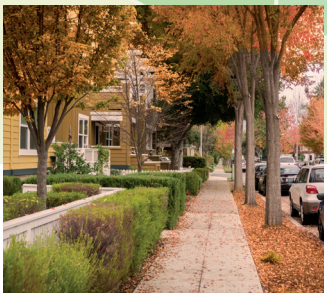
FISCAL YEAR 2021

PROPOSED CAPITAL BUDGET



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April 20, 2020

To the Honorable Mayor and City Council

2021 Fiscal Year Operating & Capital Budget Transmittal

Dear Mayor and Council Members:

In accordance with the City Charter, I am presenting the City of Palo Alto's Fiscal Year 2021 Proposed Operating Budget and Fiscal Year 2021 Proposed Capital Budget along with the Fiscal Year 2021-2025 Capital Improvement Program (CIP) Plan. The operating budget totals $818.9 million and the capital budget totals $288.7 million in FY 2021 and $793.4 million over the five-year CIP. As required by the City Municipal Code, the Planning and Transportation Commission (PTC) will review the 2020-2024 CIP in May 2020 to evaluate the program's compliance with the Updated Comprehensive Plan which was adopted by City Council in November 2017. As discussed previously with the City Council, this a baseline for us to continue conversations to ensure alignment of revenue and expenses and long-term fiscal sustainability in light of the global health crisis.

At the time of the development of the FY 2021 budget, the world is grappling with the novel coronavirus (COVID-19), a global pandemic. Society through both government and industry are responding in order to slow the spread and contain the virus in order to safeguard as many lives as possible. The financial implications of this public health emergency are significant, with regional, national and global impacts on economies in response to shelter in place orders required by the State of California and the County of Santa Clara and related social distancing restrictions. Since the Santa Clara County Ordered a Shelter in Place on March 16, 2020, Palo Alto has seen retail stores, many hotels, and restaurants close their doors completely as the community struggles to adapt to this extraordinary challenge. We have also seen our daytime population drop as workers and visitors shelter in place, telework, and limit their movements to slow the spread of the virus. The impacts have been stark and immediate.

On March 12, 2020 the City Manager, acting as the Director of Emergency Services, issued a Proclamation of Local Emergency regarding the presence and community spread of COVID-19 in Santa Clara County and our region. The Proclamation allows the City to exercise extraordinary police powers, should these be needed; provides immunity for emergency actions; authorizes issuance of certain necessary orders and regulations; activates pre-established emergency processes; and is a prerequisite for requesting state or federal assistance related to the emergency, should such assistance become available. On Sunday, March 15, 2020, the City Manager activated the Emergency Operations Center and since that time, the City has managed the EOC virtually through a cross-functional multi-departmental team.

On March 16, 2020, the City Council ratified the Proclamation of Local Emergency. In the weeks since COVID-19 was detected and found to be transmitting via community spread, City staff have taken numerous actions to promote community safety and address existing and potential impacts on City services and operations. The City has transitioned a majority of its workforce to

remote (telework) status, while maintaining essential services such as fire, police, public works, and utilities.

Due to the immediate constraints on social activities, severe impacts to transient occupancy taxes, sales tax, documentary transfer tax, and revenue from licenses, permits, and charges for services are ongoing. Although anecdotal, staff expects hotel occupancy levels to be below 10 percent and restaurants and retail establishments to remain primarily closed while the current Shelter-in-Place Order and social distancing practices are in effect. The financial outlook beyond the current environment are also unknown as unemployment claims have reached unprecedented levels and the financial markets are volatile. Further, while the current County of Santa Clara Public Health Order runs to May 3, there are indications at both the local and State levels that the public health emergency will extend for months to come.

While mindful of the unprecedented circumstances at hand, this Budget Message includes the following sections to outline the City's resource allocations for the year ahead and beyond:

1. City Council Priorities
2. Council Adopted Budget Principles
3. Continuing Fiscal Sustainability Actions Previously Adopted
4. Fiscal Reality and Budget Priorities
5. Summary of Other Funds (including the FY 2021-2025 Capital Improvement Plan)
6. Budget Timeline
7. Acknowledgments

City Council Priorities

In February of this year, which may seem like a lifetime ago, the City Council held a retreat and selected three priorities to focus on in 2020. The priorities include:

- Housing with an emphasis on affordable housing
- Sustainability, in the context of the changing climate
- Improving mobility for all

In February of this year, which may seem like a lifetime ago, the City Council held a retreat and selected three priorities to focus on in 2020. The priorities include:

"Housing with an emphasis on affordable housing

"Sustainability, in the context of the changing climate

"Improving mobility for all

Two of these priorities, mobility, and sustainability, relate to City Council priorities from 2019. For the City Council Retreat staff report highlighting past Council priorities and community input gained to help inform this discussion, go here:

https://www.cityofpaloalto.org/civicax/filebank/blobdload.aspx?t=62811.92&BlobID=75033

Since February, the City Council has adopted housing and sustainability workplans, guiding staff work associated with these priorities, and a revision to the existing transportation work-plan was planned by June 2020. While progress is being made on all priorities, the realignment needed to reflect current circumstances will severely impact our ability to continue this work.

The budget direction below considers suspending much of the work on all three priorities, in order to focus on legally mandated activities and redeploying staff to focus on recovery efforts.

Council Adopted Budget Principles

As part of the FY 2021 - FY 2030 Long Range Financial Forecast, the City Council approved budget guidelines that have driven development of the FY 2021 Proposed operating and capital budgets. The budget principles include:

1. Develop a structurally balanced budget that brings ongoing revenues and expenses into alignment. Develop a plan for any structural imbalance to ensure that the City maintains it fiscal sustainability over the short, medium, and long-term.
2. Allocate one-time resources for one-time needs rather than committing one-time resources to ongoing services. Examine appropriate uses of revenue surpluses that exceed forecasted levels including planning for recession needs.
3. Ensure appropriate resource allocation for City Council's existing priorities.
4. Focus on business process redesign to enhance quality, flexibility, and cost effectiveness of service delivery (include examining opportunities to streamline, simplify, reorganize, and reallocate resources to avoid duplication of effort).
5. Explore alternative service delivery models (such as partnerships with non-profits or other public/private sector groups) to minimize overlap, maximize cost share, and effectively use resources.
6. Continue to thoroughly analyze non-personnel/equipment/other costs, such as contract services, for cost savings opportunities.
7. Explore the expansion of existing revenue sources or the addition of new revenue sources, including the alignment of existing charges for services and the opportunity to establish new fees, when appropriate.
8. Continue to analyze and prioritize resource augmentations, seeking to offset augmentations with reductions elsewhere for net-zero impacts to the budget whenever possible.

The FY 2021 - FY 2030 Long Range Financial Forecast can be found here:

http://cityofpaloalto.org/civicax/filebank/documents/74907

Continuing Fiscal Sustainability Actions Previously Adopted

The FY 2021 baseline budget reflects the current service levels approved by the City Council with revenue projections prior to the COVID-19 emergency. As a balanced budget, the assumptions contain therein continues to follow conservative proactive fiscal management across all funds and includes a $2.7 million contribution to the Budget Stabilization Reserve in the General Fund. This reflects the significant progress the City has made towards ongoing cost containment over the past several years and the reductions that have been made across the organization. It shows the continued push to proactively fund pensions with continuing the City Council approved additional annual payments to the City's irrevocable IRS Section 115 Pension Trust

Fund ("Pension Trust Fund") ($3.4 million General Fund, $5.5 million all funds), additional payments to the City's OPEB Trust (approximately $3.0 million annually all funds).

Investment in capital infrastructure has been a key priority as well and is funded by approval of two (2) Transient Occupancy Tax rate changes as well as a sizeable transfer from the General Fund to the Capital Improvement Fund for the catch-up and keep-up priorities identified by the Infrastructure Blue Ribbon Commission (IBRC). This capital budget continues to prioritize the 2014 Council approved Infrastructure Plan in the General Capital Improvement Fund. In order to accomplish this, some of the larger projects previously planned in the five-year CIP have been pushed out beyond the 2021-2025 timeframe.

The ability to maintain these financial investments in capital and proactive payment of long-term liabilities, while funding Council priorities over the years, has resulted in service and staffing reductions and service delivery changes such as the animal shelter transition to a public/private partnership with Pets in Need. This prioritization of fiscal sustainability did not come without impacts. The FY 2020 Adopted Budget and the FY 2021 Proposed Budget continues reductions in the Fire Department, position eliminations in the Library Department and Public Works, as well as ongoing expense reductions in the Office of the City Clerk, the City Manager's Office, the Office of Emergency Services, and Information Technology.

In addition, efforts to structurally balance the FY 2020 budget, the FY 2020 Adopted Budget included actions that were expected to start in FY 2021, such as the transition of Project Safety Net to a community-funded model with the City as a partner instead of the primary funder, and the realization of approximately $450,000 in additional savings in the Police Department. This FY 2021 Proposed Budget includes continuation of these efforts.

These actions result in a baseline workforce of 1,034, which decreased by 1 position compared to the FY 2020 Adopted Budget. This is significantly less than the peak level of 1,076 citywide positions in 2009. In the General Fund, positions have decreased 11.9 percent, from 651 to 574, since 2009. Staff released the "City Services Guide" in December 2019 to assist in further conversations about the exceptional services provided by the City and the resources necessary to provide them.

You can find the City Services Guide and the appendix here:

http://cityofpaloalto.org/civicax/filebank/documents/74888

http://cityofpaloalto.org/civicax/filebank/documents/74176

Fiscal Reality and Revised Budget Approach

This year's proposed budget recognizes the need to set new priorities in light of the significant uncertainty the City faces. Per direction by the City Council on March 23, 2020, these proposed operating and capital budgets include less information and data than normal and are effectively a carryover budget. They reflect the cost of current service levels recalculated to FY 2021 rates and limited adjustments. The capital budget has been updated for the current status and cost estimates of projects based on engineering designs and only adds limited new projects for urgent health and safety needs. These budgets also begin what staff expects to be an ongoing conversation and difficult work ahead to plan for the return or recovery period once the shelter in place order is lifted. It is expected that these deliberations will require resetting expectations and many shared sacrifices moving forward.

Despite reflecting most recent figures, revenue estimates contained in these budgets are nonetheless likely overstated given the current state of the economy. It is expected that once the revenue estimates are revised, significant adjustments will be necessary to ensure a balanced budget in the several funds with economically sensitive revenues. This includes but is not limited to the General Fund, Refuse Fund, Parking Funds, and Enterprise Utility Funds. Staff expects to begin these conversations with the release of these Proposed Budgets and continue through May and June. Ultimately, the City Council must adopt a balanced operating and capital budget by June 30 for the new fiscal year FY 2021 beginning July 1, 2020. Staff will work to achieve this with the City Council.

Depending on the length and depth of this current public health emergency, the severity of the financial ramifications remains unknown. In the General Fund, staff has worked to estimate the impacts on the potential loss in major tax revenues. Based on this, at the time of this transmittal, it is estimated that major General Fund taxes will decline at minimum by $20.0 million in FY 2021 compared to the estimates carried in this baseline budget. Sales Tax and Transient Occupancy Taxes (TOT) alone make up nearly 30 percent of the General Fund revenues. In addition, preliminary figures from CalPERS reflect that they will not meet their expected investment returns this year. Through March, CalPERS is reporting -4 to -5 percent losses and are currently hovering around -1 percent to 0 percent investment returns. It is expected that these costs will materialize in the City's FY 2022-2023 retirement rates and continue through a 20-year period.

As we have all been reading in the current news, it is expected that society will be susceptible to restrictions and a possible resurgence of the infections of COVID-19. As we continue to grapple with these unknown effects, adding to the City Council's adopted Budget Principles highlighted above, I am recommending establishing a set of Budget and Fiscal Recovery Priorities to help guide our work to balance this significant change and continue to evolve through these uncertain times. These include:

- Support economic recovery through changes to our policies and programs
- Focus on resiliency over the long term while making service reductions and changes, ensuring that any services eliminated can be restored in future years
- Seek new ways to conduct our work through efficiencies and a learning environment
- Apply a broad-based approach to reductions, balancing impacts to the community
- Use temporary solutions to bridge extreme revenue losses expected in the short term

Recognizing that some of the necessary measures may not be sustainable in the long term, some deferrals of longstanding priorities will be necessary to respond to the downturn and allow for an economic recovery before resuming. We must assume this may take years, as the actual duration is unknown.

Through these new Budget and Fiscal Recovery Priorities, I've directed our Department Directors to think differently about our budget approach and challenges ahead including the following service changes and themes listed below. This is not a recommended budget approach at this time, nor comprehensive list, however it is intended to demonstrate the magnitude of changes needed to address expected financial constraints. Note that some workforce strategies are subject to bargaining over decisions and/or impacts, in some cases requiring mutual agreement. The City will work with labor to explore savings through these and other strategies.

Citywide Strategies

- Citywide Cost Containment: We will explore additional cost containment through continuing a hiring freeze and freezing all nonessential travel, eliminating current vacancies and reducing future vacancies through attrition, and/or implementing furloughs with corresponding service reductions such as reduced walk-in office hours.
- City General Capital Infrastructure Fund Transfer Suspension: The City's General Fund transfers upwards of $30 million annually to the General Capital Infrastructure Fund, consisting of a baseline transfer as well as the allocation of TOT receipts as designated by the City Council. This is expected to be significantly impacted by the losses in TOT revenues and reduction in the General Fund transfer would help bridge operating budget impacts. Both will significantly reduce the capacity for capital investments in the near term. We must prioritize investments including the Public Safety Building, 2014 City Council approved Infrastructure Plan, Parks improvements such as Birch Street, the newly acquired property adjacent to Boulware Park, and various transportation projects including but not limited to grade separations.
- Proactive Funding of Long-Term Liabilities: The City Council approved a proactive funding strategy to contribute to the City's Pension Trust Fund assuming a normal cost for contribution with a 6.2 percent discount rate. This resulted in additional annual contribution of $5.5 million in all funds, $3.4 million in the General Fund. We will explore pausing this practice to soften the extreme revenue losses in the short-term.
- Support of Economic Recovery through Changes to our Policies and Programs: The City is initiating Business Roundtables and other programs and services to continue supporting the business community. While implementation of outputs from the Business Roundtables may require near-term investments, they will also assist in the long term economic recovery of our community. Initiatives include the implementation of our new online permit system to ensure, even while sheltering in place, review of planning and permitting processes and policy changes to support businesses in the City.

Department Specific Strategies

- Public Safety: We will explore the suspension or elimination of specialized police units such as the traffic enforcement unit and investigation unit to maintain minimal police patrol services and shift the priority of police services to focus on urgent calls and reduce the level of service and ability to respond to non-urgent calls for services. Reduce officer training, promotional testing, uniform purchases and eliminate or change to full cost recovery for non-essential programming such as the Parent Project community education program, crossing guards, Stanford Athletics, and school resource officers. Explore the reduced availability of at least one of five fire stations and eliminate or freeze a staff vacancy in the Office of Emergency Services.
- Community & Library Services: We will explore reduced library hours, not opening select library branches, and not re-opening some community services facilities. This includes greater cost recovery through changes in service delivery, charges for services, and/or limiting operating hours, for facilities such as the new Junior Museum and Zoo (JMZ), one community center, the Children's Theatre, or the Art Center. We will also explore reducing the number of days or hours of operation that other Community Services facilities are open such as community centers, museums, theaters or open space preserves. Explore the reduction or elimination of programming such as special events, art exhibits, and teen

programs an re-evaluate the shared services between the City and Palo Alto Unified School District (PAUSD), including suspension of programs unless greater cost recovery can be achieved. Explore termination of the Cubberley lease or resetting to a shared revenue structure.

- Planning & Infrastructure: Explore restrictions to use of contract inspectors, elimination of next day inspections and explore scheduled inspections, understanding that this could delay services to our development community. Defer several Council adopted planning efforts such as the housing work plan, all electric commercial buildings initiatives and other work not legally mandated. Restructure work to in-house staff only, explore amendments to the City's municipal code to scale back on application processing requirements associated with wireless communication facilities. Explore other amendments to reduce the number of applications requiring review by the architectural review board and elimination of the individual review program to free up resources that support the Council's long-range planning policy interests.

  Explore reducing code enforcement staffing, eliminating the Crosstown and Embarcadero shuttle programs or redesigning the delivery of this service to reduce costs. Evaluate the current parking program including the Residential Preferential Parking (RPP) program to full cost recovery including implementation of license plate recognition for efficiencies in parking enforcement, and implementation of a paid parking program to increase revenues. Explore deferral or reduction in tree trimming, vehicle replacement, suspending rate changes in various utility enterprise funds for the coming year(s) and explore shifting the City's sidewalk replacement and repairs program to cost-sharing or full property owner responsibility.
- Internal Services & Council Appointed Officers: Internal Services departments include the Information Technology, Human Resources, and Administrative Services Departments as well as the Council and appointed officers (City Manager, City Attorney, City Auditor and City Clerk). We will explore reductions in these areas in line with the proposed changes in services, aligning timeframes for assistance and review in areas such as recruitments, procurements, and risk management. Technology solutions would be constrained to only essential contracts and systems. The City Council may similarly review its expenses and areas for reduction.

Once again, we must recognize that many of these budget balancing strategies are not sustainable over the long term. However, these or similar solutions are necessary to bridge the gap creates by a steep economic downturn, contain costs, and support our economic recovery.

Summary of Other Funds

The City's Enterprise and other funds, including the General Capital Fund, have also been brought forward in these proposed operating and capital budgets as working budgets. They reflect the priorities from the FY 2020 budget development with updates for FY 2021 rates and limited adjustments. The capital budgets have been updated for the current status and cost estimates of projects based on engineering designs and only adds limited new projects for urgent health and safety needs. The City will continue to maintain services and facilities for the community and the region, such as Utilities, Palo Alto Airport, and Wastewater Collection and Treatment plant. Although these budgets in this FY 2021 assume rate increases in various utilities, as noted above, staff is working to explore suspension of rate changes. Minimal changes

are recommended in the various parking funds, one-time funding approved in FY 2020 are recommended to be continued for an additional year such as funding for the Transportation Management Association (TMA) and a General Fund subsidy in the RPP program. Parking permit prices are also recommended to increase by 2.6 percent, consistent with most other fees, except for resident permits which are recommended to remain at $50.

In FY 2021, a total of $96.4 million will be allocated towards the capital program for the Enterprise Funds, with $390.5 million allocated over the five-year CIP, representing 52.1 percent of CIP expenditures for all funds. Major investments continue in the Wastewater Treatment Plant's capital program, with approximately 64 percent of the expenses reimbursed by five contributing partner agencies outside of the City of Palo Alto, and the general Capital Improvement Fund, which is the second largest section of the 2021-2025 CIP, totals $335.0 million with 91 projects. It is expected, as noted above, that a prioritization of investments will be necessary with the expected reduction in TOT receipts.

Budget Timeline

Acknowledgements

I would like to thank the City Council for your leadership and our Executive Leadership Team and the entire staff of the City for providing outstanding services to our community. While recognizing the challenges ahead, the Palo Alto community should be proud of your leadership and commitment to service.

A proposed budget takes countless hours of teamwork, collaboration, and patience to produce. I would like to offer special thanks to Kiely Nose, our Chief Financial Officer and the dedicated Office of Management and Budget Team - Christine Paras, Paul Harper, Steve Guagliardo, Jessie Deschamps, Alexandra Harris, Jamie Perez, Kayla Shapiro, and Chaitali Paliwal. Completing this budget could not have been accomplished without the skill, dedication, and professionalism of

this team. Their willingness to work through these unique circumstances and sacrifice countless hours are a testament to their commitment to this organization and to the community. Thanks are also due to David Ramberg, Assistant Director, Administrative Services Department, and Tarun Narayan, Treasury Manager. I am also grateful to the Department Directors of our Executive Leadership Team and the department personnel who worked on the material. There are too many to list here by name, but the budget could not have been produced without the senior/management analysts, division managers, administrative assistants, and others throughout the organization who helped produce this budget.

Respectfully Submitted,

Ed Shikada

City Manager

Attachment A:

Capital Improvement Funds

The Capital Improvement Fund category includes two funds, the Capital Improvement Fund and the Cubberley Property Infrastructure Fund, which make up the second largest section of the 2021-2025 CIP in terms of cost at $335.0 million, but have the largest number of projects with 91. Capital projects that do not directly benefit the Enterprise Funds, support technology improvements, or vehicle maintenance and replacement are funded in the Capital Improvement Fund and account for repairs to the City's roads, parks and open space, and most City facilities. The Cubberley Property Infrastructure Fund supports repair and renovation of facilities at the Cubberley Community Center.

Sources of Funding

The Capital Improvement Fund has been supported primarily through a transfer from the General Fund split into two classifications, a base amount and dedicated funding from Transient Occupancy Tax (TOT) revenue. Since FY 2013, the base transfer level has increased annually by an amount equal to the consumer price index, bringing the FY 2021 base transfer to $16.1 million. In addition to this base level of General Fund support, the City Council earmarked revenues from a total voter approved 3.5 percent TOT increase plus revenue from new hotels built after January 2015 to fund the Infrastructure Plan. The FY 2021 General Fund transfer to infrastructure includes $14.6 million in TOT revenues; therefore, the total transfer to the Capital Improvement Fund is $31.9 million, which includes $1.2 million of estimated interest earnings in addition to the base and TOT amounts. As the City continues to address uncertainties surrounding the impact from COVID-19, these preliminary amounts are anticipated to change.

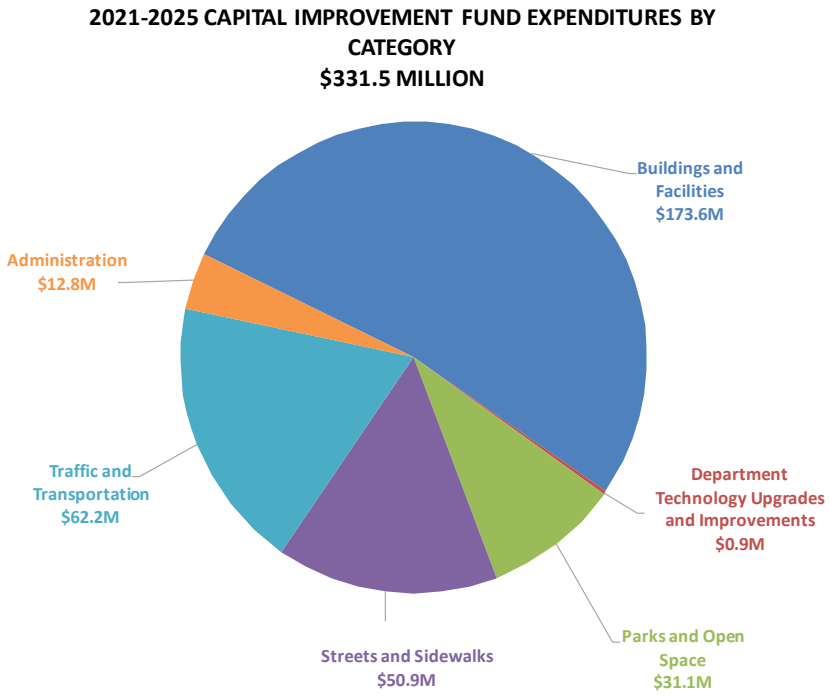
Other major sources of funding for the Capital Improvement Fund include Certificates of Participation (COP) funding, grants from Federal, State, and other local agencies, and transfers from the Stanford University Medical Center Development Agreement, the Gas Tax Fund, and various Impact Fee Funds and Parking District Funds. Further discussion of these revenue sources can be found in the Summary of CIP Program Revenue section of this document.

The Cubberley Property Infrastructure Fund is funded solely through a transfer from the General Fund based on the November 2014 change to the lease with the Palo Alto Unified School District. The revised lease reallocated an ongoing annual $1.8 million "Covenant Not to Develop" payment that previously went to the school district to establish the Cubberley Property Infrastructure Fund and support infrastructure repair and renovation for the Cubberley Community Center.

Expenditures

The 2021-2025 CIP for the Capital Improvement Fund includes 87 projects at a cost of $331.6 million, of which $176.8 million is budgeted fin FY 2021, with $37.8 million being reappropriated

from FY 2020 for projects continuing into FY 2021. The Capital Improvement Fund budget is divided into six categories: Buildings and Facilities, Department Technology Upgrades and Improvements, Parks and Open Space, Streets and Sidewalks, Traffic and Transportation, and Unallocated Salaries and Benefits. Additional details on each of these categories can be found in the Capital Project Fund Overview section for each of the categories.



Infrastructure Management System and Status of the "Catch-Up" Backlog

A key recommendation of the IBRC report was the establishment of an Infrastructure Management System (IMS) that will maintain an inventory of the City's infrastructure and track and budget for "catch-up" and "keep-up" needs. The IMS has been implemented utilizing two software applications, Maintenance Connection which is the repository for the infrastructure asset inventory information, and Questica, the City's budget system, which is used for long term capital planning. The combined use of both applications will allow the City to plan and report on long term capital funding needs and deferred maintenance, or "catch-up" balances for both operating and capital maintenance. The initial asset inventory and capital planning information has been transferred to the IMS, and reporting from the IMS began in FY 2019.

The December 2011 IBRC Report identified a backlog of "catch-up" projects totaling $41.2 million. The 2021-2025 CIP includes a total of $23.8 million in catch-up projects, reducing the backlog amount to $17.4 million at the end of the five-year period as outlined in the table below.

IBRC "Catch-Up" Backlog Status

IBRC "CATCH-UP" CATEGORY	IBRC FINAL REPORT "CATCH-UP" BACKLOG	"CATCH-UP" AMOUNT FUNDED TO DATE OR INCLUDED IN THE CIP	FISCAL YEAR 2021-2025 BACKLOG
Buildings	$5.0 million	$2.2 million	$2.8 million
Cubberley Community Center	$6.9 million	$1.2 million	$5.7 million
Parks	$14.4 million	$8.1 million	$6.3 million
Surface	$14.9 million	$12.3 million	$2.6 million
TOTAL	**$41.2 million**	**$23.8 million**	**$17.4 million**

The 2021-2025 Capital Improvement Program continues significant investments in traffic and transportation initiatives. In November 2016, Santa Clara County passed Measure B, a 30-year half-cent county wide sales tax to enhance transit, highways, expressways and active transportation (bicycles, pedestrians and complete streets). Measure B revenue for Palo Alto is anticipated to be $1.3 million annually and has been recommended to be split, with $0.5 million for the Railroad Grade Separation project (PL-17001), $0.5 million for Street Maintenance (PE-86070), and $0.3 million for Traffic Signal and Intelligent Transportation System Upgrades project (PL-05030). Similarly, S.B. 1 funding for Road Maintenance and Rehabilitation from the State of approximately $1.3 million annually is recommended to fund Street Maintenance (PE-86070). In future years the addition of this funding to the City's street maintenance program could potentially allow some funds to be reallocated to other capital projects with City Council approval.

City Council Infrastructure Plan

In 2013 the City Council established the Council Infrastructure Committee and tasked the Committee with identifying a funding plan for infrastructure projects requiring funding above and beyond the base annual General Fund transfer to the Capital Improvement Fund. After meeting regularly for more than a year, the Committee arrived at a list of nine recommended projects and an associated funding plan, which was approved by the City Council in June 2014. At the time the plan was adopted, the total cost of Infrastructure Plan projects was estimated at $125.8 million. It is important to note that project costs for two of the projects only included the amounts that were unfunded in June 2014. For comparison to current Council Infrastructure Plan costs the original estimate should have been $136.6 million (rather than $125.8 million).

Additionally, the project costs did not include staff salaries and benefits. Beginning in the 2019-2023 CIP, staff budgeted the cost of staff salaries and benefits within the individual capital projects to more accurately plan and account for the total cost of projects. These costs had previously been budgeted in a single capital project (AS-10000) that accounted for the salaries and benefits of all staff that work on capital projects and are budgeted in the capital fund. The inclusion of staff salaries and benefits in individual project budgets can appear to increase the overall cost of the projects. In reality, the apparent increase is simply a shift of budget allocation

from AS-10000 to the individual projects. The primary reasons for increased project costs are the significant construction cost escalation that has occurred in recent years and additions to the scope of certain projects.

As part of the 2020-2024 CIP, a tenth project was approved to be added to the Infrastructure Plan: the Downtown Automated Parking Guidance Systems, Access Controls & Revenue Collection Equipment (PL-15002). Due to the City Council's decision to defer the New Downtown Parking Garage Project (PE-15007) in February 2019, PL-15002 will mitigate parking congestion in downtown while plans for the Downtown Garage are reevaluated. Funding from the University Avenue Parking Permit Fund of approximately $1.1 million, previously planned to cover the costs for PL-15002, will now be reserved for future use toward capital needs in the University Avenue Parking District.

Based on known estimates and including the tenth project, the total cost of the Infrastructure Plan is currently $287.3 million with $160.3 million (55.8%) programmed in the 2021-2025 CIP. These costs are detailed by project below:

Project Name (Number)	2021-2025 CIP Budget	Total Project Budget
Public Safety Building (PE-15007)	$106.6M	**$118.0M**
California Avenue Parking Garage (PE-18000)	$0	**$50.2M**
Downtown Parking Garage (PE-15007)	$26.6M	**$29.1M**
Bicycle and Pedestrian Transportation Plan Implementation (PL-04010)	$11.3M	**$20.8M**
Charleston/Arastradero Corridor Project (PE-13011)	$0	**$19.6M**
Highway 101 Pedestrian/Bicycle Overpass (PE-11011)	$0	**$18.7M**
Fire Station 4 Replacement (PE-18004)	$9.9M	**$10.2M**
Fire Station 3 Replacement (PE-15003)	$0	**$10.1M**
Byxbee Park Completion (PE-18006)	$3.2M	**$3.6M**
Downtown Automated Parking Guidance Systems (PL-15002)	$2.7M	**$2.8M**
Total	$160.3M	$287.3M

The IP relies on the two voter approved increases to the Transient Occupancy Tax (TOT) in November 2014 and November 2018 for a total 3.5 percent of TOT revenue which the City Council identified as a funding source to aid in infrastructure needs, including the Infrastructure Plan projects and the associated debt service payments from the COP issuances. The City Council also identified TOT funding from new hotels built after January 2015 for infrastructure needs, and the 2021-2025 CIP assumes the opening of new Marriott hotels in FY 2021. COPs were issued for the California Avenue Garage in March 2019 and a portion of the TOT revenues will be allocated to pay for the debt service, which is estimated to be $2.4 million annually. COPs for

the Public Safety Building are programmed to be issued in FY 2021 and it's estimated this will increase the annual debt service to $9.8 million annually. In addition to the TOT funding, there are a number of other funding sources that are dedicated towards the IP projects. For more information regarding the funding sources per IP project please see the individual project pages in this document.

