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Project Map

An interactive map of all capital projects can be found at <https://budget.harriscountytexas.gov/>

Project Sheet Reader's Guide

Provides project identification, description and justification, financial summary, and estimated operating budget impacts.

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Washburn Tunnel

Investment Area: Transportation

Project Status: Ongoing Project

Managing Entity: Toll Road Authority

Requesting Entity: Toll Road Authority

Total Estimated Cost: \$23,000,000

Expenditures to Date: \$610,000

Strategic Objective(s): ENG-SO1, SO2, SO5
MACE-SO1, SO2
FIN-SO1

Project Description:

The Washburn Tunnel, one of only five vehicular crossings of the 50-mile Houston Ship Channel (HSC), is in need of modernization and upgrades. On June 25, 2019, Harris County Commissioners Court authorized the transfer of responsibility for current and future Operations, Maintenance, and Capital Improvements of the Washburn Tunnel to HCTRA, without the imposition of tolls, effective March 1, 2020. Capital improvement expenditures planned for this facility include a comprehensive program to preserve, maintain, repair, and improve the existing Washburn Tunnel, which includes the tunnel's approaches, Intelligent Transportation System components, and facilities. Expected projects include modernization of the electrical and ventilation systems, and geotechnical evaluation of the tunnel bedding and cover material.

Justification:

Built in 1950, the Washburn Tunnel is one of the largest toll-free tunnels in the Southern United States. This project will address the mobility needs of the community by creating greater access to transportation options. This falls in line with the strategic objectives noted above. This project provides the residents of Harris County and other stakeholders a unique transportation asset, consistent with the Toll Road Authority's goal to improve mobility throughout the region and provide the community greater access to transportation options.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Port of Houston Authority	Planning, Development, User of System/ Project	Collaboration/ Communication	Ongoing
The Houston Pilots	Planning, Development, User of System/ Project	Collaboration/ Communication	Ongoing
United States Army Corps of Engineers	Planning, Development, User of System/ Project	Collaboration/ Communication	Ongoing
United States Coast Guard	Planning, Development, User of System/ Project	Collaboration/ Communication	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$23,000,000	\$2,420,000	\$7,660,000	\$9,310,000	\$1,000,000	\$720,000	\$1,280,000

Estimated Annual Operating Budget Impact:	
O&M	\$3,750,000
Labor	\$0
Other	\$0
Total	\$3,750,000

4

Current Project Phase: Ongoing/Lifecycle Management

Estimated Phase Completion (Fiscal Year)	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

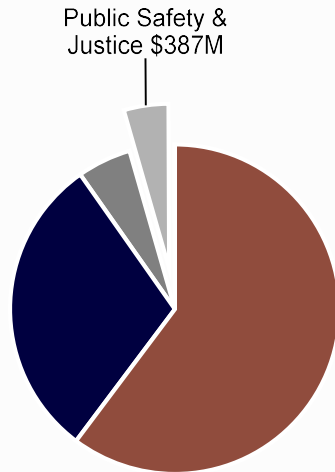
1) Project Identification – This section provides the name of entity managing the project, the name of the entity requesting the project and what strategic objectives the project works towards, and what Strategic Objective(s) from the requesting entity the project works toward. More information about the managing entity's strategic objectives can be found in Supplement 1.

2) Project Description/Justification – This section describes the project and provides a brief justification for its overall purpose.

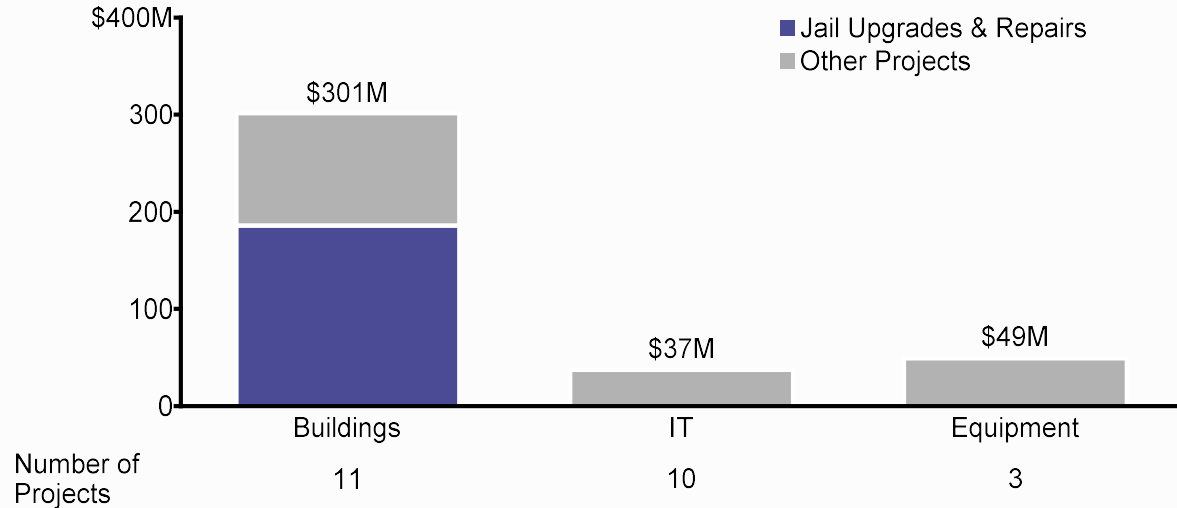
3) Alternatives and Engagement – This section examines project alternatives and stakeholder engagement has been considered, if any.

4) Anticipated Project Expenditures and Timeline - This section summarizes the past, present, and future expenditure information for the project. It also estimates potential impacts to the requesting entity's operating budget once the project is complete, and identifies when project milestones will be completed.

JUSTICE AND SAFETY - CAPITAL PROJECT REQUESTS

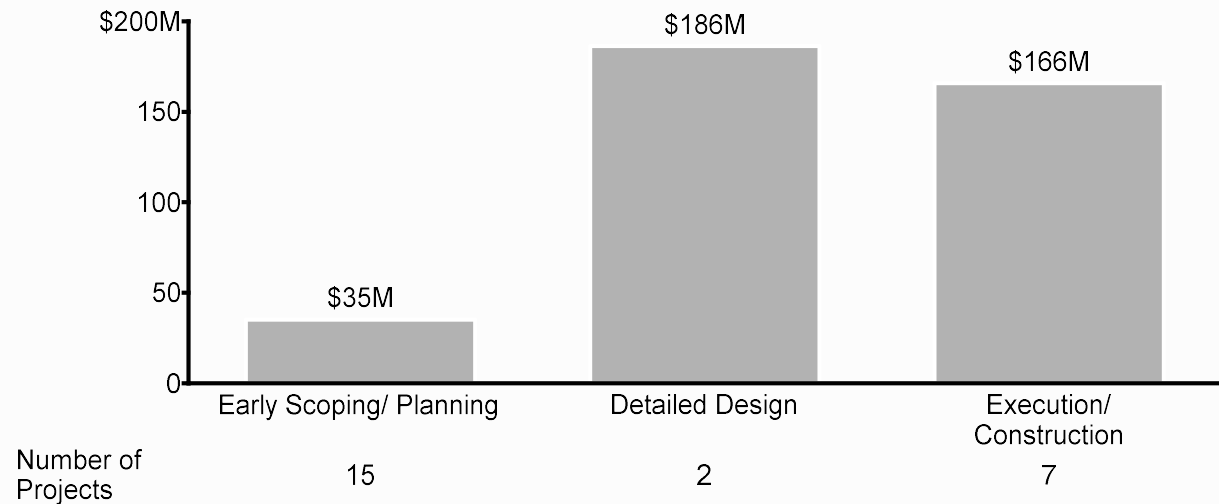


Project Value by Subcategory (\$M)



- Upgrades and repairs to County detention facilities make up the largest single capital request for Justice & Safety (\$186M). This project is currently in design phase
- The next largest project is continued construction of Phase II of the CSCD Atascocita facility

Project Value by Current Project Stage (\$M)



Supplement 2 - Capital Improvements Plan
Harris County FY 2021-2022 Capital Improvement Program: Public Safety and Justice

Project Name	Primary Funding Source	Investment Area Subcategory	Total Project Estimate	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
Additional Office Locations Supporting Supervision & Wraparound Services	TBD	Buildings	TBD	\$ 0	TBD	TBD	TBD
Adult Detention Facilities Upgrades and Repairs	HC Property Tax	Buildings	\$ 185,722,415	\$ 5	\$ 47,534,800	\$ 181	0
Court Support Facility and Parking Garage	HC Property Tax	Buildings	\$ 300,000	\$ -	\$ 300,000	\$ 0	0
Courthouse Addition	TBD	Buildings	\$ 700,000	\$ -	TBD	TBD	TBD
Criminal Justice Center (CJC) Restoration	HC Property Tax	Buildings	\$ 45,184,366	\$ 25	\$ 0	\$ 20	0
CSCD Atascocita Phase II	HC Property Tax	Buildings	\$ 58,635,638	\$ 9	\$ 30,000,000	\$ 50	0
HCFMO - Training Facility Atascocita	HC Property Tax	Buildings	TBD	\$ -	TBD	TBD	TBD
Navigation Project Programming Phase (HCSO)	HC Property Tax	Buildings	\$ 110,449	\$ 0	\$ 0	\$ -	0
Property Crime DNA Services	TBD	Buildings	\$ 735,500	\$ -	TBD	TBD	TBD
Public Defenders Office Expansion	TBD	Buildings	\$ 5,000,000	\$ -	TBD	TBD	TBD
Radio System Core Facility	HC Property Tax	Buildings	\$ 5,000,000	\$ -	\$ 5,000,000	\$ 5	0
Buildings Total			\$ 301,388,368	\$ 38,873,968	\$ 82,834,800	\$ 256,078,900	\$ -

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Additional Office Locations Supporting Supervision & Wraparound Services

Investment Area: Public Safety & Justice - Buildings

Project Status: New Project

Total Estimated Cost: TBD

Managing Department: TBD

Non-County Funding: \$0

Requesting Department: Community Supervision & Corrections Department

Strategic Objective(s): SO3

Project Description:

The Community Supervision & Correction Department (CSCD) is requesting CIP funding from the County to add additional office locations that would support access to supervision and wraparound services for justice-involved individuals needing services. These services need to be available in strategic locations around the County to provide equal access to justice-involved clients. On February 26, 2019 Commissioners Court approved for the Real Property section of the Office of the County Engineer to assist CSCD with identifying additional office space/county buildings. Real Property identified some locations previously, and CSCD would like to continue this effort with Real Property.

Justification:

Harris County has experienced significant population growth over the last 20 years; however, CSCD locations have not expanded for decades, and the need for services has outgrown its existing locations. This makes it difficult for CSCD clients to succeed in its programs. The CSCD client population has grown in the North and Southeast parts of Harris County. Currently over 18,000 justice-involved individuals on community supervision (probation) do not live on bus lines and must travel over 20 miles to receive supervision, treatment, mental health, and social services. Texas Government Code Chapter 76, Section 76.008 states that the county served by a department shall provide physical facilities, equipment, and utilities for a department. Therefore CSCD is following this requirement and making a formal CIP request to the County. In an effort to increase access to supervision and wraparound services for clients, additional office locations strategically placed within the County need to be identified. This will expand CSCD's wraparound services for clients who live in areas of the County that are far from current supervision offices, critical social services, and bus lines. This CIP project will provide justice-involved individuals with increased access to supervision, treatment, mental health, and social services. This will expand the agency's wraparound services for clients who live in areas of the County that are far from current supervision offices, critical social services, and bus lines.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
TBD	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Adult Detention Facilities Upgrades and Repairs

Investment Area: Public Safety & Justice - Buildings

Project Status: Ongoing Project

Total Estimated Cost: \$185,722,415

Managing Entity: County Engineer

Expenditures to Date: \$4,943,515

Requesting Entity: Sheriff's Office

Strategic Objective(s): SO14, SO16

Project Description:

The various projects will address critical upgrades and repairs to keep the County's Adult Detention Facility operational. The Office of the County Engineer has been working with members of Harris County Sheriff's Office and an outside engineering firm to develop a five year repair and renovation program for both the 580,400 square foot jail located at 701 San Jacinto, and the 790,921 square foot jail located at 1200 Baker Street. These facilities opened in 1990 and 2002 respectively and have had minimal infrastructure repairs since opening. Upgrades will be made to the HVAC systems, replacement of roofs, modernization of elevators and sprinklers, as well as the replacement of both the domestic water and sanitary sewer systems. Additionally, all electronic security systems will be upgraded and the kitchens will be renovated. Project timing must allow for phasing across multiple years due to active occupancy throughout the facilities.

Justification:

The Adult Detention Facility has a backlog of deferred maintenance issues that must be addressed. Failure to continue maintaining the County's existing facilities will result in more expensive deferred maintenance, as well as closure of certain areas, non-code compliance, and most importantly, risks to life/ safety. These repairs and upgrades are also necessary to ensure normal facility operations and to remain compliant with Texas Commission on Jail Standards. The upgraded systems are anticipated to increase the value of the facility and decrease the overall maintenance required. Future reporting will provide analytics on utility consumption as well as other operational costs and opportunities for savings.

Alternatives and Engagement:

The Office of the County Engineer and the Sheriff's Office are working together to study the possibility of building a modern detention facility rather than making significant upgrades to the existing detention facility. However, even if it is decided to build a new detention facility, it will take several years to be designed and built and critical maintenance issues must be addressed before then.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$185,722,415	\$47,534,800	\$32,886,600	\$39,794,000	\$39,407,700	\$21,155,800	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Detailed Design

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Complete
Detailed Design	TBD
Execution/ Construction	FY 2022
Project Completed	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Court Support Facility and Parking Garage

Investment Area: Public Safety & Justice - Buildings

Project Status: Ongoing Project

Total Estimated Cost: \$300,000

Managing Entity: County Engineer

Expenditures to Date: \$0

Requesting Entity: Justice Administration
Department

Strategic Objective(s): SO13

Project Description:

Due to increased operations and the need for more space across multiple departments, it is recommended that a new court support facility be constructed at 1301 Franklin, next to the Criminal Justice Center (CJC) at 1201 Franklin and Civil Courthouse at 201 Caroline. Proximity to these facilities is essential for efficiency and the County already owns the property at 1301 Franklin. This project is scheduled to kick-off in January 2021.

Justification:

The Justice Administration Department strategic objective #13 revolves around improving the efficiency of justice departments. A building adjacent to the CJC capable of housing necessary principles involved in the administration of criminal justice will improve communications and the efficiency of court operations. Completion of this project provides cost savings by allowing the District Attorney's Office to relocate back to the building instead of leasing costly downtown space as well as operational savings for numerous departments of more easily and readily accessible resources.

Alternatives and Engagement:

Alternative	Why Alternative Not Selected
Lease space	Already leasing space for the District Attorney's Office near the other end of downtown; cost prohibitive and inefficient. Still need additional space for growth in the Public Defender's Office and District Clerk's Office.
Renovate existing space	Not enough space to renovate in existing buildings in the downtown arena to meet the growth needs.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Criminal Courts, District Attorney, District Clerk, County Attorney, PreTrial, District Courts, Public Defender	Participating/ Benefiting	TBD	No
Justice Administration, Department, Engineering, Facilities and Property Management, Fire Marshal's Office, Universal Services	Participating	TBD	No

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$300,000	\$300,000	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	FY 2022
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Courthouse Addition

Investment Area: Public Safety & Justice - Buildings

Project Status: New Project

Total Estimated Cost: \$700,000

Managing Department: TBD

Non-County Funding: \$0

Requesting Department: JP Court 3-1

Strategic Objective(s): SO1, SO2

Project Description:

This project would build an addition to Annex 26, located at 14350 Wallsville Road, Houston, TX. This addition would be used to build a small conference room and storage space that could be used for mediation.

Justification:

This project is needed because the Justice of the Peace 3-1 Court uses mediation to resolve civil cases and has no dedicated mediation room. The court had been using a shared conference room in Annex 26, but this space is now a County Clerk's Office. JP 3-1 mediators are now having to meet in the breakroom and sometimes in the hallway. The request for the conference room was reviewed by the Space Planning Committee, but no underutilized space was identified at Annex 26 to fulfill the request. New space must be added to Annex 26 to fulfill the JP 3-1's need of a conference room for mediation.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$700,000	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Criminal Justice Center (CJC) Restoration

Investment Area: Public Safety & Justice - Buildings

Project Status: Ongoing Project

Total Estimated Cost: \$45,184,366

Managing Entity: County Engineer

Expenditures to Date: \$25,184,366

Requesting Entity: Justice Administration
Department

Strategic Objective(s): SO13

Project Description:

This project makes repairs to the CJC, located at 1201 Franklin, resulting from flooding during Hurricane Harvey. It also makes enhancements to the user experience through five additional elevator banks, lobby expansion and security upgrades; replacement of aging and/or outdated finishes; and replacement of furniture and equipment.

Justification:

The Justice Administration Department strategic objective #13 revolves around improving the efficiency of justice departments. A centrally located, secured building capable of housing the criminal courts and principles involved in the administration of the courts will improve communications, improve the efficiency of court operations and reduce the likelihood of an interruption in service. Repairs to the building will include improvements to anti-flooding measures such that in another water event court operations will not be impacted. Completion of this project provides operational savings for numerous departments by making resources more easily and readily accessible to the courts in the building rather than having to return to a separate building.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Criminal Courts, District Attorney, District Clerk, County Attorney, PreTrial, District Courts, Public Defender, Constable Precinct 1, Community Supervision & Corrections, Defense Bar	Participating/ Benefiting	CJC Tenant Committee	No
Justice Administration Department, Engineering, Facilities and Property Management, Fire Marshal's Office, Universal Services	Participating	CJC Tenant Committee	No

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$45,184,366	\$0	\$20,000,000	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Execution/Construction

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Complete
Detailed Design	Complete
Execution/ Construction	FY 2022
Project Completed	FY 2023

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CSCD Atascocita Phase II

Investment Area: Public Safety & Justice - Buildings

Project Status: Ongoing Project

Total Estimated Cost: \$58,635,638

Managing Entity: County Engineer

Expenditures to Date: \$8,635,638

Requesting Entity: Community Supervision & Corrections Department

Strategic Objective(s): N/A

Project Description:

The County is partnering with the Harris County Community Supervision & Corrections Department (CSCD) to repurpose existing administration, classroom, and staff buildings in the center of the Atascocita complex. The project includes configuring the existing buildings into a reception center and administration building for current staff. The project also includes construction of classroom space and a new Dual Diagnosis Residential Program facility, which will provide additional bed capacity and support areas. Finally, the project addresses a backlog of critical deferred maintenance issues.

Justification:

The Atascocita complex has a backlog of deferred maintenance issues that must be addressed. Failure to correct these maintenance issues could result in the closure of certain areas, non-code compliance, and most importantly, risks to life/safety. On May 1, 2018, the CSCD and the County entered into an Interlocal Agreement, in response to the Peden Building's destruction by Hurricane Harvey, wherein the County agreed to contract for and construct a new 1,000 bed Facility for the CSCD's use for housing clients in residential programs, in exchange for the CSCD agreeing to deed Little Baker to the County upon CSCD's moving into the new Facility. This new facility would eliminate unnecessary wait-time in jail for residential treatment beds. Adequate and acceptable physical bed and program operation capacity is even more critical to safely provide services during the pandemic. The judges trying criminal cases in Harris County rely heavily on CSCD's inpatient residential treatment programs as an alternative to a sentence to incarceration in prison. If replacement beds are not available in the near future, the CSCD risks losing millions in State diversion funding that currently provide an option for judges to divert 2,600 to 3,000 defendants each year from incarceration in jail and prison. The Harris Center risks losing funding for critical continuity of care services for program participants in need of mental health services when they complete inpatient treatment. The County risks an increase in the pretrial detainee population as judges lose a viable sentencing alternative for high risk defendants and stands to lose the ability to move jail occupants, especially those in need of mental health services, from jails to a CSCD inpatient treatment facility.

Alternatives and Engagement:

There is no alternative to this project as the County has entered into an agreement with the CSCD to build the facility.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
CSCD	Project Beneficiary	Project Briefings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$58,635,638	\$30,000,000	\$20,000,000	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Execution/Construction

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Complete
Detailed Design	Complete
Execution/ Construction	FY 2022
Project Completed	FY 2023

Harris County FY 2021-2022 Capital Improvement Program

Project Name: HCFMO - Training Facility Atascocita

Investment Area: Public Safety & Justice - Buildings

Project Status: Ongoing Project

Managing Entity: County Engineer

Requesting Entity: Fire Marshall

Total Estimated Cost: TBD

Expenditures to Date: \$0

Strategic Objective(s): SO8, SO16, SO19

Project Description:

This project would construct a 42' x 70' manufactured classroom building at the Harris County Sheriff/ Fire Marshal Training Academy located at 2318 Atascocita Road Humble, TX 77396. The Fire Marshall's Office (HCFMO) is currently working with the Office of the County Engineer to scope the project.

Justification:

Critical to the ability to provide training is having available space and technologies to support a variety of hands-on, virtual, and online learning. Availability of space at the Training Academy has diminished as the need for training has increased for both HCFMO and the Sheriff's Office, therefore by having additional training space we can better serve not only public safety but also the residents and business owners of Harris County and the region. Enhancement is measured by the increase of training classes conducted by all Agencies located at the Sheriff/Fire Marshal Training Facility. By showing classes that would have had to be cancelled or not scheduled due to the unavailability of space.

Alternatives and Engagement:

Alternative	Alternative Description	Alternative Cost	Why Alternative Not Selected
Lease building	In order to gain additional training space a lease building could provide additional training space.	~\$60,000/year	Leased building would not have access to the variety of onsite training props or hands-on learning simulators.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
HC Sheriff's Office	Participants in training and use of facility	Meeting	Complete
Regional Public Safety	Participants in training and use of facility	Website/Meetings/Electronic Communication	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
TBD	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Navigation Project Programming Phase (HCSO)

Investment Area: Public Safety & Justice - Buildings

Project Status: Ongoing Project

Total Estimated Cost: \$110,449

Managing Entity: County Engineer

Expenditures to Date: \$110,449

Requesting Entity: Sheriff's Office

Strategic Objective(s): N/A

Project Description:

This project was originally to plan, program, and design of an approximate 5 acre tract at 5900 Navigation Boulevard. This site has been contemplated to be utilized to relocate Harris County Sheriff's Office operations currently located at 601 Lockwood. This project is under review to examine uses that best serve the community.

Justification:

Requesting Entity did not provide.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$110,449	\$0	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	FY 2022
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Property Crime DNA Services

Investment Area: Public Safety & Justice - Buildings

Project Status: New Project

Total Estimated Cost: \$735,500

Managing Department: TBD

Non-County Funding: \$0

Requesting Department: Institute of Forensic Sciences

Strategic Objective(s): SO15

Project Description:

As a part of its building master plan, and with cooperation from the Engineering Department, the Institute of Forensic Sciences (IFS) is requesting to build out existing shell space to accommodate a new DNA property crime laboratory within the next five years. In addition to building out the space, IFS would need to purchase new equipment, including computers and printers, freezers and refrigerators, software licenses, barcode scanners and printers, a thermomixer, vent hoods, QIA Symphony and cabinet, AB 7500, ABI Veriti, ABI 3500, large copier, pipettes, and various centrifuges.

Justification:

This project supports the IFS stated goal of providing the justice system with objective, science-based forensic lab analysis. The project also supports strategic objective (SO) 15 (i.e., provide investigative leads for 50% of property crime DNA cases entered into CODIS) since this equipment will be used to directly support property crime DNA analysis in-house. The Institute is additionally considering a new strategic objective to complete property crime DNA cases within 90 days, which would benefit from this project.

IFS is currently outsourcing DNA property crime testing. Completing this project would allow IFS to process property crime DNA cases in-house instead of outsourcing, saving time and increasing efficiency from shorter test turnaround times. Analyzing property crime DNA evidence in-house is more desirable than outsourcing because completed outsourced cases must still be returned to IFS and undergo a technical review in-house in order to verify the CODIS eligibility and entry of any DNA profiles obtained. This in-house review is a statutory requirement described in the Texas Code of Criminal Procedure, Article 38.35 (Forensic Analysis of Evidence; Admissibility). In Texas, forensic evidence must be analyzed by an accredited crime laboratory (such as the Institute) in order to be admissible in court. Chapter 64 of the Texas Code of Criminal Procedure specifically addresses motions for forensic DNA testing.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$735,500	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Public Defenders Office Expansion

Investment Area: Public Safety & Justice - Buildings

Project Status: New Project

Total Estimated Cost: \$5,000,000

Managing Department: TBD

Non-County Funding: \$0

Requesting Department: Public Defender

Strategic Objective(s): N/A

Project Description:

This project is to identify additional space for the Public Defender's Office to accommodate a staff increase. The Public Defender's Office currently occupies 12th and 13th floors of the Criminal Justice Center, totalling 49,595 sq. ft. Part of this project will involve working with the Justice Administration department to identify when positions will actually be filled and how much space will actually be needed. Additionally, this space request will be examined with the space needs of other departments supporting the Justice system. A new Court Support building is being designed to house these entities in the long-term and a short-term solution may be needed to accommodate the space needs. A placeholder budget of \$5,000,000 is being used based on the assumption that commercial office space cost is \$50 per square foot, with 100,000 SF of office space needed.

Justification:

The Public Defender's Office staff is expected to double in size, but does not have the space for this staff increase.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$5,000,000	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Radio System Core Facility

Investment Area: Public Safety & Justice - Buildings

Project Status: Ongoing Project

Managing Entity: County Engineer

Requesting Entity: Universal Services

Total Estimated Cost: \$5,000,000

Expenditures to Date: \$0

Strategic Objective(s): N/A

Project Description:

Universal Services is requesting a replacement facility that will house 80,000+ Land Mobile Radio two-way radio systems for Harris County.

Justification:

Requesting Entity did not provide.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$5,000,000	\$5,000,000	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Execution/Construction

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Complete
Detailed Design	Complete
Execution/ Construction	FY 2022
Project Completed	TBD

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Public Safety and Justice

Project Name	Primary Funding Source	Investment Area Subcategory	Total Project Estimate	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
Equipment Replacement for Institute of Forensic Science (IFS)	HC Property Tax	Equipment	\$ 4,555,315	\$ 359,590	\$ 1,006,796	\$ 4,195,725	\$ 0
HCFMO HazMat Equipment	HC Property Tax	Equipment	\$ 1,613,181	\$ 56,566	\$ 1,556,615	\$ 1,556,615	\$ 0
Radio Replacement Program	HC Property Tax	Equipment	\$ 42,794,457	\$ 81,406	\$ 8,496,287	\$ 42,713,051	\$ 0
Equipment Total			\$ 48,962,953	\$ 497,562	\$ 11,059,698	\$ 48,465,391	\$ -

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Equipment Replacement for Institute of Forensic Science (IFS)

Investment Area: Public Safety & Justice - Equipment

Project Status: Ongoing Project

Total Estimated Cost: \$4,555,315

Managing Entity: Institute of Forensic Sciences

Expenditures to Date: \$359,590

Requesting Entity: Institute of Forensic Sciences

Strategic Objective(s): SO1-SO21

Project Description:

This project outlines a 5-year replacement schedule for IFS equipment. Per Court's request during the last budget cycle, IFS inventoried and reviewed all capital equipment, its useful life, and current age to determine a replacement schedule. This replacement schedule includes lab equipment, field equipment, computers, and vehicles

Justification:

The equipment request is for continuity of business services so that current strategic objectives will continue to be met. Executive Management has determined what resources are needed each year to provide and maintain the infrastructure necessary for the operation of processes, and to continue the level of service expected by our stakeholders. Performing accurate and timely investigations on cause and manner of deaths (Goal 1) and providing the justice system with objective, science-based, forensic laboratory analysis (Goal 2) are both necessary services provided by the county. The CIP project supports these goals and the associated strategic objectives. Chapter 49 of the the Texas Code of Criminal Procedure, as described in the 4a budget forms, is a legal mandate that dictates our services.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$4,555,315	\$1,006,796	\$845,908	\$764,802	\$826,412	\$751,807	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$280,000
Labor	\$0
Other	\$0
Total	\$280,000

Current Project Phase: Ongoing/ Lifecycle Management

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Harris County FY 2021-2022 Capital Improvement Program

Project Name: HCFMO HazMat Equipment

Investment Area: Public Safety & Justice - Equipment

Project Status: Ongoing Project

Total Estimated Cost: \$1,613,181

Managing Entity: Fire Marshal

Expenditures to Date: \$56,566

Requesting Entity: Fire Marshal

Strategic Objective(s): SO4, SO20, SO23

Project Description:

This project secures hazardous material response equipment to meet the Fire Marshall's Office (HCFMO) portion of the 49 recommendations issued as part of the PENTA Corporation GAP Analysis, commissioned by the Harris County Judge's Office in 2019 concerning Harris County's Multi-Agency Coordination during large scale responses. This includes vehicles, computers, and personal protective equipment.

Justification:

This project provides equipment for HazMat planning and response coverage throughout Harris County, with a target of responding to 100% of calls for service for hazardous materials emergencies within four minutes. This equipment will also help HCFMO to conduct 25 hazmat pre-plans per month. The project will provide enhancements to the Harris County Hazardous Materials Response Team, who conducts HazMat planning and responds to and mitigates hazardous materials/Weapons of Mass Destruction (WMD) to protect the public and environment. The enhancement is measured by decreasing the overall response time to hazardous materials/WMD incidents throughout Harris County by providing response assets on both the east and west side of the County. The influx of additional equipment will allow for additional capacity to existing capabilities on large-scale incidents. Additional justification is outlined in the 2019 PENTA Gap Analysis to enhance the capability of the HCFMO Hazardous Materials Response Team's ability to respond to and mitigate emergencies throughout Harris County.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$1,613,181	\$1,556,615	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Execution/Construction

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	FY 2020
Detailed Design	FY 2021
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Radio Replacement Program

Investment Area: Public Safety & Justice - Equipment

Project Status: Ongoing Project

Total Estimated Cost: \$42,794,457

Managing Entity: Universal Services

Expenditures to Date: \$81,406

Requesting Entity: Universal Services

Strategic Objective(s): SO5

Project Description:

This is an ongoing lifecycle management project to replace old and outdated radio equipment used by Harris County agencies. The existing fleet of radios range in age from new to over twelve years old, with various models. The Harris County Radio Replacement Program includes a hardware refresh for the aging fleet of radio subscriber units in order of oldest radios on our system. Radios have an ideal useful life span of seven years. Aging equipment is difficult to support, and replacement parts are scarce. This program ensures the units are replaced to avoid loss of service.

Justification:

The County is working through a backlog of outdated radio equipment that is increasingly becoming unreliable and more expensive to maintain. This project is critical because radios are a primary communications lifeline for first responders. This mix of differently aged radios with non-standardized features and models increases the cost of programming and maintenance support, as well as making training more complex. Some of the existing fleet of radios are not only end-of-life, but are also end-of-service; meaning they are not repairable due to things such as parts no longer being available. The newer radios purchased through this project will be easier to maintain as it will be within its intended asset life. Some of the benefits of the new radios include:

- Users will be able to take advantage of up to date technology on the network.
- Communications will be more reliable.
- Radios will be able to perform within the design parameters.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$42,794,457	\$8,496,287	\$8,519,947	\$8,543,607	\$8,567,267	\$8,585,943	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Ongoing/ Lifecycle Management

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Public Safety and Justice

Project Name	Primary Funding Source	Investment Area Subcategory	Total Project Estimate	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
AFIS Replacement	HC Property Tax	IT	\$ 4,120,284	\$ 58,949	\$ 3,442,076	\$ 4,061,335	\$ 0
Badge Card Access System	TBD	IT	\$ 700,000	\$ 0	TBD	TBD	TBD
Cite and Release	HC Property Tax	IT	\$ 1,821,985	\$ 452,582	\$ 1,369,403	\$ 1,369,403	\$ 0
Civil Courthouse AV Systems Upgrade	HC Property Tax	IT	\$ 5,300,000	\$ 0	TBD	TBD	TBD
Detention Control System Upgrade	HC Property Tax	IT	\$ 8,053,252	\$ 2,168,369	\$ 5,884,883	\$ 5,884,883	\$ 0
eCitation with Digital Signatures	HC Property Tax	IT	\$ 11,454,980	\$ 0	\$ 10,780,980	\$ 11,454,980	\$ 0
HCSO Workforce Management Tool	HC Property Tax	IT	\$ 3,989,000	\$ 0	\$ 2,579,000	\$ 3,989,000	\$ 0
PreTrial Case Management System	HC Property Tax	IT	\$ 709,960	\$ 0	\$ 709,960	\$ 709,960	\$ 0
Unified Harris County Web Experience	HC Property Tax	IT	\$ 769,700	\$ 0	\$ 406,900	\$ 769,700	\$ 0
VoIP Phone Upgrade	TBD	IT	\$ 200,000	\$ 0	TBD	TBD	TBD
IT Total			\$ 37,119,161	\$ 2,679,900	\$ 25,173,202	\$ 28,239,261	\$ -

Harris County FY 2021-2022 Capital Improvement Program

Project Name: AFIS Replacement

Investment Area: Public Safety & Justice - IT

Project Status: Ongoing Project

Total Estimated Cost: \$4,120,284

Managing Entity: Universal Services

Expenditures to Date: \$58,949

Requesting Entity: Universal Services

Strategic Objective(s): N/A

Project Description:

The Automated Fingerprint Identification System (AFIS) is a biometric identification system used by law enforcement (LE) across Harris County. The system uses digital imaging to capture fingerprints and is used by LE for identification analysis. This project would update backend (server) components of the HC Sheriff's Department AFIS System with the latest software technology. This will provide better capabilities and improved effectiveness. This project was significantly delayed due to COVID and the previously published timeline has been updated. Current project components include:

- Implement a Cloud Based Solution for AFIS/Biometric Services
- Update the Backend servers with up to date software including AFIS Software as well as Operating System software
- Modify specific workflows for greater efficiency
- Add new workflows to accommodate new uses
- Update Existing Interfaces
- Update as needed for CJIS Security Policy
- Move existing equipment from Windows 7 to Windows 10

Justification:

While the system is currently functioning, there are concerns about near-term viability to keep the system running efficiently. The overhead required to support the current system is becoming more and more costly as the hardware and other components are end of support with the manufacturers. Completing the project will ensure continuity of the identification system and save money in the long-term.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Constable Precints 1-8, Sheriff's Office, Fire Marshal's Office	Mission Critical support of Public Safety officers	HC Law Enforcement Technology Committee	Ongoing
Criminal Courts, District Attorney, District Clerk, County Attorney, PreTrial, District Courts, Public Defender	More effective support of Justice processes and activities	HC Justice Technology Committee	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$4,120,284	\$3,442,076	\$619,259	\$0	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$456,000
Labor	\$0
Other	\$45,600
Total	\$501,600

Current Project Phase: Early Scoping/ Planning

Estimated Phase Completion (Fiscal Year)	
Early Scoping and Planning	FY 2021
Detailed Design	FY 2022
Execution/ Construction	FY 2022
Project Completed	FY 2023

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Badge Card Access System

Investment Area: Public Safety & Justice - IT

Project Status: New Project

Total Estimated Cost: \$700,000

Managing Department: TBD

Non-County Funding: \$0

Requesting Department: Community Supervision & Corrections Department

Strategic Objective(s): SO3

Project Description:

This project would install 230 badge card access systems across Community Supervision & Correction Department's (CSCD) five existing locations. These locations are 49 San Jacinto (Administration), 9111 Eastex Freeway (North Region), 3330 Old Spanish Trail (South Region), 1000 Lee Drive (East Region) and 10585 Westoffice Drive (West Region). Project timeline could start March 2021.

Justification:

CSCD's five existing locations do not have card access systems and utilize traditional keys for door access. Staff are required to travel to other regions to provide services, and the keys at one location will not work at other locations. Having a consistent badge card access system allows staff to enter secure areas easily and controls the security of these areas. This project would significantly reduce the number of key requests sent to the Harris County Lock Shop. It would reduce the cost of making new keys, changing or fixing existing door locks, and reduce Harris County Lock Shop staff labor that handles all of these requests. Badge card access is critical to controlling security access of County buildings and monitoring/granting access to secured areas of our buildings. For CSCD staff to provide supervision and wraparound services to its justice-involved clients, having a badge access system will provide a more efficient method to access all of our 5 existing CSCD locations. This CIP project provides a value enhancement to the department by allowing the agency to send staff to support core operations at its other locations without needing to request and wait for additional traditional keys to be made. Enhancement is measured in reducing the number of keys issued and re-keying of existing locks. With a badge card access system, the Department would have the ability to easily add/remove access for its staff at all 5 locations.

Alternatives and Engagement:

CSCD could continue to use tradition keys. The ineffeciencies described above would not be resolved and cost savings would not be realized.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$700,000	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Cite and Release

Investment Area: Public Safety & Justice - IT

Project Status: Ongoing Project

Managing Entity: Universal Services

Requesting Entity: Universal Services

Total Estimated Cost: \$1,821,985

Expenditures to Date: \$452,582

Strategic Objective(s): N/A

Project Description:

The purpose is to identify, document, design, develop and manage the technology and business needs required to implement a Cite and Release program in Harris County. Currently, any individuals accused of a class B misdemeanor in Harris County are arrested and taken to the Inmate Processing Center. State law now allows law enforcement to issue class B misdemeanor citations for a set of seven offenses rather than incarcerating the accused individuals. A Cite and Release program enable law enforcement to issue these citations instead of incarcerating the accused individuals.

Justification:

Implementing Cite and Release in Harris County will impact approximately 4,800 persons arrested yearly on this set of offenses. This provides efficiencies and saves law enforcement time by allowing them to issue misdemeanor citations rather than incarcerating the accused individuals. This project will provide data efficiently into Harris County Records Management System (RMS) and Justice Courts case management system. According to Sheriff Gonzalez, "this administrative policy should help reduce our pre-trial county jail population and provide local costs savings to taxpayers. Citations can divert lower risk individuals from detention, reserving limited space and resources for more dangerous individuals." Cite and Release will:

- Allow officers to return more quickly to duty.
- Decrease jail population.
- Reduce spending for inmate care.
- Reduce time spent by law enforcement processing and transporting low level offenders.
- Improve the well-being of accused individuals without jeopardizing public safety.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Constable Precincts 1-8, Sheriff's Office	Mission Critical support of Public Safety officers	HC Law Enforcement Technology Committee	Ongoing
Criminal Courts, District Attorney, District Clerk, County Attorney, PreTrial, District Courts, Public Defender	More effective support of Justice processes and activities	HC Justice Technology Committee	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$1,821,985	\$1,369,403	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	FY 2021
Detailed Design	FY 2022
Execution/ Construction	FY 2022
Project Completed	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Civil Courthouse AV Systems Upgrade

Investment Area: Public Safety & Justice - IT

Project Status: New Project

Total Estimated Cost: \$5,300,000

Managing Department: TBD

Non-County Funding: \$0

Requesting Department: District Courts
Administration

Strategic Objective(s): SO8

Project Description:

This is a technology replacement and upgrade project for evidence presentation systems in the Civil Courthouse. This project would impact 24 civil courts, five family courts, and one ceremonial courtroom, for a total of 30 District Court courtrooms. The project would begin in the second quarter of calendar year 2021.

Justification:

Legal practitioners and jurors in the courts have come to rely on the availability of these evidence presentation systems to efficiently and effectively conduct of trials and hearings. Increasingly, the high definition content and laptops brought into the courts are incompatible with the current display systems. Implementing this project would result in lower long-term equipment support costs; currently, repair costs are rising, and analog video components are increasingly difficult to procure. The current systems are based on out-dated analog video technology and will not support newer laptops and other devices designed to present only digital video (HDMI or Display port).

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Universal Services	Review Technical Design	Documents Exchange	Ongoing
Private Bar Representatives	Review Functionality	Documents Exchange	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$5,300,000	TBD	TBD	TBD	TBD	TBD	TBD

Estimated Annual Operating Budget Impact:	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

Estimated Phase Completion (Fiscal Year)	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Detention Control System Upgrade

Investment Area: Public Safety & Justice - IT

Project Status: Ongoing Project

Managing Entity: Universal Services

Requesting Entity: Sheriff's Office

Total Estimated Cost: \$8,053,252

Expenditures to Date: \$2,168,369

Strategic Objective(s): N/A

Project Description:

This project is to upgrade the door control, audio system, and video system at the Harris County Jail located at 701 N. San Jacinto in addition to other various detention facilities or holding cells in the downtown district (Inmate Processing Center / Criminal Justice Center / Little Baker / Big Baker). The current system was installed in 2000 and has reached the end of its useful life.

Justification:

The system is exhibiting issues and can present a safety issue. The door control replacement will ensure proper operations of the cells. The audio system will ensure proper communications in the jail facility. The video replacement will ensure safety of both the deputies and the inmates in the facility.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$8,053,252	\$5,884,883	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Execution/Construction

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Complete
Detailed Design	Complete
Execution/ Construction	FY 2021
Project Completed	FY 2023

Harris County FY 2021-2022 Capital Improvement Program

Project Name: eCitation with Digital Signatures

Investment Area: Public Safety & Justice - IT

Project Status: Ongoing Project

Managing Entity: Universal Services

Requesting Entity: Universal Services

Total Estimated Cost: \$11,454,980

Expenditures to Date: \$0

Strategic Objective(s): N/A

Project Description:

The purpose of this project is to identify, document, design, develop and manage the technology and business needs required to implement digital signatures with the e-Citation process in Harris County. Electronic signatures will allow law enforcement (LE) to apply digital signatures to the e-citation rather than printing the citation and applying a "wet signature" or physically marking the citation.

Justification:

This project improves and automates LE processing of citations. eCitations reduce time spent by the Justice Courts processing paper copies of the citations and provide the ability to upload data efficiently into Harris County Records Management System (RMS) and Justice Courts case management system. This efficiency provides opportunities for lost fine & fee collections for Harris County due to quick synchronization and submission of data wirelessly. eCitation can reduce time spent by LE in the field writing and processing paper citations, allowing LE to return more quickly to duty. eCitation will also reduce time spent by the Justice Courts processing paper copies of the citations. Additionally, eCitation will provide ability to issue citations without a connection to the Harris County network, which allows LE on foot patrol & bicycle patrol the ability to issue electronic citations.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Constable Precincts 1-8, Sheriff's Office, Fire Marshal's Office	Mission Critical support of Public Safety officers	HC Law Enforcement Technology Committee	Ongoing
Criminal Courts, District Attorney, District Clerk, County Attorney, PreTrial, District Courts, Public Defender	More effective support of Justice processes and activities	HC Justice Technology Committee	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$11,454,980	\$10,780,980	\$674,000	\$0	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Early Scoping/ Planning

Estimated Phase Completion (Fiscal Year)	
Early Scoping and Planning	FY 2022
Detailed Design	FY 2022
Execution/ Construction	FY 2023
Project Completed	FY 2023

Harris County FY 2021-2022 Capital Improvement Program

Project Name: HCSO Workforce Management Tool

Investment Area: Public Safety & Justice - IT

Project Status: Ongoing Project

Managing Entity: Universal Services

Requesting Entity: Sheriff's Office

Total Estimated Cost: \$3,989,000

Expenditures to Date: \$0

Strategic Objective(s): N/A

Project Description:

Requesting Entity did not provide.

Justification:

Requesting Entity did not provide.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$3,989,000	\$2,579,000	\$1,410,000	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: PreTrial Case Management System

Investment Area: Public Safety & Justice - IT

Project Status: Ongoing Project

Total Estimated Cost: \$709,960

Managing Entity: Universal Services

Expenditures to Date: \$0

Requesting Entity: Pretrial

Strategic Objective(s): N/A

Project Description:

Licensing and implementation of a Case Management System (CMS), including a fee accounting/reporting module, for use by Pretrial Services. The CMS is used to support Department efforts to monitor supervisee compliance with standard and court-ordered release conditions related to release on a personal bond. The fee module will replace the dated module currently used to receipt and account for fees collected by Pretrial Services, and may offer an opportunity for integration with the County's financial accounting system.

Justification:

The existing Pretrial Services CMS is a Department-developed system written 15-plus years ago. The underlying technology is a dated version of Filemaker Pro that can no longer be simply upgraded due to the complexity of the application. Extensibility is limited, as is direct data integration with other County systems, such as the existing pretrial interview application and the court case management system (JIMS/JWEB). The update to technology will reduce time spent by the Harris County agencies and provide efficiencies in their work. Replacing PreTrial's outdated application will also provide extensibility of limited and data integration with other Harris County systems, including the Harris County financial system. PreTrial Case Management System will:

- Retire the risk presented by an application that relies on outdated technology
- Provide new case management functionality
- Improve the efficiency of Department employees while reducing errors and omissions
- Improve accountability of employees and managers
- Improve Department reporting processes
- Provide Department managers with reliable, timely information for decision making

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
HC PreTrial	More effective support of Justice processes and activities	Meetings and HC Law Enforcement Technology Committee	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$709,960	\$709,960	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Detailed Design

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Complete
Detailed Design	FY 2021
Execution/ Construction	FY 2022
Project Completed	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Unified Harris County Web Experience

Investment Area: Public Safety & Justice - IT

Project Status: New Project

Total Estimated Cost: \$769,700

Managing Department: Universal Services

Non-County Funding: \$0

Requesting Department: Universal Services

Strategic Objective(s): SO3, SO4

Project Description:

This project is to implement several web technologies that can provide visitors with more intuitive and consistent experience with the County website. Project elements include a web-based search platform, an interactive virtual assistant (also known as a chatbot), as well as making information available in more languages. The aim is to leverage these technologies across the various County web sites to provide a consistent look and feel. These technology platforms and services will provide better visibility to information and lower the barrier to accessing information for all the County's citizens. Another phase of this project is to upgrade and enhance existing Business Intelligence (BI) and data analytics capabilities that will enable streamlined data collection, analysis, and sharing across the County. This will be done by providing a centralized, enterprise-ready platform for data collection and reporting, utilizing best practices.

Justification:

The current County web presence consists of different user experiences. These websites are maintained by many departments and leverage a variety of content management systems, technology platforms, and departmental data sources. The County Judge's Office and the Harris County Web & Content Committee have identified that visitors to County web sites can struggle to find needed services and information. This project would address these issues by providing a consistent web look and feel. This improved user experience will in turn make information more accessible, improving Harris County's transparency.

The enhanced BI and data analytics functions will provide all County agencies access to powerful data analysis tools and make it easier to share data across County agencies. Currently, sharing data can be labor-intensive, and the way data is used is inconsistent. This will also provide a cost savings by eliminating redundancy of similar data analytic tools/platforms across County agencies.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$769,700	\$406,900	\$362,800	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	FY 2022
Detailed Design	FY 2022
Execution/ Construction	FY 2022
Project Completed	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: VoIP Phone Upgrade

Investment Area: Public Safety & Justice - IT

Project Status: New Project

Total Estimated Cost: \$200,000

Managing Department: TBD

Non-County Funding: \$0

Requesting Department: Community Supervision & Corrections Department

Strategic Objective(s): SO3

Project Description:

This project is to replace existing Mitel phone infrastructure at the following Community Supervision & Corrections Department (CSCD) locations: 9111 Eastex Freeway (North Region), 10585 Westoffice Drive (West Region), and 3330 Old Spanish Trail (South Region). The existing phone infrastructure would be retrofitted to Voice over Internet Protocol (VoIP). The project is anticipated to start in March 2021 and end by December 2021.

