

10/2/2019

TO: Mayor and City

Council members

Update on new ground storage tank. Cool pictures of construction of new tank on later pages. Clay



FM 521 Ground Storage Tank Expansion

Scope: The proposed project includes the installation of a third ground storage tank, related piping, upgrade of existing pumps, and controls to provide additional storage and increased firm capacity at the FM 521 Water Pressurization Facility. The Project includes a 2,000' run of conduit and fiber to connect the plant to the fiber located on Shadow Creek Parkway and provide continuity with the conduit run from Broadway along the FM 521 Waterline.

Justification: The City is in the process of extending both the FM 521 Waterline, and the McHard Road Waterline. The FM 521 Waterline is intended to transfer water from the City's planned Surface Water Treatment Plant.

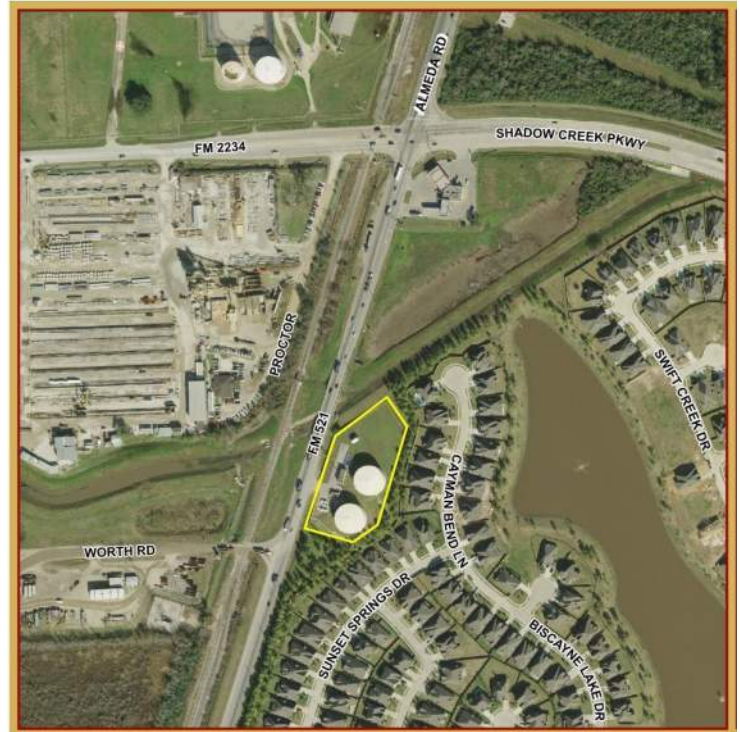
Project Manager: Jameson Appel

Construction Manager: Ronnie Hart

Designer: Costello, Inc.

Contractor: DN Tanks

Budget Info:



Funding Sources	Series	To Date	Future	Total Budget
General Revenue - Cash				-
Certificates of Obligation				-
Certificates of Obligation				-
W/S Revenue Bonds	2017C	152,525		152,525
W/S Revenue Bonds	2019B	2,759,975		2,759,975
Impact Fee - Debt				-
Impact Fee - Cash		2,759,975		2,759,975
Other Funding Sources (Fund Balance)		152,525		152,525
Total Funding Sources		5,825,000	-	5,825,000

Expenditures	To Date	Future	Total
PER			-
Land			-
Design	572,827		572,827
Construction	2,925,430		2,925,430
Construction - Phase 2		1,600,000	1,600,000
Construction Materials Testing	10,486	2,500	12,986
FF&E			-
Total Expenditures	3,508,743	1,602,500	5,111,243

Project Balance/Contingency			713,757
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Schedule:

Phase 1	Base Line	Current
Design Start	September-17	January-18
Bid Start	October-18	September-18
Construction Start	January-19	January-19
Proposed Construction Completion	January-20	

Phase 2	Base Line	Current
Design Start	March-19	March-19
Proposed Bid Start	July-19	October-19
Proposed Construction Start	January-20	
Proposed Construction Completion	October-20	

Phase I: The initial phase of construction which is confined to the pre-cast concrete tank work.

Phase II: The design for pumping and controls which was separated due to the specialty of the electrical and plant control work not belonging with the tank and piping construction.

Rain Days: 22

Phase I Highlights:

- Hung Dome panels (tank roof)
- Formed and poured Dome slots
- Removed scaffolding from inside of tank (initial support structure required for tank roof)
- Start wire winding of the tank (wire reinforcing of tank wall panels)
- Shotcrete the tank walls with concrete covering wire windings
- Patch access holes in the tank.
- Pour dome donut/remove forms
- Pour concrete curb inside of the tank.

Upcoming Phase I Work Items:

- Haul off tools, equipment and surplus materials.
- Pressure wash the tank
- Paint exterior of tank
- Grade form and pour over flow spillway
- Repair/replace asphalt driveway at the end of the job.
- Any damages to the wood fence will be repaired in this phase of work.

Phase II Highlights:

- Electrical and Control Design contract was awarded to Costello, Inc. is in the amount of \$278,502 on February 25, 2019.