Funding Source	2021-2025 CIP Funding	Total Project Funding
Certificates of Participation (COP) Bond Proceeds	$102.0M	**$144.0M**
Stanford University Medical Center (SUMC) Development Agreeement	$13.0M	**$34.5M**
Grant Funding from Other Local Agencies	$2.8M	**$11.9M**
Downtown Parking In-Lieu Fees	$5.5M	**$6.8M**
Parks Dedication Fees	$2.4M	**$2.8M**
SB1 Gas Tax Funding	$0	**$1.1M**
Reimbursement from Google	$0	**$1.0M**
Charleston/Arastradero Impact Fees	$0	**$0.9M**
Stormwater Management Fund	$0	**$0.7M**
Public Safety Facility Impact Fees	$0.3M	**$0.3M**
Total	**$126.0M**	**$204.0M**

All ten projects are scheduled to be complete within the 2021-2025 CIP, and four of the projects are anticipated to be complete by the end of FY 2021. The Fire Station #3 Replacement project was awarded for construction in FY 2018 and it was opened in Spring 2020. Construction on phases 1 and 2 of the Charleston/Arastradero Corridor (PE-13011) project were substantially complete in Summer 2019, and the third and final phase is planned to be finished in Spring 2021. In addition, the California Avenue Garage (PE-18000) started construction in Spring 2019 and completion is estimated in Summer 202. A construction contract for the Highway 101 Pedestrian/Bicycle Overpass (PE-11011) was awarded in Summer 2019 with completion estimated for Summer 2021. The construction contract for the New Public Safety Building (PE-15001) is anticipated to be awarded in Fall 2020 with completion in Spring 2023. Additional information on the status of all of the IP projects can be found on the City's website: https://www.infrastructure.cityofpaloalto.org/.

In addition to the Council Infrastructure Plan, there are a number of other significant potential capital projects that have been identified as needs that do not have funding identified. While successful completion of the Council Infrastructure Plan has been identified as the highest infrastructure priority, the following are some other potential competing community asset projects:

- Junior Museum and Zoo rebuild (Phase II)
- Animal Shelter replacement or renovation
- Parks Master Plan implementation

To align with the City Council's Fiscal Sustainability priority and set aside funding for community asset project like these, a Reserve for Future Capital Needs for $2.5 million will be established starting in FY 2024. This will enable a discussion to prioritize these projects and others that may rise in the years after the IP projects are complete before the funding is programmed into existing capital projects.

New Projects

There are two new projects in the Capital Improvement Fund for the 2021-2025 CIP and both have funding in FY 2021. They fall under the category of Facility Upgrades and include:

- Library Automated Material Handling (LB-21000): FY 2021 - $0.1 million; 2021-2021 CIP: $0.8 million
- Magical Bridge Playground Rubber and Synthetic Turf Resurfacing (PE-21003) - FY 2021: $0.4 million; 2021-2025 CIP: $0.9 million

More information about these projects can be found on their respective project pages under the Capital Improvement Fund section in this document.

Infrastructure Reserve

The ending fund balance in the Capital Improvement Fund is referred to as the Infrastructure Reserve (IR). The IR is used to provide cash flow for reimbursable grants, address unanticipated cost increases, and provide funding for urgent and unanticipated projects. As seen in the Source and Use chart in the Capital Improvement Fund section of this document, the projected IR balance at the end of FY 2021 is estimated to be $28.6 million. This five-year CIP assumes keeping the Infrastructure Plan COP funding at a debt to revenue ratio under 60%, which is similar to the 2020-2024 CIP. Part of this reduced ratio can be attributed to the voter approved additional 1.5% increase in TOT funding that Council directed towards funding infrastructure. The IR is estimated to remain positive through all five years of the 2021-2025 CIP. This strategy has some risk and uncertainties due to the timing of the opening of the new Marriott hotels, uncertainties surrounding the impact from COVID-19,?and it assumes that current projects remain within budgeted levels, and no large unforeseen urgent capital needs happen prior to the completion of the IP projects. It is important to note that City Council only approves the FY 2021 portion of the five-year CIP, so these assumptions and risks will continue to be evaluated throughout FY 2021 and considered as part of the development of the 2022- 2026 CIP.

Cubberley Property Infrastructure Fund

The 2021-2025 CIP includes funding for infrastructure improvements at the Cubberley Community Center in accordance with the November 2014 change to the lease with the Palo Alto Unified School District, which reallocated an annual $1.8 million "Covenant Not to Develop" payment benefiting the school district to infrastructure repair and renovation for the Cubberley Community Center. Work is currently being done by staff in partnership with the Palo Alto Unified School District (PAUSD) to develop the Cubberley Master Plan for the Cubberley Community Center site. Once the Master Plan is complete, additional work will be required to align the

Plan's priorities with the City Council's Direction for the site and the funding available to do the work.

The 2021-2025 CIP for the Cubberley Community Center includes funding for emergency repairs at the site, scheduled roof replacements, and completion of the field restroom. The emergency repair and roof replacement work is needed to maintain safe building conditions for current use of the site. Completion of the field restroom will provide facilities near the fields that are heavily used for athletic events.

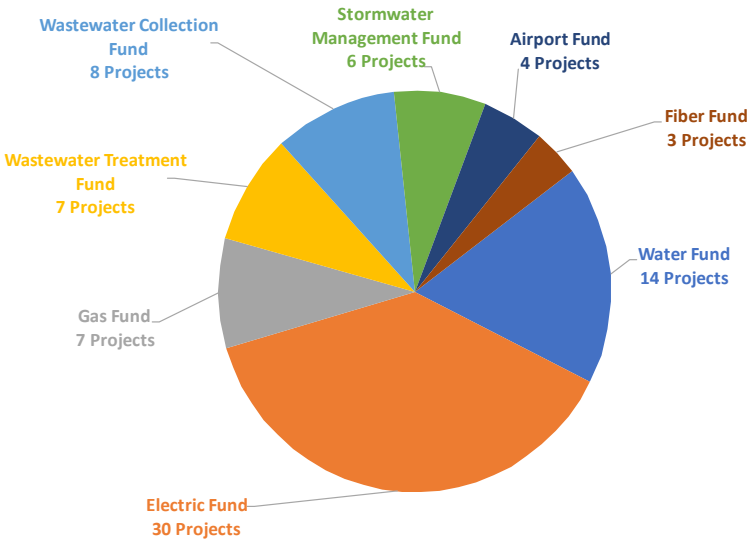
Attachment B:

Enterprise and Internal Service Funds

Enterprise Fund Capital Improvement Projects

Enterprise Funds account for financial activities that are associated with a broad range of municipal services. Each year a significant investment is made from the City's Enterprise Funds (Airport, Electric, Fiber Optics, Gas, Stormwater Management, Wastewater Collection, Wastewater Treatment, and Water). In FY 2021, a total of $96.4 million will be allocated towards the capital program for the Enterprise Funds, with $390.5 million allocated over the five-year CIP, representing 52.1 percent of CIP expenditures for all funds. Of the $96.4 million allocated in FY 2021, $18.5 million is for projects previously approved by the City Council that are recommended to be reappropriated from FY 2020 for continuation of the projects in FY 2021. The Utilities Department manages the Electric, Water, Gas, Fiber Optics, and Wastewater Collection Funds, while the Public Works Department manages the Airport, Storm Drainage, and Wastewater Treatment Funds. Following is a brief discussion of the City's largest Enterprise Fund capital improvement programs. Additional information on each of these funds can be found in the fund summary sections of this document.

2021-2025 ENTERPRISE CIP PROJECTS BY FUND (79 TOTAL)



Airport Fund

The Airport receives a majority of its funding through grants from the Federal Aviation Administration (FAA) and the City is required to match ten percent of the award. A total of $26.0 million is allocated towards capital infrastructure over the 2021-2025 CIP, with $19.4 million allocated in FY 2021. The third phase of the Airport Apron Reconstruction project was moved from FY 2020 to FY 2021 as part of the development of the 2020-2024 CIP because generating enough revenue at the Airport to maintain and upgrade the Airport facilities without help from the General Fund was a challenge, especially if the cost of apron reconstruction continues to increase. Staff will continue to work with the FAA to complete the project as quickly as possible within the limited resources available to fund the City's portion of the project costs. There are no new projects programmed in the Airport Fund for the 2021-2025 CIP.

Water, Gas, and Wastewater Collection Program

Utilities implemented a new replacement schedule for gas, water, and wastewater main construction projects to avoid having all three types of projects going on simultaneously.

This smooths out the amount of construction occurring and when prices are high. In the last few years there have been fewer bidders and higher prices on construction projects due to the increased demand for construction services. The new schedule also aligned the capital workload with staffing resources most commonly shared between the three funds. Some of the larger projects planned in the previous five-year CIP have been pushed out beyond the 2021-2025 timeframe also helped smooth out rate increases affected by capital needs.

Stormwater Management Fund

The Stormwater Management Fee ballot measure was approved by voters in April 2017, providing funding for the Storm Drain Blue Ribbon Committee's recommendations for capital projects related to maintenance and upgrades to the City's storm water management system. The 2021-2025 Capital Improvement Program includes expenditures of $13.8 million, with $4.2 million allocated in FY 2021. With the passage of the 2017 Storm Water Management Fee ballot measure, 13 drainage improvement projects will be recommended over the next 14 years, six of which have been programmed in the 2020-2024 CIP, and the first estimated to be completed in FY 2020. There are no new projects programmed in the Stormwater Management Fund for the 2021-2025 CIP.

Wastewater Treatment Fund

The Wastewater Treatment Fund accounts for activities related to the replacement and rehabilitation of the Regional Water Quality Control Plant infrastructure. The 2021-2025 Capital Improvement Program includes expenditures of $133.1 million, with $19.3 million allocated in FY 2021. Approximately 64 percent of expenditures within this fund are reimbursed by five contributing partner agencies (Cities of Mountain View and Los Altos, Town of Los Altos Hills, Stanford University, and East Palo Alto Sanitary District). Many of the Plant's major systems are reaching the end of their useful life and new technology for systems such as advanced water purification,

and secondary treatment upgrades are available and need to be integrated into the Plant while older systems are phased out. Staff has been exploring funding options for low interest state revolving fund loans or revenue bonds to mitigate the costs to the City and partner agencies for these large infrastructure investments.

Internal Service Fund Capital Improvement Projects

Internal Service Funds account for activity that provides goods or services to other funds, departments, or agencies within the City. Of the City's Internal Service Funds, the Technology Fund and Vehicle Replacement and Maintenance Fund have capital projects budgeted throughout the 2021-2025 Capital Improvement Program. The Technology Fund has a total 2021-2025 budget of $4.2 million ($3.8 million in FY 2021), and the Vehicle Replacement Fund has a total 2021-2025 budget of $20.1 million ($7.5 million in FY 2021).

Technology Fund

Technology Fund projects enhance service delivery to the community and to City staff through efficient and effective implementation of information technology solutions. Of the $3.8 million in funding for FY 2021, $2.8 million is recommended to be reappropriated from FY 2020 for continuation of the projects in FY 2021.

Vehicle Replacement Fund

Vehicle Replacement and Maintenance Projects provide funding for maintaining and replacing City vehicles and heavy equipment to ensure safe, reliable, and efficient use of resources. Of the $7.5 million in funding for FY 2021, $4.2 million is recommended to be reappropriated from FY 2020 for continuation of the projects in FY 2021. To maintain a regular replacement schedule efficiently, staff has been standardizing the process for determining the replacement value and timing. There is one new project programmed for vehicle replacements scheduled in 2025 in the 2021-2025 CIP under the Vehicle and Equipment Replacement category:

- Scheduled Vehicle and Equipment Replacement-Fiscal Year 2025 (VR-25000) - FY 2021: $0.0 million; 2021-2025 CIP: $3.1 million

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Fiscal Year 2021 Proposed Capital Budget

City Council

Adrian Fine, Mayor

Tom DuBois, Vice Mayor

Alison Cormack

Eric Filseth

Liz Kniss

Lydia Kou

Greg Tanaka

Ed Shikada, City Manager

Kiely Nose, Director of Administrative Services/Chief Financial Officer

David Ramberg, Assistant Director of Administrative Services

Christine Paras, Assistant Director of Administrative Services

Paul Harper, Budget Manager, Office of Management and Budget

Greg Tanaka, Finance Committee Chair

CITY OF PALO ALTO

The government of the City of Palo Alto exists to promote and sustain a superior quality of life in Palo Alto. In partnership with our community, our goal is to deliver cost-effective services in a personal, responsive and innovative manner.

Our Values

Quality

Superior delivery of services

Courtesy

Providing service with respect and concern

Efficiency

Productive, effective use of resources

Integrity

Straight-forward, honest and fair relations

Innovation

Excellence in creative thought and implementation

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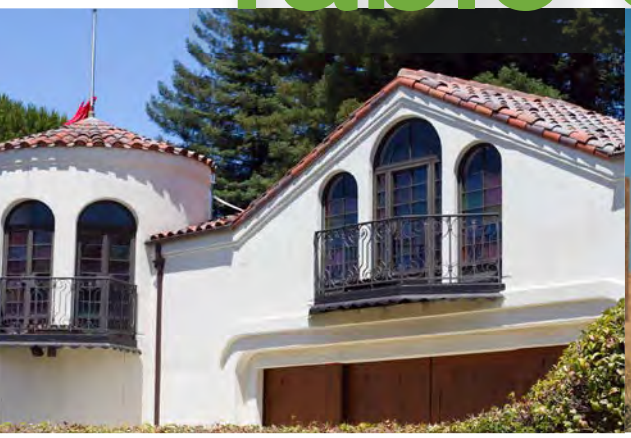

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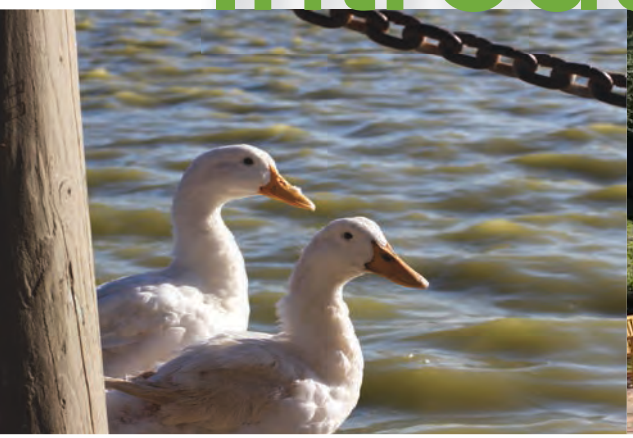
Introduction



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Alexandra Harris
Chaitali Paliwal
Jamie Perez
Kayla Shapiro

Capital Improvement Plan Review Committee

Ed Shikada
Brad Eggleston
Kiely Nose
Paul Harper

CIP ORGANIZATIONAL CHART

Public Works
Managed Projects

CUBBERLEY — 0.15
0.05-Project Manager
0.10-Senior Engineer

STREETS — 6.53
0.25-Administrative Associate III
0.12-Assistant Director
1.79-Associate Engineer
0.15 Coordinator Public Works Projects
0.23-Engineer
0.68- Inspector, Field Services
0.30-Management Analyst
1.19-Project Engineer
0.15-Project Manager
0.69-Senior Engineer
0.43-Supv Inspector/Surveyor PW
0.55-Surveyor

PARKS AND LANDSCAPE — 3.22
0.25-Administrative Associate III
0.12-Assistant Director
0.40-Engineer
0.90-Lanscape Architect/Park Planner
0.20-Management Analyst
0.40-Project Engineer
0.15-Project Manager
0.80-Senior Project Manager

SIDEWALK — 3.94
0.12-Assistant Director
0.20-Associate Engineer
0.74-Cement Finisher-Lead
1.00-Engineer
0.53-Inspector, Field Services
0.50-Manager Maintenance Operations
0.25-Project Engineer
0.20-Project Manager
0.20-Senior Engineer
0.20-Supv Inspector/Surveyor PW

STRUCTURES AND GROUNDS — 10.31
0.80-Administrative Associate I
0.39-Administrative Associate III
0.36-Assistant Director
1.47-Engineer
0.50-Engineering Technician III
0.10-Facilities Manager
0.29-Management Analyst
0.15-Manager Maintenance Operations
4.30-Project Engineer
0.55-Project Manager
1.20-Senior Engineer
0.20-Senior Project Manager

STORMWATER MANAGEMENT — 2.17
0.10-Administrative Associate I
0.10-Administrative Associate III
0.80-Engineer
0.10-Management Analyst
0.65-Project Engineer
0.30-Senior Engineer
0.12-Surveyor

VEHICLE REPLACEMNT — 2.40
0.15-Assistant Fleet Manager
0.25-Fleet Manager
0.30-Fleet Service Coordinator
0.50-Management Assistant
0.10-Motor Equipment Mechanic–Lead
0.60-Motor Equipment Mechanic II
0.50-Project Manager

WASTEWATER TREATMENT — 1.30
0.10-Assistant Manager, WQCP
1.20-Senior Engineer

AIRPORT — 0.75
0.25-Facilities Technician
0.50-Manager Maintenance Operations

Total: 30.77 FTE

Utilities
Managed Projects

0.45-Asst Director Util Engineering
0.10-Cathodic Protection Tech. Asst
0.10-Cathodic Technician
0.35-Contracts Administrator
1.50-Electric Assistant I
0.89-Electric Heavy Equipment Operator
1.28-Electric Project Engineer
1.37-Electric Underground Inspector
0.18-Elec Underground Inspector-Lead
2.89-Engineer
0.60-Engineering Technician III
0.25 Gas and Water Meter Measurement Control Technician
2.52-Heavy Equip Oper/Install Rep
1.70-Inspector, Field Services
3.93-Lineperson/Cable Specialist
2.54-Lineperson/Cable Specialist-Lead
0.08-Metering Technician
0.05-Metering Technician-Lead
1.00-Overhead/Underground Troubleman
0.33-Power Engineer
2.63-Project Engineer
0.51-SCADA Technologist
3.36-Senior Electrical Engineer
2.42-Senior Engineer
0.30-St Light/Traffic/Fiber Tech
0.20-St Light/Traffic/Fiber-Lead
1.32-Substation Electrician
0.56-Substation Electrician-Lead
0.76-Sup Electrician Project Engineer
4.25-Utility Engineer Estimator
0.14-Utility Install Repair-Lead-Welding Certified
0.54-Utility Install Repair-Welding Certified
3.75 Utility Install/Repair
0.54-Utility Install Repair Assistant
2.13-Utility Install Repair-Lead
0.76-Utility Locator
2.19-Utility Supervisor
0.62-Water Systems Operator II
1.42 WGW Heavy Equipment Operator

Total: 50.51 FTE

City Manager/Office of Transportation
Managed Projects

0.15-Administrative Assistant
0.30-Associate Planner
0.50-Associate Engineer
0.30-Chief Transportation Official
0.15-Coordinator Public Works Projects
0.75-Coordinator Transpotation Systems
0.15-Management Analyst
0.40-Parking Operations-Lead
1.45-Project Engineer
0.05-Project Manager
0.80 Senior Engineer
0.50-Senior Planner
0.55-Traffic Engineering-Lead
0.35-Transportation Planning Manager

Total: 6.40 FTE

Community Services
Managed Projects

1.00-Coordinator Public Works Projects

Total: 1.00 FTE

Administrative Services
Managed Projects

0.60-Contracts Administrator
0.60-Senior Management Analyst

Total: 1.20 FTE

FY 2021 POSITION TOTALS
Administrative Services - 1.20
Community Services - 1.00
Office of Transportation - 6.40
Public Works - 30.77
Utilities - 50.51
Total Full-Time - 89.88

THE BUDGET PROCESS AND DOCUMENT

Capital Budget and Five-Year Capital Improvement Plan

The annual capital budget and five-year Capital Improvement Plan (CIP) is a spending plan for the City's infrastructure needs, which is based on the City Council priorities listed below. The City Council approved multi-year funding plans, such as the infrastructure keep-up and catch-up plan recommended by the Infrastructure Blue Ribbon Commission (December 2011), as well as the City Council 2014 Infrastructure Plan (June 2014). The review of the capital budget and five-year CIP is structured around public hearings conducted prior to City Council adoption.

City Council Top Priorities

At the start of the City's budget process, the City Council determines its main priorities for the upcoming budget period. The priorities guide both budget development and department priority-setting. The public has the opportunity to provide input into this process as well as during the budget review by the Finance Committee. The following are the City Council's Top Priorities for 2020, adopted in February 2020:

- Housing
- Sustainability
- Mobility

Budget Preparation

The City's annual budget process begins in September with the development of the base budget and concludes in August with the release of the adopted budget. The operating and capital budgets are developed on behalf of the City Manager, in consultation with senior management and the Director of Administrative Services, by the Administrative Services Department's Office of Management and Budget (OMB) utilizing six main sources of information:

- The City Council's top priorities and other City Council directives, such as the 2014 Infrastructure Plan
- Organizational financial status and budgetary guidelines
- Service level and infrastructure prioritization, as identified by the City Manager
- Community input (e.g. Infrastructure Blue Ribbon Commission)
- The City's policies regarding land use and community design, transportation, housing, natural environment, business, and economics, as outlined in the Comprehensive Plan.

Capital Budget Calendar

SEPTEMBER

The capital budget process begins with the preparation of the capital budget guidelines and calendar by the Administrative Services Department's Office of Management and Budget (OMB). The budget guidelines are then distributed to all departments.

OCTOBER/NOVEMBER

Departments review the prior year five-year CIP. Based on the previously outlined information sources, changes to the prior year budgets are developed by the respective departments managing the City's infrastructure assets: Utilities, Information Technology, Community Services, Public Works, Office of Transportation, and Administrative Services. Changes to the CIP might include: addition of new projects, deletion of planned projects, reprioritization of planned projects, alternative funding strategies, and revision of project costs or timelines. Revisions of project costs reflect a review of potential variables such as, but not limited to, revised construction estimates, annual Consumer Price Index (CPI) increases, and known contractual increased costs.

DECEMBER/JANUARY

Departments submit capital infrastructure funding requests to the OMB. For General Fund funded project requests, OMB, in conjunction with Public Works, prepares an initial prioritization of requests based on the previously outlined information sources for consideration by the General Fund CIP Review Committee consisting of senior managers in Public Works, Community Services, Administrative Services, and the Office of Transportation.

JANUARY/FEBRUARY

The General Fund CIP Committee reviews the General Fund capital budget submissions to ensure that the proposed projects align with the City Council's Top Priorities and other City Council directives, can be funded with available resources, and are aligned in the five-year plan to maximize City resources.

MARCH

The City Manager reviews and makes final decisions on the proposed capital budget and five-year Capital Improvement Program.

APRIL/MAY

Staff solicits input from the Planning and Transportation Commission on the proposed CIP, which reviews the CIP as it relates to the Comprehensive Plan. Comments from the PTC and staff response to comments from the PTC are reported during the public budget hearings.

MAY/JUNE

The City Manager releases and presents the proposed CIP to the City Council and posts the budget documents on the City's website. Through a series of public hearings the budget is discussed and amendments are proposed. Final adoption occurs at a public hearing in June. All changes made during the public hearings are incorporated into the adopted budget document, which is distributed to City libraries and posted on the City's website.

Capital Project Criteria

The following are criteria for qualification as a capital project:

- Must have a minimum cost of $50,000 for each stand-alone unit or combined project.
- Must have a useful life of at least five to seven years (the purchase or project will still be functioning and not be obsolete at least five to seven years after implementation).
- Must extend the life of an existing asset or provide a new functional use for an existing asset for at least five years, for example extensive roof rehabilitations. These improvements are distinguished from ongoing maintenance work that may extend the life of the asset but is done on a routine basis.

Project Prioritization Selection Criteria

As part of developing the capital budget, staff must prioritize how to allocate limited resources over a variety of competing needs and demands. Projects and funding levels are prioritized utilizing several criteria, including:

- City Council priorities;
- Alignment with the City's Infrastructure Blue Ribbon Commission (IBRC) report and Infrastructure Plan;
- Health and safety implications;
- Historical spending levels; and
- Certainty over the feasibility, scope, and level of resources required.

In addition to the criteria outlined above, the prioritization of Enterprise Fund CIP projects is determined by the department that manages the Enterprise Fund, and planned using several more factors such as the department's operational needs, funding availability, CIP strategic plan, oversight committee direction, and specific City Council direction.

Continuing Projects

A change to the mechanism for previously approved projects that are continuing into the new fiscal year was approved during Fiscal Year 2015. Previously, unspent funding for capital projects carried forward automatically from one year to the next as long as funds were spent within a two-year period. In September 2014, the City Council approved an amendment to Municipal Code Section 2.28.090, eliminating the provision allowing for the "reappropriations." Continuing with this process that became effective with the FY 2016 Capital Budget, City Council authorization is required for funds to be carried forward from one fiscal year to the next.

There are several opportunities for departments to request funds to be carried over from one fiscal year to the next. First, departments have the opportunity to request funds to be carried over from one year to the next through the budget process. By estimating lower than budgeted expenditures in the current year, funds not anticipated to be spent in the current year but still required for the completion of the project are reflected in the first year of the five-year CIP. The Fund Narrative for each fund indicates the total amount of reappropriations included in this budget. Additionally, as part of the year-end closing actions, anticipated to be brought forward for City Council approval in the Fall, all projects will be reviewed to determine if additional adjustments to reappropriations are required.

Operating Budget Impact

The City uses the life cycle costing principle in planning for capital projects. All costs associated with a capital project, including operations and maintenance, will be included in the operating budget at the time of release of the applicable annual operating budget. Where applicable, the CIP budget document identifies the amount of operating expense associated with the project.

Changes to the Adopted Budget

Administrative policies and the Palo Alto Municipal Code provide guidelines on budget transfers, the authorization necessary to implement transfers, and appropriations after the budget is adopted.

Budget Amendment

This is an adjustment to the total project appropriated amount which was not included in the original adopted budget. These supplemental appropriations are presented to City Council in an agenda report and must be approved by the City Council.

Reasons for initiating a Budget Amendment include:

- Recognizing unanticipated revenue, which was not projected in the budget, and appropriating related expenditure in the year received (requires 2/3 City Council approval)
- Changes in scope of work
- Higher than estimated costs
- Adding new projects to the budget due to an urgent need or City Council direction

Budgetary Basis

The budget is prepared in accordance with Generally Accepted Accounting Principles. The budget for governmental funds has been prepared on a modified accrual basis. The modified accrual basis recognizes expenditures when the related fund liability is incurred. Revenues are recognized when they become both measurable and available. “Measurable” means the amount of the transaction can be determined and “available” means collectible within the current period or soon enough thereafter to be used to pay liabilities of the current period.

Fund Structure and Accounting Basis

The accounts of the City are made up of funds that help organize and account for restricted resources. A fund is defined as a fiscal and accounting entity with a self-balancing set of accounts (comprised of assets, liabilities, fund equity, revenues, and expenditures), which are segregated for the purpose of carrying out specific activities or attaining certain objectives in accordance with regulatory requirements.

The City has the following fund type categories:

Governmental Fund Types

The Governmental Funds include the General, Special Revenue, Debt Service, and Capital Project Funds. Governmental Funds are reported using the current financial resources measurement focus and the modified accrual basis of accounting.

Proprietary Fund Types

The Proprietary Funds, which include the Enterprise and Internal Service Funds, are used to account for the City's business-type activities. Proprietary funds are reported using the economic resources measurement focus and the full accrual basis of accounting. Revenues are recorded when earned, and expenses are recorded at the time liabilities are incurred, regardless of when the related cash flows take place.

Fiduciary Fund Types

The Fiduciary Funds account for assets held by the City in trust or as an agent for various assessment and community facilities districts. The City budget process does not include fiduciary funds.

Agency Fund Types

The Agency Funds are custodial in nature and do not involve measurement of results of operations. The City maintains three agency funds. The City budget process does not include agency funds.

Document Layout

The Capital Budget document provides readers with cost estimates, methods of financing, and project schedules for the City of Palo Alto's CIP for the next five years as well as estimates for current year activity. The document is organized by fund with each fund section containing the following elements:

Capital Projects Fund Overview: A narrative for every fund is included in this document, which includes historical expenditure levels, budget comparisons to prior years, a summary of the infrastructure related to that particular fund, and a discussion of major capital projects grouped by category. Additionally, this section includes statistical information regarding the program such as miles of gas mains or number of vehicles in the City fleet.

Project Detail Pages: After each fund summary, the reader finds information for each capital project, both recurring and non-recurring projects. The project pages include information regarding the project completion schedules (initial and revised), descriptions, justifications, a summary of significant changes to the cost or schedule of a project, revenue and expense information by fiscal year, and operating budget impacts for each project. This allows for the total cost of a project to be detailed. The information in the project detail pages is discussed further below.

Project Maps: For the Adopted Capital Improvement Fund and the various Enterprise Funds, a map is included which shows the location of projects, for projects that have a singular defined location.

At the end of the document, the reader will find a Glossary which defines frequently used terms.

Understanding the Details

Project Numbering Sequence

The project number contains seven characters. The first two are letters related to the managing department or fund. The next two digits relate to the fiscal year in which the project first received funding or was identified. The final three numbers are system-generated. For example, with project PE-17006, the "PE" denotes Public Works Engineering, the "17" indicates Fiscal Year 2017 funding, and the "006" is the sequential project number. The "Managing Department or Fund" table can be used as a reference for the two-character alpha portion of the project number.

PROJECT CODE	MANAGING DEPARTMENT OR FUND
AC	Arts & Culture
AP	Airport Fund
AS	Administrative Services
CB	Cubberley Fund
EL	Electric Fund
FD	Fire Department
FO	Fiber Optics Fund
GS	Gas Fund
LB	Library
OS	Open Space
PD	Police Department
PE	Public Works Engineering
PF	Public Works Facilities
PG	Parks & Golf Course
PL	City Manager/Office of Transportation
PO	Public Works Operations
SD	Stormwater Management Fund
TE	Technology Fund
VR	Vehicle Fund
WC	Wastewater Collection Fund
WQ	Wastewater Treatment Fund
WS	Water Fund

Project Information

The project detail pages include the following information:

Fund – refers to the fund where the project is budgeted.

Category – describes the type of activity that the project aligns to within the fund. A table at the end of this section provides a summary of the categories assigned to the various funds.

Project Location – describes the location or area that will be improved as a result of the project.

Managing Department – refers to the department or office that is responsible for the delivery of the project.

IBRC Reference – refers to nomenclature devised by the Infrastructure Blue Ribbon Commission (IBRC) for certain General Fund projects; "keep-up" refers to projects which address the annual maintenance of existing infrastructure; "catch-up" refers to projects which address deferred maintenance needs; "new" refers to projects which address needs not identified by "keep-up" or "catch-up." This category only applies to General Fund projects after the release of the Final IBRC report in 2011.

Initial/Revised Project Start/Completion – indicates what the initial schedule for the project was, as well as any subsequent changes.

Project Description – provides the scope of work for the project.

Project Justification – outlines the reasons why funding is required.

Supplemental Information – provides additional information that may enhance the project description and justification.

Significant Changes – provides an explanation of the changes to the initial schedule or budget for a project.