Justification:

The existing CSCD Mitel phone infrastructure is at end-of-life and no longer supported; voicemail infrastructure does not work at two of the three locations. This project is needed to improve efficiency of operations and ease of support for the CSCD phone infrastructure. The upgraded phone infrastructure supports CSCD's strategic objective of providing supervision and wraparound services to its justice-involved clients. Phones are one of the primary methods of communication between the public and the department. The enhancements from this project can be measured through the reduction of on-site telephone support.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

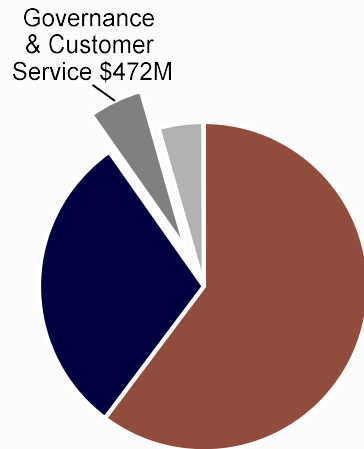
Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$200,000	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

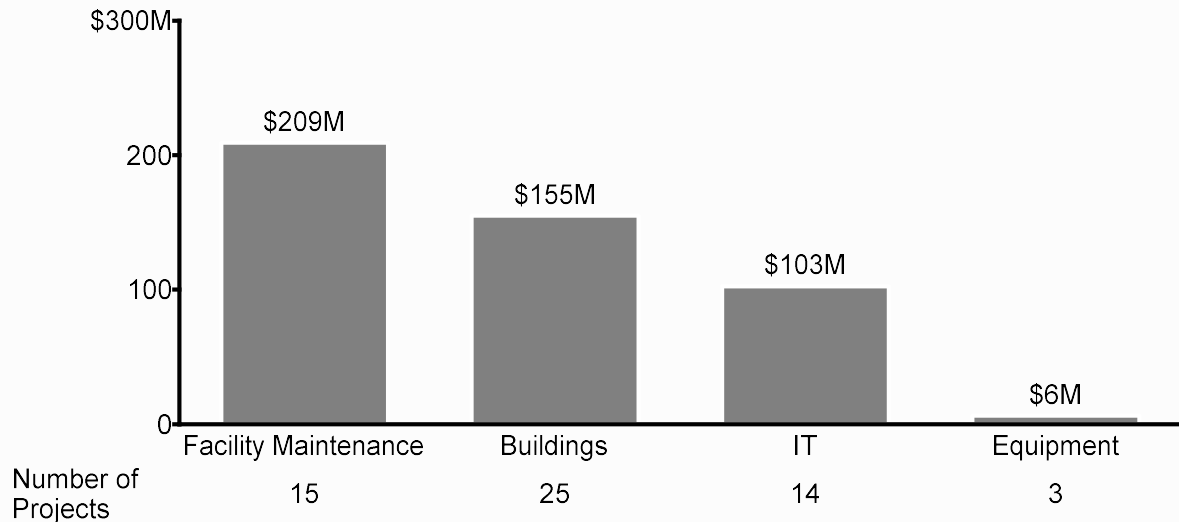
<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

GENERAL GOVERNANCE - CAPITAL PROJECT REQUESTS

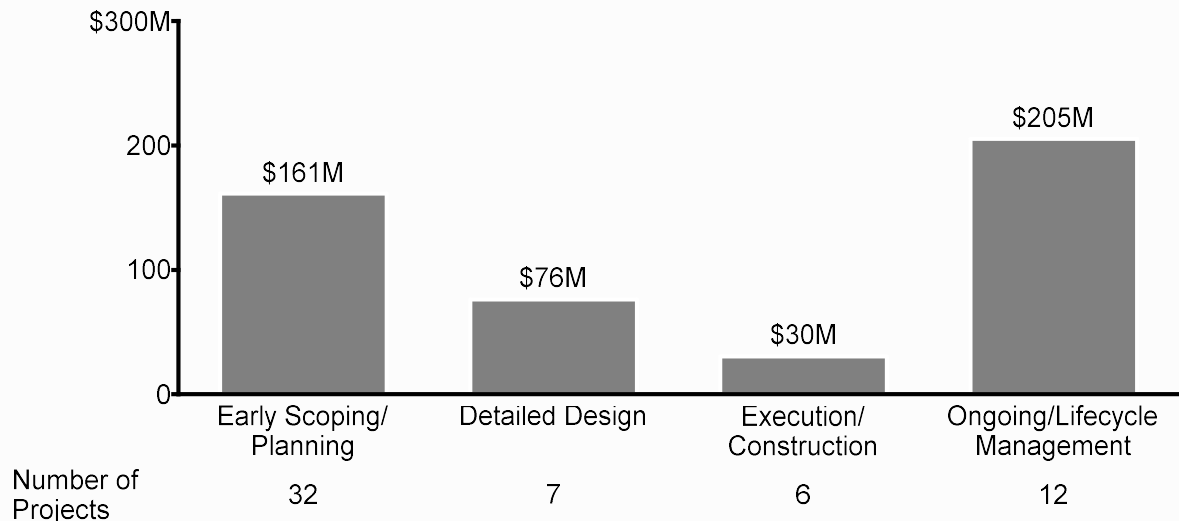


- Facility maintenance projects include multi-year upgrades for LED lighting upgrades, HVAC systems, and electrical maintenance. Additional efforts are needed quantify the financial impact of many of these projects.
- Building projects include the renovation of the South Central Plant and the restoration of the former Riverside hospital.
- Project expenditures are roughly evenly distributed over the next 5 years due to the high contribution of facility maintenance.

Project Value by Subcategory (\$M)



Project Value by Current Project Stage (\$M)



Supplement 2 - Capital Improvements Plan
Harris County FY 2021-2022 Capital Improvement Program: Governance and Customer Service

Project Name	Primary Funding Source	Investment Area Subcategory	Total Project Estimate	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
1301 Franklin Building Demolition	HC Property Tax	Buildings	\$ 164,025	\$ 164,025	TBD	\$ 0	TBD
701 Lockwood Parking Lot Expansion	HC Property Tax	Buildings	\$ 3,000,000	\$ 0	\$ 3,000,000	\$ 3,000,000	\$ 0
Building Extension for Spring Branch-Memorial Library	TBD	Buildings	\$ 500,000	\$ 0	TBD	TBD	TBD
Demolition of Lomas Nettleton/Coffee Pot Building and Build Parking Lots	HC Property Tax	Buildings	\$ 2,532,692	\$ 2,532,692	TBD	TBD	TBD
El Franco Lee Public Service Plaza	HC Property Tax	Buildings	\$ 2,300,000	\$ 0	\$ 2,300,000	\$ 2,300,000	\$ 0
Fairbanks Branch Renovations and Expansion	TBD	Buildings	\$ 1,000,000	\$ 0	TBD	TBD	TBD
Greens Road Radio Shop Customer Service Area Renovation	HC Property Tax	Buildings	\$ 200,000	\$ 0	\$ 200,000	\$ 200,000	\$ 0
Katherine Tyra Library Front Doors ADA Replacement	TBD	Buildings	\$ 100,000	\$ 0	TBD	TBD	TBD
Kingwood Branch Library Building Addition	TBD	Buildings	\$ 750,000	\$ 0	TBD	TBD	TBD
Lab Retrofit- Safety	HC Property Tax	Buildings	\$ 300,000	\$ 0	\$ 300,000	\$ 300,000	TBD
Library Expansion Project - Atascocita Branch	HC Property Tax	Buildings	TBD	\$ 0	TBD	TBD	TBD
Library Renovation Project - Freeman Branch	HC Property Tax	Buildings	TBD	\$ 0	TBD	TBD	TBD
Lighting Upgrades for Octavia Fields Branch Library	TBD	Buildings	\$ 100,000	\$ 0	TBD	TBD	TBD
Maude Marks Library Expansion/Renovation	TBD	Buildings	\$ 1,500,000	\$ 0	TBD	TBD	TBD
Modular Wall System	TBD	Buildings	\$ 100,000	\$ 0	TBD	TBD	TBD
New Highlands Area Library	TBD	Buildings	TBD	\$ 0	TBD	TBD	TBD
North Channel Branch Library	TBD	Buildings	\$ 1,000,000	\$ 0	TBD	TBD	TBD
NRG Center Interior Refresh	HC Property Tax	Buildings	\$ 7,835,543	\$ 1,335,543	6500000	\$ 6,500,000	\$ 0
Parker Williams Library – Handicap Button Installed on Lobby Door	TBD	Buildings	\$ 100,000	\$ 0	TBD	TBD	TBD
Records Center Renovation and Annex 18 MEP Projects	HC Property Tax	Buildings	\$ 2,000,000	\$ 0	\$ 2	\$ 2,000,000	\$ 0
Renovation of existing NeuroPsychiatric Center (NPC)	HC Property Tax	Buildings	\$ 4,400,000	\$ 0	TBD	TBD	TBD
Riverside Hospital Project	TBD	Buildings	\$ 70,000,000	\$ 0	TBD	TBD	TBD
South Central Plant Renovations	HC Property Tax	Buildings	\$ 53,291,453	\$ 191,453	\$ 1	\$ 53,100,000	\$ 0
VMC S 66th Building Renovation	HC Property Tax	Buildings	\$ 4,000,000	\$ 49,500	\$ 4,000,000	\$ 4,000,000	\$ 0
Buildings Total			\$ 155,173,713	\$ 4,273,213	\$ 19,400,000	\$ 71,400,000	\$ -

Harris County FY 2021-2022 Capital Improvement Program

Project Name: 1301 Franklin Building Demolition

Investment Area: Governance & Customer Service - Buildings

Project Status: Ongoing Project

Total Estimated Cost: \$164,025

Managing Entity: County Engineer

Expenditures to Date: \$164,025

Requesting Entity: County Engineer

Strategic Objective(s): N/A

Project Description:

1301 Franklin, also known as the "Old Jail" is located in downtown Houston. There have been multiple items presented at previous court sessions regarding the demolition of the facility. Due to Hurricane Harvey, various users have been temporarily relocated to this facility until such time that permanent facilities become available. A demolition design package is currently underway and efforts are being made to relocate the current facility users.

Justification:

The demolition of the building will allow for the County to utilize the vacant land for future facilities as indicated in the Downtown County Master Plan. The current building systems are inefficient, outdated, and costly to maintain.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$164,025	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	FY 2022
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: 701 Lockwood Parking Lot Expansion

Investment Area: Governance & Customer Service - Buildings

Project Status: Ongoing Project

Total Estimated Cost: \$3,000,000

Managing Entity: County Engineer

Expenditures to Date: \$0

Requesting Entity: County Engineer

Strategic Objective(s): N/A

Project Description:

This project is for the design and construction of a parking lot facility at 701 Lockwood, under the Lockwood overpass. It includes an access road off of Lockwood Drive to access the facility. The project includes parking, access road, sidewalks, drainage and a potential traffic signal. This project is in partnership with the City of Houston and the Buffalo Bayou Partnership.

Justification:

Parking accessibility is limited in and around the facility. The additional parking expansion is necessary for existing and future use.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$3,000,000	\$3,000,000	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	FY 2022
Detailed Design	TBD
Execution/ Construction	FY 2022
Project Completed	FY 2023

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Building Extension for Spring Branch-Memorial Library

Investment Area: Governance & Customer Service - Buildings

Project Status: New Project

Total Estimated Cost: \$500,000

Managing Department: TBD

Non-County Funding: \$0

Requesting Department: Library

Strategic Objective(s): SO1, SO2, SO3

Project Description:

This project would extend the Spring Branch-Memorial Library (Library) building, located at 930 Corbindale Rd, Houston, TX, by enclosing a approximately 900 square feet patio area. This enclosed area would be used to create a larger space for children, including additional program space. This extension would also enable the creation of a dedicated teen space to better serve that demographic. New furniture and shelving would need to be purchased for this space.

Justification:

Utilization of the Library has grown significantly over the years and services are now limited due to space constraints. To illustrate this growth, in 1977, the library hosted an average 5 story times a month with the occasional special program. Comparitvely, the library hosted 50 programs with 952 people in attendance in February 2020. The addition that would be constructed by this project would allow the Library to have additional programming space and to create a dedicated area for teens. The Library averaged (pre-Covid) at least 10 programs designated for teens a month and has a high circulation rate of young adult books. Due to the amount of furnishing/seating needed in the children's area, the Library struggles to remain compliant with Americans with Disabilities Act (ADA) building code requirements. With the additional space in the children's area, the current furniture would be able to be arranged to allow better compliance. The new children's area, while still fairly small, would also allow the Library to have an area which approaches literacy with a more whole-child experience with sensory activities such as puzzles, early literacy toys, and a creative play area. The additional space, would enable an increase in family engagement in the main library space, with programming in the children's area and having a space for parents to better engage with their children.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$500,000	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Demolition of Lomas Nettleton/Coffee Pot Building and Build Parking Lots

Investment Area: Governance & Customer Service - Buildings

Project Status: Ongoing Project

Total Estimated Cost: \$2,532,692

Managing Entity: County Engineer

Expenditures to Date: \$2,532,692

Requesting Entity: County Engineer

Strategic Objective(s): SO14

Project Description:

The county buildings known as the Lomas Nettleton and Coffee Pot buildings are located in downtown. It is recommended these buildings be razed as indicated in the Downtown County Master Plan. This would clear the city block bordered by Franklin, San Jacinto, Commerce, and Fannin. The cleared block would be used as a surface parking lot until a future use is determined. The project will not proceed until the occupants of the Coffee Pot building are relocated.

Justification:

The demolition of the buildings will make available vacant land for future county facilities. The current building systems are inefficient, outdated, and costly to maintain.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$2,532,692	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	FY 2022
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: El Franco Lee Public Service Plaza

Investment Area: Governance & Customer Service - Buildings

Project Status: Ongoing Project

Total Estimated Cost: \$2,300,000

Managing Entity: County Engineer

Expenditures to Date: \$0

Requesting Entity: County Engineer

Strategic Objective(s): SO16

Project Description:

Installation of the El Franco Lee Public Service Plaza at the north end of the Jury Assembly Facility. The plaza space will include a "service wall" to recognize Harris County officials for their service and to distinguish former Commissioner El Franco Lee with a permanent bronze bust or relief sculpture.

Justification:

It will serve as a remembrance project, additional public space, and enhance the overall county downtown presence. Installation of a new park and features will increase the overall value of the facility.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$2,300,000	\$2,300,000	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Execution/Construction

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Complete
Detailed Design	Complete
Execution/ Construction	FY 2022
Project Completed	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Fairbanks Branch Renovations and Expansion

Investment Area: Governance & Customer Service - Buildings

Project Status: New Project

Total Estimated Cost: \$1,000,000

Managing Department: TBD

Non-County Funding: \$0

Requesting Department: Library

Strategic Objective(s): SO1, SO2, SO3

Project Description:

This project would renovate and expand the Fairbanks Branch Library (Library) at 7122 Gessner Rd, Houston, TX. Project elements include an expanded staffroom and storage space, larger meeting room, a computer lab, a larger children's area, retrofits to be more compliant with Americans with Disabilities Act (ADA) building code requirements, staff restroom, and security system. It is anticipated that some of these project elements could be completed through an existing FPM CIP project.

Justification:

The expansion is needed to accommodate full-time staff and provide more services, the demand for which has significantly grown over the past five years. These programs include Early Literacy, ESL, Job Search Assistance, Tax Aide, Technology/STEM, and other educational programs in an at-risk, vulnerable community. The above chart shows that more and more people are utilizing the Library's programs. A larger meeting room will allow for larger programs, ultimately serving more people. The meeting room can no longer be used for some of the popular programs due to Fire Marshall capacity restrictions. full-time staffing has been increased at the Library to accommodate the increase in customers. Some of the Library's most popular programs are computer classes, which classes fill up within a few hours of advertising, especially for our children's coding and STEM programming. A dedicated computer lab would allow more participants. Early literacy programs are also very popular, with half of the Library's community being Spanish- or Vietnamese-speaking. A larger Children's Area is needed to effectively provide early literacy programs. On the non-program side, new space is needed for a staff workroom and storage space. The staff workroom is now cramped, and there is no room to store needed supplies or equipment for programming. A new storage space is needed, as the Library has no custodial or storage closets, forcing the cleaning crew to use and store supplies in a small Electrical Closet, a practice which the Fire Marshall has deemed unsafe. The building has also need to be updated to meet ADA standards as front entrance, lobby, and restrooms are not in compliance.

Fairbanks Branch	2015	2016	2017	2018	2019
Number of Programs Offered	588	633	710	830	772
Number of Program Attendees	5,350	7,386	7,324	10,774	9,188

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$1,000,000	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Greens Road Radio Shop Customer Service Area Renovation

Investment Area: Governance & Customer Service - Buildings

Project Status: Ongoing Project

Total Estimated Cost: \$200,000

Managing Entity: County Engineer

Expenditures to Date: \$0

Requesting Entity: Universal Services

Strategic Objective(s): N/A

Project Description:

Requesting Entity did not provide.

Justification:

Requesting Entity did not provide.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$200,000	\$200,000	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	FY 2022
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Katherine Tyra Library Front Doors ADA Replacement

Investment Area: Governance & Customer Service - Buildings

Project Status: New Project

Total Estimated Cost: \$100,000

Managing Department: TBD

Non-County Funding: \$0

Requesting Department: Library

Strategic Objective(s): SO1, SO2, SO3

Project Description:

This project would install automatic, accessible handicap doors at the Katherine Tyra Library (Library) located at 16719 Clay Rd, Houston, TX. The project would also make minor upgrades throughout the entire building to meet accessibility needs. This includes updating toilets, sinks, and other building design needs. This project is anticipated to be handled through an existing FPM project.

Justification:

The Library has served as a host for elections, ongoing community events, and general public use to the community. The front doors are original to the building and were not replaced during the building renovation after Harvey. Community members have requested Americans with Disabilities Act (ADA) compliant doors because the current doors cause difficulty for customers with mobility issues. Election judges presiding over the last several elections have been confused about the lack of ADA-compliant doors since they must work to make their elections ADA-compliant. Many Library customers who use wheelchairs, scooters, or crutches to navigate their lives have a difficult time getting in and out the current doors. During the library's Baby Story Time week, parents also have a hard time getting in and out of the library with strollers, especially double strollers. Bringing the library doors, and other parts of the building, into ADA compliance would benefit a great swath of our community.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$100,000	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Kingwood Branch Library Building Addition

Investment Area: Governance & Customer Service - Buildings

Project Status: New Project

Total Estimated Cost: \$750,000

Managing Department: TBD

Non-County Funding: \$0

Requesting Department: Library

Strategic Objective(s): SO1, SO2, SO3

Project Description:

This project would expand the square footage of the Kingwood Branch Library (Library) located at 400 Bens View Lane, Kingwood, TX. This space expansion would primarily be used to accommodate voting and used for other programming needs during non-election periods. The current space is 900 square feet. Three options to provide this needed space include:

- Option 1: Add an exterior enclosed walkway.
- Option 2: Add a medium modular building.
- Option 3: Add a large modular building (Community Recreational Center).

Justification:

This project expands the polling capacity at the Kingwood Branch Library, by adding a Community Recreational Center (CRC) from a previously vetted design to the property. This project alleviates overcrowding by creating space for the library to continue daily services for the public and accommodate voting at the same time.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$750,000	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Lab Retrofit- Safety

Investment Area: Governance & Customer Service - Buildings

Project Status: Ongoing Project

Total Estimated Cost: \$300,000

Managing Entity: County Engineer

Expenditures to Date: \$0

Requesting Entity: Pollution Control

Strategic Objective(s): SO3

Project Description:

Several upgrades to our laboratory are necessary to ensure the safety of all personnel who work in and around the area. These include a dedicated backup generator, retrofit of plumbing for safety showers, installation of a dedicated sump, and electrical panel changes to remove a water hazard. The space expansion is to allow the increase in staff to have space and placement in the office to allow office completion of job duties. This will modify the space vacated by the PH- EPH Division as well as PCS's existing space to more properly allocate the space for the growth achieved thus far and projected.

Justification:

Several fire code violations were noted during a walk through with the Fire Marshal, which need to be fixed to protect staff safety. The backup generator will allow the laboratory to continue to function during and after a severe weather event or other emergency that results in power loss. This is often a time when our samples are most crucial. Without the backup generator, we would have to pay an outside lab to run all samples collected during an emergency. The increased capability of our in-house lab will reduce the out-sourcing of analytical test thus increasing PCS enhanced value.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
PCS Staff	Customers of data provided	Samples submitted to support investigations and compliance verification.	Ongoing
Citizens of Harris County	Customers - investigative results including sample analysis	Samples results provide information on potential exposure and concentration.	Ongoing
Harris County Leadership	Customers of data provided	Sample results provide information on potential exposure and concentration.	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$300,000	\$300,000	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Library Expansion Project - Atascocita Branch

Investment Area: Governance & Customer Service - Buildings

Project Status: Ongoing Project

Total Estimated Cost: TBD

Managing Entity: County Engineer

Expenditures to Date: \$0

Requesting Entity: Library

Strategic Objective(s): SO1, SO3, SO35

Project Description:

The Office of the County Engineer is working with the Library to renovate the Atascocita Library Branch. The renovation contemplates a 2,500 square feet (SF) addition for meetings using an open floor concept. This meeting/ community room requires a storage space (approximately 100 SF) and accessible restrooms. The parking lot would be expanded to create more parking spaces along Pinehurst Trail Drive.

Justification:

The new meeting space may be utilized for community meetings, as a “storytelling” space, or for other program needs. The meeting space may also be used as a temporary or early voting location with an approximate capacity for 72 voting machines.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
TBD	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Early Scoping and Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Library Renovation Project - Freeman Branch

Investment Area: Governance & Customer Service - Buildings

Project Status: Ongoing Project

Total Estimated Cost: TBD

Managing Entity: County Engineer

Expenditures to Date: \$0

Requesting Entity: Library

Strategic Objective(s): SO1, SO3, SO35

Project Description:

The Office of the County Engineer is working with the Library to renovate the Freeman Library Branch. The project contemplates converting the current Innovation Lab area into a classroom/flexible learning space. This room would be a classroom setting with tables and chairs equipped with data connections for learning activities to accommodate 12-15 people.

Justification:

As the current Innovation Lab space is currently configured, the Library is unable to hold classes and accommodate the large demand for the equipment at the same time. The expanded workshop area would be able to accommodate more community members and will house a wider variety of maker equipment. The new space would also be more visible to the community, with the aim of engaging more of the public. The Library is designing policies to make the new space more inclusive to all community members and removing barriers to its use.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
TBD	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Early Scoping and Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Lighting Upgrades for Octavia Fields Branch Library

Investment Area: Governance & Customer Service - Buildings

Project Status: New Project

Total Estimated Cost: \$100,000

Managing Department: TBD

Non-County Funding: \$0

Requesting Department: Library

Strategic Objective(s): SO1, SO2, SO3

Project Description:

This project seeks to upgrade lighting at Octavia Fields Branch Library (Library), located at 1503 S Houston Ave, Humble, TX. Current light fixtures would be converted to LED Lights, emergency backup lights in the main area would be installed, and emergency lights in both public restrooms would be replaced. This project is anticipated be handled through an existing FPM project.

Justification:

The lights in the main area burn out frequently and need ongoing replacement. The lights also do not provide adequate illumination in parts of the building, making it difficult for patrons to find items and leading to possible safety hazards. Upgrading the lights to all LED will help with safety measures and reduce current light replacement costs. Replacement of emergency lights in the bathrooms and installation of emergency lights in the main area will also improve safety and visibility in the library during possible power outages. LED lighting can benefit the Library by saving energy, improving productivity and safety, creating a desirable working environment, and allowing Library patrons to see better.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$100,000	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Maude Marks Library Expansion/Renovation

Investment Area: Governance & Customer Service - Buildings

Project Status: New Project

Total Estimated Cost: \$1,500,000

Managing Department: TBD

Non-County Funding: \$0

Requesting Department: Library

Strategic Objective(s): SO1, SO2, SO3

Project Description:

This project requests a building renovation and expansion of the Maud Marks Branch Library (Library) at 1815 Westgreen Blvd, Katy, TX. New spaces to be created include: a computer lab; at least two study rooms; a bookdrop and sorting area; expanded public restrooms to create more stalls; new family bathroom; and a teen area with teen-appropriate furniture. Renovation projects include: modernizing the HVAC system; replacing old and damaged fixtures, including kitchen cabinets, appliances, and bathroom tiles; replace lobby doors with modern sliding doors; and replacing rusty and bulky shelving in meeting room and staff workroom with more functional storage options. Some elements of this project could be completed through existing FPM CIP projects.

Justification:

The Library has seen a 57% increase in registered users in the last 10 years and cannot meet the needs of the growing community. As of February 2020, the Library was 5th highest in circulation with 495,793 physical items circulated. To better manage the high volume of materials, a bookdrop and sorting area is needed to make it easier for customers to return materials and to provide staff a dedicated area for sorting and processing. In 2019, the Library had 142,750 visitors, with 21,087 program attendees. Library programs are limited in the number of people they can serve due to space constraints. The computer lab built by this project would replace the previous lab, which was converted to a maker lab due to demand. Since this conversion, the Library has been unable to offer computer classes due to a lack of space to provide instruction. The study rooms built by this project would address an unmet need. The Library has a high demand for study rooms and customers seeking study rooms often have to be directed to other branches. The Library is across the street from a middle school and sees high traffic and noise during the daytime with toddler storytime and after the middle school across the street lets out. Study rooms would provide a needed quiet area and would also benefit the popular ESL groups meeting in the library. A dedicated teen space is needed as the Library typically serves 20-30 teens daily after school; currently the Library only has a small seating space for 3-5 teens.

The renovation elements of the project will improve the customer experience and better serve the Library's community needs. The HVAC system is old and does not maintain a balanced temperature in the building, with some rooms very hot and others very cold, resulting in regular requests to adjust the temperature. The kitchen cabinets and appliances are dated, rusty, and degrading in quality; new cabinets and staff lockers are needed. The bathroom expansion/remodel is needed to address the growing customer base. The current lobby doors are bulky and hard to use; lobby sliding doors would add customer convenience and will also make the facility more compliant with the Americans with Disabilities Act (ADA).

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$1,500,000	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Modular Wall System

Investment Area: Governance & Customer Service - Buildings

Project Status: New Project

Total Estimated Cost: \$100,000

Managing Department: TBD

Non-County Funding: \$0

Requesting Department: Library

Strategic Objective(s): SO1, SO2, SO3

Project Description:

Install a modular wall system at the Northwest Branch Library (Library) located at 11355 Regency Green Drive, Cypress, TX. There is current space available for the implementation of a modular wall and door system that could encapsulate a section of the Library and not displace any of the collection or directly affect customers' ability to use the computer equipment. The requested modular wall system would be used to create flexible computer lab/ program space.

Justification:

Due to a change in programming direction to meet the needs of the public, a greater emphasis is being placed on technology programming, like coding, robotics, and other STEM-style programming. The Library provides some technology programming, but is limited in the number of STEM programs offered due to space constraints. The Library is one of the few medium-sized locations in the Harris County Public Library system without its own dedicated computer lab space; this would be addressed by using the requested modular wall system to create a flexible computer lab/ program space. When not in use for a program, the lab could be used as overflow computer use for customers who need to access a computer during downtimes. The modular wall system would allow for the temporary creation of areas to facilitate quiet thinking, private meetings, and focused work without distracting open settings.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$100,000	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: New Highlands Area Library

Investment Area: Governance & Customer Service - Buildings

Project Status: New Project

Total Estimated Cost: TBD

Managing Department: TBD

Non-County Funding: \$0

Requesting Department: Library

Strategic Objective(s): SO1, SO2, SO3

Project Description:

This project contemplates obtaining a new building for the Stratford Branch Library, currently located at 509 Stratford Street, to provide a larger and more functional library facility. The current location is a 2,700-square-foot building located in an older Highlands neighborhood with limited visibility and access, 0.6 miles from FM 2100 and Wallisville Road. A suggested location would be at 1010 E. Wallisville Road, in front of the Highlands Sport Complex. This location will provide equitable access to community resources by being situated in a more visible area with greater traffic flow, as well as being on the Harris County transit route.

Justification:

The Library has been a resource for information and literacy in the Highlands area since 1927. Proposals have been made to move the Library to a more accessible location since 2009. This larger replacement to the Library is needed to support the growing populations of the Highlands, McNair, Barret Station, Baytown, and Lynchburg areas. The area that the library serves consists of approximately 40 square miles. Staff routinely work with the J.D. Walker Community Center in McNair and the Riley Community Center in Barret Station, including partnering with the Head Start and the Precinct2gether Summer programs. The library also performs outreach to seven Goose Creek CISD schools and two Crosby ISD schools, all of which are Title 1 with a combined average 71% of families being economically disadvantaged. The new facility would provide space for the Library to expand its offerings to better serve the community. Some of these improvements include an increase in information and technologies available to the public, with Wi-Fi, computers, printing, and maker space access. The Library would offer a diverse collection of materials geared towards literacy, education, and job training in English and Spanish. The 9 public schools served by the library have an average 57% Hispanic population, suggesting that a strong multilingual collection is needed. An early learning space will provide the opportunity to promote literacy and math skills to help close the achievement gap for children prior to entering school. In addition, there will be space for educational programs and private rooms for public service providers to schedule consultations for those needing assistance with health care, social services, or educational assistance. The new library building and location will operate as a centralized information & resource center for an otherwise underprivileged area. This transformation will change Stratford Library from a limited small-town facility to a larger east Harris County library center which will benefit the entire area for the foreseeable future.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
TBD	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: North Channel Branch Library

Investment Area: Governance & Customer Service - Buildings

Project Status: New Project

Total Estimated Cost: \$1,000,000

Managing Department: TBD

Non-County Funding: \$0

Requesting Department: Library

Strategic Objective(s): SO1, SO2, SO3

Project Description:

This project is to expand and renovate the North Channel Branch Library (Library), located at 15741 Wallisville Road. Project elements may include: expanding an existing meeting room, building a new study room and storage space, additional furnishings, constructing an access road at the back of the building and additional parking space, installing new windows and LED lighting, and retrofits to make the facility more compliant with the Americans with Disabilities Act (ADA). This project has not been fully scoped out, but it is anticipated that the LED lighting and ADA retrofits can be accomplished through existing FPM projects.

Justification:

The daily average for Library visitors is 430. This means that someone is entering and exiting the building over 90,000 times annually, many needing ADA accommodations. Updating the Library to better meet ADA standards would help seniors, people with disabilities, and the many parents with strollers to better access the Library's services and events. A key improving these Library events is more space. A building expansion for the Library would benefit a population of 200,000 living within a 5-mile radius of the library. The current meeting room has a capacity of 44 people, which limits the number of participants in programs and events. The meeting room is in high demand; during the 2019-2020 fiscal year, roughly 20,000 people used the meeting room through more than 635 library programs and community events. Another stumbling block for hosting events is a lack of storage space for tables and chairs. The other key space need is an additional study room. On many days, there is a wait to use the one study room. An additional study room would create more opportunities for library users needing a quiet space to take online classes, exams. After the space expansions are made, the Library needs some general lighting improvements. The Library has an antiquated lighting system that requires constant maintenance, limits visibility, and creates an unpleasant environment. Lighting is especially necessary in a library where people are using the building to conduct research, study, and read. Lighting could be improved by installing new windows to provide more natural light. Lighting could also be improved by replacing the old lighting system with newer and brighter LED light that would be more energy efficient. People will be unable to utilize the Library's expanded and renovated space unless improvements are made to the parking lot. The additional parking space contemplated in this project would allow more people to utilize the library and the access road would alleviate congestion problems during high traffic events, such as elections. This project is anticipated to improve customer satisfaction and increase the usage of the library, which can be measured by surveys.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$1,000,000	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: NRG Center Interior Refresh

Investment Area: Governance & Customer Service - Buildings

Project Status: Ongoing Project

Total Estimated Cost: \$7,835,543

Managing Entity: Sports & Convention Corp.

Expenditures to Date: \$1,335,543

Requesting Entity: Sports & Convention Corp.

Strategic Objective(s): N/A

Project Description:

A refresh of the interior of NRG Center finishes including paint, carpet, wall covering, ceiling tiles and LED lighting. Maintains the aesthetic appearance of NRG Center, keeping the facility up-to-date, marketable, and in line with market and industry standards. Most current finishes are original to the building's opening in 2002. The Sports & Convention Corporation have invested \$1.3 million into the project and requests \$6.0 million from the County to complete the project.

Justification:

Part of the NRG Center Refresh includes a full repair of the main lobby Terrazzo floor. Throughout the building's life, the floor substrate has demonstrated crumbling at the control joints creating tripping hazards that have progressively gotten worse over the years. Small repairs and patches are continually done; however, the rate at which the floor is deteriorating has accelerated. 1,534 hi bay 800 watt sodium halide lights were replaced with energy efficient 240 watt LED luminaries. The luminaries utilize wireless technology to customize event lighting in lieu of physical manipulation with technicians on scissor lifts. We'd like to transition all lighting in NRG Center to energy efficient LED lighting.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$7,835,543	\$6,500,000	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Current Project Phase: Detailed Design

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	FY 2018
Detailed Design	FY 2018-2020
Execution/ Construction	FY 2019-2022
Project Completed	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Parker Williams Library – Handicap Button Installed on Lobby Door

Investment Area: Governance & Customer Service - Buildings

Project Status: New Project

Total Estimated Cost: \$100,000

Managing Department: TBD

Non-County Funding: \$0

Requesting Department: Library

Strategic Objective(s): SO1, SO2, SO3

Project Description:

This project would upgrade the Parker Williams Branch Library, located at 10851 Scarsdale Boulevard, to be more handicap accessible. This involves the installation of automatic accessible handicap doors, as well as upgrades to the entire building to meet accessibility needs. This includes updating toilets, sinks, and other building design needs. This project is anticipated to be handled through an existing FPM project.

Justification:

Parker Williams Library and Justice of the Peace (P2-1) Judge Jo Ann Delgado, share a lobby at Annex 67. Having a handicap button installed on one of the lobby doors would be helpful for the public who use the shared location. This button would be helpful for those who need extra assistance gaining access to the facility, which includes those with walkers, wheelchairs, and baby strollers. This project would bring the building into compliance with the Americans with Disabilities Act (ADA) building code requirements. Bringing the library doors into ADA compliance would improve customer satisfaction, which can be measured with surveys.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$100,000	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Records Center Renovation and Annex 18 MEP Projects

Investment Area: Governance & Customer Service - Buildings

Project Status: Ongoing Project

Total Estimated Cost: \$2,000,000

Managing Entity: County Engineer

Expenditures to Date: \$0

Requesting Entity: Universal Services

Strategic Objective(s): N/A

Project Description:

This project is to renovate Records Center offices and restrooms to support staff increases needed for the Enterprise Scanning Project. OCE is finalizing construction documents and the consultant is obtaining required permits. Estimated cost of construction and furniture for this portion of project is \$500,000.

This project also does the following mechanical/electrical/plumbing (MEP) work at the Annex 18 data center:

- Replace defective chilled water lateral lines and add isolation valves as necessary to the HVAC chilled water system. A prerequisite of this project is the successful completion of the CIP Data center Expansion CRAC unit replacement project. The cost for this portion of the project is estimated at \$500,000.
- Restroom renovation on floors two through four to update fixtures, counters, partitions, flooring and finishes. Annex 18 has had significant renovations over the past five years and the restrooms are the only spaces that need to be updated from the original building. The estimated cost for this project is \$500,000.
- Electrical work to remove non-functioning electrical infrastructure and to install a power tap to connect the facility to a generator for emergency power. The electrical work is estimated to cost \$500,000.

Justification:

This Records Center renovation part of this project is critical to the success of the Enterprise Scanning project, which will convert physical records to electronic storage. A successful Enterprise Scanning project will enable quicker access of records while reducing physical storage space needs and the risk of document loss.

The Annex 18 Data center renovation work will make the facility more resilient to power outages by have the infrastructure to connect to a generator. The work to remove non-functioning transformers, breaker panels and wire from services closets, stairwells and subfloors will conserve power usage. The bathroom renovation will use efficient fixtures and lighting to save water and electricity.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$2,000,000	\$2,000,000	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Execution/Construction

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Complete
Detailed Design	Complete
Execution/ Construction	FY 2022
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Renovation of existing NeuroPsychiatric Center (NPC)

Investment Area: Governance & Customer Service - Buildings

Project Status: New Project

Total Estimated Cost: \$4,400,000

Managing Department: TBD

Non-County Funding: \$0

Requesting Department: Harris Center

Strategic Objective(s): SO1.1, SO2.3,
SO5.2, SO6.1

Project Description:

This project is to renovate the existing NPC facilities in the Texas Medical Center to allow for improved patient care and double the adult psychiatric emergency bed capacity from 30 to 60. The Harris Center would begin design, planning and renovations in mid-2021.

Justification:

This project would expand capacity, allowing the Harris Center to expand care for residents of Harris County. Expansion of capacity allows the agency to continue to improve access to care by expanding the number of individuals the center can serve. This in turn diverts individuals needing emergency psychiatric from utilizing inpatient hospital services, which is more costly to the community. The project would also create an updated clinical environment, increasing overall patient satisfaction. It's important to note that Harris County is the sponsoring entity of the Harris Center for Mental Health & IDD and County dollars are a required local match to draw down state funds to benefit the local community.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Law Enforcement	Brings patients to program	Monthly stakeholder meetings	No
Harris County Residents	Utilize the services	Media, participation in community collaborations	No

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$4,400,000	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Riverside Hospital Project

Investment Area: Governance & Customer Service - Buildings

Project Status: New Project

Total Estimated Cost: \$70,000,000

Managing Department: County Engineer

Non-County Funding: \$5,350,000

Requesting Department: Public Health

Strategic Objective(s): SO4, SO6, SO7, SO10, SO26

Project Description:

On September 15, 2020 Commissioners Court authorized the move of Harris County Public Health (HCPH) Main Office Operations from its current location at 2223 West Loop South, to the historic Riverside Hospital site at 3204 Ennis St. Key considerations for this move include efficiency, cost effectiveness, accessibility, and location. The retrofitted facility is anticipated to provide HCPH with over 80,000 square feet of space for its expanded operations.

Justification:

This relocation effort will allow for HCPH to be better situated within the community, within 3 miles of the Hospital District, and with good access to transit. The move to the Riverside site is anticipated to realize a significant cost savings. The cost savings will come from a reduction in the use of lease space and a reduction in facilities maintenance costs due to new construction. The large footprint at the Riverside site allows for HCPH's operations to consolidate from many locations to a single space, while still having room to grow. The increased square footage also provides the opportunity to create a space for direct client healthcare services to be administered. In addition to improving collaboration and coordination by consolidating many of HCPH's functions into one site, there are opportunities for HCPH to partner with Harris Health and Harris Center at the Riverside site to provide primary and specialty care services to underserved/ underinsured communities in Harris County.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$70,000,000	TBD	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: South Central Plant Renovations

Investment Area: Governance & Customer Service - Buildings

Project Status: Ongoing Project

Total Estimated Cost: \$53,291,453

Managing Entity: County Engineer

Expenditures to Date: \$191,453

Requesting Entity: County Engineer

Strategic Objective(s): SO14, SO16

Project Description:

This project is to upgrade the South-Central Plant that provides heating and cooling utility services to a number of facilities in the Downtown Complex. The South-Central Plant is located at 1303 Preston Street. The 16,415 square foot plant houses the mechanical, hydronic, electrical, and ancillary equipment necessary to produce thermal utilities (chilled water and steam) to many of the Downtown County facilities.

Justification:

Operations at the South-Central Plant have been affected by the increased number of mechanical failures seen on a yearly basis. These failures are a result of equipment meeting or exceeded its useful life. A major renovation is required to continue service and prevent an inevitable plant failure. Failure to implement the project will only result in potential facility failure, causing downtown offices to close. Failure to implement the project will only result in more expensive deferred maintenance and potential facility failure, causing downtown offices to close. An upgraded south central plant will increase the value of the facility and decrease the overall maintenance required.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$53,291,453	\$1,100,000	\$20,000,000	\$20,000,000	\$7,000,000	\$5,000,000	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Detailed Design

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Complete
Detailed Design	FY 2022
Execution/ Construction	FY 2022
Project Completed	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: VMC S 66th Building Renovation

Investment Area: Governance & Customer Service - Buildings

Project Status: Ongoing Project

Total Estimated Cost: \$4,000,000

Managing Entity: County Engineer

Expenditures to Date: \$49,500

Requesting Entity: Universal Services

Strategic Objective(s): N/A

Project Description:

Requesting Entity did not provide.

Justification:

Requesting Entity did not provide.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$4,000,000	\$4,000,000	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Detailed Design

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Complete
Detailed Design	FY 2022
Execution/ Construction	TBD
Project Completed	TBD

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Governance and Customer Service

Project Name	Primary Funding Source	Investment Area Subcategory	Total Project Estimate	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
Fleet Services Equipment	HC Property Tax	Equipment	\$ 2,640,720	\$ 174,281	\$ 1,840,484	\$ 2,466,439	\$ 0
New Furniture for Harris County Public Library	TBD	Equipment	\$ 400,000	\$ 0	TBD	TBD	TBD
PCS Equipment Replacement and Additions	HC Property Tax	Equipment	\$ 3,197,467	\$ 242,871	\$ 1,387,839	\$ 2,954,596	TBD
Equipment Total			\$ 6,238,187	\$ 417,152	\$ 3,228,323	\$ 5,421,035	\$ -

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Fleet Services Equipment

Investment Area: Governance & Customer Service - Equipment

Project Status: Ongoing Project

Total Estimated Cost: \$2,640,720

Managing Entity: Universal Services

Expenditures to Date: \$174,281

Requesting Entity: Universal Services

Strategic Objective(s): SO4

Project Description:

This project represents a multi-year plan for the repair/ replacement of equipment, enhancement of software applications, and services provided by Fleet Services. This project also provides for the move of the 2505 Texas Avenue Fleet Services location to 440 66th Street. Additional equipment and build-out are necessary to make the new location on 66th Street habitable and usable. Finally, this project also provides for:

- Support and maintenance of Fleet Services fuel stations.
- Support and maintenance of Commissioner Pct. 2 fuel stations. Fuel stations managed by Commissioner Precinct. 2 are closed-loop stations meaning they can only be used by Precinct 2. They have requested Universal Services to assume management of these stations and convert them for multi-purpose use by all County vehicles and equipment.
- Modifying fuel stations to multi-purpose stations for use by all county vehicles and equipment.
- Upgrading the Fleetwave application to provide improved functionality and reporting. The Fleetwave application used to monitor our fleet's maintenance and fuel consumption needs to be upgraded to the current version to provide improved functionality allowing Harris County to realize their return on investment (ROI).

Justification:

Due to restraints with the current location, Fleet Services is limited in by parking and staffing constraints. The new 66th Street location addresses these restraints and provides the following benefits:

- Improved maintenance of county vehicles utilizing updated or replaced equipment.
- Back-up generator and emergency facilities to continue operations in the event of a severe weather event.
- New equipment improves Fleet Services' ability to manage operations, increasing productivity and efficiency.
- Upgraded software for monitoring and reporting capabilities.
- Additional multi-use fuel stations to serve all county vehicles and equipment.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
All departments with County vehicles that utilize Fleet Services for fuel, maintenance and repairs will be affected.	The departments will benefit by having a more modern facility to bring their vehicles to.	Via email and phone conversations.	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$2,640,720	\$1,840,484	\$438,955	\$187,000	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	FY 2022
Detailed Design	FY 2022
Execution/ Construction	FY 2024
Project Completed	FY 2024

Harris County FY 2021-2022 Capital Improvement Program

Project Name: New Furniture for Harris County Public Library

Investment Area: Governance & Customer Service - Equipment

Project Status: New Project

Total Estimated Cost: \$400,000

Managing Department: TBD

Non-County Funding: \$0

Requesting Department: Library

Strategic Objective(s): SO1, SO2, SO3, SO35

Project Description:

The Harris County Public Library (HCPL) has identified various furnishing needs at the following locations. These needs range from replacing old and broken office chairs/desks, replacing aging tables/chairs in public spaces, new shelving, and sound proofing. HCPL will be invited to examine furniture kept in storage by FPM before funding for this project is considered.

Location	Office	Public Space	Other
Administrative Building	x		
Atascocita Library	x		
Crosby Library	x	x	
Freeman Library	x	x	x
Galena Park Library		x	x
Katherine Tyra Library		x	
North Channel Library		x	
Northwest Library	x		x
Octavia Fields Library		x	
Parker Williams Library		x	
Spring Branch Library		x	

Justification:

Furniture is considered the centerpiece of any establishment and it plays an important role in the ambiance of the workplace. Library furniture helps determine how patrons interact with a library. If people visiting the library feel like their needs are being met, they are much more likely to return. Furniture does not last forever. It is vital for HCPL to replace furniture when the current furnishings are no longer up to part. This project will improve customer's satisfaction, which can be measured with surveys.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$400,000	TBD	TBD	TBD	TBD	TBD	TBD

Estimated Annual Operating Budget Impact:	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

Estimated Phase Completion (Fiscal Year)	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Pollution Control Services (PCS) Equipment Replacement and Additions

Investment Area: Governance & Customer Service - Equipment

Project Status: Ongoing Project

Total Estimated Cost: \$3,197,467

Managing Entity: Pollution Control

Expenditures to Date: \$242,871

Requesting Entity: Pollution Control

Strategic Objective(s): SO3, SO13 (direct)
SO1, SO6, SO7,&
SO10 (support)

Project Description:

This is an ongoing lifecycle management project to ensure that PCS staff have up-to-date field monitoring equipment, expand testing capacity in the laboratory, and build in redundancy to ensure continuity of service. To make the lab more resilient, a dedicated uninterruptible power supply (UPS) for each instrument (existing and newly purchased) will be installed. Finally, the project procures specialized analytical equipment that will be able to perform new required tests. It is possible that adding this analytical capability may require construction of a dedicated clean lab area; those costs are not projected at this time.

Justification:

The updated equipment will expand the types of tests that can be done, make processing of samples more efficient, and automate some labor-intensive manual tasks. Adding redundancy will allow for more samples to be run and avoid the need to outsource testing in the event of a large event or an equipment failure, and removes a failure point by reducing third party reliance on an outside analytical lab. Added redundancy also ensures that equipment failure or obsolete technology do not impact PCS's ability to provide emergency response, address citizen complaints, and conduct proactive investigations. PCS's ability to test and sample is required to enforce compliance under the Texas Administrative/ Water Code. The increased capability of the PCS lab will reduce the out-sourcing of analytical tests, reducing operating costs and test turnaround times.

Alternatives and Engagement:

Outsource Testing - In this scenario, PCS outsources more and more of its lab services as critical equipment fails and the lab becomes unable to do tests themselves. Outsourcing lab tests is expensive and it takes longer to get back test results. Outsourcing testing is inefficient and may cause a critical delay during an emergency.

