



## MEMORANDUM

**To:** Mayor and City Council

**From:** James D. Meier, P.E., Assistant Director of Public Works  
Mike Garza, P.E., Director of Public Works

**Date:** July 14, 2026

**Reference:** Consider approval of Contract Amendment No. 1 with Quiddity Engineering, LLC; for design and engineering services for the Deforest Lift Station Rehabilitation; in the amount of \$90,000; as provided for in the Water/Sewer Fund retained earnings; and authorizing the City Manager to sign any necessary documents.

**2040: Sustainable Government**

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**Introduction:**

The purpose of this agenda item is to request approval of Contract Amendment No. 1 with Quiddity Engineering, LLC; for design and engineering services for the Deforest Lift Station Rehabilitation; in the amount of \$90,000; as provided for in the Water/Sewer Fund retained earnings; and authorizing the City Manager to sign any necessary documents. Approval of this amendment will increase the total design contract amount to \$447,000.

**Background:**

This project involves the design of a rehabilitation project for the Deforest Lift Station. The Deforest Lift Station is one of two lift stations within the City that collects wastewater for delivery to Trinity River Authority (TRA) for wastewater processing. The original Deforest Lift Station was a Municipal Utility District (MUD) lift station that the City took over when the City absorbed the MUD in 1990. A new lift station was built next to the original location in 2005. The wastewater that flows into the Deforest Lift Station is pumped from Deforest Rd down MacArthur Blvd, bypassing the Sandy Lake Lift Station and then continuing through the force main and connecting to TRA south of the Riverchase Golf Course.

The proposed rehabilitation scope includes the following key components:

- Blast and recoat interior of the concrete wet well
- Replacement of three (3) submersible pumps
- Replacement of the riser piping, header, valves, and fittings inside the wet well and vault
- Bypass pumping during the required wet well rehabilitation and riser/header piping replacement

- Replacement and upgrade of the vault ventilation system
- Personnel safety and access improvements
- Replacement and upgrade of odor control equipment
- Measurement improvements
- Electrical and instrumentation improvements
- Site aesthetic improvements including brick fence repairs and landscaping

This work scope was approved by Council on September 9<sup>th</sup>, 2025 and awarded to Quiddity Engineering. In November, Quiddity installed a portable monitor to collect H<sub>2</sub>S samples from to station to confirm the required sizing of odor control equipment. The readings indicated a higher concentration of H<sub>2</sub>S than expected, likely the cause of the odor complaints the city occasionally receives from the nearby residents.

Quiddity then researched odor control options to reduce the measured quantity of H<sub>2</sub>S using similar carbon scrubber equipment to what is currently on location as well as potentially installing a biofiltration system as an alternative. Installing a larger scrubber sized to handle the measured H<sub>2</sub>S would require expanding the existing building and relocating the backup generator from its current location. Even doing this, the scrubber would handle the majority of H<sub>2</sub>S concentrations, but there would occasionally be instances where the scrubber would not be able to fully handle the peaks.

Quiddity provided a life cycle analysis for installing a biofiltration unit as an alternative for odor control. While approximately 30% more expensive to purchase and install initially, the annualized cost of maintenance is estimated to be only approximately 40% of the cost of a carbon scrubber. Over a 20 year expected life, the cost of the carbon scrubber system and biofiltration system are essentially equal while the biofiltration system would provide over twice the H<sub>2</sub>S removal capacity and therefore reduce the potential for odor exceedances and number complaints from nearby residents. Due to the similar life cycle costs and ability to provide better odor control, Public Works recommended moving forward with the biofiltration option. This change, driven by a change in project conditions, represents increased scope for the design and engineering effort.

Quiddity is requesting an additional \$90,000 for the program management, integration of the biofilter with the Deforest Lift Station Rehabilitation design, coordination with the biofilter manufacturer on piping, electrical, and structural components of the biofiltration system, additional geotechnical work for site preparation, and updates to the landscaping and irrigation design. Approval of this amendment will increase the total design contract amount to \$447,000.

**Benefit to the Community:**

To provide Sustainable Government the rehabilitation of the Deforest Lift Station will update equipment that is essential to the function of this facility and should increase longevity, reduce unscheduled maintenance, and improve the long-term reliability of wastewater management for the portion of the city that is served by this lift station.

**Legal Review:**

Standard professional services agreements are periodically reviewed by the City Attorney.

**Fiscal Impact:**

The fiscal impact of this agenda item is \$90,000 as provided for in the Water/Sewer Fund retained earnings.

**Recommendation:**

The Public Works Department recommends approval of this contract amendment.