



**DATE:** May 22, 2020

**TO:** Sereniah Breland  
City Manager

**FROM:** Amy Giannini, P.E., CFM  
Assistant City Manager- Public Works & Engineering

**SUBJECT:** FY21 - FY25 Capital Improvement Plan

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As required by the City Charter, the Planning and Zoning (P&Z) Commission annually reviews and submits a **5-year Capital Improvement Plan (CIP)** to the City Council and City Manager at least 120 days before the beginning of the budget year that starts in October. The budget was submitted to the City Council on May 12, 2020. At the meeting, the City Council provided feedback to staff and requested project source information be added to the Park and Transportation CIP. The attached revised 5-year CIP document reflects the requested changes and further refinement of the Park and Transportation CIP by staff.

This document is respectfully submitted by staff to the City Council for consideration and inclusion in the budget.



## **FY 2021 – FY 2025 Capital Improvement Plan**

The Capital Improvement Program (CIP) is a five year planning tool used to prioritize major new capital investments made by the City. The CIP is updated annually and focuses primarily on infrastructure and facility needs. Ongoing maintenance activities and smaller routine capital expenditures are generally not included as a part of the CIP process, and generally nor are projects that cost less than \$50,000.00.

The CIP identifies a variety of possible funding sources ranging from operating budgets, state and federal grants, to future voter-approved bond programs. Only the first year of each CIP cycle is adopted as part of the fiscal year's budget process; the four subsequent years are included for planning purposes. The CIP is a long range plan which should be reviewed in a comprehensive and strategic manner.

The CIP describes large, often times multi-year projects which provide new or improved City infrastructure. The CIP as presented includes a summary of projects to begin or continue in the adopted year, summary of operating budget impact of the new projects, and tabular details of new and revised projects by project types.

The FY 21-25 includes projects identified in the following plans: Parks and Trails Master Plan, Transportation Master Plan, Water Master Plan, Wastewater Master Plan, and Reclaimed Water Master Plan. Through long range planning, the City is looking to provide the resources necessary to support the growth of the community and position ourselves to partner with other agencies to support our transportation initiatives.

This five-year plan to improve, build and strengthen Pflugerville's City infrastructure is guided by the funding and priorities outlined in previous Strategic Plans and current assessments.

The CIP is a multi-year plan covering five years that forecasts spending for all anticipated capital projects. Projects are included to develop, optimize, and maintain our existing or new infrastructure, and facilities, construct quality community amenities, maintain a safe and desirable community, and do so in a financially sustainable, and responsible manner. This Capital Improvement Program Plan includes projects that will either start design and/or construction within FY21-FY25. Projects that have started and/or completed construction in FY 20 or prior or not included in the FY21-FY25 Capital Improvement Plan. The CIP is reviewed, revised and updated every year as a part of the annual City budget process.

### **City Charter Requirement**

The City's Charter requires the Planning and Zoning (P&Z) Commission to submit a 5-year Capital Improvement Plan to the City Council and City Manager at least 120 days before the beginning of the budget year that starts in October. The plan must include a prioritized list of projects that are programmed with a recommended year of construction.

### **Project Funding**

Funding plays an integral role in how capital projects are prioritized. There are several different funding sources for capital improvement projects including but not limited to the following:

- Certificates of Obligation (CO) – a bond secured by property tax that does not require voter approval.

- General Obligation (GO) - a bond can be acquired only after the approval of the voters as the debt service is typically added to the tax rate for projects such as streets, municipal facilities, and park improvements.
- General Fund (GF) – the largest fund within the City, the GF accounts for most of the City’s financial resources. General Fund revenues include property taxes, licenses and permits, local taxes, service charges, and other types of revenue. This fund usually includes most of the basic operating services, such as police, parks and recreation, streets, and general administration.
- Utility Fund (UF) – the UF funds projects from the sale of water and wastewater services, utility impact fees and the issuance of bonds.
- Impact Fees - a charge or assessment imposed by a political subdivision against new development in order to generate revenue for funding or recouping the costs of capital improvements or facility expansions necessitated by and attributable to the new development.
- Developer-Funded – projects may be funded as part of a development or performance agreement and through capital impact fees for new development. Developer-funded projects may or may not be managed by City staff.
- Tax Increment Reinvestment Zone (TIRZ) – a municipality makes an area eligible for tax increment financing by designating reinvestment zone, also called a tax increment reinvestment zone (TIRZ) or a tax increment financing (TIF) zone.
- Community Development Block Grant (CDBG) – provides annual grants on a formula basis to entitled cities and counties to develop viable urban communities by providing decent housing and suitable living environment, and by expanding economic opportunities, principally for low-and moderate –income persons
- Capital Area Metropolitan Organization (CAMPO) – the Metropolitan Planning Organization (MPO) for Bastrop, Burnet, Caldwell, Hays, Travis, and Williamson Counties. MPOs are federally required throughout the country in areas with a population of 50,000 or more and are required to produce a 20+ year transportation plan, called a Regional Transportation Plan (RTP), and a four-year planning document called the Transportation Improvement Program (TIP)
- Clean Water State Revolving Fund (CWSRF) – a program that is authorized by the Clean Water Act as a federal-state partnership that provides communities a permanent, independent source of low-cost financing for a wide range of water quality infrastructure projects for planning, acquisition, design, and construction of wastewater, reuse, and storm water infrastructure.
- EDAP – The Economically Distressed Areas Program (EDAP) provides financial assistance for projects serving economically distressed areas where water or sewer services do not exist, or systems do not meet minimum state standards.
- Public Improvement District (PID) – an area established to provide specific types of improvements or maintenance within the area which are finance by assessment against the property owners within the area
- Private Public Partnership (P3) – a Public-private partnerships involve collaboration between a government agency and a private-sector company that can be used to finance, build, and operate projects, such as public transportation networks, parks, and convention centers.

**Staff Recommendation**

Staff recommends the program for the listed projects in the following categories: transportation, parks, facilities, water, wastewater and reclaimed water. The projects are funded through one or several of the different available funding sources. City staff listed the projects by priority based on funding, anticipated development times for plans, utility adjustments and right of way acquisition.

The proposed FY 2021 – FY 2025 five-year Capital Improvement Plan is included in the tables below.