Do Not Replace Equipment - In this scenario, PCS does not replace its equipment. Aging equipment breaks down and is not replaced, causing PCS to be unable perform tests. This option is untenable as it would cause PCS to be unable to carry out its core functions. It may also result in an unsafe working condition for PCS staff.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
PCS Staff	Customers of data provided	Samples support investigations and compliance verification	Ongoing
Citizens of Harris County	Customers - investigative results including sample analysis	Samples results provide information on potential exposure and concentration	Ongoing
Harris County Leadership	Customers of data provided	Sample results provide information on potential exposure and concentration	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$3,197,467	\$1,387,839	\$840,402	\$347,570	\$378,785	TBD	TBD

Estimated Annual Operating Budget Impact:	
O&M	\$14,200
Labor	\$0
Other	\$0
Total	\$14,200

Current Project Phase: Ongoing/Lifecycle Management

Estimated Phase Completion (Fiscal Year)	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Governance and Customer Service

Project Name	Primary Funding Source	Investment Area Subcategory	Total Project Estimate	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
Annex Facilities Security Upgrades Countywide	HC Property Tax	Facility Maintenance	\$ 5,613,783	\$ 88,152	\$ 1,000,000	\$ 5,525,631	\$ 0
County Parking Lots	HC Property Tax	Facility Maintenance	\$ 20,767,299	\$ 782,274	\$ 3,050,025	\$ 19,985,025	\$ 0
Countywide Facilities ADA Study and Analysis	HC Property Tax	Facility Maintenance	\$ 250,000	\$ 0	\$ 250,000	\$ 250,000	\$ 0
Countywide Facility LED lighting projects	HC Property Tax	Facility Maintenance	\$ 17,695,758	\$ 484,433	\$ 4,630,000	\$ 17,211,325	\$ 0
Countywide Parks ADA Study and Analysis	HC Property Tax	Facility Maintenance	\$ 350,000	\$ 0	\$ 350,000	\$ 350,000	\$ 0
Countywide Stormwater Maintenance	HC Property Tax	Facility Maintenance	\$ 5,525,631	\$ 0	\$ 1,000,000	\$ 5,525,631	\$ 0
Elevator Repair and Renovations Countywide	HC Property Tax	Facility Maintenance	\$ 21,120,626	\$ 1,495,626	\$ 1,350,000	\$ 19,625,000	\$ 0
Fire, Life Safety, and Electrical System Repair and Renovations Countywide	HC Property Tax	Facility Maintenance	\$ 40,083,062	\$ 1,958,912	\$ 7,894,150	\$ 38,124,150	\$ 0
Heating, Ventilation Air Conditioning (HVAC) Repair and Replacement Countywide	HC Property Tax	Facility Maintenance	\$ 29,342,633	\$ 2,261,763	\$ 6,472,685	\$ 27,080,870	\$ 0
Infrastructure Enhancements - Replacements	HC Property Tax	Facility Maintenance	\$ 14,366,834	\$ 2,152,874	\$ 5,936,480	\$ 12,213,960	\$ 0
Juvenile Probation Department Facilities Repair and Renovation	HC Property Tax	Facility Maintenance	\$ 1,530,684	\$ 30,684	\$ 1,500,000	\$ 1,500,000	TBD
Miscellaneous Repairs, Painting, Flooring and Other Projects	HC Property Tax	Facility Maintenance	\$ 20,492,191	\$ 3,819,191	\$ 3,430,000	\$ 16,673,000	\$ 0
Plumbing Systems Repair and Replacement Countywide	HC Property Tax	Facility Maintenance	\$ 10,231,678	\$ 153,458	\$ 2,428,570	\$ 10,078,220	\$ 0
Roofing Systems Repair and Replacement Countywide	HC Property Tax	Facility Maintenance	\$ 17,046,500	\$ 5,049,285	\$ 1,940,000	\$ 11,997,215	\$ 0
Underground Fuel Tank Study and Replacement Projects	HC Property Tax	Facility Maintenance	\$ 5,017,280	\$ 17,280	\$ 5,000,000	\$ 5,000,000	\$ 0
Facility Maintenance Total			\$ 209,433,959	\$ 18,293,932	\$ 46,231,910	\$ 191,140,027	\$ -

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Annex Facilities Security Upgrades Countywide

Investment Area: Governance & Customer Service - Facility Maintenance

Project Status: Ongoing Project

Total Estimated Cost: \$5,613,783

Managing Entity: County Engineer

Expenditures to Date: \$88,152

Requesting Entity: County Engineer

Strategic Objective(s): SO14, SO16

Project Description:

This is an ongoing lifecycle management project to implement security upgrades at Annex facilities throughout the County. These upgrades might include installation of cameras, card readers, or alarm systems. In some circumstances, this project may also install panic buttons and bullet-resistant barriers. These Annex security upgrades are intended to provide enhanced facility security, as well as identify and address all required repairs and/or replacements of existing security systems in County facilities that are currently being maintained by FPM.

Justification:

Security is critical to both the safety and peace of mind for County employees and visitors to County facilities. Security systems must be regularly maintained and upgraded to meet the ever-changing advancements in technology. These enhancements may also be necessary to meet code requirements. The main component of facility security systems are cameras and card readers. These tools document who enters and leaves the facility. This has practical administrative uses, but is also useful in an emergency to quickly identify who may or may not be in the building. These enhanced security system components can represent a cost savings by reducing the number of on-site personnel needed to secure a facility. Visible security cameras are a proven deterrent to costly vandalism and theft.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$5,613,783	\$1,000,000	\$1,050,000	\$1,102,500	\$1,157,625	\$1,215,506	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Ongoing/ Lifecycle Management

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Harris County FY 2021-2022 Capital Improvement Program

Project Name: County Parking Lots

Investment Area: Governance & Customer Service – Facility Maintenance

Project Status: Ongoing Project

Total Estimated Cost: \$20,767,299

Managing Entity: County Engineer

Expenditures to Date: \$782,274

Requesting Entity: County Engineer

Strategic Objective(s): SO14, SO16

Project Description:

This is an ongoing lifecycle management project to identify, repair, and construct new parking facilities.

Justification:

The County has a backlog of deferred maintenance issues related to parking lots that must be addressed. Ongoing parking lot maintenance is required to maintain safe and functioning parking lots that serve County facilities. Failure to continue maintaining the County's existing parking facilities will result in more expensive deferred maintenance, as well as closure of parking areas and risk of damage to personal vehicles. Well-maintained parking lots are required to maintain high quality facilities, as well as ensure the safety of employees and the public at County facilities. Parking lots provide emergency vehicle access to County facilities and make these facilities more accessible to the handicapped. A well maintained parking facility increases the overall value of the facility.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$20,767,299	\$3,050,025	\$2,235,000	\$1,175,000	\$11,375,000	\$2,150,000	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Ongoing/ Lifecycle Management

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Countywide Facilities ADA Study and Analysis

Investment Area: Governance & Customer Service - Facility Maintenance

Project Status: Ongoing Project

Total Estimated Cost: \$250,000

Managing Entity: County Engineer

Expenditures to Date: \$0

Requesting Entity: County Engineer

Strategic Objective(s): SO14

Project Description:

An ADA Study and Analysis will identify and inventory deficiencies as they relate to ADA accessibility and compliance throughout numerous Harris County maintained facilities.

Justification:

A study and analysis is necessary to identify and inventory deficiencies as they relate to compliance of ADA accessibility for the purposes of requesting future capital spending needs.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$250,000	\$250,000	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	FY 2022
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Countywide Facility LED lighting projects

Investment Area: Governance & Customer Service - Facility Maintenance

Project Status: Ongoing Project

Total Estimated Cost: \$17,695,758

Managing Entity: County Engineer

Expenditures to Date: \$484,433

Requesting Entity: County Engineer

Strategic Objective(s): SO14, SO16

Project Description:

Identify and convert lighting to LED for all County facilities that are currently maintined by FPM.

Justification:

Modernization of existing facilities to provide energy efficient lighting to reduce costs and enhance building sustainability. LED lighting consumes less engergy and require less maintenance, resulting in increased efficiency and lower operating costs.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$17,695,758	\$4,630,000	\$4,542,450	\$2,550,000	\$2,677,500	\$2,811,375	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Execution/Construction

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Complete
Detailed Design	Complete
Execution/ Construction	FY 2022
Project Completed	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Countywide Parks ADA Study and Analysis

Investment Area: Governance & Customer Service - Facility Maintenance

Project Status: Ongoing Project

Total Estimated Cost: \$350,000

Managing Entity: County Engineer

Expenditures to Date: \$0

Requesting Entity: County Engineer

Strategic Objective(s): SO14

Project Description:

A Parks Facilities ADA Study and Analysis will identify and inventory deficiencies as they relate to ADA accessibility and compliance throughout numerous Harris County maintained parks.

Justification:

A study and analysis is necessary to identify and inventory deficiencies as they relate to compliance of Park Facilities ADA accessibility for the purposes of requesting future capital spending needs.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$350,000	\$350,000	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	FY 2022
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Countywide Stormwater Maintenance

Investment Area: Governance & Customer Service - Facility Maintenance

Project Status: Ongoing Project

Total Estimated Cost: \$5,525,631

Managing Entity: County Engineer

Expenditures to Date: \$0

Requesting Entity: County Engineer

Strategic Objective(s): N/A

Project Description:

This is an ongoing lifecycle management project to inspect and maintain stormwater management facilities to ensure these essential facilities function as designed to mitigate flooding. Funding is being requested to centralize the inventory, repair, replacement, and maintenance of all county owned stormwater quality facilities. This includes culverts and outfall facilities that directs stormwater from roadways to established floodway channels and basins.

Justification:

The County's stormwater management facilities have a backlog of deferred maintenance issues that must be addressed. Failure to continue maintaining the County's existing stormwater management facilities will result in more expensive deferred maintenance, non-code compliance, the risk of critical infrastructure failures, and most importantly, risks to life/ safety. Maintaining stormwater management facilities is essential to protecting properties from flooding and has a positive impact on local water quality. The inspections that are part of this project are critical to ensuring that stormwater facilities continue to comply with local, state, and federal requirements.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$5,525,631	\$1,000,000	\$1,050,000	\$1,102,500	\$1,157,625	\$1,215,506	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Ongoing/ Lifecycle Management

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Elevator Repair and Renovations Countywide

Investment Area: Governance & Customer Service - Facility Maintenance

Project Status: Ongoing Project

Total Estimated Cost: \$21,120,626

Managing Entity: County Engineer

Expenditures to Date: \$1,495,626

Requesting Entity: County Engineer

Strategic Objective(s): SO14, SO16

Project Description:

This is an ongoing lifecycle management project to identify and address all required repairs and/or modernization of elevators in County facilities that are currently maintained by FPM. This project would address elevator equipment in multiple County facilities that are outdated and where replacement parts are not readily available (and in some cases parts are no longer available).

Justification:

The County has a backlog of elevator deferred maintenance issues that must be addressed. Failure to continue maintaining the County's existing facilities will result in more expensive deferred maintenance, as well as closure of certain areas, non-code compliance, and most importantly, risks to life/ safety. Elevators are linked to the building's fire alarm system to ensure they operate properly during an event. Another elevator safety issue is people getting trapped in an elevator when they break down. Ongoing elevator entrapments / failure can be a potential life safety issue. Elevators need to be modernized to avoid outages and entrapments. Modernized elevators increase building flow of employees and visitors throughout the facility, which is critical for efficient building operations. When elevators are out of service, it disrupts the buildings ability to maintain operations.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$21,120,626	\$1,350,000	\$4,275,000	\$6,950,000	\$4,000,000	\$3,050,000	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Ongoing/ Lifecycle Management

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Fire, Life Safety, and Electrical System Repair and Renovations Countywide

Investment Area: Governance & Customer Service - Facility Maintenance

Project Status: Ongoing Project

Total Estimated Cost: \$40,083,062

Managing Entity: County Engineer

Expenditures to Date: \$1,958,912

Requesting Entity: County Engineer

Strategic Objective(s): SO14, SO16

Project Description:

This is an ongoing lifecycle management project to identify and address all required repairs and/or replacements needed for Fire, Life Safety, and Electrical Systems in County facilities that are currently maintained by FPM. Replacements are done when components are outdated/ failing and when parts are not readily available (and in some cases parts are no longer available). Examples of work this project covers includes repair/replacement of smoke detectors, fire suppression systems, emergency power supply units, and sprinkler pumps/piping.

Justification:

The County has a backlog of fire system deferred maintenance issues that must be addressed. Failure to continue maintaining the County's existing facilities will result in more expensive deferred maintenance, as well as closure of certain areas, non-code compliance, and most importantly, risks to life/ safety. Fire, Life Safety, and Electrical repairs/renovations are critical and or required to support the building infrastructure and to allow occupancy. Without these systems, buildings might have to be shut down, which would be a major disruption to continuity of government.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$40,083,062	\$7,894,150	\$10,935,000	\$5,045,000	\$4,650,000	\$9,600,000	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Ongoing/ Lifecycle Management

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Heating, Ventilation Air Conditioning (HVAC) Repair and Replacement Countywide

Investment Area: Governance & Customer Service - Facility Maintenance

Project Status: Ongoing Project

Total Estimated Cost: \$29,342,633

Managing Entity: County Engineer

Expenditures to Date: \$2,261,763

Requesting Entity: County Engineer

Strategic Objective(s): SO14, SO16

Project Description:

This is an ongoing lifecycle management project to identify and address all required repairs and/or replacements of HVAC systems in County facilities that are currently maintained by FPM.

Justification:

The County has a backlog of HVAC deferred maintenance issues that must be addressed. Failure to continue maintaining the County's existing facilities will result in more expensive deferred maintenance, as well as closure of certain areas, non-code compliance, and most importantly, risks to life/ safety. HVAC systems must operate at a high level of functionality to ensure comfortable temperature, and air quality, which is critical to building occupancy and functionality. Well maintained HVAC systems are also important because they linked to the fire alarm system via smoke alarms within the duct system, dampers that open and close, and building exhaust during a fire or smoke event. HVAC replacement projects may result in an operational savings due to lower energy costs from modern and efficient equipment. These uUpgraded systems increase the value of the facility and decrease the overall maintenance required.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$29,342,633	\$6,472,685	\$4,275,000	\$5,060,905	\$5,397,280	\$5,875,000	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Ongoing/ Lifecycle Management

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Infrastructure Enhancements - Replacements

Investment Area: Governance & Customer Service - Facility Maintenance

Project Status: Ongoing Project

Total Estimated Cost: \$14,366,834

Managing Entity: Universal Services

Expenditures to Date: \$2,152,874

Requesting Entity: Universal Services

Strategic Objective(s): N/A

Project Description:

This project is for the ongoing refresh, replacement, and expansion of the County's compute, storage, and backup IT infrastructure that supports all of our enterprise-class services. Project elements include:

- Support for the increase in size and number of email mailboxes and personal and workgroup storage drives.
- Enhancements to the redundancy/availability of all systems supported.
- Increase the effectiveness of agencies to stay up to date with current technology by refreshing underlying infrastructure.
- Ongoing refresh for compute, storage and other data center infrastructure to ensure vendor support and security updates.

Justification:

The growing need for long term storage of electronic and scanned documents, email etc. is creating an increasing need for storage in the County's Storage Area Network (SAN). This, in turn, causes increased need for backup storage in the County's Backup to Disk (B2D) environment. Harris County has seen an upsurge in the size of attachments in email and will have to increase the average size per user mailbox to keep up with user demand. All of this requires server equipment that also must be replaced as it ages out.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$14,366,834	\$5,936,480	\$3,083,300	\$2,007,500	\$1,186,680	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$613,786
Labor	\$0
Other	\$61,378
Total	\$675,164

Current Project Phase: Ongoing/ Lifecycle Management

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Juvenile Probation Department Facilities Repair and Renovation

Investment Area: Governance & Customer Service – Facility Maintenance

Project Status: Ongoing Project

Total Estimated Cost: \$1,530,684

Managing Entity: County Engineer

Expenditures to Date: \$30,684

Requesting Entity: County Engineer

Strategic Objective(s): SO14, SO16

Project Description:

This is an ongoing lifecycle management project to identify and address repairs and/or replacements needed for known damages and deficiencies that currently exist in the Juvenile Probation Department facilities across the County.

Justification:

This project is part of an ongoing effort to maintain a safe and code compliant juvenile facility. A backlog of deferred maintenance is being worked through, with priority given to repairs or replacement projects to address Fire/Life Safety issues. Failure to continue maintaining the County's existing Juvenile Probation facilities will result in more expensive deferred maintenance, as well as closure of certain areas, non-code compliance, and most importantly, risks to life/ safety. Additionally, if these maintenance issues are left unresolved, they could impact court hearings or juvenile housing.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$1,530,684	\$1,500,000	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Ongoing/ Lifecycle Management

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Miscellaneous Repairs, Painting, Flooring and Other Projects

Investment Area: Governance & Customer Service - Facility Maintenance

Project Status: Ongoing Project

Total Estimated Cost: \$20,492,191

Managing Entity: County Engineer

Expenditures to Date: \$3,819,191

Requesting Entity: County Engineer

Strategic Objective(s): SO14, SO16

Project Description:

This is an ongoing lifecycle management project to identify and address all required repairs and/ or replacements in County facilities that are currently maintained by FPM. This includes painting, carpeting, fixing ceiling fixtures, and door replacement projects.

Justification:

This project a critical element to the County Engineer's goal to maintain high quality facilities. In particular, the are necessary to provide a welcoming experience for both employees and visitors. County facilities range in age and occupancy and will continue to require constant upkeep. Missing or damaged ceiling tiles are required to be replaced to meet fire code. A well maintained facility increases the overall value of the facility.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$20,492,191	\$3,430,000	\$4,007,000	\$1,556,000	\$2,680,000	\$5,000,000	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Ongoing/ Lifecycle Management

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Plumbing Systems Repair and Replacement Countywide

Investment Area: Governance & Customer Service - Facility Maintenance

Project Status: Ongoing Project

Total Estimated Cost: \$10,231,678

Managing Entity: County Engineer

Expenditures to Date: \$153,458

Requesting Entity: County Engineer

Strategic Objective(s): SO14, SO16

Project Description:

This is an ongoing lifecycle management project to identify and address all required repairs and/or replacements of plumbing systems in County facilities that are currently maintained by FPM. This includes repair/replacement of sewer systems, domestic water supply, pumps, and replacing sinks and toilets with more efficient fixtures.

Justification:

The County has a backlog of plumbing deferred maintenance issues that must be addressed. Failure to continue maintaining the County's existing facilities will result in more expensive deferred maintenance, as well as closure of certain areas, non-code compliance, and most importantly, risks to life/ safety. Plumbing systems are critical and or required to support the building infrastructure and to allow occupancy. Fire sprinkler systems must have water to operate. Without water a building will not meet code. Running water and flushing toilets are required to maintain the functionality of a facility; without this critical infrastructure a facility will be shut down. Savings would be a challenge to calculate because failures are unpredictable.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,231,678	\$2,428,570	\$2,149,650	\$2,500,000	\$1,500,000	\$1,500,000	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Ongoing/ Lifecycle Management

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Roofing Systems Repair and Replacement Countywide

Investment Area: Governance & Customer Service - Facility Maintenance

Project Status: Ongoing Project

Total Estimated Cost: \$17,046,500

Managing Entity: County Engineer

Expenditures to Date: \$5,049,285

Requesting Entity: County Engineer

Strategic Objective(s): SO14, SO16

Project Description:

This is an ongoing lifecycle management project to identify and construct all required repairs and/or replacements for County facilities that are currently maintained by FPM.

Justification:

The County has a backlog of deferred roof maintenance issues that must be addressed. Failure to continue maintaining the County's existing facilities will result in more expensive deferred maintenance, as well as closure of certain areas, non-code compliance, and most importantly, risks to life/ safety. The repairs that are part of this project are intended to mitigate more costly future repairs and facility damage, as well as to prevent a total roof failure that could potentially shut a facility down. This project also include roof retrofits which can improve a building's energy efficiency.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$17,046,500	\$1,940,000	\$1,908,000	\$2,585,000	\$2,714,250	\$2,849,965	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Ongoing/ Lifecycle Management

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Underground Fuel Tank Study and Replacement Projects

Investment Area: Governance & Customer Service - Facility Maintenance

Project Status: Ongoing Project

Total Estimated Cost: \$5,017,280

Managing Entity: County Engineer

Expenditures to Date: \$17,280

Requesting Entity: Universal Services

Strategic Objective(s): N/A

Project Description:

To review and evaluate all county owned underground fuel tanks and repair and/or replace as needed.

Justification:

Requesting Entity did not provide.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$5,017,280	\$5,000,000	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Detailed Design

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Complete
Detailed Design	FY 2022
Execution/ Construction	TBD
Project Completed	TBD

Supplement 2 - Capital Improvements Plan
Harris County FY 2021-2022 Capital Improvement Program: Governance and Customer Service

Project Name	Primary Funding Source	Investment Area Subcategory	Total Project Estimate	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
Application Repair and Replace	HC Property Tax	IT	\$ 19,861,080	\$ 366,776	\$ 2,855,198	\$ 19,494,304	\$ 0
Business Intelligence & Data Analytics Platform Enhancement	HC Property Tax	IT	\$ 2,358,000	\$ 0	\$ 883,960	\$ 2,358,000	\$ 0
Cybersecurity	HC Property Tax	IT	\$ 5,659,450	\$ 321,811	\$ 1,096,700	\$ 5,337,639	\$ 0
Enterprise Document Management	HC Property Tax	IT	\$ 19,913,045	\$ 0	\$ 2,019,130	\$ 19,913,045	\$ 0
Enterprise Scanning Service	HC Property Tax	IT	\$ 3,940,231	\$ 324,876	\$ 1,316,419	\$ 3,615,355	\$ 0
Enterprise Tririga	HC Property Tax	IT	\$ 902,841	\$ 0	\$ 710,428	\$ 902,841	\$ 0
ERP Enhanced Automation and Reporting	HC Property Tax	IT	\$ 2,475,450	\$ 36,300	\$ 2,439,150	\$ 2,439,150	\$ 0
ERP Stabilization	HC Property Tax	IT	\$ 3,061,992	\$ 0	\$ 1,984,744	\$ 3,061,992	\$ 0
GIS Enterprise Agreement	HC Property Tax	IT	\$ 1,865,483	\$ 934,033	\$ 931,450	\$ 931,450	\$ 0
IT Service Management	HC Property Tax	IT	\$ 2,175,700	\$ 0	\$ 1,200,100	\$ 2,175,700	\$ 0
Networking - Repair Replace	HC Property Tax	IT	\$ 15,462,312	\$ 1,099,477	\$ 1,903,035	\$ 14,362,835	\$ 0
Protective Services - Business Applications Repair and Replace	HC Property Tax	IT	\$ 2,148,637	\$ 0	\$ 1,096,157	\$ 2,148,637	\$ 0
Security Infrastructure Installation and Upgrades	HC Property Tax	IT	\$ 15,321,032	\$ 5,296,311	\$ 2,105,000	\$ 10,024,721	\$ 0
Telephone System Repair Replace	HC Property Tax	IT	\$ 7,363,097	\$ 698,298	\$ 1,505,799	\$ 6,664,799	\$ 0
IT Total			\$ 102,508,350	\$ 9,077,882	\$ 22,047,270	\$ 93,430,468	\$ -

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Application Repair and Replace

Investment Area: Governance & Customer Service - IT

Project Status: Ongoing Project

Total Estimated Cost: \$19,861,080

Managing Entity: Universal Services

Expenditures to Date: \$366,776

Requesting Entity: Universal Services

Strategic Objective(s): N/A

Project Description:

Much like physical infrastructure, applications and software packages have a defined shelf life. Technology and development methodologies change over time to improve capabilities and efficiencies. Software packages become obsolete as vendors stop supporting them or the underlying technology gets replaced. Based on a defined ranking methodology, Universal Services ranks and classifies applications that need attention and/ or replacement. This is an ongoing lifecycle management project to address the updates, replacement, or redevelopment of these end-of-life applications/software packages.

Justification:

The repair/replacement of these applications is critical to ensuring continuity of County services. These reduce overhead costs required to support current and legacy applications. Upgraded applications also ensure Harris County departments and end-users do not have to work with unsupported technology, which are vulnerable to cyber attacks.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Constable Precints 1-8, Sheriff's Office, Fire Marshal's Office, HC Toll Road Authority, Office of Emergency Management	Mission critical support of public safety officers	HC Law Enforcement Technology Committee	Ongoing
Criminal Courts, District Attorney, District Clerk, County Attorney, PreTrial, District Courts, Public Defender	More effective support of justice activities	HC Justice Technology Committee	Ongoing
HC Commissioner Precints 1-4 and County Judge	Better support of Commissioner precincts	Direct Customer Engagement through Customer Success Managers	Ongoing
Flood Control, Pollution Control, Public Health, Engineering	Support of critical County infrastructure	Direct Customer Engagement through Customer Success Managers	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$19,861,080	\$2,855,198	\$4,062,786	\$5,607,730	\$4,270,980	\$2,697,610	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$51,500
Labor	\$397,280
Other	\$44,878
Total	\$493,658

Current Project Phase: Ongoing/ Lifecycle Management

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Business Intelligence & Data Analytics Platform Enhancement

Investment Area: Governance & Customer Service - IT

Project Status: New Project

Total Estimated Cost: \$2,358,000

Managing Department: Universal Services

Non-County Funding: \$0

Requesting Department: Universal Services

Strategic Objective(s): SO3, SO4

Project Description:

This project would upgrade and enhance the existing Business Intelligence and Data Analytics platform for Harris County Universal Services (US), including modernizing its current offerings around data warehousing and repositories. This would improve US's system's ability to learn from experience without being programmed and enhance data integration and data governance. The project is multi-phased, spanning 3-5 years. The first phase conducts a gap analysis and identifying the areas needing the most improvement. The second phase will focus on drafts a strategy for implementing new solutions, including tool identification, cost analysis, funding approval, and initiating the strategy. Future phases would include the implementation of various tools and platforms. While the costs identified are representative of what it would take to initiate this strategy, a more detailed analysis will be required to accurately determine the final cost of upgrading the US Business Intelligence and Data Analytics platform. The information presented are high level concepts and estimates.

Justification:

Upgrading the existing Business Intelligence and Data Analytics platform will ensure that Universal Services is prepared to handle the future needs of agencies and departments in the County and take advantage of cost saving opportunities by providing a centralized, enterprise-ready platform for data collection and reporting utilizing best practices. Implementing this project would provide enhanced enterprise-reporting capabilities, realizing benefits including, but not limited to:

- Reduce costs by eliminating redundancy of tools/platforms across agencies.
- Centralizing a Power BI Premium model would save an estimated \$300,000 over five years.
- A centralized cloud-based data warehousing platform could save an estimated \$96,000 over five years.
- Savings of \$8,700 in storage of 5TB of data by purchasing up front for multiple agencies (\$20,400 when purchased by-month vs. \$11,700 when purchased up-front). Estimated 10% discount for bulk purchasing compute capacity of \$150K for 5 years X 5 agencies (\$750K @ 10%) = \$75,000.
- Provide more advanced analytical capabilities to aid agencies in making informed decisions.
- Reduce maintenance costs by modernizing the current platform by moving 3 servers to the Azure platform would save an estimated \$253,000 over 5 years (see attached report for estimate savings for 1 server).

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$2,358,000	\$883,960	\$1,153,600	\$320,440	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	FY 2022
Detailed Design	FY 2022
Execution/ Construction	FY 2022
Project Completed	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Cybersecurity

Investment Area: Governance & Customer Service - IT

Project Status: Ongoing Project

Total Estimated Cost: \$5,659,450

Managing Entity: Universal Services

Expenditures to Date: \$321,811

Requesting Entity: Universal Services

Strategic Objective(s): SO1- SO5

Project Description:

This project is for an on-going cybersecurity program based on a best-practices. This project includes the design and implementation of new protective controls, expansion of existing security services, and the ongoing analysis and optimization of existing cybersecurity controls. Specific cybersecurity services prioritized for this phase of the program include advanced authentication, identity & access management, threat intelligence, threat monitoring/response, incident management, risk assessment and governance solutions. Program components include Security Information & Event Management (SIEM), security operation center (SOC) (24-7 Monitoring) services, and threat intelligence services; all of which provide the technology and services necessary to enable early detection of advanced cyber threats against the county's network and IT services. The objectives of this project is to enhance Harris County's overall cybersecurity and develop a formal cybersecurity program, complete with people, policy, process, and technology. The program's objectives are designed to 1.) mitigate known risks; 2.) address ongoing threats; and 3.) ensure a defense-in-depth strategy that will continuously improve the County's ability to proactively identify and address risks across the county's enterprise network and technology resources.

Justification:

This project enables rapid incident detection, analysis, and response processes that will minimize potential disruption to county services from a cyber attack. The requested software, services and staff will help address requirements identified as needing to be addressed for PCI, DSS, and CJIS compliance. This project will also demonstrate cybersecurity competency in order to qualify for some grant programs, bond ratings, cyber insurance and business contracts. This project addresses Strategic Objective (SO) 1 through the responsible allocation of cybersecurity staff and managed services to augment staff. SO2 and SO4 are supported through the project by third-party risk assessments, penetration tests, and technology health checks to promote transparency, govern quality of delivery and to derive cybersecurity architectures. The SIEM & SOC managed services, threat intelligence services, and network access controls help mitigate risk and ensure a proactive cybersecurity posture that will enable business needs; this supports SO3. This project supports SO4 through single-sign-on requirements for PeopleSoft and multi-factor authentication solutions that improve employee login experiences.

Alternatives and Engagement:

No alternatives have been identified for this project.

The Elections Administrator and STARS Executive Steering Committee are the primary benefiting stakeholders. They continue to be engaged through regular meetings.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$5,659,450	\$1,096,700	\$2,483,690	\$1,052,249	\$465,000	\$240,000	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$1,462,500
Labor	\$530,400
Other	\$0
Total	\$1,992,900

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	FY 2022
Detailed Design	FY 2022
Execution/ Construction	FY 2023
Project Completed	FY 2025

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Enterprise Document Management

Investment Area: Governance & Customer Service - IT

Project Status: New Project

Total Estimated Cost: \$19,913,045

Managing Department: Universal Services

Non-County Funding: \$0

Requesting Department: Universal Services

Strategic Objective(s): SO3, SO4

Project Description:

This project is to develop and implement a strategy to provide an enterprise document management system for Harris County. This initiative would consist of multiple phases that apply enterprise-wide and department-specific solutions using a shared document management infrastructure and a set of document management-related technology services. These services include document and image management, records management, information archiving, search and usage analytics, scanning and optical character recognition, electronic signature, and record-auditing capabilities. These services would be made available to specific Harris County departments using a phased approach to implementation with ongoing support by Universal Services. A more detailed analysis will be required to accurately determine the final cost of implementing an Enterprise Document Management system.

Justification:

The County is currently in need of an enterprise document management strategy. Each Harris County department maintains its own document/content management strategy. This has resulted in multiple environments across the County doing the same processes, causing expensive and inefficient duplication of services. As document and content management needs to grow, the cost for supporting multiple environments will also increase. By moving toward an enterprise approach to document management, Harris County will be able to ultimately reduce cost and provide better collaboration between departments and information analytics not currently available. Other benefits to implementing this project include:

- More effective management for security, compliance, archiving, scalability and analytics.
- County-wide approach to digital signatures and auditing records throughout their entire lifecycle.
- Improved capabilities to save, store, or search for content in compliance with business rules, regulatory requirements, and/or to meet litigation demands.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$19,913,045	\$2,019,130	\$4,451,930	\$3,272,610	\$2,914,670	\$7,254,705	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	FY 2022
Detailed Design	FY 2022
Execution/ Construction	FY 2022
Project Completed	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Enterprise Scanning Service

Investment Area: Governance & Customer Service - IT

Project Status: Ongoing Project

Total Estimated Cost: \$3,940,231

Managing Entity: Universal Services

Expenditures to Date: \$324,876

Requesting Entity: Universal Services

Strategic Objective(s): N/A

Project Description:

Develop an enterprise scanning solution at Harris County Records Center (HCRC) that will transform all records with retention periods greater than 10 years from a paper format to electronic.

Justification:

The electronic storage of records will enable quicker access of records while reducing the risk of document loss through water, fire, and paper degradation. Converting physical records to electronic reduces the physical space needed to store records and will reduce the manpower required to operate the records center. Additionally as the service extends to departments that are storing their more active records onsite, it will reduce their manpower costs and their risk of loss of records due to fire and water damage such as we have seen in recent floods. Electronic storage of county records will enable departments to access their records from any county laptop, allowing access from any location where they can access the county network. The ability to access the records electronically will reduce the time it takes to retrieve records and make operations more efficient.

Alternatives and Engagement:

A large percentage of records to be scanned are Law Enforcement records containing CJIS data. These records are required to remain in a Harris County facility, which eliminates the ability to use outside 3rd party vendor locations.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$3,940,231	\$1,316,419	\$985,166	\$849,649	\$464,121	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Detailed Design

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	FY 2022
Detailed Design	FY 2022
Execution/ Construction	FY 2022
Project Completed	FY 2023

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Enterprise Tririga

Investment Area: Governance & Customer Service - IT

Project Status: New Project

Total Estimated Cost: \$902,841

Managing Department: Universal Services

Non-County Funding: \$0

Requesting Department: Universal Services

Strategic Objective(s): SO3, SO4

Project Description:

This project would establish Tririga as an enterprise tool for full lifecycle management of facility and workspace projects, tasks, and work requests. Tririga provides a full suite of capabilities, including, workspace operations, facility assessments, and capital projects. Universal Services currently hosts and supports the Tririga infrastructure for FPM, which uses only the workspace operations management capabilities. The same infrastructure can be made available to other departments responsible for maintaining buildings, real estate assets, and different physical workspaces.

Justification:

The existing Harris County Tririga infrastructure is configured only for FPM's needs for workspace operations management including, facility service requests and improvement projects. FPM and Commissioner Precinct 2 expressed interest in expanding the current Tririga infrastructure to include the Capital Projects and Facility Assessments capabilities. While additional departments can be included within the existing infrastructure, configuration changes are required to provide separation of data between departments and to build processes and data specific to these departments. Use existing Tririga application and data infrastructure as a centralized and standardized framework for departments that need to manage property maintenance work requests, activities, and projects using a best-of-class product.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$902,841	\$710,428	\$192,413	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	FY 2022
Detailed Design	FY 2022
Execution/ Construction	FY 2022
Project Completed	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: ERP Enhanced Automation and Reporting

Investment Area: Governance & Customer Service - IT

Project Status: Ongoing Project

Total Estimated Cost: \$2,475,450

Managing Entity: Universal Services

Expenditures to Date: \$36,300

Requesting Entity: Universal Services

Strategic Objective(s): N/A

Project Description:

This project is to enhance the usage of PeopleSoft across Harris County. There are three key focus areas for this project: 1) Automation and Efficiency; 2) Enhanced Reporting and Analytics; and 3) IFAS retirement. Automation and Efficiency will focus on automating the manual interfaces for the business. Enhanced Reporting and Analytics will build out the reports in PeopleSoft to ensure departments have easy access to the data they need. Lastly, this project will address how to retire IFAS.

Justification:

This project would improve efficiency by reducing manual data entry for several departments, freeing up resources to focus on more value-added work. The project would also improve efficiency by making it easier to access data and securing historical data, so it is available for future audits. Finally, this project is anticipated to result in a recurring cost savings of \$615,000 resulting in no longer needing to maintain IFAS software.

Alternatives and Engagement:

Alternative	Alternative Description	Why Alternative Not Selected
Delay	Do the automation project at a later date.	This option will delay the benefits being achieved for Harris County and cause the continuance of labor intensive, manual work-arounds. Production support will stay high and impact US ability to cross-train resource.
Do not pursue.	Do not implement automation and reporting functions.	Failure to enhance the automation and reporting capabilities of the new ERP would reduce the effectiveness of the new system and slow down the phase-out of the old IFAS system.
Other	Solve the problem through another means.	No other feasible technology alternatives have been identified.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
STARS Executive Steering committee	Oversight of project.	Committee meetings, emails.	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$2,475,450	\$2,439,150	\$0	\$0	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Early Scoping/ Planning

Estimated Phase Completion (Fiscal Year)	
Early Scoping and Planning	FY 2022
Detailed Design	FY 2022
Execution/ Construction	FY 2022
Project Completed	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: ERP Stabilization

Investment Area: Governance & Customer Service - IT

Project Status: Ongoing Project

Total Estimated Cost: \$3,061,992

Managing Entity: Universal Services

Expenditures to Date: \$0

Requesting Entity: Universal Services

Strategic Objective(s): N/A

Project Description:

This project is focused on stabilization of the PeopleSoft ERP application support team (referred to as STARS) and stabilization of the PeopleSoft Production environment. For the support team, the project addresses skills required for the team to be able to support the application once the external resources are gone. This includes additional training and knowledge transition from external resources. For the stabilization of the PeopleSoft Production environment, this includes two required upgrades to the application and it includes the expansion of the license agreement to meet Harris county growth.

Justification:

The STARS support team needs deeper knowledge of Peoplesoft and how it was configured for Harris County in order to provide adequate support to the large user base. The high volume of Production support since 'Go-Live' and required projects currently in progress have occupied the team and no knowledge transition has occurred in several key areas of the system. Without this effort, Harris County is at risk should it encounter system issues. The upgrades to the Production environment are also critical to the stability of the environment. Staff is limited in its ability to keep up with the latest updates in the technical stack, which can create cyber security concerns. Benefits include:

- Improve customer service by enabling the team to respond faster to support issues.
- Correct known bugs in PS.
- Allow for growth of users base.
- Reduce risk by ensuring the team has the appropriate skills to handle any system issues.

Alternatives and Engagement:

Alternative	Alternative Description	Why Alternative Not Selected
Continue funding external resources.	Relying on consultants for PeopleSoft support.	This would not address the issue of Harris County resources being able to support the system in the future. This would increase the risk for Harris County.
Do not pursue.	Status quo; situation is not improved.	Doing nothing would severely impact the responsiveness to Production issues and raise the risk of meeting financial deadlines.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
STARS Executive Steering committee	Oversight of project.	Committee meetings, emails.	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$3,061,992	\$1,984,744	\$1,077,248	\$0	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$100,609
Labor	\$0
Other	\$0
Total	\$100,609

Current Project Phase: Early Scoping and Planning

Estimated Phase Completion (Fiscal Year)	
Early Scoping and Planning	FY 2022
Detailed Design	FY 2022
Execution/ Construction	FY 2022
Project Completed	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: GIS Enterprise Agreement

Investment Area: Governance & Customer Service - IT

Project Status: Ongoing Project

Total Estimated Cost: \$1,865,483

Managing Entity: Universal Services

Expenditures to Date: \$934,033

Requesting Entity: Universal Services

Strategic Objective(s): N/A

Project Description:

This project seeks to procure a single "Enterprise Agreement" with ESRI. ESRI produces Geographic Information Systems (GIS) software that many agencies leverage to produce maps and other critical systems needed to conduct county business. The software suite includes the ability to produce interactive maps, solutions that are based on geospatial information, as well as producing predictive analytics. Many departments use the tool set daily to fulfill their business functions.

Justification:

Currently, each department has a separate purchasing agreement with the vendor. Over time, this has led to disparate capabilities within each organization as teams purchase based on available funds. This reduces each team's ability to leverage all the capabilities in the system and can lead to difficulty in cross-organization collaboration. With an Enterprise Agreement in place, all agencies current and future will be able to leverage a full suite of capabilities with ESRI. It would ensure a better negotiated deal for the County as the pricing would be negotiated across the County, instead of per department. The GIS Enterprise Agreement will:

- Reduce complexity by uniting software licensing into a single organization-wide agreement.
- Optimize technology spending by lowering the costs of software compliance and asset management.
- Increase flexibility by building a scalable system that aligns with business objectives.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Constable Precincts 1-8, Sheriff's Office, Fire Marshal's Office	Mission Critical support of Public Safety officers	HC Law Enforcement Technology Committee	Ongoing
Criminal & District Courts, District Attorney, District Clerk, County Attorney, PreTrial, Public Defender	More effective support of Justice processes and activities	HC Justice Technology Committee	Ongoing
HC Commissioner Precincts 1-4 and County Judge	Better support of Commissioner precincts	Direct engagement through customer success managers	Ongoing
Flood Control, Pollution Control, Public Health, Public Infrastructure and Engineering	More effective support of critical County infrastructure	Direct engagement through customer success managers	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$1,865,483	\$931,450	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$849,000
Labor	\$0
Other	\$82,450
Total	\$931,450

Current Project Phase: Execution/Construction

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Complete
Detailed Design	Complete
Execution/ Construction	FY 2022
Project Completed	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: IT Service Management

Investment Area: Governance & Customer Service - IT

Project Status: New Project

Total Estimated Cost: \$2,175,700

Managing Department: Universal Services

Non-County Funding: \$0

Requesting Department: Universal Services

Strategic Objective(s): SO3, SO4

Project Description:

Harris County Universal Services needs to enhance its ITIL (Information Technology Infrastructure Library) / ITSM (Information Technology Service Management) tools to better align its IT services with the needs of the County agencies. Various components of the ITIL / ITSM catalog include: Incident Management, Change Management, Project Management, Configuration Management Database (CMDB), Application Portfolio Management (APM), Application Programmatic Interfaces (API) Centralization, and Enterprise Automation (batch, workflow, and process automation & scheduling).

Justification:

Currently, Harris County Universal Services uses Service Manager for Incident and Change Management, Planview for Application Portfolio Management, and PPM Pro for Project Management. The remaining functions (CMDB, API, and Enterprise Automation) are currently handled via manual procedures and informal tools. The gap in tools and integration creates challenges in keeping software, infrastructure, Cybersecurity, and support activities on the same page resulting in support delays, longer turnaround times for certain types of changes, and a lack of consolidated information about Universal Service's products, services, and deliverables. This CIP seeks to procure new ITIL / ITSM solutions to both replace existing systems and fill gaps providing better integration, a more complete/comprehensive view of the portfolio, and linkage between support and delivery.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$2,175,700	\$1,200,100	\$975,600	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	FY 2022
Detailed Design	FY 2022
Execution/ Construction	FY 2022
Project Completed	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Networking - Repair Replace

Investment Area: Governance & Customer Service - IT

Project Status: Ongoing Project

Total Estimated Cost: \$15,462,312

Managing Entity: Universal Services

Expenditures to Date: \$1,099,477

Requesting Entity: Universal Services

Strategic Objective(s): N/A

Project Description:

This is an ongoing lifecycle management project. The objective of this project is to address the ongoing repair, replacement, and refresh of core data center and perimeter networking components. It also includes provisions for the support of various microwave and wireless links for remote site connectivity, enabling Harris County to maintain a regular asset replacement lifecycle that makes sense by network equipment type.

Justification:

Harris County has a large population of network gear including but not limited to switches, wireless access points and microwave infrastructure that is currently or soon will be no longer supported by the vendor. Most of this equipment is located in sites outside the data center and some is already unsupported by the vendor. In addition to support concerns, much of the County's network switches do not support power over ethernet (PoE) which is required to power devices such as cameras and phones which are now an integral part of our network and way of doing business. Some refresh and capacity increases are required in the data centers to support the branch office refresh described.

This project is structured to replace all end-of-life equipment over the next few years and then get on a regular refresh cycle moving forward. This lifecycle refresh approach is anticipated to flatten out funding needs on an annual basis. Having a lifecycle based repair and replace strategy will keep us from having equipment that is no longer supported by the vendor as well as ensure security and software updates continue to be provided as technology evolves. This in turn helps ensure scalability, reliability and the security of the network that supports access to all internal and external Harris County applications, the Internet, and connectivity to non-County agencies sharing data with the County.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$15,462,312	\$1,903,035	\$4,631,000	\$3,298,800	\$2,265,000	\$2,265,000	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Ongoing/ Lifecycle Management

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Protective Services - Business Applications Repair and Replace

Investment Area: Governance & Customer Service - IT

Project Status: Ongoing Project

Total Estimated Cost: \$2,148,637

Managing Entity: Universal Services

Expenditures to Date: \$0

Requesting Entity: Universal Services

Strategic Objective(s): N/A

Project Description:

Much like physical infrastructure, Protective Services applications and software packages have a defined shelf life. Current technology and development methodologies change over time to improve capabilities and efficiencies. Protective Services need to replace the following application: Guardianship Financial System (Access front end), Rep Payee Financial System (Access front end), Human Resources (Access front end), Triad Call Log (Access application), plus potential replacement to Court Letter Application (Access front end, .net version in UAT but may not meet business needs).

Justification:

Address the updates, replacement, or redevelopment of these end-of-life applications/software packages. Vendors stop supporting specific version of Access and the underlying technology needs to be replaced. Replacing Protective Services's outdated applications will provide extensibility of limited and data integration with other Harris County systems including the Harris County financial system. Protective Services Application Repair and Replace will:

- Retire the risk presented by current application that relies on outdated technology
- Improve the efficiency of Department employees while reducing errors and omissions
- Improve Department reporting processes

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
HC Protective Services	More effective support of Harris County processes and activities	Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$2,148,637	\$1,096,157	\$1,052,480	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Detailed Design

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Complete
Detailed Design	FY 2021
Execution/ Construction	FY 2022
Project Completed	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Security Infrastructure Installation and Upgrades

Investment Area: Governance & Customer Service - IT

Project Status: Ongoing Project

Total Estimated Cost: \$15,321,032

Managing Entity: Universal Services

Expenditures to Date: \$5,296,311

Requesting Entity: Universal Services

Strategic Objective(s): SO3, SO5

Project Description:

This project refreshes security technology physical infrastructure. The current systems have exceeded their shelf life and or no longer supported. These systems will be retrofitted with the latest available technology to enhance the security needs of Harris County. The updated system will help to provide real-time feeds and alerts from multiple data sources in order to stay ahead of threats with intuitive workflows and data integrations to facilitate comprehensive intelligence collection and analysis—delivering an automated, smart and actionable insights to make informed decisions.

Justification:

The replacement of these end-of-life security systems and hardware devices will help first responders in the event of emergency situation. These devices are used as critical solutions for Harris County departments that provide services to the employees and citizens of Harris County. The County's access system has to be in code compliance with the Fire marshal Office. In the event of an emergency facility egress doors will release to allow individuals to leave the premises. The system also supports duress buttons in the event of a emergency. Updating this technology will reduce time spent by the Harris County agencies and provide efficiencies in their work. These system upgrades will reduce failure rate which will help reduce operational repair costs. Each failure can cost \$95 per hour to repair; reducing the work orders generated by the failure of these devices will reduce overall repair costs. The project will provide the following value enhancements:

- This equipment is used to help prevent facility theft from Harris County tax payer dollars.
- ensure Harris County departments and end users do not end up with unsupported technology.
- ensure that Harris County citizens are not put in danger when using Harris County Facilities.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$15,321,032	\$2,105,000	\$1,702,450	\$1,703,500	\$1,609,000	\$2,904,771	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$59,577
Labor	\$275,184
Other	\$2,000
Total	\$336,761

Current Project Phase: Ongoing/ Lifecycle Management

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Telephone System Repair Replace

Investment Area: Governance & Customer Service - IT

Project Status: Ongoing Project

Total Estimated Cost: \$7,363,097

Managing Entity: Universal Services

Expenditures to Date: \$698,298

Requesting Entity: Universal Services

Strategic Objective(s): SO1, SO3

Project Description:

The objective of this project is to support the ongoing repair, replacement, and refresh of business telephone systems throughout the county and the core telephony infrastructure that supports them. Harris County has approximately 17,000 telephone sets installed for various departments and courts. Approximately 14,000 of these telephone sets have been upgraded to Voice over Internet Protocol (VoIP), which is the more stable and secure. The remaining 3,000 telephone sets are manufacturer discontinued and not maintainable. This results in elongated outages and makes replacement parts difficult or impossible to obtain. In addition, these are standalone systems that do not utilize centralized voice mail, trunking or administration, increasing costs to Harris County.

