

15 March 2021 To: Mayor and City Council members

Update on retrofits to bring up to modern standards the existing drainage system in existing neighborhood. Clay

# West Lea Subdivision Drainage Improvements

Is It In Budget?		Is It On Schedule?		Community Benefit
Yes	□ No	Yes	□ No	The project will improve drainage in the West Lea Subdivision
	Project Phase?			
		Engineerin		

#### Highlights:

- 90% plan comments have been addressed.
- The Hydrology & Hydraulic (H&H) models have been completed.
- Continued coordination with Crude Oil Enterprises concerning their gas pipelin. The pipeline is inactive and is scheduled to be removed by the pipeline company prior to the onset of the drainage project.
- Continued coordination with BDD4 concerning the confluence with Mary's Creek.
- The wetlands assessment is complete.
  - The consultant submitted the Jurisdictional Water and Wetlands Delineation report to the US Army Corp of Engineers (USACE).
  - o The consultant applied for the Nationwide Permit (NWP) on February 22, 2021.
- Challenges that may impact the project include
  - o Coordination with the USACE. Based on previous experience with USACE and their delayed responses, staff is concerned with the timely issuance of the NWP by the USACE.
  - o Continued coordination with the neighborhood representatives.

#### **Budget Info:**

Funding Sources	Series	To Date	Future	Total Budget
General Revenue - Cash				-
Certificates of Obligation				-
General Obligation Bonds	2020	600,000		600,000
General Obligation Bonds			4,892,000	4,892,000
W/S Revenue Bonds				-
Impact Fee - Debt				-
Other Funding Sources				-
<b>Total Funding Sources</b>		600,000	4,892,000	5,492,000

Expenditures	To Date	Future	Total
PER			-
Land			-
Design	563,630		563,630
Construction		4,029,300	4,029,300
Construction Management/Inspection			-
Construction Materials Testing		15,000	15,000
FF&E			-
Total Expenditures	563,630	4,044,300	4,607,930



Project Balance/Contingency 884,070

#### Schedule Info:

	Base Line	Current
Design Start	August-19	August-19
Bid Start	June-20	April-21
Construction Start	June-21	
Construction Completion	November-22	

Rain Days:

### **Upcoming Work Items:**

- Final approval of the NWP.
- o Final approval of the Crude Oil Enterprise pipeline crossing and their schedule to remove the abandoned pipeline.
- Meet with the neighborhood representatives to discuss and present the ROW encroachments that will need to be addressed with the project.
  - Several residential private pedestrian bridges have been constructed over the drainage ditches by residents. Several of them are in the flow path of the roadside ditch that is restricting the flow of water. Regrading of the ditches as part of the scope of work will require the bridges to be removed and further discussions will occur with the residents on replacement.
  - Some of the mailboxes will need to be moved temporarily to allow the installation of drainage pipe.
  - Sidewalks with culverts extend over the drainage ditches will have to be removed and reinstalled where necessary.

Project Manager: Jennifer Lee

Construction Manager: Michael Collins

**Designer:** IDS Engineers

Contractor: N/A

**Scope:** The West Lea Drainage project intends to improve the drainage within the West Lea Subdivision. The project area is bounded by Manvel Road, Bailey Road, BDD4 Ditch, and Mary's Creek. Drainage improvements will require removal and replacement of driveway culverts, upsizing of culverts, widening and re-grading of bar ditches, the installation of storm sewer pipe, and improvements to the drainage ditch along the eastern perimeter to Mary's Creek. The project will also require the re-grading of the ditch along Manvel Road all the way to Mary's Creek outfall.

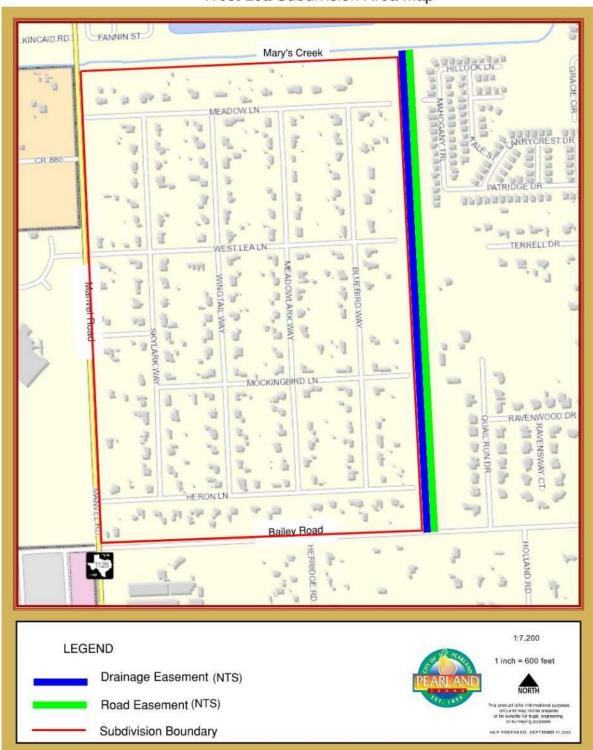
**Justification:** Several homes in the neighborhood have a history of repetitive loss. Concerns related to drainage have been expressed by the residents on several occasions. In addition, the City staff has participated in several HOA meetings to understand the drainage concerns. When the new FIRM maps go into effect (December 30, 2020) the majority of the subdivision will be located within the FIRM 100-year floodplain. Subdivision drainage is currently severed by an inadequate open ditch system.

**Previous Memos:** 06/20/19, 10/08/20



## **Project Location Map:**

West Lea Subdivision Area Map





## **Project Photos:**



Concrete foot bridge over a drainage ditch that will be regraded





Sidewalk with culver that will need to be removed



Wooden bridge over the drainage ditch that will need to be removed