operations	7. NAME OF FIRM *(If block 2a is a branch office)*
6b. TELEPHONE NUMBER: 804.204.2430 / 6c. E-MAIL ADDRESS: fmaisch@greeley-hansen.com	
8a. FORMER FIRM NAME(S) *(If any)*: Pearse and Greeley / Pearse, Greeley and Hansen / Greeley and Hansen / Greeley and Hansen LLP	8b. YR. ESTABLISHED: 2001, 1932, 1920, 1914 / 8c. DUNS NUMBER: 04-569-9949

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	(2) BRANCH
39	Landscape Architects	1	0
16	Construction Manager	3	1
58	Technician/Analyst	3	0
	Drafters	1	1
	Facility Operation & Maintenance	1	1
	Civil/Sanitary Engineers	132	17
23	Environmental Engineer	2	0
	Process Engineers	2	1
21	Electrical Engineers	13	12
	Instn/Auton Specialists	3	2
42	Mechanical Engineers	9	7
06	Architects	5	1
	Construction Engineers	11	3
15	Construction Inspector	5	0
	Construction Technicians	2	0
	Designers/Technicians	6	5
08	CADD Technician	9	1
02	Administrative	60	43
	Other Employees	0	0
	Total	268	95

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
M02	Materials Handling Systems; Conveyors;	2
	Mechanical Engineering, HVAC	2
P06	Planning (Site, Installation and Project)	5
	Appraisals, Rate Studies	2
A12	Automation; Controls; Instrumentation	2
	CADD (Computer Aided Design and	3
C14	Conservation and Resource Management	2
C15	Construction Management	2
C18	Cost Estimating; Cost Engineering and	2
	Economic Impact and Feasibility Studies	2
	Electrical Design and Studies	2
	Engineering Consultations and Reports	5
E09	Environmental Impact Studies, Assessments	4
	Facilities Management	2
H04	Heating, Ventilating, Air Conditioning	2
H12	Hydraulics & Pneumatics	2
	Master Plan - Site Development	3
W02	Water Resources; Hydrology; Ground Water	2
S04	Sewage Collection, Treatment & Disposal	4
S13	Stormwater Handling & Facilities	2
	Sustainable Design	3
W03	Water Supply; Treatment and Distribution	2

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	1
b. Non-Federal Work	7
c. Total Work	7

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE

b. DATE: 1/22/15

c. NAME AND TITLE

Federico Maisch, Executive Vice President, Eastern Operations

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any): RFP#:145-0035-NC (SS)

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME	3. YEAR ESTABLISHED	4. DUNS NUMBER
RTD Group	2006	

2b. STREET	5. OWNERSHIP
1957 Arrowhead Dr. NE, Suite 200	a. TYPE: Corporation

2c. CITY	2d. STATE	2e. ZIP CODE	b. SMALL BUSINESS STATUS
St. Petersburg	FL	33703	SBE

6a. POINT OF CONTACT NAME AND TITLE	7. NAME OF FIRM (If block 2a is a branch office)
Richard T. Doyle, AICP, PE, President	

6b. TELEPHONE NUMBER	6c. E-MAIL ADDRESS
727 430 3552; 727 521 3822	rdoyle@rtdgroup.us

8a. FORMER FIRM NAME(S) (If any)	8b. YR ESTABLISHED	8c. DUNS NUMBER

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
12	Civil Engineer	3	
16	Construction Manager	1	
23	Environmental Engineer		
24	Environmental Scientist		
29	Geographic Information System Spec.	1	
30	Geologist		
38	Land Surveyor	1	
39	Landscape Architect		
47	Planner: Urban/Regional	1	
48	Project Manager	3	
56	Specifications Writer		
57	Structural Engineer		
58	Technician / Analyst		
60	Transportation Engineer	2	
62	Water Resources Engineer	1	
	Right-of-Way Specialist	6	
	Total	10	

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number (see below)
C15	Construction Management	
E12	Environmental Remediation	
G02	Gas systems	
G04	Geographic Information System	
H02	Hazardous Materials Handling and Storage	
H03	Hazardous, Toxic, Radioactive Waste Remediation	
H07	Highways; Streets; Airfield Paving; Parking Lots	
I06	Irrigation: Drainage	
L02	Land Surveying	
P04	Pipelines	
P05	Planning (Community, Regional Areawide and State)	1
P07	Plumbing and Pipe Design	
R06	Rehabilitation (Buildings; Structures; Facilities)	
R11	Rivers; Canals; Waterways; Flood Control	
S04	Sewage Collection, Treatment and Disposal	
S09	Structural Design; Special Structures	
S10	Surveying; Platting; Mapping; Flood Plain Studies	
S13	Storm Water Handling and Facilities	1
T03	Traffic and Transportation Engineering	1
T04	Topographic Surveying and Mapping	
U02	Urban Renewals; Community Development	1
U03	Utilities	1
V01	Value Analysis; Life-Cycle Costing	
W02	Water Resources; Hydrology; Ground Water	
W03	Water Supply, Treatment and Distribution	

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	1
b. Non-Federal Work	4
c. Total Work	4

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE

b. DATE: January 27, 2015

c. NAME AND TITLE

Richard T. Doyle, AICP, PE, Real Estate Broker, President

2 Statements and Documentation

Pinellas County

145-0035-NC (SS)
Engineering Consulting Services
Cross Bayou Canal Flood Control Improvements

King
ENGINEERING ASSOCIATES, INC.

2. Statements and Documentation

King Engineering Associates, Inc.

Contact:
Thomas M. O'Connor, PE
4921 Memorial Highway, Suite 300
Tampa, FL 33634
Phone: 813-880-8881
Fax: 813-880-8882

King Engineering Associates, Inc. is headquartered in Hillsborough County and has been at the above address for 16 years.

State of Florida
Department of State

I certify from the records of this office that KING ENGINEERING ASSOCIATES, INC. is a corporation organized under the laws of the State of Florida, filed on December 19, 1977.

The document number of this corporation is 555540.

I further certify that said corporation has paid all fees due this office through December 31, 2014, that its most recent annual report/uniform business report was filed on January 30, 2014, and its status is active.

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

Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Tenth day of March, 2014

Secretary of State

Authentication ID: CU5009712744

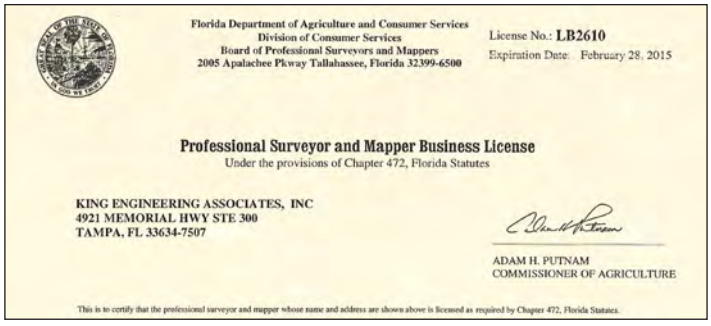
To authenticate this certificate, visit the following site, enter this ID, and then follow the instructions displayed.

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

State of Florida
Board of Professional Engineers
Attests that
King Engineering Associates, 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: 2/28/2015
Audit No: 228201502137
Certificate of Authorization
CA Lic. No: 2610



Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500

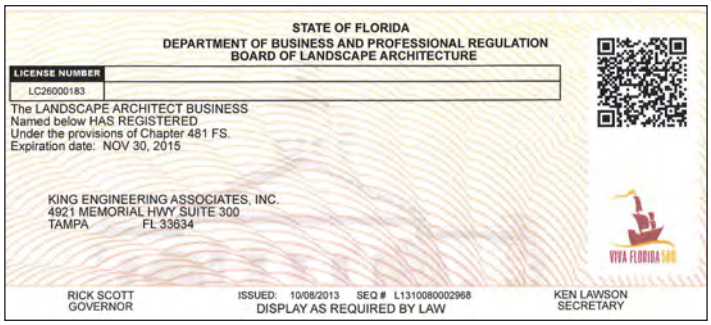
License No.: LB2610
Expiration Date: February 28, 2015

Professional Surveyor and Mapper Business License
Under the provisions of Chapter 472, Florida Statutes

KING ENGINEERING ASSOCIATES, INC
4921 MEMORIAL HWY STE 300
TAMPA, FL 33634-7507

ADAM H. PUTNAM
COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.



STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
BOARD OF LANDSCAPE ARCHITECTURE

LICENSE NUMBER
LC26000183

The LANDSCAPE ARCHITECT BUSINESS
Named below HAS REGISTERED
Under the provisions of Chapter 481 FS.
Expiration date: NOV 30, 2015

KING ENGINEERING ASSOCIATES, INC.
4921 MEMORIAL HWY SUITE 300
TAMPA FL 33634

RICK SCOTT
GOVERNOR

ISSUED: 10/08/2013 SEQ # L1310080002968
DISPLAY AS REQUIRED BY LAW

KEN LAWSON
SECRETARY

State of Florida

Board of Professional Engineers

Attests that

Thomas M. O'Connor, P.E.

FBPE

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

Expiration: 2/28/2015 — P.E. Lic. No: 39593

Audit No: 228201525466

State of Florida

Board of Professional Engineers

Attests that

Kyle David Smith, P.E.

FBPE

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

Expiration: 2/28/2015 — P.E. Lic. No: 71509

Audit No: 228201510663

State of Florida

Board of Professional Engineers

Attests that

Adam Gary Marshall, P.E.

FBPE

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

Expiration: 2/28/2015 — P.E. Lic. No: 71533

Audit No: 228201510667

State of Florida

Board of Professional Engineers

Attests that

Benjamin Carl Turnage, P.E.

FBPE

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

Expiration: 2/28/2015 — P.E. Lic. No: 64055

Audit No: 228201523371

State of Florida

Board of Professional Engineers

Attests that

Agustin Eduardo Maristany, P.E.

FBPE

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

Expiration: 2/28/2015 — P.E. Lic. No: 33351

Audit No: 228201517823

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
BOARD OF LANDSCAPE ARCHITECTURE

LICENSE NUMBER
LA6666731

The LANDSCAPE ARCHITECT
Named below HAS REGISTERED
Under the provisions of Chapter 481 FS
Expiration date: NOV 30, 2015

LYON HALL, ELIZABETH A
4521 MEMORIAL HIGHWAY
TAMPA FL 33634

RICK SCOTT
GOVERNOR

ISSUED: 09/29/2013 SEQ # L13[illegible]0512

DISPLAY AS REQUIRED BY LAW

KEN LAWSON
SECRETARY

Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500

License No.: LS5189
Expiration Date: February 28, 2015

Professional Surveyor and Mapper License

Under the provisions of Chapter 472, Florida Statutes

JAMES DAVID GREER
16702 GOLF COURSE RD
PARRISH, FL 34219

ADAM H. PUTNAM
COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.