In a non-COVID environment, the Voice Team can change out approximately 1,500 handsets in a year at a cost of \$900.00 per handset which includes a refresh of the network cabling and patch cords, SIP telephone instrument, station licenses, E911 capability, and installation labor. Both the Avaya and Cisco enterprise voice platforms supporting the current 14,000 telephone sets will need to be upgraded to stay current with manufacturer recommended maintenance and support at a cost of \$50,000. Also, the Acme packet Session Border Controllers (SBCs) that support the County's SIP service for inbound and outbound calling will need to be expanded as additional telephones are added to the network at a cost of \$20,000. As the locations continue to be upgraded, E911 capabilities will need to be expanded, at a cost of \$10,000.

Justification:

This project updates telecom infrastructure, which will lower cost of telecom services overall (with SIP trunk service cost shifts from departments to US). This is anticipated to reduce time and working hours needed to perform moves and changes through remote centralized programming. Modernizing the telephone system enhances disaster recovery capabilities and enables Harris County with a more mobile communication environment.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

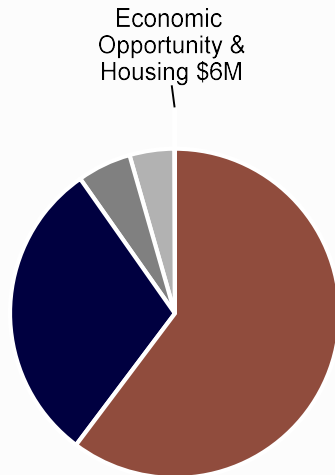
Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$7,363,097	\$1,505,799	\$1,738,000	\$1,122,000	\$1,177,000	\$1,122,000	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$73,000
Labor	\$0
Other	\$0
Total	\$73,000

Current Project Phase: Execution/Construction

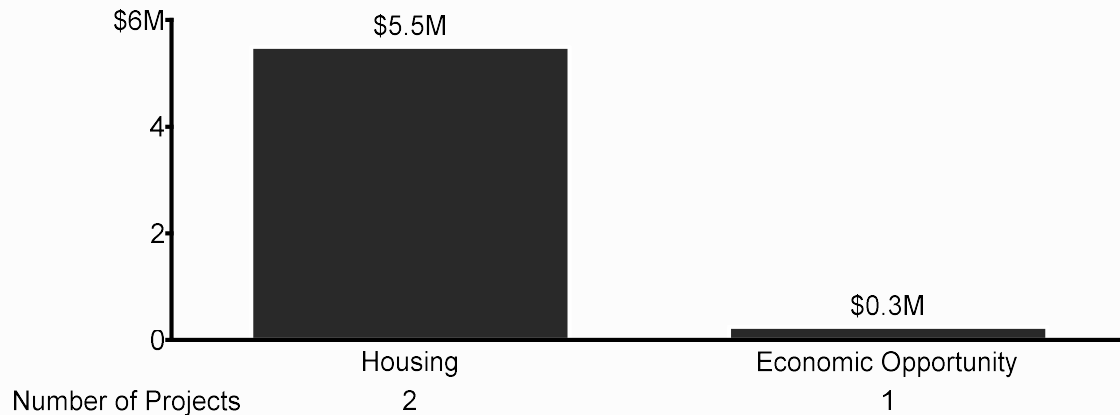
<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Complete
Detailed Design	Complete
Execution/ Construction	TBD
Project Completed	FY 2025

ECONOMIC OPPORTUNITY AND HOUSING - CAPITAL FUND PROJECT VALUE

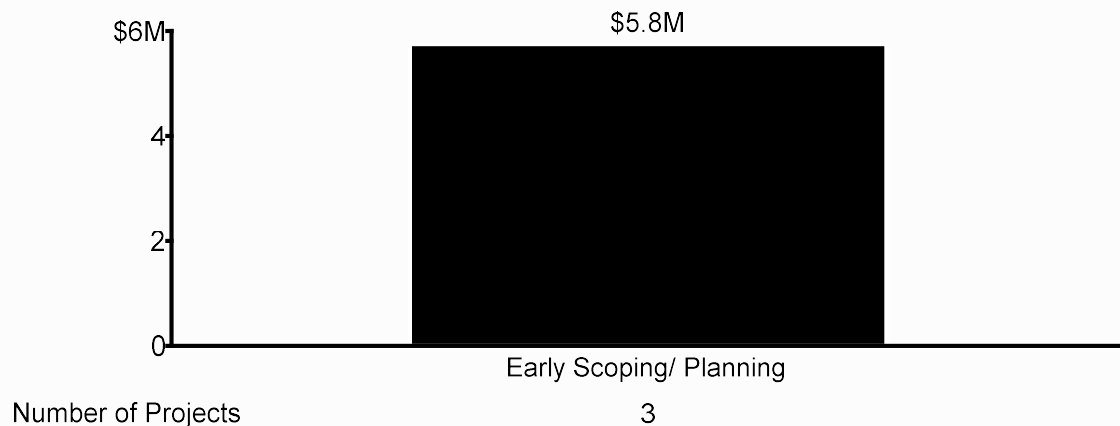


- The capital investment associated with Economic Opportunity is a \$250,000 project to place civic art in and around downtown County public Spaces.
- The two Housing projects are intended to develop affordable housing. \$500,000 is for a pilot project to develop affordable residential prototypes that can then be cost-effectively replicated. \$5M is a new request from Community Services to potentially buy land or build infrastructure to support an affordable housing partner; this project may ultimately not require a capital investment from the County if partner funding is secured.

Project Value by Goal Area (\$M)



Project Value by Current Project Stage (\$M)



Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Economic Opportunity and Housing

Project Name	Primary Funding Source	Investment Area	Total Project Estimate	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
Downtown Civic Art Program	HC Property Tax	Economic Opportunity	\$ 250,000	\$ 0	\$ 250,000	TBD	TBD
Economic Opportunity Total			\$ 250,000	\$ -	\$ 250,000	\$ -	\$ -
Affordable Housing Program	HC Property Tax	Housing	\$ 500,000	\$ 0	\$ 500,000	TBD	TBD
Community Services - Investment in Affordable Housing	TBD	Housing	\$ 5,000,000	\$ 0	TBD	TBD	TBD
Housing Total			\$ 5,500,000	\$ -	\$ 500,000	\$ -	\$ -
Economic Opportunity & Housing Total			\$ 5,750,000	\$ -	\$ 750,000	\$ -	\$ -

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Downtown Civic Art Program

Investment Area: Economic Opportunity

Project Status: Ongoing Project

Total Estimated Cost: \$250,000

Managing Entity: County Engineer

Expenditures to Date: \$0

Requesting Entity: County Engineer

Strategic Objective(s): N/A

Project Description:

Funding is being requested, in part, to study and potentially place civic art in and around County public spaces. This includes facilities, parks, and open spaces. Civic art can range from murals, monuments, and certain types of landscaping features.

Justification:

This project would provide the public with a more open and inviting local government experience.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$250,000	\$250,000	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	FY 2022
Detailed Design	TBD
Execution/ Construction	FY 2022
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Affordable Housing Program

Investment Area: Housing

Project Status: Ongoing Project

Managing Entity: County Engineer

Requesting Entity: County Engineer

Total Estimated Cost: \$500,000

Expenditures to Date: \$0

Strategic Objective(s): N/A

Project Description:

Funding is requested to initiate a pilot project to develop multiple affordable housing residential prototypes.

Justification:

It is necessary to develop the appropriate prototypes in order to yield the most efficient and truly affordable residential units for existing and future county affordable housing programs.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$500,000	\$500,000	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	FY 2022
Detailed Design	TBD
Execution/ Construction	FY 2022
Project Completed	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Community Services - Investment in Affordable Housing

Investment Area: Housing

Project Status: New Project

Total Estimated Cost: \$5,000,000

Managing Department: TBD

Non-County Funding: \$5,000,000

Requesting Department: Community Services

Strategic Objective(s): SO1, SO2, SO6-SO10

Project Description:

Currently the Kinder Institute at Rice University is conducting an Affordable Housing Planning Study and a Market Demand Absorption Study. These studies will form the basis of a County '10 Year Affordable Housing Plan'. Community Services (CSD) is requesting initial funding to be prepared to implement the Affordable Housing Plan. Potential activities would include, but not be limited to: acquiring land for housing development or building housing infrastructure (e.g., roads and sewers) to make housing developments more affordable. County funding would be leveraged with funding and other support from key partners such as TIRZ 24 and the Harris County Housing Finance Corporation. Other potential partners and funding sources include private development partners, other governmental entities, housing authorities, redevelopment authorities, and federal Housing & Urban Development entitlement & disaster recovery programs.

Justification:

This project works towards increasing the scale and scope of safe, quality and affordable housing. Creating affordable stock is a key mission of CSD. The project would also work towards the overall vision of ensuring County residents have access to quality, safe and affordable housing.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Commissioners Court	Advisory	Meetings	Ongoing
County Engineer	Advisory	Meetings	Ongoing
General Public	Advisory	Public Meetings	Not Started
Rice University Kinder Institute	Advisory	Planning Study, Meetings, data analysis	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$5,000,000	TBD	TBD	TBD	TBD	TBD	TBD

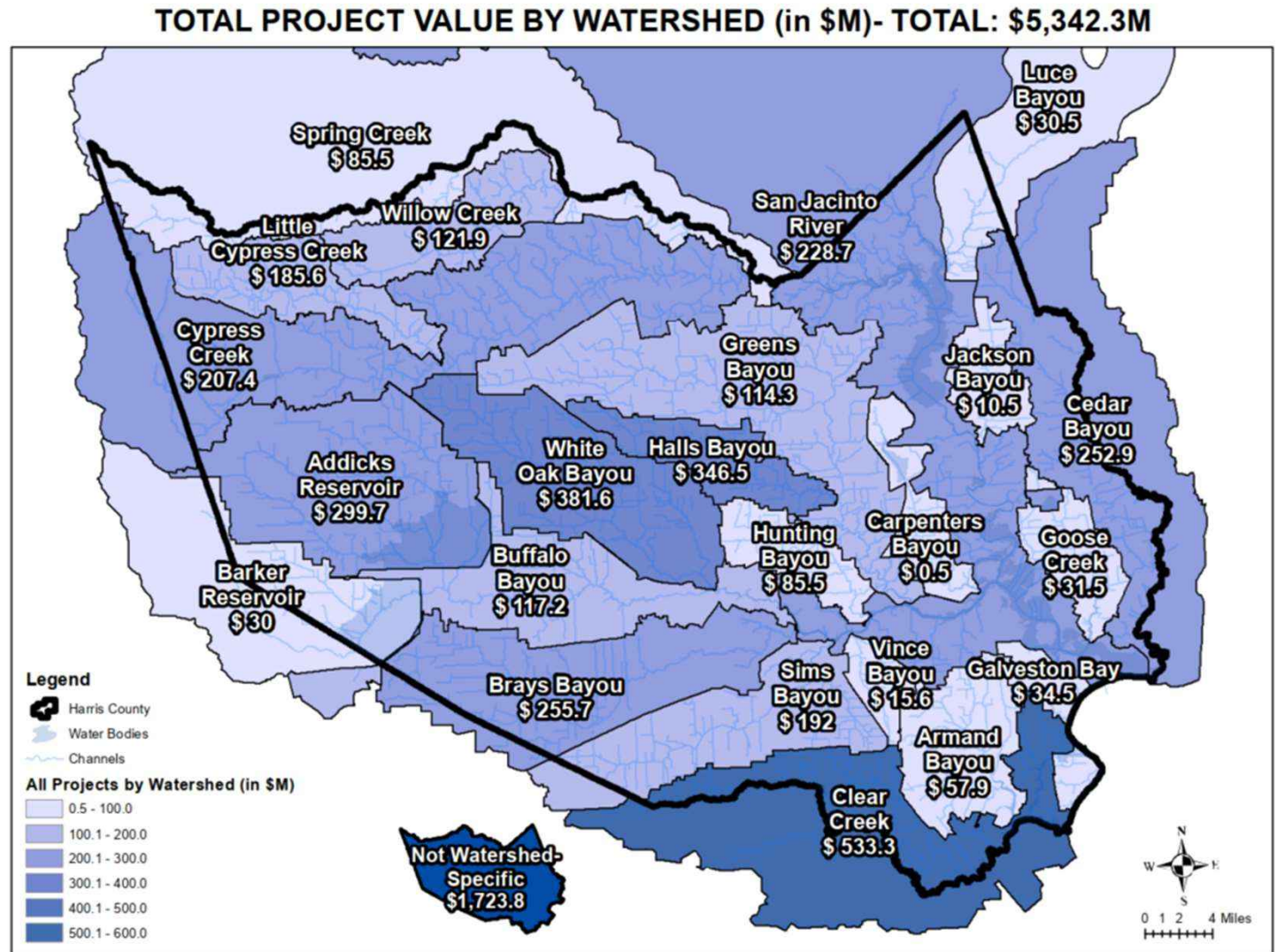
<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	TBD
Detailed Design	TBD
Execution/ Construction	TBD
Project Completed	TBD

FLOODING - PROJECT VALUE BY WATERSHED

- Flood Control's 181 projects are divided among 23 separate watersheds. Each watershed represents a set of creeks, channels, or bayous and presents its own flooding issues.
- The map shows Flood Control capital investments by watershed.



Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
C-03: Right-Of-Way Acquisition, Design and Construction of Corps of Engineers Clear Creek Federal Flood Risk Management Project	A - Clear Creek	Yes	Pre-Prioritization	\$ 406,667,100	\$ 4,676,342	\$ 22,586,682	\$ 267,168,138	\$ 134,822,620
C-05: Construction of South Belt Stormwater Detention Basin (A520-03-00) Along Beamer Road Ditch (A120-00-00) and Daggs Road Stormwater Detention Basin on Clear Creek	A - Clear Creek	Yes	Pre-Prioritization	\$ 18,500,000	\$ 4,060,488	\$ 7,590,537	\$ 14,439,512	\$ 0
CI-001: Rehabilitation of the Clear Creek channel to Restore Channel Conveyance Capacity	A - Clear Creek	Yes	4th Quartile	\$ 25,000,000	\$ 0	\$ 0	\$ 18,750,000	\$ 6,250,000
CI-003: Rehabilitation of the A214-00-00 channel to Restore Channel Conveyance Capacity	A - Clear Creek	Yes	4th Quartile	\$ 1,000,000	\$ 0	\$ 0	\$ 1,000,000	\$ 0
CI-013: Restore Channel Conveyance Capacity on A104-00-00	A - Clear Creek	Yes	Pre-Prioritization	\$ 5,000,000	\$ 0	\$ 0	\$ 5,000,000	\$ 0
CI-62: Construction of Stormwater Detention Basins Near FM 528 and Dixie Farm Road in Friendswood	A - Clear Creek	Yes	Pre-Prioritization	\$ 34,861,300	\$ 7,889,824	\$ 0	\$ 26,971,476	\$ 0
F-01: Right-Of-Way Acquisition, Design, and Construction of Channel Conveyance Improvements on A135-00-00	A - Clear Creek	Yes	3rd Quartile	\$ 2,500,000	\$ 629,182	\$ 1,870,818	\$ 1,870,818	\$ 0
F-02: Right-Of-Way Acquisition, Design and Construction of Hughes Stormwater Detention Basin on Clear Creek	A - Clear Creek	Yes	Pre-Prioritization	\$ 32,503,700	\$ 30,128,552	\$ 1,284,753	\$ 2,375,148	\$ 0
F-76: Identification, Design and Construction of the A700-01 Environmental Mitigation Bank	A - Clear Creek	Yes	Pre-Prioritization	\$ 7,273,594	\$ 5,059,598	\$ 1,443,693	\$ 2,213,996	\$ 0
A - Clear Creek Total				\$ 533,305,694	\$ 52,443,986	\$ 34,776,483	\$ 339,789,088	\$ 141,072,620

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-03: Right-Of-Way Acquisition, Design and Construction of Corps of Engineers Clear Creek Federal Flood Risk Management Project

Investment Area: A - Clear Creek	Total Estimated Cost:	\$406,667,100
Bond Project: Yes	Expenditures to Date:	\$4,676,342
Current Project Phase: Design	County Funding:	\$157,629,300
Projected Completion: TBD	Non-County Funding – Secured:	\$166,352,000
	Non-County Funding – Unsecured:	\$82,685,800

Project Description:

Right-Of-Way Acquisition, Design and Construction of Corps of Engineers Clear Creek Federal Flood Risk Management Project.

Justification:

The pre-Atlas 14 1% AEP (100-year) floodplain could be removed from up to 2,100 structures.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$406,667,100	\$22,586,682	\$70,002,560	\$65,334,118	\$61,698,637	\$47,546,141	\$134,822,620

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	FY 2023
Construction	FY 2028

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-05: Construction of South Belt Stormwater Detention Basin (A520-03-00) Along Beamer Road Ditch (A120-00-00) and Dagg Road Stormwater Detention Basin on Clear Creek

Investment Area: A - Clear Creek

Total Estimated Cost: \$18,500,000

Bond Project: Yes

Expenditures to Date: \$4,060,488

Current Project Phase: Construction

County Funding: \$14,463,200

Projected Completion: FY 2023

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$4,036,800

Project Description:

Construction of South Belt Stormwater Detention Basin (A520-03-00) Along Beamer Road Ditch (A120-00-00) and Dagg Road Stormwater Detention Basin on Clear Creek.

Justification:

This stormwater detention basin complements the Clear Creek Federal Project, which will reduce the risk of flooding for over 2,100 structures in the pre-Atlas 14 1% AEP (100-year) floodplain

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$18,500,000	\$7,590,537	\$6,848,975	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$5,000
Labor	\$750
Other	\$0
Total	\$5,750

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2022
Construction	FY 2023

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-001: Rehabilitation of the Clear Creek channel to Restore Channel Conveyance Capacity

Investment Area: A - Clear Creek

Total Estimated Cost: \$25,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Feasibility Study

County Funding: \$25,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Rehabilitation of the Clear Creek channel to Restore Channel Conveyance Capacity.

Justification:

Major maintenance to restore channel conveyance capacity.

Maintenance projects return flood control facilities to their near intended state for optimal conveyance for the safety of the public. Maintenance projects return flood control facilities to their near intended state for optimal conveyance to allow for key county facilities and roads to be accessible. Maintenance projects return the facility to near intended state for optimal conveyance to reduce flooding risks. This enhancement can be measured by the amount of structures, land, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$25,000,000	\$0	\$0	\$6,250,000	\$6,250,000	\$6,250,000	\$6,250,000

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2021
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2027

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-003: Rehabilitation of the A214-00-00 channel to Restore Channel Conveyance Capacity

Investment Area: A - Clear Creek

Total Estimated Cost: \$1,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Feasibility Study

County Funding: \$500,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$500,000

Project Description:

Rehabilitation of the A214-00-00 channel to Restore Channel Conveyance Capacity.

Justification:

Major maintenance to restore channel conveyance capacity.

Maintenance projects return flood control facilities to their near intended state for optimal conveyance for the safety of the public. Maintenance projects return flood control facilities to their near intended state for optimal conveyance to allow for key county facilities and roads to be accessible. Maintenance projects return the facility to near intended state for optimal conveyance to reduce flooding risks. This enhancement can be measured by the amount of structures, land, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$1,000,000	\$0	\$0	\$668,498	\$331,502	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2021
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2024

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-013: Restore Channel Conveyance Capacity on A104-00-00

Investment Area: A - Clear Creek

Total Estimated Cost:

\$5,000,000

Bond Project: Yes

Expenditures to Date:

\$0

Current Project Phase: Feasibility Study

County Funding:

\$5,000,000

Projected Completion: TBD

Non-County Funding – Secured:

\$0

Non-County Funding – Unsecured:

\$0

Project Description:

Restore Channel Conveyance Capacity on A104-00-00.

Justification:

Major maintenance to restore channel conveyance capacity in the city of Shoreacres

Maintenance projects return flood control facilities to their near intended state for optimal conveyance for the safety of the public. Maintenance projects return flood control facilities to their near intended state for optimal conveyance to allow for key county facilities and roads to be accessible. Maintenance projects return the facility to near intended state for optimal conveyance to reduce flooding risks. This enhancement can be measured by the amount of structures, land, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$5,000,000	\$0	\$0	\$2,503,429	\$2,496,571	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	FY 2019
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2025

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-62: Construction of Stormwater Detention Basins Near FM 528 and Dixie Farm Road in Friendswood

Investment Area: A - Clear Creek **Total Estimated Cost:** \$34,861,300

Bond Project: Yes **Expenditures to Date:** \$7,889,824

Current Project Phase: Feasibility Study **County Funding:** \$15,967,300

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$18,894,000

Project Description:

Construction of Stormwater Detention Basins Near FM 528 and Dixie Farm Road in Friendswood.

Justification:

For feasibility analysis, Bond ID CI-63 and CI-62 were evaluated together. Feasibility conclusions: (1) Proceed with the right-of-way acquisition, design, and construction of a 39-acre stormwater detention basin holding 500 acre-feet costing \$16.8 million near FM 528; (2) Additional stormwater management solutions beyond just regional detention are needed including buyouts, improving channel conveyance, and tributary detention.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$34,861,300	\$0	\$0	\$9,006,943	\$9,006,943	\$8,957,590	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2019
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2022
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-01: Right-Of-Way Acquisition, Design, and Construction of Channel Conveyance Improvements on A135-00-00

Investment Area: A - Clear Creek

Total Estimated Cost: \$2,500,000

Bond Project: Yes

Expenditures to Date: \$629,182

Current Project Phase: Design

County Funding: \$2,500,000

Projected Completion: FY 2021

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-Of-Way Acquisition, Design, and Construction of Channel Conveyance Improvements on A135-00-00.

Justification:

Could reduce the risk of flooding and could improve local drainage issues for over 350 structures in the pre-Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$2,500,000	\$1,870,818	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2020
Design	FY 2020
Construction	FY 2021

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-02: Right-Of-Way Acquisition, Design and Construction of Hughes Stormwater Detention Basin on Clear Creek

Investment Area: A - Clear Creek

Total Estimated Cost: \$32,503,700

Bond Project: Yes

Expenditures to Date: \$30,128,552

Current Project Phase: Right-of-way Acquisition and Utility Relocation

County Funding: \$14,320,700

Projected Completion: FY 2023

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$18,183,000

Project Description:

Right-Of-Way Acquisition, Design and Construction of Hughes Stormwater Detention Basin on Clear Creek.

Justification:

This stormwater detention basin complements the Clear Creek Federal Project which will reduce the risk of flooding for over 2,100 structures in the pre-Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$32,503,700	\$1,284,753	\$1,090,395	\$0	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$19,000
Labor	\$2,850
Other	\$0
Total	\$21,850

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2022
Construction	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-76: Identification, Design and Construction of the A700-01 Environmental Mitigation Bank

Investment Area: A - Clear Creek

Total Estimated Cost: \$7,273,594

Bond Project: Yes

Expenditures to Date: \$5,059,598

Current Project Phase: Right-of-way Acquisition and Utility Relocation

County Funding: \$7,273,594

Projected Completion: FY 2025

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Identification, Design and Construction of the A700-01 Environmental Mitigation Bank.

Justification:

Restoration and enhancement of wetlands to create credits for wetland mitigation supporting construction of District projects and may be used for projects supporting District goals in coordination with other Harris County public agencies and municipalities.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$7,273,594	\$1,443,693	\$42,182	\$73,490	\$654,631	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	FY 2020
Preliminary Engineering	FY 2022
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2024
Construction	FY 2024

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
B100-00-00-E002: Widening and Deepening of Armand Bayou at Sam Houston Tollway East	B - Armand Bayou	No	Not Applicable	\$ 11,660,679	\$ 5,904,235	\$ 5,756,444	\$ 5,756,444	\$ 0
C-06: Right-Of-Way Acquisition, Design and Construction of B112-00-00 and Tributaries Conveyance Improvements	B - Armand Bayou	Yes	2nd Quartile	\$ 7,700,000	\$ 504,650	\$ 1,426,259	\$ 7,195,350	\$ 0
C-07: Design and Construction of the B509-03-00 and B509-04-00 Stormwater Detention Basins	B - Armand Bayou	Yes	2nd Quartile	\$ 15,000,000	\$ 0	\$ 3,350,000	\$ 15,000,000	\$ 0
C-44: Armand Bayou Right-of-Way Acquisition and Floodplain Preservation	B - Armand Bayou	Yes	2nd Quartile	\$ 4,000,000	\$ 10,871	\$ 0	\$ 3,989,129	\$ 0
CI-023: Right-Of-Way, Design and Construction of Conveyance Improvements along Horsepen Bayou	B - Armand Bayou	Yes	Pre-Prioritization	\$ 6,460,161	\$ 782,284	\$ 5,677,877	\$ 5,677,877	\$ 0
F-72: Design and Construction of the Baywood Stormwater Detention Basin	B - Armand Bayou	Yes	Pre-Prioritization	\$ 2,000,000	\$ 528,270	\$ 1,471,730	\$ 1,471,730	\$ 0
F-96: Investigations of General Drainage Improvements in Armand Bayou Watershed	B - Armand Bayou	Yes	Pre-Prioritization	\$ 1,086,770	\$ 806,221	\$ 280,549	\$ 280,549	\$ 0
F-99: Right-Of-Way, Design and Construction of Conveyance Improvements along Armand Bayou	B - Armand Bayou	Yes	4th Quartile	\$ 10,000,000	\$ 0	\$ 0	\$ 10,000,000	\$ 0
B - Armand Bayou Total				\$ 57,907,610	\$ 8,536,531	\$ 17,962,859	\$ 49,371,079	\$ 0

Harris County FY 2021-2022 Capital Improvement Program

Project Name: B100-00-00-E002: Widening and Deepening of Armand Bayou at Sam Houston Tollway East

Investment Area: B - Armand Bayou

Total Estimated Cost: \$11,660,679

Bond Project: No

Expenditures to Date: \$5,904,235

Current Project Phase: Construction

County Funding: \$11,660,679

Projected Completion: FY 2022

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Widening and Deepening of Armand Bayou at Sam Houston Tollway East.

Justification:

Interlocal Agreement between HCFCD and HCTRA to take on the lead role in designing and constructing widening and deepening of Armand Bayou (B100-00-00) from Sam Houston Tollway East to Spencer Highway in Pasadena.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on projects to determine the best way to fulfill the District's mission to deliver flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$11,660,679	\$5,756,444	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2020
Right-of-way Acquisition and Utility Relocation	FY 2020
Design	FY 2021
Construction	FY 2021

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-06: Right-Of-Way Acquisition, Design and Construction of B112-00-00 and Tributaries Conveyance Improvements

Investment Area: B - Armand Bayou

Bond Project: Yes

Current Project Phase: Right-of-way Acquisition and Utility Relocation

Projected Completion: FY 2024

Total Estimated Cost: \$7,700,000

Expenditures to Date: \$504,650

County Funding: \$2,000,000

Non-County Funding – Secured: \$5,700,000

Non-County Funding – Unsecured: \$0

Project Description:

Right-Of-Way Acquisition, Design and Construction of B112-00-00 and Tributaries Conveyance Improvements.

Justification:

Design and Construction of a stormwater detention basin will reduce the risk of flooding for over 400 structures in the Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$7,700,000	\$1,426,259	\$530,909	\$5,238,182	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$5,000
Labor	\$750
Other	\$0
Total	\$5,750

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2020
Right-of-way Acquisition and Utility Relocation	FY 2023
Design	FY 2023
Construction	FY 2024

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-07: Design and Construction of the B509-03-00 and B509-04-00 Stormwater Detention Basins

Investment Area: B - Armand Bayou

Total Estimated Cost: \$15,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Design

County Funding: \$3,750,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$11,250,000

Project Description:

Design and Construction of the B509-03-00 and B509-04-00 Stormwater Detention Basins.

Justification:

Design and Construction of this stormwater detention basin could reduce the risk of flooding for over 400 structures in the Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$15,000,000	\$3,350,000	\$4,667,673	\$4,667,673	\$2,314,654	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$13,000
Labor	\$1,950
Other	\$0
Total	\$14,950

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	FY 2020
Construction	FY 2025

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-44: Armand Bayou Right-of-Way Acquisition and Floodplain Preservation

Investment Area: B - Armand Bayou

Total Estimated Cost: \$4,000,000

Bond Project: Yes

Expenditures to Date: \$10,871

Current Project Phase: Right-of-way Acquisition and Utility Relocation

County Funding: \$2,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$2,000,000

Project Description:

Armand Bayou Right-of-Way Acquisition and Floodplain Preservation.

Justification:

Right of way acquisition along Armand Bayou for project support, to preserve channel conveyance and / or restore natural floodplains in areas subject to frequent flooding.

Property acquisitions can benefit public safety by utilizing the land for floodplain preservation or using the land for future projects to construct levees, channels, or detention for flood mitigation and controls. This also has the potential to reduce flooding impacts by removing structures from floodways. This enhancement can be measured by considering the facilities constructed on the property or the acreage removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$4,000,000	\$0	\$0	\$1,598,279	\$1,598,279	\$792,571	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2025
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-023: Right-Of-Way, Design and Construction of Conveyance Improvements along Horsepen Bayou

Investment Area: B - Armand Bayou

Total Estimated Cost: \$6,460,161

Bond Project: Yes

Expenditures to Date: \$782,284

Current Project Phase: Design

County Funding: \$6,460,161

Projected Completion: FY 2022

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-Of-Way, Design and Construction of Conveyance Improvements along Horsepen Bayou.

Justification:

Project could reduce the risk of flooding for more than 250 structures in the watershed in the Atlas 14 1% AEP (100-year) flooding. Some project costs will be determined based on partnership with NASA.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$6,460,161	\$5,677,877	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$17,000
Labor	\$2,550
Other	\$0
Total	\$19,550

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2020
Right-of-way Acquisition and Utility Relocation	FY 2021
Design	FY 2021
Construction	FY 2021

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-72: Design and Construction of the Baywood Stormwater Detention Basin

Investment Area: B - Armand Bayou **Total Estimated Cost:** \$2,000,000

Bond Project: Yes **Expenditures to Date:** \$528,270

Current Project Phase: Design **County Funding:** \$2,000,000

Projected Completion: FY 2021 **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Design and Construction of the Baywood Stormwater Detention Basin.

Justification:

Construction of additional volume in this stormwater detention basin will help reduce the risk of flooding along Armand Bayou.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$2,000,000	\$1,471,730	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$21,000
Labor	\$3,150
Other	\$0
Total	\$24,150

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2019
Right-of-way Acquisition and Utility Relocation	TBD
Design	FY 2021
Construction	FY 2021

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-96: Investigations of General Drainage Improvements in Armand Bayou Watershed

Investment Area: B - Armand Bayou **Total Estimated Cost:** \$1,086,770

Bond Project: Yes **Expenditures to Date:** \$806,221

Current Project Phase: Feasibility Study **County Funding:** \$136,770

Projected Completion: TBD **Non-County Funding – Secured:** \$950,000

Non-County Funding – Unsecured: \$0

Project Description:

Investigations of General Drainage Improvements in Armand Bayou Watershed.

Justification:

Effort will investigate drainage deficiencies, flooding problems and evaluate potential solutions to reduce the risk of flooding in the Armand Bayou watershed for more than 1,200 structures in the Atlas 14 1% AEP (100-year) floodplain.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$1,086,770	\$280,549	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2020
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-99: Right-Of-Way, Design and Construction of Conveyance Improvements along Armand Bayou

Investment Area: B - Armand Bayou

Total Estimated Cost: \$10,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Not Initiated

County Funding: \$10,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-Of-Way, Design and Construction of Conveyance Improvements along Armand Bayou.

Justification:

Design and construction of projects to reduce the risk of flooding in the Armand Bayou watershed for more than 400 structures in the Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$0	\$0	\$3,336,380	\$3,336,380	\$3,327,240	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2026

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
C-08: Right-Of-Way Acquisition, Design, and Construction of Stormwater Detention Basin and Channel Conveyance Improvements along Salt Water Ditch	C - Sims Bayou	Yes	1st Quartile	\$ 50,000,000	\$ 936,326	\$ 3,977,811	\$ 49,063,674	\$ 0
C-09: Right-Of-Way Acquisition, Design, and Construction of South Post Oak Stormwater Detention Basin and Channel Conveyance Improvements along C147-00-00	C - Sims Bayou	Yes	Pre-Prioritization	\$ 18,170,000	\$ 788,689	\$ 1,446,311	\$ 17,381,311	\$ 0
C-10: Design and Construction of South Shaver Stormwater Detention Basin	C - Sims Bayou	Yes	1st Quartile	\$ 15,000,000	\$ 6,358	\$ 3,782,077	\$ 14,993,642	\$ 0
C106-03-00-C007: Phase 4 Channel Conveyance Improvements	C - Sims Bayou	No	Not Applicable	\$ 6,783,158	\$ 1,187,225	\$ 5,595,933	\$ 5,595,933	\$ 0
CI-027: Planning, Right-Of-Way Acquisition, Design, and Construction of Improvements for the Tributaries of C106-00-00	C - Sims Bayou	Yes	Pre-Prioritization	\$ 2,000,000	\$ 0	\$ 0	\$ 2,000,000	\$ 0
CI-029: Restore Channel Conveyance Capacity Along C102-00-00	C - Sims Bayou	Yes	3rd Quartile	\$ 30,000,000	\$ 0	\$ 0	\$ 30,000,000	\$ 0
CI-037: Restore Channel Conveyance Capacity Along C146-00-00	C - Sims Bayou	Yes	4th Quartile	\$ 30,000,000	\$ 0	\$ 0	\$ 30,000,000	\$ 0
F-92: Planning, Right-Of-Way Acquisition, Design and Construction Along C116-00-00	C - Sims Bayou	Yes	1st Quartile	\$ 10,000,000	\$ 0	\$ 550,000	\$ 10,000,000	\$ 0
F-93: Planning, Right-Of-Way Acquisition, Design and Construction Along C124-00-00	C - Sims Bayou	Yes	3rd Quartile	\$ 10,000,000	\$ 0	\$ 0	\$ 10,000,000	\$ 0
F-94: Planning, Right-Of-Way Acquisition, Design and Construction Along C143-00-00	C - Sims Bayou	Yes	2nd Quartile	\$ 10,000,000	\$ 0	\$ 350,000	\$ 10,000,000	\$ 0
F-95: Planning, Right-Of-Way Acquisition, Design and Construction Along C144-00-00	C - Sims Bayou	Yes	1st Quartile	\$ 10,000,000	\$ 0	\$ 250,000	\$ 10,000,000	\$ 0
C - Sims Bayou Total				\$ 191,953,158	\$ 2,918,598	\$ 15,952,132	\$ 189,034,560	\$ 0

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-08: Right-Of-Way Acquisition, Design, and Construction of Stormwater Detention Basin and Channel Conveyance Improvements along Salt Water Ditch

Investment Area: C - Sims Bayou **Total Estimated Cost:** \$50,000,000

Bond Project: Yes **Expenditures to Date:** \$936,326

Current Project Phase: Preliminary Engineering **County Funding:** \$12,500,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$37,500,000

Project Description:

Right-Of-Way Acquisition, Design, and Construction of Stormwater Detention Basin and Channel Conveyance Improvements along Salt Water Ditch. The project will be coordinated with City of Houston.

Justification:

The project could reduce the risk of flooding for over 1,900 structures near C118-00-00 in the pre-Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$50,000,000	\$3,977,811	\$4,144,970	\$15,952,319	\$12,511,426	\$12,477,148	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2020
Right-of-way Acquisition and Utility Relocation	FY 2023
Design	FY 2024
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-09: Right-Of-Way Acquisition, Design, and Construction of South Post Oak Stormwater Detention Basin and Channel Conveyance Improvements along C147-00-00

Investment Area: C - Sims Bayou **Total Estimated Cost:** \$18,170,000

Bond Project: Yes **Expenditures to Date:** \$788,689

Current Project Phase: Preliminary Engineering **County Funding:** \$4,542,500

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$13,627,500

Project Description:

Right-Of-Way Acquisition, Design, and Construction of South Post Oak Stormwater Detention Basin and Channel Conveyance Improvements along C147-00-00.

Justification:

The project could reduce the risk of flooding for over 210 structures in the pre-Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$18,170,000	\$1,446,311	\$2,658,261	\$5,316,522	\$5,316,522	\$2,643,695	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2020
Right-of-way Acquisition and Utility Relocation	FY 2021
Design	FY 2021
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-10: Design and Construction of South Shaver Stormwater Detention Basin

Investment Area: C - Sims Bayou

Total Estimated Cost: \$15,000,000

Bond Project: Yes

Expenditures to Date: \$6,358

Current Project Phase: Design

County Funding: \$3,750,000

Projected Completion: FY 2025

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$11,250,000

Project Description:

Design and Construction of South Shaver Stormwater Detention Basin.

Justification:

This project could reduce the risk of flooding for more than 440 structures in the Atlas 14 1% AEP (100-year) floodplain. The project will be coordinated with City of Houston.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$15,000,000	\$3,782,077	\$4,492,010	\$4,492,010	\$2,227,545	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$20,000
Labor	\$3,000
Other	\$0
Total	\$23,000

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2023
Construction	FY 2025

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C106-03-00-C007: Phase 4 Channel Conveyance Improvements

Investment Area: C - Sims Bayou

Total Estimated Cost: \$6,783,158

Bond Project: No

Expenditures to Date: \$1,187,225

Current Project Phase: Construction

County Funding: \$6,783,158

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Phase 4 Channel conveyance improvements that will construct approximately 4,790 LF of channel conveyance improvements in Sims Bayou

Justification:

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$6,783,158	\$5,595,933	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2020

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-027: Planning, Right-Of-Way Acquisition, Design, and Construction of Improvements for the Tributaries of C106-00-00

Investment Area: C - Sims Bayou	Total Estimated Cost:	\$2,000,000
Bond Project: Yes	Expenditures to Date:	\$0
Current Project Phase: Feasibility Study	County Funding:	\$2,000,000
Projected Completion: TBD	Non-County Funding – Secured:	\$0
	Non-County Funding – Unsecured:	\$0

Project Description:

Planning, Right-Of-Way Acquisition, Design, and Construction of Improvements for the Tributaries of C106-00-00.

Justification:

The project could reduce the risk of flooding for structures along tributaries of C106-00-00. Project will be coordinated with City of South Houston and City of Houston.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$2,000,000	\$0	\$0	\$1,336,996	\$663,004	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2021
Design	FY 2022
Construction	FY 2024

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-029: Restore Channel Conveyance Capacity Along C102-00-00

Investment Area: C - Sims Bayou

Total Estimated Cost: \$30,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Design

County Funding: \$15,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$15,000,000

Project Description:

Restore Channel Conveyance Capacity Along C102-00-00.

Justification:

Major maintenance to restore channel conveyance capacity in partnership with the City of Houston. Project will be coordinated with existing COH plans.

Maintenance projects return flood control facilities to their near intended state for optimal conveyance for the safety of the public. Maintenance projects return flood control facilities to their near intended state for optimal conveyance to allow for key county facilities and roads to be accessible. Maintenance projects return the facility to near intended state for optimal conveyance to reduce flooding risks. This enhancement can be measured by the amount of structures, land, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$30,000,000	\$0	\$0	\$10,009,141	\$10,009,141	\$9,981,718	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	TBD
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-037: Restore Channel Conveyance Capacity Along C146-00-00

Investment Area: C - Sims Bayou

Total Estimated Cost: \$30,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Not Initiated

County Funding: \$15,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$15,000,000

Project Description:

Restore Channel Conveyance Capacity Along C146-00-00.

Justification:

Major maintenance to restore channel conveyance capacity in partnership with the City of Houston, coordinated with existing City plans.

Maintenance projects return flood control facilities to their near intended state for optimal conveyance for the safety of the public. Maintenance projects return flood control facilities to their near intended state for optimal conveyance to allow for key county facilities and roads to be accessible. Maintenance projects return the facility to near intended state for optimal conveyance to reduce flooding risks. This enhancement can be measured by the amount of structures, land, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$30,000,000	\$0	\$7,489,712	\$7,510,288	\$7,510,288	\$7,489,712	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-92: Planning, Right-Of-Way Acquisition, Design and Construction Along C116-00-00

Investment Area: C - Sims Bayou **Total Estimated Cost:** \$10,000,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Feasibility Study **County Funding:** \$10,000,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Planning, Right-Of-Way Acquisition, Design and Construction Along C116-00-00.

Justification:

Could reduce the risk of flooding and could improve local drainage issues for structures along the channel. Project will be coordinated with City of Houston.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$550,000	\$3,152,879	\$3,152,880	\$3,144,241	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2021
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	FY 2024
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-93: Planning, Right-Of-Way Acquisition, Design and Construction Along C124-00-00

Investment Area: C - Sims Bayou **Total Estimated Cost:** \$10,000,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Not Initiated **County Funding:** \$10,000,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Planning, Right-Of-Way Acquisition, Design and Construction Along C124-00-00.

Justification:

Could reduce the risk of flooding and could improve local drainage issues for buildings along the channel. Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$0	\$0	\$3,336,380	\$3,336,380	\$3,327,240	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-94: Planning, Right-Of-Way Acquisition, Design and Construction Along C143-00-00

Investment Area: C - Sims Bayou **Total Estimated Cost:** \$10,000,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Feasibility Study **County Funding:** \$10,000,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Planning, Right-Of-Way Acquisition, Design and Construction Along C143-00-00.

Justification:

Could reduce the risk of flooding and could improve local drainage issues for structures along the channel.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$350,000	\$3,219,607	\$3,219,607	\$3,210,786	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2021
Preliminary Engineering	FY 2022
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	FY 2024
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-95: Planning, Right-Of-Way Acquisition, Design and Construction Along C144-00-00

Investment Area: C - Sims Bayou **Total Estimated Cost:** \$10,000,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Feasibility Study **County Funding:** \$10,000,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Planning, Right-Of-Way Acquisition, Design and Construction Along C144-00-00.

Justification:

Could reduce the risk of flooding and could improve local drainage issues for structures along the channel.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$250,000	\$0	\$3,252,971	\$3,252,970	\$3,244,059	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2020
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	FY 2024
Construction	FY 2026

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
C-11: Design and Construction of Project Brays Corps of Engineers Section 211(f) Project	D - Brays Bayou	Yes	Pre-Prioritization	\$ 103,290,955	\$ 82,668,883	\$ 20,507,347	\$ 20,622,072	\$ 0
C-12: Right-Of-Way, Design and Construction of Conveyance Improvements along Poor Farm Ditch	D - Brays Bayou	Yes	4th Quartile	\$ 19,350,000	\$ 0	\$ 0	\$ 19,350,000	\$ 0
C-13: Planning, Right-Of-Way, Design and Construction of Conveyance Improvements along Bintliff Ditch	D - Brays Bayou	Yes	1st Quartile	\$ 30,000,000	\$ 0	\$ 90,000	\$ 30,000,000	\$ 0
CI-025: Investigation of Additional Stormwater Detention Basins in the Brays Bayou Watershed	D - Brays Bayou	Yes	4th Quartile	\$ 200,000	\$ 0	\$ 200,000	\$ 200,000	\$ 0
CI-034: Investigation of Channel Improvements Upstream of Fondren Road on Brays Bayou	D - Brays Bayou	Yes	3rd Quartile	\$ 250,000	\$ 0	\$ 250,000	\$ 250,000	\$ 0
CI-038: Restore Channel Conveyance Capacity Along D115-00-00	D - Brays Bayou	Yes	4th Quartile	\$ 30,000,000	\$ 0	\$ 0	\$ 30,000,000	\$ 0
D111-00-00-C001: Poor Farm Ditch Conveyance Improvements	D - Brays Bayou	No	Not Applicable	\$ 9,600,000	\$ 1,188,226	\$ 3,201,518	\$ 8,411,774	\$ 0
F-07: Planning, Right-Of-Way Acquisition, Design, and Construction of Channel Conveyance Improvements on Keeqans Bayou	D - Brays Bayou	Yes	1st Quartile	\$ 32,500,000	\$ 163,059	\$ 668,841	\$ 25,985,969	\$ 6,350,972
F-08: Planning, Right-Of-Way Acquisition, Design, and Construction of Channel Conveyance Improvements on Fondren Diversion Channel	D - Brays Bayou	Yes	2nd Quartile	\$ 30,500,000	\$ 0	\$ 750,000	\$ 26,781,250	\$ 3,718,750
D - Brays Bayou Total				\$ 255,690,955	\$ 84,020,168	\$ 25,667,706	\$ 161,601,065	\$ 10,069,722

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-11: Design and Construction of Project Brays Corps of Engineers Section 211(f) Project

Investment Area: D - Brays Bayou

Total Estimated Cost: \$103,290,955

Bond Project: Yes

Expenditures to Date: \$82,668,883

Current Project Phase: Operation and Maintenance

County Funding: \$28,290,955

Projected Completion: FY 2022

Non-County Funding – Secured: \$75,000,000

Non-County Funding – Unsecured: \$0

Project Description:

Design and Construction of Project Brays Corps of Engineers Section 211(f) Project.

Justification:

The pre-Atlas 14 1% AEP (100-year) floodplain could be removed from up to 15,000 structures as part of Project Brays.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$103,290,955	\$20,507,347	\$114,725	\$0	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2019
Right-of-way Acquisition and Utility Relocation	FY 2021
Design	FY 2022
Construction	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-12: Right-Of-Way, Design and Construction of Conveyance Improvements along Poor Farm Ditch

Investment Area: D - Brays Bayou

Total Estimated Cost: \$19,350,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Not Initiated

County Funding: \$4,840,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$14,510,000

Project Description:

Right-Of-Way, Design and Construction of Conveyance Improvements along Poor Farm Ditch.

Justification:

The project could reduce the risk of flooding for over 270 structures in the 1% floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$19,350,000	\$0	\$0	\$6,455,896	\$6,455,896	\$6,438,208	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-13: Planning, Right-Of-Way, Design and Construction of Conveyance Improvements along Bintliff Ditch

Investment Area: D - Brays Bayou

Total Estimated Cost: \$30,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Preliminary Engineering

County Funding: \$7,500,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$22,500,000

Project Description:

Planning, Right-Of-Way, Design and Construction of Conveyance Improvements along Bintliff Ditch.