Funding Sources Schedule – outlines the sources of funding for the project by fiscal year. Generally projects are not funded by a particular grant, fee, or transfer, but in instances where they are, these sources are indicated. In most cases, this section indicates the amount that the fund where the project is budgeted will contribute towards the project. This table also includes prior year revenues, a current year estimate, anticipated revenue beyond the five years of the CIP, and total revenue for the project.

Expenditure Schedule – outlines the projected costs, by year for each project. Costs are broken into phases, such as design and construction, to indicate how the funds will be spent each year. Where applicable, salary and benefit estimates are included in the individual phases for a project, rather than reflected separately as in prior years. Salary and benefit costs are estimated for all five years of the CIP. In prior years, salary and benefit costs were reflected within the project for the first year of the CIP only. This table also includes prior year expenditures, a current year estimate, anticipated expenditures beyond the five years of the CIP, and the total cost of the project.

Operating Impacts – describes estimated annual maintenance and operating costs associated with the project. Efforts have been made to include the operating cost impacts wherever possible. Maintenance costs include utilities, equipment maintenance or service, facilities maintenance or service, grounds/landscape maintenance or service, custodial maintenance and others.

Relationship to Comprehensive Plan – indicates how the project furthers the implementation of the Comprehensive Plan, citing specific Comprehensive Plan policies and programs. In instances where a secondary relationship to the Comprehensive Plan exists, this is notated as well.

Potential Board/Commission Review – City Council-appointed advisory board, commission or ad hoc committee that has oversight responsibility on a project. A project may be reviewed by more than one board or commission. This body (bodies) provides the City Council input as to the merits of a project.

Environmental Impact Analysis – indicates the California Environmental Quality Act (CEQA) status of the project and LEED status, if applicable.

CAPITAL FUNDS	
Capital Improvement Fund • Buildings and Facilities • Department Technology Upgrades • Parks and Open Space • Streets and Sidewalks • Traffic and Transportation • Administration	**Cubberley Property Infrastructure Fund** • Buildings and Facilities • Parks and Open Space
ENTERPRISE FUNDS	
Airport Fund • Airport Apron, Runways, and Taxiways • Airport Facilities **Electric Fund** • Customer Connections • System Improvements • Undergrounding Projects **Fiber Optics Fund** • Capacity Improvements • Customer Connections **Gas Fund** • Customer Connections • Gas Main Replacements • System Improvements	**Stormwater Management Fund** • Capacity Improvements • System Rehabilitation **Wastewater Collection Fund** • Customer Connections • System Improvements **Wastewater Treatment Fund** • Buildings and Facilities • System Improvements **Water Fund** • Customer Connections • System Improvements • Water Main Replacements
INTERNAL SERVICE FUNDS	
Technology Fund • Citywide Technology Upgrades and Improvements • Department Technology Upgrades and Improvements	**Vehicle Replacement Fund** • Fleet Infrastructure Improvements • Vehicle and Equipment Replacement

California Society of
Municipal Finance Officers

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Capital Budget Excellence Award
Fiscal Year 2019-2020

Presented to the

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January 31, 2020

Steve Heide
CSMFO President

Yolanda Rodriguez, Chair
Recognition Committee

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Financial Summary

CITY OF
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SUMMARY OF CIP PROGRAM REVENUE

Revenue Source ($000's)	Fiscal Year 2021	Fiscal Year 2022	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025	Total CIP 2021-2025
Capital Improvement Funds						
Transfer from General Fund	$ 35,469	$ 35,446	$ 36,254	$ 37,092	$ 37,969	$ 182,228
Debt Financing	$ 102,000	$ 0	$ 0	$ 0	$ 0	$ 102,000
Gas Tax	$ 2,711	$ 2,711	$ 2,711	$ 2,711	$ 2,711	$ 13,553
Impact Fees/In-Lieu Fees	$ 3,755	$ 6,466	$ 725	$ 935	$ 545	$ 12,426
Federal, State, and Local Agencies	$ 16,158	$ 10,042	$ 2,904	$ 1,765	$ 1,765	$ 32,634
Stanford University Medical Center Fund	$ 3,250	$ 3,194	$ 9,072	$ 0	$ 0	$ 15,516
Transfer from Parking Funds	$ 100	$ 115	$ 75	$ 65	$ 0	$ 355
Transfer from Other Funds	$ 2,292	$ 176	$ 168	$ 0	$ 0	$ 2,636
TOTAL CAPITAL IMPROVEMENT FUNDS	**$ 165,735**	**$ 58,149**	**$ 51,908**	**$ 42,567**	**$ 42,989**	**$ 361,349**
Enterprise Funds						
Utility User Fees and Charges	$ 4,536	$ 4,566	$ 4,896	$ 5,046	$ 4,790	$ 23,833
Debt Financing	$ 9,654	$ 33,080	$ 33,550	$ 15,180	$ 15,360	$ 106,824
Federal, State, and Local Agencies	$ 19,289	$ 624	$ 312	$ 433	$ 3,998	$ 24,655
Transfers from Other Funds	$ 313	$ 323	$ 332	$ 342	$ 2,453	$ 3,763
TOTAL ENTERPRISE FUNDS	**$ 33,792**	**$ 38,592**	**$ 39,090**	**$ 21,001**	**$ 26,600**	**$ 159,076**
Internal Services Funds						
Transfer from General Fund	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Transfer from Other Funds	$ 221	$ 130	$ 100	$ 100	$ 100	$ 651
Other Agencies	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
TOTAL INTERNAL SERVICE FUNDS	**$ 221**	**$ 130**	**$ 100**	**$ 100**	**$ 100**	**$ 651**
TOTAL CAPITAL IMPROVEMENT PROGRAM	**$ 199,748**	**$ 96,871**	**$ 91,098**	**$ 63,669**	**$ 69,689**	**$ 521,075**

Transfer From General Fund

The Capital Improvement Fund category includes two funds: the Capital Improvement Fund and the Cubberley Property Infrastructure Fund. These funds are primarily supported by an annual transfer from the General Fund, to support repairs to the City's roads, parks and open space, and City facilities. The Cubberley Property Infrastructure Fund is supported by an annual $1.8 million transfer from the General Fund, approved by the City Council in 2015 as part of the Cubberley Lease Agreement. In the 2021-2025 CIP, the transfer to the Capital Improvement Fund ranges between $31.9 million and $34.4 million annually. This figure includes the base General Fund transfer to the Capital Improvement Fund, ranging from $16.1 million in Fiscal Year 2021 to $16.9 million in Fiscal Year 2025. In addition to the base transfer amount, voters approved two increases to the Transient Occupancy Tax (TOT) in November 2014 and November 2018 for a total 3.5 percent of TOT revenue which the City Council identified as a funding source to aid in infrastructure needs. Preliminary estimates of revenue from the 3.5 percent of TOT plus TOT generated from new hotels built after January 2015 ranges between $14.6 million

to $16.3 million over the five-year CIP which includes additional TOT revenue from new Marriott hotels that was anticipated to open in Fiscal Year 2021. As the City continues to address uncertainties surrounding the impact from COVID-19, these preliminary amounts are anticipated to change. The additional TOT revenue will support budgeted Infrastructure Plan projects as well as the debt service costs beginning in Fiscal Year 2020 as a result of expected debt financing to fund two of the Infrastructure Plan projects, the California Avenue Parking Garage and the new Public Safety Building. Finally, this amount includes estimated interest earnings in the Capital Improvement Fund of $1.2 million annually. Transfers from the General Fund to the Internal Service Funds is comprised of funding for vehicle replacement costs in the Vehicle Replacements and Maintenance Fund ($2.1 million annually).

Certificates of Participation/Debt Financing

The Infrastructure Plan (IP), as approved by the City Council in June 2014 (CMR #4889), relied upon a borrowing mechanism known as Certificates of Participation (COPs) to fund a portion of the improvements outlined in the plan ($63.3 million). By pledging future revenues generated by voter-approved increases to the TOT (discussed in the Transfer from General Fund section), the City can finance, through issuance of debt, the cost of construction of IP projects such as the New California Avenue Area Parking Garage (PE-18000) and a New Public Safety Building (PE-15001). Bond funding for the California Avenue Parking Garage was approved by the City Council in October 2018 (CMR# 9689) and the bonds were sold generating $42.0 million in proceeds in March 2019. As part of the Proposed 2021-2025 CIP, $102.0 million in additional COP funding is recommended in Fiscal Year 2021 to fund the new Public Safety Building project. This will bring the total for debt financed IP projects to $144.0 million with an estimated annual debt service cost of $9.7 million.

In 2012, the Regional Water Quality Control Plant (RWQCP) created a Long-Range Facilities Plan to evaluate the infrastructure needs at the RWQCP with regards to future regulations, replacement and rehabilitation needed, site planning, and flow and load projections. Due to the large expense of the major projects included in the 2021-2025 CIP, the RWQCP will require debt financing. Staff has applied for state revolving fund (SRF) loans and has received approval from the City Council to pursue revenue bonds for these projects (CMR #10011). Staff will return to Council once the debt financing mechanism, SRF, revenue bonds, or a blend of both is determined.

Gas Tax Fund

The Gas Tax Fund accounts for revenues received from the State gas tax and Federal and State grants earmarked for street improvements. Use of this fund is restricted to maintenance of the road network system of the City, including sidewalks. Transfers from the Gas Tax Fund supports the following CIP Projects: Street Maintenance (PE-86070) and Safe Routes to School (PL-00026). The City achieved its primary goal of reaching a citywide average Pavement Condition Index (PCI) score of 85 in 2018, three years earlier than the initial goal. Funding in the 2021-2025 CIP will be used to work towards the City's secondary street maintenance goal of having no streets under a PCI score of 60. The passage of S.B. 1 for Road Maintenance and Rehabilitation is estimated to provide an additional $1.3 million annually for street maintenance.

This funding could assist with the City's street maintenance program, possibly allowing some funds to be reallocated to other capital projects with City Council approval.

Development Impact Fees

Development impact fees are collected from developers and provide funding for the City's infrastructure related to community centers, libraries, parks, public facilities, and transportation. The City Attorney provides guidance on whether a project qualifies for funding. In the 2021-2025 CIP, two projects are supported by Parks Impact Fees: Dog Park Installation and Renovation (PG-18001) and Park Restroom Installation (PG-19000). The utilization of Park Dedication Fees for the Byxbee Park Completion project (PE-18006) was included in the City Council approved Infrastructure Plan. Work in this project has been programmed in Fiscal Year 2021 to coordinate with the Baylands Comprehensive Conservation Plan project (PG-17000) and the Byxbee Park Master Plan. Community Center Impact Fees are recommended to be used to complete Phase I of the JMZ Renovation (AC-18001) and Rinconada Park Improvements (PE-08001). Traffic Impact Fees are programmed to support the Traffic Signal and Intelligent Transportation Systems project (PL-05030), which maintains traffic safety and improves roadway operations including the reduction of roadway congestion with traffic signal retiming projects. Funding from the New Public Safety Facilities Impact Fees is programmed in the New Public Safety Building project (PE-15001) for the design and construction of a new Public Safety Building on Lot C-6 in the California Avenue commercial area. Funds from the Library Impact Fees are programmed to fund a new Library Automated Material Handling project (LB-21000). Lastly, transfers from the Downtown Parking In-Lieu Fund to the Capital Improvement Fund, totaling $5.5 million are anticipated in FY 2022 to support a portion of the costs associated with the construction of a new Downtown Parking Garage (PE-15007).

Federal, State, & Local Agencies

The City partners with local agencies to provide support to certain capital projects. This revenue is typically provided as reimbursement grants or direct transfer payments. In Fiscal Year 2021, the City is expected to receive approximately $14.9 million from other agencies in support of CIP projects some of which are: $8.6 million from Caltrans to fund $4.6 million for the Newell Road/San Francisquito Creek Bridge Replacement project (PE-12011) and another $4.0 million for the Churchill Avenue/Alma Street Railroad Crossing Safety Improvements project (PL-20000); $2.0 million from Santa Clara County and a One Bay Area Grant (OBAG) for the El Camino Real Pedestrian Safety and Streetscape Project (PL-18000); and $1.5 million from Santa Clara County for the Highway 101 Pedestrian/Bicycle Overpass project (PE-11011). In the remaining years of the Capital Improvement Program (Fiscal Years 2022 through 2025), it is anticipated that the City will receive an additional $16.5 million in funds from other agencies for projects programmed in the Capital Improvement Fund.

This revenue category includes Measure B funding for transportation enhancements from the VTA, which is programmed to fund costs associated with Railroad Grade Separation (PL-17001), Traffic Signal and Intelligent Transportation Systems (PL-05030), and Street Maintenance (PE-86070). In addition, funding from the Federal Aviation Administration to fund 90 percent of the upgrade projects at the Airport is recorded in the Airport Fund in this category,

Stanford University Medical Center Development Agreement

In 2011, a development agreement was established between the City of Palo Alto and the Stanford University Medical Center Parties. The funds received by the City as a result of this development agreement represent a significant portion of the funding for the Infrastructure Plan projects. Over the course of the 2021-2025 CIP, transfers to the Capital Improvement Fund totaling $15.5 million are anticipated. This funding will support a variety of projects including the Bicycle and Pedestrian Transportation Implementation Plan (PL-04010), the New Public Safety Building (PE-15001), the reconstruction of Fire Station #4 (PE-18004), the New Downtown Garage (PE-15007) the Quarry Road Improvements and Transit Center (PL-16000), and Railroad Grade Separation (PL-17000). For additional information about the development agreement, please refer to the Special Revenue Funds section of the Fiscal Year 2021 Operating Budget document.

Parking Funds

Over the 2021-2025 CIP, $0.4 million is expected to be transferred from the City's parking funds for the University Avenue Parking Improvements project (PF-14003). Funding for parking related capital investments beginning in FY 2021 and beyond is contingent upon continued availability of revenues generated from parking permits within the respective parking districts.

Transfers From Enterprise Funds

The City of Palo Alto has nine Enterprise Funds that are managed by the Public Works Department and the Utilities Department. The Airport Fund, Refuse Fund, Stormwater Management Fund, and Wastewater Treatment Fund are collectively referred to as the "Public Works Funds," while the Electric Fund, Fiber Optics Fund, Gas Fund, Water Fund, and Wastewater Collection Fund are collectively referred to as the "Utilities Funds." For further information, please refer to The Budget Process and Document section of this book. In instances where the Enterprise Funds would benefit from a General Fund or Internal Service Fund project, the Enterprise Funds are charged for their proportional share. Several examples are included in the 2021-2025 CIP; including the Municipal Services Center (MSC) Building A, B, and C Roofing Replacement (PF-17000); MSC Lighting, Mechanical, and Electric Improvements (PF-16006); Water, Gas, Wastewater Office Remodel (PE-19001); City Facility Parking Lot Maintenance (PE-09003); and City Council Chambers Upgrade (TE-19001) projects. A portion of the cost of these projects will be split among the various Enterprise Funds according to the proportional use by the various funds.

Enterprise Funds Utility Rate Charges

Enterprise Funds operate on a full cost recovery basis. Accordingly, all costs related to operations and capital projects are recovered through utility rate charges. The Fiscal Year 2021 Operating Budget document contains a detailed discussion regarding the Fiscal Year 2021 utility rate increases.

Transfers within Enterprise Funds

Most of the Enterprise Funds are supported by rates, and the revenue is used for specific services provided by each fund. When a capital project supports multiple Enterprise Funds, the fund that manages the project is reimbursed through transfers from other funds to ensure the project's costs are proportionally shared. An example of this type of project is the application of the Geographic Information System (GIS) (WS-02014) that benefits the Water, Gas and Wastewater Collection Funds. The Water Fund manages the GIS project, and the Gas and Wastewater Collection Funds reimburse the Water Fund for their share of the project cost.

Enterprise Fund	Project Name	User Fee	2021-2025 CIP Plan Revenues	Description
Electric Fund	Electric Customer Connections (EL-89028)	Connection Fees	$8,500,000	Cover services for installation, transformers, meters for new customers, upgrading of existing customers and temporary service connection. For a list of other services refer to Utility Rate Schedule E-15.
Electric Fund	Underground Districts 42 & 43 (EL-08001 & EL-11009)	Utility District Fees	$600,000	Create Underground Utilities Districts and perform work on a general benefit basis under the provisions of Utility Rule 17.
Electric Fund	Wood Pole Replacement (EL-19004)	Telecommunication Rental Fees	$750,000	Shared cost for telecommunication access to utility poles.
Fiber Optics Fund	Fiber Optic Customer Connections (FO-10000)	Fiber Optic License Fees	$1,000,000	Cover installation of fiber optic infrastructure for new service connections. For a list of other services refer to Utility Rate Schedule EDF-1.
Gas Fund	Gas System, Customer Connections (GS-80017)	Connection Fees	$4,500,000	Cover services for distribution system extension, service connection, meter charges and relocation. For a list of other services refer to Utility Rate Schedule G-5.
Wastewater Collection Fund	Sewer System, Customer Connections (WC-80020)	Connection Fees	$1,500,000	Cover services for collection system extension, service connection, relocation of facilities and manholes. For a list of other services refer to Utility Rate Schedule S-5.
Water Fund	Water System, Customer Connections (WS-80013)	Connection Fees	$6,983,154	Cover services for distribution system extension, service connection, meter charges, capacity fees and fire hydrants. For a list of other services refer to Utility Rate Schedule W-5.

User Fees and Charges

Certain CIP projects in the Enterprise Funds are supported by user fees. Included in this category are certain charges to telecommunication and cable television companies pertaining to undergrounding projects. The list of projects funded by user fees and the description of each user fee are summarized in the table above.

Stormwater Management Fee

In April 2005, property owners approved an increase in the Storm Drainage Fee through a mail ballot process conducted in accordance with Proposition 218. Under the provisions of the 2005 ballot measure, the base rate of $13.05 was scheduled to sunset on June 1, 2017, reverting to the pre-election rate of $4.25. In an effort to reauthorize the fee through another ballot measure, staff worked with a City Manager-appointed Blue-Ribbon Committee to generate a recommendation for stormwater management funding beyond Fiscal Year 2017 and a joint committee/staff funding recommendation was presented to City Council in Spring 2016. In April 2017, the Stormwater Management Fee was approved by a majority of property owners via a ballot-by mail process, establishing a base rate of $13.65 per Equivalent Residential Unit (ERU) per month along with a provision that the City Council could increase the rate on an annual basis by the local inflation rate, as measured by the Consumer Price Index (CPI), or six percent, whichever is less. Under the provisions of the ballot measure, the fee is recommended to increase by 2.5 percent, based on the local CPI increase, to $15.03 per ERU for Fiscal Year 2021.

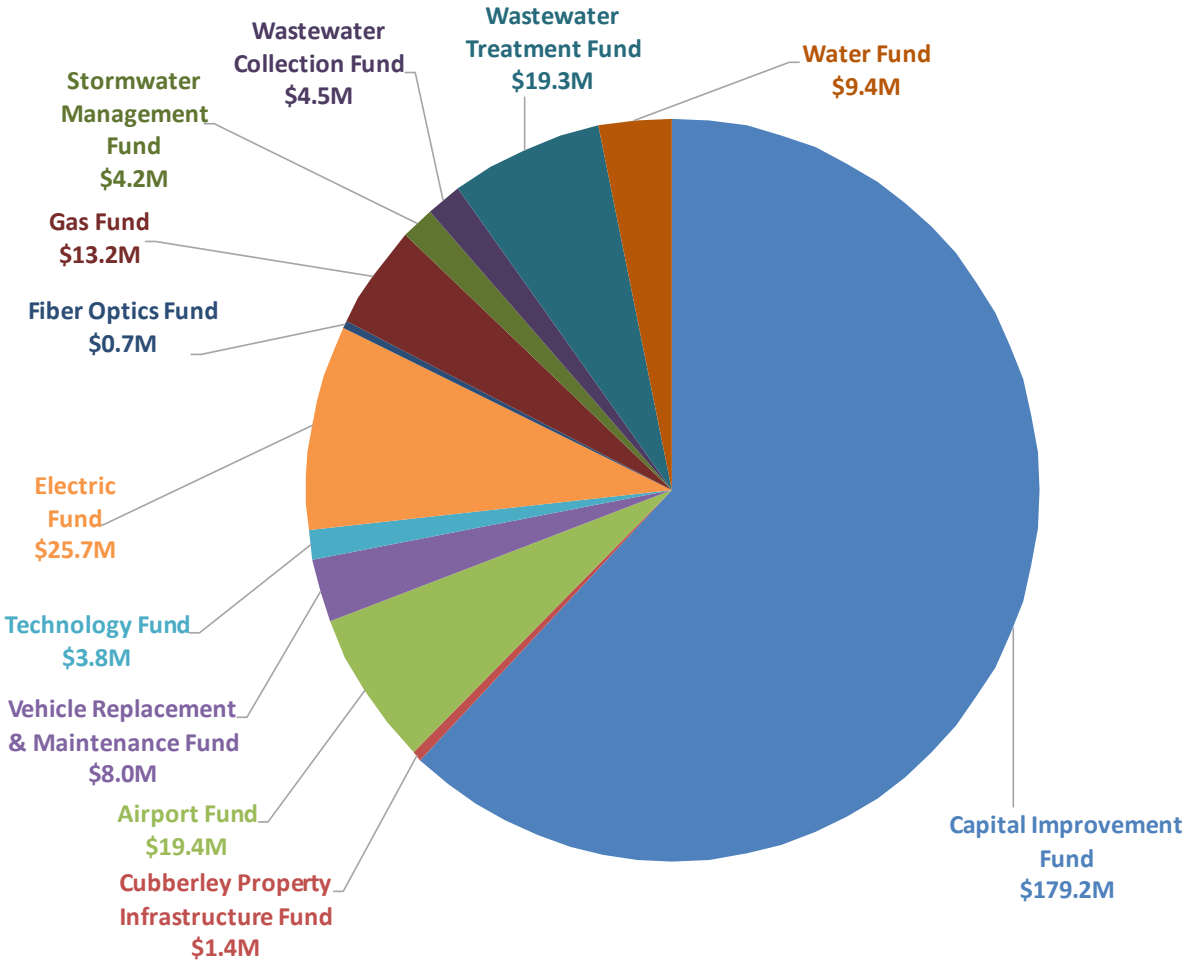
Partner Agencies

The Cities of Palo Alto, Mountain View, and Los Altos, along with the Town of Los Altos Hills, Stanford University, and the East Palo Alto Sanitary District (the partners) participate jointly in the cost of maintaining and operating the City of Palo Alto Regional Water Quality Control Plant (RWQCP). The City of Palo Alto is the owner and the administrator of the RWQCP, and the partners reimburse the City for their share of the cost of capital projects programmed to maintain or upgrade the RWQCP facilities.

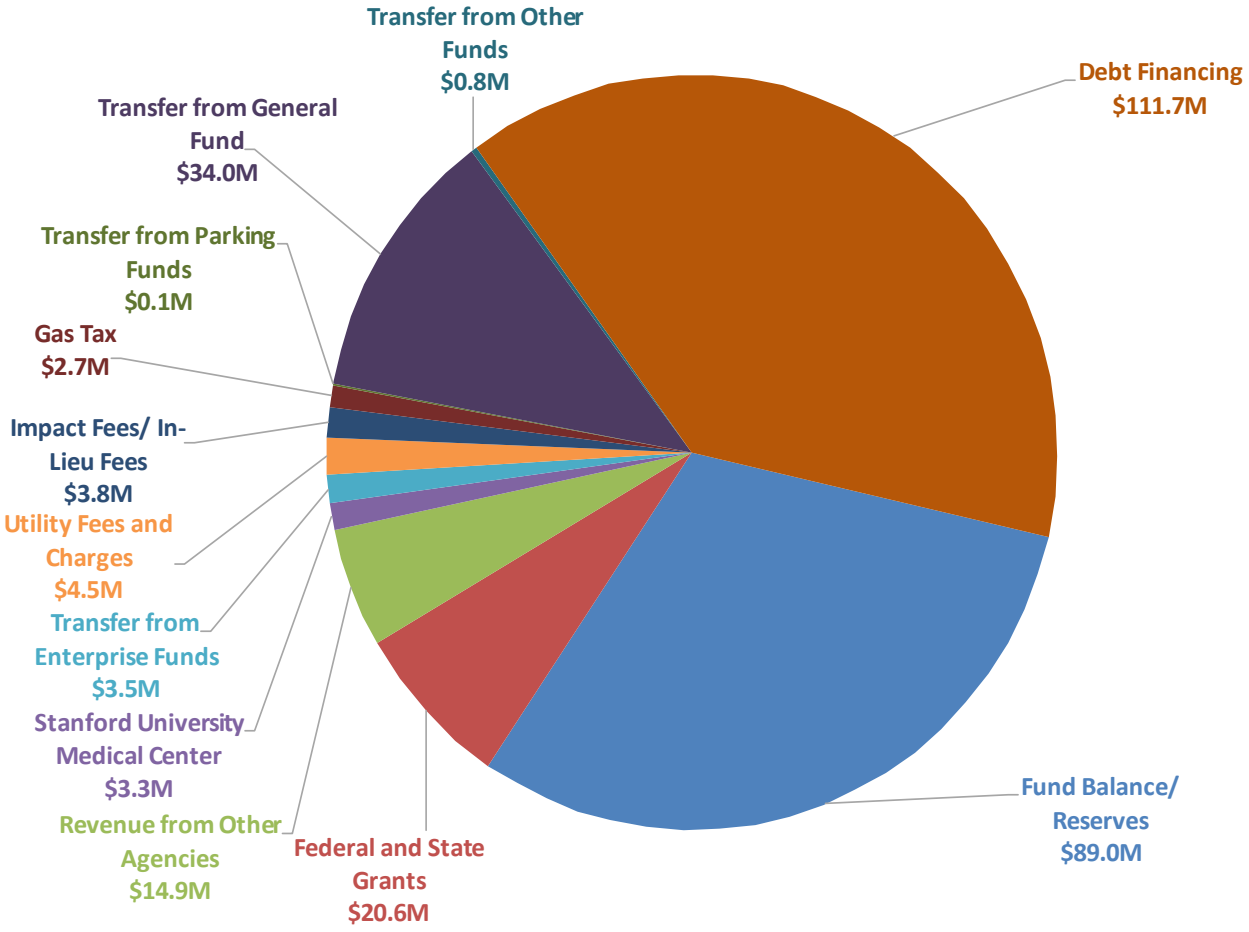
Internal Service Funds

The General Fund, Capital Improvement Funds, and Enterprise Funds provide funding for their share of capital projects in the Internal Service Funds (ISF) through a cost allocation mechanism. Costs are allocated to the various funds based on proportional use of Vehicle Replacement and Technology related capital projects.