Florida Board of
Professional Surveyors and Mappers
FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
ADAM H. PUTNAM, COMMISSIONER

This is to certify that

Greg Baksis

has furnished satisfactory evidence of attainments and qualifications, and has complied with all of Chapter 472, Florida Statutes, and is hereby duly licensed as a

Professional Surveyor and Mapper

In conformity with an act of the Legislature of the state of Florida, creating and regulating that profession.

License Number: LS6956
Licensed Date: 12-5-2013

Adam H. Putnam
Commissioner, Florida Department of Agriculture and Consumer Services

Robin B. Petzold
Chair, Florida Board of Professional Surveyors and Mappers

State of Florida

Board of Professional Engineers

Attests that

Elian Peter Nikolov, P.E.

FBPE

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

Expiration: 2/28/2015 — P.E. Lic. No: 18766

Audit No: 228201515261

QUALIFIED STORMWATER MANAGEMENT INSPECTOR

The undersigned hereby acknowledges that

Orlando Serrano, Jr.

has successfully met all requirements necessary to be fully qualified through the Florida Department of Environmental Protection Stormwater Erosion and Sedimentation Control Inspector Training Program

Hal Lunsford — May 10, 2012 *Inspector Number 27011* — Kristine Jones

Certificate of Qualification

This certifies that

Orlando Serrano

has attended and successfully completed the Florida DOT Approved Course

Maintenance of Traffic Intermediate

Conducted at Pinellas Technical Center on the 14th day of May 2012

Ray Gorman, Instructor — Rohland Bryant, Program Coordinator

Expiration Date May 16, 2016

Provider # 113

PTEC

State of Florida

Board of Professional Engineers

Attests that

Driggers Engineering Services, Inc.

FBPE

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

Expiration: 2/28/2015

Audit No: 228201501729

Certificate of Authorization

CA Lic. No: 3696

State of Florida

Board of Professional Engineers

Attests that

Freddy Jose Betancourt, P.E.

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

Expiration: 2/28/2013

Audit No: 228201328745

P.E. Lic. No: 68072

State of Florida

Board of Professional Engineers

Attests that

Wayne Stuart Driggers, P.E.

FBPE

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

Expiration: 2/28/2015

Audit No: 228201522742

P.E. Lic. No: 58013

INSTITUTE FOR SUSTAINABLE INFRASTRUCTURE

ISI

presents the

Envision™ Sustainability Professional Credential

to

Freddy Betancourt

Presented on: December 4, 2014

William Bertera

Executive Director

Institute for Sustainable Infrastructure

State of Florida

Board of Professional Engineers

Attests that

Franklin J. Driggers, P.E.

FBPE

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

Expiration: 2/28/2015

Audit No: 228201512598

P.E. Lic. No: 16989

State of Florida

Board of Professional Engineers

Attests that

RTD Group, LLC

FBPE

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

Expiration: 2/28/2015

Audit No: 228201501532

Certificate of Authorization

CA Lic. No: 27224

GBCI

GREEN BUILDING CERTIFICATION INSTITUTE

HEREBY CERTIFIES THAT

Freddy Betancourt

HAS ACHIEVED THE DESIGNATION OF

LEED® ACCREDITED PROFESSIONAL

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

LEED AP

Chairman — June 20, 2009 Date Issued — Peter Templeton, President

QUALIFIED
STORMWATER MANAGEMENT
INSPECTOR

The undersigned hereby acknowledges that

Jason Jendrucko

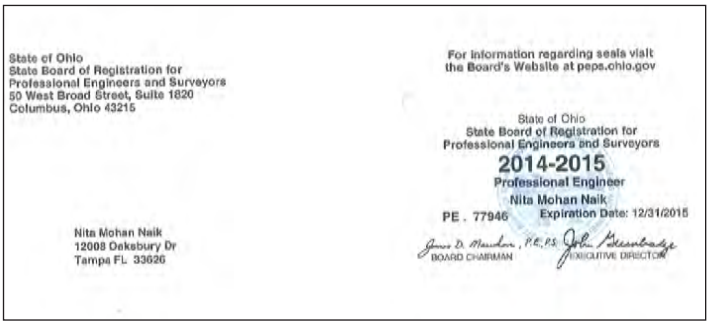
has successfully met all requirements necessary to be fully qualified through the Florida Department of Environmental Protection Stormwater Erosion and Sedimentation Control Inspector Training Program

April 30, 2014

Inspector Number 30716

Hal Lansford

Kathryn Brackett



State of Ohio
State Board of Registration for
Professional Engineers and Surveyors
50 West Broad Street, Suite 1820
Columbus, Ohio 43215

For information regarding seals visit
the Board's Website at peps.ohio.gov

State of Ohio
State Board of Registration for
Professional Engineers and Surveyors
2014-2015
Professional Engineer
Nita Mohan Naik
PE . 77946
Expiration Date: 12/31/2015

Nita Mohan Naik
12008 Oakebury Dr
Tampa FL 33626

BOARD CHAIRMAN

EXECUTIVE DIRECTOR

State of Florida

Board of Professional Engineers

Attests that

Greeley And Hansen LLC

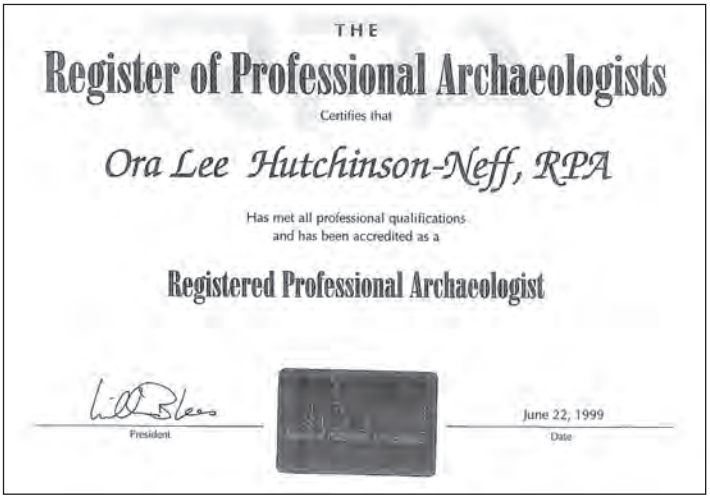
FBPE

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

Expiration: 2/28/2015
Audit No: 228201502584

Certificate of Authorization

CA Lic. No
37



THE

Register of Professional Archaeologists

Certifies that

Ora Lee Hutchinson-Neff, RPA

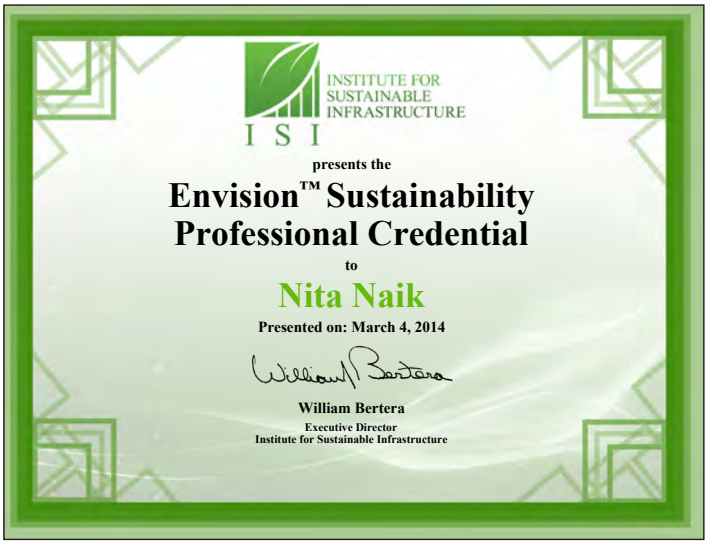
Has met all professional qualifications
and has been accredited as a

Registered Professional Archaeologist

President

June 22, 1999

Date



INSTITUTE FOR
SUSTAINABLE
INFRASTRUCTURE

I S I

presents the

Envision™ Sustainability
Professional Credential

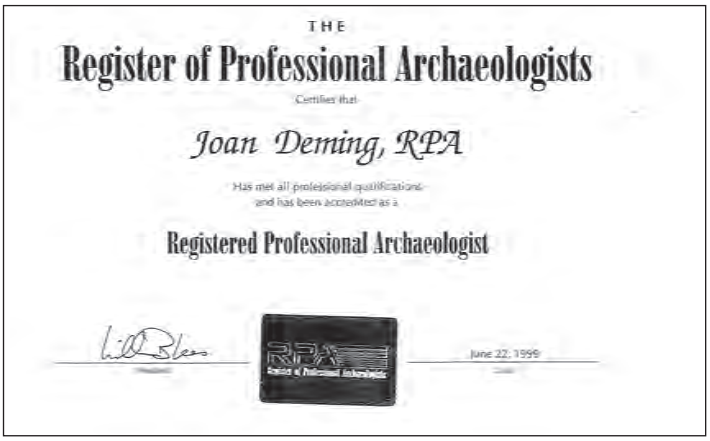
to

Nita Naik

Presented on: March 4, 2014

William Bertera

Executive Director
Institute for Sustainable Infrastructure



THE

Register of Professional Archaeologists

Certifies that

Joan Deming, RPA

Has met all professional qualifications
and has been accredited as a

Registered Professional Archaeologist

June 22, 1999

State of Florida

Board of Professional Engineers

Attests that

BCG Engineering & Consulting, Inc.

FBPE

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

Expiration: 2/28/2015
Audit No: 228201501825

Certificate of Authorization

CA Lic. No
8095

State of Florida

Minority, Women & Florida Veteran
Business Certification

Archaeological Consultants, Inc.