Justification:

The project could reduce the risk of flooding for over 720 structures in the pre-Atlas 14 1% AEP (100-year) floodplain. The project will be coordinated with City of Houston.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$30,000,000	\$90,000	\$4,989,557	\$9,979,113	\$9,979,113	\$4,962,218	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	FY 2019
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	FY 2024
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-025: Investigation of Additional Stormwater Detention Basins in the Brays Bayou Watershed

Investment Area: D - Brays Bayou

Total Estimated Cost: \$200,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Not Initiated

County Funding: \$200,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Investigation of Additional Stormwater Detention Basins in the Brays Bayou Watershed.

Justification:

The project could reduce the risk of flooding for structures in the watershed.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$200,000	\$200,000	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2024
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-034: Investigation of Channel Improvements Upstream of Fondren Road on Brays Bayou

Investment Area: D - Brays Bayou

Total Estimated Cost: \$250,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Not Initiated

County Funding: \$250,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Investigation of Channel Improvements Upstream of Fondren Road on Brays Bayou.

Justification:

This project could reduce the risk of flooding along Brays Bayou.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$250,000	\$250,000	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2024
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-038: Restore Channel Conveyance Capacity Along D115-00-00

Investment Area: D - Brays Bayou

Total Estimated Cost: \$30,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Not Initiated

County Funding: \$15,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$15,000,000

Project Description:

Restore Channel Conveyance Capacity Along D115-00-00.

Justification:

Major maintenance to restore channel conveyance capacity in partnership with the City of Houston. Project will be coordinated with existing COH plans.

Maintenance projects return flood control facilities to their near intended state for optimal conveyance for the safety of the public. Maintenance projects return flood control facilities to their near intended state for optimal conveyance to allow for key county facilities and roads to be accessible. Maintenance projects return the facility to near intended state for optimal conveyance to reduce flooding risks. This enhancement can be measured by the amount of structures, land, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$30,000,000	\$0	\$7,489,712	\$7,510,288	\$7,510,288	\$7,489,712	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: D111-00-00-C001: Poor Farm Ditch Conveyance Improvements

Investment Area: D - Brays Bayou

Total Estimated Cost: \$9,600,000

Bond Project: No

Expenditures to Date: \$1,188,226

Current Project Phase: Design

County Funding: \$9,600,000

Projected Completion: FY 2021

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Poor Farm Ditch Conveyance Improvements.

Justification:

The improvements to Poor Farm Ditch Conveyance will greatly improve flood control in the Brays Bayou watershed.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$9,600,000	\$3,201,518	\$5,210,256	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	FY 2020
Construction	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-07: Planning, Right-Of-Way Acquisition, Design, and Construction of Channel Conveyance Improvements on Keegans Bayou

Investment Area: D - Brays Bayou

Total Estimated Cost: \$32,500,000

Bond Project: Yes

Expenditures to Date: \$163,059

Current Project Phase: Right-of-way Acquisition and Utility Relocation

County Funding: \$32,500,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Planning, Right-Of-Way Acquisition, Design, and Construction of Channel Conveyance Improvements on Keegans Bayou.

Justification:

Right of way acquisition, design and construction of this project could reduce the risk flooding for over 900 structures in the pre-Atlas 14 1% AEP (100-year) floodplain. Project will be coordinated with City of Houston.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$32,500,000	\$668,841	\$6,316,268	\$6,333,620	\$6,333,620	\$6,333,620	\$6,350,972

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	FY 2021
Preliminary Engineering	FY 2022
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	FY 2024
Construction	FY 2027

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-08: Planning, Right-Of-Way Acquisition, Design, and Construction of Channel Conveyance Improvements on Fondren Diversion Channel

Investment Area: D - Brays Bayou **Total Estimated Cost:** \$30,500,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Feasibility Study **County Funding:** \$30,500,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Planning, Right-Of-Way Acquisition, Design, and Construction of Channel Conveyance Improvements on Fondren Diversion Channel.

Justification:

Right of way acquisition, design and construction of this project could reduce the risk of flooding for over 400 structures in the pre-Atlas 14 1% AEP (100-year) floodplain. Project will be coordinated with City of Houston.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$30,500,000	\$750,000	\$3,718,750	\$7,437,500	\$7,437,500	\$7,437,500	\$3,718,750

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2021
Preliminary Engineering	FY 2022
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	FY 2024
Construction	FY 2027

Supplement 2 - Capital Improvements Plan
Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
C-14: Design and Construction of Corps of Engineers White Oak Bayou Section 211(f) Project	E - White Oak Bayou	Yes	Pre-Prioritization	\$ 45,000,000	\$ 10,299,011	\$ 30,830,048	\$ 34,700,989	\$ 0
C-15: Design and Construction of Arbor Oaks Stormwater Detention Basin	E - White Oak Bayou	Yes	1st Quartile	\$ 14,375,004	\$ 300,670	\$ 5,245,006	\$ 14,074,334	\$ 0
C-16: Design and Construction of Woodland Trails Stormwater Detention Basin	E - White Oak Bayou	Yes	Pre-Prioritization	\$ 63,500,000	\$ 0	\$ 4,429,596	\$ 63,500,000	\$ 0
C-39: Right-of-Way Acquisition, Design and Construction of the North Canal	E - White Oak Bayou	Yes	2nd Quartile	\$ 100,000,000	\$ 0	\$ 1,840,106	\$ 83,956,164	\$ 16,043,836
C-59: Construction of Inwood Forest Stormwater Detention Basin	E - White Oak Bayou	Yes	Pre-Prioritization	\$ 48,155,000	\$ 1,083,956	\$ 23,641,557	\$ 47,071,044	\$ 0
CI-010: Partnership Project with Jersey Village on Right-of-Way Acquisition, Design, and Construction of General Drainage Improvements along E127-00-00	E - White Oak Bayou	Yes	3rd Quartile	\$ 3,000,000	\$ 0	\$ 0	\$ 3,000,000	\$ 0
CI-011: Partnership Project with the City of Houston for Feasibility Study of General Drainage Improvements around Hidden Lake Townhomes	E - White Oak Bayou	Yes	Pre-Prioritization	\$ 350,000	\$ 0	\$ 350,000	\$ 350,000	\$ 0
CI-030: Right-of-Way Acquisition, Design and Construction of General Drainage Improvements along Turkey Gully	E - White Oak Bayou	Yes	3rd Quartile	\$ 40,000,000	\$ 0	\$ 0	\$ 30,000,000	\$ 10,000,000
CI-032: Investigation of Additional Stormwater Detention Basins in the White Oak Bayou Watershed	E - White Oak Bayou	Yes	3rd Quartile	\$ 250,000	\$ 0	\$ 250,000	\$ 250,000	\$ 0
CI-033: Partnership Project with City of Houston on Planning, Right-of-Way Acquisition, Design, and Construction of General Drainage Improvements along E105-00-00	E - White Oak Bayou	Yes	Pre-Prioritization	\$ 2,000,000	\$ 0	\$ 154,559	\$ 2,000,000	\$ 0
F-09: Planning, Right-Of-Way Acquisition, Design and Construction of Little White Oak Bayou Channel Conveyance Improvements	E - White Oak Bayou	Yes	Pre-Prioritization	\$ 30,000,000	\$ 9,108,130	\$ 1,117,987	\$ 20,891,870	\$ 0
F-10: Right-Of-Way Acquisition, Design, and Construction of Channel Conveyance Improvements on Brickhouse Gully	E - White Oak Bayou	Yes	Pre-Prioritization	\$ 35,000,000	\$ 0	\$ 0	\$ 27,980,822	\$ 7,019,178
E - White Oak Bayou Total				\$ 381,630,004	\$ 20,791,767	\$ 67,858,859	\$ 327,775,223	\$ 33,063,014

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-14: Design and Construction of Corps of Engineers White Oak Bayou Section 211(f) Project

Investment Area: E - White Oak Bayou

Total Estimated Cost: \$45,000,000

Bond Project: Yes

Expenditures to Date: \$10,299,011

Current Project Phase: Operation and Maintenance

County Funding: \$0

Projected Completion: FY 2022

Non-County Funding – Secured: \$45,000,000

Non-County Funding – Unsecured: \$0

Project Description:

Design and Construction of Corps of Engineers White Oak Bayou Section 211(f) Project.

Justification:

The pre-Atlas 14 1% AEP (100-year) floodplain could be removed from up to 1,500 structures as part of this federal project.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$45,000,000	\$30,830,048	\$3,870,941	\$0	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2018
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2023
Construction	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-15: Design and Construction of Arbor Oaks Stormwater Detention Basin

Investment Area: E - White Oak Bayou

Total Estimated Cost: \$14,375,004

Bond Project: Yes

Expenditures to Date: \$300,670

Current Project Phase: Right-of-way
Acquisition and Utility Relocation

County Funding: \$3,575,004

Projected Completion: FY 2024

Non-County Funding – Secured: \$10,800,000

Non-County Funding – Unsecured: \$0

Project Description:

Design and Construction of Arbor Oaks Stormwater Detention Basin.

Justification:

This stormwater detention basin compliments the federal project on White Oak Bayou, which will reduce the risk of flooding for 1,800 structures in the Atlas 14 1% AEP (100-year) floodplain. The project will be coordinated with City of Houston.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$14,375,004	\$5,245,006	\$3,555,166	\$3,645,660	\$1,628,502	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$14,000
Labor	\$2,100
Other	\$0
Total	\$16,100

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2020
Right-of-way Acquisition and Utility Relocation	FY 2020
Design	FY 2022
Construction	FY 2024

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-16: Design and Construction of Woodland Trails Stormwater Detention Basin

Investment Area: E - White Oak Bayou **Total Estimated Cost:** \$63,500,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Preliminary Engineering **County Funding:** \$14,839,614

Projected Completion: FY 2026 **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$48,660,386

Project Description:

Design and Construction of Woodland Trails Stormwater Detention Basin.

Justification:

This stormwater detention basin compliments the federal project on White Oak Bayou which will reduce the risk of flooding for 1,800 structures in the Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$63,500,000	\$4,429,596	\$13,253,933	\$13,455,787	\$32,360,684	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	FY 2024
Construction	FY 2025

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-39: Right-of-Way Acquisition, Design and Construction of the North Canal

Investment Area: E - White Oak Bayou **Total Estimated Cost:** \$100,000,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Design **County Funding:** \$20,000,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$80,000,000

Project Description:

Right-of-Way Acquisition, Design and Construction of the North Canal.

Justification:

Design and construction of this project will reduce the risk of flooding upstream and downstream of downtown Houston. The project will be led by City of Houston.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$100,000,000	\$1,840,106	\$25,384,843	\$24,731,215	\$16,000,000	\$16,000,000	\$16,043,836

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$66,825
Labor	\$10,024
Other	\$0
Total	\$76,849

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2021
Design	FY 2021
Construction	FY 2027

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-59: Construction of Inwood Forest Stormwater Detention Basin

Investment Area: E - White Oak Bayou **Total Estimated Cost:** \$48,155,000

Bond Project: Yes **Expenditures to Date:** \$1,083,956

Current Project Phase: Design **County Funding:** \$13,155,000

Projected Completion: FY 2023 **Non-County Funding – Secured:** \$2,142,059

Non-County Funding – Unsecured: \$32,857,942

Project Description:

Construction of Inwood Forest Stormwater Detention Basin.

Justification:

Design and construction of this project will reduce the risk of flooding for over 130 structures in the pre-Atlas 14 1% AEP (100-year) floodplain. The project will be coordinated with City of Houston.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$48,155,000	\$23,641,557	\$22,695,513	\$733,974	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$8,000
Labor	\$1,200
Other	\$0
Total	\$9,200

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2021
Design	FY 2021
Construction	FY 2023

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-010: Partnership Project with Jersey Village on Right-of-Way Acquisition, Design, and Construction of General Drainage Improvements along E127-00-00

Investment Area: E - White Oak Bayou **Total Estimated Cost:** \$3,000,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Feasibility Study **County Funding:** \$1,500,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$1,500,000

Project Description:

Partnership Project with Jersey Village on Right-of-Way Acquisition, Design, and Construction of General Drainage Improvements along E127-00-00.

Justification:

Planning, right of way acquisition, design and construction of this project could reduce the risk of flooding for homes along E127-00-00.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$3,000,000	\$0	\$0	\$1,502,058	\$1,497,942	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2023
Construction	FY 2025

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-011: Partnership Project with the City of Houston for Feasibility Study of General Drainage Improvements around Hidden Lake Townhomes

Investment Area: E - White Oak Bayou **Total Estimated Cost:** \$350,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Feasibility Study **County Funding:** \$175,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$175,000

Project Description:

Partnership Project with the City of Houston for Feasibility Study of General Drainage Improvements around Hidden Lake Townhomes.

Justification:

Feasibility study in partnership with the City of Houston will evaluate general drainage improvements that could reduce the risk of flooding for homes in Hidden Lakes Townhomes.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$350,000	\$350,000	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2024
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-030: Right-of-Way Acquisition, Design and Construction of General Drainage Improvements along Turkey Gully

Investment Area: E - White Oak Bayou

Total Estimated Cost: \$40,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Design

County Funding: \$10,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$30,000,000

Project Description:

Right-of-Way Acquisition, Design and Construction of General Drainage Improvements along Turkey Gully.

Justification:

Project could reduce the risk of flooding for structures along Turkey Gully in partnership with the City of Houston. Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$40,000,000	\$0	\$0	\$10,000,000	\$10,000,000	\$10,000,000	\$10,000,000

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2023
Construction	FY 2027

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-032: Investigation of Additional Stormwater Detention Basins in the White Oak Bayou Watershed

Investment Area: E - White Oak Bayou

Total Estimated Cost: \$250,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Not Initiated

County Funding: \$125,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$125,000

Project Description:

Investigation of Additional Stormwater Detention Basins in the White Oak Bayou Watershed.

Justification:

The project could reduce the risk of flooding for structures in the watershed. Project will be coordinated with existing COH plans.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$250,000	\$250,000	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2024
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-033: Partnership Project with City of Houston on Planning, Right-of-Way Acquisition, Design, and Construction of General Drainage Improvements along E105-00-00

Investment Area: E - White Oak Bayou **Total Estimated Cost:** \$2,000,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Feasibility Study **County Funding:** \$1,000,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$1,000,000

Project Description:

Partnership Project with City of Houston on Planning, Right-of-Way Acquisition, Design, and Construction of General Drainage Improvements along E105-00-00.

Justification:

Planning, right of way acquisition, design and construction of this project could reduce the risk of flooding for homes along E105-00-00. Project will be coordinated with the City of Houston.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$2,000,000	\$154,559	\$86,504	\$1,267,644	\$267,645	\$223,648	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2021
Preliminary Engineering	FY 2022
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2023
Construction	FY 2025

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-09: Planning, Right-Of-Way Acquisition, Design and Construction of Little White Oak Bayou Channel Conveyance Improvements

Investment Area: E - White Oak Bayou **Total Estimated Cost:** \$30,000,000

Bond Project: Yes **Expenditures to Date:** \$9,108,130

Current Project Phase: Right-of-way Acquisition and Utility Relocation **County Funding:** \$30,000,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Planning, Right-Of-Way Acquisition, Design and Construction of Little White Oak Bayou Channel Conveyance Improvements.

Justification:

Planning, right of way acquisition, design and construction of this project could reduce the risk of flooding for over 1,150 structures in the pre-Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$30,000,000	\$1,117,987	\$412,741	\$9,598,497	\$5,447,397	\$4,315,248	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$1,612
Labor	\$242
Other	\$0
Total	\$1,854

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	FY 2021
Preliminary Engineering	FY 2022
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	FY 2024
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-10: Right-Of-Way Acquisition, Design, and Construction of Channel Conveyance Improvements on Brickhouse Gully

Investment Area: E - White Oak Bayou

Total Estimated Cost: \$35,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Design

County Funding: \$35,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-Of-Way Acquisition, Design, and Construction of Channel Conveyance Improvements on Brickhouse Gully.

Justification:

Right of way acquisition, design and construction of this project could reduce the risk of flooding for over 1,300 structures in the pre-Atlas 14 1% AEP (100-year) floodplain. Project will be coordinated with City of Houston.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$35,000,000	\$0	\$6,980,822	\$7,000,000	\$7,000,000	\$7,000,000	\$7,019,178

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	FY 2024
Construction	FY 2027

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
C-57: Right-of-Way Acquisition, Design and Construction of General Drainage Improvements Along F216-00-00	F - Galveston Bay	Yes	2nd Quartile	\$ 10,000,000	\$ 0	\$ 378,378	\$ 10,000,000	\$ 0
C-58: Right-of-Way Acquisition, Design and Construction of General Drainage Improvements Along F101-06-00	F - Galveston Bay	Yes	Pre-Prioritization	\$ 20,000,000	\$ 142,723	\$ 1,800,638	\$ 19,857,277	\$ 0
F-101: Investigations of General Drainage Improvements in Galveston Bay Watershed	F - Galveston Bay	Yes	Pre-Prioritization	\$ 450,000	\$ 398,191	\$ 51,809	\$ 51,809	\$ 0
F-98: Right-of-Way Acquisition, Design and Construction of General Drainage Improvements in Galveston Bay Watershed	F - Galveston Bay	Yes	3rd Quartile	\$ 4,000,000	\$ 0	\$ 0	\$ 4,000,000	\$ 0
F - Galveston Bay Total				\$ 34,450,000	\$ 540,914	\$ 2,230,825	\$ 33,909,086	\$ 0

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-57: Right-of-Way Acquisition, Design and Construction of General Drainage Improvements Along F216-00-00

Investment Area: F - Galveston Bay **Total Estimated Cost:** \$10,000,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Feasibility Study **County Funding:** \$8,000,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$2,000,000

Project Description:

Right-of-Way Acquisition, Design and Construction of General Drainage Improvements Along F216-00-00.

Justification:

This project is designed to reduce the risk of flooding along F216-00-00. Specific benefits will be determined once more of the project is scoped and planned.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$378,378	\$21,622	\$3,202,925	\$3,202,925	\$3,194,150	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2022
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2023
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-58: Right-of-Way Acquisition, Design and Construction of General Drainage Improvements Along F101-06-00

Investment Area: F - Galveston Bay

Total Estimated Cost: \$20,000,000

Bond Project: Yes

Expenditures to Date: \$142,723

Current Project Phase: Right-of-way Acquisition and Utility Relocation

County Funding: \$16,000,000

Projected Completion: FY 2022

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$4,000,000

Project Description:

Right-of-Way Acquisition, Design and Construction of General Drainage Improvements Along F101-06-00.

Justification:

The project could reduce the risk of flooding for over 40 structures in the Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$20,000,000	\$1,800,638	\$3,071,429	\$4,999,636	\$4,999,636	\$4,985,938	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	FY 2019
Preliminary Engineering	FY 2020
Right-of-way Acquisition and Utility Relocation	FY 2021
Design	FY 2022
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-101: Investigations of General Drainage Improvements in Galveston Bay Watershed

Investment Area: F - Galveston Bay

Total Estimated Cost: \$450,000

Bond Project: Yes

Expenditures to Date: \$398,191

Current Project Phase: Feasibility Study

County Funding: \$0

Projected Completion: TBD

Non-County Funding – Secured: \$450,000

Non-County Funding – Unsecured: \$0

Project Description:

Investigations of General Drainage Improvements in Galveston Bay Watershed.

Justification:

Effort will investigate drainage deficiencies and flooding problems and evaluate potential solutions to reduce the risk of flooding in the Galveston Bay watershed for more than 300 structures in the Atlas 14 1% AEP (100-year) floodplain.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$450,000	\$51,809	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2020
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-98: Right-of-Way Acquisition, Design and Construction of General Drainage Improvements in Galveston Bay Watershed

Investment Area: F - Galveston Bay

Total Estimated Cost: \$4,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Not Initiated

County Funding: \$4,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-of-Way Acquisition, Design and Construction of General Drainage Improvements in Galveston Bay Watershed.

Justification:

Design and construction of a project to reduce the risk of flooding in the Galveston Bay watershed for more than 50 structures in the Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$4,000,000	\$0	\$0	\$1,602,635	\$1,602,634	\$794,731	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2023
Construction	FY 2025

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
C-17: San Jacinto River Watershed Study	G - San Jacinto River	Yes	Pre-Prioritization	\$ 3,578,208	\$ 2,619,800	\$ 958,408	\$ 958,408	\$ 0
C-50: Funding for Future Partnership Projects Based on Results of Study - for Right-of-Way Acquisition, Design, and Construction of General Drainage Improvements in San Jacinto River Watershed Study	G - San Jacinto River	Yes	3rd Quartile	\$ 75,000,000	\$ 0	\$ 0	\$ 59,958,904	\$ 15,041,096
CI-019: Investigations of Potential Detention Sites Around Glendale Dredge Site in Partnership with the City of Houston	G - San Jacinto River	Yes	3rd Quartile	\$ 100,000	\$ 0	\$ 100,000	\$ 100,000	\$ 0
CI-028: Design and Construction of Additional Gates on Lake Houston in Partnership with the City of Houston	G - San Jacinto River	Yes	3rd Quartile	\$ 70,000,000	\$ 0	\$ 1,500,000	\$ 56,262,466	\$ 13,737,534
CI-60: Planning, Right-Of-Way, Design and Construction of Conveyance Improvements along Panther Creek	G - San Jacinto River	Yes	2nd Quartile	\$ 10,000,000	\$ 269,629	\$ 330,372	\$ 9,730,371	\$ 0
CI-61: East Fork, West Fork and Lake Houston Dredging	G - San Jacinto River	Yes	4th Quartile	\$ 50,000,000	\$ 0	\$ 0	\$ 39,972,603	\$ 10,027,397
F-111: Planning, Right-Of-Way Acquisition, Design and Construction of General Drainage Improvements East of Lake Houston	G - San Jacinto River	Yes	3rd Quartile	\$ 10,000,000	\$ 0	\$ 0	\$ 10,000,000	\$ 0
F-15: Planning, Right-Of-Way Acquisition, Design and Construction of General Drainage Improvements Near Atascocita	G - San Jacinto River	Yes	4th Quartile	\$ 10,000,000	\$ 0	\$ 0	\$ 10,000,000	\$ 0
G - San Jacinto River Total				\$ 228,678,208	\$ 2,889,429	\$ 2,888,780	\$ 186,982,752	\$ 38,806,027

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-17: San Jacinto River Watershed Study

Investment Area: G - San Jacinto River

Total Estimated Cost: \$3,578,208

Bond Project: Yes

Expenditures to Date: \$2,619,800

Current Project Phase: Feasibility Study

County Funding: \$1,547,052

Projected Completion: TBD

Non-County Funding – Secured: \$2,031,156

Non-County Funding – Unsecured: \$0

Project Description:

San Jacinto River Watershed Study.

Justification:

This effort will investigate drainage deficiencies, flooding problems and evaluate potential solutions to reduce the risk of flooding in the San Jacinto River watershed for more than 18,500 structures in the Atlas 14 1% AEP (100-year) floodplain.

Planning projects help the District to determine the feasibility of further projects to improve flood mitigation and controls to benefit public safety. These future projects could include acquiring property for floodplain preservation, establishing sensitive habitats, or constructing levees, channels or detention. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects that are initiated from the feasibility study that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$3,578,208	\$958,408	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2022
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-50: Funding for Future Partnership Projects Based on Results of Study - for Right-of-Way Acquisition, Design, and Construction of General Drainage Improvements in San Jacinto River Watershed Study

Investment Area: G - San Jacinto River **Total Estimated Cost:** \$75,000,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Not Initiated **County Funding:** \$18,750,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$56,250,000

Project Description:

Funding for Future Partnership Projects Based on Results of Study - for Right-of-Way Acquisition, Design, and Construction of General Drainage Improvements in San Jacinto River Watershed Study.

Justification:

Design and construction of partnership projects to reduce the risk of flooding along the San Jacinto River. Projects could include, but not limited to, detention, sediment control, vegetation management, and other flood risk management projects.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$75,000,000	\$0	\$14,958,904	\$15,000,000	\$15,000,000	\$15,000,000	\$15,041,096

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2027

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-019: Investigations of Potential Detention Sites Around Glendale Dredge Site in Partnership with the City of Houston

Investment Area: G - San Jacinto River

Total Estimated Cost: \$100,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Feasibility Study

County Funding: \$50,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$50,000

Project Description:

Investigations of Potential Detention Sites Around Glendale Dredge Site in Partnership with the City of Houston.

Justification:

Study will investigate potential sites and benefits for detention in and around Glendale Dredge site in partnership with the City of Houston.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$100,000	\$100,000	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2024
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-028: Design and Construction of Additional Gates on Lake Houston in Partnership with the City of Houston

Investment Area: G - San Jacinto River

Total Estimated Cost: \$70,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Preliminary Engineering

County Funding: \$20,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$50,000,000

Project Description:

Design and Construction of Additional Gates on Lake Houston in Partnership with the City of Houston.

Justification:

Design and construction of additional gates which could enhance the operation of Lake Houston for reduction of flood risk along the San Jacinto River. Project will be led by the City of Houston.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$70,000,000	\$1,500,000	\$13,662,466	\$13,700,000	\$13,700,000	\$13,700,000	\$13,737,534

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2021
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	FY 2022
Construction	FY 2027

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-60: Planning, Right-Of-Way, Design and Construction of Conveyance Improvements along Panther Creek

Investment Area: G - San Jacinto River

Total Estimated Cost: \$10,000,000

Bond Project: Yes

Expenditures to Date: \$269,629

Current Project Phase: Feasibility Study

County Funding: \$10,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Planning, Right-Of-Way, Design and Construction of Conveyance Improvements along Panther Creek.

Justification:

Planning, right of way acquisition, design and construction of projects could reduce the risk of flooding along Panther Creek.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$330,372	\$3,136,197	\$3,136,197	\$3,127,605	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2021
Preliminary Engineering	FY 2022
Right-of-way Acquisition and Utility Relocation	FY 2023
Design	FY 2024
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-61: East Fork, West Fork and Lake Houston Dredging

Investment Area: G - San Jacinto River **Total Estimated Cost:** \$50,000,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Not Initiated **County Funding:** \$10,000,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$40,000,000

Project Description:

East Fork, West Fork and Lake Houston Dredging.

Justification:

Potential partnership project with the City of Houston, Coastal Water Authority, and the State of Texas to permit, design, and complete dredging of the East Fork, West Fork and Lake Houston area waterways to reduce flooding risks.

Maintenance projects return flood control facilities to their near intended state for optimal conveyance for the safety of the public. Maintenance projects return flood control facilities to their near intended state for optimal conveyance to allow for key county facilities and roads to be accessible. Maintenance projects return the facility to near intended state for optimal conveyance to reduce flooding risks. This enhancement can be measured by the amount of structures, land, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$50,000,000	\$0	\$9,972,603	\$10,000,000	\$10,000,000	\$10,000,000	\$10,027,397

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2027

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-111: Planning, Right-Of-Way Acquisition, Design and Construction of General Drainage Improvements East of Lake Houston

Investment Area: G - San Jacinto River **Total Estimated Cost:** \$10,000,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Not Initiated **County Funding:** \$10,000,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Planning, Right-Of-Way Acquisition, Design and Construction of General Drainage Improvements East of Lake Houston.

Justification:

This project could reduce the risk of flooding and facilitate drainage improvements in the area east of Lake Houston in the San Jacinto River watershed.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$0	\$0	\$3,336,380	\$3,336,380	\$3,327,240	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-15: Planning, Right-Of-Way Acquisition, Design and Construction of General Drainage Improvements Near Atascocita

Investment Area: G - San Jacinto River

Total Estimated Cost: \$10,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Not Initiated

County Funding: \$10,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Planning, Right-Of-Way Acquisition, Design and Construction of General Drainage Improvements Near Atascocita.

Justification:

This project could reduce the risk of flooding and facilitate drainage improvements in the area of Atascocita in the San Jacinto River watershed.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$0	\$0	\$3,336,380	\$3,336,380	\$3,327,240	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2026

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
C-18: Design and Construction of Corps of Engineers Hunting Bayou, Section 211(f) Project	H - Hunting Bayou	Yes	Pre-Prioritization	\$ 65,000,000	\$ 8,167,407	\$ 20,903,699	\$ 56,832,593	\$ 0
CI-031: District Cost Share of Study with the City of Houston on Wallisville Outfall	H - Hunting Bayou	Yes	2nd Quartile	\$ 500,000	\$ 0	\$ 500,000	\$ 500,000	\$ 0
CI-59: Planning, Right-Of-Way, Design and Construction of a Diversion Channel from H102-00-00 to H100-00-00 through Galena Park	H - Hunting Bayou	Yes	4th Quartile	\$ 10,000,000	\$ 0	\$ 0	\$ 7,500,000	\$ 2,500,000
F-17: Right-Of-Way Acquisition, Design and Construction of Wallisville Outfall	H - Hunting Bayou	Yes	2nd Quartile	\$ 10,000,000	\$ 0	\$ 0	\$ 7,500,000	\$ 2,500,000
H - Hunting Bayou Total				\$ 85,500,000	\$ 8,167,407	\$ 21,403,699	\$ 72,332,593	\$ 5,000,000

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-18: Design and Construction of Corps of Engineers Hunting Bayou, Section 211(f) Project

Investment Area: H - Hunting Bayou

Total Estimated Cost: \$65,000,000

Bond Project: Yes

Expenditures to Date: \$8,167,407

Current Project Phase: Operation and Maintenance

County Funding: \$0

Projected Completion: FY 2022

Non-County Funding – Secured: \$65,000,000

Non-County Funding – Unsecured: \$0

Project Description:

Design and Construction of Corps of Engineers Hunting Bayou, Section 211(f) Project.

Justification:

The pre-Atlas 14 1% AEP (100-year) floodplain will be removed from up to 4,450 structures as part of this federal project.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$65,000,000	\$20,903,699	\$20,153,356	\$7,898,589	\$7,876,949	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	FY 2018
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2020
Design	FY 2021
Construction	FY 2025

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-031: District Cost Share of Study with the City of Houston on Wallisville Outfall			
Investment Area: H - Hunting Bayou	Total Estimated Cost:	\$500,000	
Bond Project: Yes	Expenditures to Date:	\$0	
Current Project Phase: Feasibility Study	County Funding:	\$500,000	
Projected Completion: TBD	Non-County Funding – Secured:	\$0	
	Non-County Funding – Unsecured:	\$0	

Project Description:

District Cost Share of Study with the City of Houston on Wallisville Outfall.

Justification:

Study will investigate flooding problems and identify potential solutions along the H103-00-00 channel. Project will be coordinated with City of Houston.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$500,000	\$500,000	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2021
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-59: Planning, Right-Of-Way, Design and Construction of a Diversion Channel from H102-00-00 to H100-00-00 through Galena Park

Investment Area: H - Hunting Bayou **Total Estimated Cost:** \$10,000,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Not Initiated **County Funding:** \$10,000,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Planning, Right-Of-Way, Design and Construction of a Diversion Channel from H102-00-00 to H100-00-00 through Galena Park.

Justification:

The project could reduce the risk of flooding for structures in lower Hunting Bayou.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$0	\$0	\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2027

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-17: Right-Of-Way Acquisition, Design and Construction of Wallisville Outfall

Investment Area: H - Hunting Bayou

Total Estimated Cost: \$10,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Right-of-way Acquisition and Utility Relocation

County Funding: \$10,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-Of-Way Acquisition, Design and Construction of Wallisville Outfall.

Justification:

The project could reduce the risk of flooding for over 140 structures in the pre-Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$0	\$0	\$2,500,000	\$2,500,000	\$2,500,000	\$2,500,000

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2021
Design	FY 2023
Construction	FY 2027

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
F-104: Right-of-Way Acquisition, Design and Construction of General Drainage Improvements in Vince Bayou Watershed	I - Vince Bayou	Yes	2nd Quartile	\$ 15,000,000	\$ 0	\$ 0	\$ 15,000,000	\$ 0
F-78: Investigations of General Drainage Improvements in Vince Bayou Watershed	I - Vince Bayou	Yes	Pre-Prioritization	\$ 550,000	\$ 372,650	\$ 177,350	\$ 177,350	\$ 0
I - Vince Bayou Total				\$ 15,550,000	\$ 372,650	\$ 177,350	\$ 15,177,350	\$ 0

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-104: Right-of-Way Acquisition, Design and Construction of General Drainage Improvements in Vince Bayou Watershed

Investment Area: I - Vince Bayou

Total Estimated Cost: \$15,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Right-of-way Acquisition and Utility Relocation

County Funding: \$15,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-of-Way Acquisition, Design and Construction of General Drainage Improvements in Vince Bayou Watershed.

Justification:

Right of way acquisition, design and construction of a project will reduce the risk of flooding for more than 75 structures in the Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$15,000,000	\$0	\$0	\$5,004,570	\$5,004,570	\$4,990,860	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2021
Design	FY 2023
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-78: Investigations of General Drainage Improvements in Vince Bayou Watershed			
Investment Area: I - Vince Bayou	Total Estimated Cost:	\$550,000	
Bond Project: Yes	Expenditures to Date:	\$372,650	
Current Project Phase: Feasibility Study	County Funding:	\$0	
Projected Completion: TBD	Non-County Funding – Secured:	\$550,000	
	Non-County Funding – Unsecured:	\$0	

Project Description:

Investigations of General Drainage Improvements in Vince Bayou Watershed.

Justification:

Effort will investigate drainage deficiencies, flooding problems and evaluating potential solutions to reduce the risk of flooding in the Vince Bayou watershed for more than 230 structures in the Atlas 14 1% AEP (100-year) floodplain.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$550,000	\$177,350	\$0	\$0	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	FY 2020
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
C-118: Planning, Right-of-Way Acquisition, Design and Construction of a Reservoir along Spring Creek	J - Spring Creek Bayou	Yes	3rd Quartile	\$ 25,000,000	\$ 0	\$ 0	\$ 25,000,000	\$ 0
F-119: Right-of-Way Acquisition, Design and Construction of General Drainage Improvements along Spring Creek	J - Spring Creek Bayou	Yes	3rd Quartile	\$ 10,000,000	\$ 0	\$ 0	\$ 10,000,000	\$ 0
F-19: Spring Creek Right-of-Way Acquisition and Floodplain Preservation	J - Spring Creek Bayou	Yes	2nd Quartile	\$ 50,000,000	\$ 828,354	\$ 5,561,714	\$ 27,808,570	\$ 21,363,076
F-75: Investigations of General Drainage Improvements along Spring Creek	J - Spring Creek Bayou	Yes	Pre-Prioritization	\$ 450,000	\$ 356,681	\$ 93,319	\$ 93,319	\$ 0
J - Spring Creek Bayou Total				\$ 85,450,000	\$ 1,185,035	\$ 5,655,033	\$ 62,901,889	\$ 21,363,076

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-118: Planning, Right-of-Way Acquisition, Design and Construction of a Reservoir along Spring Creek

Investment Area: J - Spring Creek Bayou **Total Estimated Cost:** \$25,000,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Not Initiated **County Funding:** \$12,500,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$12,500,000

Project Description:

Planning, Right-of-Way Acquisition, Design and Construction of a Reservoir along Spring Creek.

Justification:

This partnership will evaluate the effectiveness, construction, and operation of a reservoir in the Spring Creek watershed. Projects could include, but not limited to, detention, sediment control, vegetation management, and other flood risk management projects.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$25,000,000	\$0	\$0	\$8,340,950	\$8,340,950	\$8,318,100	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-119: Right-of-Way Acquisition, Design and Construction of General Drainage Improvements along Spring Creek

Investment Area: J - Spring Creek Bayou **Total Estimated Cost:** \$10,000,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Not Initiated **County Funding:** \$10,000,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-of-Way Acquisition, Design and Construction of General Drainage Improvements along Spring Creek.

Justification:

Design and construction of a project to reduce the risk of flooding in the Spring Creek watershed for more than 130 structures in the Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$0	\$0	\$3,336,380	\$3,336,380	\$3,327,240	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-19: Spring Creek Right-of-Way Acquisition and Floodplain Preservation

Investment Area: J - Spring Creek Bayou **Total Estimated Cost:** \$50,000,000

Bond Project: Yes **Expenditures to Date:** \$828,354

Current Project Phase: Right-of-way Acquisition and Utility Relocation **County Funding:** \$50,000,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Spring Creek Right-of-Way Acquisition and Floodplain Preservation.

Justification:

Right of way acquisition along Spring Creek for project support, to preserve channel conveyance and / or restore natural floodplains in areas subject to frequent flooding.

Property acquisitions can benefit public safety by utilizing the land for floodplain preservation, or using the land for future projects to construct levees, channels or detention for flood mitigation and controls. Property acquisitions allow land to be used for floodplain preservation, or for future projects to construct levees, channels and/or detention for flood mitigation and controls. This enhancement can be measured by facilities constructed on the property or acreage removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$50,000,000	\$5,561,714	\$5,561,714	\$5,561,714	\$5,561,714	\$5,561,714	\$21,363,076

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2029
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-75: Investigations of General Drainage Improvements along Spring Creek

Investment Area: J - Spring Creek Bayou **Total Estimated Cost:** \$450,000

Bond Project: Yes **Expenditures to Date:** \$356,681

Current Project Phase: Feasibility Study **County Funding:** \$0

Projected Completion: TBD **Non-County Funding – Secured:** \$450,000

Non-County Funding – Unsecured: \$0

Project Description:

Investigations of General Drainage Improvements along Spring Creek.

Justification:

Effort will investigate Harris County watershed-portion drainage deficiencies, flooding problems and evaluate potential solutions to reduce the risk of flooding in the Spring Creek watershed for more than 190 structures in the Atlas 14 1% AEP (100-year) floodplain.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$450,000	\$93,319	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2020
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
CI-012: Major Maintenance of Cypress Creek and Tributaries	K - Cypress Creek	Yes	Pre-Prioritization	\$ 60,000,000	\$ 1,639,781	\$ 34,539,514	\$ 53,583,026	\$ 4,777,193
CI-035: Update to 2003 Texas Water Development Board Cypress Creek Tributary Study and Investigate Expanding Stormwater Detention Basins in Cypress Creek Watershed	K - Cypress Creek	Yes	Pre-Prioritization	\$ 1,001,271	\$ 722,864	\$ 278,407	\$ 278,407	\$ 0
F-20: Cypress Creek Right-of-Way Acquisition and Floodplain Preservation	K - Cypress Creek	Yes	2nd Quartile	\$ 100,000,000	\$ 16,477,204	\$ 9,447,109	\$ 47,235,545	\$ 36,287,251
F-22: Restore Channel Conveyance Capacity Along Pilot Gully	K - Cypress Creek	Yes	Pre-Prioritization	\$ 3,566,233	\$ 2,602,350	\$ 963,883	\$ 963,883	\$ 0
F-23: Construction of Channel Conveyance Improvements Along K163-00-00	K - Cypress Creek	Yes	Pre-Prioritization	\$ 8,500,000	\$ 747,592	\$ 7,752,408	\$ 7,752,408	\$ 0
F-24: Identification, Design and Construction of the K700-01 Environmental Mitigation Bank	K - Cypress Creek	Yes	Pre-Prioritization	\$ 9,300,000	\$ 200	\$ 2,122,398	\$ 9,299,800	\$ 0
F-88: ROW Acquisition, Design and Construction of Stormwater Detention Basins in Large Buyout Areas	K - Cypress Creek	Yes	1st Quartile	\$ 25,000,000	\$ 0	\$ 1,200,000	\$ 25,000,000	\$ 0
K - Cypress Creek Total				\$ 207,367,504	\$ 22,189,991	\$ 56,303,719	\$ 144,113,069	\$ 41,064,444

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-012: Major Maintenance of Cypress Creek and Tributaries

Investment Area: K - Cypress Creek

Total Estimated Cost: \$60,000,000

Bond Project: Yes

Expenditures to Date: \$1,639,781

Current Project Phase: Construction

County Funding: \$60,000,000

Projected Completion: FY 2021

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Major Maintenance of Cypress Creek and Tributaries.

Justification:

Major maintenance to restore channel conveyance capacity. May include right of way acquisition, design, and construction along tributaries.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$60,000,000	\$34,539,514	\$4,751,089	\$4,764,141	\$4,764,141	\$4,764,141	\$4,777,193

Estimated Annual Operating Budget Impact:	
O&M	\$88,000
Labor	\$13,200
Other	\$0
Total	\$101,200

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	FY 2019
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	FY 2019
Construction	FY 2027

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-035: Update to 2003 Texas Water Development Board Cypress Creek Tributary Study and Investigate Expanding Stormwater Detention Basins in Cypress Creek Watershed

Investment Area: K - Cypress Creek

Total Estimated Cost: \$1,001,271

Bond Project: Yes

Expenditures to Date: \$722,864

Current Project Phase: Feasibility Study

County Funding: \$1,001,271

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Update to 2003 Texas Water Development Board Cypress Creek Tributary Study and Investigate Expanding Stormwater Detention Basins in Cypress Creek Watershed.

Justification:

Bond ID projects CI-035, CI-36 and CI-020 were conducted together. Study conclusions found merit in (A) expanding K500-01-00 from 530 acre-feet to 9,300 acre-feet, (B) acquiring a stormwater detention basin near Stuebner-Airline holding 4,600 acre-feet, and (C) acquiring multiple stormwater detention basins along Cypress Creek between US 249 and Hardy Toll Road totaling 12,600 acre-feet. The total cost of implementing these three conclusions would be \$642 million and could reduce the risk of flooding for more than 1,590 homes in the Atlas 14 1% AEP (100-year) floodplain.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$1,001,271	\$278,407	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2020
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-20: Cypress Creek Right-of-Way Acquisition and Floodplain Preservation

Investment Area: K - Cypress Creek

Total Estimated Cost: \$100,000,000

Bond Project: Yes

Expenditures to Date: \$16,477,204

Current Project Phase: Right-of-way Acquisition and Utility Relocation

County Funding: \$100,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Cypress Creek Right-of-Way Acquisition and Floodplain Preservation.

Justification:

Right of way acquisition along Cypress Creek for project support, to preserve channel conveyance and / or restore natural floodplains in areas subject to frequent flooding.

Property acquisitions can benefit public safety by utilizing the land for floodplain preservation, or using the land for future projects to construct levees, channels or detention for flood mitigation and controls. Property acquisitions allow land to be used for floodplain preservation, or for future projects to construct levees, channels and/or detention for flood mitigation and controls. This enhancement can be measured by facilities constructed on the property or acreage removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$100,000,000	\$9,447,109	\$9,447,109	\$9,447,109	\$9,447,109	\$9,447,109	\$36,287,251

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2029
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-22: Restore Channel Conveyance Capacity Along Pillot Gully

Investment Area: K - Cypress Creek

Total Estimated Cost: \$3,566,233

Bond Project: Yes

Expenditures to Date: \$2,602,350

Current Project Phase: Operation and Maintenance

County Funding: \$3,566,233

Projected Completion: FY 2020

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Restore Channel Conveyance Capacity Along Pillot Gully.

Justification:

Major maintenance to restore channel conveyance capacity.

Maintenance projects return flood control facilities to their near intended state for optimal conveyance for the safety of the public. Maintenance projects return flood control facilities to their near intended state for optimal conveyance to allow for key county facilities and roads to be accessible. Maintenance projects return the facility to near intended state for optimal conveyance to reduce flooding risks. This enhancement can be measured by the amount of structures, land, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$3,566,233	\$963,883	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2020

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-23: Construction of Channel Conveyance Improvements Along K163-00-00

Investment Area: K - Cypress Creek

Total Estimated Cost: \$8,500,000

Bond Project: Yes

Expenditures to Date: \$747,592

Current Project Phase: Construction

County Funding: \$8,500,000

Projected Completion: FY 2022

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Construction of Channel Conveyance Improvements Along K163-00-00.

Justification:

Provides joint-benefits of facilitating local drainage improvements and reducing the risk of flooding along the channel.

Construction of flood control facilities benefits public safety by mitigating life threatening flooding events. Capital improvement projects create or improve flood control facilities to provide optimal conveyance allowing key county facilities, essential businesses, and roads to be accessible. Construction facilities provide the enhancement of current District infrastructure or development of new facilities to District infrastructure reducing flooding risk. This can be measured by structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$8,500,000	\$7,752,408	\$0	\$0	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-24: Identification, Design and Construction of the K700-01 Environmental Mitigation Bank

Investment Area: K - Cypress Creek

Total Estimated Cost: \$9,300,000

Bond Project: Yes

Expenditures to Date: \$200

Current Project Phase: Construction

County Funding: \$9,300,000

Projected Completion: FY 2021

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Identification, Design and Construction of the K700-01 Environmental Mitigation Bank.

Justification:

Restoration and enhancement of wetlands to create credits for wetland mitigation supporting construction of District projects and may be used for projects supporting District goals in coordination with other Harris County public agencies and municipalities.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$9,300,000	\$2,122,398	\$2,399,490	\$4,777,912	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	FY 2022
Construction	FY 2024

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-88: ROW Acquisition, Design and Construction of Stormwater Detention Basins in Large Buyout Areas

Investment Area: K - Cypress Creek

Total Estimated Cost: \$25,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Preliminary Engineering

County Funding: \$25,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

ROW Acquisition, Design and Construction of Stormwater Detention Basins in Large Buyout Areas.

Justification:

Design and construction of stormwater detention basins in large areas of buyout to help reduce the risk of flooding in the area. Specific benefits will be determined as individual projects are initiated. Projects include detention, sediment control, vegetation management and other flood risk management projects.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$25,000,000	\$1,200,000	\$0	\$7,940,585	\$7,940,585	\$7,918,830	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2023
Construction	FY 2026

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
F-26: Management, Right-of-Way Acquisition, Design and Construction of the Little Cypress Creek Frontier Program	L - Little Cypress Creek	Yes	Pre-Prioritization	\$ 51,378,586	\$ 8,325,654	\$ 21,883,057	\$ 43,052,932	\$ 0
F-27: Design and Construction of Zube Park Stormwater Detention Basin	L - Little Cypress Creek	Yes	Pre-Prioritization	\$ 10,798,475	\$ 1,760,513	\$ 8,937,962	\$ 9,037,962	\$ 0
F-28: Right-Of-Way Acquisition, Design, and Construction of Kluge Stormwater Detention Basin	L - Little Cypress Creek	Yes	Pre-Prioritization	\$ 23,160,000	\$ 0	\$ 2,645,613	\$ 23,160,000	\$ 0
F-29: Right-Of-Way Acquisition, Design, and Construction of Mueschke East Stormwater Detention Basin	L - Little Cypress Creek	Yes	Pre-Prioritization	\$ 15,900,000	\$ 0	\$ 3,686,817	\$ 15,900,000	\$ 0
F-30: Right-Of-Way Acquisition, Design, and Construction of Schiel Stormwater Detention Basin	L - Little Cypress Creek	Yes	Pre-Prioritization	\$ 16,000,000	\$ 4,487,693	\$ 2,752,995	\$ 11,512,307	\$ 0
F-31: Construction of Mueschke West Stormwater Detention Basin Improvements	L - Little Cypress Creek	Yes	Pre-Prioritization	\$ 17,109,502	\$ 1,323,589	\$ 5,018,799	\$ 15,785,913	\$ 0
F-32: Construction of Hegar Stormwater Detention Basin Improvements	L - Little Cypress Creek	Yes	Pre-Prioritization	\$ 11,800,000	\$ 1,502,729	\$ 4,785,355	\$ 10,297,271	\$ 0
F-33: Construction of Kleb Woods Stormwater Detention Basin Improvements	L - Little Cypress Creek	Yes	Pre-Prioritization	\$ 4,300,000	\$ 1,094,115	\$ 3,189,218	\$ 3,205,885	\$ 0
F-34: ROW, Design, and Construction of Mason Stormwater Detention Basin in Little Cypress Creek watershed	L - Little Cypress Creek	Yes	Pre-Prioritization	\$ 13,094,064	\$ 8,926,003	\$ 1,507,088	\$ 4,168,061	\$ 0
F-35: Construction of Bauer-Hockley Stormwater Detention Basin Improvements	L - Little Cypress Creek	Yes	Pre-Prioritization	\$ 5,261,117	\$ 4,323,513	\$ 937,604	\$ 937,604	\$ 0
F-89: Design and Construction of Additional Volume in Little Cypress Creek Stormwater Detention Basins	L - Little Cypress Creek	Yes	1st Quartile	\$ 16,750,000	\$ 0	\$ 0	\$ 13,407,345	\$ 3,342,655
L - Little Cypress Creek Total				\$ 185,551,744	\$ 31,743,809	\$ 55,344,508	\$ 150,465,280	\$ 3,342,655

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-26: Management, Right-of-Way Acquisition, Design and Construction of the Little Cypress Creek Frontier Program

Investment Area: L - Little Cypress Creek **Total Estimated Cost:** \$51,378,586

Bond Project: Yes **Expenditures to Date:** \$8,325,654

Current Project Phase: Right-of-way Acquisition and Utility Relocation **County Funding:** \$32,075,000

Projected Completion: FY 2025 **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$19,303,586

Project Description:

Management, Right-of-Way Acquisition, Design and Construction of the Little Cypress Creek Frontier Program.

