Kimley»Horn

April 10, 2018

Mr. Nate Carver, Asset Manager
Utilities Inc., of Florida
200 Weathersfield Ave.
Altamonte Springs, FL 32714

Re: Sanlando Force Main Modeling
Sanlando Service Area

Dear Nate:

Kimley-Horn and Associates, Inc. ("Kimley-Horn" or "Consultant") is pleased to submit this letter agreement (the "Agreement") to Utilities Inc., of Florida ("Client") for providing engineering services related to modeling of the force main system directly connected to the wastewater facility.

Project Understanding

The Sanlando service area has an intricate sanitary sewer collection network which has a large degree of aging infrastructure. Critical to the efficient operation of this network are the lift stations and force mains conveying the wastewater to the treatment facility. As the aging infrastructure becomes in need of replacement, the system as a whole needs to be evaluated to determine the most efficient operating configuration. Specific considerations should be placed on the routing of the force main replacements as much of the original infrastructure was placed in rear easements by the original developer. Revising the routes can have implications on the lift stations connected to them. Importantly, the system has been in place long enough to have historical data which can be used to better predict use patterns and more efficiently size the pumps and pipeline. This ideally will provide a future condition which lowers operations and maintenance costs. The modeling efforts requested for this scope is intended to provide a road map for future replacement of aging infrastructure which will provide a more efficient system with a longer operating life.

Scope of Services

Modeling – The wastewater system shall be modeled using Bentley's SewerCAD software. This software will integrate the Client's existing GIS mapping system into the hydraulic model. The model will be developed using this infrastructure as a base. This effort includes a verification of nodal connectivity after conversion into SewerCAD. Additionally, a verification of the ground elevation data will be performed comparing a contour map of the model nodes with a contour map of the existing ground surface as provided through Seminole County or other online databases. Breaks in the data will be corrected to provide continuity within the model. A verification of the GIS database values for size and material of the pipelines will also be conducted in conjunction with a total valve check of the system. The data provided will be

assumed to be correct at the outset of the effort and the check will be broadly for connectivity and use.

The wastewater model primarily will be completed for the lift station and force main transmission system. The gravity system will not be modeled unless there are gravity runs which collect flow from force mains for conveyance to another lift station for repumping.

The following data will need to be provided for the remainder of the model to be constructed:

- Lift station data:
  - Pump curves
  - Wet well diameters
  - Operating depth ranges (float or level controls)
  - Drawdown tests
  - Run time data, pressure data, and/or flow data

The wastewater modeling is intended to verify the system capacity in a real-time basis. Many lift stations are designed based on a worst case, steady state situation. This is a very conservative method which does not account for the cycle times of each lift station and the transit time of the wastewater in the force main infrastructure. The model will be established to simulate actual operations of the system over a seven-day period. Diurnal flow curves will be developed to simulate the wastewater flows. The SCADA system can create a 'snapshot' of the system where the data for which pumps are running are available. A series of these snapshots will be used to calibrate the model.

The calibrated model of the existing system will provide useful information about the system. This information will allow an analysis of the existing system to determine the available capacity in each lift station. This may allow for some stations to be downsized while showing that others may operate more efficiently with larger pumps in place. The model will also show the impact of the force main infrastructure on the operations of the lift station network. In the replacement of aging infrastructure, changing the size and configuration of the force main piping network can provide operational benefits that would otherwise go unnoticed. This analysis will be confined to the existing infrastructure without any accommodation for future flows.

Reporting - This information will be compiled in a technical memo which will identify the most efficient force main configuration. The lift station modifications necessary will be identified with a description of the operational cost benefits of the improvements. Each lift station modification will be associated with the aging infrastructure capital projects previously identified. The report will provide opinions of probably construction cost for each of the associated capital projects identified in the report.

Deliverables

The deliverable at the end of this project will be an analysis of the force main system, in both digital and hard copy media, including an individual breakdown of the updated project costs and description of each force main as identified by its source lift station.

Schedule

The model development and analysis will be completed within 60 days of receiving a notice to proceed. The draft and final reports will be completed within another 60 days for a total project time of 120 days.

Fee and Expenses

Kimley-Horn will perform these services for the total lump sum fee of $37,000.

Lump sum fees will be invoiced monthly based upon the overall percentage of services performed. Payment will be due within 25 days of your receipt of the invoice and should include the invoice number and Kimley-Horn project number.

We appreciate the opportunity to provide these services to you. Please contact me if you have any questions.

Very truly yours,
KIMLEY-HORN AND ASSOCIATES, INC.

