

10 September 2020
 To: Mayor and City
 Council members
 Design proceeding for existing neighborhood upgrades
 of utilities and drainage. Clay



Willowcrest Subdivision Drainage Improvements

Willowcrest Subdivision Sanitary Sewer

Scope: The project area, located in Willowcrest Subdivision, is bounded by Cherry Street, Woody Road, W. Plum Street, and Mykawa Road. This 2019 Bond project will provide drainage improvements which include upsizing the existing storm sewer to convey the 3-year storm event, rerouting storm sewer, and utilizing the conveyance that flows north along Mykawa Road. Work also includes replacing damaged and outdated sanitary sewer lines and pavement improvements, including improvements to driveways and sidewalks.



Justification: Several homes in this neighborhood have a history of repetitive loss despite its location outside of the FEMA mapped flood hazard zone. The majority of the flooding problems can be associated with an undersized storm sewer system. This was an area identified in the Harvey Drainage Assessment Report as a local drainage improvement project.

Project Manager: Jameson Appel

Designer: Cobb, Fendley & Associates, Inc.

Contractor: TBD

Budget Info:

Willowcrest Subdivision Drainage Improvements Budget

Funding Sources	Series	To Date	Future	Total Budget
General Revenue - Cash				-
Certificates of Obligation				-
Certificates of Obligation				-
General Obligation Bonds	2020	2,086,000		2,086,000
General Obligation Bonds			13,840,000	13,840,000
W/S Revenue Bonds				-
Impact Fee - Debt				-
Other Funding Sources				-
Total Funding Sources		2,086,000	13,840,000	15,926,000

Expenditures	To Date	Future	Total
PER			-
Land	50	725,000	725,050
Design	966,603		966,603
Construction		12,209,897	12,209,897
Construction Management/Inspection			-

Construction Materials Testing FF&E		297,500	297,500
Total Expenditures	966,653	13,232,397	14,199,050

Project Balance/Contingency	1,726,950
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Willowcrest Subdivision Sanitary Sewer Budget

Funding Sources	Series	To Date	Future	Total Budget
General Revenue - Cash				-
Certificates of Obligation				-
Certificates of Obligation				-
General Obligation Bonds				-
System Revenue - Cash		240,000		240,000
W/S Revenue Bonds	2020B	1,300,000		1,300,000
Impact Fee - Debt				-
Other Funding Sources				-
Total Funding Sources		1,540,000	-	1,540,000

Expenditures	To Date	Future	Total
PER			-
Land			-
Design	185,350		185,350
Construction		1,100,000	1,100,000
Construction Management/Inspection			-
Construction Materials Testing		25,000	25,000
FF&E			-
Total Expenditures	185,350	1,125,000	1,310,350

Project Balance/Contingency	229,650
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Schedule Info:

	<i>Base Line</i>	<i>Current</i>
Design Start	August-19	August-19
Bid Start	September-20	January-21
Construction Start	March-21	
Proposed Construction Completion	June-23	

Rain Days: N/A

Highlights:

- Coordination efforts: The Willowcrest project shares a drainage basin with the Mimosa Acres project being managed by the City, the recently completed Mykawa Trunk Storm sewer project (BDD4), and the Mykawa road widening project (City). Differing modeling methodologies between design teams have led to delays in the project progression due to added coordination. The challenges to eliminate

possible adverse drainage effects on adjacent projects have been resolved but have pushed bid date into January 2021.

- Additionally, during preliminary design it was determined that a detention pond would be needed to achieve the project goals. A site for detention has been located and pond design has been reviewed by BDD4. The City has begun the process to acquire the identified property for use in the project. The effort to identify and locate the pond location has also added some delays to the project baseline schedule.
- Cobb Fendley submitted a preliminary plan set 2/4/2020. However, this set lacked storm sewer sizing due to the unknown detention requirements at the time.
- Cobb Fendley submitted a 30% submittal on 7/24/2020. Submittal included costs associated with the full replacement of all concrete streets in the subdivision. Staff and the engineer will be evaluating the streets based upon the pavement condition index and determine if there are areas in good condition and are not affected by the project are able to remain in place. The scope of work to be bid will be determined based upon the full analysis of the project needs, budget constraints and the pavement condition index of each segment. The pavement limits will be decided with the refinement of the next cost estimate at the 60% cost estimate.
- The 30% submittal has been reviewed by City staff and comments have been returned to the design engineer.

Upcoming Work Items:

- Cobb Fendley to provide additional data/information for the drainage analysis to justify the storm size design. Full Drainage report and models for the project area to be provided in the next design submittal as well as specifications.
- Continue design coordination with neighboring projects and their respective entities.
- City to continue process for land acquisition needed for detention pond.
- 60% plan set due to City of review mid October 2020.
- Coordinate with Communications to schedule a neighborhood public meeting to be held once the 60% plans are finalized. The meeting will be compliant with CDC safety standards.
- Design Engineer will continue with plans. Once detention considerations are finalized the design set will move quickly from 60% to 90% to final bid set.

Previous Memos: 7/25/19, 4/9/20

Vicinity Map



Ponding Exhibit: Existing Ponding Depth



Ponding Exhibit: Proposed Ponding Depth *



Note* The proposed ponding depth exhibit (below) includes City detention (not shown) needed to provide the proposed results. Proposed detention will be included on future exhibits once location has been determined.

Ponding Exhibit: Proposed and Existing ponding depth