Justification:

This project is part of the Little Cypress Creek Frontier program that will reduce the risk of flooding in the Little Cypress Creek watershed for more than 3,200 structures in the Atlas 14 1% AEP (100-year) floodplain and will reduce that floodplain by more than 5,800 acres. Projects include detention, sediment control, vegetation management and other flood risk management projects

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$51,378,586	\$21,883,057	\$7,610,950	\$4,498,750	\$4,573,750	\$4,486,425	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2022
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-27: Design and Construction of Zube Park Stormwater Detention Basin

Investment Area: L - Little Cypress Creek **Total Estimated Cost:** \$10,798,475

Bond Project: Yes **Expenditures to Date:** \$1,760,513

Current Project Phase: Construction **County Funding:** \$9,250,000

Projected Completion: FY 2022 **Non-County Funding – Secured:** \$1,532,838

Non-County Funding – Unsecured: \$15,637

Project Description:

Design and Construction of Zube Park Stormwater Detention Basin.

Justification:

This project is part of the Little Cypress Creek Frontier program that will reduce the risk of flooding in the Little Cypress Creek watershed for more than 3,200 structures in the Atlas 14 1% AEP (100-year) floodplain and will reduce that floodplain by more than 5,800 acres.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,798,475	\$8,937,962	\$100,000	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$17,000
Labor	\$2,550
Other	\$0
Total	\$19,550

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2021
Design	FY 2020
Construction	FY 2021

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-28: Right-Of-Way Acquisition, Design, and Construction of Kluge Stormwater Detention Basin

Investment Area: L - Little Cypress Creek

Total Estimated Cost: \$23,160,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Right-of-way Acquisition and Utility Relocation

County Funding: \$23,160,000

Projected Completion: FY 2024

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-Of-Way Acquisition, Design, and Construction of Kluge Stormwater Detention Basin.

Justification:

This project is part of the Little Cypress Creek Frontier program that will reduce the risk of flooding in the Little Cypress Creek watershed for more than 3,200 structures in the Atlas 14 1% AEP (100-year) floodplain and will reduce that floodplain by more than 5,800 acres.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$23,160,000	\$2,645,613	\$2,887,600	\$17,246,787	\$380,000	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$4,000
Labor	\$600
Other	\$0
Total	\$4,600

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2023
Design	FY 2023
Construction	FY 2023

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-29: Right-Of-Way Acquisition, Design, and Construction of Mueschke East Stormwater Detention Basin

Investment Area: L - Little Cypress Creek

Total Estimated Cost: \$15,900,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Right-of-way Acquisition and Utility Relocation

County Funding: \$15,900,000

Projected Completion: FY 2025

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-Of-Way Acquisition, Design, and Construction of Mueschke East Stormwater Detention Basin.

Justification:

This project is part of the Little Cypress Creek Frontier program that will reduce the risk of flooding in the Little Cypress Creek watershed for more than 3,200 structures in the Atlas 14 1% AEP (100-year) floodplain and will reduce that floodplain by more than 5,800 acres.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$15,900,000	\$3,686,817	\$3,820,909	\$6,782,750	\$1,609,524	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$1,000
Labor	\$150
Other	\$0
Total	\$1,150

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2023
Right-of-way Acquisition and Utility Relocation	FY 2023
Design	FY 2022
Construction	FY 2024

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-30: Right-Of-Way Acquisition, Design, and Construction of Schiel Stormwater Detention Basin

Investment Area: L - Little Cypress Creek **Total Estimated Cost:** \$16,000,000

Bond Project: Yes **Expenditures to Date:** \$4,487,693

Current Project Phase: Right-of-way Acquisition and Utility Relocation **County Funding:** \$16,000,000

Projected Completion: FY 2023 **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-Of-Way Acquisition, Design, and Construction of Schiel Stormwater Detention Basin.

Justification:

This project is part of the Little Cypress Creek Frontier program that will reduce the risk of flooding in the Little Cypress Creek watershed for more than 3,200 structures in the Atlas 14 1% AEP (100-year) floodplain and will reduce that floodplain by more than 5,800 acres.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$16,000,000	\$2,752,995	\$8,459,312	\$300,000	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$91,642
Labor	\$13,746
Other	\$0
Total	\$105,389

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2018
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2021
Construction	FY 2023

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-31: Construction of Mueschke West Stormwater Detention Basin Improvements			
Investment Area: L - Little Cypress Creek	Total Estimated Cost:	\$17,109,502	
Bond Project: Yes	Expenditures to Date:	\$1,323,589	
Current Project Phase: Right-of-way Acquisition and Utility Relocation	County Funding:	\$17,109,502	
Projected Completion: FY 2024	Non-County Funding – Secured:	\$0	
	Non-County Funding – Unsecured:	\$0	

Project Description:

Construction of Mueschke West Stormwater Detention Basin Improvements.

Justification:

This project is part of the Little Cypress Creek Frontier program that will reduce the risk of flooding in the Little Cypress Creek watershed for more than 3,200 structures in the Atlas 14 1% AEP (100-year) floodplain and will reduce that floodplain by more than 5,800 acres.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$17,109,502	\$5,018,799	\$2,326,131	\$160,983	\$8,280,000	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$288
Labor	\$43
Other	\$0
Total	\$331

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2023
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2021
Construction	FY 2024

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-32: Construction of Hegar Stormwater Detention Basin Improvements

Investment Area: L - Little Cypress Creek **Total Estimated Cost:** \$11,800,000

Bond Project: Yes **Expenditures to Date:** \$1,502,729

Current Project Phase: Right-of-way Acquisition and Utility Relocation **County Funding:** \$11,800,000

Projected Completion: FY 2026 **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Construction of Hegar Stormwater Detention Basin Improvements.

Justification:

This project is part of the Little Cypress Creek Frontier program that will reduce the risk of flooding in the Little Cypress Creek watershed for more than 3,200 structures in the Atlas 14 1% AEP (100-year) floodplain and will reduce that floodplain by more than 5,800 acres.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$11,800,000	\$4,785,355	\$1,985,994	\$154,792	\$2,108,171	\$1,262,959	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$30,487
Labor	\$4,573
Other	\$0
Total	\$35,060

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2022
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2024
Construction	FY 2025

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-33: Construction of Kleb Woods Stormwater Detention Basin Improvements

Investment Area: L - Little Cypress Creek **Total Estimated Cost:** \$4,300,000

Bond Project: Yes **Expenditures to Date:** \$1,094,115

Current Project Phase: Construction **County Funding:** \$4,300,000

Projected Completion: FY 2022 **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Construction of Kleb Woods Stormwater Detention Basin Improvements.

Justification:

This project is part of the Little Cypress Creek Frontier program that will reduce the risk of flooding in the Little Cypress Creek watershed for more than 3,200 structures in the Atlas 14 1% AEP (100-year) floodplain and will reduce that floodplain by more than 5,800 acres.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$4,300,000	\$3,189,218	\$16,667	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$21,391
Labor	\$3,209
Other	\$0
Total	\$24,600

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	FY 2019
Construction	FY 2020

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-34: ROW, Design, and Construction of Mason Stormwater Detention Basin in Little Cypress Creek watershed

Investment Area: L - Little Cypress Creek **Total Estimated Cost:** \$13,094,064

Bond Project: Yes **Expenditures to Date:** \$8,926,003

Current Project Phase: Right-of-way Acquisition and Utility Relocation **County Funding:** \$13,094,064

Projected Completion: FY 2025 **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

ROW, Design, and Construction of Mason Stormwater Detention Basin in Little Cypress Creek watershed.

Justification:

This project is part of the Little Cypress Creek Frontier program that will reduce the risk of flooding in the Little Cypress Creek watershed for more than 3,200 structures in the Atlas 14 1% AEP (100-year) floodplain and will reduce that floodplain by more than 5,800 acres.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$13,094,064	\$1,507,088	\$160,973	\$388,889	\$2,111,111	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$44,951
Labor	\$6,743
Other	\$0
Total	\$51,693

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2024
Construction	FY 2024

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-35: Construction of Bauer-Hockley Stormwater Detention Basin Improvements

Investment Area: L - Little Cypress Creek **Total Estimated Cost:** \$5,261,117

Bond Project: Yes **Expenditures to Date:** \$4,323,513

Current Project Phase: Construction **County Funding:** \$5,261,117

Projected Completion: FY 2020 **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Construction of Bauer-Hockley Stormwater Detention Basin Improvements.

Justification:

This project is part of the Little Cypress Creek Frontier program that will reduce the risk of flooding in the Little Cypress Creek watershed for more than 3,200 structures in the Atlas 14 1% AEP (100-year) floodplain and will reduce that floodplain by more than 5,800 acres.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$5,261,117	\$937,604	\$0	\$0	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$20,599
Labor	\$3,090
Other	\$0
Total	\$23,689

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2025

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-89: Design and Construction of Additional Volume in Little Cypress Creek Stormwater Detention Basins

Investment Area: L - Little Cypress Creek

Total Estimated Cost: \$16,750,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Preliminary Engineering

County Funding: \$16,750,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Design and Construction of Additional Volume in Little Cypress Creek Stormwater Detention Basins.

Justification:

This project is part of the Little Cypress Creek Frontier program that will reduce the risk of flooding in the Little Cypress Creek watershed for more than 3,200 structures in the Atlas 14 1% AEP (100-year) floodplain and will reduce that floodplain by more than 5,800 acres.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$16,750,000	\$0	\$0	\$4,469,115	\$4,469,115	\$4,469,115	\$3,342,655

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2026

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
F-106: Right-of-Way Acquisition, Design and Construction of General Drainage Improvements in Willow Creek Watershed	M - Willow Creek	Yes	2nd Quartile	\$ 15,000,000	\$ 0	\$ 0	\$ 15,000,000	\$ 0
F-36: Willow Creek Right-of-Way Acquisition and Floodplain Preservation	M - Willow Creek	Yes	2nd Quartile	\$ 30,000,000	\$ 0	\$ 5,823,367	\$ 30,000,000	\$ 0
F-37: Design and Construction of Channel Conveyance Improvements on M124-00-00 Downstream of SH 249	M - Willow Creek	Yes	Pre-Prioritization	\$ 74,982,702	\$ 17,119,176	\$ 40,954,361	\$ 57,863,526	\$ 0
F-38: Design and Construction of Cypress Rosehill Stormwater Detention Basin	M - Willow Creek	Yes	Pre-Prioritization	\$ 1,100,000	\$ 168,590	\$ 931,410	\$ 931,410	\$ 0
F-71: Investigations of General Drainage Improvements in Willow Creek Watershed	M - Willow Creek	Yes	Pre-Prioritization	\$ 800,000	\$ 587,541	\$ 212,459	\$ 212,459	\$ 0
M - Willow Creek Total								
				\$ 121,882,702	\$ 17,875,307	\$ 47,921,597	\$ 104,007,395	\$ 0

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-106: Right-of-Way Acquisition, Design and Construction of General Drainage Improvements in Willow Creek Watershed

Investment Area: M - Willow Creek

Total Estimated Cost: \$15,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Preliminary Engineering

County Funding: \$15,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-of-Way Acquisition, Design and Construction of General Drainage Improvements in Willow Creek Watershed.

Justification:

Design and construction of projects to reduce the risk of flooding in the Willow Creek watershed for more than 170 structures in the Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$15,000,000	\$0	\$0	\$5,004,570	\$5,004,570	\$4,990,860	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2021
Design	FY 2023
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-36: Willow Creek Right-of-Way Acquisition and Floodplain Preservation

Investment Area: M - Willow Creek

Total Estimated Cost: \$30,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Right-of-way Acquisition and Utility Relocation

County Funding: \$30,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Willow Creek Right-of-Way Acquisition and Floodplain Preservation.

Justification:

Right of way acquisition along Willow Creek for project support, to preserve channel conveyance and / or restore natural floodplains in areas subject to frequent flooding.

Property acquisitions can benefit public safety by utilizing the land for floodplain preservation, or using the land for future projects to construct levees, channels or detention for flood mitigation and controls. Property acquisitions allow land to be used for floodplain preservation, or for future projects to construct levees, channels and/or detention for flood mitigation and controls. This enhancement can be measured by facilities constructed on the property or acreage removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$30,000,000	\$5,823,367	\$10,073,597	\$10,073,597	\$4,029,439	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-37: Design and Construction of Channel Conveyance Improvements on M124-00-00 Downstream of SH 249

Investment Area: M - Willow Creek

Total Estimated Cost: \$74,982,702

Bond Project: Yes

Expenditures to Date: \$17,119,176

Current Project Phase: Right-of-way Acquisition and Utility Relocation

County Funding: \$23,982,702

Projected Completion: FY 2023

Non-County Funding – Secured: \$26,532,838

Non-County Funding – Unsecured: \$24,467,162

Project Description:

Design and Construction of Channel Conveyance Improvements on M124-00-00 Downstream of SH 249.

Justification:

This partnership project will reduce the risk of flooding affecting roadways near M124-00-00 including SH 249, FM 2920 and other local roads.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$74,982,702	\$40,954,361	\$16,740,925	\$168,240	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$34,125
Labor	\$5,119
Other	\$0
Total	\$39,244

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2020
Design	FY 2021
Construction	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-38: Design and Construction of Cypress Rosehill Stormwater Detention Basin

Investment Area: M - Willow Creek **Total Estimated Cost:** \$1,100,000

Bond Project: Yes **Expenditures to Date:** \$168,590

Current Project Phase: Construction **County Funding:** \$1,100,000

Projected Completion: FY 2023 **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Design and Construction of Cypress Rosehill Stormwater Detention Basin.

Justification:

Providing joint benefits: mitigating impacts of roadway construction and possible flood risk reduction for homes in the surrounding area. Projects could include, but are not limited to, detention, sediment control, vegetation management, and other flood risk management projects.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$1,100,000	\$931,410	\$0	\$0	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$5,000
Labor	\$750
Other	\$0
Total	\$5,750

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	FY 2021
Construction	FY 2021

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-71: Investigations of General Drainage Improvements in Willow Creek Watershed		
Investment Area: M - Willow Creek	Total Estimated Cost:	\$800,000
Bond Project: Yes	Expenditures to Date:	\$587,541
Current Project Phase: Feasibility Study	County Funding:	\$0
Projected Completion: TBD	Non-County Funding – Secured:	\$800,000
	Non-County Funding – Unsecured:	\$0

Project Description:

Investigations of General Drainage Improvements in Willow Creek Watershed.

Justification:

Effort will investigate drainage deficiencies, flooding problems and evaluate potential solutions to reduce the risk of flooding in the Willow Creek watershed for more than 1,700 structures in the Atlas 14 1% AEP (100-year) floodplain.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$800,000	\$212,459	\$0	\$0	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	FY 2021
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
F-124: Investigations of General Drainage Improvements along Carpenters Bayou	N - Carpenters Bayou	Yes	Pre-Prioritization	\$ 500,000	\$ 376,845	\$ 123,155	\$ 123,155	\$ 0
N - Carpenters Bayou Total				\$ 500,000	\$ 376,845	\$ 123,155	\$ 123,155	\$ 0

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-124: Investigations of General Drainage Improvements along Carpenters Bayou			
Investment Area: N - Carpenters Bayou	Total Estimated Cost:	\$500,000	
Bond Project: Yes	Expenditures to Date:	\$376,845	
Current Project Phase: Feasibility Study	County Funding:	\$500,000	
Projected Completion: TBD	Non-County Funding – Secured:	\$0	
	Non-County Funding – Unsecured:	\$0	

Project Description:

Investigations of General Drainage Improvements along Carpenters Bayou.

Justification:

Effort will investigate drainage deficiencies, flooding problems and evaluate potential solutions to reduce the risk of flooding in the Carpenters Bayou watershed for more than 550 structures in the Atlas 14 1% AEP (100-year) floodplain.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$500,000	\$123,155	\$0	\$0	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	FY 2021
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
F-109: Right-Of-Way Acquisition, Design, and Construction of General Drainage Improvements on Spring Gully	O - Goose Creek	Yes	3rd Quartile	\$ 5,000,000	\$ 0	\$ 0	\$ 5,000,000	\$ 0
F-120: Right-Of-Way Acquisition, Design, and Construction of General Drainage Improvements in Goose Creek watershed	O - Goose Creek	Yes	2nd Quartile	\$ 25,000,000	\$ 0	\$ 77,128	\$ 21,884,641	\$ 3,115,359
F-121: Investigations of General Drainage Improvements in Goose Creek watershed	O - Goose Creek	Yes	Pre-Prioritization	\$ 550,000	\$ 343,548	\$ 206,452	\$ 206,452	\$ 0
F-39: Investigations of General Drainage Improvements on Spring Gully	O - Goose Creek	Yes	Pre-Prioritization	\$ 950,000	\$ 634,152	\$ 315,848	\$ 315,848	\$ 0
O - Goose Creek Total				\$ 31,500,000	\$ 977,700	\$ 599,428	\$ 27,406,941	\$ 3,115,359

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-109: Right-Of-Way Acquisition, Design, and Construction of General Drainage Improvements on Spring Gully

Investment Area: O - Goose Creek

Total Estimated Cost: \$5,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Not Initiated

County Funding: \$5,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-Of-Way Acquisition, Design, and Construction of General Drainage Improvements on Spring Gully

Justification:

Design and construction of projects to reduce the risk of flooding in the Goose Bayou watershed for more than 30 structures in the Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$5,000,000	\$0	\$0	\$2,503,429	\$2,496,571	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2025

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-120: Right-Of-Way Acquisition, Design, and Construction of General Drainage Improvements in Goose Creek watershed

Investment Area: O - Goose Creek

Total Estimated Cost: \$25,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Right-of-way Acquisition and Utility Relocation

County Funding: \$25,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-Of-Way Acquisition, Design, and Construction of General Drainage Improvements in Goose Creek watershed.

Justification:

Design and construction of projects to reduce the risk of flooding in the Goose Creek watershed for more than 500 structures in the Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$25,000,000	\$77,128	\$3,115,359	\$6,230,718	\$6,230,718	\$6,230,718	\$3,115,359

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2020
Design	FY 2023
Construction	FY 2027

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-121: Investigations of General Drainage Improvements in Goose Creek watershed		
Investment Area: O - Goose Creek	Total Estimated Cost:	\$550,000
Bond Project: Yes	Expenditures to Date:	\$343,548
Current Project Phase: Feasibility Study	County Funding:	\$0
Projected Completion: TBD	Non-County Funding – Secured:	\$550,000
	Non-County Funding – Unsecured:	\$0

Project Description:

Investigations of General Drainage Improvements in Goose Creek watershed.

Justification:

The project will investigate drainage deficiencies and flooding problems and evaluate potential solutions to reduce the risk of flooding in Goose Creek watershed for more than 640 structures in the Atlas 14 1% AEP (100-year) floodplain.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$550,000	\$206,452	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2020
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-39: Investigations of General Drainage Improvements on Spring Gully

Investment Area: O - Goose Creek

Total Estimated Cost: \$950,000

Bond Project: Yes

Expenditures to Date: \$634,152

Current Project Phase: Preliminary Engineering

County Funding: \$500,000

Projected Completion: TBD

Non-County Funding – Secured: \$450,000

Non-County Funding – Unsecured: \$0

Project Description:

Investigations of General Drainage Improvements on Spring Gully.

Justification:

Effort will investigate drainage deficiencies, flooding problems and evaluate potential solutions to reduce the risk of flooding along Spring Gully for more than 70 structures in the Atlas 14 1% AEP (100-year) floodplain.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$950,000	\$315,848	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2020
Preliminary Engineering	FY 2020
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
C-20: Mid-Reach Greens Bayou Project - Design and Construction of Channel Conveyance Improvements along Greens Bayou	P - Greens Bayou	Yes	Pre-Prioritization	\$ 20,050,000	\$ 724,931	\$ 7,049,800	\$ 19,325,069	\$ 0
C-31: Design and Construction of the Smith Road Channel Diversion	P - Greens Bayou	Yes	Pre-Prioritization	\$ 7,329,231	\$ 0	\$ 2,855,037	\$ 7,329,231	\$ 0
C-32: Design and Construction of the Cutten Road Stormwater Detention Basin Improvements	P - Greens Bayou	Yes	Pre-Prioritization	\$ 17,000,000	\$ 2,796,878	\$ 8,554,308	\$ 14,203,122	\$ 0
C-33: Design and Construction of Aldine-Westfield Stormwater Detention Basin Improvements	P - Greens Bayou	Yes	Pre-Prioritization	\$ 18,878,790	\$ 5,053,071	\$ 6,430,943	\$ 13,825,719	\$ 0
C-34: Design and Construction of Lauder Stormwater Detention Basin Improvements	P - Greens Bayou	Yes	Pre-Prioritization	\$ 37,312,135	\$ 2,549,380	\$ 14,909,943	\$ 34,762,755	\$ 0
C-43: Planning, Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along P138-01-01	P - Greens Bayou	Yes	1st Quartile	\$ 5,000,000	\$ 0	\$ 1,000,000	\$ 5,000,000	\$ 0
CI-022: ROW, Design, and Construction of Stormwater Detention Basin Near P130-05	P - Greens Bayou	Yes	2nd Quartile	\$ 3,690,738	\$ 33,639	\$ 1,494,962	\$ 3,657,099	\$ 0
F-40: Repairs and Enhancements to the Lower Greens Bayou Regional Detention Embankment and Control Structure	P - Greens Bayou	Yes	Pre-Prioritization	\$ 5,000,000	\$ 2,411,343	\$ 247,218	\$ 2,588,657	\$ 0
P - Greens Bayou Total								
				\$ 114,260,894	\$ 13,569,242	\$ 42,542,211	\$ 100,691,652	\$ 0

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-20: Mid-Reach Greens Bayou Project - Design and Construction of Channel Conveyance Improvements along Greens Bayou

Investment Area: P - Greens Bayou	Total Estimated Cost:	\$20,050,000
Bond Project: Yes	Expenditures to Date:	\$724,931
Current Project Phase: Design	County Funding:	\$2,050,000
Projected Completion: FY 2024	Non-County Funding – Secured:	\$0
	Non-County Funding – Unsecured:	\$18,000,000

Project Description:

Mid-Reach Greens Bayou Project - Design and Construction of Channel Conveyance Improvements along Greens Bayou.

Justification:

This project is a component of the Greens Bayou Mid Reach Project that will reduce the risk of flooding for 4,500 structures in the Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$20,050,000	\$7,049,800	\$5,833,551	\$6,269,939	\$171,779	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2020
Construction	FY 2024

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-31: Design and Construction of the Smith Road Channel Diversion

Investment Area: P - Greens Bayou **Total Estimated Cost:** \$7,329,231

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Construction **County Funding:** \$826,429

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$6,502,802

Project Description:

Design and Construction of the Smith Road Channel Diversion.

Justification:

This project could reduce the risk of flooding for over 70 structures during the 10% AEP (10-year) event along P133-00-00 and secondary benefits could include reduced erosion.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$7,329,231	\$2,855,037	\$2,855,037	\$1,619,157	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2023

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-32: Design and Construction of the Cutten Road Stormwater Detention Basin Improvements

Investment Area: P - Greens Bayou

Total Estimated Cost: \$17,000,000

Bond Project: Yes

Expenditures to Date: \$2,796,878

Current Project Phase: Construction

County Funding: \$17,000,000

Projected Completion: FY 2022

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Design and Construction of the Cutten Road Stormwater Detention Basin Improvements.

Justification:

This project is a component of the Greens Bayou Mid Reach Project that will reduce the risk of flooding for 4,500 structures in the Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$17,000,000	\$8,554,308	\$5,648,814	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$26,000
Labor	\$3,900
Other	\$0
Total	\$29,900

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	FY 2019
Construction	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-33: Design and Construction of Aldine-Westfield Stormwater Detention Basin Improvements

Investment Area: P - Greens Bayou

Total Estimated Cost: \$18,878,790

Bond Project: Yes

Expenditures to Date: \$5,053,071

Current Project Phase: Operation and Maintenance

County Funding: \$5,288,790

Projected Completion: FY 2023

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$13,590,000

Project Description:

Design and Construction of Aldine-Westfield Stormwater Detention Basin Improvements.

Justification:

This project is a component of the Greens Bayou Mid Reach Project that will reduce the risk of flooding for 4,500 structures in the Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$18,878,790	\$6,430,943	\$7,383,495	\$11,281	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$11,385
Labor	\$1,708
Other	\$0
Total	\$13,092

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-34: Design and Construction of Lauder Stormwater Detention Basin Improvements

Investment Area: P - Greens Bayou **Total Estimated Cost:** \$37,312,135

Bond Project: Yes **Expenditures to Date:** \$2,549,380

Current Project Phase: Construction **County Funding:** \$12,219,707

Projected Completion: FY 2024 **Non-County Funding – Secured:** \$25,092,428

Non-County Funding – Unsecured: \$0

Project Description:

Design and Construction of Lauder Stormwater Detention Basin Improvements.

Justification:

This project is a component of the Greens Bayou Mid Reach Project that will reduce the risk of flooding for 4,500 structures in the Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$37,312,135	\$14,909,943	\$19,202,812	\$339,461	\$310,539	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$25,000
Labor	\$3,750
Other	\$0
Total	\$28,750

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2020
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2022
Construction	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-43: Planning, Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along P138-01-01

Investment Area: P - Greens Bayou

Total Estimated Cost: \$5,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Preliminary Engineering

County Funding: \$0

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$5,000,000

Project Description:

Planning, Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along P138-01-01.

Justification:

Potential federally funded project, the risk of flooding could be reduced for approximately 100 structures in the pre-Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$5,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	FY 2020
Preliminary Engineering	FY 2020
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2023
Construction	FY 2027

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-022: ROW, Design, and Construction of Stormwater Detention Basin Near P130-05

Investment Area: P - Greens Bayou **Total Estimated Cost:** \$3,690,738

Bond Project: Yes **Expenditures to Date:** \$33,639

Current Project Phase: Feasibility Study **County Funding:** \$3,690,738

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

ROW, Design, and Construction of Stormwater Detention Basin Near P130-05.

Justification:

Project is intended reduce the risk of flooding for structures near P130-05-01. More specific benefits will be determined as the projects scope and design are completed.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$3,690,738	\$1,494,962	\$1,401,741	\$760,396	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2021
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2023
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-40: Repairs and Enhancements to the Lower Greens Bayou Regional Detention Embankment and Control Structure

Investment Area: P - Greens Bayou

Total Estimated Cost: \$5,000,000

Bond Project: Yes

Expenditures to Date: \$2,411,343

Current Project Phase: Operation and Maintenance

County Funding: \$5,000,000

Projected Completion: FY 2020

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Repairs and Enhancements to the Lower Greens Bayou Regional Detention Embankment and Control Structure.

Justification:

Major maintenance of existing detention facilities in Lower Greens Bayou.

Maintenance projects return flood control facilities to their near intended state for optimal conveyance for the safety of the public. Maintenance projects return flood control facilities to their near intended state for optimal conveyance to allow for key county facilities and roads to be accessible. Maintenance projects return the facility to near intended state for optimal conveyance to reduce flooding risks. This enhancement can be measured by the amount of structures, land, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$5,000,000	\$247,218	\$1,172,325	\$1,169,114	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$5,000
Labor	\$750
Other	\$0
Total	\$5,750

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2025

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
C-01: Construction of P518-26 Stormwater Detention Basin	P118 - Halls Bayou	Yes	Pre-Prioritization	\$ 4,518,977	\$ 123,235	\$ 3,844,738	\$ 4,395,742	\$ 0
C-23: Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-08-00	P118 - Halls Bayou	Yes	1st Quartile	\$ 25,000,000	\$ 0	\$ 262,250	\$ 25,000,000	\$ 0
C-24: Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-09-00	P118 - Halls Bayou	Yes	1st Quartile	\$ 12,000,000	\$ 0	\$ 262,500	\$ 12,000,000	\$ 0
C-25: Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-21-00	P118 - Halls Bayou	Yes	Pre-Prioritization	\$ 20,036,050	\$ 5,682,335	\$ 7,623,001	\$ 14,353,715	\$ 0
C-26: Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02	P118 - Halls Bayou	Yes	Pre-Prioritization	\$ 28,000,000	\$ 766,784	\$ 3,042,744	\$ 27,233,216	\$ 0
C-28: Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01	P118 - Halls Bayou	Yes	Pre-Prioritization	\$ 24,000,000	\$ 412,278	\$ 1,600,972	\$ 23,587,722	\$ 0
C-30: Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00	P118 - Halls Bayou	Yes	1st Quartile	\$ 12,000,000	\$ 11,080	\$ 251,419	\$ 11,988,920	\$ 0
C-35: Design and Construction of Stormwater Detention Basin and Associated Channel Improvements	P118 - Halls Bayou	Yes	Pre-Prioritization	\$ 7,908,392	\$ 108,986	\$ 7,799,406	\$ 7,799,406	\$ 0
C-41: Planning, Right-Of-Way, Design and Construction of Halls Bayou Flood Risk Management Project	P118 - Halls Bayou	Yes	Pre-Prioritization	\$ 154,960,000	\$ 0	\$ 7,206,190	\$ 94,994,164	\$ 59,965,836
CI-006: Design and Construction of a Stormwater Detention Basin in Brock Park	P118 - Halls Bayou	Yes	1st Quartile	\$ 10,000,000	\$ 0	\$ 0	\$ 10,000,000	\$ 0
F-122: Bond implementation Management (BIM) of the Right-of-Way Acquisition, Design and Construction in Halls Bayou Watershed	P118 - Halls Bayou	Yes	Pre-Prioritization	\$ 48,040,000	\$ 2,104,614	\$ 9,171,959	\$ 45,935,386	\$ 0
P118 - Halls Bayou Total				\$ 346,463,419	\$ 9,209,312	\$ 41,065,179	\$ 277,288,271	\$ 59,965,836

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-01: Construction of P518-26 Stormwater Detention Basin

Investment Area: P118 - Halls Bayou **Total Estimated Cost:** \$4,518,977

Bond Project: Yes **Expenditures to Date:** \$123,235

Current Project Phase: Operation and Maintenance **County Funding:** \$3,543,124

Projected Completion: FY 2023 **Non-County Funding – Secured:** \$975,853

Non-County Funding – Unsecured: \$0

Project Description:

Construction of P518-26 Stormwater Detention Basin.

Justification:

When complete with future funding, this project could reduce the risk of flooding for more than 230 structures and could reduce the 1% floodplain for over 100 acres as part of the Halls Ahead Bond Implementation Program.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$4,518,977	\$3,844,738	\$551,004	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$2,000
Labor	\$300
Other	\$0
Total	\$2,300

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2022
Construction	FY 2023

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-23: Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-08-00

Investment Area: P118 - Halls Bayou

Total Estimated Cost: \$25,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Feasibility Study

County Funding: \$2,500,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$22,500,000

Project Description:

Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-08-00.

Justification:

This project could reduce the risk of flooding for over 210 structures and could reduce the 1% floodplain for over 170 acres as part of the Halls Ahead Bond Implementation Program.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$25,000,000	\$262,250	\$0	\$8,253,454	\$8,253,454	\$8,230,842	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2020
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2023
Design	FY 2024
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-24: Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-09-00

Investment Area: P118 - Halls Bayou

Total Estimated Cost: \$12,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Feasibility Study

County Funding: \$1,200,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$10,800,000

Project Description:

Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-09-00.

Justification:

This project could reduce the risk of flooding for over 200 structures in the pre-Atlas 14 1% AEP (100-year) floodplain and could reduce that floodplain by more than 160 acres as part of the Halls Ahead Bond Implementation Program.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$12,000,000	\$262,500	\$4,702,730	\$4,702,731	\$2,332,039	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2020
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2023
Design	FY 2023
Construction	FY 2025

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-25: Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-21-00

Investment Area: P118 - Halls Bayou **Total Estimated Cost:** \$20,036,050

Bond Project: Yes **Expenditures to Date:** \$5,682,335

Current Project Phase: Operation and Maintenance **County Funding:** \$5,400,000

Projected Completion: FY 2021 **Non-County Funding – Secured:** \$9,582,886

Non-County Funding – Unsecured: \$5,053,164

Project Description:

Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-21-00.

Justification:

This project could reduce the risk of flooding for over 140 structures in the pre-Atlas 14 1% AEP (100-year) floodplain and could reduce that floodplain by more than 100 acres as part of the Halls Ahead Bond Implementation Program.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$20,036,050	\$7,623,001	\$6,730,714	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2021
Design	FY 2022
Construction	FY 2023

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-26: Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02

<u>Investment Area:</u> P118 - Halls Bayou	<u>Total Estimated Cost:</u>	\$28,000,000
<u>Bond Project:</u> Yes	<u>Expenditures to Date:</u>	\$766,784
<u>Current Project Phase:</u> Design	<u>County Funding:</u>	\$2,800,000
<u>Projected Completion:</u> TBD	<u>Non-County Funding – Secured:</u>	\$0
	<u>Non-County Funding – Unsecured:</u>	\$25,200,000

Project Description:

Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02.

Justification:

This project could reduce the risk of flooding for more than 380 structures in the pre-Atlas 14 1% AEP (100-year) floodplain and could reduce that floodplain by more than 430 acres as part of the Halls Ahead Bond Implementation Program.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$28,000,000	\$3,042,744	\$533,321	\$7,892,925	\$7,892,925	\$7,871,301	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2023
Design	FY 2023
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-28: Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01

Investment Area: P118 - Halls Bayou	Total Estimated Cost:	\$24,000,000
Bond Project: Yes	Expenditures to Date:	\$412,278
Current Project Phase: Design	County Funding:	\$2,400,000
Projected Completion: TBD	Non-County Funding – Secured:	\$0
	Non-County Funding – Unsecured:	\$21,600,000

Project Description:

Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01.

Justification:

This project could reduce the risk of flooding for more than 600 structures in the pre-Atlas 14 1% AEP (100-year) floodplain and could reduce that floodplain by more than 200 acres as part of the Halls Ahead Bond Implementation Program.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$24,000,000	\$1,600,972	\$386,748	\$7,206,582	\$7,206,582	\$7,186,838	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2023
Design	FY 2023
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-30: Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00

Investment Area: P118 - Halls Bayou

Total Estimated Cost: \$12,000,000

Bond Project: Yes

Expenditures to Date: \$11,080

Current Project Phase: Feasibility Study

County Funding: \$1,200,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$10,800,000

Project Description:

Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00.

Justification:

This project could reduce the risk of flooding for over 140 structures in the pre-Atlas 14 1% AEP (100-year) floodplain and could reduce that floodplain by more than 200 acres as part of the Halls Ahead Bond Implementation Program.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$12,000,000	\$251,419	\$4,702,731	\$4,702,731	\$2,332,039	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2020
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2023
Design	FY 2023
Construction	FY 2025

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-35: Design and Construction of Stormwater Detention Basin and Associated Channel Improvements

Investment Area: P118 - Halls Bayou

Total Estimated Cost: \$7,908,392

Bond Project: Yes

Expenditures to Date: \$108,986

Current Project Phase: Operation and Maintenance

County Funding: \$1,523,432

Projected Completion: FY 2021

Non-County Funding – Secured: \$6,384,960

Non-County Funding – Unsecured: \$0

Project Description:

Design and Construction of Stormwater Detention Basin and Associated Channel Improvements.

Justification:

This project removes the Atlas 14 1% AEP (100-year) floodplain from more than 150 structures and reduces the risk of flooding for more than 300 other structures as part of the Halls Ahead Bond Implementation Program.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$7,908,392	\$7,799,406	\$0	\$0	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$2,000
Labor	\$300
Other	\$0
Total	\$2,300

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2021

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-41: Planning, Right-Of-Way, Design and Construction of Halls Bayou Flood Risk Management Project

Investment Area: P118 - Halls Bayou

Total Estimated Cost: \$154,960,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Right-of-way Acquisition and Utility Relocation

County Funding: \$3,460,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$151,500,000

Project Description:

Planning, Right-Of-Way, Design and Construction of Halls Bayou Flood Risk Management Project.

Justification:

This project could reduce the risk of flooding for over 2,800 structures in the 1% floodplain as part of the Halls Ahead Bond Implementation Program.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$154,960,000	\$7,206,190	\$4,864,790	\$7,301,385	\$33,397,751	\$42,224,048	\$59,965,836

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	FY 2021
Preliminary Engineering	FY 2022
Right-of-way Acquisition and Utility Relocation	FY 2025
Design	FY 2023
Construction	FY 2029

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-006: Design and Construction of a Stormwater Detention Basin in Brock Park

Investment Area: P118 - Halls Bayou

Total Estimated Cost:

\$10,000,000

Bond Project: Yes

Expenditures to Date:

\$0

Current Project Phase: Preliminary Engineering

County Funding:

\$5,000,000

Projected Completion: TBD

Non-County Funding – Secured:

\$0

Non-County Funding – Unsecured:

\$5,000,000

Project Description:

Design and Construction of a Stormwater Detention Basin in Brock Park.

Justification:

Provides additional stormwater detention in support of flood damage reduction as part of the Halls Ahead Bond Implementation Program. The project will be a partnership with the City of Houston.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$0	\$0	\$3,336,380	\$3,336,380	\$3,327,240	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2022
Right-of-way Acquisition and Utility Relocation	TBD
Design	FY 2024
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-122: Bond implementation Management (BIM) of the Right-of-Way Acquisition, Design and Construction in Halls Bayou Watershed

Investment Area: P118 - Halls Bayou **Total Estimated Cost:** \$48,040,000

Bond Project: Yes **Expenditures to Date:** \$2,104,614

Current Project Phase: Preliminary Engineering **County Funding:** \$48,040,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Bond implementation Management (BIM) of the Right-of-Way Acquisition, Design and Construction in Halls Bayou Watershed.

Justification:

Bond implementation Management (BIM) of Halls Ahead Program could reduce the risk of flooding along Halls Bayou for over 2,800 structures in the pre-Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$48,040,000	\$9,171,959	\$9,197,156	\$9,197,156	\$9,197,156	\$9,171,959	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2026
Right-of-way Acquisition and Utility Relocation	FY 2026
Design	FY 2026
Construction	FY 2026

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
F-123: Bond implementation Management (BIM) of the Right-of-Way Acquisition, Design and Construction in Cedar Bayou Watershed	Q - Cedar Bayou	Yes	Pre-Prioritization	\$ 9,200,000	\$ 984,276	\$ 2,051,114	\$ 8,215,724	\$ 0
F-41: Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along Clawson Ditch and Q124-00-00	Q - Cedar Bayou	Yes	1st Quartile	\$ 19,000,000	\$ 1,010,771	\$ 2,444,821	\$ 17,989,229	\$ 0
F-42: Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along Magee Gully	Q - Cedar Bayou	Yes	4th Quartile	\$ 33,000,000	\$ 0	\$ 0	\$ 26,381,918	\$ 6,618,082
F-43: Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along Adlong Ditch	Q - Cedar Bayou	Yes	2nd Quartile	\$ 20,000,000	\$ 0	\$ 2,129,372	\$ 20,000,000	\$ 0
F-44: Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along Q130-00-00	Q - Cedar Bayou	Yes	Pre-Prioritization	\$ 18,000,000	\$ 481,158	\$ 5,703,603	\$ 17,518,842	\$ 0
F-45: Planning, Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements on Q134-00-00 and Q134-00-01	Q - Cedar Bayou	Yes	Pre-Prioritization	\$ 22,000,000	\$ 663,515	\$ 2,476,516	\$ 21,336,485	\$ 0
F-46: Right-Of-Way Acquisition, Design and Construction of the Q500-01 Stormwater Detention Basin	Q - Cedar Bayou	Yes	1st Quartile	\$ 26,000,000	\$ 0	\$ 2,690,032	\$ 26,000,000	\$ 0
F-47: Right-Of-Way Acquisition, Design and Construction of Stormwater Detention Basins near Coastal Water Authority canals and IH 10	Q - Cedar Bayou	Yes	1st Quartile	\$ 20,115,000	\$ 0	\$ 3,723,473	\$ 20,115,000	\$ 0
F-48: Design and Construction of Crosby Eastgate Environmental Mitigation Bank	Q - Cedar Bayou	Yes	Pre-Prioritization	\$ 1,009,327	\$ 258,351	\$ 750,976	\$ 750,976	\$ 0
F-69: Right-Of-Way Acquisition, Design and Construction of channel conveyance improvements on Q136-00-00 - Part of the Upstream Cedar Bayou Project	Q - Cedar Bayou	Yes	3rd Quartile	\$ 10,600,000	\$ 0	\$ 986,384	\$ 6,280,944	\$ 4,319,056
F-70: Upstream Cedar Bayou Project - Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements and Stormwater Detention Basin Upstream of FM 1960	Q - Cedar Bayou	Yes	3rd Quartile	\$ 74,000,000	\$ 0	\$ 1,301,006	\$ 60,743,781	\$ 13,256,219
Q - Cedar Bayou Total				\$ 252,924,327	\$ 3,398,071	\$ 24,257,297	\$ 225,332,899	\$ 24,193,357

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-123: Bond implementation Management (BIM) of the Right-of-Way Acquisition, Design and Construction in Cedar Bayou Watershed

Investment Area: Q - Cedar Bayou **Total Estimated Cost:** \$9,200,000

Bond Project: Yes **Expenditures to Date:** \$984,276

Current Project Phase: Feasibility Study **County Funding:** \$9,200,000

Projected Completion: FY 2024 **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Bond implementation Management (BIM) of the Right-of-Way Acquisition, Design and Construction in Cedar Bayou Watershed.

Justification:

Bond implementation Management (BIM) for construction of projects that could reduce the risk of flooding Cedar Bayou watershed.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$9,200,000	\$2,051,114	\$2,056,748	\$2,056,748	\$2,051,114	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2026
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-41: Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along Clawson Ditch and Q124-00-00

Investment Area: Q - Cedar Bayou **Total Estimated Cost:** \$19,000,000

Bond Project: Yes **Expenditures to Date:** \$1,010,771

Current Project Phase: Preliminary Engineering **County Funding:** \$19,000,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along Clawson Ditch and Q124-00-00.

Justification:

The pre-Atlas 14 1% AEP (100-year) floodplain could be reduced in size from approximately 2,700 acres to less than 800 acres.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$19,000,000	\$2,444,821	\$644,821	\$5,382,481	\$4,792,426	\$4,724,680	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	FY 2024
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-42: Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along Magee Gully

Investment Area: Q - Cedar Bayou **Total Estimated Cost:** \$33,000,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Not Initiated **County Funding:** \$33,000,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along Magee Gully.

Justification:

The improvements along Magee Gully will reduce the 1% floodplain area within the Cedar Bayou watershed.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$33,000,000	\$0	\$6,581,918	\$6,600,000	\$6,600,000	\$6,600,000	\$6,618,082

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2027

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-43: Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along Adlong Ditch

Investment Area: Q - Cedar Bayou

Total Estimated Cost: \$20,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Preliminary Engineering

County Funding: \$20,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along Adlong Ditch.

Justification:

The pre-Atlas 14 1% AEP (100-year) floodplain could be reduced in size from approximately 2,300 acres to less than 200 acres.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$20,000,000	\$2,129,372	\$2,129,371	\$6,666,830	\$6,666,830	\$2,407,597	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2022
Right-of-way Acquisition and Utility Relocation	FY 2025
Design	FY 2025
Construction	FY 2025

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-44: Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along Q130-00-00

Investment Area: Q - Cedar Bayou

Total Estimated Cost: \$18,000,000

Bond Project: Yes

Expenditures to Date: \$481,158

Current Project Phase: Preliminary Engineering

County Funding: \$18,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along Q130-00-00.

Justification:

This project is a component of a larger plan that could reduce the risk of flooding by more than 40 structures in the Atlas 14 1% AEP (100-year) floodplain and reduce that floodplain by more than 790 acres.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$18,000,000	\$5,703,603	\$2,149,524	\$3,224,850	\$3,224,850	\$3,216,015	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2022
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2020
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-45: Planning, Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements on Q134-00-00 and Q134-00-01

Investment Area: Q - Cedar Bayou

Total Estimated Cost: \$22,000,000

Bond Project: Yes

Expenditures to Date: \$663,515

Current Project Phase: Preliminary Engineering

County Funding: \$22,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Planning, Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements on Q134-00-00 and Q134-00-01.

Justification:

This project could reduce the risk of flooding and could reduce the pre-Atlas 14 1% AEP (100-year) floodplain by more than 510 acres.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$22,000,000	\$2,476,516	\$794,969	\$6,027,171	\$6,027,171	\$6,010,658	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2020
Right-of-way Acquisition and Utility Relocation	FY 2022
Design	FY 2022
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-46: Right-Of-Way Acquisition, Design and Construction of the Q500-01 Stormwater Detention Basin

Investment Area: Q - Cedar Bayou

Total Estimated Cost: \$26,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Preliminary Engineering

County Funding: \$26,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-Of-Way Acquisition, Design and Construction of the Q500-01 Stormwater Detention Basin.

Justification:

This project is anticipated to reduce the size of the 1% floodplain in Cedar Bayou.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$26,000,000	\$2,690,032	\$8,938,513	\$7,947,850	\$6,423,605	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2022
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-47: Right-Of-Way Acquisition, Design and Construction of Stormwater Detention Basins near Coastal Water Authority canals and IH 10

Investment Area: Q - Cedar Bayou **Total Estimated Cost:** \$20,115,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Preliminary Engineering **County Funding:** \$20,115,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-Of-Way Acquisition, Design and Construction of Stormwater Detention Basins near Coastal Water Authority canals and IH 10.