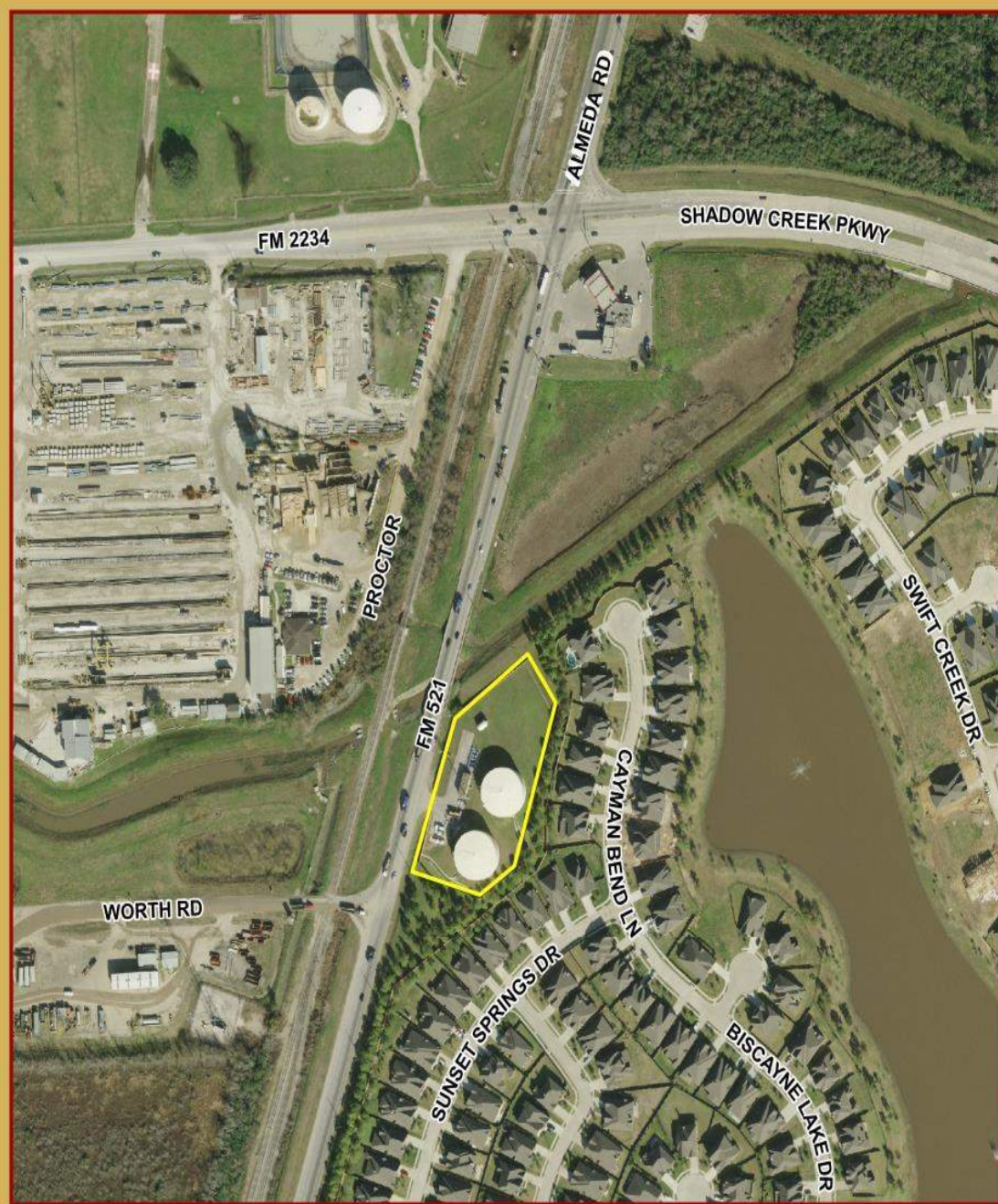
- Contract was amended 9/10/2019 for \$ 57,225 to add additional VFDs and new SCADA programming to the project per recommendations from the Water Model.
- Technical Review Committee meeting was held September 24, 2019.
- Consultant currently addressing final comments to the 95% set.

Upcoming Phase II Work Items:

- Current Bid Schedule
 - First Advertisement: October 9th
 - Second Advertisement: October 16th
 - Mandatory Pre-Bid meeting: October 17th
 - Bid Opening October 31st
- Anticipated Council Award Date: 1st meeting in November
- Construction Phase 300 days (Final Completion September 2020)


Previous Memos: 10/26/2017, 6/28/2018, 11/08/2018, 2/07/2019, 4/18/19, 6/28/2019, 8/1/2019

Project Location Map:



CITY OF PEARLAND

FM 521
Water Plant

 Property Line



This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.

1 inch = 300 feet

JUNE 2018
GIS DEPARTMENT



Construction Photos:



Tank walls set into place and braced



Tank walls set into place and braced



Building forms for the dome ring to be poured



Building forms for the dome ring to be poured



Installing Tank dome forms to pour dome ring.



Installing Tank dome forms to pour dome ring.



Concrete pump truck to pour dome ring



Concrete pump truck to pour dome ring



Shotcrete walls of the tank



Shotcrete walls of the tank



Shotcrete walls of the tank



Shotcrete walls of the tank



Wire winding of the tank walls for reinforcement.



Wire winding of the tank walls for reinforcement.



Wire winding of the tank walls for reinforcement.



Building forms to pour curb inside tank to connect slab to the walls.



Removal of dome forms and scaffolding.



Removal of dome forms and scaffolding.



Removal of dome forms and scaffolding.



Removal of dome forms and scaffolding.



Final Wire winding and Shotcrete of the tank walls for reinforcement.