



City of North Port
Utilities Department
6644 W. Price Blvd.
North Port, FL 34291

December 2, 2016

RE: Request for Letter of Interest 2017-04
City of North Port: Southwest Wastewater Treatment Facility Design Review

To the City of North Port Utilities Department,

As Chief Executive Officer of TKW Consulting Engineers, Inc., I can attest the contents within this Letter of Interest are true and accurate. Our lead professionals for this assignment, Patrick Day, Doug Eckmann, and Mike McGee are extremely well qualified and very seasoned veterans when it comes to the design of wastewater treatment facilities and know where the potholes are in the design of wastewater facilities. This knowledge helps in making a thorough review of the wastewater plant design and the specifications.

Patrick Day, PE, BCEE, will serve as the project manager for this assignment. Mr. Day has been involved with the design and permitting of many local municipal wastewater treatment facilities in Southwest Florida such as Lee County's Gateway Wastewater Treatment Plant (WWTP) and the City of Fort Myers East Water Reclamation Facility. He has also designed and/or permitted over 30 package plants in Southwest Florida and knows the Florida Department of Environmental Protection (FDEP) Permit Process extremely well. He has been the permitting liaison between the City of Fort Myers and FDEP for the past 15 years.

We also understand that a wastewater plant is not just a stand-alone item and has effects on other parts of the City's system. TKW will take a holistic view of the City's system while reviewing the design of this plant. Are parts interchangeable with other City facilities? Is the operation similar to other City facilities? We well understand how operation of a WWTP is an integral part of the design. We look forward to the opportunity to demonstrate TKW's capabilities to the City of North Port under our continuing contract.

Respectfully,
TKW Consulting Engineers, Inc.

A handwritten signature in blue ink, appearing to read 'Trudi K. Williams'.

Trudi K. Williams, P.E.
Founder, Chief Executive Officer

GENERAL INFORMATION & ABILITY OF TKW:

Patrick Day, PE, BCEE will be leading the TKW team for this project. Mr Day and TKW have been involved with the design of new or the refurbishment of over 30 Wastewater Treatment Plants (WWTP) in South Florida in the past 10 years. These projects include large municipal plants such as the Gateway WWTP and Fiesta Village for Lee County, the Cudjoe Key WWTP for the Florida Keys Aqueduct Authority, the East Fort Myers Water Reclamation Facility for the City of Fort Myers, and the Collier County North Regional Water Reclamation Facility. Some of the projects involved the design of new or the refurbishment of small package WWTPs such as Fiddlesticks Country Club and facilities for the Lee County and Collier County School Districts.

We have worked with many small communities in the area that do not have access to municipal sewer service to re-permit and upgrade their small package plants. These projects involved performing a capacity analysis of the existing facility. These capacity analyses involve examining each wastewater process determining if they are performing adequately and within their design limits. TKW uses RKS Consulting Engineers for the electrical and instrumentation and

control design of these facilities and RKS will provide the review for these disciplines. When Lee County Utilities purchased the Gulf Environmental Systems (GES) in South Lee County, TKW and RKS performed an inspection assessment for the entire GES wastewater system, including two wastewater plants, the disposal systems, and the entire collection system.

PROJECT PLAN:

The project plan would involve the following steps:

1. Preliminary Information Gathering to understand the City's wastewater system.
 - a. Review the Utility agreement and amendments between West Villages Improvement District (WVID) and the City.
 - b. Review the 2015 Master Plan, the 2008 Reuse Master Plan, the US 41 Corridor Study, and review the 2017 Wastewater Hydraulic Model (when available).
 - c. Review all currently planned wastewater projects occurring within the City of North Port.
 - d. Determine if any other data is required.
2. Hold Kickoff Meeting with all stakeholders. Provide data request list.

3. Review all information to get a thorough understanding of the City's system and the design of the new facility.
4. Review plans and specifications created at 30%, 60%, 90% and final design and provide comments and recommendations concerning:
 - a. Constructability;
 - b. Permitting concerns;
 - c. Life cycle cost;
 - d. Efficient operations and controls to minimize staffing requirements; and
 - e. Impacts on existing city systems.
5. Meet with all stakeholders at the end of each review.
6. Prepare a technical memorandum at the end of each review summarizing the findings of the review.
7. Assist the City in developing operational and budgetary planning for the transition to City control and operation of the facility.