Justification:

This project is anticipated to reduce the size of the 1% floodplain in Cedar Bayou.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$20,115,000	\$3,723,473	\$9,304,677	\$7,086,850	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2023
Design	TBD
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-48: Design and Construction of Crosby Eastgate Environmental Mitigation Bank			
Investment Area: Q - Cedar Bayou	Total Estimated Cost:	\$1,009,327	
Bond Project: Yes	Expenditures to Date:	\$258,351	
Current Project Phase: Design	County Funding:	\$1,009,327	
Projected Completion: TBD	Non-County Funding – Secured:	\$0	
	Non-County Funding – Unsecured:	\$0	

Project Description:

Design and Construction of Crosby Eastgate Environmental Mitigation Bank.

Justification:

Restoration and enhancement of wetlands to create credits for wetland mitigation supporting construction of District projects and may be used for projects supporting District goals in coordination with other Harris County public agencies and municipalities.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$1,009,327	\$750,976	\$0	\$0	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2021
Design	FY 2021
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-69: Right-Of-Way Acquisition, Design and Construction of channel conveyance improvements on Q136-00-00 - Part of the Upstream Cedar Bayou Project

Investment Area: Q - Cedar Bayou **Total Estimated Cost:** \$10,600,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Not Initiated **County Funding:** \$10,600,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-Of-Way Acquisition, Design and Construction of channel conveyance improvements on Q136-00-00 - Part of the Upstream Cedar Bayou Project.

Justification:

This project will reduce the risk of flooding along upper Cedar Bayou.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,600,000	\$986,384	\$1,323,640	\$1,323,640	\$1,323,640	\$1,323,640	\$4,319,056

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2029
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-70: Upstream Cedar Bayou Project - Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements and Stormwater Detention Basin Upstream of FM 1960

Investment Area: Q - Cedar Bayou	Total Estimated Cost:	\$74,000,000
Bond Project: Yes	Expenditures to Date:	\$0
Current Project Phase: Not Initiated	County Funding:	\$74,000,000
Projected Completion: TBD	Non-County Funding – Secured:	\$0
	Non-County Funding – Unsecured:	\$0

Project Description:

Upstream Cedar Bayou Project - Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements and Stormwater Detention Basin Upstream of FM 1960.

Justification:

The 1% floodplain could be reduced in size from approximately 1,500 acres to less than 100 acres. Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$74,000,000	\$1,301,006	\$15,821,933	\$15,858,152	\$14,542,690	\$13,220,000	\$13,256,219

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	TBD
Construction	FY 2027

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
F-107: Right-of-Way Acquisition, Design and Construction of General Drainage Improvements in Jackson Bayou Watershed	R - Jackson Bayou	Yes	4th Quartile	\$ 10,000,000	\$ 0	\$ 1,000,000	\$ 10,000,000	\$ 0
F-73: Investigations of General Drainage Improvements in Jackson Bayou Watershed	R - Jackson Bayou	Yes	Pre-Prioritization	\$ 450,000	\$ 276,809	\$ 173,191	\$ 173,191	\$ 0
R - Jackson Bayou Total				\$ 10,450,000	\$ 276,809	\$ 1,173,191	\$ 10,173,191	\$ 0

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-107: Right-of-Way Acquisition, Design and Construction of General Drainage Improvements in Jackson Bayou Watershed

<u>Investment Area:</u> R - Jackson Bayou	<u>Total Estimated Cost:</u>	\$10,000,000
<u>Bond Project:</u> Yes	<u>Expenditures to Date:</u>	\$0
<u>Current Project Phase:</u> Not Initiated	<u>County Funding:</u>	\$10,000,000
<u>Projected Completion:</u> TBD	<u>Non-County Funding – Secured:</u>	\$0
	<u>Non-County Funding – Unsecured:</u>	\$0

Project Description:

Right-of-Way Acquisition, Design and Construction of General Drainage Improvements in Jackson Bayou Watershed.

Justification:

Design and construction of a project to reduce the risk of flooding in the Jackson Bayou watershed for more than 90 structures in the Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$1,000,000	\$0	\$3,002,742	\$3,002,742	\$2,994,516	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2020
Design	TBD
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-73: Investigations of General Drainage Improvements in Jackson Bayou Watershed

Investment Area: R - Jackson Bayou **Total Estimated Cost:** \$450,000

Bond Project: Yes **Expenditures to Date:** \$276,809

Current Project Phase: Feasibility Study **County Funding:** \$0

Projected Completion: TBD **Non-County Funding – Secured:** \$450,000

Non-County Funding – Unsecured: \$0

Project Description:

Investigations of General Drainage Improvements in Jackson Bayou Watershed.

Justification:

Effort will investigate drainage deficiencies, flooding problems and evaluate potential solutions to reduce the risk of flooding in the Jackson Bayou watershed for more than 240 structures in the Atlas 14 1% AEP (100-year) floodplain.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$450,000	\$173,191	\$0	\$0	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	FY 2020
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
F-108: Right-of-Way Acquisition, Design and Construction of General Drainage Improvements in Luce Bayou Watershed	S - Luce Bayou	Yes	3rd Quartile	\$ 10,000,000	\$ 0	\$ 0	\$ 10,000,000	\$ 0
F-110: Planning, Right-Of-Way Acquisition, Design and Construction of General Drainage Improvements Near Huffman	S - Luce Bayou	Yes	Pre-Prioritization	\$ 10,091,519	\$ 486,552	\$ 1,233,243	\$ 9,604,967	\$ 0
F-51: Luce Bayou Right-of-Way Acquisition and Floodplain Preservation	S - Luce Bayou	Yes	2nd Quartile	\$ 10,000,000	\$ 0	\$ 0	\$ 7,865,229	\$ 2,134,771
F-85: Investigations of General Drainage Improvements along Luce Bayou	S - Luce Bayou	Yes	Pre-Prioritization	\$ 450,000	\$ 362,504	\$ 87,496	\$ 87,496	\$ 0
S - Luce Bayou Total				\$ 30,541,519	\$ 849,056	\$ 1,320,739	\$ 27,557,692	\$ 2,134,771

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-108: Right-of-Way Acquisition, Design and Construction of General Drainage Improvements in Luce Bayou Watershed

<u>Investment Area:</u> S - Luce Bayou	<u>Total Estimated Cost:</u>	\$10,000,000
<u>Bond Project:</u> Yes	<u>Expenditures to Date:</u>	\$0
<u>Current Project Phase:</u> Not Initiated	<u>County Funding:</u>	\$10,000,000
<u>Projected Completion:</u> TBD	<u>Non-County Funding – Secured:</u>	\$0
	<u>Non-County Funding – Unsecured:</u>	\$0

Project Description:

Right-of-Way Acquisition, Design and Construction of General Drainage Improvements in Luce Bayou Watershed

Justification:

Design and construction of projects to reduce the risk of flooding in the Luce Bayou watershed for more than 80 structures in the Atlas 14 1% AEP (100-year) floodplain).

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$0	\$0	\$3,336,380	\$3,336,380	\$3,327,240	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-110: Planning, Right-Of-Way Acquisition, Design and Construction of General Drainage Improvements Near Huffman

Investment Area: S - Luce Bayou

Total Estimated Cost: \$10,091,519

Bond Project: Yes

Expenditures to Date: \$486,552

Current Project Phase: Preliminary Engineering

County Funding: \$10,091,519

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Planning, Right-Of-Way Acquisition, Design and Construction of General Drainage Improvements Near Huffman.

Justification:

This project is component of plan that could reduce the risk of flooding for more than 120 structures and could reduce flooding for more than 330 acres in the pre-Atlas 14 1% AEP (100-year) floodplain and facilitate drainage improvements in the area of Huffman in the San Jacinto River watershed.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,091,519	\$1,233,243	\$5,558,940	\$2,812,784	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	FY 2019
Preliminary Engineering	FY 2022
Right-of-way Acquisition and Utility Relocation	FY 2023
Design	FY 2023
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-51: Luce Bayou Right-of-Way Acquisition and Floodplain Preservation

Investment Area: S - Luce Bayou

Total Estimated Cost: \$10,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Right-of-way Acquisition and Utility Relocation

County Funding: \$10,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Luce Bayou Right-of-Way Acquisition and Floodplain Preservation.

Justification:

Right of way acquisition along Luce Bayou for project support, to preserve channel conveyance and / or restore natural floodplains in areas subject to frequent flooding.

Property acquisitions can benefit public safety by utilizing the land for floodplain preservation, or using the land for future projects to construct levees, channels or detention for flood mitigation and controls. Property acquisitions allow land to be used for floodplain preservation, or for future projects to construct levees, channels and/or detention for flood mitigation and controls. This enhancement can be measured by facilities constructed on the property or acreage removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$0	\$1,962,264	\$1,967,655	\$1,967,655	\$1,967,655	\$2,134,771

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2027
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-85: Investigations of General Drainage Improvements along Luce Bayou

Investment Area: S - Luce Bayou

Total Estimated Cost: \$450,000

Bond Project: Yes

Expenditures to Date: \$362,504

Current Project Phase: Feasibility Study

County Funding: \$0

Projected Completion: TBD

Non-County Funding – Secured: \$450,000

Non-County Funding – Unsecured: \$0

Project Description:

Investigations of General Drainage Improvements along Luce Bayou.

Justification:

Effort will investigate drainage deficiencies, flooding problems and evaluate potential solutions to reduce the risk of flooding in the Harris County portion of Luce Bayou watershed for more than 260 structures in the Atlas 14 1% AEP (100-year) floodplain.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$450,000	\$87,496	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2020
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
C-53: Rehabilitation of Channels Inside of Barker Reservoir to Restore Channel Conveyance Capacity	T - Barker Reservoir	Yes	4th Quartile	\$ 10,000,000	\$ 0	\$ 0	\$ 10,000,000	\$ 0
F-52: Rehabilitation of Approximately 20 Miles of Channels Upstream of Barker Reservoir to Restore Channel Conveyance Capacity	T - Barker Reservoir	Yes	Pre-Prioritization	\$ 20,000,000	\$ 694,298	\$ 16,130,904	\$ 19,305,702	\$ 0
T - Barker Reservoir Total				\$ 30,000,000	\$ 694,298	\$ 16,130,904	\$ 29,305,702	\$ 0

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-53: Rehabilitation of Channels Inside of Barker Reservoir to Restore Channel Conveyance Capacity

Investment Area: T - Barker Reservoir

Total Estimated Cost: \$10,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Not Initiated

County Funding: \$10,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Rehabilitation of Channels Inside of Barker Reservoir to Restore Channel Conveyance Capacity.

Justification:

Major maintenance to restore channel conveyance capacity. This project is being done by the Army Corps of Engineers, with the District providing project funding.

Maintenance projects return flood control facilities to their near intended state for optimal conveyance for the safety of the public. Maintenance projects return flood control facilities to their near intended state for optimal conveyance to allow for key county facilities and roads to be accessible. Maintenance projects return the facility to near intended state for optimal conveyance to reduce flooding risks. This enhancement can be measured by the amount of structures, land, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$0	\$0	\$5,006,859	\$4,993,141	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2025

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-52: Rehabilitation of Approximately 20 Miles of Channels Upstream of Barker Reservoir to Restore Channel Conveyance Capacity

Investment Area: T - Barker Reservoir **Total Estimated Cost:** \$20,000,000

Bond Project: Yes **Expenditures to Date:** \$694,298

Current Project Phase: Design **County Funding:** \$20,000,000

Projected Completion: FY 2025 **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Rehabilitation of Approximately 20 Miles of Channels Upstream of Barker Reservoir to Restore Channel Conveyance Capacity.

Justification:

Major maintenance to restore channel conveyance capacity.

Maintenance projects return flood control facilities to their near intended state for optimal conveyance for the safety of the public. Maintenance projects return flood control facilities to their near intended state for optimal conveyance to allow for key county facilities and roads to be accessible. Maintenance projects return the facility to near intended state for optimal conveyance to reduce flooding risks. This enhancement can be measured by the amount of structures, land, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$20,000,000	\$16,130,904	\$0	\$1,589,577	\$1,585,221	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	FY 2020
Construction	FY 2025

Supplement 2 - Capital Improvements Plan
Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
C-36: Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements and Bypass Channel for South Mayde Creek	U - Addicks Reservoir	Yes	Pre-Prioritization	\$ 10,672,420	\$ 666,927	\$ 1,826,752	\$ 10,005,493	\$ 0
C-37: Design and Construction of Little York Stormwater Detention Basin	U - Addicks Reservoir	Yes	Pre-Prioritization	\$ 3,000,000	\$ 0	\$ 936,847	\$ 3,000,000	\$ 0
C-38: Design and Construction of Dinner Creek Stormwater Detention Basin	U - Addicks Reservoir	Yes	Pre-Prioritization	\$ 15,000,000	\$ 139,953	\$ 3,360,047	\$ 14,860,047	\$ 0
C-46: Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek	U - Addicks Reservoir	Yes	Pre-Prioritization	\$ 16,000,000	\$ 403,153	\$ 2,108,824	\$ 14,466,006	\$ 1,130,841
C-47: Design and Construction of a Bridge Replacement for Greenhouse Road at South Mayde Creek	U - Addicks Reservoir	Yes	1st Quartile	\$ 15,000,000	\$ 0	\$ 500,000	\$ 15,000,000	\$ 0
C-48: Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek near the Grand Parkway	U - Addicks Reservoir	Yes	1st Quartile	\$ 94,000,000	\$ 549,919	\$ 3,133,020	\$ 76,440,216	\$ 17,009,865
C-52: Rehabilitation of Channels Inside of Addicks Reservoir to Restore Channel Conveyance Capacity	U - Addicks Reservoir	Yes	3rd Quartile	\$ 10,000,000	\$ 0	\$ 500,000	\$ 10,000,000	\$ 0
F-112: Right-Of-Way Acquisition, Design, and Construction of Wetland Mitigation Bank	U - Addicks Reservoir	Yes	Pre-Prioritization	\$ 20,000,000	\$ 75,416	\$ 5,251,210	\$ 19,924,584	\$ 0
F-53: Rehabilitation of Channels Upstream of Addicks Reservoir to Restore Channel Conveyance Capacity	U - Addicks Reservoir	Yes	Pre-Prioritization	\$ 40,000,000	\$ 24,957,957	\$ 11,297,731	\$ 15,042,043	\$ 0
F-54: Right-Of-Way Acquisition, Design and Construction of Control Structures and Stormwater Quality Features for the Upper Langham Creek Program	U - Addicks Reservoir	Yes	Pre-Prioritization	\$ 10,000,000	\$ 0	\$ 2,953,311	\$ 10,000,000	\$ 0
F-55: Planning, Right-Of-Way Acquisition, Design, and Construction for Ultimate Conveyance on Bear Creek	U - Addicks Reservoir	Yes	4th Quartile	\$ 25,000,000	\$ 0	\$ 2,472,529	\$ 22,527,473	\$ 2,472,527
F-56: Right-Of-Way Acquisition, Design, and Construction of a Retention Area	U - Addicks Reservoir	Yes	Pre-Prioritization	\$ 15,000,000	\$ 320,300	\$ 39,699	\$ 14,679,700	\$ 0
F-83: Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin North of John Pauls Landing for the Upper Langham Creek Program	U - Addicks Reservoir	Yes	Pre-Prioritization	\$ 21,002,946	\$ 2,946	\$ 2,742,498	\$ 21,000,000	\$ 0
F-84: Design and Construction of Secondary Outfall for John Pauls Landing for the Upper Langham Creek Program	U - Addicks Reservoir	Yes	4th Quartile	\$ 5,000,000	\$ 0	\$ 0	\$ 5,000,000	\$ 0
U - Addicks Reservoir Total				\$ 299,675,366	\$ 27,116,571	\$ 37,122,468	\$ 251,945,562	\$ 20,613,233

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-36: Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements and Bypass Channel for South Mayde Creek

Investment Area: U - Addicks Reservoir **Total Estimated Cost:** \$10,672,420

Bond Project: Yes **Expenditures to Date:** \$666,927

Current Project Phase: Design **County Funding:** \$1,672,420

Projected Completion: FY 2026 **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$9,000,000

Project Description:

Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements and Bypass Channel for South Mayde Creek.

Justification:

This project is part of the South Mayde Creek Plan that could reduce the risk of flooding for more than 70 homes and reduce the floodplain by more than 340 acres for the pre-Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,672,420	\$1,826,752	\$1,566,963	\$611,778	\$3,000,000	\$3,000,000	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2020
Right-of-way Acquisition and Utility Relocation	FY 2023
Design	FY 2022
Construction	FY 2025

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-37: Design and Construction of Little York Stormwater Detention Basin

Investment Area: U - Addicks Reservoir **Total Estimated Cost:** \$3,000,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Construction **County Funding:** \$500,000

Projected Completion: FY 2025 **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$2,500,000

Project Description:

Design and Construction of Little York Stormwater Detention Basin.

Justification:

Project would provide additional stormwater detention in support of flood damage reduction in Addicks Reservoir Watershed.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$3,000,000	\$936,847	\$1,032,992	\$1,030,161	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$2,217
Labor	\$332
Other	\$0
Total	\$2,549

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2021
Design	TBD
Construction	FY 2025

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-38: Design and Construction of Dinner Creek Stormwater Detention Basin

Investment Area: U - Addicks Reservoir **Total Estimated Cost:** \$15,000,000

Bond Project: Yes **Expenditures to Date:** \$139,953

Current Project Phase: Design **County Funding:** \$3,750,000

Projected Completion: FY 2025 **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$11,250,000

Project Description:

Design and Construction of Dinner Creek Stormwater Detention Basin.

Justification:

Project would provide additional stormwater detention in support of flood damage reduction in Addicks Reservoir Watershed.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$15,000,000	\$3,360,047	\$4,607,574	\$4,607,574	\$2,284,852	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$45,000
Labor	\$6,750
Other	\$0
Total	\$51,750

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	FY 2020
Construction	FY 2025

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-46: Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek

Investment Area: U - Addicks Reservoir

Total Estimated Cost: \$16,000,000

Bond Project: Yes

Expenditures to Date: \$403,153

Current Project Phase: Right-of-way Acquisition and Utility Relocation

County Funding: \$1,600,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$14,400,000

Project Description:

Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek.

Justification:

This project is part of the South Mayde Creek Plan that could reduce the risk of flooding for more than 70 homes and reduce the floodplain by more than 340 acres for the pre-Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$16,000,000	\$2,108,824	\$1,826,912	\$661,111	\$4,934,580	\$4,934,580	\$1,130,841

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2020
Right-of-way Acquisition and Utility Relocation	FY 2023
Design	FY 2022
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-47: Design and Construction of a Bridge Replacement for Greenhouse Road at South Mayde Creek

Investment Area: U - Addicks Reservoir

Total Estimated Cost: \$15,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Preliminary Engineering

County Funding: \$1,500,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$13,500,000

Project Description:

Design and Construction of a Bridge Replacement for Greenhouse Road at South Mayde Creek.

Justification:

This project is part of the South Mayde Creek Plan that could reduce the risk of flooding for more than 70 homes and reduce the floodplain by more than 340 acres for the pre-Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$15,000,000	\$500,000	\$1,000,000	\$4,050,000	\$5,400,000	\$4,050,000	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2020
Right-of-way Acquisition and Utility Relocation	FY 2021
Design	FY 2022
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-48: Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek near the Grand Parkway

Investment Area: U - Addicks Reservoir **Total Estimated Cost:** \$94,000,000

Bond Project: Yes **Expenditures to Date:** \$549,919

Current Project Phase: Right-of-way Acquisition and Utility Relocation **County Funding:** \$9,400,000

Projected Completion: FY 2024 **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$84,600,000

Project Description:

Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek near the Grand Parkway.

Justification:

This project is part of the South Mayde Creek Plan that could reduce the risk of flooding for more than 70 homes and reduce the floodplain by more than 340 acres for the pre-Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$94,000,000	\$3,133,020	\$19,618,854	\$19,665,329	\$17,059,623	\$16,963,390	\$17,009,865

Estimated Annual Operating Budget Impact:	
O&M	\$80,000
Labor	\$12,000
Other	\$0
Total	\$92,000

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2020
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	FY 2021
Construction	FY 2027

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-52: Rehabilitation of Channels Inside of Addicks Reservoir to Restore Channel Conveyance Capacity

Investment Area: U - Addicks Reservoir

Total Estimated Cost: \$10,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Not Initiated

County Funding: \$10,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Rehabilitation of Channels Inside of Addicks Reservoir to Restore Channel Conveyance Capacity.

Justification:

Major maintenance to restore channel conveyance capacity. Partnership project with Corps of Engineers. District providing project funding.

Maintenance projects return flood control facilities to near their intended state for optimal water flow to reduce flooding risks and for the safety of the public. They allow for key county facilities and roads to be accessible. This enhancement can be measured by the amount of structures, land, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$500,000	\$3,000,000	\$3,500,000	\$3,000,000	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	TBD
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-112: Right-Of-Way Acquisition, Design, and Construction of Wetland Mitigation Bank

Investment Area: U - Addicks Reservoir

Total Estimated Cost: \$20,000,000

Bond Project: Yes

Expenditures to Date: \$75,416

Current Project Phase: Right-of-way Acquisition and Utility Relocation

County Funding: \$20,000,000

Projected Completion: FY 2024

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-Of-Way Acquisition, Design, and Construction of Wetland Mitigation Bank.

Justification:

Restoration and enhancement of wetlands to create wetland mitigation credits, supporting construction of District projects. The credits may be used for projects supporting District goals in coordination with other Harris County public agencies and municipalities.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$20,000,000	\$5,251,210	\$2,711,097	\$8,248,006	\$3,714,271	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	FY 2018
Preliminary Engineering	FY 2020
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	FY 2023
Construction	FY 2024

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-53: Rehabilitation of Channels Upstream of Addicks Reservoir to Restore Channel Conveyance Capacity

Investment Area: U - Addicks Reservoir

Total Estimated Cost: \$40,000,000

Bond Project: Yes

Expenditures to Date: \$24,957,957

Current Project Phase: Operation and Maintenance

County Funding: \$40,000,000

Projected Completion: FY 2022

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Rehabilitation of Channels Upstream of Addicks Reservoir to Restore Channel Conveyance Capacity.

Justification:

Major maintenance to restore channel conveyance capacity.

Maintenance projects return flood control facilities to their near intended state for optimal conveyance for the safety of the public. Maintenance projects return flood control facilities to their near intended state for optimal conveyance to allow for key county facilities and roads to be accessible. Maintenance projects return the facility to near intended state for optimal conveyance to reduce flooding risks. This enhancement can be measured by the amount of structures, land, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$40,000,000	\$11,297,731	\$3,744,312	\$0	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	FY 2018
Construction	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-54: Right-Of-Way Acquisition, Design and Construction of Control Structures and Stormwater Quality Features for the Upper Langham Creek Program

Investment Area: U - Addicks Reservoir **Total Estimated Cost:** \$10,000,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Construction **County Funding:** \$10,000,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-Of-Way Acquisition, Design and Construction of Control Structures and Stormwater Quality Features for the Upper Langham Creek Program.

Justification:

This project is part of the Upper Langham Creek Program that will reduce the risk of flooding for over 2,500 structures pre-Atlas 14 1% AEP (100-year) floodplain

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$2,953,311	\$3,963,084	\$3,083,605	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2023

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-55: Planning, Right-Of-Way Acquisition, Design, and Construction for Ultimate Conveyance on Bear Creek

Investment Area: U - Addicks Reservoir

Total Estimated Cost: \$25,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Not Initiated

County Funding: \$25,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Planning, Right-Of-Way Acquisition, Design, and Construction for Ultimate Conveyance on Bear Creek.

Justification:

The project could reduce the risk of flooding for over 30 structures in the 1% floodplain and create depth for more effective drainage.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$25,000,000	\$2,472,529	\$5,013,736	\$5,013,736	\$5,013,736	\$5,013,736	\$2,472,527

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2026
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-56: Right-Of-Way Acquisition, Design, and Construction of a Retention Area

Investment Area: U - Addicks Reservoir

Total Estimated Cost: \$15,000,000

Bond Project: Yes

Expenditures to Date: \$320,300

Current Project Phase: Feasibility Study

County Funding: \$15,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-Of-Way Acquisition, Design, and Construction of a Retention Area.

Justification:

Provides regional retention in accordance w/ Cypress Creek Overflow Guidelines that could reduce the risk of flooding for more than 460 structures in the Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$15,000,000	\$39,699	\$4,884,461	\$4,884,461	\$4,871,079	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2020
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	FY 2024
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-83: Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin North of John Pauls Landing for the Upper Langham Creek Program

Investment Area: U - Addicks Reservoir **Total Estimated Cost:** \$21,002,946

Bond Project: Yes **Expenditures to Date:** \$2,946

Current Project Phase: Right-of-way Acquisition and Utility Relocation **County Funding:** \$21,002,946

Projected Completion: FY 2025 **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin North of John Pauls Landing for the Upper Langham Creek Program.

Justification:

This project is part of the Upper Langham Creek Program that could reduce the risk of flooding for over 2,500 structures in the pre-Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$21,002,946	\$2,742,498	\$4,533,398	\$6,674,907	\$7,049,197	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$64,000
Labor	\$9,600
Other	\$0
Total	\$73,600

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	FY 2024
Construction	FY 2025

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-84: Design and Construction of Secondary Outfall for John Pauls Landing for the Upper Langham Creek Program

Investment Area: U - Addicks Reservoir

Total Estimated Cost: \$5,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Not Initiated

County Funding: \$5,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Design and Construction of Secondary Outfall for John Pauls Landing for the Upper Langham Creek Program.

Justification:

This project is part of the Upper Langham Creek Program that will reduce the risk of flooding for over 2,500 structures pre-Atlas 14 1% AEP (100-year) floodplain

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$5,000,000	\$0	\$0	\$2,503,429	\$2,496,571	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2025

Supplement 2 - Capital Improvements Plan

Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
CI-009: Partnership Project with Fort Bend County on Right-of-Way Acquisition, Design, and Construction of General Drainage Improvements along Clodine Ditch	W - Buffalo Bayou	Yes	3rd Quartile	\$ 30,000,000	\$ 0	\$ 0	\$ 23,983,562	\$ 6,016,438
CI-017: Phased Implementation of Additional Storage and Conveyance Improvements per Recommendations of the W100-Buffer Bayou Study	W - Buffalo Bayou	Yes	4th Quartile	\$ 30,000,000	\$ 0	\$ 0	\$ 23,983,562	\$ 6,016,438
CI-018: Rehabilitation of W140-00-00 to Restore Channel Conveyance Capacity	W - Buffalo Bayou	Yes	4th Quartile	\$ 2,000,000	\$ 0	\$ 0	\$ 2,000,000	\$ 0
CI-024: Investigation of Effectiveness of Micro-Detention in the Buffalo Bayou Watershed	W - Buffalo Bayou	Yes	4th Quartile	\$ 200,000	\$ 0	\$ 200,000	\$ 200,000	\$ 0
F-58: Construction of Linear Detention on Buffalo Bayou	W - Buffalo Bayou	Yes	Pre-Prioritization	\$ 10,000,000	\$ 0	\$ 0	\$ 10,000,000	\$ 0
F-79: Planning, Right-Of-Way Acquisition, Design and Construction Along W157-00-00	W - Buffalo Bayou	Yes	4th Quartile	\$ 10,000,000	\$ 0	\$ 0	\$ 10,000,000	\$ 0
F-80: Planning, Right-Of-Way Acquisition, Design and Construction Along Soldiers Creek	W - Buffalo Bayou	Yes	4th Quartile	\$ 10,000,000	\$ 0	\$ 0	\$ 10,000,000	\$ 0
F-81: Planning, Right-Of-Way Acquisition, Design and Construction Along W151-00-00 and W153-00-00	W - Buffalo Bayou	Yes	Pre-Prioritization	\$ 20,000,000	\$ 0	\$ 1,010,000	\$ 20,000,000	\$ 0
F-82: Demolition of 1119 Commerce Street and Slope Stabilization Along Buffalo Bayou	W - Buffalo Bayou	Yes	Pre-Prioritization	\$ 5,000,000	\$ 1,838,318	\$ 3,161,682	\$ 3,161,682	\$ 0
W - Buffalo Bayou Total				\$ 117,200,000	\$ 1,838,318	\$ 4,371,682	\$ 103,328,806	\$ 12,032,876

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-009: Partnership Project with Fort Bend County on Right-of-Way Acquisition, Design, and Construction of General Drainage Improvements along Clodine Ditch

Investment Area: W - Buffalo Bayou **Total Estimated Cost:** \$30,000,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Not Initiated **County Funding:** \$15,000,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$15,000,000

Project Description:

Partnership Project with Fort Bend County on Right-of-Way Acquisition, Design, and Construction of General Drainage Improvements along Clodine Ditch.

Justification:

Planning, right of way acquisition, design and construction of this project could reduce the risk of flooding for homes along Buffalo Bayou downstream of Highway 6.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$30,000,000	\$0	\$5,983,562	\$6,000,000	\$6,000,000	\$6,000,000	\$6,016,438

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2027

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-017: Phased Implementation of Additional Storage and Conveyance Improvements per Recommendations of the W100-Buffalo Bayou Study

Investment Area: W - Buffalo Bayou **Total Estimated Cost:** \$30,000,000

Bond Project: Yes **Expenditures to Date:** \$0

Current Project Phase: Not Initiated **County Funding:** \$30,000,000

Projected Completion: TBD **Non-County Funding – Secured:** \$0

Non-County Funding – Unsecured: \$0

Project Description:

Phased Implementation of Additional Storage and Conveyance Improvements per Recommendations of the W100-Buffalo Bayou Study.

Justification:

Design and construction of replacement bridges along Buffalo Bayou that could reduce the risk of flooding along the channel.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$30,000,000	\$0	\$5,983,562	\$6,000,000	\$6,000,000	\$6,000,000	\$6,016,438

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2027

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-018: Rehabilitation of W140-00-00 to Restore Channel Conveyance Capacity

Investment Area: W - Buffalo Bayou

Total Estimated Cost: \$2,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Not Initiated

County Funding: \$2,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Rehabilitation of W140-00-00 to Restore Channel Conveyance Capacity.

Justification:

Major maintenance to restore channel conveyance capacity.

Maintenance projects return flood control facilities to their near intended state for optimal conveyance for the safety of the public. Maintenance projects return flood control facilities to their near intended state for optimal conveyance to allow for key county facilities and roads to be accessible. Maintenance projects return the facility to near intended state for optimal conveyance to reduce flooding risks. This enhancement can be measured by the amount of structures, land, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$2,000,000	\$0	\$0	\$1,336,996	\$663,004	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2024

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-024: Investigation of Effectiveness of Micro-Detention in the Buffalo Bayou Watershed

Investment Area: W - Buffalo Bayou

Total Estimated Cost: \$200,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Not Initiated

County Funding: \$200,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Investigation of Effectiveness of Micro-Detention in the Buffalo Bayou Watershed.

Justification:

Investigations regarding the effectiveness of small detention sites in the Buffalo Bayou watershed for the purpose of reducing the risk of flooding.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$200,000	\$200,000	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2024
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-58: Construction of Linear Detention on Buffalo Bayou

Investment Area: W - Buffalo Bayou

Total Estimated Cost: \$10,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Preliminary Engineering

County Funding: \$10,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Construction of Linear Detention on Buffalo Bayou.

Justification:

Reduce the risk of flooding along Buffalo Bayou with construction of additional stormwater detention volume on land already owned by the District.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$0	\$0	\$3,336,380	\$3,336,380	\$3,327,240	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2019
Right-of-way Acquisition and Utility Relocation	TBD
Design	FY 2019
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-79: Planning, Right-Of-Way Acquisition, Design and Construction Along W157-00-00

Investment Area: W - Buffalo Bayou

Total Estimated Cost: \$10,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Not Initiated

County Funding: \$10,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Planning, Right-Of-Way Acquisition, Design and Construction Along W157-00-00.

Justification:

Could reduce the risk of flooding and could improve local drainage issues for buildings along the channel. Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$0	\$0	\$3,336,380	\$3,336,380	\$3,327,240	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-80: Planning, Right-Of-Way Acquisition, Design and Construction Along Soldiers Creek

Investment Area: W - Buffalo Bayou

Total Estimated Cost: \$10,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Not Initiated

County Funding: \$10,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Planning, Right-Of-Way Acquisition, Design and Construction Along Soldiers Creek.

Justification:

Could reduce the risk of flooding and could improve local drainage issues for buildings along the channel. Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$0	\$0	\$3,336,380	\$3,336,380	\$3,327,240	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-81: Planning, Right-Of-Way Acquisition, Design and Construction Along W151-00-00 and W153-00-00

Investment Area: W - Buffalo Bayou

Total Estimated Cost: \$20,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Feasibility Study

County Funding: \$20,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Planning, Right-Of-Way Acquisition, Design and Construction Along W151-00-00 and W153-00-00.

Justification:

Could reduce the risk of flooding and could improve local drainage issues for structures along the channel. Project will be coordinated with City of Houston.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$20,000,000	\$1,010,000	\$0	\$6,335,786	\$6,335,786	\$6,318,428	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2021
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	FY 2026

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-82: Demolition of 1119 Commerce Street and Slope Stabilization Along Buffalo Bayou

Investment Area: W - Buffalo Bayou

Total Estimated Cost: \$5,000,000

Bond Project: Yes

Expenditures to Date: \$1,838,318

Current Project Phase: Right-of-way Acquisition and Utility Relocation

County Funding: \$5,000,000

Projected Completion: FY 2021

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Demolition of 1119 Commerce Street and Slope Stabilization Along Buffalo Bayou.

Justification:

Improving the channel conveyance along Buffalo Bayou near downtown Houston and addressing public safety concerns on adjacent public streets.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$5,000,000	\$3,161,682	\$0	\$0	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2020
Design	TBD
Construction	FY 2020

Supplement 2 - Capital Improvements Plan
Harris County FY 2021-2022 Capital Improvement Program: Flood Control Projects

Project Name	Investment Area	2018 Bond Project?	Prioritization	Total Project Cost	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
C-40: Corps of Engineers Section 216 Study - Addicks and Barker Reservoirs	Z - Countywide	Yes	Pre-Prioritization	\$ 6,000,000	\$ 0	\$ 0	\$ 6,000,000	\$ 0
CI-026: Investigation of City of Houston Properties for Conversion to Stormwater Detention Basins	Z - Countywide	Yes	Pre-Prioritization	\$ 500,000	\$ 0	\$ 0	\$ 500,000	\$ 0
Countywide Federal Concrete Lined Channel Maintenance Program	Z - Countywide	No	Not Applicable	\$ 5,875,000	\$ 0	\$ 5,875,000	\$ 5,875,000	\$ 0
Countywide Natural Channel Maintenance Program	Z - Countywide	No	Not Applicable	\$ 10,100,000	\$ 0	\$ 10,100,000	\$ 10,100,000	\$ 0
Countywide Non-Federal Concrete Lined Channel Maintenance Program	Z - Countywide	No	Not Applicable	\$ 40,000,000	\$ 0	\$ 40,000,000	\$ 40,000,000	\$ 0
Countywide Right of Way Acquisition for Maintenance Projects	Z - Countywide	No	Not Applicable	\$ 1,000,000	\$ 0	\$ 1,000,000	\$ 1,000,000	\$ 0
District Facility and Service Center Construction	Z - Countywide	No	Not Applicable	\$ 60,000,000	\$ 0	\$ 5,000,000	\$ 55,000,000	\$ 5,000,000
F-14: Planning, Right-Of-Way Acquisition, Design and Construction of General Drainage Improvements Near Kingwood	Z - Countywide	Yes	Pre-Prioritization	\$ 10,000,000	\$ 620,677	\$ 179,323	\$ 9,379,323	\$ 0
Z-01: Countywide Floodplain Preservation and Right of Way Acquisition	Z - Countywide	Yes	Pre-Prioritization	\$ 57,284,247	\$ 55,974,807	\$ 389,441	\$ 1,309,440	\$ 0
Z-02: Partnership Projects with Municipalities, Authorities, and Other Districts in Harris County	Z - Countywide	Yes	Pre-Prioritization	\$ 177,185,625	\$ 7,669,360	\$ 33,830,253	\$ 146,617,704	\$ 22,898,561
Z-03: Countywide Ongoing Planning	Z - Countywide	Yes	Pre-Prioritization	\$ 11,900,000	\$ 407,330	\$ 3,379,245	\$ 11,492,670	\$ 0
Z-04: Partnership Projects with the Harris County Engineering Department	Z - Countywide	Yes	Pre-Prioritization	\$ 100,000,000	\$ 1,830,065	\$ 3,729,067	\$ 79,832,102	\$ 18,337,833
Z-05: Advanced Emerging Technologies for Flood Damage Reduction	Z - Countywide	Yes	Pre-Prioritization	\$ 25,000,000	\$ 1,223,731	\$ 414,097	\$ 23,776,269	\$ 0
Z-06: Bond Administration	Z - Countywide	Yes	Pre-Prioritization	\$ 10,000,000	\$ 151,400	\$ 1,314,347	\$ 6,571,735	\$ 3,276,865
Z-08: Preliminary Engineering for Large Diameter Tunnels for Stormwater Conveyance	Z - Countywide	Yes	Pre-Prioritization	\$ 22,820,000	\$ 1,034,672	\$ 1,865,328	\$ 21,785,328	\$ 0
Z-09: Upgrades and Expansion of the Harris County Flood Warning System	Z - Countywide	Yes	Pre-Prioritization	\$ 5,000,000	\$ 362,336	\$ 1,969,976	\$ 4,637,664	\$ 0
Z-10: Maapnext - Harris County Floodplain Mapping Updates	Z - Countywide	Yes	Pre-Prioritization	\$ 28,300,000	\$ 13,625,207	\$ 7,429,242	\$ 14,674,793	\$ 0
Z100-00-00-H058: Flood Mitigation Assistance (FMA) Buyout Grant 2016 (application year)	Z - Countywide	No	Not Applicable	\$ 14,827,538	\$ 3,192,275	\$ 3,871,331	\$ 11,635,263	\$ 0
Z100-00-00-P013: LOMR Delegation Program	Z - Countywide	No	Not Applicable	\$ 2,534,490	\$ 1,843,208	\$ 72,091	\$ 360,455	\$ 330,827
Z100-00-00-Y102: Harris County Flood Forecasting System	Z - Countywide	No	Not Applicable	\$ 1,820,000	\$ 725,024	\$ 1,094,976	\$ 1,094,976	\$ 0
Z100-00-00-Y105: Regional Public Education Services Program	Z - Countywide	No	Not Applicable	\$ 170,000	\$ 5,703	\$ 164,297	\$ 164,297	\$ 0
Z-11: Countywide Communications Relating to 2018 Bond and CIP Projects	Z - Countywide	Yes	Pre-Prioritization	\$ 10,175,000	\$ 1,694,540	\$ 0	\$ 8,480,460	\$ 0
Z-Buyout: Federal Grant-Funded Volunteer Home Buyouts	Z - Countywide	Yes	Pre-Prioritization	\$ 531,425,000	\$ 100,427,761	\$ 23,190,823	\$ 340,784,814	\$ 90,212,425
Z-StormRep: Countywide Storm Repairs in Harris County	Z - Countywide	Yes	Pre-Prioritization	\$ 100,350,000	\$ 80,273,703	\$ 20,076,297	\$ 20,076,297	\$ 0
Z-Subdiv: Harris County Engineering Department Countywide Subdivision Drainage Improvement Projects	Z - Countywide	Yes	Pre-Prioritization	\$ 491,578,901	\$ 17,444,673	\$ 79,666,883	\$ 436,852,122	\$ 37,282,106
W - Buffalo Bayou Total				\$ 1,723,845,801	\$ 288,506,472	\$ 244,612,017	\$ 1,258,000,712	\$ 177,338,617

Harris County FY 2021-2022 Capital Improvement Program

Project Name: C-40: Corps of Engineers Section 216 Study - Addicks and Barker Reservoirs

Investment Area: Z - Countywide

Total Estimated Cost: \$6,000,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Feasibility Study

County Funding: \$0

Projected Completion: TBD

Non-County Funding – Secured: \$6,000,000

Non-County Funding – Unsecured: \$0

Project Description:

Corps of Engineers Section 216 Study - Addicks and Barker Reservoirs.

Justification:

This study partnership with the Corps of Engineers will recommend projects and/or operational changes to improve the effectiveness and safety of the Addicks and Barker Reservoirs.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$6,000,000	\$0	\$0	\$3,004,115	\$2,995,885	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2025
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: CI-026: Investigation of City of Houston Properties for Conversion to Stormwater Detention Basins

Investment Area: Z - Countywide

Total Estimated Cost: \$500,000

Bond Project: Yes

Expenditures to Date: \$0

Current Project Phase: Feasibility Study

County Funding: \$250,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$250,000

Project Description:

Investigation of City of Houston Properties for Conversion to Stormwater Detention Basins.

Justification:

Design and construction of stormwater detention basins on various City of Houston properties could reduce the risk of flooding in the area. Specific benefits will be determined as individual projects are initiated. Projects include detention, sediment control, vegetation management and other flood risk management projects.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$500,000	\$0	\$500,000	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2024
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Countywide Federal Concrete Lined Channel Maintenance Program

Investment Area: Z - Countywide

Total Estimated Cost: \$5,875,000

Bond Project: No

Expenditures to Date: \$0

Current Project Phase: TBD

County Funding: \$5,875,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Countywide Federal Concrete Lined Channel Maintenance Program

Justification:

Major maintenance to restore channel conveyance capacity.

Maintenance projects return flood control facilities to their near intended state for optimal conveyance for the safety of the public. Maintenance projects return flood control facilities to their near intended state for optimal conveyance to allow for key county facilities and roads to be accessible. Maintenance projects return the facility to near intended state for optimal conveyance to reduce flooding risks. This enhancement can be measured by the amount of structures, land, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$5,875,000	\$5,875,000	TBD	TBD	TBD	TBD	TBD

Estimated Annual Operating Budget Impact:	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	N/A
Preliminary Engineering	N/A
Right-of-way Acquisition and Utility Relocation	N/A
Design	FY 2022
Construction	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Countywide Natural Channel Maintenance Program

Investment Area: Z - Countywide

Total Estimated Cost: \$10,100,000

Bond Project: No

Expenditures to Date: \$0

Current Project Phase: TBD

County Funding: \$10,100,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Countywide Natural Channel Maintenance Program

Justification:

Major maintenance to restore channel conveyance capacity.

Maintenance projects return flood control facilities to their near intended state for optimal conveyance for the safety of the public. Maintenance projects return flood control facilities to their near intended state for optimal conveyance to allow for key county facilities and roads to be accessible. Maintenance projects return the facility to near intended state for optimal conveyance to reduce flooding risks. This enhancement can be measured by the amount of structures, land, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,100,000	\$10,100,000	TBD	TBD	TBD	TBD	TBD

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	N/A
Preliminary Engineering	N/A
Right-of-way Acquisition and Utility Relocation	N/A
Design	FY 2022
Construction	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Countywide Non-Federal Concrete Lined Channel Maintenance Program

Investment Area: Z - Countywide

Total Estimated Cost: \$40,000,000

Bond Project: No

Expenditures to Date: \$0

Current Project Phase: TBD

County Funding: \$40,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Countywide Non-Federal Concrete Lined Channel Maintenance Program

Justification:

Major maintenance to restore channel conveyance capacity.

Maintenance projects return flood control facilities to their near intended state for optimal conveyance for the safety of the public. Maintenance projects return flood control facilities to their near intended state for optimal conveyance to allow for key county facilities and roads to be accessible. Maintenance projects return the facility to near intended state for optimal conveyance to reduce flooding risks. This enhancement can be measured by the amount of structures, land, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$40,000,000	\$40,000,000	TBD	TBD	TBD	TBD	TBD

Estimated Annual Operating Budget Impact:	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	N/A
Preliminary Engineering	N/A
Right-of-way Acquisition and Utility Relocation	N/A
Design	FY 2022
Construction	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Countywide Right of Way Acquisition for Maintenance Projects

Investment Area: Z - Countywide

Total Estimated Cost: \$1,000,000

Bond Project: No

Expenditures to Date: \$0

Current Project Phase: TBD

County Funding: \$1,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Countywide Right of Way Acquisition for Maintenance Projects

Justification:

Property acquisition for project site access and other right of way necessities for maintenance activities.

Property acquisitions can benefit public safety by utilizing the land for floodplain preservation, or using the land for future projects to construct levees, channels or detention for flood mitigation and controls. Property acquisitions allow land to be used for floodplain preservation, or for future projects to construct levees, channels and/or detention for flood mitigation and controls. This enhancement can be measured by facilities constructed on the property or acreage removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$1,000,000	\$1,000,000	TBD	TBD	TBD	TBD	TBD

Estimated Annual Operating Budget Impact:	
O&M	TBD
Labor	TBD
Other	TBD
Total	TBD

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	N/A
Preliminary Engineering	N/A
Right-of-way Acquisition and Utility Relocation	N/A
Design	FY 2022
Construction	FY 2022

Harris County FY 2021-2022 Capital Improvement Program

Project Name: District Facility and Service Center Construction

Investment Area: Z - Countywide

Total Estimated Cost: \$60,000,000

Bond Project: No

Expenditures to Date: \$0

Current Project Phase: Feasibility Study

County Funding: \$60,000,000

Projected Completion: FY 2025

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Facilities for the District Construction and Maintenance Division to expand service capabilities and future office space for Operations.

Justification:

This project would provide needed facilities for District operations and provide an additional location in the southern region of Harris county for construction and infrastructure services. Adding new facilities would increase operational efficiency and provide savings with travel time to sites, proximity to tools and equipment, and workplace collaboration. By constructing facilities that enhance the productivity of operations and construction staff, this would benefit any projects that address continuity of government.

Alternatives and Engagement:

An alternative to building the new facility is leasing facilities to accommodate the anticipated increase in staff. Options for leasing were considered when the District staff size grew after the 2018 Bond passed. Leasing additional space would result in a recurring operational cost, which may exceed the cost of building a new facility in the long-term. Building a new facility was deemed to be the preferable option, with the long term goal to join other county departments with construction of new facilities for operations and construction staff.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$60,000,000	\$5,000,000	\$10,000,000	\$10,000,000	\$20,000,000	\$10,000,000	\$5,000,000

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	FY 2024
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	FY 2023
Construction	FY 2025

Harris County FY 2021-2022 Capital Improvement Program

Project Name: F-14: Planning, Right-Of-Way Acquisition, Design and Construction of General Drainage Improvements Near Kingwood

Investment Area: Z - Countywide

Total Estimated Cost: \$10,000,000

Bond Project: Yes

Expenditures to Date: \$620,677

Current Project Phase: Feasibility Study

County Funding: \$10,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Planning, Right-Of-Way Acquisition, Design and Construction of General Drainage Improvements Near Kingwood.

Justification:

This planning effort will identify watershed wide drainage deficiencies, evaluate alternatives, conduct right of way acquisition, design and construction of a project to reduce the risk of flooding for more than 380 structures in the Atlas 14 1% AEP (100-year) floodplain.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$179,323	\$1,534,735	\$3,069,470	\$3,069,470	\$1,526,325	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2020
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	FY 2024
Construction	FY 2025

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Z-01: Countywide Floodplain Preservation and Right of Way Acquisition

Investment Area: Z - Countywide

Total Estimated Cost: \$57,284,247

Bond Project: Yes

Expenditures to Date: \$55,974,807

Current Project Phase: Right-of-way Acquisition and Utility Relocation

County Funding: \$57,284,247

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Countywide Floodplain Preservation and Right of Way Acquisition.

