



San Leon Municipal Utility District
Wastewater Collection System CDBG-MIT Project

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Risk Descriptions

On August 30, 2019, the US Department of Housing and Urban Development (HUD) published a Federal Register Notice that provides guidance for the new mitigation component of the CDBG disaster recovery program. This component, identified as CDBG-MIT, represents the first allocation solely for the purposes of mitigating the impact of future disasters funds to grantees. HUD has allocated \$6.875B in CDBG-MIT funds to 14 grantees recovering from qualifying 2015, 2016 and 2017 disasters. The State of Texas has been allocated 4.2 Billion dollars to address mitigation needs. Galveston County was listed as a HUD “Most Impacted and Distressed County” (MID). This designation allows entities to apply for federal funds to mitigate future events.

San Leon Municipal Utility District (MUD) is a coastal community south of Houston near the Gulf of Mexico. The District is subject to extreme weather events such as hurricanes and tropical storms due to its proximity to the coast. In recent history, Hurricanes Ike and Harvey and Tropical Storm Beta have caused damage to the community from wind and rain as well as posed operational challenges as a result of inflow & infiltration (I&I) in the wastewater infrastructure.

The District encompasses a five square mile area, servicing an estimated population of over 11,000. Close to 50 miles of sewer pipe collects wastewater on the peninsula, relaying it through six wastewater lift stations to the sole wastewater treatment plant. are owned and operated by the District. During heavy rain events and during storm surge situations (especially those experienced as a result of tropical storms or hurricanes), an excessive amount of I&I in the wastewater collection system results in significant increased flow at our treatment plant, sometimes as much as triple our permitted capacity. This increased flow can lead to sanitary sewer overflows (SSOs) that negatively influence surrounding lands and bodies of water.

While our operators are capable of responding to the increased demand and tirelessly work to ensure our treatment processes continue to meet the required standards, the increased flows recently resulted in a mandatory plant expansion costing the District millions in bond funds. This expansion, expected to be complete in early 2022, will ease the strain on our system at the final processing point, but the condition of the 50 miles of pipe infrastructure remains a significant concern. A 2017 bond issue earmarked close to \$1.5 million in funds for projects related to infrastructure rehabilitation. While a substantial number of repairs were completed under that round of funding, only a slight decrease in I&I was identified based on the flow at the treatment plant..

Project

The purpose of this project is to mitigate potential flood damages during a storm event throughout the San Leon MUD’s wastewater collection system. An estimated 85% of the 50 miles of sewer pipe is original to the District’s initial development in the 70s and 80s and is comprised of a material called

truss pipe. Deterioration over time has degraded the integrity of the wastewater collection system and we no longer believe a point repair approach will pass muster. The scope of this project will include televising and pipe bursting the existing infrastructure, replacing the truss pipe with high density polyethylene tubing that will represent an important improvement to the infrastructure, mitigating inflow & infiltration from excessive rain and storm surge events.

The six lift stations have already been equipped with natural gas generators to maintain operations during emergency situations, with future system improvements scheduled to upgrade the pumps to submersibles as well as install an additional lift station with natural gas generator to open up that portion of San Leon for development.

Project Beneficiaries

GEOID	geoname	Lowmod	Lowmoduniv	Lowmod_pct
15000US481677218001	Block Group 1, Census Tract 7218, Galveston County,	645	1305	49.43%
15000US481677218002	Block Group 2, Census Tract 7218, Galveston County,	1180	1655	71.30%
15000US481677218003	Block Group 3, Census Tract 7218, Galveston County,	425	1030	41.26%
15000US481677218004	Block Group 4, Census Tract 7218, Galveston County,	465	525	88.57%
		2715	4515	60%