UNDERSTANDING OF PROJECT & REQUIRED DELIVERABLES

TKW will be the eyes and ears of the City as the design progresses on the WVID facility. We will provide thorough reviews of the design with concerns for ease of operation and control, constructability, value engineering, compliance with FDEP requirements, and conversion of the FDEP construction permit to an operational permit. In order to do this a thorough understanding of the agreements and background information will be required. Gaining this understanding is the first step in our project plan.

As the design progresses, TKW will provide the thorough reviews referenced in our Project Plan at all design levels. These will include examining flow and design calculations, process sizing, and efficiency and redundancy reviews. We will then submit a technical memorandum to the City after each review detailing the level of development and any concerns that may have. A Review Meeting will be held with the City staff and the design engineer after each design level to discuss the review results.

FIRM'S ABILITY

Some of the more recent examples of similar projects that TKW worked on include the following:

Gateway WWTP-Expansion 2 MGD, Lee County Utilities Fort Myers, FL

TKW provided engineering services for the Lee County Utilities (LCU) Gateway Wastewater Treatment Plant 2.0 MGD expansion. TKW services included design, permitting, and construction administration. TKW also provided structural engineering and surveying services. The 2.0 MGD expansion was the first phase of a wastewater treatment plant with an ultimate capacity of 8.0 MGD. The new facilities included influent screening and grit removal, oxidation ditches, secondary clarifiers, deep bed effluent filters, and chlorine contact basins. The design incorporated the capability of providing additional denitrification by addition of methanol or another carbon source to filter the influent.

The sole disposal method for the facility is reclaimed water. Storage for current flow and future flow was a critical element. In the event of an equipment malfunction or other events which could cause the

effluent to not meet reclaimed water standards, a reject water storage tank was provided. The design included stabilizing biosolids in aerobic digesters and a mobile centrifuge system to dewater the sludge from the digesters. Other pumping systems included were a return activated sludge system, a waste activated sludge system, grit pumping system, as well as a plant pumping system. A sodium hypochlorite storage and feed facility were included in the new facilities. The design of the plant offered the operator flexibility by the many bypasses and interconnects. Lee County Utilities staff commented that it was the most complete set of drawings they had ever seen. *Patrick Day, P.E., BCEE Project Manager*

East Fort Myers Water Reclamation Campus City of Fort Myers, Fort Myers, FL

TKW provided planning, civil engineering, process mechanical engineering, environmental science, and surveying services for the design of a City of Fort Myers 8 MGD WWTP on an existing landfill site. A Planned Unit Development (PUD) for the entire site was prepared by TKW. Permitting activities by TKW included the Environment Resource Permit, landfill modification permitting, and site development permitting. TKW was responsible for the entire site layout and design, including storm water management, roadways, parking, and grading. Portions of the water reclamation facility designed by TKW include: site civil improvements, raw wastewater pumping station, head works with screening, grit removal, grease and oil separation, reclaimed water storage and pumping, reject water storage and pumping, deep injection well piping and monitoring well sampling system. The projected total cost of the improvements is \$110 million dollars. *Patrick Day, P.E., BCEE Project Manager*

Cudjoe Key Advanced Water Reclamation Facility Florida Keys Aqueduct Authority (AWRF) Cudjoe Key, FL

TKW provided design, permitting, bid phase support, value engineering, and construction administration support services for a new advanced water reclamation facility (AWRF) being built on the existing Cudjoe Key Transfer Station landfill site in the Florida Keys. As part of the FCAA Cudjoe Key Wastewater Program to provide central sewer and treatment for some of the lower Keys area, a new regional advanced AWRF facility was designed and constructed to treat primarily domestic wastewater generated by the Big Pine Key and Cudjoe Key/Summerland Key/Upper Sugarloaf Key service areas. The Cudjoe Key AWRF was constructed on an existing 3-acre Monroe County landfill site on Cudjoe Key, and will produce public access quality reclaimed water per F.A.C. 62-610. This Regional AWRF Facility passed the Substantial Completion construction milestone, and placed in service in June 2015. The Cudjoe Key AWRF includes shallow effluent disposal wells on an approximately 3-acre landfill site located on Cudjoe Key. The plant is a 5 stage Bardenpho process for nutrient removal and has a process design capacity of 1.0 MGD annual average daily flow, and 2.35 MGD peak day flow downstream of equalization.