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

12/4/2013 to 12/2/2015

DEPARTMENT OF MANAGEMENT
SERVICES

Craig J. Nichols, Secretary
Florida Department of Management Services

OSD

LEED AP BD+C

THIS CERTIFICATE HEREBY CERTIFIES THAT

John Lenti

HAS ATTAINED THE DESIGNATION OF

LEED AP BUILDING DESIGN + CONSTRUCTION

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

Chairperson — Peter Templeton, GBCI President

December 3, 2009 (Date Issued) — 10136644 (Identification Number) — December 2, 2011 (Exp. Date)

GBCI

INSTITUTE FOR SUSTAINABLE INFRASTRUCTURE

ISI

presents the

Envision™ Sustainability Professional Credential

to

John Lenti

Presented on: August 8, 2012

William Bertera
Executive Director
Institute for Sustainable Infrastructure

The Louisiana Professional Engineering and Land Surveying Board
has the following information on file:

Lookup Detail View

Contact

Name	Public Address
Mr. Emmett J. Mayer Jr.	109 Gratitude Drive Covington, LA 70433

License/Certificate Information w/ Supervision

License	Status	First Issuance Date	Expiration Date	Supervisor(s)	Supervisee(s)
PE.0012757	Active	06/29/1971	03/31/2015		

Registration Information

Registration	Registration Date
Civil Engineer	06/29/1971

10/29/2014 11:19:25 AM

The Louisiana Professional Engineering and Land Surveying Board
has the following information on file:

Lookup Detail View

Contact

Name	Public Address
Mr. Sudir D. Mehta	3001 Kentucky Avenue Kenner, LA 70065-4630

License/Certificate Information w/ Supervision

License	Status	First Issuance Date	Expiration Date	Supervisor(s)	Supervisee(s)
PE.0018950	Active	07/22/1980	03/31/2016		

Registration Information

Registration	Registration Date
Civil Engineer	07/22/1980

10/29/2014 11:22:10 AM

The Louisiana Professional Engineering and Land Surveying Board
has the following information on file:

Lookup Detail View

Contact

Name	Public Address
Mr. David Timothy Dodgen	15913 Whitewater Avenue Baton Rouge, LA 70817-2468

License/Certificate Information w/ Supervision

License	Status	First Issuance Date	Expiration Date	Supervisor(s)	Supervisee(s)
PE.0025587	Active	01/11/1994	03/31/2016		

Registration Information

Registration	Registration Date
Civil Engineer	01/11/1994

Generated on: 1/28/2015 12:56:01 PM

The Louisiana Professional Engineering and Land Surveying Board
has the following information on file:

Lookup Detail View

Contact

Name	Public Address
Mr. Emmett J. Mayer Jr.	109 Gratitude Drive Covington, LA 70433

License/Certificate Information w/ Supervision

License	Status	First Issuance Date	Expiration Date	Supervisor(s)	Supervisee(s)
PE.0012757	Active	06/29/1971	03/31/2015		

Registration Information

Registration	Registration Date
Civil Engineer	06/29/1971

Generated on: 1/28/2015 12:57:25 PM

State of Florida

Board of Professional Engineers

Attests that

John Robert Seals, P.E.

FBPE

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

Expiration: 2/28/2015

Audit No: 228201526612

P.E. Lic. No: 51505

3 Certificates of Insurance

Pinellas County

145-0035-NC (SS)
Engineering Consulting Services
Cross Bayou Canal Flood Control Improvements

King
ENGINEERING ASSOCIATES, INC.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 12/31/2014

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

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

PRODUCER
Brown & Brown Insurance - Clearwater
P.O. Box 2456
Suite 660
Clearwater FL 33757-2456

CONTACT NAME: Robin Snell
PHONE (A/C, No, Ext): 727-461-6044 **FAX (A/C, No):** 727-442-7695
E-MAIL ADDRESS: rsnell@bbpinellas.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Valley Forge Insurance Company	20508
INSURER B : Transportation Insurance Co.	20494
INSURER C : Continental Casualty Co.	20443
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
King Engineering Associates, Inc
4921 Memorial Hwy Ste 300
Tampa FL 33634

COVERAGES **CERTIFICATE NUMBER:** 971007104 **REVISION NUMBER:**

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

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X **COMMERCIAL GENERAL LIABILITY** CLAIMS-MADE [X] OCCUR X XCU Included X Broad Form PD GEN'L AGGREGATE LIMIT APPLIES PER: POLICY [X] PRO-JECT [ ] LOC OTHER:	Y	Y	C2066728229	1/1/2015	1/1/2016	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG 	$1,000,000 $500,000 $5,000 $1,000,000 $2,000,000 $2,000,000 $
A	**AUTOMOBILE LIABILITY** X ANY AUTO ALL OWNED AUTOS [ ] SCHEDULED AUTOS X HIRED AUTOS [X] NON-OWNED AUTOS	Y	Y	C2066728232	1/1/2015	1/1/2016	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) 	$1,000,000 $ $ $ $
B	X **UMBRELLA LIAB** [X] OCCUR **EXCESS LIAB** [ ] CLAIMS-MADE DED [X] RETENTION $ 0	Y	Y	C2066728246	1/1/2015	1/1/2016	EACH OCCURRENCE AGGREGATE 	$5,000,000 $5,000,000 $
A	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? **(Mandatory in NH)** Y/N: N If yes, describe under DESCRIPTION OF OPERATIONS below	N / A	Y	WC1063672015	1/1/2015	1/1/2016	X PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $1,000,000 $1,000,000 $1,000,000
C	Professional Liability RETRO DATE 01/01/94			AEH113805181	1/1/2015	1/1/2016	Per Claim Per Aggregate	2,000,000 4,000,000

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

Certificate Holder is additional insured for:
General Liability is included in Blanket Contractual Liability per form G140331D 01/13(attached).
Auto Liability per CA 20 48 02 99 (attached)
Umbrella per G-15057-C 06-05 (attached)
General Liability - Contractual Liabilty included.
Waiver of Subrogation applies for:
See Attached...

CERTIFICATE HOLDER

FOR PROPOSAL PURPOSES ONLY
123 MAIN STREET
ANY TOWN TX 12345

CANCELLATION

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

AUTHORIZED REPRESENTATIVE

William T. Hancock

4

Key Personnel Statement

Pinellas County

145-0035-NC (SS)
Engineering Consulting Services
Cross Bayou Canal Flood Control Improvements

King
ENGINEERING ASSOCIATES, INC.

4. Key Personnel Statement

Our executed submittal serves as our commitment to the County that our assigned team personnel, as listed in the organization chart in Section D of the SF 330, are available and will remain available for and participate in performing the services required for the successful and timely completion of the Cross Bayou Canal Flood Control Improvements project.

Team availability is upfront in Section H of the SF 330.

5 Forms

Pinellas County

145-0035-NC (SS)
Engineering Consulting Services
Cross Bayou Canal Flood Control Improvements

King
ENGINEERING ASSOCIATES, INC.

SECTION G – ADDENDA ACKNOWLEDGMENT FORM

Proposal Title: Engineering Consulting Services - Cross Bayou Canal Flood Control Improvements

Proposal Number: 145-0035-NC (SS)

PLEASE ACKNOWLEDGE RECEIPT OF ADDENDA FOR THIS ITB/RFP BY SIGNING AND DATING BELOW:

ADDENDA NO.	SIGNATURE/PRINTED NAME	DATE RECEIVED
1	Douglas Calderone	1/14/15
2	Douglas Calderone	1/16/15

Note: Prior to submitting the response to this solicitation, it is the responsibility of the firm submitting a response to confirm if any addenda have been issued. If such document(s) has been issued, acknowledge receipt by signature and date in section above and return Addenda Acknowledgement Form with RFP. Failure to do so may result in being considered non-responsive or result in lowering the rating of a firm's proposal.

Information regarding Addenda issued is available on the Purchasing Department section of the County's CCNA website at, http://www.pinellascounty.org/purchase/CCNA.htm

W-9 REQUEST FOR TAXPAYER ID NUMBER AND CERTIFICATION

Substitute Form **W-9**

Request for Taxpayer Identification Number and Certification

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

Print or type See Specific Instructions on page 2.

Name (as shown on your income tax return)
King Engineering Asscoiates, Inc.

Business name, if different from above

Check appropriate box: ☐ Individual/Sole proprietor ☒ Corporation ☐ Partnership
☐ Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) ▶ .....
☐ Other (see instructions) ▶

☐ Exempt payee

Address (number, street, and apt. or suite no.)
4921 Memorial Highway, Suite 300

Requester's name and address (optional)

City, state, and ZIP code
Tampa, FL 33634

List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number
: :

or

Employer identification number
59 : 1782900

Part II Certification

Under penalties of perjury, I certify that:

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

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here | Signature of U.S. person ▶ [signature] | Date ▶ 1/20/2015

***Instructions to Form W-9 available upon request.**

Detach on the perforation

Section 119.071(5), Florida Statutes Notice:

Your Tax Identification Number (which for individuals is your social security number) is collected on Form W9 for use in filing information returns with the IRS as described more fully below. Collection of the tax identification number (or social security number as applicable) is mandatory pursuant to Section 6109 of the Internal Revenue Code (26 U.S.C § 6109).

Privacy Act Notice:

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons who must file information returns with the IRS to report interest, dividends, and certain other income paid to you, mortgage interest you paid, the acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA, or Archer MSA or HSA. The IRS uses the numbers for identification purposes and to help verify the accuracy of your tax return. The IRS may also provide this information to the Department of Justice for civil and criminal litigation, and to cities, states, the District of Columbia, and U.S. possessions to carry out their tax laws. We may also disclose this information to other countries under a tax treaty, to federal and state agencies to enforce federal nontax criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism.

You must provide your TIN whether or not you are required to file a tax return. Payers must generally withhold 28% of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to a payer. Certain penalties may also apply.

SECTION D - VENDOR REFERENCES

Proposal Title: Haines Bayshore Road Sidewalk (LAP) Professional Engineering Services PID 002102A
Proposal Number: 134-0309-NC(RM)

THE FOLLOWING INFORMATION IS REQUIRED IN ORDER THAT YOUR PROPOSAL MAY BE REVIEWED AND PROPERLY EVALUATED.

COMPANY NAME: King Engineering Associates, Inc.

LENGTH OF TIME COMPANY HAS BEEN IN BUSINESS: 38 years

BUSINESS ADDRESS: 4921 Memorial Highway, Suite 300 Tampa, FL 33634

HOW LONG IN PRESENT LOCATION: 16 Years

TELEPHONE NUMBER: (813)880-8881 FAX NUMBER: (813)880-8882

TOTAL NUMBER OF CURRENT EMPLOYEES: 102 FULL TIME 4 PART TIME

NUMBER OF EMPLOYEES YOU PLAN TO USE TO SERVICE THIS CONTRACT: 34

All references will be contacted by a County Designee via email, fax, mail or phone call to obtain answers to questions, as applicable before an evaluation decision is made.

