



## Legislation Details (With Text)

<b>File #:</b>	19-0593	<b>Version:</b>	1	<b>Name:</b>	Bay Ridge Flood Reduction Project, Phase II
<b>Type:</b>	Agenda Item	<b>Status:</b>		<b>Status:</b>	Approved
<b>File created:</b>	10/23/2019	<b>In control:</b>		<b>In control:</b>	Engineering
<b>On agenda:</b>	11/5/2019	<b>Final action:</b>		<b>Final action:</b>	11/5/2019
<b>Title:</b>	Consider and take action on a resolution authorizing a professional services agreement with LJA Engineering, Inc. (LJA) for design work related to the Bay Ridge Flood Reduction Project, Phase II (DR 2005) in an amount not to exceed \$263,000 (Director of Engineering)				

### Sponsors:

### Indexes:

### Code sections:

**Attachments:** 1. Data Sheet, 2. Proposed Resolution, 3. Exhibit A - PSA for Bay Ridge Flood Reduction Ph 2 PSA, 4. Staff Report Card on LJA, 5. Aerial Map

Date	Ver.	Action By	Action	Result
11/5/2019	1	City Council	Approved	Pass

Consider and take action on a resolution authorizing a professional services agreement with LJA Engineering, Inc. (LJA) for design work related to the Bay Ridge Flood Reduction Project, Phase II (DR 2005) in an amount not to exceed \$263,000 (Director of Engineering)

Approval of this resolution will authorize the City Manager to enter into an agreement with LJA to design detention pond related drainage improvements within the Bay Ridge Subdivision for an amount not to exceed \$263,000.

In the aftermath of the Hurricane Harvey flooding, City Staff began working with LJA to conduct a high level Hydrologic & Hydraulic (H&H) Study of areas within the Gum Bayou Watershed and the Bay Ridge Subdivision. A contract was executed with LJA in October 2017. On March 22, 2018, City Staff and LJA held a public meeting to go over the preliminary findings of the study and to discuss potential improvements to help reduce flooding within this area. In August 2018, the final report was presented to City Council during a Council Work Session. One of the areas of concern discussed during the public meeting and again when presenting to Council was the subdivision's drainage system deficiencies related to the existing detention pond.

Based on the LJA Study, City Staff created a potential drainage improvement project. This project was included as part of a list of potential drainage projects outlined on the City's recently passed May 2019 General Obligation Bond Referendum.

For this contract, LJA will provide engineering services for a 42,000 Gallon per Minute Stormwater Pump Station to be added to the existing detention pond within the Bay Ridge Subdivision. This PSA will allow for the review and/or design of:

- Preliminary Design Services which include investigative site visits, review of previous pond design, adjacent property assessment, and a preliminary design for the pump station and estimated construction cost estimate. The cost for this activity is a lump sum amount of \$12,500.
- Basic Design Services which include the preparation of the final plans, specifications and contract documents. The cost for this activity is a lump sum amount of \$108,000.
- Preliminary and Design Services also include surveying and geotechnical work that will be handled by a sub-contractor for LJA.

- o The geotechnical work will consist of pond assessment to determine the maximum depth expansion for proposed wet well needed for the pump station. The cost for this activity is a lump sum amount of \$15,000.
- o The surveying work will mainly consist of topography. The cost for this activity is a “not to exceed” amount of \$10,000.
- LJA will attend and assist with up to three (3) Public Meetings for this project along with an additional three (3) coordination meetings with City and/or other government agencies. The cost for this activity is a “not to exceed” amount of \$5,000.
- Bidding and Construction Phase Services. Activities in these phases cover Evaluation of received Bids, pre-construction meeting, material submittal reviews, handling Requests for Information, recommendations on Change Orders, project site inspections, final walk-through, and record drawings. The proposed cost for this activity is a lump sum amount of \$20,000.

The PSA will also allow for some additional services to be performed on an as needed basis:

- The original version of Bay Ridge Flood Reduction Project, Phase II included a 42,000 gpm Pump Station being added to the existing detention pond AND the lowering of the existing pond by several feet. As part of the Bay Ridge Flood Reduction Project, Phase IV scope, LJA is working on an H&H Study for Gum Bayou and will be providing recommendations on improvements within Gum Bayou in the coming months. There is the potential that recommended improvements to Gum Bayou could mean that the existing detention pond may not need to be lowered. With that in mind, Staff asked LJA to price the lowering of the existing detention pond as an additional service. Once the H&H Study of Gum Bayou is completed, a decision to add this work can be made. The cost for this additional service is \$30,000.
- With the City’s Bond Program CIP projects and the normal CIP projects, there is a concern that multiple projects may go to construction at the same time which could overload our Inspectors. With that in mind, LJA was asked to provide a price to provide full time inspection services for this project. The cost for this additional service is \$55,000.

The total Construction Cost for this project is estimated at \$4,900,495. The project is estimated to take approximately 65 weeks to complete (Design, Bid, and Construction). The material acquisition portion of construction will be longer for this project than what is normally seen as many of the parts (electrical controls, pumps, etc.) can take several weeks to acquire. Lead times for these materials when the project is awarded could impact the estimated 34-week construction timeframe leading to the need for a time extension.

The Bay Ridge Flood Reduction Project, Phase II is the third of four (4) planned projects impacting the Gum Bayou Water Shed and the Bay Ridge Subdivision. All four (4) phases can be considered standalone projects and will provide drainage benefits to residents within these areas. Staff is working to finalize the scope for Phase I and anticipates bringing that PSA to Council in December 2019.

Attachments:

1. Data Sheet
2. Proposed Resolution
3. PSA for Bay Ridge Flood Reduction Project, Phase II
4. Staff Report Card on LJA
5. Aerial Map

CONTRACT ORIGINATION: Professional Services Agreement with LJA Engineering, Inc. reviewed and approved by City Attorney's office.

FUNDING

{X} Funds in the amount of \$263,000 are available from Miscellaneous Capital Projects Fund 5015 with expenses charged to DR2005- PLANDESIGN-DESIGN-TS CASH. The design cost will be funded by the GO Bond sale and Misc. Capital Projects Fund 5015 will be reimbursed once bond proceeds are received.

{X} Based on available cash flow, a Budget Amendment may be required to transfer from General Fund - Fund Balance to Misc. Capital Projects Fund 5015. If needed, the transfer will be included on a future budget amendment for Council approval.

#### STRATEGIC PLANNING

{X} Addresses Strategic Planning Critical Success Factor #1 - Develop & Maintain our Infrastructure