## **Transportation/Roadway/Streets Projects**

A safe and efficient arterial roadway system is essential to support economic development within the SH 130 corridor as well as other parts of the City. By providing the necessary connections to the City's commercial and single-family developments, the City will continue to grow and flourish as accessibility and public infrastructure improves.

The City uses CO and GO bonds to fund roadway, drainage, sidewalk and park projects. Smaller projects may even be funded out of the GF or TIA if the project is a high priority to the citizens and City Council. Other funding sources for projects may also come from Federal Aid such as TxDOT. In November 2018, voters approved \$21.1 million in bonds for roadway improvements that are currently underway in the design phase.

The Pflugerville Pforward Transportation Master Plan was adopted by the City Council in November 2019. The projects were prioritized as part of the master plan process based on evaluation criteria and public input. Criteria evaluated includes evaluation of mobility improvement to key zones, crash history and safety concerns, proximity to economic development focus areas, project readiness (including funding already allocated), return on investment, and existing pavement condition. These criteria are grouped into the project ranking categories displayed on this page and weights were determined through community feedback during the project process which resulted in an implementable Capital Improvements Plan.

In addition to the prioritization completed as part of the master plan, City Council also reviewed three bond proposals from the 2020 Capital Improvement Bond Committee for voter consideration. City Council had authorized a transportation bond for \$96.7 million for voter consideration in May 2020 but the bond has been postponed until November 2020 in response to the Texas Governor's proclamation allowing for postponement due to the COVID-19 Pandemic.

The proposed CIP below has been developed and prioritized based on the recent extensive prioritization exercises completed in 2019 and 2020 from both the Pflugerville Pforward Transportation Master Plan and Bond Committee recommendation. The projects highlighted in the table are those that were proposed for the 2020 Bond Election.

Transportation Projects											
Rank	Project Name	Project Description (Project Limits)	Project Source & TMP Rank	2020 Bond Committee Rank	Previously Approved Funding	Previous Funding Sources	Proposed Funding Needed	Proposed Funding Source	Total Project Costs	Design	Construct
1	Old Austin-Hutto Rd.	Reconstruct and widen Old Austin-Hutto Road to an urban three-lane section (Pecan to FM 685)	2018 GO Bond	-	\$ 3,989,000	CO/2018 GO	\$ -	N/A	\$ 3,989,000	2015	2020
2	Colorado Sand Dr.	New urban four-lane section (Middle Section)	2018 GO Bond	-	\$ 3,953,000	2018 GO	\$ -	N/A	\$ 3,953,000	2019	2021
3	Kelly Lane Phase 2	Widen to an urban four-lane section (W. Falcon Pointe to Moorlynch)	2018 GO Bond	-	\$ 7,231,000	2018 GO	\$ -	N/A	\$ 7,231,000	2019	2021
4	E. Pflugerville Pkwy	Widen to an urban four-lane section (Weiss Ln to eastern City Limits)	2018 GO Bond	-	\$ 5,114,500	2018 GO/ Travis County	\$ -	N/A	\$ 5,114,500	2019	2021
5	Traffic Signal Assessment and Improvement Plan	City improvements to the existing system	2020 Census	-	\$ 99,924	GF	\$ -	TBD	\$ 99,924	2018	2021
6	Traffic Signal System Plan Implementation	Traffic signal installation and/or upgrades	ITS Master Plan	-	\$ 100,000	GF	\$ 2,800,000	TBD	\$ 2,900,000	2020	2021
7	Innovative Intersections	SH 130 at CR 138; E Pflugerville Pkwy. at FM 685; Heatherwilde Blvd. at Pecan St.; FM 685 at Pecan St.; FM 685/Copper Mine Dr. Overpass; Hodde/Weiss at Cele Rd.	TMP- Intersection 2020 GO Bond	1	\$ -	N/A	\$ 14,400,000	2020 GO	\$ 14,400,000	TBD	TBD
7a	FM 685/Copper Mine Drive Overpass Improvements	Median reconstruction and lane use changes to unbalance bridge for dedicated dual left-turn lanes for northbound FM 685 traffic	Previous CIP 2020 GO Bond	-	\$ 413,000	N/A	\$ -	-	\$ 413,000	2021	TBD

**Transportation Projects**

Rank	Project Name	Project Description (Project Limits)	Project Source & TMP Rank	2020 Bond Committee Rank	Previously Approved Funding	Previous Funding Sources	Proposed Funding Needed	Proposed Funding Source	Total Project Costs	Design	Construct
7b	E. Pecan Street Turn Lane Improvements at FM 685	Eastbound and westbound Left-turn capacity improvements on E. Pecan Street including median extension and reconstruction east of FM 685 and lane marking adjustments west of FM 685	Previous CIP 2020 GO Bond	-	\$ 511,000	CO/TIA/GF	\$ -	-	\$ 511,000	2019	TBD
7c	Pecan Street at Heatherwilde Blvd Intersection Improvements	Install Left-turn lanes on northbound and southbound Heatherwilde Boulevard at Pecan Street	Previous CIP 2020 GO Bond	-	\$ 363,000	CO	\$ -	-	\$ 363,000	2019	TBD
8	Neighborhood Street Reconstruction	10th Street, Algreg Street, Applewood Drive, Bushmills Road, Butler National Drive/Diablo Drive, Caldwell's Lane, Cedar Ridge Drive, Dalshank Road, Edgemere Drive, Grand National Avenue, Great Basin, Kay Lane, Lincoln Avenue, Mashburn Street, Meadow Creek Drive, Mountain View Drive, Oak Ridge Drive, Option Avenue, Picadilly Drive, Pflugerville Loop, Plumbago Drive, Rowe Loop, Russell Street, Sullivan Street, Taylor Avenue, W. Custers Creek Bend, Windermere Drive, Yellow Sage Street.	2020 GO Bond	2	\$ -	N/A	\$ 15,600,000	2020 GO	\$ 15,600,000	TBD	TBD