TKW was the Prime Engineer for the project and along with project management, TKW provided environmental and civil engineering services. *Mike McGee, P.E., BCEE Project Manager*

EXPERTISE & QUALIFICATION OF KEY PERSONNEL **Patrick Day, P.E., BCEE**

Project Manager and Civil-Environmental Engineering

TKW Consulting Engineers

Mr. Day has 20 years of experience in consulting engineering for public utilities specializing in wastewater treatment, disposal, and related infrastructure. He has been a design engineer on many large municipal facilities including Lee County's Gateway and Fiesta Village WWTP and the City of Fort Myers East Water Reclamation Facility. He is the lead design engineer for all the Lee and Collier County School District WWTP for schools in rural areas. He has permitted and redesigned over 25 package plants in southwest Florida and recently completed the design of the rehabilitation of FGUA's Golden Gate WWTP Treatment Facility #1. Mr. Day holds a Masters of Engineering in Environmental Engineering from the University of South Florida and is a Board Certified Environmental Engineer.

Mike McGee, P.E., BCEE

Civil-Environmental Engineering

TKW Consulting Engineers

Mr. McGee is a dedicated, hardworking, and experienced project manager and civil-environmental consulting engineer. He has 24 years of experience in the design of treatment plants, pumping stations, and underground utilities. He holds BS degree in Mechanical Engineering and a Master of Engineering degree in Environmental Engineering and is a Board Certified Environmental Engineer. Mike thoroughly understands wastewater plant mechanics and processes.

Doug Eckmann, P.E., BCEE, D.WRE

Mechanical Engineering, Water Technologies

TKW Consulting Engineers

Mr. Eckmann has 40 years of experience in the design and construction of water and wastewater treatment plants and facilities including pumping stations. In 23 years working in Southwest Florida he has managed the design of over \$300 million in wastewater related infrastructure projects. These projects include: Sarasota Co T. Mabry Carlton EDR WTP, Peace River PRO Expansion, Peace River Regional Expansion, Lee Co Three Oaks WWTP, Collier Co NCWRF among major projects.

Tracy Prokopetz, P.E.

Electrical, Instrumentation and Controls

RKS Consulting Engineers, Inc.

Tracy Prokopetz, RKS President and Senior Design Engineer has 18 years of experience in all phases of electrical engineering analysis and design. Including design of power distribution, emergency power generation, exterior/interior lighting, radio telemetry, instrumentation and control systems for public utilities. Her experience includes municipal water/wastewater treatment plants, wastewater collection pump stations, raw water wellfields and reclaimed water distribution and storage systems.

AVAILABILITY OF STAFF AND ABILITY TO MEET

PROJECT SCHEDULE

In order to meet the City's schedule of having the design complete in 2017, TKW will jump right into this project by reviewing all the background documents as soon as the notice to proceed is issued (and probably sooner). In order to keep the design phase moving along quickly, timely reviews must be completed and the follow up

review meetings must be held immediately upon completion of the review. TKW's staff, including three (3) Board Certified Environmental Engineers, gives us the opportunity to provide quick and competent service from a local office. RKS is located in Lee County and will be ready to provide the necessary electrical and instrumentation and control reviews.

COST SAVING MEASURES FOR THIS PROJECT

One of TKW's tasks in this project is to provide value engineering and review the design for efficiency of operation. With this experience, we can provide a thorough review of the design and track the consequences of the design to the other systems it affects.

SCHEDULING TO MEET TIMELINE REQUIREMENTS

The first task that TKW will quickly perform is to review all the documents necessary to develop a thorough understanding of the City's WWTP system and especially the portions of the City's system that will be affected by the WVID expansion. This will be done immediately upon the notice to proceed and most likely even prior so we can get a running start on the project. The schedule for the design engineer will be affected by how quickly the review of the plans and specifications at each step will take.

Since TKW is local, we can complete the different design reviews at 30%, 60%, 90%, and 100% in the local office without shipping the plans across the Country. We can complete a design review quickly.