Justification:

Right of way acquisition along various channels in Harris County in support of District projects and preserve channel conveyance and / or restore natural floodplains in areas subject to frequent flooding.

Property acquisitions can benefit public safety by utilizing the land for floodplain preservation, or using the land for future projects to construct levees, channels or detention for flood mitigation and controls. Property acquisitions allow land to be used for floodplain preservation, or for future projects to construct levees, channels and/or detention for flood mitigation and controls. This enhancement can be measured by facilities constructed on the property or acreage removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$57,284,247	\$389,441	\$346,422	\$312,471	\$261,106	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Z-02: Partnership Projects with Municipalities, Authorities, and Other Districts in Harris County

Investment Area: Z - Countywide

Total Estimated Cost: \$177,185,625

Bond Project: Yes

Expenditures to Date: \$7,669,360

Current Project Phase: Construction

County Funding: \$175,000,000

Projected Completion: FY 2021

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$2,185,625

Project Description:

Partnership Projects with Municipalities, Authorities, and Other Districts in Harris County.

Justification:

Jointly funded projects to address flooding with multi-jurisdictional projects. Specific project benefits will be determined as projects are initiated.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$177,185,625	\$33,830,253	\$35,660,346	\$30,445,449	\$23,845,660	\$22,835,996	\$22,898,561

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$2,000
Labor	\$300
Other	\$0
Total	\$2,300

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2021
Preliminary Engineering	FY 2021
Right-of-way Acquisition and Utility Relocation	FY 2023
Design	FY 2022
Construction	FY 2027

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Z-03: Countywide Ongoing Planning

Investment Area: Z - Countywide

Total Estimated Cost: \$11,900,000

Bond Project: Yes

Expenditures to Date: \$407,330

Current Project Phase: Feasibility Study

County Funding: \$9,500,000

Projected Completion: TBD

Non-County Funding – Secured: \$2,400,000

Non-County Funding – Unsecured: \$0

Project Description:

Countywide Ongoing Planning.

Justification:

Ongoing efforts to identify future projects and work efforts to reduce flooding in Harris County watersheds.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$11,900,000	\$3,379,245	\$363,424	\$2,585,695	\$2,585,695	\$2,578,611	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2026
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Z-04: Partnership Projects with the Harris County Engineering Department

Investment Area: Z - Countywide

Total Estimated Cost: \$100,000,000

Bond Project: Yes

Expenditures to Date: \$1,830,065

Current Project Phase: Construction

County Funding: \$100,000,000

Projected Completion: FY 2021

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Partnership Projects with the Harris County Engineering Department.

Justification:

Jointly funded projects that could reduce the risk of flooding in conjunction with Harris County Engineering Department projects.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$100,000,000	\$3,729,067	\$21,062,630	\$18,464,919	\$18,287,757	\$18,287,729	\$18,337,833

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$18,000
Labor	\$2,700
Other	\$0
Total	\$20,700

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2023
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	FY 2023
Construction	FY 2027

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Z-05: Advanced Emerging Technologies for Flood Damage Reduction

Investment Area: Z - Countywide

Total Estimated Cost: \$25,000,000

Bond Project: Yes

Expenditures to Date: \$1,223,731

Current Project Phase: Feasibility Study

County Funding: \$25,000,000

Projected Completion: FY 2019

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Advanced Emerging Technologies for Flood Damage Reduction.

Justification:

Investigations of new methods to reduce the risk of flooding and associated damages in Harris County. This can include the use of native vegetation to stabilize channel banks and reduce erosion.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$25,000,000	\$414,097	\$0	\$7,794,509	\$7,794,509	\$7,773,154	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2021
Preliminary Engineering	FY 2026
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Z-06: Bond Administration

Investment Area: Z - Countywide

Total Estimated Cost: \$10,000,000

Bond Project: Yes

Expenditures to Date: \$151,400

Current Project Phase: Preliminary Engineering

County Funding: \$10,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

This project is to administer the bond program with legal and financial professional services.

Justification:

These legal and financial professional services are critical to effective management of the bond program. These controls will ensure that project spending is appropriate and documented correctly.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,000,000	\$1,314,347	\$1,314,347	\$1,314,347	\$1,314,347	\$1,314,347	\$3,276,865

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2028
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Z-08: Preliminary Engineering for Large Diameter Tunnels for Stormwater Conveyance

Investment Area: Z - Countywide

Total Estimated Cost: \$22,820,000

Bond Project: Yes

Expenditures to Date: \$1,034,672

Current Project Phase: Feasibility Study

County Funding: \$20,000,000

Projected Completion: TBD

Non-County Funding – Secured: \$2,820,000

Non-County Funding – Unsecured: \$0

Project Description:

Preliminary Engineering for Large Diameter Tunnels for Stormwater Conveyance.

Justification:

Preliminary engineering for implementation of large diameter tunnels to reduce the risk of flooding across Harris County.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$22,820,000	\$1,865,328	\$4,986,832	\$9,973,663	\$4,959,506	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2025
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	FY 2024
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Z-09: Upgrades and Expansion of the Harris County Flood Warning System

Investment Area: Z - Countywide

Total Estimated Cost: \$5,000,000

Bond Project: Yes

Expenditures to Date: \$362,336

Current Project Phase: Preliminary Engineering

County Funding: \$1,250,000

Projected Completion: TBD

Non-County Funding – Secured: \$1,310,019

Non-County Funding – Unsecured: \$2,439,981

Project Description:

Upgrades and Expansion of the Harris County Flood Warning System.

Justification:

Improving existing flood monitoring systems to provide near-real time information on flooding in Harris County for emergency managers, public officials, first responders, and the public.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$5,000,000	\$1,969,976	\$0	\$1,335,674	\$1,332,014	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2025
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Z-10: Maapnext - Harris County Floodplain Mapping Updates

Investment Area: Z - Countywide **Total Estimated Cost:** \$28,300,000

Bond Project: Yes **Expenditures to Date:** \$13,625,207

Current Project Phase: Feasibility Study **County Funding:** \$15,800,000

Projected Completion: TBD **Non-County Funding – Secured:** \$10,000,000

Non-County Funding – Unsecured: \$2,500,000

Project Description:

Maapnext - Harris County Floodplain Mapping Updates.

Justification:

Providing more accurate information on the risks of flooding in Harris County including a web-based flood education tool.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$28,300,000	\$7,429,242	\$7,245,551	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2023
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Z100-00-00-H058: Flood Mitigation Assistance (FMA) Buyout Grant 2016 (application year)

Investment Area: Z - Countywide **Total Estimated Cost:** \$14,827,538

Bond Project: No **Expenditures to Date:** \$3,192,275

Current Project Phase: Right-of-way Acquisition and Utility Relocation **County Funding:** \$470,500

Projected Completion: TBD **Non-County Funding – Secured:** \$13,275,227

Non-County Funding – Unsecured: \$1,081,811

Project Description:

Flood Mitigation Assistance (FMA) Buyout Grant 2016 (application year).

Justification:

Acquisition and demolition of flood-prone homes under FEMA's Flood Mitigation Assistance 2016 grant program

Property acquisitions can benefit public safety by utilizing the land for floodplain preservation, or using the land for future projects to construct levees, channels or detention for flood mitigation and controls. Property acquisitions allow land to be used for floodplain preservation, or for future projects to construct levees, channels and/or detention for flood mitigation and controls. This enhancement can be measured by facilities constructed on the property or acreage removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$14,827,538	\$3,871,331	\$3,881,966	\$3,881,966	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2024
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Z100-00-00-P013: LOMR Delegation Program

Investment Area: Z - Countywide

Total Estimated Cost: \$2,534,490

Bond Project: No

Expenditures to Date: \$1,843,208

Current Project Phase: Feasibility Study

County Funding: \$1,706,887

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$827,603

Project Description:

LOMR Delegation Program.

Justification:

HCFCD submitted a proposal to participate in FEMA's Letter of Map Revision Delegation Program. June 2009, the District provided additional information upon FEMA's request regarding this proposal. After receiving a letter Oct. 2009 the District was notified that they had been selected to participate in the LOMR Delegation Program.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$2,534,490	\$72,091	\$72,091	\$72,091	\$72,091	\$72,091	\$330,827

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	FY 2030
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Z100-00-00-Y102: Harris County Flood Forecasting System

Investment Area: Z - Countywide

Total Estimated Cost: \$1,820,000

Bond Project: No

Expenditures to Date: \$725,024

Current Project Phase: Design

County Funding: \$1,820,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Harris County Flood Forecasting System.

Justification:

Engineering effort to assist HCFCD in developing a flood forecasting system to project water surface elevations and timing along channels as flood events occur in real-time.

Countywide forecast system and updated technical memo describing system setup, calibration process, testing, system performance, and step-by-step instructions on system operation.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$1,820,000	\$1,094,976	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2020
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Z100-00-00-Y105: Regional Public Education Services Program

Investment Area: Z - Countywide

Total Estimated Cost: \$170,000

Bond Project: No

Expenditures to Date: \$5,703

Current Project Phase: Design

County Funding: \$170,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Regional Public Education Services Program.

Justification:

The District will provide an annual report to 13 Phase II Cities to demonstrate permit compliance with Texas Commission on Environmental Quality for their public education program.

Planning projects produce study results to determine the feasibility of further projects to acquire property for floodplain preservation, establish sensitive habitats, or construct levees, channels or detention for flood mitigation and controls to benefit public safety. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$170,000	\$164,297	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2018
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Z-11: Countywide Communications Relating to 2018 Bond and CIP Projects

Investment Area: Z - Countywide

Total Estimated Cost: \$10,175,000

Bond Project: Yes

Expenditures to Date: \$1,694,540

Current Project Phase: Design

County Funding: \$10,175,000

Projected Completion: TBD

Non-County Funding – Secured: \$0

Non-County Funding – Unsecured: \$0

Project Description:

Countywide Communications Relating to 2018 Bond and CIP Projects.

Justification:

Providing transparency with countywide and watershed level communications by engaging with the public about 2018 Bond projects.

Communications with the public through collaborative engagement sessions provides needed feedback from the citizens and also provides the citizens with information of the District goals and current projects. Planning projects supply the District and Harris County with information needed to develop solutions to fulfill the mission of reducing flooding risks. This enhancement can be measured by the number of projects initiated from the study performed that reduce flooding risks for structures, land, and roads.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$10,175,000	\$0	\$4,293,307	\$4,187,153	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	FY 2024
Right-of-way Acquisition and Utility Relocation	TBD
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Z-Buyout: Federal Grant-Funded Volunteer Home Buyouts

Investment Area: Z - Countywide

Total Estimated Cost: \$531,425,000

Bond Project: Yes

Expenditures to Date: \$100,427,761

Current Project Phase: Right-of-way
Acquisition and Utility Relocation

County Funding: \$144,125,000

Projected Completion: TBD

Non-County Funding – Secured: \$387,300,000

Non-County Funding – Unsecured: \$0

Project Description:

Federal Grant-Funded Volunteer Home Buyouts. Grants awarded under the Flood Control District include the FMA 2017 and HMGP DR-4332 grants through FEMA. Other partnerships considered as secured non-county funding are grants secured by the City of Houston and HCCSD.

Justification:

Purchase of approximately 2300 structures.

Property acquisitions can benefit public safety by utilizing the land for floodplain preservation, or using the land for future projects to construct levees, channels or detention for flood mitigation and controls. Property acquisitions allow land to be used for floodplain preservation, or for future projects to construct levees, channels and/or detention for flood mitigation and controls. This enhancement can be measured by facilities constructed on the property or acreage removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$531,425,000	\$23,190,823	\$89,613,630	\$87,098,734	\$81,121,278	\$59,760,349	\$90,212,425

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	FY 2028
Design	TBD
Construction	TBD

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Z-StormRep: Countywide Storm Repairs in Harris County

Investment Area: Z - Countywide

Total Estimated Cost: \$100,350,000

Bond Project: Yes

Expenditures to Date: \$80,273,703

Current Project Phase: Construction

County Funding: \$34,428,991

Projected Completion: FY 2021

Non-County Funding – Secured: \$65,921,009

Non-County Funding – Unsecured: \$0

Project Description:

Countywide Storm Repairs in Harris County.

Justification:

Support for approximately 1,500 repair projects of erosion and infrastructure in Harris County.

Maintenance projects return flood control facilities to their near intended state for optimal conveyance for the safety of the public. Maintenance projects return flood control facilities to their near intended state for optimal conveyance to allow for key county facilities and roads to be accessible. Maintenance projects return the facility to near intended state for optimal conveyance to reduce flooding risks. This enhancement can be measured by the amount of structures, land, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$100,350,000	\$20,076,297	\$0	\$0	\$0	\$0	\$0

Estimated Annual Operating Budget Impact:	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

Estimated Phase Completion (Fiscal Year)	
Feasibility Study	TBD
Preliminary Engineering	TBD
Right-of-way Acquisition and Utility Relocation	TBD
Design	FY 2020
Construction	FY 2021

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Z-Subdiv: Harris County Engineering Department Countywide Subdivision Drainage Improvement Projects

Investment Area: Z - Countywide

Total Estimated Cost: \$491,578,901

Bond Project: Yes

Expenditures to Date: \$17,444,673

Current Project Phase: Construction

County Funding: \$171,505,316

Projected Completion: TBD

Non-County Funding – Secured: \$78,028,226

Non-County Funding – Unsecured: \$242,045,359

Project Description:

Harris County Engineering Department Countywide Subdivision Drainage Improvement Projects.

Justification:

Design and construction of these projects could reduce the risk of flooding for over 45,300 homes during a 1% rain or flood event.

Flood control facility construction benefits public safety by mitigating life-threatening flooding events. This project creates/improves flood control facilities to best control stormwater, allowing key county facilities, essential businesses, and roads to remain accessible. This project's benefit can be measured by counting structures, acreage, and roads removed from the Atlas 14 1% AEP (100-year) floodplain.

Alternatives and Engagement:

Alternatives analyses are performed on District projects to determine the best alternative to fulfill the mission of providing flood damage reduction projects that work, with appropriate regard for community and natural values.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Harris County Commissioners Court	Executive	Briefings and Reports	Ongoing
Precincts	Working Partner	Briefings and Reports	Ongoing
HCED	Working Partner	Briefings and Reports	Ongoing
Harris County Municipalities	Customers	Public Engagement Meetings	Ongoing

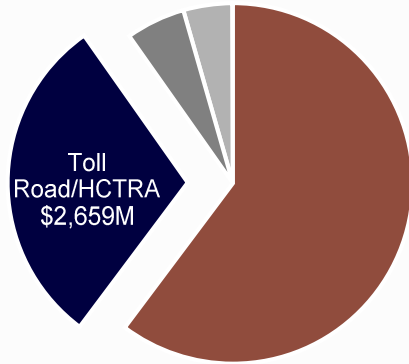
Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$491,578,901	\$79,666,883	\$88,699,133	\$95,105,943	\$86,644,767	\$86,735,396	\$37,282,106

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$0
Labor	\$0
Other	\$0
Total	\$0

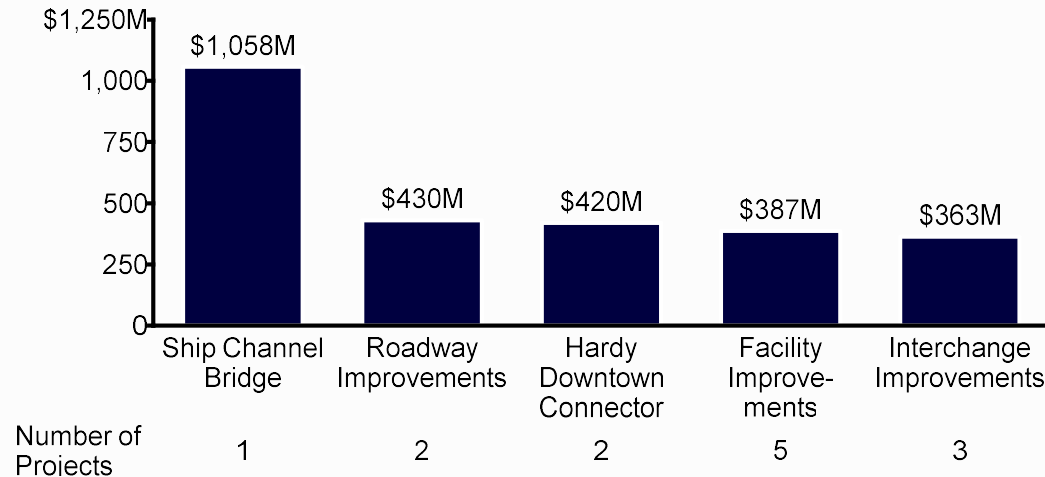
<u>Estimated Phase Completion (Fiscal Year)</u>	
Feasibility Study	FY 2020
Preliminary Engineering	FY 2023
Right-of-way Acquisition and Utility Relocation	FY 2026
Design	FY 2025
Construction	FY 2026

HCTRA – CAPITAL PROJECTS

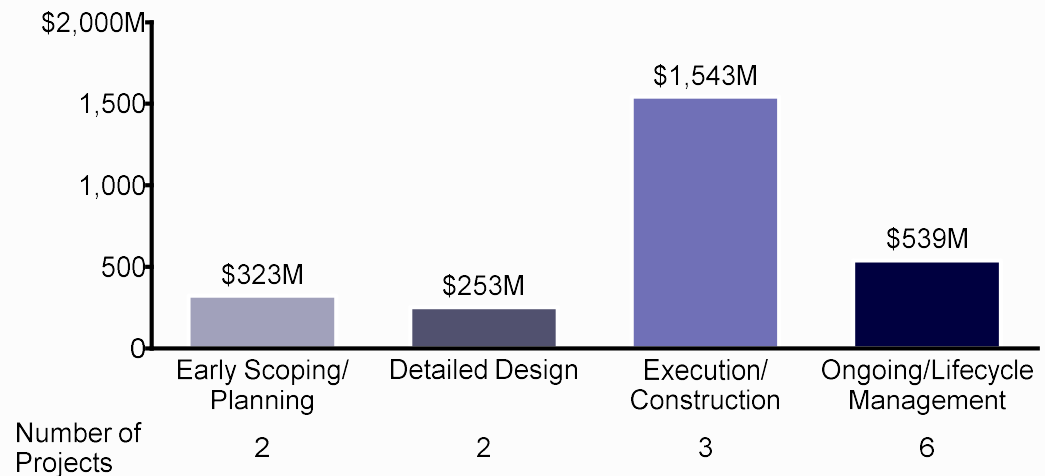


- HCTRA is making significant investments over the next five years to complete large projects, like the Ship Channel Bridge and converting all toll lanes to 'cashless'.
- The Hardy Downtown Connector project is under review as HCTRA engages with the impacted communities to redesign the project for minimal impacts.
- After these projects are completed, HCTRA's capital investments are anticipated to scale back to focus on maintaining existing assets.

Project Value by Investment Area (\$M)



Project Value by Current Project Stage (\$M)



Supplement 2 - Capital Improvements Plan
Harris County FY 2021-2022 Capital Improvement Program: Toll Road

Project Name	Primary Funding Source	Investment Area Subcategory	Total Project Estimate	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
HCTRA Facility Improvements	HCTRA	Facility Improvements	\$ 56,360,000	\$ 0	\$ 560,000	\$ 56,360,000	\$ 0
Lynchburg Ferry	HCTRA	Facility Improvements	\$ 26,000,000	\$ 100,000	\$ 1,110,000	\$ 13,030,000	\$ 12,870,000
Toll Plaza Conversion(s) and Improvements	HCTRA	Facility Improvements	\$ 172,000,000	\$ 0	\$ 0	\$ 172,000,000	\$ 0
Toll System Upgrades, Maintenance, and Capital Support	HCTRA	Facility Improvements	\$ 110,000,000	\$ 0	\$ 20,000,000	\$ 110,000,000	\$ 0
Washburn Tunnel	HCTRA	Facility Improvements	\$ 23,000,000	\$ 610,000	\$ 2,420,000	\$ 21,110,000	\$ 1,280,000
Facility Improvements Total			\$ 387,360,000	\$ 710,000	\$ 24,090,000	\$ 372,500,000	\$ 14,150,000

Harris County FY 2021-2022 Capital Improvement Program

Project Name: HCTRA Facility Improvements

Investment Area: Toll Road - Facility Improvements

Project Status: Ongoing Project

Managing Entity: Toll Road Authority

Requesting Entity: Toll Road Authority

Total Estimated Cost: \$56,360,000

Expenditures to Date: \$0

Strategic Objective(s): ENG-SO1, SO2, SO5
MACE-SO1, SO2
FIN-SO1

Project Description:

This is an ongoing lifecycle management project to renovate and upgrade the Toll Road Authority's various EZ TAG stores, call center, administrative campus, and incident management building continue.

Justification:

In general, upgrades are needed to improve customer experience while ensuring facilities are fully functional and safe for staff. This falls in line with strategic objectives noted above. HCTRA strives to maintain its physical infrastructure in superior condition. Maintenance of HCTRA assets is handled promptly after identification (through annual inspection or daily maintenance observation), to maximize the life of the system. Facility maintenance was reviewed as part of the 2019 Comprehensive Annual System Report prepared by AECOM. For the 2019 Report, inspections occurred from April to October 2019. The visual inspection included all HCTRA toll roads, bridges, pump stations, and facilities. PGAL performed the facility, and pump station inspections, while CONSOR performed the inspections for the bridges. AECOM inspected the wrong way traffic elements for exit ramps. HDR performed the visual roadway inspections for this report. All sections were inspected including sections under maintenance/ widening construction. Transtec Group performed the pavement evaluation report of 2019 as a sub consultant to HDR.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$56,360,000	\$560,000	\$13,800,000	\$19,000,000	\$23,000,000	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$387,000
Labor	\$0
Other	\$0
Total	\$387,000

Current Project Phase: Ongoing/Lifecycle Management

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Lynchburg Ferry

Investment Area: Toll Road - Facility Improvements

Project Status: Ongoing Project

Managing Entity: Toll Road Authority

Requesting Entity: Toll Road Authority

Total Estimated Cost: \$26,000,000

Expenditures to Date: \$100,000

Strategic Objective(s): ENG-SO1, SO2, SO5
MACE-SO1, SO2
FIN-SO1

Project Description:

In 1888, Harris County became the steward of the Lynchburg Ferry. On June 25, 2019, Commissioners Court transferred responsibility of the Lynchburg Ferry to HCTRA, without the imposition of tolls, effective March 1, 2020. Capital improvement expenditures planned for this facility include the replacement of the two ferryboats currently in use, dating back to 1964, and the addition of a third boat to maintain full capacity during maintenance and reduced service outages. Plans also include the implementation of a comprehensive program to preserve, maintain, repair and improve the existing Lynchburg Ferry facility, which includes landings, approaches, berthing areas, Intelligent Transportation System components, an administrative office, and support structures.

Justification:

The Lynchburg Ferry is one of only five vehicular crossings of the 50-mile Houston Ship Channel. Without modernization and upgrades, this transportation linkage will not be able to be safely maintained. This project will address the mobility needs of the community by creating greater access to transportation options. This falls in line with the strategic objectives noted above. This is a Capital Project intended to provide the residents of Harris County and other stakeholders a unique transportation asset consistent with the Toll Road Authority's goal to improve mobility throughout the region and provide the community greater access to transportation options. This is a Capital Project that will allow for modernization and upgrades to an alternate means of transportation for Harris County residents and visitors.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Port of Houston Authority	Planning, Development, User of System/Project	Collaboration/ Communication	Ongoing
The Houston Pilots			
United States Army Corps of Engineers			
United States Coast Guard			

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$26,000,000	\$1,110,000	\$3,450,000	\$3,180,000	\$2,800,000	\$2,490,000	\$12,870,000

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$3,750,000
Labor	\$0
Other	\$0
Total	\$3,750,000

Current Project Phase: Ongoing/Lifecycle Management

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Toll Plaza Conversion(s) and Improvements

Investment Area: Toll Road – Facility Improvements

Project Status: Ongoing Project

Managing Entity: Toll Road Authority

Requesting Entity: Toll Road Authority

Total Estimated Cost: \$172,000,000

Expenditures to Date: \$0

Strategic Objective(s): ENG-SO1, SO2, SO5
MACE-SO1, SO2
FIN-SO1
IT-SO1, SO2

Project Description:

On March 17, 2020, Harris County Commissioners Court authorized HCTRA to take appropriate measures in efforts to reduce exposure for customers and employees to the COVID-19 virus while maintaining continuity of services to the public. Subsequently, on July 28, 2020, Commissioners Court approved a recommendation to accelerate planning and development for a permanent transition to an all-electronic “cashless” roadway environment, which provides numerous safety benefits to drivers – an approach adopted by toll roads and turnpike systems across the nation. However, a plan for such a transition must be executed safely and without disenfranchising cash-based users of the system; it must entail a robust public engagement plan and the development of accessible payment alternatives. The total project estimate reflects the necessary expenditures for engineering design, demolition, roadway construction, and tolling infrastructure required to fully transition the Sam Houston Tollway to an optimal all-electronic configuration.

Justification:

Upgrades and improvements are done in response to the community's needs. This falls in line with the strategic objectives noted above. There are numerous benefits of an all-electronic “cashless” roadway environment, including improved roadway safety, as well as personal safety for drivers and employees; increased vehicular throughput and reduced traffic congestion; and increased operational efficiency. Planned upgrades and improvements will create a tolling infrastructure that will improve overall roadway safety.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$172,000,000	\$0	\$7,000,000	\$165,000,000	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Ongoing/Lifecycle Management

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Toll System Upgrades, Maintenance, and Capital Support

Investment Area: Toll Road – Facility Improvements

Project Status: Ongoing Project

Managing Entity: Toll Road Authority

Requesting Entity: Toll Road Authority

Total Estimated Cost: \$110,000,000

Expenditures to Date: \$0

Strategic Objective(s): ENG-SO1, SO2, SO5
MACE-SO1, SO2
FIN-SO1
IT-SO1, SO2

Project Description:

As HCTRA's services and customer base grows, so must its toll collection equipment and systems. This requires ongoing enhancements to existing toll collection equipment and software housed within the Roadside Toll Collection System, Back Office System and Data Center. HCTRA has implemented and expanded upon its use of an electronic toll collection interoperability service, in partnership with regional tolling agencies and toll agencies outside the State of Texas, to become interoperable in 2020 and beyond. Furthermore, the transition to an all-electronic roadway will require the development of accessible payment alternatives and requisite system changes.

Justification:

Maintenance and upgrades are required in order to continue to support effective tolling, back-office, customer service, and data security systems. Some of these projects may be delayed, but it is not recommended to delay any projects related to the security of customer data. This falls in line with the strategic objectives noted above. Maintenance and upgrades to the toll system allow HCTRA to function securely and appropriately. Planned upgrades and improvements allow HCTRA to function securely and appropriately.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Drivers of Harris County	User of roadways	Communication with customers via numerous channels including our call center and online	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$110,000,000	\$20,000,000	\$35,000,000	\$20,000,000	\$20,000,000	\$15,000,000	\$0

Estimated Annual Operating Budget Impact:	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Ongoing/Lifecycle Management

Estimated Phase Completion (Fiscal Year)	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Washburn Tunnel

Investment Area: Toll Road – Facility Improvements

Project Status: Ongoing Project

Managing Entity: Toll Road Authority

Requesting Entity: Toll Road Authority

Total Estimated Cost: \$23,000,000

Expenditures to Date: \$610,000

Strategic Objective(s): ENG-SO1, SO2, SO5
MACE-SO1, SO2
FIN-SO1

Project Description:

The Washburn Tunnel, one of only five vehicular crossings of the 50-mile Houston Ship Channel (HSC), is in need of modernization and upgrades. On June 25, 2019, Harris County Commissioners Court authorized the transfer of responsibility for current and future Operations, Maintenance, and Capital Improvements of the Washburn Tunnel to HCTRA, without the imposition of tolls, effective March 1, 2020. Capital improvement expenditures planned for this facility include a comprehensive program to preserve, maintain, repair, and improve the existing Washburn Tunnel, which includes the tunnel's approaches, Intelligent Transportation System components, and facilities. Expected projects include modernization of the electrical and ventilation systems, and geotechnical evaluation of the tunnel bedding and cover material.

Justification:

Built in 1950, the Washburn Tunnel is one of the largest toll-free tunnels in the Southern United States. This project will address the mobility needs of the community by creating greater access to transportation options. This falls in line with the strategic objectives noted above. This project provides the residents of Harris County and other stakeholders a unique transportation asset, consistent with the Toll Road Authority's goal to improve mobility throughout the region and provide the community greater access to transportation options.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Port of Houston Authority	Planning, Development, User of System/ Project	Collaboration/ Communication	Ongoing
The Houston Pilots	Planning, Development, User of System/ Project	Collaboration/ Communication	Ongoing
United States Army Corps of Engineers	Planning, Development, User of System/ Project	Collaboration/ Communication	Ongoing
United States Coast Guard	Planning, Development, User of System/ Project	Collaboration/ Communication	Ongoing

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$23,000,000	\$2,420,000	\$7,660,000	\$9,310,000	\$1,000,000	\$720,000	\$1,280,000

Estimated Annual Operating Budget Impact:	
O&M	\$3,750,000
Labor	\$0
Other	\$0
Total	\$3,750,000

Current Project Phase: Ongoing/Lifecycle Management

Estimated Phase Completion (Fiscal Year)	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Supplement 2 - Capital Improvements Plan
Harris County FY 2021-2022 Capital Improvement Program: Toll Road

Project Name	Primary Funding Source	Investment Area Subcategory	Total Project Estimate	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
Hardy Downtown Connector (Phase I)	HCTRA	Hardy Downtown Connector	\$ 207,000,000	\$ 159,870,000	\$ 13,130,000	\$ 34,030,000	\$ 13,100,000
Hardy Downtown Connector (Phase II)	HCTRA	Hardy Downtown Connector	\$ 213,000,000	\$ 16,610,000	\$ 2,300,000	\$ 178,840,000	\$ 17,550,000
Hardy Downtown Connector Total			\$ 420,000,000	\$ 176,480,000	\$ 15,430,000	\$ 212,870,000	\$ 30,650,000

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Hardy Downtown Connector (Phase I)

Investment Area: Toll Road - Hardy Downtown Connector

Project Status: Ongoing Project

Total Estimated Cost: \$207,000,000

Managing Entity: Toll Road Authority

Expenditures to Date: \$159,870,000

Requesting Entity: Toll Road Authority

Strategic Objective(s): ENG-SO1, SO5
FIN-SO1

Project Description:

Phase I of the Hardy Downtown Connector project is underway and establishes the corridor for a future Phase II project. Phase I activities include the construction of three grade separation projects to connect adjacent neighborhoods, long divided by railroad tracks, with improved east-west access:

Justification:

Phase I of the Hardy Downtown Connector benefits the community with safer railroad crossings for vehicles and pedestrians, as well as improved east-west connectivity for the adjacent neighborhoods. This project provides the residents of Harris County with improved mobility throughout the region, as well as greater access to the County's roadways, while working to foster transparency and public engagement to collaborate on future projects. This project will create increased transportation accessibility for the public.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$207,000,000	\$13,130,000	\$8,520,000	\$12,380,000	\$0	\$0	\$13,100,000

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$100,000
Labor	\$0
Other	\$0
Total	\$100,000

Current Project Phase: Execution/ Construction

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Complete
Detailed Design	Complete
Execution/ Construction	FY 2022-23
Project Completed	FY 2023-24

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Hardy Downtown Connector (Phase II)

Investment Area: Toll Road - Hardy Downtown Connector

Project Status: Ongoing Project

Total Estimated Cost: \$213,000,000

Managing Entity: Toll Road Authority

Expenditures to Date: \$16,610,000

Requesting Entity: Toll Road Authority

Strategic Objective(s): ENG-SO1, SO5
FIN-SO1

Project Description:

Phase II of the Hardy Connector involves the development and construction of the toll road's main lanes from the current southern terminus of the Hardy Toll Road to the newly rebuilt Elysian Viaduct. However, on May 19, 2020, HCTRA received authorization from Commissioners Court to suspend development of Phase II to allow for reevaluation of any proposed project within the corridor. The suspension of Phase II of the Hardy Downtown Connector project will allow for the community's collaboration in developing this mobility link directly into downtown, as well as improve pedestrian connectivity, green spaces, and storm water mitigation.

Justification:

This project will address the mobility needs of the community by creating greater access to transportation options, which is in line with the strategic objectives noted above. This project is intended to provide the residents of Harris County with improved mobility throughout the region.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$213,000,000	\$2,300,000	\$34,540,000	\$92,000,000	\$50,000,000	\$0	\$17,550,000

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	FY 2022-23
Detailed Design	FY 2022-23
Execution/ Construction	FY 2024-25
Project Completed	FY 2024-25

Supplement 2 - Capital Improvements Plan
Harris County FY 2021-2022 Capital Improvement Program: Toll Road

Project Name	Primary Funding Source	Investment Area Subcategory	Total Project Estimate	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
Hardy Toll Road Partial Interchange at Beltway 8	HCTRA	Interchange Improvements	\$ 110,000,000	\$ 1,200,000	\$ 10,000,000	\$ 100,000,000	\$ 8,800,000
SH225 Partial Interchange at the Sam Houston Tollway	HCTRA	Interchange Improvements	\$ 142,850,000	\$ 1,490,000	\$ 2,000,000	\$ 141,360,000	\$ 0
Tomball Tollway Partial Interchange at the Grand Parkway	HCTRA	Interchange Improvements	\$ 110,500,000	\$ 31,920,000	\$ 30,410,000	\$ 78,580,000	\$ 0
Interchange Improvements Total			\$ 363,350,000	\$ 34,610,000	\$ 42,410,000	\$ 319,940,000	\$ 8,800,000

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Hardy Toll Road Partial Interchange at Beltway 8

Investment Area: Toll Road – Interchange Improvements

Project Status: Ongoing Project

Total Estimated Cost: \$110,000,000

Managing Entity: Toll Road Authority

Expenditures to Date: \$1,200,000

Requesting Entity: Toll Road Authority

Strategic Objective(s): ENG-SO1, SO5
FIN-SO1

Project Description:

Development of an enhanced interchange at the Hardy Toll Road and Beltway 8 will entail the proposed construction of direct connectors between southbound Hardy Toll Road and westbound Sam Houston Parkway, northbound Hardy Toll Road and westbound Sam Houston Parkway, and eastbound Sam Houston Parkway to southbound Hardy Toll Road. This project aligns with HCTRA's overall planning efforts for greater connectivity between SH 249/Sam Houston Tollway/Hardy Toll Road.

Justification:

This interchange project benefits the community with an enhanced connection between the Hardy Toll Road and Beltway 8. This will help the flow of traffic between the downtown area, northern commuters, and airport travelers. This project will address the mobility needs of the community by creating greater access to transportation options. This falls in line with the strategic objectives noted above. This project will provide the residents of Harris County with improved mobility throughout the region, as well as greater access to the County's roadways. It will also create increased transportation accessibility for the public.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$110,000,000	\$10,000,000	\$90,000,000	\$0	\$0	\$0	\$8,800,000

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$835,000
Labor	\$0
Other	\$0
Total	\$835,000

Current Project Phase: Early Scoping/ Planning

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Complete
Detailed Design	FY 2022-23
Execution/ Construction	FY 2022-23
Project Completed	FY 2022-23

Harris County FY 2021-2022 Capital Improvement Program

Project Name: SH225 Partial Interchange at the Sam Houston Tollway

Investment Area: Toll Road - Interchange Improvements

Project Status: Ongoing Project

Total Estimated Cost: \$142,850,000

Managing Entity: Toll Road Authority

Expenditures to Date: \$1,490,000

Requesting Entity: Toll Road Authority

Strategic Objective(s): ENG-SO1, SO5
FIN-SO1

Project Description:

Construction of an interchange at the Sam Houston Tollway and SH 225 is being designed in coordination with TxDOT and in conjunction with the Sam Houston Tollway East and the Sam Houston Tollway Ship Channel Bridge projects. This project develops eight direct connectors at the Sam Houston Tollway and SH 225.

Justification:

Direct connectors linking the Sam Houston Tollway to SH 225 will enable drivers to transit between the two roads without having to stop at traffic lights, improving mobility in the area. Motorists needing to transition between the two roadways currently experience significant congestion due to signalized intersections during peak periods. This project will address the mobility needs of the community by creating greater access to transportation options. This falls in line with the strategic objectives noted above. This is a Capital Project intended to provide the residents of Harris County with mobility throughout the region, as well as greater access to the County's roadways, while working to foster transparency and public engagement to collaborate on future projects. This Capital Project will create increased transportation accessibility for the public, and superior maintenance and improvements to the current toll road system, as well as continued funding for non-toll infrastructure projects in Harris County.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$142,850,000	\$2,000,000	\$12,000,000	\$127,360,000	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$2,750,000
Labor	\$0
Other	\$0
Total	\$2,750,000

Current Project Phase: Detailed Design

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Complete
Detailed Design	FY 2022-23
Execution/ Construction	FY 2023-24
Project Completed	FY 2023-24

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Tomball Tollway Partial Interchange at the Grand Parkway

Investment Area: Toll Road – Interchange Improvements

Project Status: Ongoing Project

Total Estimated Cost: \$110,500,000

Managing Entity: Toll Road Authority

Expenditures to Date: \$31,920,000

Requesting Entity: Toll Road Authority

Strategic Objective(s): ENG-SO1 - SO5
FIN-SO1

Project Description:

In partnership with TxDOT, HCTRA is developing a partial interchange that will connect the Tomball Tollway with the Grand Parkway (SH99).

Justification:

Direct connectors linking the Tomball Tollway to SH 99 (Grand Parkway) will enable drivers to transit between the two roads without having to stop at traffic lights, improving mobility in the area. Motorists needing to transition between the two roadways currently experience significant congestion due to signalized intersections during peak periods. This project will build the connectors to travel from northbound Tomball Tollway to east- and westbound Grand Parkway as well as east- and westbound Grand Parkway to southbound Tomball Tollway. This project will address the mobility needs of the community by creating greater access to transportation options. This falls in line with the strategic objectives noted above. This is a Capital Project intended to provide the residents of Harris County with improved mobility throughout the region, as well as greater access to the County's roadways. This Capital Project will create increased transportation accessibility for the public.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$110,500,000	\$30,410,000	\$48,170,000	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$1,775,000
Labor	\$0
Other	\$0
Total	\$1,775,000

Current Project Phase: Execution/Construction

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Complete
Detailed Design	Complete
Execution/ Construction	FY 2023-24
Project Completed	FY 2023-24

Supplement 2 - Capital Improvements Plan
Harris County FY 2021-2022 Capital Improvement Program: Toll Road

Project Name	Primary Funding Source	Investment Area Subcategory	Total Project Estimate	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
Sam Houston Tollway Widening (East)	HCTRA	Roadway Improvements	\$ 278,000,000	\$ 224,800,000	\$ 53,200,000	\$ 53,200,000	\$ 0
System-wide Roadway Improvements	HCTRA	Roadway Improvements	\$ 152,000,000	\$ 20,000,000	\$ 22,000,000	\$ 110,000,000	\$ 22,000,000
Roadway Improvements Total			\$ 430,000,000	\$ 244,800,000	\$ 75,200,000	\$ 163,200,000	\$ 22,000,000

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Sam Houston Tollway Widening (East)

Investment Area: Toll Road - Roadway Improvements

Project Status: Ongoing Project

Total Estimated Cost: \$278,000,000

Managing Entity: Toll Road Authority

Expenditures to Date: \$224,800,000

Requesting Entity: Toll Road Authority

Strategic Objective(s): ENG-SO1, SO5
FIN-SO1

Project Description:

This project is under reconstruction and will include the construction of full safety shoulders, will reconstruct tolled entrance and exit ramps, will improve roadway corridor drainage, and will reconstruct bridge overpasses to bring these crossings up to modern standards. Once complete, this section of the tollway will have four main lanes in each direction, for a total of eight main lanes between IH 45 and SH 225.

Justification:

The widening of the Sam Houston Tollway from IH 45 South to SH 225 will consist of widening the current tollway from two lanes to four lanes in each direction, widening of the inside safety shoulder, and reconstruction of tolled entrance and exit ramps. Construction began in September 2017 and in FY 2022, this project is projected to be substantially complete. This project will address the mobility needs of the community by creating greater access to transportation options. This falls in line with the strategic objectives noted above. This is a Capital Project intended to provide the residents of Harris County with improved mobility throughout the region, as well as greater access to the County's roadways. This Capital Project will create increased transportation accessibility for the public, and superior maintenance and improvements to the current toll road system.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$278,000,000	\$53,200,000	\$0	\$0	\$0	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$11,765,000
Labor	\$0
Other	\$0
Total	\$11,765,000

Current Project Phase: Execution/Construction

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Complete
Detailed Design	Complete
Execution/ Construction	FY 2021-22
Project Completed	FY 2021-22

Harris County FY 2021-2022 Capital Improvement Program

Project Name: System-wide Roadway Improvements

Investment Area: Toll Road – Roadway Improvements

Project Status: Ongoing Project

Total Estimated Cost: \$152,000,000

Managing Entity: Toll Road Authority

Expenditures to Date: \$20,000,000

Requesting Entity: Toll Road Authority

Strategic Objective(s): ENG-SO1, SO2, SO5
MACE-SO1, SO2
FIN-SO1

Project Description:

This project is for ongoing, routine upgrades to the HCTRA system, inclusive of system inspections, heavy maintenance, on-call construction, utility coordination, infrastructure replacement, materials testing, and drainage improvements.

Justification:

These are necessary capital maintenance items that will address the mobility needs of the community by maintaining safe and reliable roadways. Ongoing upgrades are needed to maximize the life of HCTRA's roadways while addressing and improving mobility and roadway safety. This falls in line with strategic objectives noted above. Maintaining and improving traffic safety measures are a core function of the Harris County Toll Road Authority. HCTRA's ongoing system-wide improvements have contributed to the region's continued growth and economic health. To ensure the agency continues to deliver results, a combination of fiscal prudence and long-term strategic planning is necessary. Well-maintained roadways and prompt response to driver-reported issues contribute to the safety and value offered to the users of Harris County's toll roads.

System-wide maintenance is reviewed as part of the 2019 Comprehensive Annual System Report prepared by AECOM. For the 2019 Report, inspections occurred from April to October 2019. The visual inspection included all HCTRA toll roads, bridges, pump stations, and facilities. PGAL performed the facility, and pump station inspections, while CONSOR performed the inspections for the bridges. AECOM inspected the wrong way traffic elements for exit ramps. HDR performed the visual roadway inspections for this report. All sections were inspected including sections under maintenance/ widening construction. Transtec Group performed the pavement evaluation report of 2019 as a sub consultant to HDR.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder engagement has not been contemplated for this project.

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$152,000,000	\$22,000,000	\$22,000,000	\$22,000,000	\$22,000,000	\$22,000,000	\$22,000,000

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	TBD
Labor	TBD
Other	TBD
Total	\$0

Current Project Phase: Ongoing/Lifecycle Management

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Ongoing
Detailed Design	Ongoing
Execution/ Construction	Ongoing
Project Completed	Ongoing

Supplement 2 - Capital Improvements Plan
Harris County FY 2021-2022 Capital Improvement Program: Toll Road

Project Name	Primary Funding Source	Investment Area Subcategory	Total Project Estimate	Expenditures to date	3/01/2021 – 2/28/2022	3/01/2021 – 2/28/2026	Beyond 2/28/2026
Sam Houston Tollway (Ship Channel Bridge)	HCTRA	Ship Channel Bridge	\$ 1,058,200,000	\$ 469,670,000	\$ 149,720,000	\$ 588,530,000	\$ 0
Ship Channel Bridge Total			\$ 1,058,200,000	\$ 469,670,000	\$ 149,720,000	\$ 588,530,000	\$ -

Harris County FY 2021-2022 Capital Improvement Program

Project Name: Sam Houston Tollway (Ship Channel Bridge)

Investment Area: Toll Road - Ship Channel Bridge

Project Status: Ongoing Project

Total Estimated Cost: \$1,058,200,000

Managing Entity: Toll Road Authority

Expenditures to Date: \$469,670,000

Requesting Entity: Toll Road Authority

Strategic Objective(s): ENG-SO1, SO5
FIN-SO1

Project Description:

The Ship Channel Bridge Replacement Program is substantially underway and once complete, will accommodate four 12-ft. travel lanes in each direction, with 10-ft. inside and outside safety shoulders, from SH-225 to IH-10, and all bridge support columns will reside outside of the Houston Ship Channel's waterway. During the construction phase of the project, at least two travel lanes in each direction across the Ship Channel will be maintained. On October 13, 2020, Commissioners Court authorized an agreement with COWI North America, Inc. to become the new Engineer of Record (EOR) for this critical project. With this significant step forward, HCTRA anticipates returning the Ship Channel Bridge program to full-construction in 2021, and working with the new EOR to provide Harris County options regarding the overall project budget and construction schedule.

Justification:

Two primary reasons for the development of the Ship Channel Bridge Replacement Program were: (1) HCTRA's current Ship Channel Bridge (Designed in the 1970's and built by the State of Texas in the early 1980's) does not meet current minimum traffic safety guidelines of the American Association of State Highway and Transportation Officials with regards to lane widths, safety shoulders, grades, and sight distances; and (2) the main piers of the current Ship Channel Bridge present a significant obstacle for the proposed expansion plans of the United States Army Corps of Engineers to widen and deepen the Houston Ship Channel. This project will address the mobility needs of the community by creating greater access to transportation options. This falls in line with the strategic objectives noted above. This is a Capital Project intended to provide the residents of Harris County with improved mobility throughout the region, as well as greater access to the County's roadways, while working to foster transparency and public engagement to collaborate on future projects. This Capital Project will create increased transportation accessibility for the public, and superior maintenance and improvements to the current toll road system, as well as continued funding for non-toll infrastructure projects in Harris County.

Alternatives and Engagement:

No alternatives have been identified for this project.

Stakeholder	Stakeholder Role	Method of Engagement	Engagement Complete?
Port of Houston Authority	Planning, Development, User of System/Project	Collaboration/ Communication	Ongoing
The Houston Pilots			
United States Army Corps of Engineers			
United States Coast Guard			

Anticipated Project Expenditures and Timeline:

Total Project Estimate	3/01/2021 – 2/28/2022	3/01/2022 – 2/28/2023	3/01/2023 – 2/28/2024	3/01/2024 – 2/28/2025	3/01/2025 – 2/28/2026	Beyond 2/28/2026
\$1,058,200,000	\$149,720,000	\$227,460,000	\$173,580,000	\$37,770,000	\$0	\$0

<u>Estimated Annual Operating Budget Impact:</u>	
O&M	\$4,699,000
Labor	\$0
Other	\$0
Total	\$4,699,000

Current Project Phase: Execution/Construction

<u>Estimated Phase Completion (Fiscal Year)</u>	
Early Scoping and Planning	Complete
Detailed Design	Complete
Execution/ Construction	FY 2025-26
Project Completed	FY 2025-26