EITHER LOCAL COMMERCIAL OR GOVERNMENTAL REFERENCE(S) (PINELLAS COUNTY GOVERNMENT REFERENCES WILL NOT BE ACCEPTED) THAT YOU HAVE PREVIOUSLY PERFORMED SIMILAR CONTRACT SERVICES FOR:

All fields below must be completed

1	SWFWMD	**2**	City of Dunedin
	COMPANY NAME		COMPANY NAME
	Tampa. Florida		Dunedin, Florida
	CITY, STATE		CITY, STATE
	Stephanie Powers		Doug P. Hutchens
	CONTACT PERSON		CONTACT PERSON
	(813)985-7481		(727)298-3005
	TELEPHONE		TELEPHONE
	(813)987-6747		(727)298-3012
	FAX		FAX
	stephanie.powers@swfwmd.state.fl.us		dhutchens@dunedinfl.net
	EMAIL ADDRESS		EMAIL ADDRESS
3	City of Largo	**4**	Lake County Water Authority
	COMPANY NAME		COMPANY NAME
	Largo, Florida		Tavares, Florida
	CITY, STATE		CITY, STATE
	Leland Dicus, PE		Mike Perry / Ron Hart
	CONTACT PERSON		CONTACT PERSON
	(727)587-6713		(352)343-3777
	TELEPHONE		TELEPHONE
	(727)586-7413		(352)-343-4259
	FAX		FAX
	ldicus@largo.com		mperry@lcwa.org / ronh@lcwa.org
	EMAIL ADDRESS		EMAIL ADDRESS

SUBMIT TO:	REQUEST FOR QUALIFICATIONS PROPOSAL PROFESSIONAL SERVICES- NON-CONTINUING
PINELLAS COUNTY BOARD OF COUNTY COMMISSIONERS 400 S. FT. HARRISON AVENUE ANNEX BUILDING – 6TH FLOOR CLEARWATER, FL 33756	AS GOVERNED BY FLORIDA STATUTE 287.055
ISSUE DATE: December 19, 2014	*PROPOSAL SUBMITTALS RECEIVED AFTER SUBMITTAL DATE & TIME WILL NOT BE CONSIDERED*
TITLE: ENGINEERING CONSULTING SERVICES - CROSS BAYOU CANAL FLOOD CONTROL IMPROVEMENTS	RFP NUMBER: 145-0035-NC (SS)
SUBMITTAL DUE: January 29, 2015 by 3:00 P.M. *AND MAY NOT BE WITHDRAWN FOR 120 DAYS FROM DATE LISTED ABOVE.*	PRE-PROPOSAL DATE & LOCATION: NOT APPLICABLE
DEADLINE FOR WRITTEN QUESTIONS: January 14, 2015 BY 3:00 P.M. SUBMIT QUESTIONS TO: SUE STEELE, CPPB AT ssteele@pinellascounty.org Phone: 727 464-4776 Fax: (727) 464-3925	
THE MISSION OF PINELLAS COUNTY Pinellas County Government is committed to progressive public policy, superior public service, courteous public contact, judicious exercise of authority and sound management of public resources to meet the needs and concerns of our citizens today and tomorrow.	JOSEPH LAURO, CPPO/CPPB Director of Purchasing

PROPOSER MUST COMPLETE THE FOLLOWING

NO CHANGES REQUESTED BY A PROPOSER WILL BE CONSIDERED AFTER THE RFP OPENING DATE AS ADVERTISED. BY SIGNING THIS PROPOSAL FORM YOU ARE AGREEING TO ALL PROPOSAL TERMS AND CONDITIONS, INCLUDING ALL INSURANCE REQUIREMENTS.

PROPOSER (COMPANY NAME): King Engineering Associates, Inc.	D/B/A N/A
4921 Memorial Highway, Ste 300 Mailing Address	Tampa, FL 33634 City, State Zip
toconnor@kingengineering.com Company Email Address	(813)880-8881 (813)880-8882 Phone Fax
Thomas M. O'Connor, PE Remit To Name (as Shown on Company Invoice	Thomas M. O'Connor, PE, President, toconnor@kingengineering.com Printed Contact Representative/Title/Email

Proper Corporate Identity is needed when you submit your proposal, especially how your firm is registered with the Florida Division of Corporations. Please visit www.sunbiz.org for this information.

I HEREBY AGREE TO ABIDE BY ALL TERMS AND CONDITIONS OF THIS RFP & CERTIFY I AM AUTHORIZED TO SIGN THIS RFP FOR

AUTHORIZED SIGNATURE	Thomas M. Connor, PE, President PRINT NAME & TITLE

RETURN THIS FORM WITH YOUR PROPOSAL

SECTION F –ELECTRONIC PAYMENT (ePayables)

Proposal Title: Haines Bayshore Road Sidewalk (LAP) Professional Engineering Services PID 002102A
Proposal No.: 134-0309-NC(RM)

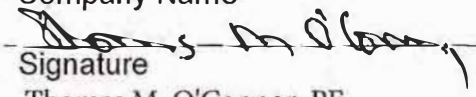
Electronic Payment (ePayables)

The Board of County Commissioners (County) is offering faster payments. The County would prefer to make payment using credit card.

Would your company accept to participate in the ePayables credit card program? Yes ☐ No ☒

For more information about ePayables credit card program please visit Purchasing Department website www.pinellascounty.org/purchase.

King Engineering Associates, Inc.
Company Name



Signature

Thomas M. O'Connor, PE
Printed Signature

6 Additional Information

Pinellas County

145-0035-NC (SS)
Engineering Consulting Services
Cross Bayou Canal Flood Control Improvements

King
ENGINEERING ASSOCIATES, INC.

6. Additional Information

This section contains the following items for your review.

- Figure 1 – Cross Bayou Canal North
- Figure 2 – Cross Bayou Canal South
- Proposed Project Schedule
- Additional Resumes for the Project Team

Potential Mangrove Mitigation Site

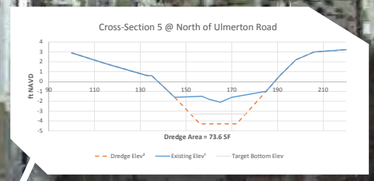
County Road 611

Property Ownership Unclear

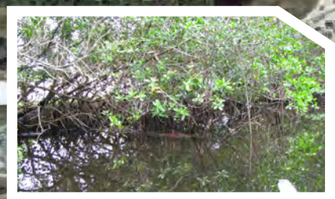
Roosevelt Blvd

Potential Joint Mangrove Mitigation / Flood Comp Site

Property Ownership Unclear



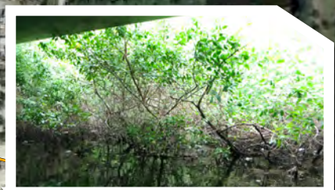
Ulmerton Rd



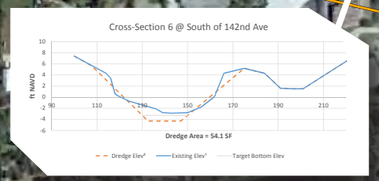
RED MANGROVES ALONG WEST BANK SHORELINE

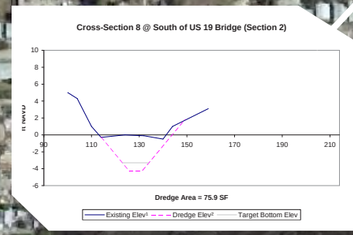
LEGEND

- Pinellas County Owned Property
- City of Largo Owned Property
- Other Public Owned Property
- Property Lines



VEGETATIVE BLOCKAGE AT US 19





US 19

King
ENGINEERING ASSOCIATES, INC.
4921 Memorial Highway
Suite 300
Tampa, FL 33634
Phone: 813-880-8881

Pinellas County - Fig. 1 Cross Bayou Canal North

LEGEND

- Pinellas County Owned Property
- City of Largo Owned Property
- Other Public Owned Property
- Property Lines
- City of Largo Force Main

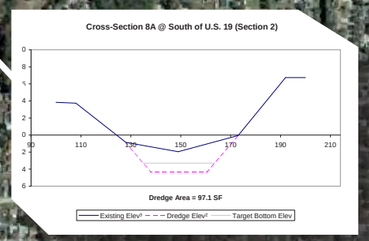
US 19

Bryan Dairy Rd

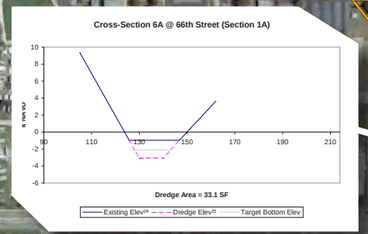
66th St N

Belcher Rd

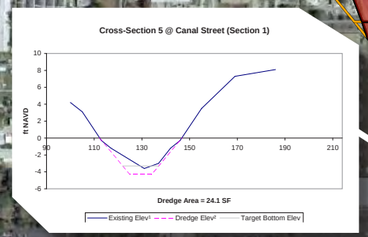
DENSE VEGETATION UPSTREAM OF BRYAN DAIRY ROAD



SPLASH PAD AND CULVERTS EXTENDING INTO CBC, DISRUPTING FLOWS AND CAUSING SEDIMENTATION.



LAND IMPROVEMENTS" EAST BANK



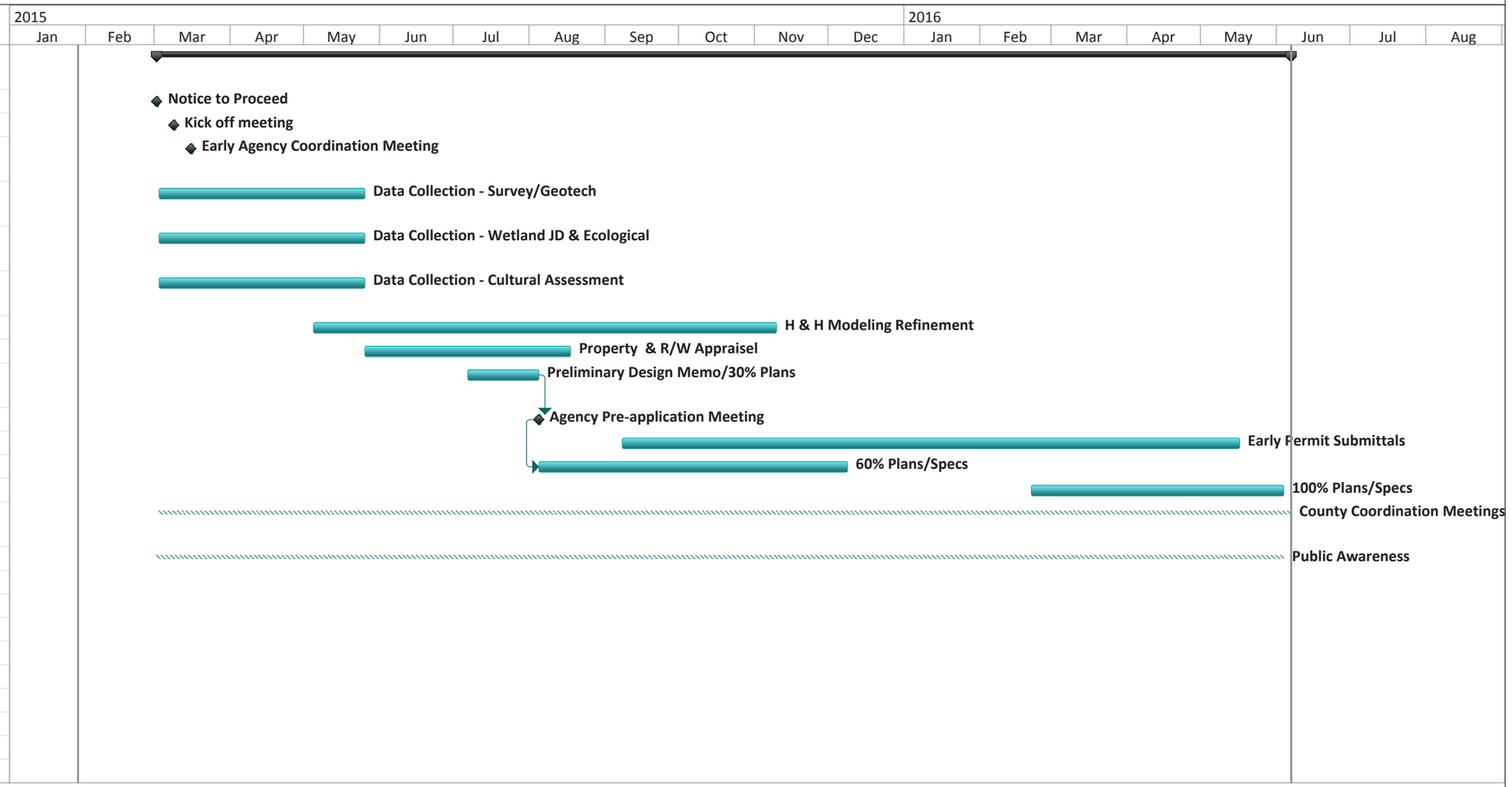
WEST BANK CLEARED, BRAZILIAN PEPPER ALONG EAST BANK.