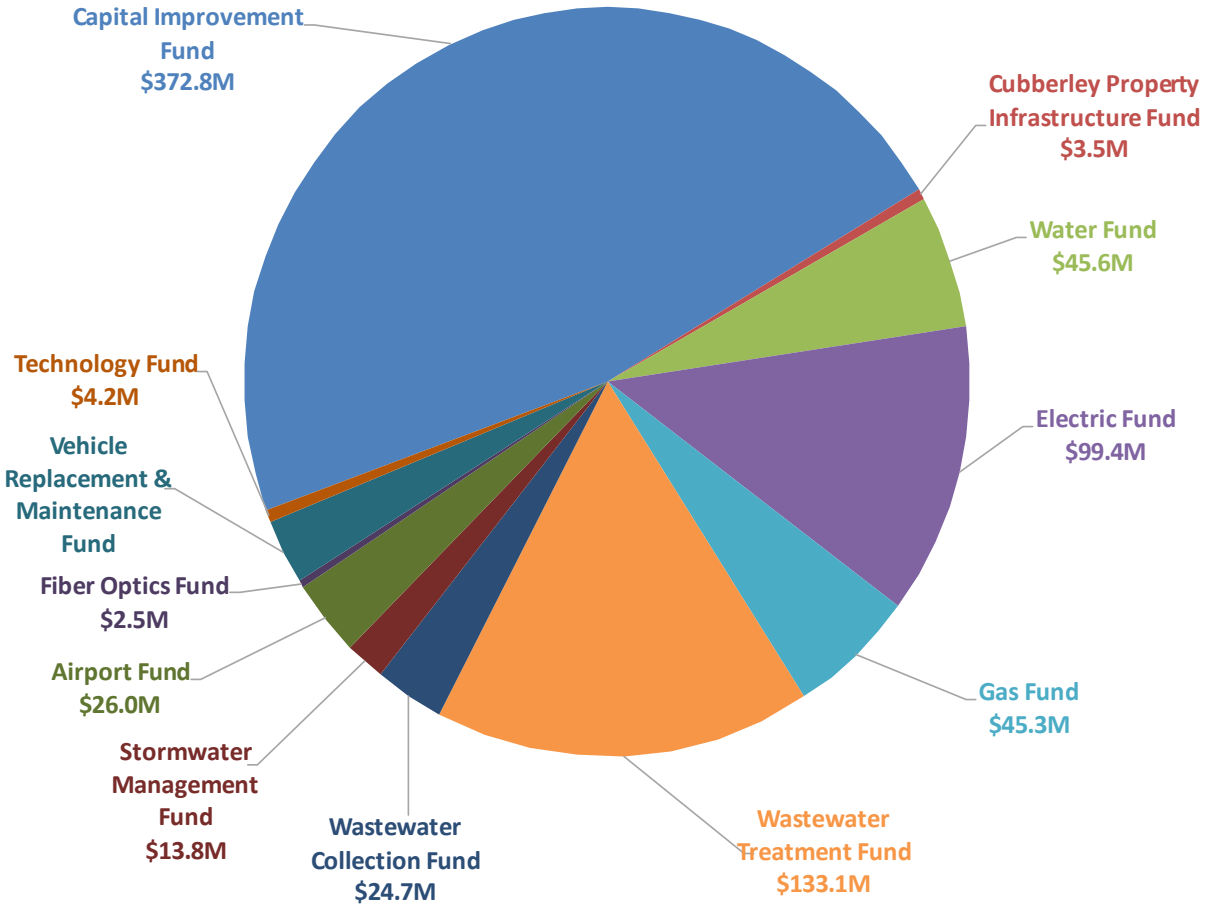
2021 CAPITAL BUDGET EXPENDITURES BY FUND
$288.7 MILLION



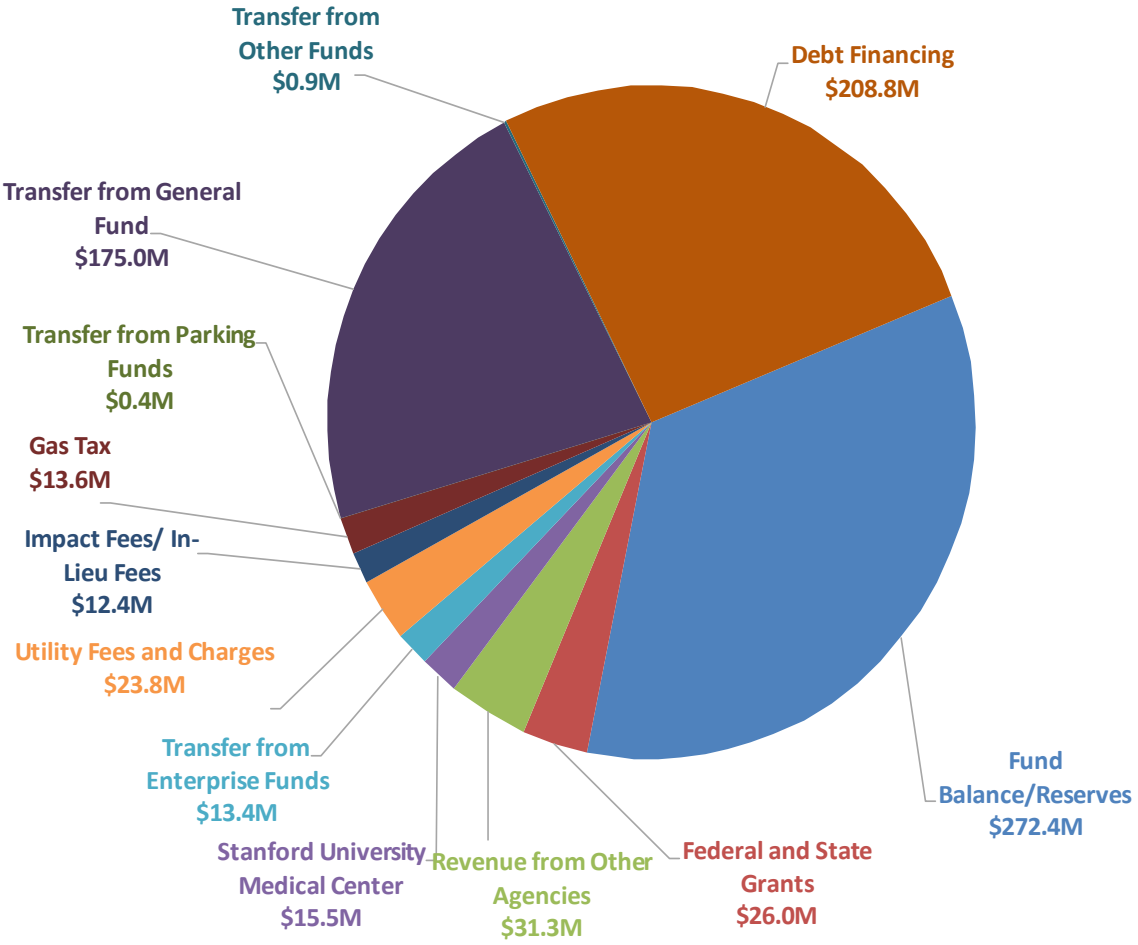
2021 CAPITAL BUDGET REVENUES BY SOURCE
$288.7 MILLION



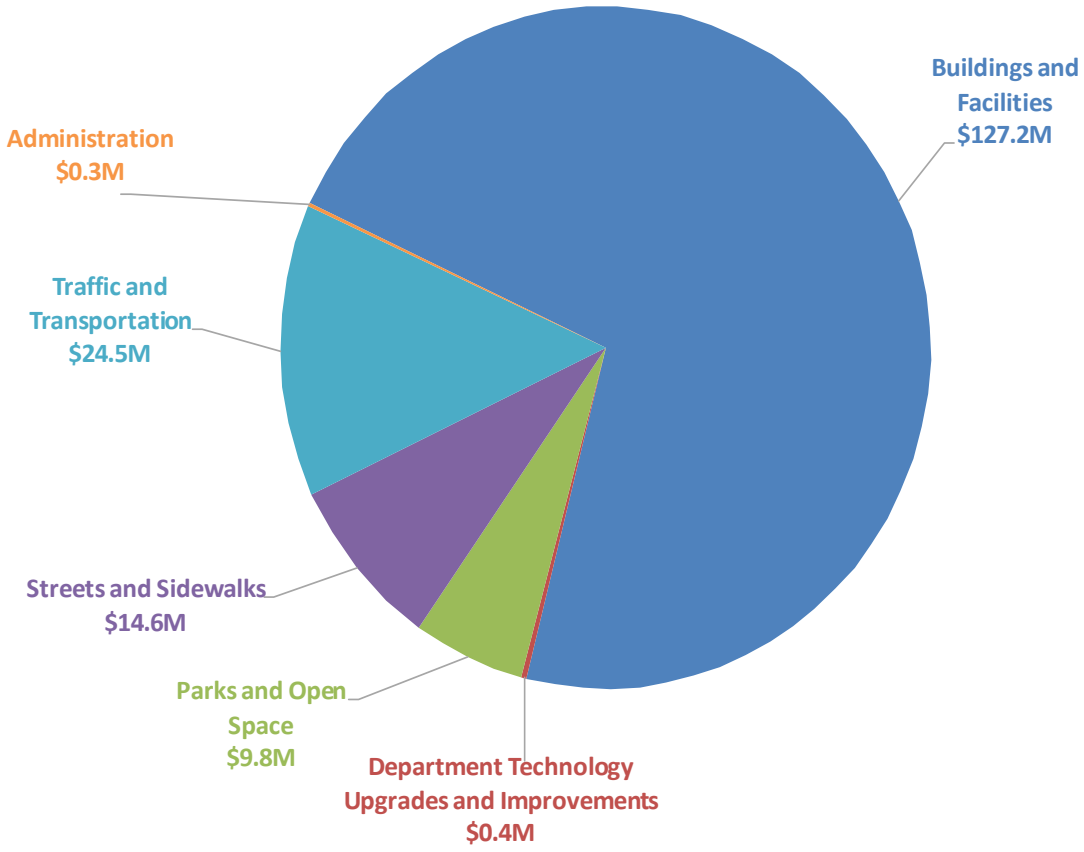
2021 - 2025 CAPITAL IMPROVEMENT PLAN EXPENDITURES BY FUND
$793.4 MILLION



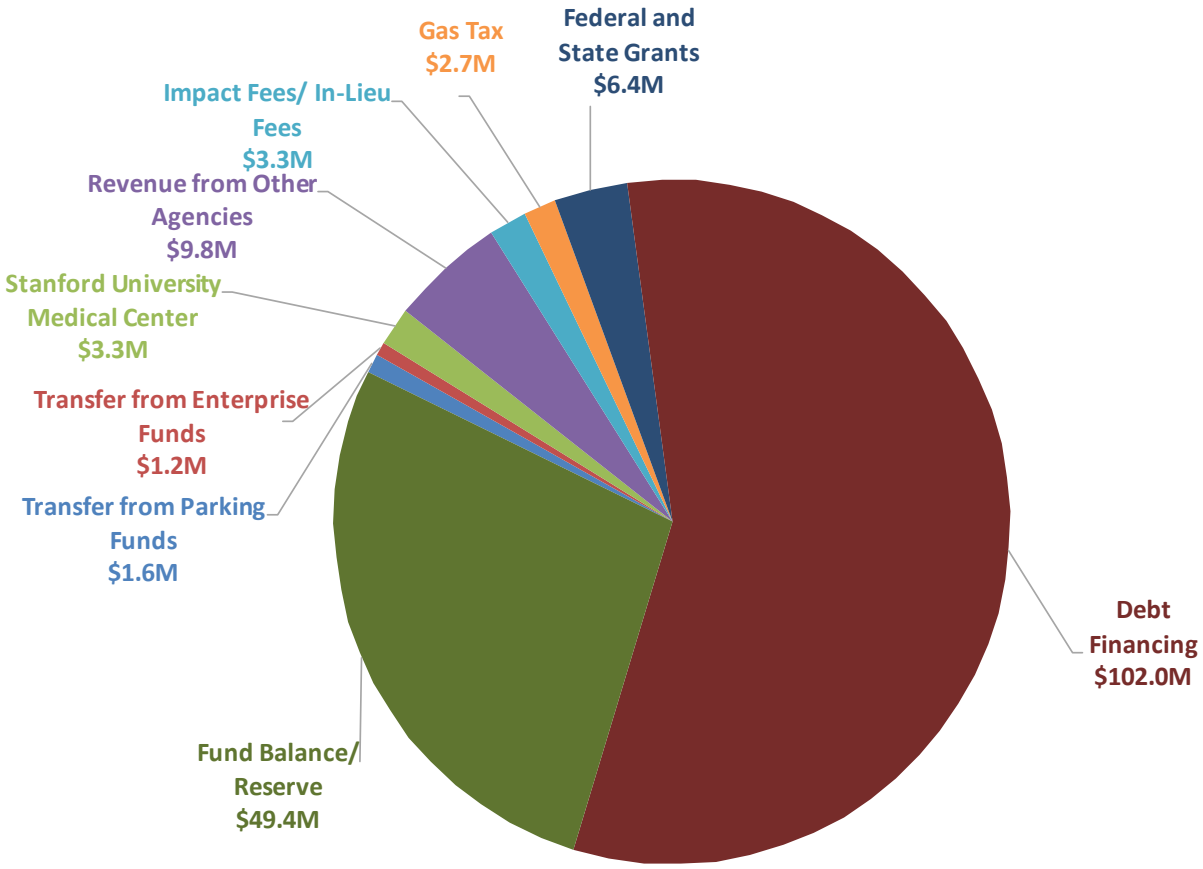
2021 - 2025 CAPITAL IMPROVEMENT PLAN REVENUES BY SOURCE
$793.4 MILLION



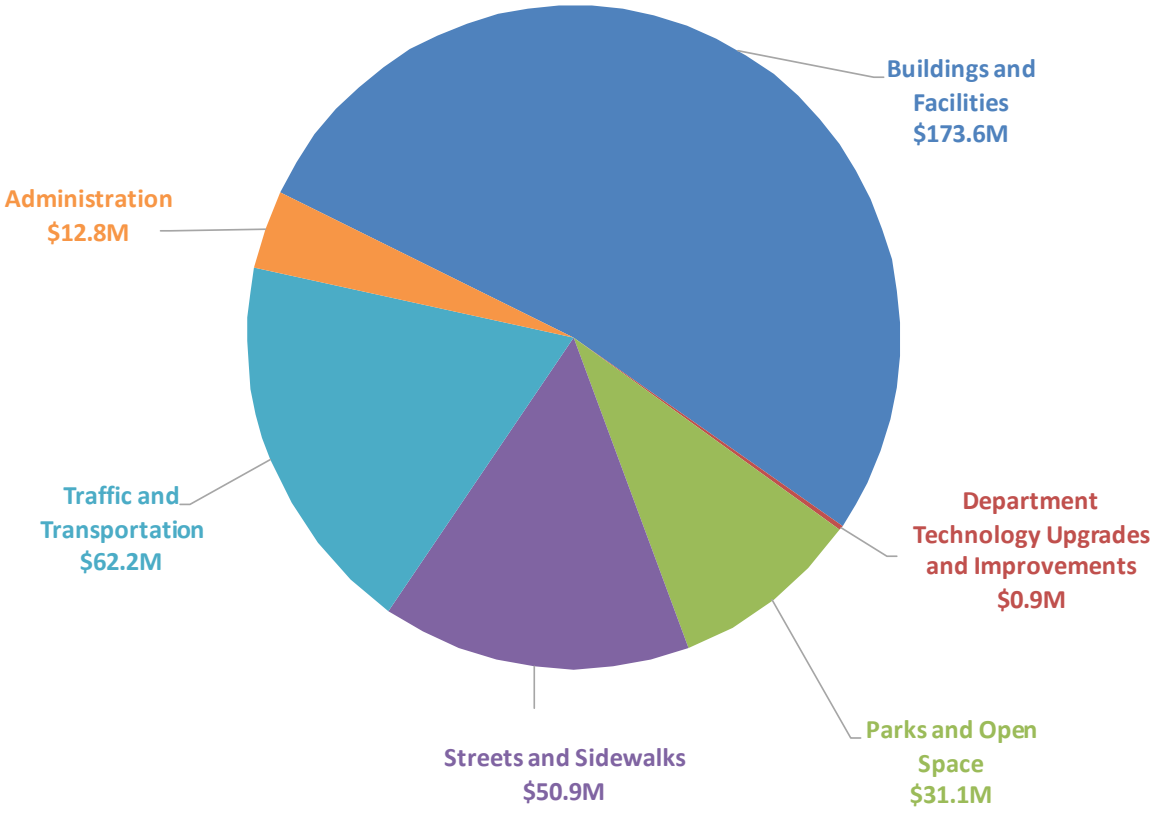
2021 CAPITAL IMPROVEMENT FUND EXPENDITURES BY CATEGORY
$176.8 MILLION



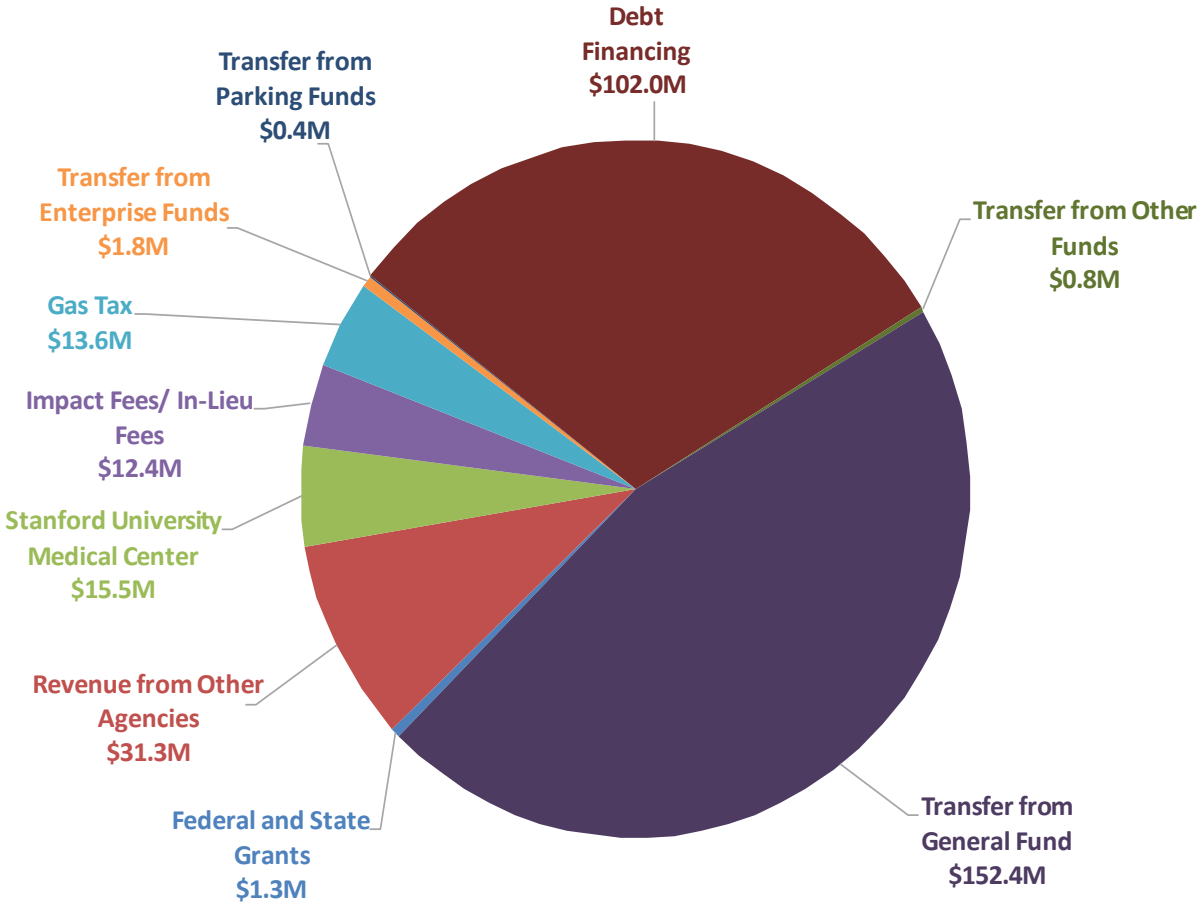
2021 CAPITAL IMPROVEMENT FUND REVENUES BY SOURCE
$176.8 MILLION



2021-2025 CAPITAL IMPROVEMENT FUND EXPENDITURES BY CATEGORY
$331.5 MILLION



2021-2025 CAPITAL IMPROVEMENT FUND REVENUES BY SOURCE
$331.5 MILLION



DEBT POLICY AND OBLIGATIONS

Summary of Debt Obligations

	Original Issue Amount	Balance June 30, 2019	Additions	Retirements	Balance June 30, 2020	Current Portion
Governmental Activity Debt:						
2010A General Obligation Bonds						
3.25 - 5.%, due 8/1/2040	55,305	44,585	-	1,290	43,295	1,330
2013A General Obligation Bonds						
2.00-5.00%, due 8/1/2041	20,695	15,915	-	435	15,480	450
Add: Unamortized Premium		3,452		158	3,294	158
2018A Golf Course (Green) Certificates of Participation						
2.20-4.22%, due 11/1/2047	8,375	8,340	-	35	8,305	40
2018B Refinancing Downtown Parking Improvements Certificates of Participation						
2.65-3.12%, due 11/1/2022	595	595	-	145	450	145
2019 California Ave Parking Garage Certificates of Participation						
2.53-5.00%, due 11/1/2048	37,370	37,370	-	375	36,995	630
Add: Unamortized Premium		4,879		193	4,686	193
Total Governmental Activity Debt	**$122,340**	**$115,136**	**$0**	**$2,631**	**$112,505**	**$2,946**
Business-type Activity Debt:						
Utility Revenue Bonds:						
1995 Series A, 5.00-6.25%, due 6/1/2020	8,640	645	-	645	-	-
1999 Refunding, 3.25-5.25%, due 6/1/2024	17,735	7,470	-	810	6,660	1,540
2009 Series A, 1.80 - 4.65%, due 6/2/2035	35,015	26,640	-	1,130	25,510	1,180
2011 Series A, 3.00-4.00%, due 6/1/2026	17,225	9,060	-	1,170	7,890	1,210
Add: Unamoratized Premium	-	561	-	82	479	82
Energy Tax Credit Bonds						
2007 Series A, 0%, due 12/15/2021	1,500	300	-	100	200	100
Less: Unamoratized Discount	-	(16)	-	(5)	(11)	(5)
State Water Resources Loan						
2007, 0%, due 6/30/2029	9,000	4,500	-	450	4,050	450
2009, 2.6%, due 11/30/2030	8,500	5,666	-	408	5,258	419
2017, 1.8%, due 3/30/2049	29,684	19,422	3,968	623	22,767	605
Total Business-type Activity Debt	**$127,299**	**$74,248**	**$3,968**	**$5,413**	**$72,803**	**$5,581**

Debt Policy and Obligations

The City of Palo Alto recognizes the need for spending a prudent amount every year for ongoing capital replacement and rehabilitation needs. An ongoing capital improvement plan is vital to ensuring the future viability of services. To achieve this priority, the City funds its regular and ongoing capital needs primarily on a "pay-as-you-go" basis. However, for special or extraordinary capital improvement projects; refinancing of existing debt; and purchase of major and multiple pieces of equipment it is appropriate to consider debt financing. The City's updated Debt Policy establishes the guidelines to support the decision-making process for issuing debt.

Debt Policy Guidelines

The City's Debt Policy provides guidelines for refinancing existing debt; detailing the responsibilities of City staff engaged in issuing debt; delineating the debt instruments or vehicles (e.g. General Obligation Bonds, Certificates of Participation, Utilities Revenue Bonds etc.) the City can utilize; and describing situations in which tax-exempt and taxable debt can be used. The depth and breadth of the policy serve to guide current and future staff. Below are highlights of the Debt Policy guidelines for the use of debt and other financing.

A. Debt may be judiciously used when some or all of the following conditions exist:

- Estimated future revenue is sufficient to ensure the payment of annual debt service.
- Other financing options have been explored and are not viable for the timely or economic acquisition or completion of a capital project.
- A capital project is mandated by federal or state authorities with no other viable funding option available.
- The capital project or asset lends itself to debt financing rather than pay-as-you-go funding based on the expected useful life of the project.
- Debt will not be used to fund ongoing operating expenses of the City except for situations in which cash flow problems arise and the City may need to issue short-term Tax or Revenue Anticipation Notes.
- Annual debt service shall not exceed 10 percent of annual operating expenses for the General Fund unless an exception is approved by City Council. For all other City funds annual debt service shall not exceed 15 percent of annual operating expenses unless an exception is approved by City Council.

B. Minimize borrowing costs by:

- Maximizing the use of existing resources for capital projects and equipment needs.
- Issuing tax-exempt debt except in instances where IRS regulations require taxable bonds.
- Striving to obtain the highest credit ratings possible.
- Maintaining a competitive bid process on bond sales except for situations in which negotiated or private placement sales meet City objectives. In negotiated or private

placement sales, City staff will work with its Municipal Advisor (aka Financial Advisor) to review proposed interest rates and proposed fees.

- Ensuring that the type of debt and debt structure developed result in advantageous marketing of each issue.

C. Linking debt to appropriate revenue sources and project users:

- When possible, tie project financing directly to users of a specific facility or use. Examples include renovation of the Golf Course where user fees can offset debt service or replacing gas mains where gas rates can be increased to cover debt expense.
- Debt financing in the Enterprise Funds so as to avoid significant spikes in user rates by smoothing out costs over time.

In addition to capital projects, the City can finance essential equipment and vehicles. These assets range from public safety vehicles to utility equipment. The underlying asset must have a minimum useful life of three years. Short-term financings, including loans and capital lease purchase agreements, are executed to meet such needs. It has been the City's practice to fund these purchases with existing resources; however, debt financing flexibility for future needs remains an option.

The Chief Financial Officer or Director of Administrative Services, supported by the Treasury Division, will periodically evaluate existing debt and execute refinancing when economically beneficial. Refinancing may include the issuance of bonds to refund existing bonds or the issuance of bonds in order to refund other obligations. A net present value analysis, both in dollar and percentage terms, will be conducted to determine whether refinancing is optimal. As a "rule of thumb," a minimum 3.0 percent net present value savings will be used as a basis to begin refinancing efforts; however, a higher savings level may be considered. As with new debt, all refinancing must be approved by City Council.

In September 2016, the state legislature adopted Senate Bill 1029, Hertzberg (SB 1029), amending Government Code section 8855 to place additional reporting obligations on issuers of public debt, effective January 1, 2017. The amendments require an issuer to certify that they have adopted a debt policy concerning the use of debt and that the proposed debt issuance is consistent with that policy. Though the City's Debt Policy and practice substantially complied with the new requirements prior to this legislation, minor updates to the Debt Policy were approved by the City Council in April 2017 to explicitly comply with SB 1029 requirements. This statute also added additional reporting requirement to the California Debt and Investment Advisory Commission (CDIAC), such as the submission of an annual report for any issuance of debt.

Legal Debt Limit

Based upon the assessed valuation of $36.8 billion for the fiscal year ending June 30, 2019, the City is limited to general obligation indebtedness of $1.4 billion per State law. As of June 30, 2019, the amount of debt applicable to the debt limit was $60.5 million, which is well below the City's legal debt limit. The debt limit is applicable to voter-approved general obligation (GO) bonds that have been approved in prior years to fund capital improvement projects to renovate and build out the City's libraries including the Mitchell Park Library and Community Center.

Debt Obligation Descriptions

2010A and 2013A General Obligation (GO) Bonds

On June 30, 2010, the City issued the first series of $55.3 million and on June 26, 2013 the second series of $20.6 million of GO bonds to finance costs for constructing a new Mitchell Park Library and Community Center, as well as substantial improvements to the Main Library and the Downtown Library. Principal payments are due annually on August 1 and interest payments semi-annually on February 1 and August 1, from 2.0 percent to 5.0 percent, and are payable from property tax revenues.

As of June 30, 2020, for the above 2010 and 2013 bonds, $43.3 million and $15.5 million principal and $24.3 million and $8.0 million interest will be the remaining debt service on the bonds with final payment occurring in Fiscal Year 2041 and Fiscal Year 2042, respectively.

2018 Capital Improvement ("Golf Course") Project and 2002B ("Civic Center Refinancing and Downtown Parking Improvements Project") Refinancing Certificates of Participation (COPs)

On June 5, 2018, the City issued taxable (Green Bonds) COPs of $8.4 million for the renovation of Palo Alto's Municipal Golf Course and $0.6 million to refinance the 2002B COPs. Debt service payments are due semi-annually on May 1 and November 1. The 2018 Capital Improvement Project and 2002B refinancing COPs maturity dates and true interest costs are November 2047 and 4.14 percent and November 2022 and 3.11 percent, respectively.

2019 California Avenue Parking Garage Certificates of Participation (COPs)

On March 21, 2019, the City issued $26.8 million tax-exempt and $10.6 million taxable COPs for the construction of a six story (four above ground levels and two below ground levels) parking garage in the California Avenue Business District. The new garage will replace existing parking stalls at two locations and provide 310 additional parking spaces, totaling 636 parking spaces in the new garage.

Debt service payments on the $37.4 million COPs are due semi-annually on May 1 and November 1, with the first payment due on November 1, 2019. The COPs mature in FY 2049 and have a combined true interest cost (TIC) of 3.75 percent with the tax-exempt bonds' TIC being 3.52 percent and taxable bonds' TIC being 4.32 percent.

1995 Utility Revenue Bonds, Series A

On February 1, 1995 the City issued Utility Revenue Bonds to finance certain extensions and improvements to the City's Storm Drainage and Surface Water systems. The bonds are special obligations of the City payable solely from and secured by a pledge of and lien upon the revenues derived by the City from the funds, services, and facilities of all Enterprise Funds except

the Refuse Fund and the Fiber Optics Fund. Principal payments are payable annually on June 1, and interest payments semi-annually on June 1 and December 1. A $2.9 million 6.3 percent term bond is due June 1, 2020. In lieu of a reserve fund, the Bonds are secured by a Surety Bond issued by AMBAC Indemnity Corporation.

The pledge of future net revenues for the above funds ends upon repayment of the $0.6 million principal and $40,313 interest as the remaining debt service on the bonds as of June 30, 2019 with final payment occurring in Fiscal Year 2020.

1999 Utility Revenue and Refunding Bonds, Series A

On June 1, 1999 the City issued Utility Revenue Bonds to refund the 1990 Utility Revenue Refunding Bonds, Series A and the 1992 Utility Revenue Bonds, Series A, and to finance rehabilitation of the Wastewater Treatment System's two sludge incinerators. The 1990 Utility Revenue Refunding Bonds, Series A and the 1992 Utility Revenue Bonds, Series A, were subsequently retired. The 1999 Bonds are special obligations of the City payable solely from and secured by a pledge of, and lien upon, certain net revenues derived by the City's sewer system and its storm and surface water system, the "Stormwater Management System". As of June 30, 2001, the 1999 Bonds had been allocated to and were repayable from net revenues of the following Enterprise Funds: Wastewater Collection (10.2 percent), Wastewater Treatment (64.6 percent) and Stormwater Management (25.2 percent). Principal payments are payable annually on June 1, and interest payments semi-annually on June 1 and December 1. In lieu of a reserve fund, the bonds are secured by a Surety Bond issued by AMBAC Indemnity Corporation.

The pledge of future net revenues for the above funds ends upon repayment of the $6.7 million principal and $0.9 million interest as the remaining debt service on the bonds as of June 30, 2020, with final payment occurring in Fiscal Year 2024.

2009 Water Revenue Bonds, Series A

On October 6, 2009, the City issued Water Revenue Bonds in the amount of $35.5 million to finance certain improvements to the City's Water utility system. Principal payments are due annually on June 1, and interest payments are due semi-annually on June 1 and December 1, from 1.8 percent to 6.0 percent. The final debt service payment will be made in 2035. When these bonds were issued they were designated as 'Direct Payment Build America Bonds' under the provisions of the American Recovery and Reinvestment Act of 2009 ('Build America Bonds'). The City expected to receive a cash subsidy payment from the United States Treasury equal to 35.0 percent of the interest payable on the 2009 bonds, however, due to the United States federal government budget (sequestration) cuts in calendar year 2013, the receipts declined to 32.5 percent in 2013 and were 33.3 percent in calendar year 2018. The lien on the 1995 Bonds on the net revenues is senior to the lien on net revenues securing the 2009 Bonds and the 2002 Bonds. The City received subsidy payments amounting to $0.5 million, which represents 33.3 percent of the two interest payments due on June 1 and December 1 annually.

The pledge of future net revenues of the above funds ends upon repayment of the $25.5 million principal and $13.3 million interest as the remaining debt service on the bonds as of June 30, 2020 with final payment occurring in Fiscal Year 2035.

2011 Utility Revenue Bonds, Series A

On September 22, 2011 the City issued Utility Revenue Bonds to refinance the 2002 Utility Revenue Bonds, which were issued for certain improvements to the City's Water and Natural Gas utility system. The refinancing resulted in net present value savings of 16.9 percent and cash savings over 15 years of $4.0 million. Principal payments are due annually on June 1, and interest payments are due semi-annually on June 1 and December 1 from 3.0 percent to 4.0 percent. The Revenue Bonds are secured by net revenues generated by the Water and Gas Funds.

The pledge of future net revenues ends upon repayment of the $7.9 million principal and $0.9 million interest remaining debt service on the bonds as of June 30, 2020 with final payment occurring in Fiscal Year 2026.

2007 Electric System Clean Renewable Energy Tax Credit Bonds

On November 1, 2007 the City issued $1.5 million of Electric Utility Clean Renewable Energy Tax Credit Bonds (CREBS), 2007 Series A, to finance the City's photovoltaic solar panel project. The bonds do not bear interest. In lieu of receiving periodic interest payments, bondholders are allowed federal income tax credit in an amount equal to a credit rate for such CREBS multiplied by the outstanding principal amount of the CREBS owned by the bondholders. The bonds are payable solely from, and secured solely by, a pledge of the net revenues of the Electric system and other funds pledged therefore under the Indenture.

The pledge of future Electric Fund net revenues ends upon repayment of the $0.2 million as the remaining debt service on the bonds as of June 30, 2020 with final payment occurring in Fiscal Year 2022.

2007 State Water Resources Loan

In October 2007, the City approved the $9.0 million loan agreement with State Water Resources Control Board (SWRCB) to finance the City's Mountain View/Moffett Area Reclaimed Water Pipeline Project. Under the terms of the contract, the City agreed to repay $9.0 million to the State in exchange for receiving $7.5 million in proceeds to be used to fund the project. The difference between the repayment obligation and proceeds amounts to $1.5 million and represents in-substance interest on the outstanding balance. Loan proceeds are drawn down as the project progresses and debt service payments commenced on June 30, 2010. Concurrently with the loan, the City entered into various other agreements including a cost sharing arrangement with the City of Mountain View. Pursuant to that agreement, the City of Mountain View agreed to finance a portion of the project with a $5.0 million loan repayable to the City. This loan has been recorded as 'Due from other government agencies' in the financial statements.

The pledge of future net revenues of the above funds ends upon repayment of the $4.1 million principal and $0.7 million in-substance interest as the remaining debt service on the bonds as of June 30, 2020 with final payment occurring in Fiscal Year 2029.