Transportation Projects											
Rank	Project Name	Project Description (Project Limits)	Project Source & TMP Rank	2020 Bond Committee Rank	Previously Approved Funding	Previous Funding Sources	Proposed Funding Needed	Proposed Funding Source	Total Project Costs	Design	Construct
8a	Russell Street, Caldwell's Lane, Lincoln Avenue, Grant and Taylor	Infrastructure improvements (Roadway, lighting, sidewalks)	Previous CIP 2020 GO Bond	-	\$ 243,750	GF	\$ -	N/A	\$ 243,750	2020	TBD
9	FM 685	Corridor Study, preliminary engineering and design (SH 130 to E Pecan St.)	TMP -High 2020 GO Bond	4	\$ -	N/A	\$ 5,000,000	2020 GO	\$ 5,000,000	TBD	TBD
10	SH 45 Frontage Roads	Connect Frontage Road gaps on SH 45 EBFR / WBFR (Schultz to Heatherwilde)	TMP -High 2020 GO Bond	5	\$ 500,000	CO	\$ 9,400,000	2020 GO	\$ 9,900,000	2018	TBD
11	Kelly Ln. Phase 3	Widen to an urban four-lane section (Moorlynch Ave. to Weiss Ln)	TMP -High 2020 GO Bond	6	\$ 820,000	CO	\$ 13,600,000	2020 GO	\$ 14,420,000	2020	TBD
12	Weiss/ Cameron Rd. Realignment	New two-lane urban section; half of four-lane (Pecan St. to SH 130)	TMP -High 2020 GO Bond	11	\$ -	N/A	\$ 3,400,000	2020 GO	\$ 3,400,000	TBD	TBD
13	Picadilly Dr	Widen to an urban three-lane section (City Limits to Central Commerce Dr)	TMP -High 2020 GO Bond	10	\$ 404,000	CO	\$ 4,900,000	2020 GO	\$ 5,304,000	2019	TBD
14	E Pflugerville Pkwy. (Design)	Design to widen to an urban four-lane section Colorado Sand Dr. to Weiss Ln.)	2020 GO Bond	12	\$ 950,000	CO	\$ 3,500,000	2020 GO	\$ 4,450,000	2019	-
14a	E Pflugerville Pkwy. (Construction)	Construct Widen to an urban four-lane section Colorado Sand Dr. to Weiss Ln.)	TMP-High	-	\$ -	N/A	\$ 15,257,000	TBD	\$ 15,257,000	-	TBD
15	Kelly Ln. MIS Study	Corridor and Interchange Study at SH 130 / FM 685 (H 130 to W Falcon Pointe Blvd.)	TMP -High	-	\$ 445,000	TIA	\$ -	\$ -	\$ 445,000	2019	-
15a	NB FM 685 and Kelly Lane Intersection Improvements	Northbound Left-turn and U-turn Lane Improvements at Northbound Frontage Road at Kelly Lane	Previous CIP	-	\$ 827,000	CO	\$ -	TBD	\$ 827,000	2021	TBD

Transportation Projects											
Rank	Project Name	Project Description (Project Limits)	Project Source & TMP Rank	2020 Bond Committee Rank	Previously Approved Funding	Previous Funding Sources	Proposed Funding Needed	Proposed Funding Source	Total Project Costs	Design	Construct
15b	SB FM 685 and Kelly Lane Intersection Improvements	Southbound Left-turn and Right-turn Lane Improvements at Southbound Frontage Road at Kelly Lane	Previous CIP	-	\$ 674,000	CO	\$ -	TBD	\$ 674,000	2021	TBD
15c	SH 130 Access Ramps Study	Corridor Study	TMP-Intersection	-	\$ -	N/A	\$ 500,000	TBD	\$ 500,000	TBD	TBD
16	Rowe Lane Study	Corridor Study from Heatherwilde Boulevard to Eastern City Limits (Heatherwilde Blvd. to SH 130)	Previous CIP TMP -High	-	\$ -	N/A	\$ 250,000	TIA	\$ 250,000	2021	TBD
17	Rowe Lane at FM 685 Northbound Frontage Road	Install right-turn deceleration and acceleration lanes on SH 130 northbound frontage road created by widening frontage road to the inside for approximately 500' either side of Rowe Lane intersection	Previous CIP	-	\$ 281,000	CO	\$ 400,000	TBD	\$ 681,000	2019	TBD
18	Immanuel Rd.	Widen to an urban three-lane section (E Pecan St. to Wells Branch Pkwy.)	TMP - Medium 2020 GO Bond	3	\$ -	N/A	\$ 8,900,000	2020 GO	\$ 8,900,000	TBD	TBD
19	Pfluger Farm Ln. North	Extend urban three-lane roadway to the north (Town Center Dr. to SH 45 EBFR)	TMP - Medium 2020 GO Bond	7	\$ 625,000	CO	\$ 5,300,000	2020 GO	\$ 5,925,000	2021	TBD
20	Main St. (Design)	Design for New urban two-lane section (N Railroad Ave. to Old Austin-Hutto)	TMP - Medium 2020 GO Bond	8	\$ -	N/A	\$ 1,600,000	2020 GO	\$ 1,600,000	TBD	TBD



Transportation Projects											
Rank	Project Name	Project Description (Project Limits)	Project Source & TMP Rank	2020 Bond Committee Rank	Previously Approved Funding	Previous Funding Sources	Proposed Funding Needed	Proposed Funding Source	Total Project Costs	Design	Construct
21	Central Commerce Dr.	Widen to an urban three-lane section (Picadilly Dr. to Royston Ln.)	TMP - Medium 2020 GO Bond	9	\$ 413,000	CO	\$ 5,100,000	2020 GO	\$ 5,513,000	2019	TBD
22	E. Pecan St (Design)	Design to widen to urban six lane section (Over SH 130)	2020 GO Bond	13	\$ -	N/A	\$ 4,000,000	2020 GO	\$ 4,000,000	TBD	TBD
23	SH 130 Connections	New Collectors (Pfnennig Extension to E Pflugerville Pkwy)	TMP - Medium	-	\$ -	N/A	\$ 16,399,000	Developer	\$ 16,399,000	TBD	TBD
24	Cele Rd.	Widen to an urban four-lane section (Weiss Ln. to Cameron Rd.)	TMP - Medium	-	\$ -	N/A	\$ 28,015,000	TBD	\$ 28,015,000	TBD	TBD
24a	Cele Road Study	Corridor Study from Weiss Lane to Melber Lane	Previous CIP	-	\$ -	N/A	\$ 250,000	TIA	\$ 250,000	2021	N/A
25	Impact Way Extension	New urban three-lane section (Helios Way to Cameron Rd.)	TMP - Medium	-	\$ -	N/A	\$ 6,460,000	TBD	\$ 6,460,000	TBD	TBD
26	Rowe Ln.	Widen to an urban four-lane section (SH 130 to Hodde Ln./CR 139)	TMP - Medium	-	\$ -	TIA	\$ 34,951,000	TBD	\$ 34,951,000	TBD	TBD
27	Old Austin-Hutto Rd. Ext	New urban three-lane section (E of FM 685 to Pflugerville Pkwy.)	TMP - Medium	-	\$ -	N/A	\$ 10,986,000	TBD	\$ 10,986,000	TBD	TBD
28	Town Center Dr.	Access Management Study and associated improvements Limestone Commercial Driveway to FM 685)	TMP -Low Previous CIP	-	\$ 100,000	TIA	\$ 743,000	TBD	\$ 843,000	2019	TBD
29	Melber Ln.	New two-lane urban section; half of four-lane (Pecan St. to Pleasanton Pkwy)	TMP -Low Previous CIP	-	\$ 621,849	CO/Developer	\$ 6,762,000	TBD	\$ 7,383,849	2019	TBD
30	Royston Ln.	Widen to an urban three-lane section (Central Commerce Dr. to Grand Ave Pkwy.)	TMP -Low Previous CIP	-	\$ 506,000	CO	\$ 3,634,000	TBD	\$ 4,140,000	2019	TBD