King
ENGINEERING ASSOCIATES, INC.
4921 Memorial Highway
Suite 300
Tampa, FL 33634
Phone: 813-880-8881

Pinellas County - Fig. 2 Cross Bayou Canal South

Cross Bayou Canal Flood Control Improvements

ID	Duration	Start	Finish
1	**331 days**	**Mon 3/2/15**	**Mon 6/6/16**
2	1 day	Mon 3/2/15	Mon 3/2/15
3	1 day	Mon 3/9/15	Mon 3/9/15
4	1 day	Mon 3/16/15	Mon 3/16/15
5	60 days	Tue 3/3/15	Mon 5/25/15
6	60 days	Tue 3/3/15	Mon 5/25/15
7	60 days	Tue 3/3/15	Mon 5/25/15
8	135 days	Tue 5/5/15	Mon 11/9/15
9	60 days	Tue 5/26/15	Mon 8/17/15
10	21 days	Tue 7/7/15	Tue 8/4/15
11	1 day	Wed 8/5/15	Wed 8/5/15
12	180 days	Tue 9/8/15	Mon 5/16/16
13	90 days	Wed 8/5/15	Tue 12/8/15
14	75 days	Mon 2/22/16	Fri 6/3/16
15	330 days	Tue 3/3/15	Mon 6/6/16
16	330 days		
17			
18			
19			
20			
21			
22			
23			
24			
25			



Project: Cross Bayou Canal Flood
Date: Thu 1/29/15

Task	Project Summary	Inactive Milestone	Manual Summary Rollup	Deadline
Split	External Tasks	Inactive Summary	Manual Summary	Progress
Milestone	External Milestone	Manual Task	Start-only	
Summary	Inactive Task	Duration-only	Finish-only	

King
ENGINEERING ASSOCIATES, INC.
4921 Memorial Highway
Suite 300
Tampa, FL 33634
Phone: 813-880-8881

Pinellas County - Cross Bayou Canal Schedule

Project Team Resumes

Stephen J. Cross, SR/WA – RTD Group

Land Appraisal

Total Years Experience: 33
Years with Current Firm: 3

Education: University of Central Florida, B.S. Finance
Certifications: State-Certified General Real Estate Appraiser, RZ2405, Florida Real Estate Broker, BK149670, International Right-of-Way Association, Senior Right of Way Professional (SR/WA)

Asst R/W Program Manager for Hillsborough Transportation Task Force, with Nebraska and Hillsborough Ave Projects, Tampa, FL - Appraiser-of-Record for between10 to 20 parcels along Nebraska Ave. On-going familiarity with many of the major property and business owners and neighborhood issues in the proposed study area.

Ulmerton Road Appraisals, Largo, FL - As Appraiser of record, this project required engineering and planning reports for appraisals, development of cost-to-cures for ten parcels from Lake Seminole By-Pass Canal eastward across Starkey Road to Wild Acres Road.

Hiawassee Road, Orange County, FL - Review Appraiser for Extension of the existing 4-lane Hiawassee Road from Silver Star Road to SR 436. Cost estimates on 4 alternative alignments of the proposed new roadway. Cost estimates were on improved commercial, improved industrial, single family homes, and vacant lands of all land uses. Provided assistant to finial alignment to minimize right-of-way and business damages claims.

Tampa Pipeline Easement Appraisal, Tampa, FL - Appraiser-of-Record for easement for Tampa Pipeline at Tampa International Airport.

High Speed Rail Downtown Station and Ybor City Appraisal Support, Tampa, FL - Senior Land Planner to support FDOT In-House Appraisers at District 7. Included numerous Nebraska Ave issues within the proposed project study area. Sorted out complex overlapping jurisdiction of different review agencies, development order for the Downtown DRI, overlay districts, etc. Drafted land planning reports for appraisals.

Joan Deming – Archaeological Consultants, Inc.

Archaeological

Education: B.A. Anthropology, University of Wisconsin
M.A. Anthropology/Public Archaeology, University of South Florida
Current Professional Registration: Registered Professional Archaeologist (RPA) Florida

Total Years Experience: 38
Years with Current Firm: 38

Keystone Road from US 19 to East of East Lake Road, Proposed Pond and Offsite Wetland Mitigation Sites, Pinellas County - Project Manager. Archaeological Consultants, Inc. (ACI) conducted a cultural resource assessment survey (CRAS) of the 3.23-mile corridor and 11 proposed pond sites and two offsite wetland mitigation sites. The purpose of the survey was to locate and identify any prehistoric and historic period archaeological sites and historic resources located within the project area of potential effects (APE), and to assess their significance in terms of eligibility for listing in the National Register of Historic Places (NRHP). Archaeological field survey yielded negative results. Several proposed ponds

were located adjacent or near historic segments of previously recorded Keystone Road. This historic resource was evaluated as ineligible for listing in the NRHP. No further work was recommended.

Lighthouse Point Creek Outfall, Pinellas County - Project Manager. At the request of the Pinellas County Public Works Department ACI provided archaeological services incident to the installation of a box culvert storm drainage system along 42nd Avenue North in St. Petersburg. The project APE lies, in part, within a prehistoric mound and midden complex which has previously yielded human remains, including burials. The primary purpose of the archaeological work was to monitor the mechanical excavation of the culvert trench to ensure that no human remains and associated artifacts were disturbed. As a result of monitoring and survey, the midden boundary was extended, but no evidence of human remains was encountered.

118th Avenue (CR 296) Connector (Future 690) from US 19 to East of Roosevelt Connector, Proposed Pond Site Alternatives Pinellas County - Project Manager. This CRAS was conducted on behalf of the Florida Department of Transportation, District Seven. Work included research and an archaeological and historical field survey of 15 proposed stormwater management facilities and floodplain compensation site alternatives. Background research identified one previously recorded archaeological site. No new archaeological sites were identified. The historic Calvary Catholic Cemetery, located within the project APE, was recorded and evaluated.

Non-Major State Action (NMSA) Environmental Evaluation SR 693 (66th Street North) from North of Ulmerton Road to North of 142nd Avenue North, Pinellas County - Project Manager. This CRAS was prepared on behalf of the Florida Department of Transportation, District Seven. The purpose of the CRAS was to locate, identify, and aerially delimit any archaeological sites and historic resources located within the project APE, and to assess their significance in terms of the criteria of eligibility for listing in the NRHP. As a result, four historic buildings were identified and evaluated.

Roadway Transfer of US Alternate 19/SR 595/Bay Pines Boulevard North Frontage Road from Seminole Boulevard to 100th Way from the State Highway System to the City of Seminole Road System, Pinellas County - Project Manager. The archaeological component of the survey included background research to determine if any archaeological sites are recorded within the existing right-of-way (ROW), a visual reconnaissance, and subsurface testing of the ROW. The historical/architectural component consisted of background research, a windshield survey, the listing of any known NRHP-listed or eligible properties adjacent to the ROW, and the identification, evaluation and recording of historic resources located within the ROW. In addition, any unrecorded historic resources that appeared to be potentially eligible for listing in the NRHP were identified. Background research and field survey indicated that no recorded archaeological sites or historic resources which are listed, determined eligible, or considered potentially eligible for listing in the NRHP are located within the existing roadway transfer ROW.

Lee Hutchinson – Archaeological Consultants, Inc.

Archaeological

Education: M.A. Anthropology/Public Archaeology, University of South Florida, 1990; B.A. Anthropology, Marshall University, 1985
Current Professional Registration: Registered Professional Archaeologist (RPA) Florida

Total Years Experience: 29
Years with Current Firm: 24

Keystone Road from US 19 to East of East Lake Road, Proposed Pond and Offsite Wetland Mitigation Sites, Pinellas County - Archaeological Consultants, Inc. (ACI) conducted a cultural resource assessment survey (CRAS) of the 3.23-mile corridor and 11 proposed pond sites and two offsite wetland mitigation sites. The purpose of the survey was to locate and identify any prehistoric and historic period archaeological sites and historic resources located within the project area of potential effects (APE), and to assess their significance in terms of eligibility for listing in the National Register of Historic Places (NRHP). Archaeological field survey yielded negative results. Several proposed ponds were located adjacent or near historic segments of previously recorded Keystone Road. This historic resource was evaluated as ineligible for listing in the NRHP. No further work was recommended.

Lighthouse Point Creek Outfall, Pinellas County - At the request of the Pinellas County Public Works Department ACI provided archaeological services incident to the installation of a box culvert storm drainage system along 42nd Avenue North in St. Petersburg. The project APE lies, in part, within a prehistoric mound and midden complex which has previously yielded human remains, including burials. The primary purpose of the archaeological work was to monitor the mechanical excavation of the culvert trench to ensure that no human remains and associated artifacts were disturbed. As a result of monitoring and survey, the midden boundary was extended, but no evidence of human remains was encountered.

