



City of Pflugerville

Legislation Text

File #: 2020-8391, **Version:** 1

Discuss and consider action to approve a Supplemental Agreement No. 3 with Johnson, Mirmiran & Thompson, Inc. (JMT) to provide additional professional engineering for the Kelly Lane Ph 2 Project in the amount of \$455,311.85.

On August 27, 2019, the City Council approved a \$1,157,068 professional engineering contract with (JMT) for design services of the Kelly Lane Ph 2 and Ph 3 Improvement Project. The scope of the initial contract included full engineering design for Ph 2 (from Falcon Pointe Boulevard to Moorlynnch Ave.) and 30% schematic design for Ph 3 (from Moorlynnch Ave. to Weiss Lane). Two subsequent Supplemental Agreements were executed: SA#1 for an alignment alternatives analysis for the east end of Kelly Lane Ph3, and SA#2 for additional geotechnical and subsurface utility evaluation services for both phases.

This agenda item is for approval of a Supplemental Agreement No. 3 (SA#3) with JMT to provide additional professional engineering services for the Kelly Lane Ph 2 Project.

Background:

Supplemental Agreement No. 3 is for professional engineering services related to increased design costs for Kelly Lane Phase 2 and expands the services to include construction phase services and construction materials testing. The increased costs result from additional work effort related to drainage, environmental permitting, additional utility design, utility coordination and related project management costs.

Drainage: Related to drainage, the current City's Ordinance and Design Criteria for roadway crossings requires an assumption that the entire basin is fully developed, existing detention facilities do not exist and overtopping of roadways like Kelly Lane are not allowed for the 100 year storm event. Additionally, new rainfall frequency data has been updated by NOAA (National Oceanic Atmospheric Administration) published in NOAA's Atlas 14 that increases rainfall values used for infrastructure design under federal regulations. Within Kelly Lane Ph 2, there are two crossings impacted by these criteria which complicated the drainage analysis and design, thus increasing the anticipated effort originally intended - one just east of Falcon Pointe and one at and east of the intersection of Vilamoura Rd. Both structures will have to be significantly increased in size to comply with the City's Ordinance and Criteria as related to the federal regulations.

The structure near Falcon Pointe outfalls into the golf course near residential development. Additional grading and erosion control measures are needed to ensure existing development is not adversely impacted.

The drainage near the Vilamoura intersection was significantly more complicated. Using the new Atlas 14 rainfall data and the City's criteria, a retaining wall will be required to raise the roadway starting just west of the Vilamoura intersection and continue to near Moorlynnch. To ensure no

adverse impact to the property northwest of the intersection, additional drainage structures will be required for Vilamoura, and additional grading designed to ensure additional adverse impacts are not realized for other properties.

Included in Supplemental Agreement No. 3, work related to drainage includes added geotechnical studies for the retaining walls, design of retaining walls, channel analysis and design at Falcon Pointe, additional floodplain studies and PS&E for retaining walls and Vilamoura Rd. improvements. There is a possibility additional work will be required by a structural engineer in the design of the culvert headwall on Vilamoura. If that is required, it will be authorized by staff as a special service.

Environmental: As part of the environmental services of the original contract, potential jurisdictional waters of the United States (WOTUS) were observed onsite during field investigations, therefore a Clean Water Act (CWA) Section 404 permit will be required. As impacts to WOTUS should be less than 0.5 acres with no more than 300 linear feet of stream bed, the project should qualify for authorization under a Nationwide Permit (NWP 14) for linear transportation projects rather than a much more laborious process of an individual permit. Still a preconstruction notification (PCN) will be required to be submitted to the Fort Worth District of the United States Army Corps of Engineers (USACE) prior to initiation of work, and a request for an approved jurisdictional determination (AJD) will also be expected to occur concurrent with the permit evaluation.

Included as a Special Service is Archaeological Survey Services. It is not known at this time whether the Texas Historical Commission will require this survey, or the extent of the survey. The amount budgeted represents the worse case and will only be authorized upon understanding the requirements and review of an itemized scope.

Additional Utility Design: A city force main is within a portion of the roadway and interferes with the location of the proposed new water main. The location for the new water main was selected to minimize the amount of right-of-way and easements needed, thereby reducing costs. Not only will replacing the force main save the City costs associated with other utility relocations, but it will provide a newer pipeline under the improved roadway, thereby decreasing the chance of future pavement cuts should the line have a break.

Additional Utility Coordination: Along with procurement of right-of-way, the relocation of non-city utilities will be the critical path item on the schedule for bidding Kelly Lane, Ph 2. In order to keep the utilities on track, JMT included a utility coordination subconsultant. When scoping the original contract, they made assumptions related to the number of utilities and the duration of the project design. Both of those assumptions were low and to ensure the right amount of effort to keep the non-city utilities on track, they are requesting additional fund.

Cost Breakdown: To keep the project moving forward with an anticipated bid date for Summer 2021, and to determine the extent of additional work required, some items within Supplemental #3 have started. Below is the status of each design item and the cost per item within Supplemental Agreement #3 being considered:

- Additional Environmental Services (0% Complete, \$28,542)
- Work related to drainage:(drainage total \$120,890.12)

- a. Geotechnical studies for design of retaining walls (0% Complete, \$20,095.12)
- b. Additional floodplain studies (90%, \$24,605)
- c. Added PS&E
 - i. for culvert on Vialmoura Rd. (80%, \$12,405)
 - ii. for channel analysis and design at Falcon Pointe (0% Complete, \$28,585)
 - iii. Design of retaining walls (80% Complete, \$16,220)
 - iv. Design of non-standard culvert headwalls (3 locations) (0% Complete, \$18,980)
- Design force main replacement (0% Complete, \$42,600)
- Additional Utility Coordination (0% Complete, \$11,185)
- Project Management 0% Complete, \$26,901.40)
- Special Services if needed, archaeological survey and structural design of culvert headwall (0% Complete, \$46,143)

Total additional design costs (including Special Services): \$276,261.22

- Construction Administrative Services (\$103,710)
 - Construction Materials Testing Services (\$75,340.63)
- Total additional construction phase service costs: \$179,050.63**

Prior City Council Action

City Council approved the original Contract August 27, 2019 for an amount \$1,157,068.88. Supplemental Agreement No. 1 was approved by City Council September 10, 2019 for \$44,255.00 to prepare alignment alternatives for the east terminus of Kelly Lane. Supplemental Agreement No. 2 was approved March 10, 2020 for an amount \$49,058.68 to increase geotechnical services and subsurface utility evaluation (SUE).

Deadline for City Council Action

Action is requested on July 28, 2020.

Funding Expected: Revenue Expenditure N/A

Budgeted Item: Yes No N/A

*This project is funded by the 2018 General Obligation Bond Program.

Amount: \$455,311.85

1295 Form Required? Yes No

Legal Review Required: N/A Required Date Completed: 07/17/20

Supporting documents attached:

Supplemental Agreement No. 3
Kelly Lane Drainage Data
Project Exhibit

Recommended Action

Approve Supplemental Agreement No. 3 with Johnson, Mirmiran & Thompson, Inc. (JMT) to provide additional professional engineering for the Kelly Lane Ph 2 Project in the amount of \$455,311.85.