Transportation Projects											
Rank	Project Name	Project Description (Project Limits)	Project Source & TMP Rank	2020 Bond Committee Rank	Previously Approved Funding	Previous Funding Sources	Proposed Funding Needed	Proposed Funding Source	Total Project Costs	Design	Construct
31	Pfennig Ln	New urban four-lane section (450' E of FM 685 to E Pecan St.)	TMP -Low	-	\$ -	N/A	\$ 13,661,000	TBD	\$ 13,661,000	TBD	TBD
32	Pfennig Ln.	New urban three-lane section (E Pecan St. to Wells Branch Pkwy)	TMP -Low	-	\$ -	N/A	\$ 10,068,000	TBD	\$ 10,068,000	TBD	TBD
33	Schultz Ln.	Widen to an urban four-lane section (300' North of Springbook to City Limits)	TMP -Low	-	\$ -	N/A	\$ 2,860,000	TBD	\$ 2,860,000	TBD	TBD
34	Terrell Ln. Extension	New urban three-lane section (S of Town Center to E Pflugerville Pkwy)	TMP -Low	-	\$ -	N/A	\$ 7,801,000	TBD	\$ 7,801,000	TBD	TBD
35	Wilke Ridge Ln.	Widen to an urban three-lane section (Pflugerville Pkwy. to Heatherwilde Blvd)	TMP -Low	-	\$ -	N/A	\$ 2,530,000	TBD	\$ 2,530,000	TBD	TBD
36	N-S Collector W of Melber Ln.	New urban three-lane section (Cele Rd. to Collector)	TMP -Low	-	\$ -	N/A	\$ 5,803,000	TBD	\$ 5,803,000	TBD	TBD
37	Mokan Corridor	Multimodal and Connectivity Study	TMP-Intersection	-	\$ -	N/A	\$ 500,000	TBD	\$ 500,000	TBD	TBD
38	East Pecan Street Study	Corridor Study from SH 130 to Fuchs Grove	Previous CIP	-	\$ -	N/A	\$ 250,000	TBD	\$ 250,000	2021	N/A
<b>Total Transportation:</b>									<b>\$298.15M</b>		

## Parks Projects

The City of Pflugerville Parks and Recreation System offers more than 40 miles of hike and bike trails and over 1400 acres of parks, open space and greenbelts. With a full range of amenities from pavilions, gazebos and playgrounds to pools and picnic areas.

As the City grows, we want to continue to improve our parks, trails and facilities as well as welcome new park infrastructure.

CIP FY 21			
Project name	Project Description	Total Cost Estimate	Source
Parks Master Plan	Updated master plan to guide the direction of future projects, asses the current inventory of the park system, and to remain eligible for future TPWD grants.	\$150,000	Parks, Rec & Open Space Master Plan: Priorities for Implementation 2016-2020
Standardized Signage	Standardize park signage at ten parks with limestone boulder park sign currently used with all renovated park projects. (amount covers purchase & installation of 10 park signs)	\$50,000	Staff recomedation. Update signs to be consistent with new parks signage and update old city logos.
Gilleland Creek Pavilion: Structural Assessment Study	Condition assessment of the pavilion structure due to age of the facility and high usage/rental by the community.	\$15,000	Parks, Rec & Open Space Master Plan: Goal 5, Policy 1.2 Continue to inspect all facilities to ensure compliance to standards
CIP FY 22			
Playground Replacement: Cambridge Heights Park	Industry standard for playground replacement is 15 years. Playground equipment at Cambridge Heights would be 19 years old in 2022.	\$150,000	Parks, Rec & Open Space Master Plan: Goal 5, Policy 3 Existing parks will be renovated to increase patronage
Wells Point Park: Fence Replacement	Removal of the existing fencing that has reached end of life and installation of 4,450 feet of 6' fencing.	\$190,000	Parks, Rec & Open Space Master Plan: Goal 5, Policy 1 Parks will be accessible to and safe for all people
1849 Park: Football Field Lighting	Installation of sports lighting on the football fields to increase operational hours and accommodate additional activities, practices and programming.	\$650,000	Parks, Rec & Open Space Master Plan: Priorites for Implementation 2010-2015
Playground Shade Program: 1849 Park (near soccer complex)	Installation of shade structure at 1849 park over the playground near the soccer complex.	\$65,000	Parks, Rec & Open Space Master Plan: Goal 5, Policy 3 Existing parks will be renovated to increase patronage
CIP FY 23			
Playground Replacement: Wuthrich Park	Industry standard for playground replacement is 15 years. Playground equipment would be 20 years old in the year of 2023.	\$150,000	Parks, Rec & Open Space Master Plan: Goal 5, Policy 3 Existing parks will be renovated to increase patronage