Bryan Dairy Road PD&E Study from Starkey Road to 72nd Street North, Pinellas County - This CRAS was performed on behalf of the Pinellas County Public Works Department. The purpose was to locate and identify any archaeological sites and historic resources within the project APE, and to assess their significance for listing in the NRHP. Work included background research, archaeological and historical field surveys, and preparation of draft and final reports.

CRAS of Non-Major State Action (NMSA) Environmental Evaluation SR 693 (66th Street North) from North of Ulmerton Road to North of 142nd Avenue North, Pinellas County - This CRAS was prepared on behalf of the Florida Department of Transportation, District Seven. The purpose of the CRAS was to locate, identify, and aerially delimit any archaeological sites and historic resources located within the project APE, and to assess their significance in terms of the criteria of eligibility for listing in the NRHP. As a result, four historic buildings were identified and evaluated.

Roadway Transfer of US Alternate 19/SR 595/Bay Pines Boulevard North Frontage Road from Seminole Boulevard to 100th Way from the State Highway System to the City of Seminole Road System, Pinellas County - The archaeological component of the survey included background research to determine if any archaeological sites are recorded within the existing right-of-way (ROW), a visual reconnaissance, and subsurface testing of the ROW. The historical/architectural component consisted of background research, a windshield survey, the listing of any known NRHP-listed or eligible properties adjacent to the ROW, and the identification, evaluation and recording of historic resources located within the ROW. In addition, any unrecorded historic resources that appeared to be potentially eligible

for listing in the NRHP were identified. Background research and field survey indicated that no recorded archaeological sites or historic resources which are listed, determined eligible, or considered potentially eligible for listing in the NRHP are located within the existing roadway transfer ROW.

Jason E. Jendrucko – King Engineering Associates, Inc.

Ecological Services

Education: Bachelor of Marine Biology, 2005, Coastal Carolina University

Current Professional Registration:

Florida Department of Environmental Protection Stream Condition Index and Habitat Assessment Certified, 2012

FDEP Qualified Stormwater Management Inspector #30716

Total Years Experience: 10

Years with Current Firm: <1

Statewide Water Quality Monitoring for FDEP's Strategic Monitoring Program for Total Maximum Daily Load (TMDL) Rule Development, Throughout FL (w/FDEP) - Mr. Jendrucko was the co-project manager for this multi-year statewide effort at the FDEP. This logistically and technically demanding project was an intense data collection effort including hundreds of Water Body Identification Units (WBIDs) ranging from springs to canals, streams, rivers, and lakes for the purpose of TMDL development. Mr. Jendrucko played a significant role in determining out which sites were best representative of the stream flow within WBIDs. This was done by using ArcGIS programs to map out potential sites. Mr. Jendrucko uploaded data to FDEP's STORET database and it was used to determine the impaired status of a water body segment. Mr. Jendrucko conducted and provided guidance for daily operations, scheduling, data collection, chain of custody reports, and data management. Samples were collected in accordance with the Florida Watershed Restoration Act and the Impaired Waters Rule, following all FDEP protocols. In addition to the water quality constituents, biological assessments were conducted at selected sites using FDEP's SCI and periphyton protocols to assess the biological integrity of selected water body segments.

Tampa Bay Marina, Hillsborough County, Florida - Mr. Jendrucko assisted in sediment core sampling and analysis services in association with FDEP permitting evaluation. Sampling was performed to determine the feasibility of blending sediments following dredge activities. The purpose was to determine the usability of this dredge material as upland fill or determine the disposal options following dredging. All sampling was performed via boat and according to FDEP SOPs.

North Prong Alafia River TMDL Study, Polk County, Florida - Mr. Jendrucko has been involved in the data collection and analysis for the North Prong Alafia River (NPAR) TMDL study. This project involved quarterly deployment of a multiparameter data sonde, collection of streamflow measurements, and water quality sampling. Besides the quarterly monitoring, there were also dry and wet season biological collection events and a one-time collection of sediment throughout the marshes that lie within the North Prong basin. Mr. Jendrucko assisted with numerous quarterly sampling events, conducted the biological assessments including sorting of the benthic macroinvertabrates, stream flow, and assisted with data analysis and report writing. Mr. Jendrucko sampled the sediment portion of this project by airboat and sent the samples to the proper lab for analysis.

Team Leader — MS Canyon 252 (Deepwater Horizon) Oil Spill, Citrus, Hernando, Pasco, Pinellas, Hillsborough, Manatee and Sarasota Counties, Florida - While employed at FDEP, Mr. Jendrucko led

teams comprised of county officials and BP contractors out to several baseline sampling sites along the west coast of Florida. The sampling consisted of baseline shallow subsurface water sampling and shoreline sediment sampling at each sampling location. In order to be a team leader, Mr. Jendrucko had to become NOAA NRDA certified before leading these sampling teams.

Wiregrass Ranch Water Quality Sampling, Pasco County, FL - Mr. Jendrucko conducted ground and surface water quality sampling to identify, measure, and report any continuous and/or long-term pre- and post-development changes in water quality in the project area. This sampling is required, by Development Order (DO), to track any changes in water quality due to site development.

Benjamin Ballard – King Engineering Associates, Inc.

Ecological Services / GIS

Education: Bachelor of Science, Environmental Biology, 2001 Taylor University

Current Professional Registration:

FWC Authorized Gopher Tortoise Agent No. GT-09-00269
FWC Scientific Collecting Permit No. WV04164
FDEP Qualified Stormwater Management Inspector #26591

Total Years Experience: 14
Years with Current Firm: 11

Coral Creek Ecosystem Restoration, Southwest Florida Water Management District, Charlotte County, FL - Project Ecologist responsible for data collection for a conceptual habitat restoration master plan and the construction design/implementation of two habitat restoration projects on the 2,600 acres Coral Creek Property within the FDEP's Charlotte Harbor Aquatic State Buffer Preserve for the SWFWMD SWIM program. Activities include habitat assessments, GPS location of critical project elements, protected species evaluations, ecosystem restoration design assistance, ArcView GIS graphics, and permitting assistance. The filter marsh system was created by removal of vegetation/debris and dredging 15,000 cy of accumulated sediments from the existing degraded canal.

Lake SueMar Environmental Enhancement-Phase 4 Conceptual Plan, Dunedin, FL - Project Ecologist responsible for assisting in the development of a conceptual plan targeting the enhancement of the 3.6 acre man-made lake for a stormwater retrofit project. This project resulted in the diversion and treatment of approximately 255 acres of urban watershed contributory to Cedar Creek. Activities included wetland delineations, floral and faunal inventories, habitat quality assessment, GIS map production, GPS location of critical project elements, agency coordination, environmental permitting, construction and wetland planting observation, and continuing mitigation compliance monitoring.

Wiregrass Ranch DRI, State Road 56, Pasco County, FL - Estimated, via ground truthing and aerial photograph interpretation, onsite jurisdictional wetland limits on this ±5,000 acres proposed mixed-use development tract. Assisted with permitting, GIS mapping of onsite land use/cover types, GPS location of critical project elements and surveys for DRI listed wildlife, specific Florida Sandhill Crane Aerial Helicopter Nesting, Sherman's fox squirrel nesting, wading bird nesting, and gopher tortoises. Performed the Florida (UMAM) for the SWFWMD and ACOE permitting, as well as prepared the Site Conditions Assessment Permit (SCAP) application for entire Wiregrass property.

Alligator Creek Restoration Project Phase 3- Projects 4, 5, 6, 7 and 15, Charlotte County, FL - Project Ecologist responsible for assisting with the design, GPS location of critical project elements, permitting, project/agency coordination and construction observation associated with the enhancement and

restoration of seven, highly impacted (ditched) estuarine/oligohaline and palustrine wetland systems totaling 100 acres. Primary stormwater component will consist of dredging 18,000 cy of material from an existing ditch network to create 1.8 acre filter marsh system. Restoration design targets the restoration of wetland hydroperiods and removal of extensive ditching and E/N plant species invading the drained wetlands. Activities include habitat hydroperiod and T/E species assessments, wetland delineations, restoration design including integration with detailed H&H modeling of over 1000 acres of offsite flows, multi-agency coordination, permitting and construction supervision.

Camp Branch Creek Hydrologic Restoration, Putnam County, FL - Project Ecologist responsible for the design of hydrological and habitat restoration of Camp Branch Creek system located in the Caravelle Ranch Wildlife Management Area for the Florida Fish and Wildlife Conservation Commission (FWC). Assisted with base data collection, GPS location of critical project components, wetland delineation, wildlife assessments, wetland functional assessments and establishment of existing wetland water levels (seasonal high water elevations), as well as identification of historic water levels and flows to serve as a basis or "target" for the hydrologic restoration design of this floodplain wetland system.

Sudhir Mehta PE – BCG Engineering & Consulting

Dredging

Education: Master of Science / Structural Engineering, Bachelor of Science / Civil Engineering

Current Professional Registration: Professional Engineer Louisiana

Total Years Experience: 38

Years with Current Firm: 2

General DeGualle Ave Major Drainage Canal Improvements, New Orleans Louisiana - Role: Structural Engineer. Project included dredging of 6000 LF of a major urban canal to 82' wide by 12' deep to improve conveyance, overall drainage, add storm control structures and reduce on-going maintenance. Work included hydraulic analysis, dredging design, plans and permitting. Improvements included 5' high by 40' wide pile founded concrete flume and lateral control structures. Client: New Orleans Sewerage & Water Board.

Florida Ave Major Drainage Canal Improvements, New Orleans, Louisiana - Role: Structural Engineer. Project included design for improvements to 6000 LF of this 25' wide by 8' deep earthen canal to a pile founded concrete canal flume measuring 44' wide by 13' deep to convey storm runoff to a new 4300 cfs pump station at the hurricane protection levee. Project required relocation of several railroad tracks and utilities. Client: New Orleans Sewerage & Water Board.

Florida Ave Emergency Canal Restoration, New Orleans, Louisiana - Role: Structural Engineer. Project included emergency repair to a collapsed 5' high concrete canal retaining wall and 300' of 54" sewer force main. The collapse was a result of overloading along the upper bank of a major 65' wide by 12' deep drainage canal. Work included design for 300 LF of canal and force main, dredging to restore canal section and installation of a new structural concrete 25' wide by 5' high concrete flume to restore failed bank with 1:3 side slopes. Client: New Orleans Sewerage & Water Board.

Lake Hermitage Marsh Restoration, Plaquemines Parish, Louisiana - Role: Structural Engineer. This project used a hydraulic dredge anchored in the Mississippi River and mined sand off the bottom down to a 90' depth using a 20 inch pipeline and two booster pumps. It routed material 7.5 miles to 2-foot

deep open water in diked areas to restore 700 acres of coastal tidal marsh. A total of 7.5 million cubic yards was pumped. Client: Louisiana Coastal Protection and Restoration Authority.

