



MEMORANDUM

To: Mayor and City Council

From: Kumar Gali, P.E., Assistant Director of Public Works - Operations
Kent Collins P.E., Director of Public Works

Date: March 09, 2021

Reference: Denton Creek and Stream G6 Channel Stabilization Improvements

2040: Foundation Pillar: Sustainable City Government
Goal 4: City Services to Ensure High Levels of Customer Satisfaction

General Information:

- Denton Creek and Stream G6 channel stabilization projects are at two different locations in the City but have similar channel stabilization improvements.
- Staff combined the two channel stabilization projects for competitive bid pricing.
- Channel stabilization improvements addresses channel degradation, bank erosion, and protection to City's exposed utility mains.
- City advertised for bids on January 15th and received five qualifying bids on February 2nd.
- A & B Construction LLC was the lowest bidder. The total bid price for the Denton Creek and Stream G6 channel stabilization improvements is \$958,100.00.

Introduction/ Analysis:

This agenda item is being presented to consider approval of awarding Bid # Q-0221-02 Denton Creek Grade Control Structure and Stream G6 Channel Stabilization to A & B Construction LLC in the amount of \$958,100.00 for the construction of channel and bank stabilization improvements, funded through 2020 bond proceeds.

Denton Creek is a major tributary of the Elm Fork Trinity River. Downstream of Grapevine Lake, Denton Creek flows easterly through Coppell to its confluence with the Elm Fork Trinity River just north of Sandy Lake road. Over the past decade, the Denton Creek channel upstream of Denton Tap road is experiencing channel bed erosion and transporting sediment into the downstream channel. This continuing deposition of sediment in the downstream channel has a potential of resulting in

increased flood risks. Construction of grade control structure underneath the Denton Tap road will contain the sediment transport at the structure and minimizes the flood risks in the downstream channel. Exhibit A shows the location of the project.

Stream G6 is a tributary to Grapevine Creek. The upstream end of Stream G6 begins at Shadowcrest Lane and confluences with Grapevine Creek northwest of E Belt Line Road and Mockingbird Lane. The channel stabilization limits extend approximately 1,600 feet downstream of South Moore Road. At this section of the stream, the channel and banks are experiencing erosion, resulting in channel degradation, bank failures, and exposed City's utility mains. Channel stabilization improvements include construction of grade control structures, gabion walls, and grading of side slopes. These improvements will protect City's utility mains and drainage infrastructure and stabilize the conveyance of the stream. Exhibit A shows the location of the project.

On February 2, 2021, the City opened five qualifying bids. Bids ranged from \$958,100.00 to \$1,787,200.00. Bids were evaluated based on the cost, qualifications, and references. A&B Construction LLC was the lowest qualified bidder of the five bidders. Exhibit B includes a recommendation of award from the design engineer. Exhibit C includes A&B Construction bid form and contract.

Funding for the Denton Creek and Stream G6 channel stabilization projects are through 2020 Bond proceeds.

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 \$958,100.00, funded through Bond proceeds.

Recommendation:

The Public Works Department recommends approval of this item.