<b>Project name</b>	<b>Project Description</b>	<b>Total Cost Estimate</b>	<b>Source</b>
Tennis Court Installtion: Location TBD	Two additional tennis courts at locations to be determined. The city currently has one tennis court in its inventory. The United States Tennis Association (USTA) recommends a city have one court with public access for every 10,000 residents.	\$500,000	Parks, Rec & Open Space Master Plan: Priorites for Implementation 2016-2020
Playground Shade Program: 1849 Park (near football complex)	Installation of shade structure at 1849 park over the playground near the football complex.	\$65,000	Parks, Rec & Open Space Master Plan: Goal 5, Policy 3 Existing parks will be renovated to increase patronage
<b>CIP FY 24</b>			
Playground Shade Program: Pflugerville Heights Park	Installation of shade structure at Pflugerville Heights Park.	\$65,000	Parks, Rec & Open Space Master Plan: Goal 5, Policy 3 Existing parks will be renovated to increase patronage
Outdoor Fitness Court	Installation of fitness stations along the trail system between Pluger Park and Pfennig Park.	\$300,000	Pflugerville Trails Master Plan and Parks Development Plan
<b>CIP FY 25</b>			
Trail Connectivity	Construction of a trail segment, approximately one mile in length, connecting the Gilliland Creek Trail from Grand Ave to Piccadilly Drive. Staff would seek grant opportunities to potentially reduce the city's cost.	\$1,320,000	Pflugerville Trails Master Plan and Parks Development Plan
Playground Shade Program: Black Locust Park	Installation of shade structure at Black Locust Park.	\$65,000	Parks, Rec & Open Space Master Plan: Goal 5, Policy 3 Existing parks will be renovated to increase patronage
<b>Total Parks CIP</b>		<b>\$3,735,000</b>	

## Facility Projects

The City of Pflugerville has experienced tremendous growth over the past decade, and that growth is anticipated to continue well beyond the next decade. The current needs of the growing community have surpassed the size of the City’s current aging facilities. In response to the COVID-19 pandemic, the City has required many employees to work remotely and has found the approach effective for many of the departments. It will be important for the City to continue assess the space needed for new facilities in the future as working remotely on a part-time basis may become the next normal for many departments. The projects listed below are based on pre-pandemic assessments and will need further assessment as the City finds its next normal.

The City completed a City Hall Needs Assessment which documents a deficit of approximately 20,000 sf of space based on current needs and staffing. The Assessment also projects the need for a 63,000 sf building with a future population of 160,000. The City Manager’s Office is currently pursuing a public private partnership, consistent with a resolution approved by City Council, in order to deliver a cost beneficial project that meets the City’s needs.

The Police Department also completed a Justice Center Expansion Facility Needs Assessment in 2017. The Needs Assessment documented the needs of the Department through 2035 and proposed several additions including new Communications and Training Center, Criminal Investigations Division expansion, Property and Evidence expansion, Long Term Holding expansion, HVAC Replacement, and additional parking areas. The total additional areas proposed equate to approximately 50,000 sf of added space and improvements.

Facility Projects					
Project Name	Project Description	Total Cost Estimate	Proposed Funding	Design	Construct
Downtown City Hall Needs Assessment & Implementation	Design and Construct a new 63,000 sf City Hall Complex	\$34,000,000	TBD	2021	2021/2022
Public Works Master Plan	Develop a Public Works Facility Master Plan for New Site	\$50,000	Utility Fund	2020	NA
Recreation Center	Rec Center / Sr. Center Needs Assessment & Feasibility Study	\$40,000,000	TBD	2022	TBD
ADA Transition Plan Implementation	Scope of Needs Pending Completion of Assessment	TBD	TBD	2022	TBD
Justice Center Expansion Needs Assessment & Implementation	Update Facility Needs Assessment, Study Expand existing justice center to a 50,000 sf facility	\$37,000,000	TBD	TBD	TBD
<b>Total Facilities</b>		<b>\$111,050,000</b>			

## Water and Wastewater Utility

The City continues to experience tremendous growth and utility connections to the water and wastewater system. Master planning is important to provide guidance and planning for future efforts. In 2020, the City Council adopted water and wastewater master plans prepared by Freese and Nichols, Inc. The purpose of these master plans is to accommodate the growth in an efficient and effective manner, while also focusing on the maintenance of existing water system assets. The master plans have been prepared to provide the City of Pflugerville with a planning tool that will serve as a guide for short-term and long-term improvements to infrastructure within the water system. These plans include 5-year and 10-year capital improvement projects to support the City's future growth. City staff used the overall plan to provide a roadmap for programming of water and wastewater infrastructure in the proposed 2021-2025 capital improvement plan.

Utility projects are typically funded by the Utility Fund, capital recovery fees (impact fees from new development) and Utility COs are funded through bonds. This Capital Improvement Program Plan includes projects that will either start design and/or construction within FY21-FY25. Projects that have started and/or completed construction in FY 20 or prior or not included in the FY21-FY25 Capital Improvement Plan.

Maps showing the location of the projects listed in this CIP can be found in the City's newly adopted master plans.

## Water Projects

The City of Pflugerville's water distribution system consists of four pressure zones (PZ), a network of water lines ranging in diameter from 2 inches to 36 inches, eight ground storage tanks (GST), four elevated storage tanks (EST), four pump stations (PS), two active groundwater wells, and a surface water treatment plant (WTP). Raw water is pumped from the Colorado River by the City's River Intake PS to Lake Pflugerville. The Lake PS pumps water from Lake Pflugerville to the Surface WTP, where the raw water is treated to drinking water standards. The City operates four PZs: Central, East, West, and 960'. The hydraulic grade lines (HGL) in the Central, West, and 960' PZs are controlled by ESTs and a standpipe, and the East PZ is supplied through pressure reducing valves (PRV) from the Central PZ, which set the HGL in the East PZ. The City also provides water to three wholesale customers: SouthWest Water Company, who is the parent company of Windermere Utilities (Windermere), Manville Water Supply Corporation (WSC), and the City of Manor.

To plan for the City's future needs, water utility projects were classified into four categories in the master plan including System Strength and Reliability, Storage, Distribution and Miscellaneous System Improvements.

This table below denotes recommendation from staff for water utility projects for the 5-year CIP and includes a proposed timeframe for design and construction. The source of the projects listed below are from the 2020 Water Master Plan.