Fronting Protection, Bonnabel and Suburban Pumping Stations, Metairie, Louisiana - Role: Structural Engineer. Responsible for the design of fronting protection across the discharge basins of both the Bonnabel and Suburban Pumping Stations. Prepared a design report and subsequent design which includes a combination of gate monoliths and T-wall monoliths and positive cutoff sluice gates. T-walls were designed to tie into the fronting protection on both sides of the pumping stations.

Cecil Soileau PE, PLS, DWRE – BCG Engineering & Consulting

Dredging

Education: Bachelor of Science / Civil Engineering, Hydrology & Hydraulics
Current Professional Registration: Professional Engineer Louisiana / Civil, Professional Land Surveyor Louisiana

Total Years Experience: 51
Years with Current Firm: 18

Bonnabel Canal Improvements, Metairie, Louisiana - Role: Hydraulic Engineer. Project involved planning and design for canal dredging, widening and bank stabilization to improve drainage through 2000 LF of a 65’ wide by 12’ deep canal. Prepared an engineering alternative report to evaluate alternatives for canal improvement including full u-shaped concrete flume; concrete flume with low walls and upper banks slope paved; concrete lined trapezoidal section; and sheet pile with rock lined side slopes. The work included complete plans and specification as well as restoring an eroded bank along rear yards of private residences by driving steel sheet pile and back filling with soil and capping with a 4” concrete sloped slab. Client: Jefferson Parish.

General DeGualle Ave Major Drainage Canal Improvements, New Orleans Louisiana - Role: Hydraulic Engineer. Project included dredging of 6000 LF of a major urban canal to 82’ wide by 12’ deep to improve conveyance, overall drainage, add storm control structures and reduce on-going maintenance. Work included hydraulic analysis, dredging design, plans and permitting. Improvements included 5’ high by 40’ wide pile founded concrete flume and lateral control structures. Client: New Orleans Sewerage & Water Board.

Florida Ave Emergency Canal Restoration, New Orleans, Louisiana - Role: Hydraulic Engineer. Project included emergency repair to a collapsed 5’ high concrete canal retaining wall and 300’ of 54” sewer force main. The collapse was a result of overloading along the upper bank of a major 65’ wide by 12’ deep drainage canal. Work included design for 300 LF of canal and force main, dredging to restore canal section and installation of a new structural concrete 25’ wide by 5’ high concrete flume to restore failed bank with 1:3 side slopes. Client: New Orleans Sewerage & Water Board.

USACE New Orleans District Hurricane Katrina Hydraulic Analysis, New Orleans, Louisiana - Role: Hydraulic Engineer. Hydraulic analyses for task orders associated with Hurricane Katrina recovery work. Projects included addition of pumping capability at the London Ave and Orleans Ave outfall canal closure structures and a study to use eight foot diameter (minimum) pump sizes to increase pumping capacity by 4,000 cfs at the London Ave canal.

Louisiana Department of Natural Resources Castille Pass Sediment and Nutrient Diversion, Atchafalaya Bay - Responsible for the collection of flow and sediment data in the Atchafalaya River, Main Pass, Natal Pass and Castille Pass for three flow events using a suspended flow meter and a suspended sediment P-72 point sampler as well as the analysis of sediments for grain size distribution and concentration. This was completed to provide calibration data for the application of Sed2D and RMA-2 in the SMS to a project diversion plan. The scope of work included forecasting the long-term benefit of sediment diversion for land building through application of Sed2D and an average flow hydrograph.

David Dodgen PE – BCG Engineering & Consulting

Dredging

Education: Bachelor of Science / Civil Engineering
Registrations: Professional Engineer Louisiana and Georgia

Total Years Experience: 26
Years with Current Firm: 14

Bonnabel Canal Improvements, Metairie, Louisiana - Role: Civil/Hydraulic Engineer. Project involved planning and design for canal dredging, widening and bank stabilization to improve drainage through 2000 LF of a 65' wide by 12' deep canal. Prepared an engineering alternative report to evaluate alternatives for canal improvement including full u-shaped concrete flume; concrete flume with low walls and upper banks slope paved; concrete lined trapezoidal section; and sheet pile with rock lined side slopes. The work included complete plans and specification as well as restoring an eroded bank along rear yards of private residences by driving steel sheet pile and back filling with soil and capping with a 4" concrete sloped slab. Client: Jefferson Parish.

Louisiana Department of Natural Resources, Castille Pass Sediment Delivery Project, St. Mary Parish, Louisiana - Role: Civil/Hydraulic Engineer. Responsible for design report to improve Atchafalaya River flows and sediments into shallow bay bottoms of three delta lobes of Atchafalaya Bay. Prepared plans and specifications to implement project plan recommendations that includes dredging improvements for 61,000 LF of channels and 2M cubic yards of hydraulic dredge disposal.

USACE New Orleans District Freshwater Diversion Feasibility Study Bonnet Carré Spillway, St. Charles, Parish, Louisiana - Role: Hydraulic Engineer. Responsible for feasibility study to examine diversion of freshwater from the Mississippi River into Lake Pontchartrain utilizing gravity overland flow through the Bonnet Carré Spillway wetlands to provide filtration. Presented recommendations to technical personnel of the Bonnet Carré Steering Committee for the NOCOE.

East Ascension Parish Drainage Board, Ascension Parish Master Drainage Study & Channel Improvement Design, Ascension Parish, Louisiana - Role: Hydrologic / Hydraulic Engineer. Responsible for master drainage study of five watersheds using USACE HEC-HMS, HEC-RAS and NRCS TR-55 software. Watershed areas varied from 5 to 45 square miles. Responsible for hydraulic modeling for all major bayous of the Marvin Braud pumping station watershed as well as preparation of plans and specifications for implementation of recommended channel improvements.

Louisiana Comprehensive Coastal Master Plan, Coastal, Louisiana - Role: Member of Integrated Planning Team. After Hurricane Katrina, David assisted the Coastal Protection and Restoration Authority to develop the Louisiana Master Plan for hurricane protection integrated with coastal restoration.

Among other duties, he served as team leader for the planning and project development for the western coastal parishes and coordinated the public input process.

Nita Naik, PE, ENV SP – Greeley Hanson, LLC

Envision Specialist

Total Years Experience: 6
Years with Current Firm: 6

Education: M.S. - Environmental Engineering, B.S. - Civil Engineering
Registrations: Professional Engineers – OH, ENV Sustainability Professional
Water Environment Federation - 2015-2016 Vice-Chair of upcoming FWEA Sustainability Committee

Duck Donut Pond Outfall Improvements, Tampa, Florida - Project Engineer, Envision Specialist. The Duck Pond Outfall Improvements design and construction services for a 100 CFS stormwater pump station and improvements to several conveyance facilities; 1,400 LF of 42-inch diameter force main and connection to an existing 54-inch diameter force main. The pump station included four 400 HP submersible pumps and was intended to alleviate flooding in the Fowler and 30th area of Tampa. Ms. Naik led the local efforts for an ENVISION Self-assessment as means for calibrating ISI rating tools. Ms. Naik also performed design and permitting services.

Largo Wastewater Reclamation Facility Disinfection and Effluent Pumping Station Improvements Largo, Florida - Project Manager, ENVISION Specialist Project consists of complete engineering services for replacement of the existing chlorine and sulfur dioxide gas disinfections systems and effluent pump station modifications, effluent meter upgrades, and reclaimed water separation and metering at the Largo WWRF, in response to a Consent Order. The C.O. is based on reducing the concentration of disinfection byproducts. Ms. Nita Naik led the local efforts for an ENVISION Self-assessment as means for calibrating ISI rating tools. Ms. Nita Naik also performed design and permitting services.

30th Street Stormwater Force Main Project, Tampa, Florida - Project Engineer for the 30th Street Stormwater Force Main Project for the City of Tampa, Florida. Ms. Naik participated in the design of approximately 3,200 LF of 54-inch diameter pipe located along 30th Street from 113th Avenue to a point of connection approximately 500 feet south of Bougainvillea Avenue. The design build project included relocations of sanitary sewers, relocations of small diameter water mains and adjustments to the stormwater drainage system. Ms. Naik assisted erosion and sediment control design, as well as design and implementation of Best Management Practices (BMPs).

113th Avenue Force Main and Drainage Improvements, Tampa, Florida - Project Engineer for the 113th Avenue Force Main and Drainage Improvements for the City of Tampa, Florida. The design build project involved design, permitting and general construction services of approximately 1,400 linear feet of 42-inch diameter stormwater force main along 113th Avenue from 30th Street to N. 26th Street. The project included relocations of sanitary sewers and adjustments to the stormwater drainage system. Ms. Naik assisted erosion and sediment control design, as well as design and implementation of Best Management Practices (BMPs).

Cypress Street Outfall Upgrade, Tampa, Florida - Project Engineer. Project consists of the design and construction of 724 ft of 12'x4' box culvert, 817 ft of twin 9'x7' box culverts, large junction chamber in North Boulevard and Cass St, and an open channel outfall to the river to alleviate flooding primarily along Rome Avenue and Cypress Street. In addition to providing design, permitting and construction

services for this project, Ms. Naik assisted erosion and sediment control design, as well as design and implementation of Best Management Practices (BMPs).

Wayne S. Driggers, PE – Driggers Engineering Services, Inc.

Geotechnical

Education: University of Florida - Bachelor of Science in Civil Engineering - 1995
University of Florida - Masters Studies in Geotechnical Engineering
Current Professional Registration: Professional Engineer, State of Florida No. 58013

Total Years Experience: 23
Years with Current Firm: 23

Ch. 1C Renewal; 98th Ave. to Channel 1 Confluence, Clearwater, FL - Geotechnical Investigation, analyses and recommendations for Channel Renewal.

Channel 3A Renewal, Pinellas Park, FL - Geotechnical evaluation for channel subgrade preparation and new slope protection.

Channel Improvements, Channel 4 at Joe's Creek, Pinellas Park, FL - Geotechnical Engineering evaluation & recommendations for footings, foundation and fill/backfill.

PPWMD Channels 4 & 4E Improvements, Pinellas Park, FL - Geotechnical Engineering investigation, testing, evaluation, and recommendations.

South Cross Bayou Water Reclamation Facility, Dunedin, FL - Geotechnical Engineering Evaluation and Recommendations for footings, fill/backfill and foundation design consultation

John R. Seals, P.E. – King Engineering Associates, Inc.