2009 State Water Resources Loan

In October 2009, the City approved an $8.5 million loan agreement with the State Water Resources Control Board (SWRCB) to finance the City's Ultraviolet Disinfection Project. As of June 30, 2011, the full loan in the amount of $8.5 million was drawn down and became outstanding. Interest in the amount of $96,000 was accrued and added to the outstanding balance.

The pledge of future net revenues of the above funds ends upon repayment of the $5.3 million principal and $0.9 million interest as the remaining debt service on the bonds as of June 30, 2020 with final payment occurring in Fiscal Year 2031.

2017 State Water Resources Loan

In June 2017, the State Water Resources Control Board (SWRCB) and the City executed an agreement for an award up to $30.0 million at a rate of 1.8 percent, payable over 30 years, with the first annual installment due May 31, 2020 to finance the replacement of sewage sludge "bio-solids" incinerators at the City's Regional Water Quality Control Plant (RWQCP). In September 2017, due to the projected lower project costs, the agreement was amended to reduce the SWRCB loan amount to $29.7 million. Under the terms of the contract, a portion of the loan amount, $4.0 million, is a federally funded grant (by the U.S. Environmental Protection Agency).

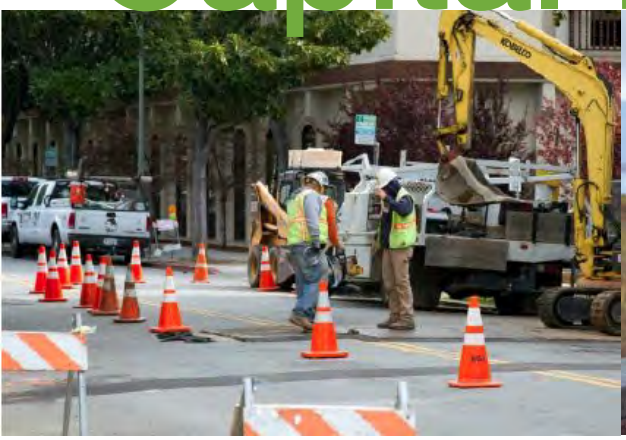
The new facility will dewater the bio-solids and allow the material to be loaded onto trucks and taken to a separate facility for further treatment. The RWQCP provides treatment and disposal for wastewater for Palo Alto, Mountain View, Los Altos, Los Altos Hills, East Palo Alto Sanitary District, and Stanford University. Though Palo Alto is the recipient of the loan, the City's agreement with the partner agencies obliges them to pay their proportionate share of the principal and interest of this loan. Palo Alto's share of the loan payment is 38.2 percent with the partner agencies paying 61.8 percent. As of June 30, 2020, the City is anticipated to incur and draw down $25.0 million of the project costs from the loan award.

Credit Rating Agencies

Credit rating is a critical component of strong municipal management. According to Moody's Investors Service, reserves are an important factor in the analysis of a municipality's fiscal health and, therefore, a jurisdiction's fiscal policies should include a plan for maintaining reserves. Rating agencies view sound reserves favorably, thus improving a municipality's rating and its ability to obtain low-cost financing for important projects. The City is proud to report that both Moody's and Standard and Poor's (S&P) awarded their highest credit ratings, Triple A, to the City's General Obligation Bonds for library and community center capital improvements in 2010 and 2013 and reaffirmed these ratings a few times, the last one being in July 2018 by Moody's and February 2019 by S&P. These ratings demonstrate that Palo Alto's prudent financial management and fiscal strength are viewed favorably by credit agencies. The four Utility bonds (1995, 1999, 2009, & 2011) that are rated also received S&P's highest credit rating of Triple A. Moody's has rated these Utility bonds with their second highest (Aa1) or third highest (Aa2) ratings.

CITY OF
PALO
ALTO

Capital Fund Projects



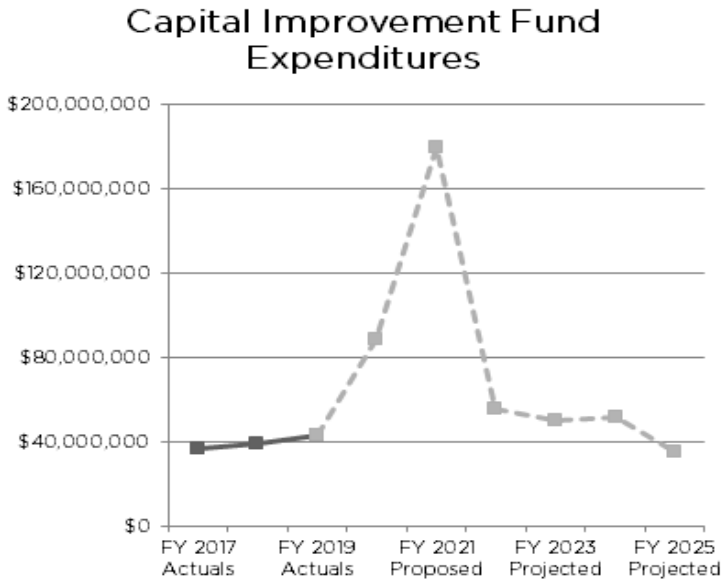
CITY OF
PALO
ALTO

CAPITAL IMPROVEMENT FUND

CAPITAL IMPROVEMENT FUND

Overview

The Capital Improvements Fund, supported by the General Fund and grants and reimbursements from other agencies, accounts for general capital investments such as public safety and community facilities. This fund is equivalent to the General Fund Operating Budget; however, it is focused on capital investments. Examples of projects accounted for within the Capital Improvement Fund include street maintenance, traffic signal and sidewalk modifications, park renovations, and improvements to libraries, community centers, and public safety facilities. For the entire Capital Improvement Fund, 87 projects are programmed over the 2021-2025 CIP, with a cumulative total cost of $331.6 million. Of this amount, $176.8 million is appropriated in FY 2021 which includes $37.8 million recommended to be reappropriated from FY 2020 for the continuation of projects previously approved by the City Council. The budget for the Capital Improvement Fund is divided into six categories: Buildings and Facilities, Department Technology Upgrades and Improvements, Parks and Open Space, Streets and Sidewalks, Traffic and Transportation, and Administration. The primary funding source for the Capital Improvement Fund is the annual transfer from the General Fund. In FY 2021, this transfer will be $30.7 million, which includes the annual base transfer of $15.7 million and the City Council approved Transient Occupancy Tax transfer of $15.0 million to support the City Council approved Infrastructure Plan.



The Infrastructure Plan (IP) consists of ten top priority capital projects accounted for within the Capital Improvement Fund. The first nine were recommended by the Council Infrastructure Committee and approved by the Council in June 2014, with a tenth project, the Downtown Automated Parking Guidance Systems, Access Controls & Revenue Collection Equipment (PL-15007) approved and added as part of the 2020-2024 CIP. The Infrastructure Plan is estimated at $287.3 million, with $160.3 million programmed over the 2021-2025 CIP.

The Infrastructure Plan includes the following projects:

- a new public safety building
- two fire station replacements
- the Charleston/Arastradero Corridor Improvements
- the Bicycle and Pedestrian Transportation Plan
- the Highway 101 Pedestrian/Bicycle Bridge
- a new parking garage in the downtown area
- a new garage in the California Avenue area
- the completion of Byxbee Park
- enhanced parking systems and revenue collections equipment in the Downtown area

The Fire Station #3 Replacement project was the first of the IP projects to begin construction in FY 2018 and was completed in March 2020. The construction of the Charleston/Arastradero Corridor Project (phases 1 and 2) began in Summer 2018 and were completed in December 2019. The New California Avenue Area Parking Garage project began construction in FY 2019 and is anticipated to be completed in Summer 2020 and the Highway 101 Pedestrian/Bicycle Bridge construction started in January 2020 and will be completed in Summer 2021.

Buildings and Facilities

The Buildings and Facilities category includes projects to maintain the City's existing buildings and facilities as well as projects that provide funding for new facilities. Buildings and facilities include City Hall, other City staff office locations, community centers, libraries, theaters, fire stations, park restrooms, parking garages, and City-owned facilities leased to private parties. Projects to improve the Cubberley Community Center are included separately within the Cubberley Property Infrastructure Fund and discussed later in this document. The 2021-2025 CIP includes projects totaling $173.6 million in this category, with $127.2 million allocated in FY Year 2021. Of this amount, $19.4 million is recommended to be reappropriated for the continuation of projects approved by the City Council in prior fiscal years. The Buildings and Facilities category includes the following Council Infrastructure Plan projects: Public Safety Building, Fire Station #3 Replacement (completed), Fire Station #4 Replacement, Downtown Parking Garage, and California Avenue Area Parking Garage. These projects account for $143.1 million or 49.80 percent of the total Infrastructure Plan. The total funding amount of $173.6 million for Building and Facilities over the 2021-2025 CIP represents approximately 52.37 percent of the total Capital Improvement Fund expenses.

Infrastructure Inventory - Summary of Buildings & Facilities

CLASSIFICATION	QUANTITY	SQUARE FOOTAGE
Civic Center & Municipal Services Center	2	157,593
Community Centers	3	68,752
Libraries	5	91,916
Fire Stations	6	25,847
Parking Garages	8	982,966

Recent Accomplishments

- Completion of the Fire Station #3 Replacement project.
- Construction of the California Avenue Parking Garage is anticipated to be completed in Summer 2020.

2021-2025 Capital Improvement Program

Recurring Projects

There are six recurring projects in the Buildings and Facilities category:

- Americans With Disabilities Act Compliance (2021: $0.7 million, 2021-2025 CIP: $2.4 million)
- Building Systems Improvements (2021: $0.7 million, 2021-2025 CIP: $1.7 million)
- City Facility Parking Lot Maintenance (2021: $0.8 million, 2021-2025 CIP: $1.5 million)
- Facility Interior Finishes Replacement (2021: $1.0 million, 2021-2025 CIP: $2.2 million)
- Roofing Replacement (2021: $0.9 million, 2021-2025 CIP:$2.9 million)
- University Avenue Parking Improvements (2021: $0.5 million, 2021-2025 CIP: $0.9 million)

Activities planned for FY 2021 under these projects include parking lot resurfacing at Fire Station #8. Other work includes LED lighting conversion for the Rinconada and Mitchell Park tennis courts, re-roofing the Baylands Athletic Center Snack Bar and Restrooms and Mitchell Park Tiny-Tot Restroom, and interior finishes at the Municipal Service Center (MSC) Lunchrooms and Hallways. Finally, the Americans with Disabilities Act Compliance project will begin to implement the updates recommended in the ADA Transition Plan.

Non-Recurring Projects

Final design work on the Public Safety Building will be a high priority in FY 2021, and construction of the California Avenue Parking Garage project will continue. Other significant activities planned for FY 2021 include completion of the Ventura Building Improvements project and the MSC Electrical and Mechanical Upgrade project. Additional funding provided in FY 2020 ($4.6 million), offset by additional reimbursement funding from Enterprise Funds, will allow the construction of the full scope for the Municipal Service Center (MSC) Electrical and Mechanical Upgrades project.

Department Technology Upgrades and Improvements

This category includes projects to replace public safety related technology equipment based on its useful life and standard replacement schedule. In the 2021-2025 CIP there are seven projects in this category, six for the Fire Department and one for the Police Department. The total funding amount of $0.9 million for Department Technology Upgrades and Improvements over the 2021-2025 CIP represents 0.27 percent of the total Capital Improvement Fund expenses.

2021-2025 Capital Improvement Program

Non-Recurring Projects

All of the projects in this category are non-recurring projects, but the equipment will be programmed to be replaced on a regular schedule to ensure it is not used beyond its useful life.

- Automated External Defibrillator Replacement (FY 2021 and 2021-2025 CIP: $0.2 million)
- Self Contained Breathing Apparatus (SCBA) Replacement (2021-2025 CIP: $0)
- Cardiac Monitor Replacement (2021-2025 CIP: $0)
- Extrication Tool Replacement (2021-2025 CIP: $0.3 million)
- Police Video Recording Systems Replacement (FY 2021 and 2021-2025 CIP: $0.1 million)
- Self-Contained Breathing Apparatus (SCBA) Air Compressor Replacement (FY 2021 and 2021-2025 CIP: $0.1 million)
- Thermal Imaging Cameras Replacement (2021-2025 CIP: $0)

Parks and Open Space

Maintenance, repair, and replacement of parks and open space amenities are managed jointly by the Community Services and Public Works Departments. Generally, Community Services oversees smaller projects as well as recurring projects while Public Works Engineering Services facilitates major one-time projects. The 2021-2025 CIP includes funding totaling of $31.1 million in this category, with $9.8 million allocated in FY 2021. Of this amount, $3.4 million is recommended to be reappropriated for the continuation of projects approved by the City Council in prior fiscal years. The Parks and Open Space category includes the Council Infrastructure Plan project for Byxbee Park Completion. This project accounts for $3.6 million or one percent of the total Infrastructure Plan. The total funding amount of $31.1 million for Parks and Open Space over the 2021-2025 CIP represents approximately 9.4 percent of total Capital Improvement Fund expenses.

Infrastructure Inventory - Summary of Parks & Open Space

CLASSIFICATION	QUANTITY
Parks	33
City Open Space/Conservation Lands	4
Parks, Preserves, and Open Space Acreage	4,385
Picnic Areas	39
Athletic Fields	33

Recent Accomplishments

- Brick pathway and landscape improvements at the Lucie Stern Community Center.
- Repaired and opened two closed sections of Los Trancos and Coastanoan Trails in Foothills Park.
- Dock repairs to Sailing Station in Baylands.

2021-2025 Capital Improvement Program

Recurring Projects

There are nine recurring projects in the Parks and Open Space category:

- Art in Public Spaces (2021: $1.7 million, 2021-2025 CIP: $2.7 million)
- Athletic Courts Resurfacing (2021: $0.2 million, 2021-2025 CIP: $1.4 million)
- Benches, Signage, Fencing, Walkways, and Perimeter Landscaping (2021: $0.2 million, 2021-2025 CIP: $1.2 million)
- Dog Park Installation (2021: $0.2 million, 2021-25 $0.6 million)
- Off Road Pathway Resurfacing and Repair (2021: $0.3 million, 2021-2025 CIP: $0.9 million)
- Open Space Lakes and Ponds (2021: $0.1 million, 2021-2025 CIP: $0.4 million)
- Open Space Trails and Amenities (2021: $0.2 million, 2021-2025 CIP: $1.2 million)
- Parks and Open Space Emergency Repairs (2021: $0.2 million, 2021-2025 CIP: $1.3 million)
- Park Restroom Installation (2021-2025 CIP: $0.9 million)

Non-Recurring Projects

Significant projects in this category during the 2021-2025 CIP include improvements at various parks (Boulware, Byxbee, Cameron, Ramos, and Rinconada). Other investments in open space areas are also included in the CIP plan, such as Golf Course Driving Range Net and Artificial Turf Replacement, a Baylands Comprehensive Conservation Plan, and a Byxbee Park Completion project. The Baylands Comprehensive Conservation Plan will examine native vegetation, wildlife habitat resources, and wildlife-appropriate public access for the entire Baylands, including Byxbee Park. The preparation of this plan will provide needed information on the best areas to maintain as wildlife habitat and appropriate areas to develop trails or other recreation amenities. The project now also includes design for interpretive messaging and design for placement of public art. Funding in the 2021-2025 CIP plan includes $3.2 million for a Byxbee Park Completion project, which is part of the Infrastructure Plan, mostly offset with funds from park dedication impact fees, to complete improvements to Byxbee Park since the landfill capping work is finished.

Streets and Sidewalks

The Streets and Sidewalks category includes projects to maintain and repair the City's streets, sidewalks, bridges, streetlights, and other related infrastructure such as curb and gutter, medians, and thermoplastic lane markings. This category has seen significant funding increases in recent years in response to City Council goals and recommendations of the Infrastructure Blue Ribbon Commission (IBRC). The 2021-2025 CIP includes funding totaling $50.9 million in this category, with $14.6 million allocated in FY 2021. Of this amount, $2.4 million is recommended to be reappropriated for the continuation of projects approved by the City Council in prior fiscal years. In 2011, the City Council increased funding for the Street Maintenance program and set a goal of raising the citywide average Pavement Condition Index (PCI) score from 72 to 85 by 2021. A PCI score of 85 represents "very good" to "excellent" pavement conditions and the goal was reached in 2018, three years earlier than the initial goal. The funding level for Sidewalk

Repairs was also increased to allow the Sidewalks program to eliminate its accumulation of deferred maintenance or "catch-up" work and to achieve its 1986 goal of completing work in all 23 sidewalk "districts" by 2016. An assessment study for sidewalk repairs was completed in early 2019 and offers suggestions for establishing goals and priorities for the sidewalk repair project moving forward. The total funding amount of $50.9 million for Streets and Sidewalks over the 2021-2025 CIP represents approximately 15.4 percent of the total Capital Improvement Fund expenses.

Infrastructure Inventory - Summary of Streets and Sidewalks

CLASSIFICATION	QUANTITY
Streets maintained	471 lane miles
Sidewalks maintained	7.5 million square feet
Streetlights maintained	6,500
Bridges maintained	74

Recurring Projects

There are seven recurring projects in the Streets and Sidewalks category:

- Curb and Gutter Repairs (2021: $0.1 million, 2021-2025 CIP: $0.7 million)
- Sidewalk Repairs (2021: $2.2 million, 2021-2025 CIP: $7.8 million)
- Sign Reflectivity Upgrade (2021: $0.1 million, 2021-2025 CIP: $0.4 million)
- Street Lights Improvements (2021: $0.5 million, 2021-2025 CIP: $1.4 million)
- Street Maintenance (2021: $5.1 million, 2021-2025 CIP: $25.5 million)
- Thermoplastic Lane Marking and Striping (2021: $0.1 million, 2021-2025 CIP: $0.6 million)
- City Bridge Improvements (2021: $0.1 million, 2021-2025 CIP: $1.0 million)

Activities for FY 2021 under these projects consist of ongoing planned repair activities, as well as providing funding for unplanned needs that may arise. The Street Maintenance project will continue to implement its five-year plan in close coordination with Utilities and Transportation projects. With the Pavement Condition Index (PCI) goal met in 2018, the annual Street Maintenance project budget will be reassessed to be funded at a level sufficient to maintain the new street conditions while continuing to focus on streets that have a PCI score of less than 60. The passage of SB1 for Road Maintenance and Rehabilitation is estimated to provide an additional $1.2 million annually starting in FY 2019. This funding could supplement and enhance the City's street maintenance program, possibly allowing some funds to be reallocated to other capital projects with Council approval.

Non-Recurring Projects

While most Streets and Sidewalks work is completed through recurring projects, there are a few non-recurring projects with activities planned for FY 2021. The Street Lights Condition Assessment project, which will continue to compile an inventory of the City's entire lighting system to determine the best approach to prolong the life of the system.

Traffic and Transportation

Projects in this category support the development and implementation of a sustainable transportation system, including walking, biking, ridesharing, transit, and other methods of non-single occupancy vehicle (SOV). Planning, design, and construction of Traffic and Transportation projects are managed jointly by the Office of Transportation and the Public Works Department. The 2021-2025 CIP includes funding totaling $62.2 million in this category, with $24.5 million allocated in FY 2021. Of this amount, $12.3 million is recommended to be reappropriated from FY 2020 for projects that are continuing into FY 2021. The Traffic and Transportation category includes the following Council Infrastructure Plan projects: Bicycle and Pedestrian Transportation Plan Implementation, Charleston/Arastradero Corridor, the Downtown Automated Parking Guidance Systems, Access Controls, and Revenue Collection Equipment, and the Highway 101 Pedestrian/Bicycle Overpass. These projects account for $5.0 million or 1.7 percent of the total Infrastructure Plan. The overall funding level of $62.2 million for Traffic and Transportation projects over the 2021-2025 CIP represents 18.8 percent of the total Capital Improvement Fund expenses.

Recent Accomplishments

- Completed Phases 1 and 2 of the Charleston/Arastradero Corridor Improvements project.
- Started construction on the Highway 101 Pedestrian/Bicycle Overpass project.

2021-2025 Capital Improvement Program

Recurring Projects

There are five recurring projects within the Traffic and Transportation category.

- Bicycle and Pedestrian Transportation Plan Implementation (2021: $2.3 million, 2021-2025 CIP: $11.3 million)
- Parking District Implementation (2021: $0.2 million, 2021-2025 CIP: $1.1 million)
- Safe Routes to Schools (2021: $0.7 million, 2021-2025 CIP: $2.1 million)
- Traffic Signal and Intelligent Transportation Systems (2021: $1.7 million, 2021-2025 CIP: $5.6 million)
- Transportation and Parking Improvements (2021: $0.5 million, 2021-2025 CIP: $2.8 million)

Together, these projects improve transportation and safety and implement the Palo Alto Bicycle and Pedestrian Plan, which represents the majority of funding within this category. This project provides funding for the design and construction of bicycle boulevards, enhanced bikeways, shared-use paths, bicycle parking, and a citywide bicycle sharing system. This project is part of the Infrastructure Plan, and partially funded through transfers from the Stanford University Medical Center Development Agreement Fund.

Non-Recurring Projects

Non-recurring projects within this category include parking, intersection, and street projects. These projects are for discrete activities such as parking signage, parking wayfinding, intersection improvements, railroad grade separation, or projects not included within the Bicycle and

Pedestrian Transportation Plan. There are several significant projects that fall within this category:

- Churchill Avenue/Alma Street Railroad Crossing (FY 2021 and 2021-2025 CIP: $4.6 million)
- El Camino Real Pedestrian Safety and Streetscape (2021: $3.0 million, 2021-2025 CIP: $6.5 million)
- Embarcadero Road at El Camino Improvements (2021-2025 CIP: $7.4 million)
- Quarry Road Improvements and Transit Center Access (2021: $0.9 million, 2021-2025 CIP: $5.0 million)
- Railroad Grade Separation (2021: $4.3 million, 2021-2025 $9.3 million)

Summary of Capital Activity

CAPITAL IMPROVEMENT FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Source of Funds									
Beginning Fund Balance									
	Infrastructure Reserve - Beginning Fund Balance	51,519,893	51,456,186	45,644,885	28,603,410	27,306,155	22,579,245	4,774,778	45,644,885
	Reserve: Debt Service	0	0	0	0	0	2,500,000	5,000,000	0
	Reserve: Infrastructure Plan	25,537,577	58,812,390	0	0	0	0	0	0
	Reserve: Library Bond Proceeds	638,000	588,000	588,000	588,000	588,000	588,000	588,000	588,000
	Reserve: Roth Building & Sea Scout Building TDRs	4,687,468	4,919,782	4,919,782	4,919,782	4,919,782	4,919,782	4,919,782	4,919,782
	Reserve: Future Capital Needs	0	0	0	0	0	0	2,500,000	0
	Total Beginning Fund Balance	**82,382,938**	**115,776,358**	**51,152,667**	**34,111,192**	**32,813,937**	**30,587,027**	**17,782,560**	**51,152,667**
General Fund Contributions									
	Annual General Fund Capital Transfer	16,958,000	18,823,000	15,697,000	16,081,000	16,473,000	16,875,000	17,288,000	82,414,000
	Transfer from General Fund - TOT Funding	8,691,712	10,335,003	15,011,000	14,604,000	15,020,000	15,456,000	15,920,000	76,011,000
	Interest Income	1,279,833	1,178,500	1,189,600	1,189,600	1,189,600	1,189,600	1,189,600	5,948,000
	Total General Fund Contributions	**26,929,545**	**30,336,503**	**31,897,600**	**31,874,600**	**32,682,600**	**33,520,600**	**34,397,600**	**164,373,000**
Project Reimbursements & Fund Transfers									
Transfer from California Avenue Parking District Fund									
PL-16002	Parking Management and System Implementation	0	138,000	0	0	0	0	0	0
	Total Transfer	**0**	**138,000**	**0**	**0**	**0**	**0**	**0**	**0**

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Transfer from Charleston/Arastradero Fund									
PE-13011	Charleston/Arastradero Corridor Project	0	18,000	**0**	**0**	**0**	**0**	**0**	0
	Total Transfer	**0**	**18,000**	**0**	**0**	**0**	**0**	**0**	**0**
Transfer from Community Center Impact Fee Fund									
AC-18001	JMZ Renovation	1,025,717	1,671,860	125,498	0	0	0	0	125,498
PE-08001	Rinconada Park Improvements	0	1,999,529	400,000	0	0	0	0	400,000
	Total Transfer	**1,025,717**	**3,671,389**	**525,498**	**0**	**0**	**0**	**0**	**525,498**
Transfer from Gas Tax Fund									
PE-13011	Charleston/Arastradero Corridor Project	1,170,237	0	0	0	0	0	0	0
PL-00026	Safe Routes To School	100,000	100,000	100,000	100,000	100,000	100,000	100,000	500,000
PE-86070	Street Maintenance	1,300,000	2,453,997	2,610,690	2,610,690	2,610,690	2,610,690	2,610,690	13,053,450
	Total Transfer	**2,570,237**	**2,553,997**	**2,710,690**	**2,710,690**	**2,710,690**	**2,710,690**	**2,710,690**	**13,553,450**
Transfer from Library Impact Fee Fund									
LB-21000	Library Automated Material Handling	0	0	80,000	180,000	180,000	190,000	0	630,000
	Total Transfer	**0**	**0**	**80,000**	**180,000**	**180,000**	**190,000**	**0**	**630,000**
Transfer from New Public Safety Facilities Impact Fee Fund									
PE-15001	New Public Safety Building	0	0	350,000	0	0	0	0	350,000
	Total Transfer	**0**	**0**	**350,000**	**0**	**0**	**0**	**0**	**350,000**
Transfer from Parks Dedication Fee Fund									
PE-14018	Baylands Boardwalk Improvements	470,000	0	0	0	0	0	0	0
PE-18006	Byxbee Park Completion	0	0	2,400,000	0	0	0	0	2,400,000
	Total Transfer	**470,000**	**0**	**2,400,000**	**0**	**0**	**0**	**0**	**2,400,000**
Transfer from Parks Development Impact Fee Fund									
PE-19003	Birch Street Improvements	0	2,720,000	0	0	0	0	0	0
PG-19001	Baylands Athletic Center 10.5 Acre Expansion Plan	100,000	0	0	0	0	0	0	0
PG-18001	Dog Park Installation and Renovation	0	150,000	0	0	150,000	0	150,000	300,000
PG-19000	Park Restroom Installation	0	350,000	0	350,000	0	350,000	0	700,000
PG-18002	Turf Management Plan	0	0	0	0	0	0	0	0
	Total Transfer	**100,000**	**3,220,000**	**0**	**350,000**	**150,000**	**350,000**	**150,000**	**1,000,000**

CAPITAL IMPROVEMENT FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Transfer from Refuse Fund									
PF-17000	Municipal Service Center A, B, & C Roof Replacement	0	9,500	10,250	0	0	0	0	10,250
PF-16006	Municipal Service Center Lighting, Mechanical, and Electrical Improvements	0	27,000	27,000	0	0	0	0	27,000
	Total Transfer	**0**	**36,500**	**37,250**	**0**	**0**	**0**	**0**	**37,250**
Transfer from Residential Parking Permits Program Fund									
PL-16002	Parking Management and System Implementation	0	255,000	0	0	0	0	0	0
	Total Transfer	**0**	**255,000**	**0**	**0**	**0**	**0**	**0**	**0**
Transfer from San Antonio/West Bayshore Fund									
PL-05030	Traffic Signal and Intelligent Transportation System Upgrades	0	1,283,400	0	0	0	0	0	0
	Total Transfer	**0**	**1,283,400**	**0**	**0**	**0**	**0**	**0**	**0**
Transfer from Stanford University Medical Center Development Agreement Fund									
PL-04010	Bicycle and Pedestrian Plan-Implementation Project	0	0	1,200,000	1,200,000	0	0	0	2,400,000
PE-18004	Fire Station 4 Replacement	0	0	750,000	0	0	0	0	750,000
PE-15007	New Downtown Parking Garage	0	0	0	5,541,000	9,072,000	0	0	14,613,000
PE-15001	New Public Safety Building	0	0	800,000	0	0	0	0	800,000
PL-16000	Quarry Road Improvements	0	200,000	0	1,493,513	0	0	0	1,493,513
PI-17001	Railroad Grade Separation	0	0	500,000	500,000	0	0	0	1,000,000
PL-19000	Traffic Signal Emergency Vehicle Preemption	11,200	0	0	0	0	0	0	0
	Total Transfer	**11,200**	**200,000**	**3,250,000**	**8,734,513**	**9,072,000**	**0**	**0**	**21,056,513**
Transfer from Storm Drainage Fund									
PE-13011	Charleston/Arastradero Corrider Project	330,000	0	0	0	0	0	0	0
	Total Transfer	**330,000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Transfer from Traffic Impact Fee Fund									
PL-05030	Traffic Signal and Intelligent Transportation System Upgrades	506,475	0	400,000	395,000	395,000	395,000	395,000	1,980,000
	Total Transfer	**506,475**	**0**	**400,000**	**395,000**	**395,000**	**395,000**	**395,000**	**1,980,000**
Transfer from University Avenue Parking District Fund									
PL-15004	Downtown Parking Wayfinding	280,015	40,000	0	0	0	0	0	0
PE-18002	High Street Parking Garage Waterproofing Study	300,000	0	0	0	0	0	0	0
PF-18000	Parking Lot J Elevator Modernization	50,000	0	0	0	0	0	0	0

