



## Staff Report

**TO:** Mayor, and City Council Members

**FROM:** Jeff Hart, Public Works Director

**DATE:** April 21, 2020

**SUBJECT:** **Award a Professional Services Agreement to SKM Engineering, LLC for Engineering Design Services of the Programmable Logic Controller (PLC) Upgrade Design for the Various Lift Stations in the Wastewater System (CIP2019-018) in an Amount Not to Exceed \$49,910**

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### **Background and Analysis:**

During the budget process for Fiscal Year 2019-2020, the City Council appropriated funds in the 5-year capital improvement project (CIP) list for the design and construction of various programmable logic controller (PLC) upgrades to lift stations in the wastewater system.

A PLC is a digital computer used for automation of electromechanical processes. The PLC receives information from connected sensors or input devices, processes the data, and triggers outputs based on pre-programmed parameters. PLCs are a critical element in operation of the City's wastewater system facilities controlling various items such as pumps, valves, etc. Additionally, the PLC communication methods are used to relay information back to the City's supervisory control and data and acquisition (SCADA) system and provide short-term and long-term remote monitoring of each station.

The PLC systems, currently in use at the lift stations, have reached the obsolescent phase of the equipment life cycle. Additionally, there is no continuity between PLC systems at each lift station and the wastewater treatment facility, causing the City's SCADA system to be ineffective remotely and in turn requiring additional funds to be spent in the event of a power outage or PLC failure. New equipment and programming are included as part of the City's wastewater expansion project. This project will focus on the lift station specifications as well as integration with the new system at the plant.

This project will consider two approaches to the lift station communication system. The first approach will include a traditional PLC similar to what is currently specified for the wastewater treatment plant project. The second approach will consider up to three different types of “plug and play” systems. Staff will evaluate both for cost effectiveness as well as functionality.

The PLC Upgrade Design Project was advertised on February 18, 2020, and bids were received and opened on March 16, 2020. The project had an original due date of March 9, 2020, but was postponed to encourage additional bidders, however, staff received only one (1) sealed bid from SKM Engineering, LLC, (SKM) with a not to exceed fee proposal of \$76,724. City management and staff negotiated the scope and fee proposal with SKM for a final negotiated price of \$49,910. Based on the final negotiated price being consistent with requested scope and within the project budget, staff determined that a rebid would not provide additional benefit to the City and only delay the project. Staff determined that SKM has demonstrated competence and has the professional qualifications necessary for the satisfactory performance of the services required, and at a fair and reasonable cost to the City. Additionally, SKM is the firm currently working on the wastewater plant SCADA and PLC project.

**Fiscal Impact:**

The cost associated with preparing this staff report is \$750. CIP 2019-018 has a current appropriation of \$50,000 and this contract will come in under budget. Additional construction funds are available once design is complete.

**Recommended Action:**

Award a Professional Services Agreement to SKM Engineering, LLC, for Engineering Design Services of the PLC Upgrade Design for the various Lift Stations in the Wastewater System (CIP2019-018) in an Amount Not to Exceed \$49,910.

**Attachments:**

- A. Professional Services Agreement – SKM Engineering, LLC
  - Exhibit “A”: SKM Proposal
  - Exhibit “B”: Insurance Certificate