

MEMORANDUM

To:	Mayor and City Council
From:	Kumar Gali, P.E., Assistant Director of Public Works Kent Collins P.E., Director of Public Works
Date:	October 26, 2021
Reference:	Sandy Lake Lift Station Reconstruction
2040:	Sustainable City Government City Services to Ensure High Levels of Customer Satisfaction

General Information:

- Sandy Lake Lift Station (SLLS) is one of the City's lift stations that pumps City's wastewater into Trinity River Authority collection system.
- SLLS was originally constructed in mid to late 1970's. In 2018, City completed a preliminary condition assessment of the station.
- Council awarded design of reconstruction of SLLS on February 25, 2020 to Plummer Associates, Inc.
- Improvements consists of reconstruction of new lift station along with site improvements and decommissioning of existing lift station.
- Staff advertised for bids on August 28th and received seven qualifying bids on September 28th.
- Felix Construction was the lowest qualified bidder. The total bid price for the SLLS reconstruction is \$6,466,574.00.

Introduction/ Analysis:

This agenda item is being presented to consider approval of awarding Bid # Q-0921-01 Sandy Lake Lift Station and System improvements to Felix Construction in the amount of \$6,466,574.00 for the reconstruction of the Sandy Lake Lift Station; funded through Bond proceeds; and authorizing the City Manager to sign all necessary documents.

The City owns and maintains two lift stations, Sandy Lake and Deforest Road lift stations. These lift stations are used for pumping wastewater flows into the collection system for delivery and treatment

by TRA. SLLS was originally constructed in mid-1970's and currently has a capacity of 5.7 Million Gallons per Day (MGD) at a head of 50 feet. SLLS was the only lift station in Coppell until the DeForest Lift Station was added in 2007, which also created a bypass from Deforest Lift Station directly to the TRA collection system. This project increased system pumping capacity and allowed the city to keep SLLS the same size at that time. Over the years we have performed maintenance to the SLLS to extend the life, which included replacing pumps, odor control units, flow monitors, etc. After 45 plus years of service, SLLS is reaching the end of its design life.

SLLS is prone to flooding and the site grading elevations are lower than the 100-year flood elevations. During the floods of 2015, the SLLS was under more than 3 feet of water and within inches of being compromised and inoperable until the floodwaters subsided. The Public Works department was able to create a berm to protect the lift station during this flood. The elevation of the SLLS will be raised with this reconstruction project.

In 2018, the City entered into a contract with Plummer Associates, Inc. for the preliminary design analysis of the SLLS. The preliminary design study recommended raising the lift station out of the potential floodwaters; modifying the wet pit/dry pit configuration (dry pit is more than 25 feet below grade and requires ventilation) to a wet pit configuration to satisfy the ventilation requirements and improve safety for maintenance staff; increase the pump capacity to 6.9 MGD to meet the Texas Commission on Environmental Quality (TCEQ) firm capacity and flushing velocities; adding a permanent standby generator with automatic transfer; and adding a new odor control system with enclosures. The study also recommended to install new flow meters on the incoming mains and the discharge main, new instrumentation and monitoring to allow access to real time data of the SLLS operation, which includes monitoring of pumps, inflow, discharge, wet well level, electricity, generator status and site security. Council awarded design of reconstruction of SLLS with the above recommended improvements on February 25, 2020 to Plummer Associates, Inc. Exhibit A shows the location of the project.

On September 28th, 2021, the city opened seven qualifying bids and the bid amounts ranged from \$6,466,574.00 to \$8,220,000.00. Bids were evaluated based on the cost, qualifications, and references. Felix Construction was the lowest qualified bidder of the seven bidders. Exhibit B includes a recommendation of award from the design engineer and Exhibit C includes Felix Construction bid form and contract.

Legal Review:

The city's standard construction contract has been reviewed by legal periodically, with changes made as requested.

Fiscal Impact:

The fiscal impact of this item is \$6,466,574.00, funded through bond proceeds.

Recommendation:

The Public Works Department recommends approval of Bid # Q-0921-01 Sandy Lake Lift Station and System improvements to Felix Construction.