Steve Romano, PE
Associate

Jay Jackson, PE
Sr. Vice President

ACCEPTED BY:
UTILITIES, INC. OF FLORIDA

Patrick C. Flynn, VP of Operations

Date: April 10, 2019

Kimley»Horn

October 8, 2018

Nate Carver
Utilities Inc., of Florida
200 Weathersfield Ave.
Altamonte Springs, FL 32714

Re: Five Year Capital Planning for Infrastructure Renewal

Dear Nate:

Kimley-Horn and Associates, Inc. ("Kimley-Horn" or "Consultant") is pleased to submit this letter agreement (the "Agreement") to Utilities Inc., of Florida ("Client") for providing services related to the developing the five year capital plan for infrastructure renewal.

Project Understanding

With the asset management (AM) program up and running, the data accumulated through this process is to be used to extend the useful life of existing assets and to replace aging infrastructure prior to failure. The data included in the AM program will be used to identify the portions of the system most subject to failure. A desktop analysis of the infrastructure will be performed to provide priority scoring of proposed improvements. These improvements will be prioritized over a five-year period according to this score based on age, materials of construction, and potential impacts of failure.

Scope of Services

The scope of services includes a review of the infrastructure of all of the systems within Utilities Inc. of Florida. The assets to be evaluated primarily consist of pipelines and pump stations. Much of the infrastructure information includes the date installed and material of construction, however there are some areas that did not have any as-built information. Assumptions will be made based on the age of the development for the associated materials common to that time. Each service area's will first be prioritized within its own service area. Once all of this information is tabulated, a comparison of the potential projects will be compared on a statewide level. This will primarily be accomplished by comparing the impact if a failure were to occur. For example, large diameter force mains will be prioritized over smaller. However, a smaller force main may move up in priority if it crosses a sensitive body of water. It will be the same with water: water pipelines with a backup supply will score lower than pipelines that are looped and well valved. Pump stations will be prioritized for inspection based on age and size. Further evaluation regarding efficiency and/or any modification from its existing usage is not included.

Deliverables

The final deliverable will be a technical memorandum describing the methodology used to prioritize the projects with a brief description of each project. In addition to the technical memorandum will be a developed spreadsheet with the data loaded for a five year projection of capital improvements. The digital version of the spreadsheet will be submitted for future use by Utilities Inc as needed.

Schedule

These services are projected to be completed within 120 days of authorization.

Fee and Expenses

Kimley-Horn will perform these services for the total lump sum fee of $46,500. All permitting, application, and similar project fees will be paid directly by the Client.

Lump sum fees will be invoiced monthly based upon the overall percentage of services performed. Payment will be due within 25 days of your receipt of the invoice and should include the invoice number and Kimley-Horn project number.

We appreciate the opportunity to provide these services to you. Please contact me if you have any questions.

Very truly yours,
KIMLEY-HORN AND ASSOCIATES, INC.

Steve Romano, PE
Associate

Jon Martin, PE
Sr. Vice President

ACCEPTED BY:
UTILITIES, INC. OF FLORIDA

_____ **Date:** _____

Proposal #: 081419-1R

Date: 8/14/2019
Submitted to: Don Lamp
Company: Utilities Inc.
Email: dalamp@uiwater.com

2320 Beardall Ave, Sanford, FL 32771 P.O. BOX 291671-32129 (386) 882-6200
State License #CUC 1224744

Job Description: List Station Gauge Installs (Utilities Inc. / Longwood)

We are pleased to quote labor and materials to include:

- **Furnish & Install** ¼" SS ball valves, nipples and fittings as required.
- **Furnish & Install** ½" SS ball valves, nipples and fittings as required.
- **Furnish & Install** (3) 4" Aluminum camlock caps with ¼" taps.
- **Furnish & Install** (3) 6" Aluminum camlock caps with ¼" taps.
- **Furnish & Install** (1) 4" Aluminum flanged x male camlock fittings.
- **Furnish & Install** (1) 6" Aluminum flanged x male camlock fittings.
- **Furnish & Install** (16) ¼" SS NPT 0-60 liquid filled 3" pressure gauges.
- **Furnish & Install** (2) ½" taps in existing check valve covers for a permanent and correct installation.

TOTAL: $14,780.00

Acceptance of Proposal: _____
Date of Acceptance: _____

NOTE: Please allow for 3-5 days for materials to come in and then 2 days for all the installations.

Terms Net 30 Days
All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from above specifications involving extra cost will be executed only upon written orders and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control. This proposal is subject to acceptance within 30 days and is void thereafter at the option of the undersigned.

Authorized Signature:
Raymond Rogers
(386) 882-6200
raymond@danusutilities.com