REFERENCES OF SIMILAR PROJECTS

Project: Gateway WWTP

Client: Lee County Utilities

Reference: Tom Mamott, P.E., *Director of Engineering*

Email: mamotta@leegov.com

Phone: (239) 479-8576

Project: East Fort Myers Water Reclamation Facility

Client: City of Fort Myers

Reference: Saeed Kazemi, PE, *City Manager*

Email: skazemi@cityftmyers.com

Phone: (239) 321-7022

Project: Cudjoe Key AWRF

Client: Florida Keys Aqueduct Authority

Reference: Tom Walker, P.E., *Director of Engineering*

Email: twalker@fkaa.com

Phone: (305) 295-2140

SUB-CONTRACTORS TO BE USED

We anticipate the use of RKS Consulting Engineers, Inc. for Electrical and Instrumentation and Control

REQUIRED FORMS

On the following pages you will find the Required Forms.

- Conflict of Interest Form
- Disclosure Form for Consultant/Engineer/Architect

CONFLICT OF INTEREST FORM

Agreement No. 2016-23, RLI 2017-05
Utilities Conflict Resolution – FDOT US 41 Road Widening Project

CONFLICT OF INTEREST FORM

F.S. §112.313 places limitations on public officers (including advisory board members) and employees' ability to contract with the City either directly or indirectly. Therefore, please indicate if the following applies:

PART I.

- ☐ I am an employee, public officer or advisory board member of the City
_____ (List Position or Board)
- ☐ I am the spouse or child of an employee, public officer or advisory board member of the City
Name: _____
- ☐ An employee, public officer or advisory board member of the City, or their spouse or child, is an officer, partner, director, or proprietor of Respondent or has a material interest in Respondent. "Material interest" means direct or indirect ownership of more than 5 percent of the total assets or capital stock of any business entity. For the purposes of [§112.313], indirect ownership does not include ownership by a spouse or minor child.
Name: _____
- ☐ Respondent employs or contracts with an employee, public officer or advisory board member of the City
Name: _____
- ☒ None of The Above

PART II:

Are you going to request an advisory board member waiver?

- ☐ I will request an advisory board member waiver under §112.313(12)
- ☐ I will NOT request an advisory board member waiver under §112.313(12)
- ☒ N/A

The City shall review any relationships which may be prohibited under the Florida Ethics Code and will disqualify any vendors whose conflicts are not waived or exempt.

COMPANY: TKW Consulting Engineers, Inc.

SIGNATURE:  Trudi K. Williams, P.E., Founder & CEO

12/02/16

THIS PAGE MUST BE SUBMITTED WITH LETTER OF INTEREST

DISCLOSURE FORM FOR CONSULTANT/ENGINEER/ARCHITECT

Agreement No. 2016-23, RLI 2017-05
Utilities Conflict Resolution – FDOT US 41 Road Widening Project

**DISCLOSURE FORM
FOR
CONSULTANT/ENGINEER/ARCHITECT**

Please select (only) one of the following three options:

☒ Our firm has no actual, potential, or reasonably perceived, **financial*** or **other interest**** in the outcome of the project.

☐ Our firm has a potential or reasonably perceived **financial*** or **other interest**** in the outcome of the project as described here: _____.

Our firm proposes to mitigate the potential or perceived conflict according to the following plan:
_____.

☐ Our firm has an actual **financial*** or **other interest**** in the outcome of the project as described here: _____.

***What does "financial interest" mean?**

If your firm, or employee of your firm working on the project (or a member of the employee's household), will/may be perceived to receive or lose private income depending on the government business choices based on your firm's findings and recommendations, this must be listed as a financial interest. An example would be ownership in physical assets affected by the government business choices related to this project. The possibility of contracting for further consulting services is not included in this definition and is not prohibited.

****What does "other interest" mean?**

If your firm, or employee of your firm working on the project (or a member of the employee's household), will/may be perceived to have political, legal or any other interests that will affect what goes into your firm's findings and recommendations, or will be/may be perceived to be affected by the government business choices related to this project, this must be listed as another interest.

BUSINESS NAME: TKW Consulting Engineers, Inc.

NAME (PERSON AUTHORIZED TO BIND THE COMPANY): Trudi K. Williams, P.E., Founder & CEO

SIGNATURE: _____

DATE: 12/02/16

THIS PAGE MUST BE SUBMITTED WITH LETTER OF INTEREST