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
PL-16002	Parking Management & System Implementation	0	752,220	0	0	0	0	0	0
PF-14003	University Avenue Parking Improvements	63,517	343,000	100,000	115,000	75,000	65,000		355,000
	Total Transfer	**693,532**	**1,135,220**	**100,000**	**115,000**	**75,000**	**65,000**	**0**	**355,000**
Transfer from University Avenue Parking In Lieu Fund									
PE-15007	New Downtown Parking Garage	0	0	0	5,541,000	0	0	0	5,541,000
	Total Transfer	**0**	**0**	**0**	**5,541,000**	**0**	**0**	**0**	**5,541,000**
Transfer from Utilities Administration Fund									
PE-09003	City Facility Parking Lot Maintenance	0	0	0	0	100,000	0	0	100,000
PF-02022	Facility Interior Finishes Replacement	370,000	0	169,000	176,000	0	0	0	345,000
PF-17000	Municipal Service Center A, B, & C Roof Replacement	0	342,000	369,000	0	0	0	0	369,000
PF-16006	Municipal Service Center Lighting, Mechanical, and Electrical Improvements	0	972,000	972,000	0	0	0	0	972,000
PE-19001	Water, Gas, Wastewater Office Remodel	70,000	654,000	0	0	0	0	0	0
	Total Transfer	**440,000**	**1,968,000**	**1,510,000**	**176,000**	**100,000**	**0**	**0**	**1,786,000**
Transfer from Vehicle Maintenance Fund									
PF-02022	Facility Interior Finishes Replacement	0	0	0	0	68,000	0	0	68,000
PF-17000	Municipal Service Center A, B, & C Roof Replacement	0	190,000	205,000	0	0	0	0	205,000
PF-16006	Municipal Service Center Lighting, Mechanical, and Electrical Improvements	0	540,000	540,000	0	0	0	0	540,000
	Total Transfer	**0**	**730,000**	**745,000**	**0**	**68,000**	**0**	**0**	**813,000**
Grants/Other Revenue									
AC-86017	Art in Public Spaces: Federal Grant and Private Donations	175,000	0	0	0	0	0	0	0
FD-21000	Automated External Defibrillator Replacement: Stanford	0	0	38,000	0	0	0	0	38,000
FD-20000	Cardiac Monitor Replacement: Stanford	0	142,000	0	0	0	0	0	0
PE-13011	Charleston/Arastradero Corridor Project: VTA Grant	315,929	206,290	1,303,710	0	0	0	0	1,303,710
PL-20000	Churchill Avenue/Alma Street Railroad Crossing Safety Improvements: CalTrans Section 130	0	500,000	4,000,000	0	0	0	0	4,000,000
PE-17010	Civic Center Electrical Upgrade & EV Charger Installation: BAAQMD Grant	0	243,000	0	0	0	0	0	0
PL-18000	El Camino Real Pedestrian Safety and Streetscape Project: VTA Grant	0	0	2,000,000	2,000,000	1,138,750	0	0	5,138,750
FD-22000	Extrication Tool Replacement: Stanford	0	0	0	42,700	0	0	0	42,700
FD-14002	Fire Ringdown System Replacement: Stanford	0	45,000	0	0	0	0	0	0
PG-13003	Golf Reconfiguration & Baylands Athletic Center Improvements: SF Creek Joint Powers and Certificates of Participation	0	2,250,000	0	0	0	0	0	0

CAPITAL IMPROVEMENT FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
PE-11011	Highway 101 Pedestrian/Bicycle Overpass Project: Santa Clara County & OBAG Grants and Google Reimbursement	0	9,350,000	1,500,000	0	0	0	0	1,500,000
AC-18001	JMZ Renovation: IMLS Grant	18,956	240,200	0	0	0	0	0	0
PE-18000	New California Avenue Area Parking Garage: Certificates of Participation	41,995,000	0	0	0	0	0	0	0
PE-15001	New Public Safety Building: Certificates of Participation	0	0	102,000,000	0	0	0	0	102,000,000
PE-12011	Newell Road/San Francisquito Creek Bridge Replacement: Caltrans & Silicon Valley Water	56,797	1,949,600	5,075,000	5,775,000	0	0	0	10,850,000
PL-17001	Railroad Grade Separation: Measure B	0	2,000,000	500,000	500,000	1,000,000	1,000,000	1,000,000	4,000,000
PL-00026	Safe Routes To School: VTA Grant	0	0	459,677	459,677	0	0	0	919,354
FD-20001	Self-Contanied Breathing Apparatus (SCBA) Air Compressor Replacement: Stanford	0	0	16,300	0	0	0	0	16,300
FD-18000	Self-Contained Breathing Apparatus (SCBA) Replacement: Stanford	5,958	3,700	0	0	0	0	0	0
PE-86070	Street Maintenance: State Grant	505,463	2,172,180	965,000	965,000	465,000	465,000	465,000	3,325,000
PL-12000	Transportation and Parking Improvements (Local Community Reimbursement)	8,060	0	0	0	0	0	0	0
FD-20002	Thermal Imaging Cameras Replacement: Stanford	0	8,500	0	0	0	0	0	0
PL-05030	Traffic Signal and Intelligent Transportation System Upgrades: Measure B	52,552	700,000	300,000	300,000	300,000	300,000	300,000	1,500,000
	Total Grants/Other Revenue	**43,133,715**	**19,810,470**	**118,157,687**	**10,042,377**	**2,903,750**	**1,765,000**	**1,765,000**	**134,633,814**
	Total Revenue	**76,210,421**	**65,356,479**	**162,163,725**	**54,578,180**	**48,337,040**	**38,996,290**	**39,418,290**	**343,493,525**
	Total Sources	**158,593,359**	**181,132,837**	**213,316,392**	**88,689,372**	**81,150,977**	**69,583,317**	**57,200,850**	**394,646,192**
Use of Funds									
Buildings & Facilities									
PF-93009	Americans With Disabilities Act Compliance	227,637	200,000	671,826	342,800	369,000	447,400	530,000	2,361,026
PE-19002	Animal Shelter Renovation	270,962	2,939,971	582,657	0	0	0	0	582,657
PE-14018	Baylands Boardwalk Improvements	1,417,456	164,657	110,519	0	0	0	0	110,519
PE-17006	Baylands Flood Protection Levee Improvements	133,333	0	1,098,000	0	0	0	0	1,098,000
AC-14001	Baylands Nature Interpretive Center Exhibit Improvements	15,200	0	0	0	0	0	0	0
PE-15029	Baylands Nature Interpretive Center Facility Improvements	0	2,008	0	0	0	0	0	0
PF-01003	Building Systems Improvements	26,223	250,008	715,883	239,954	237,400	258,200	282,200	1,733,637
PE-20001	City Bridge Improvements	0	0	94,400	137,900	348,600	185,200	198,600	964,700
PE-20002	City Facilities Assessment and Record Plan Management System	0	150,000	164,800	0	0	0	0	164,800
PE-09003	City Facility Parking Lot Maintenance	27,831	319,725	819,941	233,500	489,200	0	0	1,542,641
PE-12017	City Hall First Floor Renovations	14,959	188,402	0	0	0	0	0	0
PE-17002	City Hall Floor 3 Remodel	22,355	0	0	0	0	0	0	0

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
PE-17008	City Hall Floor 4 Remodel	466,360	7,500	0	0	0	0	0	0
PE-17009	City Hall Floor 5 Remodel	432,096	32,002	0	0	0	0	0	0
PE-19000	City Hall Space Planning	0	0	631,700	0	0	0	0	631,700
PE-17010	Civic Center Electrical Upgrade & EV Charger Installation	18,360	243,000	679,800	0	0	0	0	679,800
PE-18016	Civic Center Fire Life Safety and Electrical Upgrades	14,088	269,104	356,956	0	0	0	0	356,956
PE-15020	Civic Center Waterproofing Study and Repairs	968	49,800	617,255	0	0	0	0	617,255
PF-15005	Emergency Facilities Improvement	0	14,370	0	0	0	0	0	0
PF-02022	Facility Interior Finishes Replacement	75,238	564,100	960,626	261,331	365,414	270,146	315,700	2,173,217
FD-14002	Fire Ringdown System Replacement	244,144	156,000	0	0	0	0	0	0
PF-14002	Fire Station 1 Improvements	15,242	84,800	0	0	0	0	0	0
PE-15003	Fire Station 3 Replacement	3,878,007	2,423,274	0	0	0	0	0	0
PE-18004	Fire Station 4 Replacement	0	350,000	1,700,000	4,075,000	4,075,000	0	0	9,850,000
PE-18002	High and Bryant Street Garages Waterproofing and Repairs	26,472	213,454	210,446	0	0	0	0	210,446
PD-14000	Internal Alarm System Replacement	50,759	26,800	0	0	0	0	0	0
AC-18001	JMZ Renovation	474,155	1,202,200	2,231,551	0	0	0	0	2,231,551
LB-21000	Library Automated Material Handling	0	0	95,500	220,900	232,500	255,000	0	803,900
PE-14015	Lucie Stern Buildings Mechanical and Electrical Upgrades	2,420,500	505,455	0	0	0	0	0	0
PF-17000	Municipal Service Center A, B, & C Roof Replacement	0	0	2,169,800	0	0	0	0	2,169,800
PF-16006	Municipal Service Center Lighting, Mechanical, and Electrical Improvements	69,649	257,000	6,038,732	0	0	0	0	6,038,732
PE-18000	New California Avenue Area Parking Garage	5,044,555	43,587,279	0	0	0	0	0	0
PE-15007	New Downtown Parking Garage	510,437	1,073,121	35,172	5,103,000	8,197,500	13,299,500	0	26,635,172
PE-15001	New Public Safety Building	1,563,200	7,000,000	102,800,000	3,400,000	400,000	0	0	106,600,000
PF-18000	Parking Lot J Elevator Modernization	413,998	286,001	0	0	0	0	0	0
AC-18000	Performing Arts Venue Seat Replacement	0	0	439,400	0	0	0	0	439,400
PF-00006	Roofing Replacement	770,934	184,435	867,602	474,900	285,629	674,076	621,886	2,924,093
PF-07011	Roth Building Maintenance	1,420	10,000	31,973	0	0	0	0	31,973
PF-14003	University Avenue Parking Improvements	48,116	0	462,400	160,500	133,300	137,200		893,400
PE-15011	Ventura Buildings Improvements	143,871	25,000	2,034,197	0	0	0	0	2,034,197
PE-19001	Water, Gas, Wastewater Office Remodel	5,996	90,765	692,035	0	0	0	0	692,035
	Total Building & Facilities	**18,844,521**	**62,870,231**	**127,313,171**	**14,649,785**	**15,133,543**	**15,526,722**	**1,948,386**	**174,571,607**
Department Technology Upgrades and Improvements									
FD-21000	Automated External Defibrillator Replacement	0	0	219,700	0	0	0	0	219,700
FD-20000	Cardiac Monitor Replacement	0	850,000	0	0	0	0	0	0
FD-22000	Extrication Tool Replacement	0	0	0	283,400	0	0	0	283,400
PD-20000	Police Video Recording Systems Replacement	0	48,000	114,400	182,700	0	0	0	297,100
FD-20001	Self-Contanied Breathing Apparatus (SCBA) Air Compressor Replacement	0	0	94,500	0	0	0	0	94,500

CAPITAL IMPROVEMENT FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
FD-18000	Self-Contained Breathing Apparatus (SCBA) Replacement	31,356	20,000	0	0	0	0	0	0
FD-20002	Thermal Imaging Cameras Replacement	0	99,000	0	0	0	0	0	0
	Total Department Technology Upgrades and Improvements	**31,356**	**1,017,000**	**428,600**	**466,100**	**0**	**0**	**0**	**894,700**
Parks & Open Space									
AC-86017	Art In Public Spaces	208,945	1,239,055	1,738,194	280,700	190,800	225,372	245,900	2,680,966
PG-06001	Athletic Courts Resurfacing	55,378	950,000	236,200	270,800	286,600	303,700	323,300	1,420,600
PG-19001	Baylands Athletic Center 10.5 Acre Expansion Plan	10,402	10,000	81,400	0	0	0	0	81,400
PG-17000	Baylands Comprehensive Conservation Plan	205,089	90,000	7,100	0	0	0	0	7,100
OS-09002	Baylands Levee Repair for Public Safety Access	0	0	0	0	0	375,202	0	375,202
PG-06003	Benches, Signage, Walkways, Perimeter Landscaping	420,374	150,000	247,920	223,300	236,900	251,700	268,700	1,228,520
PE-19003	Birch Park Improvements	0	2,720,000	0	0	0	0	0	0
PE-16000	Bol Park Improvements	0	0	0	0	0	685,100	0	685,100
PE-17005	Boulware Park Improvements	23,830	20,102	442,499	0	0	0	0	442,499
PE-18006	Byxbee Park Completion	187,251	16,074	3,181,146	0	0	0	0	3,181,146
PG-14002	Cameron Park Improvements	0	20,000	197,800	0	0	0	0	197,800
PG-18001	Dog Park Installation and Renovation	15,746	0	164,800	0	200,000	0	225,600	590,400
OS-18000	Foothills Park Boronda Lake Dock Replacement	0	0	230,700	0	0	0	0	230,700
PE-20000	Foothills Park Dam Seepage Investigation & Repairs	0	30,000	0	0	0	0	0	0
PE-21000	Foothills Park Improvement Project	0	0	0	0	83,300	397,200	0	480,500
PG-17001	Foothills Park, Pearson Arastradero Preserve, and Esther Clark Park Comprehensive Conservation Plan	0	0	319,200	0	0	170,400	0	489,600
PG-18000	Golf Course Net and Artificial Turf Replacement	0	0	0	970,000	0	0	0	970,000
PG-13003	Golf Course Reconfiguration & Baylands Athletic Center Improvements	2,455	10,000	0	0	0	0	0	0
PG-21000	Heritage Park Site Amenities Replacement	0	0	0	0	0	0	195,500	195,500
PE-18012	Hoover Park Improvements	0	0	0	0	0	0	1,255,700	1,255,700
PE-21002	Johnson Park Renovation	0	0	0	0	0	474,800	1,573,900	2,048,700
PE-21003	Magical Bridge Playground Rubber and Synthetic Turf Resurfacing	0	0	404,050	463,250	0	0	0	867,300
PE-17000	Mitchell Park Adobe Creek Bridge Replacement	306,499	0	0	0	0	0	0	0
PE-18010	Mitchell Park Improvements	0	0	0	0	374,000	1,059,895	0	1,433,895
OS-09001	Off-Road Pathway Resurfacing And Repair	0	173,000	324,000	136,900	147,300	158,600	171,500	938,300
OS-00002	Open Space Lakes And Pond Maintenance	14,406	71,350	113,350	59,900	64,200	68,700	74,000	380,150
OS-00001	Open Space Trails and Amenities	286,674	355,175	192,300	220,400	233,300	247,200	263,200	1,156,400
PG-09002	Parks and Open Space Emergency Repairs	177,434	40,000	211,721	201,500	266,100	306,900	325,000	1,311,221
PG-19000	Park Restroom Installation	0	0	0	440,900	0	494,400	0	935,300

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
PE-13003	Parks, Trails, Open Space, & Recreation Master Plan	3,637	0	0	0	0	0	0	0
PE-21001	Pearson Arastradero Improvement Project	0	0	0	0	70,800	306,700	0	377,500
OS-18001	Pearson Arastradero Preserve Parking Lot Improvement	0	0	170,300	0	0	0	0	170,300
PG-14001	Peers Park Improvements	0	0	0	0	0	289,600	0	289,600
PG-14000	Ramos Park Improvements	0	20,000	0	0	0	0	0	0
PE-08001	Rinconada Park Improvements	232,671	1,402,933	1,457,296	0	538,300	0	3,073,800	5,069,396
PE-12003	Rinconada Park Master Plan and Design	8,938	0	0	0	0	0	0	0
PE-18015	Robles Park Improvements	0	0	0	0	0	953,500	0	953,500
PG-14003	Seale Park Improvements	0	0	0	67,800	360,000	0	0	427,800
PG-18002	Turf Management Plan	0	0	109,900	0	0	0	0	109,900
PG-22000	Werry Park Playground Improvements	0	0	0	126,700	0	0	0	126,700
	Total Parks & Open Space	**2,159,729**	**7,317,689**	**9,829,876**	**3,462,150**	**3,051,600**	**6,768,969**	**7,996,100**	**31,108,695**
Streets and Sidewalks									
PE-17004	California Ave District Gateway Signs	729	142,886	0	0	0	0	0	0
PE-18001	CalTrain Corridor Video Management System Installation	749,178	99,232	0	0	0	0	0	0
PO-12001	Curb and Gutter Repairs	450,166	744,397	123,853	126,700	134,200	142,400	151,800	678,953
PE-13017	El Camino Median Landscape Improvements	0	0	108,300	0	0	0	901,500	1,009,800
PE-12011	Newell Road/San Francisquito Creek Bridge Replacement	244,356	2,449,600	6,017,111	6,354,300	0	0	0	12,371,411
PO-89003	Sidewalk Repairs	1,658,872	1,534,312	2,195,982	1,395,500	1,400,900	1,406,500	1,410,500	7,809,382
PO-11000	Sign Reflectivity Upgrade	10,207	60,660	131,400	66,900	71,700	76,800	82,700	429,500
PE-13014	Street Lights Condition Assessment	0	0	241,778	0	0	0	0	241,778
PO-05054	Street Lights Improvements	100,374	38,306	456,287	203,800	219,000	235,500	254,000	1,368,587
PE-86070	Street Maintenance	5,353,373	13,386,539	5,053,700	5,074,200	5,091,900	5,110,200	5,123,400	25,453,400
PO-11001	Thermoplastic Lane Marking and Striping	13,006	98,328	133,400	97,100	103,300	110,100	117,800	561,700
	Total Streets and Sidewalks	**8,580,261**	**18,554,260**	**14,461,811**	**13,318,500**	**7,021,000**	**7,081,500**	**8,041,700**	**49,924,511**
Traffic and Transportation									
PL-04010	Bicycle and Pedestrian Plan-Implementation Project	2,367,931	402,385	2,273,595	3,000,000	2,950,000	3,100,000	0	11,323,595
PE-13011	Charleston/Arastradero Corridor Project	4,589,736	12,300,000	0	0	0	0	0	0
PL-20000	Churchill Avenue/Alma Street Railroad Crossing Safety Improvements	0	400,000	4,636,200	0	0	0	0	4,636,200
PL-14000	Churchill Avenue Enhanced Bikeway	113	181,534	3,159,466	0	0	0	0	3,159,466
PL-15002	Downtown Automated Parking Guidance Systems, Access Controls, and Revenue Collection Equipment	2,359	448	2,726,860	0	0	0	0	2,726,860
PL-16001	Downtown Mobility and Safety Improvements	1,803,034	100,000	0	0	0	0	0	0
PL-15004	Downtown Parking Wayfinding	346,824	589,038	0	0	0	0	0	0
PL-18000	El Camino Real Pedestrian Safety and Streetscape Project	108,594	43,167	2,954,181	2,202,700	1,349,050	0	0	6,505,931

CAPITAL IMPROVEMENT FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
PL-15001	Embarcadero Road at El Camino Real Improvements	88,607	0	0	1,506,400	2,525,300	3,394,900	0	7,426,600
PL-19000	Emergency Vehicle Traffic Signal Preemption System Pilot	0	597,500	0	0	0	0	0	0
PE-11011	Highway 101 Pedestrian/Bicycle Overpass Project	1,084,589	17,792,509	0	0	0	0	0	0
PL-15003	Parking District Implementation	32,760	307,257	173,674	201,900	218,800	236,700	256,800	1,087,874
PL-16002	Parking Management & System Implementation	248	627,000	563,600	0	0	0	0	563,600
PL-16000	Quarry Road Improvements	555,425	6,000	928,400	1,353,900	2,748,000	0	0	5,030,300
PL-17001	Railroad Grade Separation	1,232,373	1,706,421	4,260,625	1,233,600	1,271,900	1,311,400	1,190,700	9,268,225
PL-00026	Safe Routes To School	89,373	218,800	661,177	677,477	241,200	266,500	260,600	2,106,954
PL-05030	Traffic Signal and Intelligent Transportation System	368,200	1,695,700	1,672,355	935,950	886,250	980,700	1,076,400	5,551,655
PL-12000	Transportation and Parking Improvements	290,303	330,811	471,342	487,000	518,600	552,900	819,200	2,849,042
	Total Traffic and Transportation	**12,960,469**	**37,298,570**	**24,481,475**	**11,598,927**	**12,709,100**	**9,843,100**	**3,603,700**	**62,236,302**
Administration									
AS-10000	Capital Improvement Fund Administration	169,401	587,420	310,267	2,713,973	2,987,707	2,924,466	3,933,422	12,869,835
	Total Administration	**169,401**	**587,420**	**310,267**	**2,713,973**	**2,987,707**	**2,924,466**	**3,933,422**	**12,869,835**
	Total Project Expenses	**42,745,737**	**127,645,170**	**176,825,200**	**46,209,435**	**40,902,950**	**42,144,757**	**25,523,308**	**331,605,650**
Transfers to Other Funds									
	Debt Service Fund	0	0	2,380,000	2,380,000	2,375,000	2,370,000	2,365,000	11,870,000
	General Benefits Funds (New California Avenue Parking Garage)	53,757	2,335,000	0	0	0	0	0	0
	Total Transfers to Other Funds	**53,757**	**2,335,000**	**2,380,000**	**2,380,000**	**2,375,000**	**2,370,000**	**2,365,000**	**11,870,000**
Debt Service									
	Certificates of Participation Debt Repayment (New Public Safety Building)	0	0	0	7,286,000	7,286,000	7,286,000	7,286,000	29,144,000
	Golf Course Certificates of Participation Bond Issuance	17,507	0	0	0	0	0	0	0
	Total Debt Service	**17,507**	**0**	**0**	**7,286,000**	**7,286,000**	**7,286,000**	**7,286,000**	**29,144,000**
	Total Expenses	**42,817,001**	**129,980,170**	**179,205,200**	**55,875,435**	**50,563,950**	**51,800,757**	**35,174,308**	**372,619,650**
Reserves									
	Reserve: Roth Building & Sea Scout Building TDRs	4,919,782	4,919,782	4,919,782	4,919,782	4,919,782	4,919,782	4,919,782	4,919,782
	Reserve: Library Bond Proceeds	588,000	588,000	588,000	588,000	588,000	588,000	588,000	588,000
	Reserve: Infrastructure Plan	58,812,390	0	0	0	0	0	0	0

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
	Reserve: Debt Service	0	0	0	0	2,500,000	5,000,000	7,500,000	7,500,000
	Reserve: Future Capital Needs	0	0	0	0	0	2,500,000	5,000,000	5,000,000
	Total Reserves	**64,320,172**	**5,507,782**	**5,507,782**	**5,507,782**	**8,007,782**	**13,007,782**	**18,007,782**	**18,007,782**
	Total Ending Fund Balance (Infrastructure Reserve)	**51,456,186**	**45,644,885**	**28,603,410**	**27,306,155**	**22,579,245**	**4,774,778**	**4,018,760**	**4,018,760**
	Total Uses	**158,593,359**	**181,132,837**	**213,316,392**	**88,689,372**	**81,150,977**	**69,583,317**	**57,200,850**	**394,646,192**

CITY OF
PALO
ALTO

Buildings and Facilities

Palo Alto Airport Terminal, January 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Various

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PF-93009

Americans With Disabilities Act Compliance

Description

This project provides funding for accessibility upgrades to City facilities and equipment. It includes continued funding for improvements such as path of travel, restroom upgrades, drinking fountains, and counters. This funding will also be utilized for other CIP project design or construction phases where accessibility improvements are identified.

Justification

In order to comply with the Americans with Disabilities Act (ADA) of 1990 and related regulations, the City prepared a Transition Plan and Self-Evaluation Final Study that identified physical obstacles and described improvements to make facilities, programs, and services accessible. Implementation of this program is ongoing.

Supplemental Information

The ADA Transition Plan, updated in 2019, established a schedule for accessibility upgrades to City facilities.

Significant Changes

2021-2025 CIP: Funding increased for implementation of updated ADA Transition Plan.

2020-2024 CIP: Funding added to begin implementation of updated ADA Transition Plan that identified additional needs for City facilities.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	929,916	200,000	671,826	342,800	369,000	447,400	530,000	2,361,026	0	N/A
Total	**N/A**	**929,916**	**200,000**	**671,826**	**342,800**	**369,000**	**447,400**	**530,000**	**2,361,026**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	822,220	200,000	671,826	342,800	369,000	447,400	530,000	2,361,026	0	N/A
Design	N/A	107,696	0	0	0	0	0	0	0	0	N/A
Total	**N/A**	**929,916**	**200,000**	**671,826**	**342,800**	**369,000**	**447,400**	**530,000**	**2,361,026**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Efficient and Effective Service Delivery

Goal: C-1

Policy: C-1.8

Potential Board/Commission Review:

Architectural Review Board

Historic Resources Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

City of Palo Alto Animal Shelter

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: 3281 East Bayshore Road

Managing Department: Public Works
IBRC Reference: New

Initial Project Start: Summer 2018
Initial Project Completion: Winter 2018

Revised Project Start:
Revised Project Completion: Summer 2020

Project Number: PE-19002

Animal Shelter Renovation

Description

This project provides funding for interim facility improvements to the Animal Shelter that accompany operation of the shelter by a contractor. The improvements include expanding and remodeling the medical suite, providing a new 900 square foot modular building for office space, public educational programs, and expanded kennels.

Justification

The Animal Shelter, built in 1972, is outdated and does not meet modern standards for medical care. Fundraising for construction of a new, modern animal shelter will be needed but interim improvements to the current shelter are needed for Pets In Need to successfully operate the facility.

Significant Changes

2020-2024 CIP: The agreement with Pets In Need was approved by Council in November 2018 and included an increase of $2.8 million in this project. This project was originally intended to fund works by Pets In Need but the work will now be managed by Public Works.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	270,962	3,470,328	2,939,971	582,657	0	0	0	0	582,657	0	3,793,590
Total	**270,962**	**3,470,328**	**2,939,971**	**582,657**	**0**	**0**	**0**	**0**	**582,657**	**0**	**3,793,590**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	270,959	3,470,328	2,939,971	582,657	0	0	0	0	582,657	0	3,793,587
Total	**270,959**	**3,470,328**	**2,939,971**	**582,657**	**0**	**0**	**0**	**0**	**582,657**	**0**	**3,793,587**

Operating Impact

There are no additional operating impacts anticipated from this project. Maintenance costs at the facility will be covered by Pets In Need as stipulated in the agreement with the City.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Baylands Boardwalk, February 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Baylands Nature Interpretive Center (2775 Embarcadero Road)

Managing Department: Public Works
IBRC Reference: Catch-up

Initial Project Start: Spring 2015
Initial Project Completion: Fall 2015

Revised Project Start: Summer 2016
Revised Project Completion: Winter 2021

Project Number: PE-14018

Baylands Boardwalk Improvements

Description

This project provides funding for design and construction to replace the existing boardwalk at the Lucy Evans Baylands Nature Interpretive Center (Interpretive Center).

Justification

The Interpretive Center serves 80,000 visitors annually, approximately 2,900 of whom are elementary school students. The Interpretive Center Boardwalk provides a unique opportunity for visitors to view a pristine salt marsh habitat that is home to the endangered Ridgeway's Rail and Salt Marsh Harvest Mouse. In 2014, the boardwalk was closed due to safety concerns. A segment of the boardwalk was re-opened in 2015 after minor repair and structural improvements addressed safety issues. The replacement structure will be ADA accessible.

Supplemental Information

Council awarded a construction contract to Vortex Marine Construction, Inc. in June 2018 and the Boardwalk construction was completed in January 2019. During construction, a temporary access zone created within marsh per project requirements was impacted and will need to be restored. The restoration project anticipated to be completed by was completed in January 2020 and will need to be monitored and reported to the regulatory agencies one year after completion of the project.

Significant Changes

2021-2025 CIP: The project completion date has been extended to complete restoration of the temporary construction access zone and monitoring and reporting to the regulatory agencies.

2018-2022 CIP: Completion date extended to accommodate two construction phases and a lengthy permitting process. To avoid nesting birds in the baylands, the construction window is limited to five months from September 1 through January 31. The project schedule extension assumes approximately 18 months for environmental and permitting review and approval.

2017-2021 CIP: Project schedule revised to include design and construction phases. Design and construction budget added through Fiscal Year 2016 Council action included in project budget.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	1,741,782	265,276	164,657	110,519	0	0	0	0	110,519	0	2,016,958
Transfer from Parks Development Impact Fee Fund	470,000	0	0	0	0	0	0	0	0	0	470,000
Total	**2,211,782**	**265,276**	**164,657**	**110,519**	**0**	**0**	**0**	**0**	**110,519**	**0**	**2,486,958**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	1,263,438	190,603	164,657	110,519	0	0	0	0	110,519	0	1,538,614
Design	948,335	74,673	0	0	0	0	0	0	0	0	948,335
Total	**2,211,773**	**265,276**	**164,657**	**110,519**	**0**	**0**	**0**	**0**	**110,519**	**0**	**2,486,949**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Potential Board/Commission Review:

Architectural Review Board

Historic Resources Board

Parks and Recreation Commission

Environmental Impact Analysis:

This project requires a CEQA Environmental Impact Report

Baylands Levee, 2016

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Baylands Nature Preserve (2500 Embarcadero Road)

Managing Department: Public Works
IBRC Reference: New

Initial Project Start: Summer 2016
Initial Project Completion: Fall 2017

Revised Project Start: Spring 2019
Revised Project Completion: Fall 2021

Project Number: PE-17006

Baylands Flood Protection Levee Improvements

Description

This project provides funding for the design and environmental review of improvements to the existing network of flood protection levees in the Palo Alto Baylands between the San Francisquito Creek and Mountain View. The project will be designed to provide one percent (100-year) protection from tidal flooding, including the impacts of 50 years of future sea level rise.

Justification

Approximately 2,700 properties in Palo Alto are subject to tidal flooding and are thereby required to purchase flood insurance and face restrictions on construction of new or remodeled buildings. Future construction of this project would provide flood protection, as well as relief to residents and businesses from flood insurance costs and building restrictions.

Supplemental Information

This project will be implemented as an element of the San Francisquito Creek Joint Powers Authority (JPA) SAFER Bay Project, which is designing improvements to the Bayfront levees between Mountain View and Redwood City. The project will also be coordinated with the Santa Clara Valley Water District and the City of Mountain View, who are pursuing independent studies of potential levee improvements. Construction funding will likely be sought through a regional ballot measure for a special tax or assessment in the affected communities.

Significant Changes

2020-2024 CIP: The project has been delayed due to staffing constraints and required coordination with other agencies.

2018-2022 CIP: The project start and completion dates have been extended due to staff workload constraints.

2017-2021 CIP: Project established.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	266,666	1,048,000	0	1,098,600	0	0	0	0	1,098,600	0	1,365,266
Total	**266,666**	**1,048,000**	**0**	**1,098,600**	**0**	**0**	**0**	**0**	**1,098,600**	**0**	**1,365,266**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	133,333	1,048,000	0	1,098,600	0	0	0	0	1,098,600	0	1,231,933
Design	133,333	0	0	0	0	0	0	0	0	0	133,333
Total	**266,666**	**1,048,000**	**0**	**1,098,600**	**0**	**0**	**0**	**0**	**1,098,600**	**0**	**1,365,266**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Safety

Section: Natural Hazards

Goal: S-2

Policy: S-2.12

Program: S2.12.2

Potential Board/Commission Review:

Architectural Review Board

Parks and Recreation Commission

Planning and Transportation Commission

San Francisquito Creek Joint Powers Authority

Environmental Impact Analysis:

This project will require an environmental assessment in accordance with CEQA guidelines.

AC gas package unit Municipal Services Center Building C, January 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Various

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PF-01003

Building Systems Improvements

Description

This project provides funding for electrical, mechanical, plumbing, structural, and security upgrades as required at various City facilities. Upgrades may include main and emergency power sources, light fixtures, fire alarm systems, heating and ventilation equipment, Building Management System (BMS) controls, structural reinforcements or repair, security card access, and camera systems.