**Water Utility Projects**

**System Strength and Reliability**

<b>Project Name</b>	<b>Project Description</b>	<b>Total Project Estimate</b>	<b>Proposed Funding</b>	<b>Design</b>	<b>Construct</b>
6.0-MGD 800' Pressure Zone Pump Station	Build pump station at Water Treatment Plant to serve a new 800' Pressure Zone	\$7,897,100	Utility Fund/ Impact Fee	2021	2022
Water Treatment Plant Expansion to 20.5 MGD, High Service Pump Station	Increase capacity to provide additional production capacity to serve growth	\$23,000,000	Utility Fund	2020	2021
Water Treatment Plant, High Service Pump Station, and Lake Pump Station Expansion to 30.0 MGD; and Pretreatment Trains for 30 MGD	A treatment capacity expansion at the Pflugerville WTP from 20.5 MGD to 30.0 MGD. This project also includes an expansion of the Lake Pump Station (raw water) from 18.0 MGD to 30.0 MGD, and an expansion of the High Service Pump Station from 17.3 MGD to 24 MGD. Parallel 36-inch transmission mains from the Lake Pump Station to the WTP and from the High Service Pump Station to Weiss Lane are included to provide adequate transmission capacity.	\$38,810,200	Utility Fund	2021	2022
16-inch Colorado Sand Drive Looping	16-inch water line in the Central Pressure Zone that will connect the existing 16-inch water lines along Colorado Sand Drive	\$1,001,500	Utility Fund/ Impact Fee	2020	2021
16/12-inch Looping Improvements in Central Pressure Zone	16 and 12-inch water lines in the Central Pressure Zone that will serve new development and improve system operations	\$7,012,700	Utility Fund/ Impact Fee	2023	2024

<b>System Strength and Reliability (Continued)</b>					
<b>Project Name</b>	<b>Project Description</b>	<b>Total Project Estimate</b>	<b>Proposed Funding</b>	<b>Design</b>	<b>Construct</b>
Water Treatment Plant Emergency Generator Power System	Install emergency power generators at Water Treatment Plant and Lake Pflugerville Intake Pumping Station	\$7,705,000	Utility Fund	2020	2021
Water Treatment Plant, and Lake Pump Station Expansion to 45 MGD; and River PS to 20.0 MGD	A treatment capacity expansion at the Pflugerville WTP from 30.0 MGD to 45.0 MGD, and replacement of the existing 1.0-MG and 3.0-MG clearwells with two 5.0-MG clearwells. This project also includes an expansion of the Lake Pump Station (raw water) from 30.0 MGD to 45.0 MGD, replaces the existing 36-inch transmission main with a 54-inch pipeline, and expands the firm capacity of the River Pump Station (raw water) from 10.0 MGD to 20.0 MGD.	\$7,000,000 (design costs only in 5-year CIP)	Utility Fund	2025	2027
	<b>Total</b>	<b>\$92,426,500</b>			
<b>Storage</b>					
<b>Project Name</b>	<b>Project Description</b>	<b>Total Project Estimate</b>	<b>Proposed Funding</b>	<b>Design</b>	<b>Construct</b>
2.5-MG North Elevated Storage Tank	Replace the existing 1.0-MG North Standpipe. Construction will include 24-inch water line to replace the existing 12/16-inch water line northeast of the tank site off of Pfennig Lane	\$9,170,700	Utility Fund/ Impact Fee	2020	2021
2.0 MG 800' Pressure Zone Elevated Storage Tank	Construct an Elevated Storage to serve customers in the 800' Pressure Plane	\$7,993,500	Utility Fund/ Impact Fee	2020	2022
2.0 MG Elevated Storage Tank along Rowe Lane	2.0 MG elevated storage tank to serve City customers currently being served by Manville Water Supply Corporation	\$7,286,500	Utility Fund	2022	2023



<b>Storage (Continued)</b>					
<b>Project Name</b>	<b>Project Description</b>	<b>Total Project Estimate</b>	<b>Proposed Funding</b>	<b>Design</b>	<b>Construct</b>
5.0 MGD State Highway 45 Pump Station & 3.5 MG GST	A 5.0-MGD pump station in the southwest corner of the intersection of State Highway 130 and State Highway 45 serving the 960' Pressure Zone.	\$1,440,000 (design costs only in 5-year CIP)	Utility Fund	2025	2028
2.0-MG South Elevated Storage Tank, West/960' PZ Construction, and 3.5 MG Pfennig Ground Storage Tank	A 2.0-MG elevated storage tank to replace the existing South Standpipe. This project also includes a new 24-inch water line to connect the new tank to the distribution system, as well as a short 20-inch water line and opening two closed valves to connect the West and 960' pressure zones. This project also replaces the existing ground storage tanks at the Pfennig Booster Pump Station with a 3.5-MG tank.	\$11,474,100	Utility Fund	2024	2025
	<b>Total</b>	<b>\$37,364,800</b>			
<b>Distribution</b>					
<b>Project Name</b>	<b>Project Description</b>	<b>Total Project Estimate</b>	<b>Proposed Funding</b>	<b>Design</b>	<b>Construct</b>
16-inch SH 45 Water Line Extension	Bore 900 Linear Feet of 16" Water Line Under SH 45 to provide water service to properties north and east of SH 45 and SH 130	\$854,395	Utility Fund	2019	2021
30/24/20/16-inch Water Lines to Convert East PZ to 800' Pressure Zone	30, 24, 20 and 16-inch water lines along Weiss Lane from Pleasanton Parkway to Via Sorento Way to convert the East Pressure Zone to the new 800' Pressure Zone	\$2,931,900	Utility Fund	2021	2023
16/12-inch Water Lines in New 800' Pressure Zone	16 and 12-inch water lines to serve growth in the new 800' Pressure Zone	\$6,854,300	Utility Fund	2021	2023