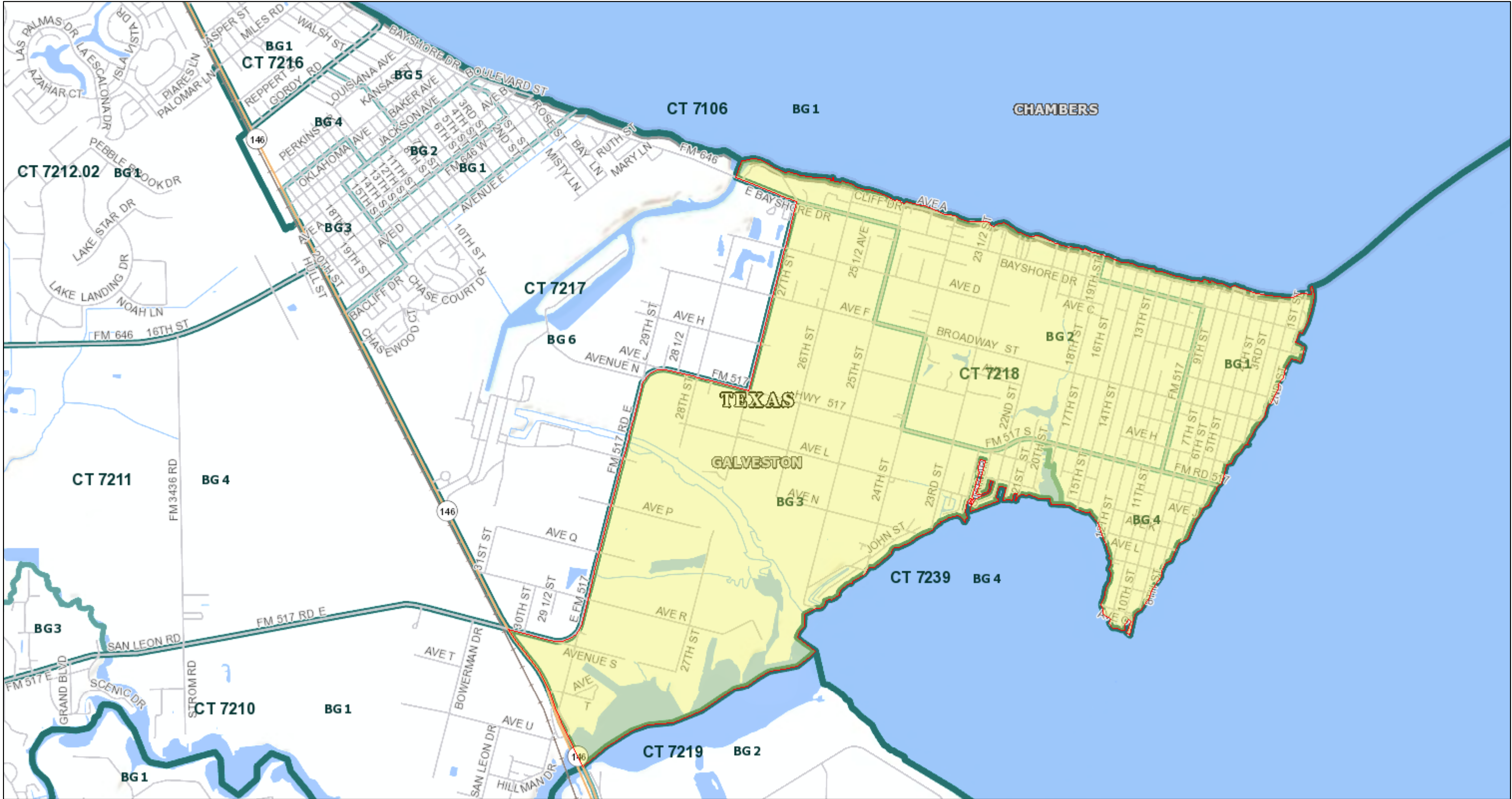


CDBG-MIT: Budget Justification of Retail Costs (Former Table 2)

Cost Verification Controls must be in place to assure that construction costs are reasonable and consistent with market costs at the time and place of construction.