Justification

This project provides funding for system upgrades in facilities with systems that are overloaded or are no longer efficient. Heating and air-conditioning units in many older buildings are at the end of their useful life and require replacement. BMS control systems in some facilities are outdated and have limited or no vendor support. Structural systems have become damaged or fatigued due to heavier equipment requirements or increased loading. Increased security requirements for facilities and IT network systems require the need for the installation of card access and camera systems. This project also provides funding for replacement of unforeseen equipment failures. While upgrading equipment, staff selects the most energy efficient equipment, including premium efficiency motors, and incorporates the use of energy saving technologies such as variable frequency drives whenever possible.

Supplemental Information

The Department of Public Works uses a computerized asset management tracking software to assist in identifying the maintenance and replacement needs addressed through this CIP. Projects identified for upcoming work include:

Fiscal Year 2021: Convert Rinconada and Mitchell Park tennis court lights to LED. New lighting controls for Rinconada and Mitchell Park tennis courts and new cooling tower fill media for City Hall. Also, new built-in generator for Fire Station #8.

Fiscal Year 2022: Replace electrical panels at Fire Station #5 and replace domestic water control system at City Hall.

Fiscal Year 2023: Install HVAC equipment in the Art Center basement. Replace BMS controls for the Lucie Stern Community Theater.

Fiscal Year 2024: Upgrade LED lighting in City parks. New Children's Pool boilers (4ea), roof top furnaces, exhaust fans, and dehumidifiers.

Fiscal Year 2025: Replace electrical panel at the Golf Club House and Café.

Significant Changes

2021-2025 CIP: All programmed projects were pushed out a year due to staffing constraints.

2020-2024 CIP: All programmed projects were pushed out a year since FY 2019 funding was needed for a new chiller located at City Hall.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	639,991	250,008	715,883	239,954	237,400	258,200	282,200	1,733,637	0	N/A
Total	**N/A**	**639,991**	**250,008**	**715,883**	**239,954**	**237,400**	**258,200**	**282,200**	**1,733,637**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	639,991	250,008	715,883	239,954	237,400	258,200	282,200	1,733,637	0	N/A
Total	**N/A**	**639,991**	**250,008**	**715,883**	**239,954**	**237,400**	**258,200**	**282,200**	**1,733,637**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

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Current Record Plan Management at Municipal Services Center

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Various City Facilities

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Summer 2019
Initial Project Completion: Fall 2020

Revised Project Start:
Revised Project Completion:

Project Number: PE-20002

City Facilities Assessment and Record Plan Management System

Description

The last City-wide facility condition assessment was performed in 2008. This condition assessment is known as the Kitchell Report. Since that assessment was performed, building codes have changed dramatically. A new condition assessment is warranted. It is also an ideal opportunity to develop a new electronic system for managing the record plans of all City facilities. Currently, older record plans are managed through a Microsoft Access Database. Some record plans are still only available as hardcopy sheets. The project will include scanning older hardcopy sets and compiling all records into a new indexed system that will be easily accessible to all City staff.

Justification

This project provides funding for a comprehensive City-wide condition assessment of existing buildings. All City-owned buildings will be evaluated to determine the existing condition of mechanical systems, electrical systems, plumbing systems, conveyance systems, exterior envelope, interior finishes, roofing, structural systems, and fire/life safety systems. The project also provides funding for a new electronic record management system to hold record plans and related information on each facility.

Supplemental Information

The Facility Record Plan Management System will save many hours of staff time. Currently, facility record plan data is scattered between multiple different electronic systems and sometimes only contained in hardcopy format. The project will scan (if necessary), catalog, and archive the

documents in an open-format electronic database system that will allow staff to easily search, access, and retrieve record plans.

Significant Changes

2021-2025 CIP: Project completion date revised to reflect the assessment time needed for the extensive number of city facilities to be inspected.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	314,000	150,000	164,800	0	0	0	0	164,800	0	314,800
Total	**0**	**314,000**	**150,000**	**164,800**	**0**	**0**	**0**	**0**	**164,800**	**0**	**314,800**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	314,000	150,000	164,800	0	0	0	0	164,800	0	314,800
Total	**0**	**314,000**	**150,000**	**164,800**	**0**	**0**	**0**	**0**	**164,800**	**0**	**314,800**

Operating Impact

This project will require ongoing maintenance costs that will be reassessed once the full scope of the project is determined.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Program: C3.3.1

Potential Board/Commission Review:

Architectural Review Board

Historic Resources Board

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under section 15301.

Lucie Stern Parking Lot, February 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Various

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PE-09003

City Facility Parking Lot Maintenance

Description

This project provides funding for the repair, resurfacing, or reconstruction of parking lots and walkways at various City facilities, including restriping and signage.

Justification

Uneven paved surfaces are a safety hazard and shorten the useful life of walkways and parking lots. Repairing the paved walkways and parking lots at various City facilities will eliminate these safety hazards and extend useful life.

Supplemental Information

Work programmed for this project includes parking lot resurfacing for the following locations:

Fiscal Year 2021: Fire Station #8, and College Terrace Library pathways.

Fiscal Year 2022: Foothill Parks Parking Lot

Fiscal Year 2023: Municipal Service Center, Municipal Service Center North Employee Lot.

Fiscal Year 2024: No work planned.

Fiscal Year 2025: No work planned.

Funding will be offset by $0.1 million from the Utilities Enterprise Funds for the work in Fiscal Year 2023 at the Municipal Service Center (MSC).

Significant Changes

2021-2025 CIP: Foothills Park parking lot work was moved to FY 2022 to coordinate with Foothills Park Roadway Paving Project.

2020-2022 CIP: Parking lots were inspected in October 2018 and cost estimates were updated based on current pavement conditions.

2018-2022 CIP: A $215,000 increase in FY 2018 funding is for the Midtown Shopping Center.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	1,144,466	319,725	819,941	233,500	389,200	0	0	1,442,641	0	N/A
Transfer from Utilities Administration Fund	N/A	0	0	0	0	100,000	0	0	100,000	0	N/A
Total	**N/A**	**1,144,466**	**319,725**	**819,941**	**233,500**	**489,200**	**0**	**0**	**1,542,641**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	1,133,218	319,725	808,244	233,500	489,200	0	0	1,530,944	0	N/A
Design	N/A	11,248	0	11,697	0	0	0	0	11,697	0	N/A
Total	**N/A**	**1,144,466**	**319,725**	**819,941**	**233,500**	**489,200**	**0**	**0**	**1,542,641**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

Worked performed under this project is typically categorically exempt from CEQA under Section 15301.

City Hall A Level Lobby

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Palo Alto City Hall (250 Hamilton Avenue)

Managing Department: Public Works
IBRC Reference: New

Initial Project Start: Fall 2018
Initial Project Completion: Fall 2019

Revised Project Start: Spring 2020
Revised Project Completion: Fall 2024

Project Number: PE-19000

City Hall Space Planning

Description

This project provides funding for space planning to determine future workgroup space needs and programming for the City Hall office building.

Justification

Upon completion of the new Public Safety Building in 2023, the Police wing of City Hall and the Fire Administration group on the 6th floor will move into the new building. The departure of these workgroups provides an opportunity to plan for the best use of the newly available City Hall space and to consider other potential improvements such as remodeling the A level cafeteria space. Additionally, a potential opportunity has been identified to reduce the size of the Information Technology Department's 2nd floor data center and make the space available for other uses.

Supplemental Information

The scope of this project includes the initial space planning and preliminary design of the improvements. Following completion of space planning and preliminary design, additional funding will be required to complete the design and construct renovations to the affected areas.

Significant Changes

2021-2025 CIP: Project extended to Fiscal Year 2021 as a result of staffing constraints and funding increased to reflect increased scope needed to study and plan for the space availability and needs at City Hall resulting from the completion of the Public Safety Building in Fiscal Year 2023.

2020-2024 CIP: Project completion extended to reflect staffing constraints and the revised expected completion of the Public Safety Building.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	79,000	0	631,700	0	0	0	0	631,700	0	631,700
Total	**0**	**79,000**	**0**	**631,700**	**0**	**0**	**0**	**0**	**631,700**	**0**	**631,700**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	79,000	0	631,700	0	0	0	0	631,700	0	631,700
Total	**0**	**79,000**	**0**	**631,700**	**0**	**0**	**0**	**0**	**631,700**	**0**	**631,700**

Operating Impact

Operating impacts of potential space uses will be assessed as part of the planning process.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Electrical System Access Door at City Hall

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Palo Alto City Hall (250 Hamilton Avenue), Various

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Summer 2016
Initial Project Completion: Fall 2017

Revised Project Start: Spring 2017
Revised Project Completion: Fall 2020

Project Number: PE-17010

Civic Center Electrical Upgrade & EV Charger Installation

Description

This project provides funding to replace the aging Civic Center electrical switchgear and motor control centers and to purchase and install approximately 43 new Level 2 Electric Vehicle (EV) charging stations at City parking garages, including the Civic Center garage.

Justification

The main electrical switch gear is over 40 years old and must be replaced and upgraded to ensure the reliability of electrical power at City Hall. Other parts of the electrical system have been recently upgraded, leaving this as one of the last remaining items. With increased ownership of electric vehicles, additional public spaces with EV chargers are needed. Funding in this project allows the City to leverage grants that substantially cover the costs of EV charger purchases and installation on a reimbursement basis.

Supplemental Information

The funding for the electrical upgrade work ($0.35 million) has been moved from PE-18016, Civic Center Fire Life Safety Upgrades, to this new project, while approximately 90 percent of the EV charger costs are expected to be reimbursed by Bay Area Air Quality Management District grants. A portion of the grant reimbursement is deferred for three years to allow demonstration of compliance with grant usage criteria.

Significant Changes

2020-2024 CIP: In Fiscal Year 2018, an invitation for Design-Build proposals received no response. Staff began the process for a traditional Design-Bid Build approach. Timing of the project was extended to accommodate this approach and allow for a new window of opportunity to perform construction when City Hall can be closed for a brief time duration. Funding added to account for the complexity of construction and replacement of both motor control centers (MCC) on Levels A and 8.

2019-2023 CIP: Anticipated project completion date adjusted to reflect delays due to staff workload and available options for scheduling a full shutdown of City Hall for construction work.

2018-2022 CIP: Project start was delayed due to staff workload. Staff plans to use Design-Build project delivery method for Civic Center switchgear and motor control center replacements.

2017-2021 CIP: Project established.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	70,858	618,897	0	679,800	0	0	0	0	679,800	0	750,658
Revenue from Other Agencies	17,000	243,000	243,000	0	0	0	0	0	0	0	260,000
Total	**87,858**	**861,897**	**243,000**	**679,800**	**0**	**0**	**0**	**0**	**679,800**	**0**	**1,010,658**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	43,325	788,748	243,000	679,800	0	0	0	0	679,800	0	966,125
Design	44,529	73,149	0	0	0	0	0	0	0	0	44,529
Total	**87,854**	**861,897**	**243,000**	**679,800**	**0**	**0**	**0**	**0**	**679,800**	**0**	**1,010,654**

Operating Impact

This project is anticipated to impact operating expenses in the future. As these costs are quantified, adjustments will be brought forward in the next budget cycle.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Air Quality

Goal: N-5

Policy: N-5.2

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Civic Center Fire Life Safety and Electrical Upgrades

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Palo Alto City Hall (250 Hamilton Avenue)

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Summer 2018
Initial Project Completion: Spring 2019

Revised Project Start: Fall 2018
Revised Project Completion: Summer 2020

Project Number: PE-18016

Civic Center Fire Life Safety Upgrades

Description

This project provides funding for an assessment and upgrade of the fire life safety systems in City Hall.

Justification

The fire life safety system is approaching the end of its useful life. The fire alarm panels and associated equipment are in need of upgrade in order to meet current code requirements. City Hall is a vital facility for all functions and departments.

Supplemental Information

The fire life safety system is approaching the end of its useful life. The fire alarm panels and associated equipment needed to meet current codes will be upgraded.

The cost estimate for this project will likely need to be reevaluated and adjusted to account for escalation.

Significant Changes

2020-2024 CIP: Project completion schedule revised due to re-evaluation of the procurement methodology for the system.

2019-2023 CIP: Project schedule and scope revised to reflect staff workload.

2017-2021 CIP: The scope and budget ($0.35 million) for the City Hall electrical upgrade portion of this project have been moved to a new project, PE-17010, Civic Center Electrical Upgrade & EV Charger Installation.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	16,623	602,000	269,104	356,956	0	0	0	0	356,956	0	642,683
Total	**16,623**	**602,000**	**269,104**	**356,956**	**0**	**0**	**0**	**0**	**356,956**	**0**	**642,683**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	13,914	602,000	269,104	356,956	0	0	0	0	356,956	0	639,974
Design	2,707	0	0	0	0	0	0	0	0	0	2,707
Total	**16,621**	**602,000**	**269,104**	**356,956**	**0**	**0**	**0**	**0**	**356,956**	**0**	**642,681**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Civic Center Parking Garage, February 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Palo Alto City Hall (250 Hamilton Avenue)

Managing Department: Public Works
IBRC Reference: New

Initial Project Start: Summer 2015
Initial Project Completion: Summer 2017

Revised Project Start: Summer 2016
Revised Project Completion: Spring 2021

Project Number: PE-15020

Civic Center Waterproofing Study and Repairs

Description

This project provides funding to address the condition assessment of the Civic Center plaza deck waterproofing deficiencies. The completed assessment evaluated the main expansion joint waterproof seal on the plaza in front of the main City Hall entrance. The assessment report recommended repairs to the expansion joint that are anticipated to be complete in Fiscal Year 2020.

Justification

Previous studies concluded that the Civic Center plaza deck waterproofing membrane underneath the red and white decorative concrete needs to be replaced due to the age of the material. However, investigations in 1999 revealed the membrane still possessed good elasticity. The plaza planter waterproofing was found to be in poor condition. The expansion joint requires immediate replacement.

Significant Changes

2020-2024 CIP: Additional funding and time added to restore waterproofing membrane within planter boxes along the Civic Center plaza perimeter.

2019-2023 CIP: Anticipated completion date adjusted to reflect delays due to staff workload.

2018-2022 CIP: Additional funding added for implementation of the repairs.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	54,491	638,655	49,800	617,255	0	0	0	0	617,255	0	721,546
Total	**54,491**	**638,655**	**49,800**	**617,255**	**0**	**0**	**0**	**0**	**617,255**	**0**	**721,546**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	2,684	635,153	49,800	617,255	0	0	0	0	617,255	0	669,739
Design	51,806	3,502	0	0	0	0	0	0	0	0	51,806
Total	**54,490**	**638,655**	**49,800**	**617,255**	**0**	**0**	**0**	**0**	**617,255**	**0**	**721,545**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Lucie Stern Community Center Ballroom

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Various

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PF-02022

Facility Interior Finishes Replacement

Description

This project provides funding for replacement or improvements to interior finishes such as flooring, walls, cabinets, paint, lighting, ceiling tiles, soundproofing, fixed office furniture, doors, windows, and associated fire/life safety, mechanical, electrical, and plumbing code compliance requirements at various City facilities.

Justification

Interior finishes throughout City facilities are designated for replacement as part of an ongoing capital maintenance plan. Finishes are typically coordinated and upgraded as other renovation projects are undertaken.

Supplemental Information

Planned carpet replacement and other interior finishes projects include:

Fiscal Year 2021: Municipal Service Center (MSC) Building C Lunchrooms and Hallways

Fiscal Year 2022: MSC Building C Water, Gas, and Wastewater Locker Room Improvements

Fiscal Year 2023: MSC Building B Shower and Locker Room

Fiscal Year 2024: Lucie Stern Community Theater Kitchen and Restroom Improvements

Fiscal Year 2025: Will be determined based on facility needs as reassessed closer to Fiscal Year 2025

Significant Changes

2021-2025 CIP: Staffing vacancies may push some programming out to future years.

2020-2024 CIP: MSC Building C Lunchrooms and Hallways was moved to FY 2021 from FY 2022. The Golf Course Club House Restrooms, previously programmed in FY 2021, were completed as part of the Golf Course Reconfiguration project (PG-13003).

2019-2023 CIP: Elwell Court has moved from FY 2022 to FY 2019, Children's Library will be added for FY 2020, and MSC Building C will be moved to FY 2022.

2018-2022 CIP: MSC Building C Water-Gas-Wastewater, Lucie Stern Community Theatre will be replacing Municipal Services Center Building A, Parks Department and Stores in FY 2020.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	1,177,986	564,100	791,626	85,331	297,414	270,146	315,700	1,760,217	0	N/A
Transfer from Utilities Administration Fund	N/A	0	0	169,000	176,000	0	0	0	345,000	0	N/A
Transfer from Vehicle Replacement and Maintenance	N/A	0	0	0	0	68,000	0	0	68,000	0	N/A
Total	**N/A**	**1,177,986**	**564,100**	**960,626**	**261,331**	**365,414**	**270,146**	**315,700**	**2,173,217**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	1,175,656	564,100	960,626	261,331	365,414	270,146	315,700	2,173,217	0	N/A
Design	N/A	2,330	0	0	0	0	0	0	0	0	N/A
Total	**N/A**	**1,177,986**	**564,100**	**960,626**	**261,331**	**365,414**	**270,146**	**315,700**	**2,173,217**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Fire Station #4, April 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: 3600 Middlefield Road

Managing Department: Public Works
IBRC Reference: New

Initial Project Start: Summer 2017
Initial Project Completion: Winter 2020

Revised Project Start: Spring 2020
Revised Project Completion: Summer 2023

Project Number: PE-18004

Fire Station 4 Replacement

Description

This project provides funding to replace Fire Station #4 at the corner of Middlefield Road and East Meadow Drive. The replacement facility will be based on the prior Replacement Study and Needs Assessment prepared in 2005.

Justification

The current Fire Station #4 facility is operationally and technologically deficient. This project will provide a new facility built to essential services standards with a high likelihood of being fully operational after a major disaster such as a significant earthquake.

Supplemental Information

The Fire Station #4 Replacement project is included in the Council Infrastructure Plan.

The cost estimate for this project has been adjusted from the amount derived during the Council Infrastructure Plan's development because older estimates were not escalated to the current year or to future years when construction would actually occur.

Significant Changes

2021-2025 CIP: Project start and end dates delayed; this reflects the revised project start date following completion of Fire Station 3 due to staff workload.

2020-2024 CIP: Project end date adjusted to reflect expected construction timeline based on construction starting in the beginning of FY 2021.

2019-2023 CIP: Project increased by $0.3 million and the timeline was pushed out to begin construction in FY 2021.

2018-2022 CIP: Timeline adjusted to reflect initial funding availability.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	850,000	350,000	950,000	4,075,000	4,075,000	0	0	9,100,000	0	9,450,000
Transfer from Stanford University Medical Ctr Fund	0	0	0	750,000	0	0	0	0	750,000	0	750,000
Total	**0**	**850,000**	**350,000**	**1,700,000**	**4,075,000**	**4,075,000**	**0**	**0**	**9,850,000**	**0**	**10,200,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	1,200,000	4,075,000	4,075,000	0	0	9,350,000	0	9,350,000
Design	0	850,000	350,000	500,000	0	0	0	0	500,000	0	850,000
Total	**0**	**850,000**	**350,000**	**1,700,000**	**4,075,000**	**4,075,000**	**0**	**0**	**9,850,000**	**0**	**10,200,000**

Anticipated Operating Budget Needs

Fund	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
General Fund-Operating	0	0	0	9,200	9,500

Operating Impact

This project is anticipated to impact operating expenses in the future. Maintenance is estimated to increase by $9,200 in FY 2024 and increase by 3% annually thereafter.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project is exempt from CEQA in accordance with Section 15302.

High Street Parking Garage

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: 511 High Street & 445 Bryant Street

Managing Department: Public Works
IBRC Reference: New

Initial Project Start: Fall 2017
Initial Project Completion: Spring 2019

Revised Project Start:
Revised Project Completion: Spring 2021

Project Number: PE-18002

High and Bryant Street Garages Waterproofing and Repairs

Description

This project provides funding to investigate and repair observed water damage along the southeast wall of the Lot R and Lot S/L parking garage. In addition, this project will research waterproofing methods and, if feasible, implement waterproofing on the southeast wall to prevent further problems.

Justification

The Lot R parking garage was constructed in 2003. Recently, water has been observed dripping into the ground floor maintenance room. Spalling concrete was also observed above the ramps on each level over the maintenance room. The cause appears to be water intrusion along the southeast wall.

Weatherproofing behind the concrete is compromised and water is seeping through the wall. Injecting epoxy to fill the cracks.

Supplemental Information

Lot R/Bryant Street is complete.

Significant Changes

2021-2025 CIP: Additional funding added and completion date extended due to further water intrusion problems found in subterranean basement parking levels and subterranean stairwells in the Bryant Street Garage.

2020-2024 CIP: Bid protests were received for the High Street Garage (S/L) Waterproofing project and ultimately rejected. The project timeline has been extended to reflect the rebidding process.

2019-2023 CIP: FY 2018 Adopted Budget title was "High Street Garage Waterproofing Study and Repair." The scope of work needed at the High Street garage is not as much as initially estimated. Adding scope for waterproofing and repairs at the Bryant Street garage.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	(318,271)	330,000	213,454	210,446	0	0	0	0	210,446	0	105,629
Transfer from University Ave Parking Permit Fund	350,000	0	0	0	0	0	0	0	0	0	350,000
Total	**31,729**	**330,000**	**213,454**	**210,446**	**0**	**0**	**0**	**0**	**210,446**	**0**	**455,629**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	31,726	330,000	213,454	210,446	0	0	0	0	210,446	0	455,626
Total	**31,726**	**330,000**	**213,454**	**210,446**	**0**	**0**	**0**	**0**	**210,446**	**0**	**455,626**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Junior Museum Exhibit, March 2017

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: 1451 Middlefield Road

Managing Department: Community Services
IBRC Reference: N/A

Initial Project Start: Summer 2017
Initial Project Completion: Summer 2019

Revised Project Start: Summer 2018
Revised Project Completion: Fall 2021

Project Number: AC-18001

JMZ Renovation

Description

This project provides funding to relocate the Palo Alto Junior Museum & Zoo (JMZ) for two years to the Cubberley Community Center to facilitate construction of a new JMZ at the current site. This project also includes funding for permit and inspection fees related to the JMZ rebuild project, new exhibitions (including temporary staffing to design and prototyping), deck construction costs (partial), park signage (partial), furniture and equipment costs, payment and performance bonds, re-opening marketing and outreach expenses.

Justification

The Cubberley campus provides a suitable temporary location for JMZ operations to remain open to the public. Classrooms will be used for programing, exhibits, education, and summer camps. The Auditorium provides space for staff, teachers, administration, collections, and indoor animals. The nearby parking lot would be converted to an animal compound to house outdoor animals unable to be placed at another zoo or facility.

Supplemental Information

An agreement between the City of Palo Alto and the Friends of the Palo Alto Junior Museum and Zoo to replace the existing JMZ with a new building and facilities requires City contributions.

Significant Changes

2019-2023 CIP: The budget for this project increased by $2.8 million, with the majority of funding for new educational exhibits. Other costs include the temporary relocation of the JMZ to the Cubberley Community Center, permit costs, and electrical and plumbing work.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	(25,245)	1,195,896	(710,000)	2,106,053	0	0	0	0	2,106,053	0	1,370,808
Revenue from the Federal Government	40,829	240,200	240,200	0	0	0	0	0	0	0	281,029
Transfer from Community Center Impact Fee Fund	0	1,671,860	1,671,860	125,498	0	0	0	0	125,498	0	1,797,358
Transfer from Parks Development Impact Fee Fund	1,025,717	0	0	0	0	0	0	0	0	0	1,025,717
Total	**1,041,301**	**3,107,956**	**1,202,060**	**2,231,551**	**0**	**0**	**0**	**0**	**2,231,551**	**0**	**4,474,912**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	900,193	3,044,260	1,202,060	2,231,551	0	0	0	0	2,231,551	0	4,333,804
Design	141,099	63,696	0	0	0	0	0	0	0	0	141,099
Total	**1,041,292**	**3,107,956**	**1,202,060**	**2,231,551**	**0**	**0**	**0**	**0**	**2,231,551**	**0**	**4,474,903**

Anticipated Operating Budget Needs

Fund	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
General Fund-Operating	340,000	340,000	340,000	340,000	340,000

Operating Impact

Additional staffing, exhibit, maintenance, and custodial costs are expected to have a net impact of approximately $340,000 in FY 2021 and ongoing. Additional information about costs associated with opening the JMZ can be found in the Community Services Department section of the FY 2021 Operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Architectural Review Board

Historic Resources Board

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

Relocation portion of this project is CEQA Exempt under 15301 and 15303. A separate Initial Study/Mitigated Negative Declaration is being prepared for the renovation portion of this project.

Library Material Handling System

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Various Libraries: College Terrace, Children's, and Downtown Libraries.

Managing Department: Library
IBRC Reference: N/A

Initial Project Start: Summer 2021
Initial Project Completion: Summer 2024

Revised Project Start:
Revised Project Completion:

Project Number: LB-21000

Library Automated Material Handling

Description

The scope of this project is to provide the design and construction of three new Automated Material Handling (AMH) Systems for the College Terrace, Children's, and Downtown Libraries. AMH systems efficiently sort returned library materials based on the Radio Frequency Identification Devices (RFID) on the materials. This project has been approved for use of Library Impact Fees.

Justification

The Library has made a significant investment in RFID tagging of the entire collection. This project leverages that RFID investment to improve overall library system efficiency and improves the speed at which materials can be moved to shelves for library patrons hold requests.

These machines speed materials processing by 200-400%. Each machine will reduce staff time needed for processing books (20 hours from 41 hours per week currently) which will increase staff efficiencies in the library. Increased automated handling of materials allows staff time to be freed up to focus on public projects (public programs, public services) and revenue earning projects (space rentals, grant writing). Increased circulation in the past 5 years has increased the burden on staff while staff FTE have decreased.

Supplemental Information

The project is proposed to be spread over 4 years: Year 1 planning, Year 2 Children's Library, Year 3 College Terrace, Year 4 Downtown (Years 3/4 could be swapped or combined to be done in a single year). Staff capacity can handle implementing multiple libraries at a time. Priority is

Children's Library due to high number of returns (2nd highest circulation out of 5 libraries) and current number of staff needed there to respond to high circulation.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	15,500	40,900	52,500	65,000	0	173,900	0	173,900
Transfer from Library Development Impact Fee Fund	0	0	0	80,000	180,000	180,000	190,000	0	630,000	0	630,000
Total	**0**	**0**	**0**	**95,500**	**220,900**	**232,500**	**255,000**	**0**	**803,900**	**0**	**803,900**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	15,500	220,900	232,500	255,000	0	723,900	0	723,900
Design	0	0	0	80,000	0	0	0	0	80,000	0	80,000
Total	**0**	**0**	**0**	**95,500**	**220,900**	**232,500**	**255,000**	**0**	**803,900**	**0**	**803,900**

Anticipated Operating Budget Needs

Fund	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
General Fund-Operating	0	0	45,000	46,000	47,000

Operating Impact

The equipment will cause a slight increase in electric bills and does require annual equipment maintenance. Ongoing operating costs include annual maintenance of about $10,000-$20,000 per machine. The Fiscal Year 2023 Library operating budget will be adjusted accordingly to compensate for these impacts.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Planning for Parks and Community Facilities

Goal: C-4

Policy: C-4.4

Relationship to Comprehensive Plan

Secondary Connection

Element: Governance

Section: Public Participation

Goal: G-1

Policy: G-1.2

Program: G1.2.4

Potential Board/Commission Review:

Library Advisory Commission

Environmental Impact Analysis:

This project is exempt from CEQA in accordance with Section 15302.

Municipal Service Center Building C Roof, January 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: 3201 East Bayshore Road

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Summer 2016
Initial Project Completion: Spring 2017

Revised Project Start: Spring 2020
Revised Project Completion: Fall 2020

Project Number: PF-17000

Municipal Service Center A, B, & C Roof Replacement

Description

This project provides funding for a fluid, reinforced waterproofing application over the existing roof. The existing asphalt and gravel roof is nearing the end of its useful life and needs to be rehabilitated. If the existing roof is allowed to deteriorate beyond a certain point, the fluid applied system cannot be used and a full replacement of the roofing system would be required. The application will meet current cool roofing codes to optimize energy efficiency.

Justification

This project provides the means to rehabilitate the existing roof to avoid further deterioration of the roofing system, which would cause failure and structural damage to the building. Compared to rehabilitation costs, structural repairs and a full roof replacement would be more expensive.

Supplemental Information

Transfers from various funding sources will support this project. The various transfers were calculated based on the anticipated benefit to each fund, according to square footage.

Significant Changes

2021-2025 CIP: Project dates adjusted due to staffing workload constraints.

2020-2024 CIP: Project dates adjusted to coordinate with the Municipal Service Center Lighting, Mechanical, and Electrical Improvements project (PF-16006). Roof replacement will be done before the installation of new rooftop equipment due to the condition of the roofs. Funding added to account for cost escalation.

2019-2023 CIP: Project start adjusted to reflect current schedule of the Municipal Service Center Lighting, Mechanical, and Electrical Improvements project (PF-16006).

2018-2022 CIP: Project start adjusted to immediately follow the "Municipal Service Center Lighting, Mechanical, and Electrical Improvements" project (PF-16006) so roof replacement will follow installation of new rooftop equipment.

2017-2021 CIP: Timeline extended to reflect direction from Finance Committee and City Council during budget approval process.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	908,000	(541,500)	1,585,550	0	0	0	0	1,585,550	0	1,044,050
Transfer from Refuse Fund	0	19,000	9,500	10,250	0	0	0	0	10,250	0	19,750
Transfer from Utilities Administration Fund	0	684,000	342,000	369,000	0	0	0	0	369,000	0	711,000
Transfer from Vehicle Replacement and Maintenance	0	380,000	190,000	205,000	0	0	0	0	205,000	0	395,000
Total	**0**	**1,991,000**	**0**	**2,169,800**	**0**	**0**	**0**	**0**	**2,169,800**	**0**	**2,169,800**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	1,991,000	0	2,169,800	0	0	0	0	2,169,800	0	2,169,800
Total	**0**	**1,991,000**	**0**	**2,169,800**	**0**	**0**	**0**	**0**	**2,169,800**	**0**	**2,169,800**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Program: C3.2.1

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Municipal Services Center Building C, March 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: 3201 East Bayshore Road

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Summer 2016
Initial Project Completion: Spring 2018

Revised Project Start:
Revised Project Completion: Spring 2021

Project Number: PF-16006

Municipal Service Center Lighting, Mechanical, and Electrical Improvements

Description

This project provides funding for the replacement of original mechanical and electrical systems and lighting installed in 1966 in the Municipal Service Center's (MSC) Buildings A, B, and C. The project also includes the renovation of office space and shop areas in Building C.

Justification

Lighting, mechanical, and electrical equipment at the MSC is outdated and inefficient. Various remodels have occurred in the administrative and shop areas adding load to the mechanical and electrical systems. The use of many areas has changed over the years without adequate upgrades to the building systems. The systems no longer support the current operation of this site.

Supplemental Information

The Refuse Fund, Vehicle Replacement and Maintenance Fund, and Utilities Administration Fund will reimburse the Capital Improvement Fund for a portion of this project, as fund-related operations benefit from the building improvements.