Distribution (Continued)					
Project Name	Project Description	Total Project Estimate	Proposed Funding	Design	Construct
42/36-inch Weiss Lane/Pecan Street Water Lines	42 and 36-inch water lines to replace and connect the existing 24-inch water line along Weiss Lane and existing 16-inch along Pecan Street to the east side of State Highway 130	\$10,531,300	Utility Fund	2020	2022
36/30-inch Weiss Lane/Kelly Lane Water Lines	36 and 30-inch water lines along Weiss Lane and Kelly Lane to connect the existing 24-inch water line along Weiss Lane to the existing 24-inch water line along Kelly Lane	\$9,377,400	Utility Fund	2020	2022
20-inch State Highway 130 Water Line	20-inch water line along the west side of State Highway 130 from Pflugerville Parkway to Farm to Market 685	\$2,196,700	Utility Fund	2021	2023
30/24 inch State Highway 130 Water Lines	30 and 24-inch water lines along the west side of State Highway 130 from Pecan Street to Pflugerville Parkway	\$5,846,500	Utility Fund	2021	2023
24/20-inch State Highway 45 Water Lines	Water lines crossing under State Highway 45 at Heatherwilde Boulevard and Huntingtower Castle Boulevard and serving development northwest of the intersection of State Highway 45 and State Highway 30	\$2,453,900	Utility Fund	2021	2022
24/16/12-inch Water Lines to Convert Manville 900' Pressure Zone to Central Pressure Zone	This project will connect customers currently served by Manville Water Supply Corporation to the Central Pressure Zone via 12, 16 and 24-inch water lines along Rowe Lane and Hodde Lane	\$13,589,800	Utility Fund	2023	2024

<b>Distribution (Continued)</b>					
<b>Project Name</b>	<b>Project Description</b>	<b>Total Project Estimate</b>	<b>Proposed Funding</b>	<b>Design</b>	<b>Construct</b>
12/8-inch Water Lines to Convert Manville 900' Pressure Zone to New 800' Pressure Zone	12 and 8-inch waterlines to convert the City customers currently being served by Manville Water Supply Corporation off of Cele Road between Weiss Lane and Vorwerk Road from the Manville 900' Pressure Zone to the new 800' Pressure Zone	\$3,398,200	Utility Fund	2023	2024
	<b>Total</b>	<b>\$58,034,395</b>			
<b>Miscellaneous System Improvements</b>					
<b>Project Name</b>	<b>Project Description</b>	<b>Total Project Estimate</b>	<b>Proposed Funding</b>	<b>Design</b>	<b>Construct</b>
Colorado River Intake Screen Sourcing System	Install air sourcing system under intake screens with protective concrete soldier piles around four sides	\$690,000	Utility Fund	2020	2021
Conversion of Water Meters to AMI	Convert all existing and future water meters to smart meter to be integrated into an Advanced Metering Infrastructure (AMI) System	\$8,000,000	Utility Fund	2021	2022
Zebra Mussel Chemical Control Systems	Install Zebra Mussel Chemical Control Systems at Colorado River Intake Pumping Station and Lake Pflugerville Intake Pumping Station	\$604,000	Utility Fund	2019	2021
South Standpipe Tank Rehabilitation	Exterior and interior rehabilitation.	\$600,000	Utility Fund	2020	2021
Well 5 GSTs Rehabilitation	Exterior and interior rehabilitation.	\$350,000	Utility Fund	2022	2022
Water Master Plan Update	Perform Strategic Planning Efforts to update the Water Master Plan and Impact Fees	\$350,000	Utility Fund	2023	NA
Clearwell 1 Rehabilitation	Exterior and interior rehabilitation.	\$800,000	Utility Fund	2023	2023
Pfennig GSTs Rehabilitation	Exterior and interior rehabilitation.	\$600,000	Utility Fund	2024	2024
	<b>Total</b>	<b>\$11,994,000</b>			

System Rehabilitation					
Project Name	Project Description	Total Project Estimate	Proposed Funding	Design	Construct
R1	30-inch Central PZ Pump Station Discharge Water Line	\$515,400	Utility Fund	2023	2024
R2	8-inch Main Street Water Line	\$111,200	Utility Fund	2022	2022
R3	8-inch Zanzibar Lane Water Line	\$142,500	Utility Fund	2022	2022
R4	12-inch Olympic Drive Water Line	\$60,300	Utility Fund	2022	2022
R5	8-inch Pflugerville Parkway Water Line	\$66,600	Utility Fund	2022	2022
R6	8-inch West Pecan Street Water Line	\$397,100	Utility Fund	2022	2022
R7	30-inch Pflugerville Parkway Water Line	\$2,933,100	Utility Fund	2024	2025
R8	16-inch East Pflugerville Parkway Water Lines	\$33,200	Utility Fund	2023	2023
R9	8-inch Creek Bend Drive Water Line	\$95,200	Utility Fund	2023	2023
R10	8-inch Pigeon Forge Road Water Line	\$57,200	Utility Fund	2023	2023
R11	24-inch Weiss Lane Water Line	\$85,400	Utility Fund	2021	2022
R12	24-inch Heatherwilde Boulevard Water Line	\$48,400	Utility Fund	2023	2024
	<b>Total</b>	<b>\$4,545,600</b>			
	<b>Total Water CIP</b>	<b>\$204,365,295</b>			

## **Wastewater**

The City has experienced tremendous growth over the past decade, and that growth is anticipated to continue well beyond the next decade.

The existing wastewater system has 14 lift stations (LS), a network of lines ranging in size from 4 inches to 42 inches in diameter, and a 5.3 MGD wastewater treatment plant (WWTP). The wastewater collection system serves a slightly larger area than the water distribution system and collects flow from users that are currently served water by other utilities.

After increasing the permitted capacity of the Central WWTP from 4.4 to 5.3 MGD in late 2016, it was determined that the facility could not achieve the final permit phase capacity of 5.85 MGD without making improvements. After completing the design planning for the West SH 130 Interceptor Phase I and II project, it was determined that the build-out capacity of the Central WWTP should be increased from 9 to 10 MGD and, because the plant had exceeded 75% of the permitted flow several times between 2013 to 2017, design of the expansion to 10 MGD should be started as soon as possible in order to ensure compliance with TCEQ requirements. In April of 2017, Freese and Nichols began the study phase of the 10 MGD expansion and, after completing the study, recommended the expansion be designed and constructed in three phases. The design of Phase I of the expansion project, which will upgrade the wet capacity of the plant to 7.25 MGD, was started in March of 2018 and construction began in December 2019. Phase II of the project, scheduled to begin design in 2020 after construction of Phase I is complete, will complete the upgrade to 7.25 MGD. Phase III of the project, anticipated to be constructed in 2026, will complete the upgrade by increasing the plant's sludge processing capacity to 10 MGD.

The 2020 Wastewater Master Plan serves as a tool to be used by the City in ensuring that its wastewater system develops in a systematic and prioritized manner.