Applicant/Subrecipient:	San Leon MUD				
Site/Activity Title:	San Leon MUD Wastewater Collection System				
Eligible Activity:	Rehabilitation and replacement of sewer collection system infrastructure				
Materials/Facilities/Services	\$/Unit	Unit	Quantity	Construction	Total
4-inch sanitary sewer cleaning & televising inspection (Pre and Post Rehabilitation)	\$ 2.25	LF	2000	\$ 4,500.00	\$ 4,500.00
6-inch sanitary sewer cleaning & televising inspection (Pre and Post Rehabilitation)	\$ 2.75	LF	40000	\$ 110,000.00	\$ 110,000.00
8-inch sanitary sewer cleaning & televising inspection (Pre and Post Rehabilitation)	\$ 3.75	LF	200000	\$ 750,000.00	\$ 750,000.00
10-inch sanitary sewer cleaning & televising inspection (Pre and Post Rehabilitation)	\$ 4.25	LF	20000	\$ 85,000.00	\$ 85,000.00
12-inch sanitary sewer cleaning & televising inspection (Pre and Post Rehabilitation)	\$ 4.75	LF	10000	\$ 47,500.00	\$ 47,500.00
15-inch sanitary sewer cleaning & televising inspection (Pre and Post Rehabilitation)	\$ 5.50	LF	12000	\$ 66,000.00	\$ 66,000.00
18-inch sanitary sewer cleaning & televising inspection (Pre and Post Rehabilitation)	\$ 6.00	LF	1000	\$ 6,000.00	\$ 6,000.00
21-inch sanitary sewer cleaning & televising inspection (Pre and Post Rehabilitation)	\$ 7.00	LF	7000	\$ 49,000.00	\$ 49,000.00
Pipe bursting of 4-inch sanitary sewer pipe with 6-inch HDPE replacement	\$ 25.00	LF	2000	\$ 50,000.00	\$ 50,000.00
Pipe bursting of 6-inch sanitary sewer pipe with 6-inch HDPE replacement	\$ 25.00	LF	40000	\$ 1,000,000.00	\$ 1,000,000.00
Pipe bursting of 8-inch sanitary sewer pipe with 8-inch HDPE replacement	\$ 30.00	LF	200000	\$ 6,000,000.00	\$ 6,000,000.00
Pipe bursting of 10-inch sanitary sewer pipe with 10-inch HDPE replacement	\$ 40.00	LF	20000	\$ 800,000.00	\$ 800,000.00
Pipe bursting of 12-inch sanitary sewer pipe with 12-inch HDPE replacement	\$ 70.00	LF	10000	\$ 700,000.00	\$ 700,000.00
Pipe bursting of 15-inch sanitary sewer pipe with 15-inch HDPE replacement	\$ 100.00	LF	12000	\$ 1,200,000.00	\$ 1,200,000.00
Pipe bursting of 18-inch sanitary sewer pipe with 18-inch HDPE replacement	\$ 120.00	LF	1000	\$ 120,000.00	\$ 120,000.00
Pipe bursting of 21-inch sanitary sewer pipe with 21-inch HDPE replacement	\$ 150.00	LF	7000	\$ 1,050,000.00	\$ 1,050,000.00
External service reconnections on all sewer lines related to pipe bursting	\$ 500.00	EA	3300	\$ 1,650,000.00	\$ 1,650,000.00
Engineering	\$ 1.00		2053200	\$ 2,053,200.00	\$ 2,053,200.00
Grant Administration	\$ 1.00		821280	\$ 821,280.00	\$ 821,280.00
Mobilization	\$ 1.00		250000	\$ 250,000.00	\$ 250,000.00
Bonds Insurance Permits	\$ 1.00		150000	\$ 150,000.00	\$ 150,000.00
1 year warranty cleaning and televising inspection at 11 months	\$ 1.50	LF	292000	\$ 438,000.00	\$ 438,000.00
	\$ -		0	\$ -	\$ -
TOTAL	\$ 1,099.50			\$ 17,395,980.00	\$ 17,395,980.00

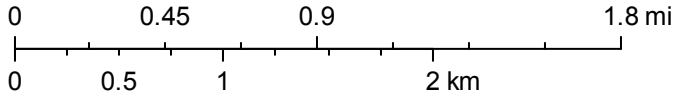
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October 1, 2020

- Census Tracts
- Census Block Groups
- States
- Counties
- Census Tracts
- Census Block Groups

1:36,112



Source: U.S. Census Bureau
Sources: Esri, USGS, NOAA