



Memo

To: Clay Pearson, City Manager
From: Fatema Weekly, Project Manager
CC: Trent Epperson, Assistant City Manager
Robert Upton, P.E., Director of Engineering & Capital Projects
Skipper Jones, Assistant Director of Capital Projects
Clarence Wittwer, Director of Public Works
Date: April 16, 2020
Re: Southdown Ground Storage Tank Replacement Project,
Construction Contract Award Memo

4/16/2020
To: Mayor and City Council members
Update on replacement of water facility at Southdown, including the existing ground storage tank.
Another good group of competitive contractors wanting to work for City of Pearland. Competitive pricing for replacing insufficient/undersized equipment very positive compared to budget.
Clay

Purpose

This memo provides information regarding the award of the construction contract for the Southdown Ground Storage Tank Replacement project (GST). The Southdown GST project includes the removal and replacement of an existing 140,000-gallon bolted steel tank and associated yard piping, permanent removal of two existing hydro-pneumatic pressure tanks, the installation of a new 400,000-gallon welded steel ground storage tank, variable frequency drives (VFD) on existing booster pumps, piping modifications and upgrades to the electrical system. This contract is scheduled for presentation to Council on the May 4, 2020 agenda.

Background

When the City annexed the Southdown Subdivision it inherited a water booster pump station with two steel storage tanks; a 140,000-gallon bolted steel tank and a 500,000-gallon welded steel tank. The bolted steel tank has reached the end of its useful life and is currently decommissioned due to chronic leaking. Working from a single GST, the demand on the plant routinely exceeds the storage capacity draining the tank and forcing booster pumps at the FM521 plant to run to augment the pump station's well production. Replacing the bolted steel tank with a new 400,000-gallon tank addresses the current demand of nearly 1 million gallons per day daily demand from this plant. With the additional storage the plant can meet the local daily demand and reduce pumping from the FM521 plant during peak demands.

The City's Extended Period Simulation Water Modeling, performed on the city-wide distribution system to determine localized needs, peak demands, pump requirements and operational parameters for this booster pump station, confirmed the recommendation to replace and increase the size of the second ground storage tank within the plant site and add Variable Frequency Drives (VFD's) to existing booster pumps and operational sequencing to improve overall site operations, reduce electrical costs and improve service to the Southdown subdivision and surrounding area.

Council approved and awarded the Southdown GST design contract to KIT Professional, Inc., during its March 25, 2019 regular meeting. Staff issued a Notice to Proceed in April commencing the anticipated 11-month design duration for the project.

Project Scope

The project scope includes removal of the existing 140,000-gallon bolted steel ground storage tank and replacement with a new 400,000-gallon welded steel tank (the largest tank that will fit within the severely constrained site) and associated yard piping, permanent removal of two existing hydro-pneumatic pressure tanks to make room for the new tank, and the installation of VFD's on existing booster pumps. Adding the VFD's will allow pump operations to adjust up or down to meet the varying demands of the site.

Contract Award

Advertising for the project commenced on March 11, 2020 and concluded on March 18, 2020. Bids were opened remotely on April 2, 2020 the results of which were made available to all interested participants via a City provided conference call. A total of five contractors submitted bids with the apparent Lowest Responsible Bidder being identified as W.W. Payton Corporation with a submitted bid of \$1,690,000 which is 5% below the Engineer's probable cost of construction.

W.W. Payton Construction has worked with the KIT Professionals, Inc. on previous projects and the Engineer confirms they have demonstrated timeliness and quality of work in the past. Staff has received the Engineer's Recommendation of Award and plans to present the construction contract to Council on May 4, 2020 along with a recommendation to award.

Pending Council approval, Staff will hold the preconstruction conference in late May and issue the notice to proceed in June 2020. Construction is expected to take 12 months to complete.

Budget Info

Funding Sources	Series	To Date	Future	Total Budget
System Revenue - Cash		350,000		350,000
System Revenue - Cash				-
System Revenue - Cash				-
General Obligation Bonds				-
General Obligation Bonds				-
W/S Revenue Bonds	TBS	2,350,000		2,350,000
Impact Fee - Debt				-
Other Funding Sources				-
Total Funding Sources		2,700,000	-	2,700,000

Expenditures	To Date	Future	Total
PER			-
Land			-
Design	273,068		273,068
Construction		1,690,000	1,690,000
Construction Management/Inspection			-
Construction Materials Testing		15,000	15,000
FF&E			-

Total Expenditures	273,068	1,705,000	1,978,068
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Project Balance/Contingency			721,932
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Schedule Info

	Base Line	Current
Design Start	April-19	April-19
Bid Start	February-20	March-20
Construction Start	May-20	
Proposed Construction Completion	April-21	

Rain Days: N/A

Recommendation

Review of the proposal by Staff along with KIT Professional Inc., has determined that the construction proposal is complete and reasonable. Staff will recommend Council approve a construction contract for W.W. Payton Corporation in the amount of \$1,690,000.

VICINITY MAP



Legend/Notes

 Parcels



1:879
1 inch = 73 feet



This product is for informational purposes only and may not be prepared or be suitable for legal, engineering, or surveying purposes.

MAP PREPARED: MARCH 9, 2019

City of Pearland – COVID 19 Evaluation Matrix for Capital Project Investments

	Southdown Ground Storage Tank Replacement Project	
Importance/ Urgency/ Benefit of Investment	<ul style="list-style-type: none"> Recapitalizes critical infrastructure Replaces an existing decommissioned tank Provides additional capacity at the plant Ensures operational flexibility based on plant demands 	•
Financing/ Construction considerations	<ul style="list-style-type: none"> Funded with water/sewer revenue bonds Under budget allowing for a reduction in future bonds to be sold 	•
Impact and Cost of Delay/ Deferment	<ul style="list-style-type: none"> Eliminates additional cost to purchase and pump water from the FM521 pump station due to lack of storage capacity at the Southdown plant Reduction in electrical costs with VFD pumps and operational improvements 	•