Transportation / Traffic

Education: B.S., Civil Engineering, University of South Florida, 1991
Current Professional Registration: Professional Engineer Florida, No. 51505
Add'l Education: Traffic Signal Operation at Local Intersections, Georgia Tech, Traffic Signal Operation in Coordinated Systems, Georgia Tech
Certifications: Basic Lighting Design, Pedestrian Facilities Design, Maintenance of Traffic Design

Total Years Experience: 29
Years with Current Firm: 11

Highland Avenue Preliminary Design and Stormwater Retrofit Largo, FL - Project Manager for the preparation of a PD & E / conceptual design alternatives report and final design plans to reconstruct 1.5 miles of an existing 2-lane rural facility. The project included converting the existing facility to an urban, pedestrian-friendly, roadway with streetscape and hardscape elements, including the design of a multi-use path and incorporating LID stormwater elements. Services include survey and right-of way mapping, SWFWMD grant funding application, public involvement, and County Joint Project Agreement. Additionally, the stormwater retrofit portion of the project included diverting 250 acres of untreated stormwater runoff into an expanded pond area to provide water quality treatment.

Wiregrass Ranch Blvd (Phase 1 & 2), Pasco County, FL - Project Manager/Engineer-of-Record for the design, permitting, and construction administration of a new ¾ mile segment of 4-lane divided urban collector roadway. The project includes stormwater management facilities and utility installation.

Construction services are being provided including construction management and oversight, inspections, and as-built preparation /project certification.

U.S. 301 & Balm Riverview Rd Intersection Improvements PD&E Study and Final Roadway Design Plans, Hillsborough County, FL - Project Manager/Engineer of Record for the preparation of a PD&E study and design plans for intersection improvements. The Study was done to evaluate alternative roadway geometry improvements considering safety, vehicle capacity, environmental and right-of-way impacts, and cost. The design plans included additional lane geometry, survey, right-of-way mapping, stormwater management facilities, wetland and flood plain design, traffic signalization, and environmental permitting.

Zephyrhills Bypass Roadway Widening Design, Pasco County, FL - Project Manager/Engineer for the design of 1.5 mile roadway widening from 2-lane to 4-lane divided rural roadway. Responsibilities included roadway and stormwater design, pond siting evaluation, environmental permitting, public meetings, maintenance of traffic, traffic signalization plans, and utility coordination.

Columbus Drive Extension, Hillsborough County, FL - Project Manager for the preparation of the Preliminary Engineering Study, the 30% design plans, and the Design-Build RFQ package to construct a new 4-lane divide urban roadway. The project included the identification of pond sites for flood plain and wetland impacts, USACOE permitting, and preparation of a Design-Build contract for advertisement and bidding.

Elizabeth Lyon-Hall, RLA, LEED AP – King Engineering Associates, Inc.

Landscape Architecture

Education: Bachelor of Landscape Architecture, 1997, University of Florida
Current Professional Registration: Registered Landscape Architect
Florida No. 6666731
LEED Accredited Professional /Certified Arborist Florida No. 1287A

Total Years Experience: 18
Years with Current Firm: 8

Highland Avenue Preliminary Roadway Reconstruction and Stormwater Retrofit, Largo, FL - Created initial and final landscape design standards, including references to hardscape structures such as benches and lighting, for stormwater treatment facility that was constructed on city owned property adjacent to Highland Avenue and employ low impact development designs and concepts within the Highland Avenue right-of-way to further enhance the project and provide additional water quality treatment. Performed cost estimates for construction.

Skycrest Neighborhood Traffic Calming, Clearwater, FL - Landscape Architect for traffic calming designs within an existing Clearwater neighborhood. Landscape and irrigation design services were performed with sensitivity to the existing community and City design standards. Prepared cost estimates for construction.

Northwest County Solid Waste Transfer Station Expansion, Hillsborough County, FL - Performed detailed landscape design, including landscape and irrigation specifications, to enhance the street frontage along Linebaugh Avenue and buffer the site from the adjacent offsite Upper Tampa Bay Trail. Drought tolerant and native species were utilized.

Telecom Parkway Extension, Temple Terrace, FL - Landscape Architect for the design and permitting of ±2,600 lf a City roadway project, to provide an additional access road from the Tampa Telecom Office Park out to Fletcher Avenue. The project also included the design of a stormwater retention pond which is located outside of the City limits in Hillsborough County along Cow House Slough. Coordination between the City of Temple Terrace and Hillsborough County was required to address tree removal and mitigation for the two jurisdictions.

MacDill Housing, Tampa, FL - Provided detailed landscape and irrigation plans for the officers' quarters at MacDill AFB. King provided site investigation, preliminary drainage study, preliminary utility study, water/sewer permit, stormwater permit, construction plans.

Greg Baksis, PSM – King Engineering Associates, Inc.

Surveying / Mapping
Education: BS Geomatics, University of Florida, 2010

Total Years Experience: 10
Years with Current Firm: 1

Three Ponds at Three Lakes Subdivision, Pinellas County, FL - Tech Supervisor for topographic and right-of-way survey to allow County's Stormwater Field Services to identify work needed to restore pond's functionality and improve water quality. Survey will be used to establish whether pond meets appropriate stormwater flow and if all drainage structures are adequate and functioning properly. Survey included horizontal and vertical elevations, trees, and structures.

SWFWMD - Coral Creek Ecosystem Restoration, Charlotte County, FL - CADD Technician assisted with Topographic survey services for two habitat restoration projects on the 2,600-acre Coral Creek Property for the SWFWMD SWIM program.

Basin 27 Channel, Pinellas County, FL - CADD Technician assisted with Topographic survey for Basin 27 Channel 1 for the County in preparation of dredging Basin 27 from Indian Rocks Road to 8th Avenue SW. Fee: $74,600

MacDill Air Force Base CENTCOM, Tampa, FL - Project Surveyor responsible for construction layout of building, storm and sanitary sewers, water and parking lot.

Sanitary Sewer Pump Station F13-0059, Hillsborough County, FL - Completed boundary, topographic, tree and utilities surveys for a sanitary sewer lift stations.

Chris R. Hutton – King Engineering Associates, Inc.

GIS

Education: A.S., Computer Drafting and Design, ITT Technical Institute, 2007

Total Years Experience: 8
Years with Current Firm: 7

Coral Creek Ecosystem Restoration, Charlotte County, FL - Provided all graphic and GIS analysis for this Southwest Florida Water Management District (SWFWMD), Surface Water Improvement and Management (SWIM) and Florida Department of Environmental Protection (FDEP) cooperative ecosystem restoration project. Prepared data analysis and mapping of all available GIS data, field collection data, existing property surveys, and other field data to facilitate conceptual ecosystem design. Utilized GIS (Arcview 9.2 spg) data mapping and aerial imaging to develop comprehensive exhibits to convey the proposed ecosystem restoration design and Conceptual Plan.

Palm River Restoration, Hillsborough County, FL - Principal-in-Charge overseeing the Palm River Restoration project, a SWFWMD - SWIM project cooperatively funded by the Florida Department of Transportation. The Palm River Restoration Project is a multi-faceted restoration project design covering a 28 square mile, highly urbanized watershed in the City of Tampa and Hillsborough County. Overseeing services which include the preparation of a Feasibility Study, preliminary and final design plans and the permitting of multiple stormwater retrofit and wetland/shoreline habitat restoration projects within the Palm River/McKay Bay Basin. Project components includes 2D hydrodynamic modeling, data collection, land survey, pollutant loading/treatment efficiency, dredging, spoil disposal and bank stabilization assessments within the C-135/Palm River.

Thomas Creek Preserve, Duval County, FL - Provided GIS, graphical support services, and land use analysis in association with the creation and management of the wildlife habitat preserve. Prepared updated mapping and habitat mitigation exhibits for the maintenance and long ranch planning of the preserve.

Wiregrass Ranch, Pasco County, FL - Provided all graphical and GIS support for the master planning and development of an environmentally sensitive 5,000 acre Development of Regional Impact (DRI). Prepared GIS data mapping and analysis of land use cover data, wildlife locations and collected field data to aid in the planning and design of a watershed and ecosystem master plan, surface water modeling and management plan, and a comprehensive environmental management plan for the entire 5,000 acres.

GIS Analyst for the Stormwater Management Division, Pasco County, FL - As GIS Analyst for Pasco County's Stormwater Management Division duties included inventorying all stormwater structures (Pipes, Drop Structures, End Structures, Open Channels, Weirs, Etc) within county and surveyed the hydraulic elevations (with sub centimeter accuracy) of all the pipe inverts, complete structural and functional assessments, and oversaw 3 survey crew members.

Orlando Serrano, Jr. – King Engineering Associates, Inc.

Total Years Experience: 25
Years with Current Firm: 3

Construction Management
Field Observation
Education: A.S., Engineering Technology, ITT Institute of Technology, 1987
Certifications: FDOT Intermediate Maintenance of Traffic / FDEP Stormwater Erosion & Sedimentation Control

Kapok Flood Improvement, Clearwater, FL - Responsible for coordination between the City's representatives and the awarded contractor, QA services, schedule review, process of payment, claims and change order analyzes, submittal review and contract management. Scope included converting an existing abandoned trailer park into a City park with nature trails, rest facilities, major storm water management system and flood control structures.

Idlewild and The Mall Sanitary Sewer System and Woodlawn Storm Water Improvements, Clearwater, FL - Full-time Field Representative for construction of a ±15,000 LF sanitary sewer system in an existing neighborhood including connection of ±450 existing homes to the new sewer system and abandonment of the private septic systems.

South Cross Bayou Water Reclamation Facility Sludge Thickening Improvements Project, St. Petersburg, FL - Senior Field Representative for the improvements to the sludge holding, thickening, and receiving processes. The project included improvements to existing sludge holding tanks for blending and mixing of primary and secondary sludges, a new thickening building to house three (3) rotary drum thickeners and rotary lobe discharge pumps, a new truck receiving station to receive dewatered sludge cake from off-site and mix it with thickened sludge, and three (3) odor control scrubbers located throughout the plant. Responsibilities included involvement in every aspect of the project – permit coordination, from conceptual to detailed equipment and piping design, cost estimation, quality control and review, and general management of project, budget and schedule. Cost: $8.25 million est.

South Cross Bayou / Reclaimed Water Capital Improvements Program, Pinellas County, FL - Under a consent order to discontinue wastewater discharge into Joe's Creek/South Cross Bayou and discharge of secondary effluent into deep ground well injection, the County initiated a program for corrective action. After infrastructure was in place, the County performed a number of upgrades/improvements to the South Cross WRF increasing capacity of the facility from 11 mgd to 32 mgd Program Construction Manager for the County's program projects. For these projects, he performed site/plant Contract Management, Contract Compliance services and Quality Assurance for construction duties.

South Cross Bayou Bridge Crossing Pipe Installation, Pinellas County, FL - Responsible for management of QA and field inspection program. Scope of work included eight miles of buried and bridge supported pipe installation, management of contaminated soils removal and replacement, coordination of work between F.D.O.T. and Pinellas County.