To plan for the City's future needs, the following core principles guide the development of projects capacity expansion, removal of lift stations from collection system, and development-driven improvement.

This table below denotes recommendation from staff for wastewater utility projects for the 5-year CIP and includes a proposed timeframe for design and construction. The source of the projects listed below are from the 2020 Wastewater Master Plan.

Wastewater Utility Projects					
Capacity Expansion					
Project Name	Project Description	Total Project Estimate	Proposed Funding	Design	Construct
Central WWTP Expansion Phase 2	Rehabilitate and convert existing portions of plant	\$18,560,000	Utility Fund	2021	2022
Carmel Lift Station Pump Upgrades	Purchase and install three new 200 Hp pumps and upsize impellers in two existing pumps to expand pumping capacity and extend service life of lift station to 2028	\$350,000	Utility Fund	2021	2021
Weiss Lane Lift Station and Carmel Lift Station Operational Improvements	Install operational improvements to extend service life and reliability of these two lift stations including surge relief valve, flow meter, variable frequency drives, and site improvements to 2028	\$1,840,000	Utility Fund	2020	2021
15-inch Gilleland Creek Interceptor	15-inch interceptor along Gilleland Creek replacing an existing 12-inch interceptor	\$1,036,300	Utility Fund	2023	2024
Club Lift Station Expansion	Expand Club Lift Station from a firm capacity of .29MGD to .90MGD, project will include 8-inch force main and 15/12-inch wastewater lines along Cactus Bend Drive and Settlers Valley Drive	\$4,059,000	Utility Fund	2023	2024
Boulder Ridge Lift Station Expansion	Expand Boulder Ridge Lift Station from a firm capacity of 0.33 MGD to 0.60 MGD	\$552,300	Utility Fund	2023	2024
	<b>Total</b>	<b>\$26,397,600</b>			
Lift Station Removal					
Project Name	Project Description	Total Cost Estimate	Proposed Funding	Design	Construct
Decommission Highland Park Lift Station	Removal of existing lift station	\$306,800	Utility Fund	2020	2021
Decommission Bohls Place Lift Station	Removal of existing lift station	\$306,800	Utility Fund	2021	2021
	<b>Total</b>	<b>\$613,600</b>			

<b>Development-Driven Improvements</b>					
<b>Project Name</b>	<b>Project Description</b>	<b>Total Cost Estimate</b>	<b>Proposed Funding</b>	<b>Design</b>	<b>Construct</b>
SH 45/SH 130 Tunnels and Connector	Extend Service Area to the North of SH 45	\$2,229,300	Utility Fund	2020	2021
Sorento Interceptor Phase 2	Decommission Verona Lift Station, Install splitter box at Weiss Lane Lift Station, and 12,000 ft. of 15"/36" interceptor along Wilbarger Creek	\$4,892,000	Utility Fund	2021	2023
Wastewater Master Plan Update	Perform Strategic Planning Efforts to update the Wastewater Master Plan and Impact Fees	\$350,000	Utility Fund	2023	NA
30/24-inch Highland Park Interceptor	30/24-inch interceptor along Wilbarger Creek west of State Highway 130. Highland Park Lift Station and Force Main will also be decommissioned with this project	\$1,794,800	Utility Fund	2020	2021
54-inch Wilbarger Creek Interceptor	54-inch interceptor in the southern portion of the Wilbarger Basin	\$25,007,300	Utility Fund	2021	2023
8.0 MGD Wilbarger Wastewater Treatment Plant	Wastewater treatment plant that will serve the Wilbarger Basin	\$115,440,000	Utility Fund	2021	2022
21/12-inch North Central Basin Interceptors	12-inch interceptor in the northern portion of the Central Basin that will serve new development. 21/15-inch interceptors replacing an existing 8-inch wastewater line east of Pencil Cactus Drive and an existing 15-inch interceptor along Great Basin Avenue	\$2,839,500	Utility Fund	2023	2024
8-inch Bohls Place Interceptor	Interceptor to connect the Bohls Place development to the State Highway 130 interceptor	\$652,000	Utility Fund	2021	2022
	<b>Total</b>	<b>\$153,204,900</b>			

**System Rehabilitation**

Project Name	Project Description	Total Cost Estimate	Proposed Funding	Design	Construct
R1	Lift Station Maintenance (Blackhawk, Dunes, and Kelly Lane)	\$650,000	Utility Fund	2021	2021
R2	24-inch Weiss Lane Force Main	\$2,474,200	Utility Fund	2022	2022
R3	24-inch Sun Light Near Way Force Main	\$695,900	Utility Fund	2023	2023
R4	10/8-inch Kelly Lane Force Mains	\$156,900	Utility Fund	2023	2023
R5	10-inch Dunes Force Main	\$118,200	Utility Fund	2024	2024
	<b>Total</b>	<b>\$4,095,200</b>			
	<b>Total Wastewater</b>	<b>\$184,311,300</b>			



## Reclaimed Water (Reuse)

In early 2015, the City completed a Reclaimed Water Master Plan. This Master Plan illustrates the improvements and phasing necessary to provide reclaimed water for portions of the City. Examples of large users are cooling towers, large scale irrigation and manufacturing. The source of the reclaimed water is the City’s wastewater treatment plant. An updated Reclaimed Water Master Plan is recommended to be completed as a part of the FY21 budget given the changes that have occurred at the Central Wasetwater Treatment Plant since 2015.

The table below illustrates the initial projects that would be implemented per the 2015 Reclaimed Water Master Plan. The projects will need to be validated and reevaluated as part of the updated master plan.

Reclaimed Water Projects					
Project Name	Project Description	Total Project Estimate	Proposed Funding	Design	Construct
Reclaimed Water Plan Update	Perform Strategic Planning Efforts to update the Reclaimed Water Master Plan and Impact Fees	\$250,000	Utility Fund	2021	NA
Reclaimed Water Pumping and Storage	Construct pumps and storage for system and one million gallon storage	\$6,730,000	Utility Fund	2022	2024
Segment 1 Distribution Line	Construct a 20” re-use main from WWTP to SH 130	\$2,780,000	Utility Fund	2022	2024
Segment 2 Distribution Line	Construct a 16”/12” re-use main to East Cameron Road	\$2,760,000	Utility Fund	2022	2024
	<b>Total Reclaimed Water</b>	<b>\$12,520,000</b>			