Significant Changes

2021-2025 CIP: Project timeline extended to reflect additional project redesign work to allow for more Electric Vehicle (EV) chargers and future electrification of the newer mechanical systems at the MSC.

2020-2024 CIP: Bids received were rejected due to budget exceedance. Funding added to account for severe construction cost escalation and partial redesign to provide additional infrastructure for future electrification of vehicle fleet. Project end date adjusted due to the redesign and rebidding required.

2019-2023 CIP: Project cost estimates indicate mechanical and electrical work in Building B require additional funding of $0.8 million.

2017-2021 CIP: Additional funding of $0.4 million added for Building C office space renovation.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	77,395	3,187,510	(1,282,000)	4,499,732	0	0	0	0	4,499,732	0	3,295,127
Transfer from Refuse Fund	28,070	54,000	27,000	27,000	0	0	0	0	27,000	0	82,070
Transfer from Utilities Administration Fund	530,835	1,944,000	972,000	972,000	0	0	0	0	972,000	0	2,474,835
Transfer from Vehicle Replacement and Maintenance	294,909	1,080,000	540,000	540,000	0	0	0	0	540,000	0	1,374,909
Total	**931,209**	**6,265,510**	**257,000**	**6,038,732**	**0**	**0**	**0**	**0**	**6,038,732**	**0**	**7,226,941**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	445,574	6,265,223	257,000	6,038,732	0	0	0	0	6,038,732	0	6,741,306
Design	485,620	287	0	0	0	0	0	0	0	0	485,620
Total	**931,194**	**6,265,510**	**257,000**	**6,038,732**	**0**	**0**	**0**	**0**	**6,038,732**	**0**	**7,226,926**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

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Hamilton Avenue/Waverley Street, March 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Parking Lot D (Hamilton Avenue/ Waverley Street)

Managing Department: Public Works
IBRC Reference: New

Initial Project Start: Spring 2015
Initial Project Completion: Fall 2018

Revised Project Start: Winter 2017
Revised Project Completion: Spring 2024

Project Number: PE-15007

New Downtown Parking Garage

Description

This project provides funding for a new public parking garage in the University Avenue commercial area at existing Parking Lot D at the corner of Hamilton Avenue and Waverley Street. The project will evaluate the feasibility of including retail and stacked parking as part of the new structure. Design and environmental consultant services will be needed, including the development of preliminary plans and cost estimates, and completion of the project's environmental review.

Justification

A new parking garage is part of a multi-pronged strategy to address excessive spillover parking from the University Avenue commercial area into nearby residential neighborhoods.

Supplemental Information

The New Downtown Parking Garage project is included in the City Council Infrastructure Plan. In Fiscal Year 2022, a transfer of $5.5 million from the University In-Lieu Parking Fund is scheduled to fund a portion of the construction of the new garage. The cost estimate for this project will likely need to be adjusted based on estimated construction costs in future years.

Significant Changes

2021-2025 CIP: Funding for this project to Fiscal Year 2024 due to funding constraints as well as to allow time for further planning related to downtown parking initiatives.

2020-2024 CIP: Funding for this project has been moved out per City Council direction in February 2019 to postpone the project until downtown parking initiatives are determined.

2019-2023 CIP: Budget increased to reflect total project cost estimate of $29.1 million.

2018-2022 CIP: In December 2016, a design contract was awarded to Watry Design, Inc. Funding was included in FY 2017 for Phase I of the design work, including environmental review and design through design development. Additional funding is required in FY 2018 to complete the design and construction documents and in FY 2019 for construction administration and project close out.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	107,818	1,073,121	1,073,121	35,172	(438,000)	(874,500)	13,299,500	0	12,022,172	0	13,203,111
Transfer from Stanford University Medical Ctr Fund	0	0	0	0	0	9,072,000	0	0	9,072,000	0	9,072,000
Transfer from University Ave Parking In Lieu Fund	1,300,000	0	0	0	5,541,000	0	0	0	5,541,000	0	6,841,000
Total	**1,407,818**	**1,073,121**	**1,073,121**	**35,172**	**5,103,000**	**8,197,500**	**13,299,500**	**0**	**26,635,172**	**0**	**29,116,111**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	238,861	0	0	0	0	0	13,299,500	0	13,299,500	0	14,611,482
Design	1,168,948	0	1,073,121	35,172	5,103,000	8,197,500	0	0	13,335,672	0	14,504,620
Total	**1,407,809**	**1,073,121**	**1,073,121**	**35,172**	**5,103,000**	**8,197,500**	**13,299,500**	**0**	**26,635,172**	**0**	**29,116,102**

Anticipated Operating Budget Needs

Fund	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
University Avenue Parking Permits	0	0	0	0	94,000

Operating Impact

This project is anticipated to impact operating expenses in the future. Custodial and maintenance costs are estimated to be $94,000 in FY 2025 and increase 3% annually thereafter.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Planning for Parks and Community Facilities

Goal: C-4

Policy: C-4.4

Potential Board/Commission Review:

Architectural Review Board

Historic Resources Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project is exempt from CEQA in accordance with Section 15302.

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New Public Safety Building Rendering

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Parking Lot C-6 (250 Sherman Avenue)

Managing Department: Public Works
IBRC Reference: New

Initial Project Start: Spring 2015
Initial Project Completion: Fall 2020

Revised Project Start:
Revised Project Completion: Spring 2023

Project Number: PE-15001

New Public Safety Building

Description

This project provides funding for the design and construction of a new Public Safety Building on Lot C-6 in the California Avenue commercial area. Design and environmental consultant services will be needed, including the development of preliminary plans, cost estimates and special studies as part of an Environmental Impact Report (EIR), and site evaluation for the approximately 44,500 square foot facility. The size and programming of the new facility were developed by the 2006 Blue Ribbon Task Force.

Justification

The current Police Department facility is structurally, operationally, and technologically deficient. This project will provide a new facility for the Police Department, Office of Emergency Services, the Emergency Operations Center, emergency dispatch, and Fire Department Administration. It will be built to essential services standards with a high likelihood of being fully operational after a major disaster such as a significant earthquake.

Supplemental Information

The new Public Safety Building has been identified as the top priority project in the City Council Infrastructure Plan. The majority of the expenses will be financed using Certificates of Participation with Transient Occupancy Tax (TOT) used to fund the debt service.

Significant Changes

2021-2025 CIP: The complexity of the construction required to complete the building requires more time so the anticipated completion date has been revised to Spring 2023.

2020-2024 CIP: Project construction will begin after the new California Avenue Area Parking Garage is complete. Anticipated completion of the Public Safety Building is revised to Fall 2022.

2019-2023 CIP: Budget increased to reflect total project cost estimate of $92.2 million. Construction funding and expenditures moved to FY 2020 due to design delays relating the Architectural Review Board (ARB) and EIR processes. Anticipated project completion also revised to summer 2021.

2018-2022 CIP: Timeline adjusted to reflect sequential construction to follow the California Avenue Area Parking Garage (CIP PE-18000).

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Bond Proceeds	0	0	0	102,000,000	0	0	0	0	102,000,000	0	102,000,000
Capital Improvement Fund	507,022	3,359,740	7,000,000	(350,000)	3,400,000	400,000	0	0	3,450,000	0	10,957,022
Transfer frm New Pub. Fac. Impact Fee Fund	0	0	0	350,000	0	0	0	0	350,000	0	350,000
Transfer from Stanford University Medical Ctr Fund	3,900,000	0	0	800,000	0	0	0	0	800,000	0	4,700,000
Total	**4,407,022**	**3,359,740**	**7,000,000**	**102,800,000**	**3,400,000**	**400,000**	**0**	**0**	**106,600,000**	**0**	**118,007,022**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	647	0	0	100,060,186	3,400,000	400,000	0	0	103,860,186	0	103,860,833
Design	4,406,365	3,359,740	7,000,000	2,739,814	0	0	0	0	2,739,814	0	14,146,179
Total	**4,407,012**	**3,359,740**	**7,000,000**	**102,800,000**	**3,400,000**	**400,000**	**0**	**0**	**106,600,000**	**0**	**118,007,012**

Anticipated Operating Budget Needs

Fund	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
General Fund-Operating	0	0	0	355,000	366,000

Operating Impact

This project is anticipated to impact operating expenses in the future. Custodial and maintenance costs are estimated to be $355,000 in FY 2024 and increase by 3% annually thereafter.

Relationship to Comprehensive Plan

Primary Connection

Element: Safety

Section: Community Safety

Goal: S-1

Policy: S-1.7

Program: S1.7.2

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project will require an environmental impact report, combined with the California Avenue Area Parking Garage Project, in accordance with CEQA guidelines.

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Children's Theatre, January 2016

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Children's Theatre, Community Theatre, and Cubberley Theatre

Managing Department: Community Services
IBRC Reference: New

Initial Project Start: Summer 2017
Initial Project Completion: Summer 2018

Revised Project Start: Summer 2019
Revised Project Completion: Fall 2020

Project Number: AC-18000

Performing Arts Venues Seat Replacement

Description

This project provides funding for the replacement of damaged or non-functioning seats at the City's three performing arts venues: Children's Theater, Community Theater, and Cubberley Theater.

Justification

The seats at the City's three theater sites are beyond their useful life and due for replacement based on their age and condition.

Supplemental Information

Beginning July 1, 2019, the Resident Theater Companies that use the Lucie Stern Community Theater (West Bay Opera, Palo Alto Players, and Theaterworks), signed a contract with the City to collect a fee of $2.00 for each ticket sold for events with paid admission. This fee will be used to offset the costs of enhancements, upgrades, improvements, repairs, preservation, and new equipment and furnishings for the Lucie Stern Community Theater. This seating upgrade project qualifies for use of this funding source and could be used to partially reimburse the costs for project.

Significant Changes

2020-2024 CIP: Project scope changed from replacing damaged and non-functioning seats to replacing all seats and funding increased by $0.3 million.

2017-2021 CIP: Project established.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	419,000	0	439,400	0	0	0	0	439,400	0	439,400
Total	**0**	**419,000**	**0**	**439,400**	**0**	**0**	**0**	**0**	**439,400**	**0**	**439,400**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	419,000	0	439,400	0	0	0	0	439,400	0	439,400
Total	**0**	**419,000**	**0**	**439,400**	**0**	**0**	**0**	**0**	**439,400**	**0**	**439,400**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Fire Station 2, January 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Various

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PF-00006

Roofing Replacement

Description

This project provides funding for ongoing roofing maintenance at various City facilities including major repairs, rehabilitation, replacement, roof deck, drainage systems, and sheet metal repair/replacement. Roofs scheduled for replacement are based on an annual evaluation of their condition.

Justification

The life expectancy of most roofs at City facilities is 20 to 25 years. There are facilities in the inventory with roof systems that are beyond or near their useful life.

Supplemental Information

Facilities scheduled for re-roofing are as follows:

Fiscal Year 2021: Baylands Athletic Center Snack Bar & Restrooms and Mitchell Park Tiny Tots Restroom

Fiscal Year 2022: Lucie Stern Community Center

Fiscal Year 2023: Peers Park Club House and Lucie Stern Community Theater Flat Roof

Fiscal Year 2024: Baylands Interpretive Center and Police Department Lower Roof

Fiscal Year 2025: Foothills Equipment and Storage Building

Significant Changes

2021-2025 CIP: Baylands Athletic Center Snack Bar & Restrooms and Mitchell Park Tiny Tots Restroom added for FY21 and all other projects moved out a year.

2020-2024 CIP: Avenidas Senior Center moved to FY 2020 from FY 2021 and Lucie Stern Community Center moved from FY 2020 to FY 2021. Lucie Stern Community Theater Flat Roof added to FY 2022 and Foothills Equipment and Storage Building added for FY 2024.

2019-2023 CIP: Mitchell Park Storage Pool Filter Facility and Arastradero Gate Way will replace the animal shelter in FY 2019.

2018-2022 CIP: Funding for Ventura Unit 3 has been moved from FY 2021 to 2018 due to its condition and the scheduled work on other Ventura units. The Avenidas Senior Center has been added to FY 2021.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	891,179	184,435	867,602	474,900	285,629	674,076	621,886	2,924,093	0	N/A
Total	**N/A**	**891,179**	**184,435**	**867,602**	**474,900**	**285,629**	**674,076**	**621,886**	**2,924,093**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	891,179	184,435	867,602	474,900	285,629	674,076	621,886	2,924,093	0	N/A
Total	**N/A**	**891,179**	**184,435**	**867,602**	**474,900**	**285,629**	**674,076**	**621,886**	**2,924,093**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Architectural Review Board

Historic Resources Board

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301 except for historic buildings.

Roth Building, January 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: 300 Homer Avenue

Managing Department: Public Works
IBRC Reference: N/A

Initial Project Start: Summer 2006
Initial Project Completion: Spring 2007

Revised Project Start:
Revised Project Completion: Spring 2021

Project Number: PF-07011

Roth Building Maintenance

Description

This project provides funding for window repairs, waterproofing of foundation walls, installation of electrical service, and a new ventilation system at the Roth building. In addition, roofing repairs will be done on an as needed basis until such time that the building is leased and occupied.

Justification

In Fiscal Year 2004, the City removed the non-historic wings and secured the building. Currently, the building is empty waiting for the Palo Alto History Museum to take possession. Funding was provided on a one-time basis for roofing repair and the installation of downspouts. The building's roof will require on-going maintenance and repair to prevent further leaking. Water is also entering the building through the basement walls. In order to prevent mildew and further deterioration of the building, roof repair, waterproofing, perimeter drainage, and installation of a ventilation/dehumidification system are necessary.

Supplemental Information

Funding was provided as a one-time addition and will be continued until all funding is used or Palo Alto History Museum takes possession. Small repairs are needed on a continual basis.

Significant Changes

2017-2021 CIP: Project completion extended to reflect continuing vacancy of the building.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	25,897	41,073	10,000	31,973	0	0	0	0	31,973	0	67,870
Total	**25,897**	**41,073**	**10,000**	**31,973**	**0**	**0**	**0**	**0**	**31,973**	**0**	**67,870**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	25,897	41,073	10,000	31,973	0	0	0	0	31,973	0	67,870
Total	**25,897**	**41,073**	**10,000**	**31,973**	**0**	**0**	**0**	**0**	**31,973**	**0**	**67,870**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Historic Resources Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Lot N, January 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Various

Managing Department: Public Works
IBRC Reference: N/A

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PF-14003

University Avenue Parking Improvements

Description

This project provides funding for improvements in the University Avenue parking district including parking lot resurfacing; striping and signing; parking structure painting or staining; electrical system upgrades needed to support improved lighting; and security systems and/or other systems.

Justification

This project is intended to maintain the existing parking lots and garages in the University Avenue parking district to extend the useful life of the pavement surfaces and buildings.

Supplemental Information

This project is dependent on the availability of funding in the University Avenue Parking Permit Fund.

Fiscal Year 2021: No work currently planned. Funding will maintain the existing parking lots and garages in the University Avenue parking district.

Fiscal Year 2022: Resurface and restripe Lot E (Gilman/Bryant), Lot G (Waverley/Gilman), Lot N (Emerson/Hamilton), and Lot T (Lytton/Kipling).

Fiscal Year 2023: Resurface and restripe Lot F (Florence/Lytton) and Lot O (Emerson/High).

Fiscal Year 2024: Resurface and restripe Lot K (Lytton/Waverley).

Fiscal Year 2024: No work planned.

Significant Changes

2019-2023 CIP: Parking Lot C resurfacing will be coordinated with the Avenidas project. With the exception of Lot C, all University Avenue parking district lots were resurfaced and no additional work is needed at this time.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	18,100	(343,000)	362,400	45,500	58,300	72,200	0	538,400	0	N/A
Transfer from University Ave Parking Permit Fund	N/A	343,000	343,000	100,000	115,000	75,000	65,000	0	355,000	0	N/A
Total	**N/A**	**361,100**	**0**	**462,400**	**160,500**	**133,300**	**137,200**	**0**	**893,400**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	361,100	0	462,400	160,500	133,300	137,200	0	893,400	0	N/A
Total	**N/A**	**361,100**	**0**	**462,400**	**160,500**	**133,300**	**137,200**	**0**	**893,400**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Parking

Goal: T-5

Policy: T-5.9

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Ventura Community Center, February 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: 3990 Ventura Court

Managing Department: Public Works
IBRC Reference: Catch-up

Initial Project Start: Summer 2015
Initial Project Completion: Spring 2016

Revised Project Start: Fall 2016
Revised Project Completion: Fall 2020

Project Number: PE-15011

Ventura Buildings Improvements

Description

This project provides funding to replace or upgrade the mechanical and electrical systems and provide accessibility improvements to the Ventura Community Center facility. To comply with the Americans with Disabilities Act, accessibility improvements are included; these needs are typically addressed concurrently with City-planned projects.

Justification

Mechanical and electrical systems are original and have reached the end of their useful lives. To meet current code requirements and increase efficiency and reliability, these systems need to be replaced. Under the lease agreement with Palo Alto Community Child Care (PACCC), the City is responsible for capital maintenance.

Significant Changes

2021-2025 CIP: Project completion date revised due to staffing constraints and other high priority projects.

2020-2024 CIP: Project deferred from FY 2019 to FY 2020 due to excessive bid pricing and low contractor interest. Budget adjusted to current market rates.

2019-2023 CIP: Anticipated completion date adjusted due to delays in design and obtaining building permit approval.

2018-2022 CIP: Project deferred by an additional half year due to workload of other projects in progress.

2017-2021 CIP: Project deferred by half a year due to workload of other projects in progress.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	560,859	1,966,597	25,000	2,034,197	0	0	0	0	2,034,197	0	2,620,056
Total	**560,859**	**1,966,597**	**25,000**	**2,034,197**	**0**	**0**	**0**	**0**	**2,034,197**	**0**	**2,620,056**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	141,703	1,966,597	25,000	2,034,197	0	0	0	0	2,034,197	0	2,200,900
Design	419,154	0	0	0	0	0	0	0	0	0	419,154
Total	**560,857**	**1,966,597**	**25,000**	**2,034,197**	**0**	**0**	**0**	**0**	**2,034,197**	**0**	**2,620,054**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

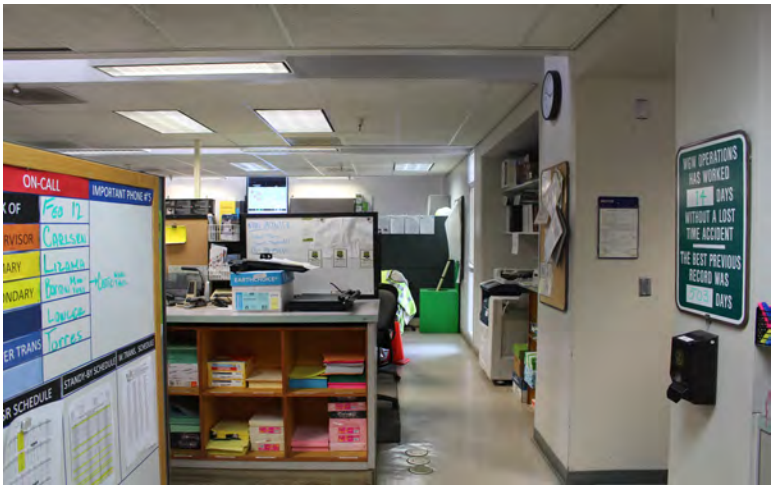
Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.



Entryway to the Water, Gas, Wastewater Offices

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: MSC Building C

Managing Department: Public Works
IBRC Reference: N/A

Initial Project Start: Fall 2018
Initial Project Completion: Fall 2019

Revised Project Start: Spring 2019
Revised Project Completion: Fall 2020

Project Number: PE-19001

Water, Gas, Wastewater Office Remodel

Description

This project provides funding for minor renovations to the Utilities Water Gas Wastewater (WGW) office space at the Municipal Service Center (MSC). The current space no longer meets the operational needs of the department. This project will reconfigure the space so it is more efficient for department operations and replace aging furniture and finishes such as cubicle furniture, carpet, paint, and lighting. Enclosed offices may be demolished and relocated. Additionally, electrical, mechanical (HVAC), and fire systems work will be required.

Justification

The current office space configuration and furnishing have been in place for about 20 years. Reconfiguring the space will allow staff from the same work groups to be located together and next to their supervisors/managers and create additional space and offices for new staff. The WGW kitchen/lunchroom size will be reduced to further allow for more office space. The project will also add a small reception/waiting area for visitors.

Significant Changes

2021-2025 CIP: Project timeline extended to reflect coordination with the additional redesign work for PF-16006, Municipal Service Center Lighting, Mechanical, and Electrical Improvements, and staffing workload constraints.

2020-2024 CIP: Project timeline extended due to staffing constraints.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	(64,003)	97,700	(563,235)	692,035	0	0	0	0	692,035	0	64,797
Transfer from Utilities Administration Fund	70,000	654,000	654,000	0	0	0	0	0	0	0	724,000
Total	**5,997**	**751,700**	**90,765**	**692,035**	**0**	**0**	**0**	**0**	**692,035**	**0**	**788,797**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	882	720,700	90,765	692,035	0	0	0	0	692,035	0	783,682
Design	5,113	31,000	0	0	0	0	0	0	0	0	5,113
Total	**5,995**	**751,700**	**90,765**	**692,035**	**0**	**0**	**0**	**0**	**692,035**	**0**	**788,795**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

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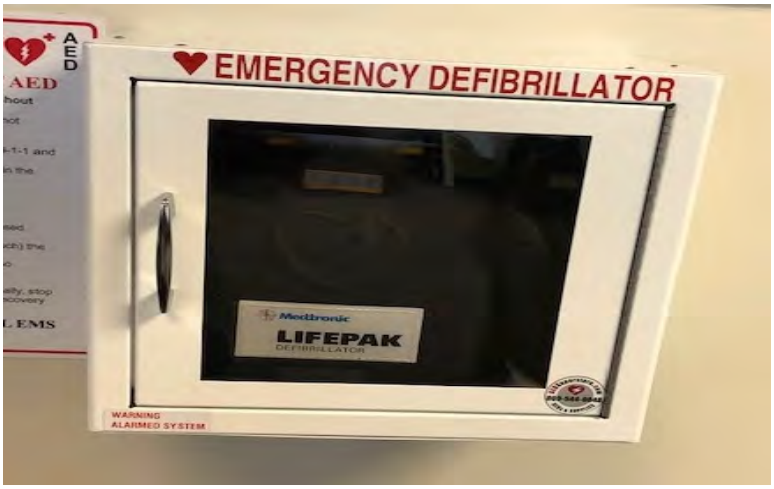
Department Technology Upgrades and Improvements



Automated External Defibrillator at City Hall

Fund: Capital Improvement Fund
Category: Department Technology Upgrades and Improvements
Project Location: Various

Managing Department: Fire
IBRC Reference: N/A

Initial Project Start: Fall 2020
Initial Project Completion: Summer 2021

Revised Project Start:
Revised Project Completion:

Project Number: FD-21000

Automated External Defibrillator Replacement

Description

This project provides funding for the replacement of the entire compliment of Automated External Defibrillators (AEDs) throughout City facilities and emergency response vehicles, which currently totals 93 AEDs.

Justification

The Fire Department maintains the Automated External Defibrillators (AEDs) throughout City facilities and emergency response vehicles. These devices allow for intervention during a cardiac arrest while awaiting first responders. The current AEDs were purchased in 2013, and the recommended replacement cycle is between 5-8 years. This project will replace all AEDs throughout City facilities.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	181,700	0	0	0	0	181,700	0	181,700
Revenue from Other Agencies	0	0	0	38,000	0	0	0	0	38,000	0	38,000
Total	**0**	**0**	**0**	**219,700**	**0**	**0**	**0**	**0**	**219,700**	**0**	**219,700**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	0	0	219,700	0	0	0	0	219,700	0	219,700
Total	**0**	**0**	**0**	**219,700**	**0**	**0**	**0**	**0**	**219,700**	**0**	**219,700**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget. Costs for future replacements will be budgeted according to a replacement cycle of 5-8 years.

Relationship to Comprehensive Plan

Primary Connection

Element: Safety

Section: Natural Hazards

Goal: S-2

Policy: S-1.13

Program: S2.13.1

Environmental Impact Analysis:

None Required

Potential Board/Commission Review:

Planning and Transportation Commission

Extrication tools stored on the fire engine

Fund: Capital Improvement Fund
Category: Department Technology Upgrades and Improvements
Project Location: Various

Managing Department: Fire
IBRC Reference: N/A

Initial Project Start: Fall 2021
Initial Project Completion: Summer 2022

Revised Project Start:
Revised Project Completion:

Project Number: FD-22000

Extrication Tool Replacement

Description

This project provides funding for the replacement of all extrication tools for the Fire Department. Extrication tools, also known as "Jaws of Life", are used to rescue victims of car accidents and other emergencies where the victims are trapped in confined spaces.

Justification

Extrication tools are used for large scale rescue incidents, such as car accidents. These tools allow first responders to cut through most materials in order to rescue patients. These tools require replacement every 8-10 years. The current fleet was purchased in 2012.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	240,700	0	0	0	240,700	0	240,700
Revenue from Other Agencies	0	0	0	0	42,700	0	0	0	42,700	0	42,700
Total	**0**	**0**	**0**	**0**	**283,400**	**0**	**0**	**0**	**283,400**	**0**	**283,400**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	0	0	0	283,400	0	0	0	283,400	0	225,000
Total	**0**	**0**	**0**	**0**	**283,400**	**0**	**0**	**0**	**283,400**	**0**	**283,400**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget. Costs for future replacements will be budgeted according to a replacement cycle of 8-10 years.

Relationship to Comprehensive Plan

Primary Connection

Element: Safety

Section: Natural Hazards

Goal: S-2

Policy: S-1.13

Environmental Impact Analysis:

None Required

Potential Board/Commission Review:

Planning and Transportation Commission

Police In-Car Video System

Fund: Capital Improvement Fund
Category: Department Technology Upgrades and Improvements
Project Location: Palo Alto Police Department (275 Forest Ave)

Managing Department: Police
IBRC Reference: N/A

Initial Project Start: Summer 2019
Initial Project Completion: Winter 2021

Revised Project Start:
Revised Project Completion:

Project Number: PD-20000

Police Video Recording Systems Replacement

Description

This project provides funding for the replacement of Palo Alto Police Department video recording systems used to record events in the field with in-car cameras as well as Body-Worn Cameras (BWC). The in-car camera technology was introduced in 2013 while BWCs were implemented in Fiscal Year 2019 after a one-year pilot program. In-car systems are fixed in the vehicles and BWCs operate on rechargeable batteries for up to 8 hours, secured to the officer's uniform. Images captured by in-car systems and BWCs are stored both locally and in the cloud on a secure platform.

Justification

The useful life is approximately 5 years for in-car systems and 4 years for BWCs. Public requests for more access to police video, particularly of "critical incidents" (yet to be legally defined), has increased over the last year with the passage of two state laws that hold agencies accountable for a higher level of transparency. The adoption of these technologies, along with the desire of the public for more accountability, prioritizes the need for police departments to maintain video recording systems. While video does not replace a written report, video can be helpful for reconstructing an incident for both criminal investigations and use of force incidents.

Supplemental Information

There are two components impacting the timeline of this project:

- Coordinating efforts of Information Technology and the Police Department for the replacement of the servers and subsequent utilization of cloud storage.

- Syncing up the camera replacements with the vehicle replacement cycle will mitigate installing new camera system equipment in soon-to-be replaced vehicles.

Funding is specifically for the replacement of the in-car cameras and system as well as the replacement of a server used for video data storage, due to the in-car system being at the end of its useful life. The BWC equipment will be at the end of its useful life in FY 2022, and funding for replacement will be recommended in this project as part of the next budget cycle.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	150,000	48,000	114,400	182,700	0	0	0	297,100	0	345,100
Total	**0**	**150,000**	**48,000**	**114,400**	**182,700**	**0**	**0**	**0**	**297,100**	**0**	**345,100**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	150,000	48,000	114,400	182,700	0	0	0	297,100	0	345,1000
Total	**0**	**150,000**	**48,000**	**114,400**	**182,700**	**0**	**0**	**0**	**297,100**	**0**	**345,100**

Operating Impact

Software licensing costs of approximately $23,000 are already budgeted in the Police Department's operating budget. There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget. Costs for future replacements will be budgeted according to a replacement cycle of 5 years for in-car systems and 4 years for Body-Worn Cameras.

Relationship to Comprehensive Plan

Primary Connection

Element: Safety

Section: Community Safety

Goal: S-1

Policy: S-1.6

Program: S1.6.2

Environmental Impact Analysis:

Not Applicable

Potential Board/Commission Review:

Planning and Transportation Commission

Firefighter filling an SCBA tank with air

Fund: Capital Improvement Fund
Category: Department Technology Upgrades and Improvements
Project Location: Fire Station 2

Managing Department: Fire
IBRC Reference: N/A

Initial Project Start: Fall 2020
Initial Project Completion: Summer 2021

Revised Project Start:
Revised Project Completion:

Project Number: FD-20001

Self-Contained Breathing Apparatus (SCBA) Air Compressor Replacement

Description

This project provides funding for the replacement of the central air compressor that provides air for Self-Contained Breathing Apparatus (SCBA) tanks to ensure firefighter safety when entering environments with hazardous air quality.

Justification

The Fire Department has one central air compressor at Fire Station 2 that is used to fill air tanks. The current compressor is over 20 years old, requires extensive repairs, and is due for replacement.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	69,700	0	78,200	0	0	0	0	78,200	0	78,200
Revenue from Other Agencies	0	16,300	0	16,300	0	0	0	0	16,300	0	16,300
Total	**0**	**86,000**	**0**	**94,500**	**0**	**0**	**0**	**0**	**94,500**	**0**	**94,500**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	86,000	0	94,500	0	0	0	0	94,500	0	94,500
Total	**0**	**86,000**	**0**	**94,500**	**0**	**0**	**0**	**0**	**94,500**	**0**	**94,500**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget. Costs for future replacements will be budgeted according to a replacement cycle of 15-20 years.

Relationship to Comprehensive Plan

Primary Connection

Element: Safety

Section: Natural Hazards

Goal: S-2

Policy: S-2.13

Program: S2.13.1

Environmental Impact Analysis:

N/A

Potential Board/Commission Review:

Planning and Transportation Commission

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Parks and Open Space

Brilliance, by Joe O'Connell and Blessing Hancock

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Various

Managing Department: Community Services
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: AC-86017

Art In Public Spaces

Description

This project provides funding for innovative public art for both interior and exterior public spaces in accordance with the City Council-approved Art in City Capital Improvement Projects ordinance.

Justification

This project places art in public buildings, plazas, gateways, parks, and other sites frequented by residents and visitors alike. It is expected that public art will enhance community pride and ownership in the City of Palo Alto. Public Art preserves the long-term viability of the built environment and helps set a standard for aesthetic variety and creativity in the community.

Supplemental Information

The Art in City Capital Improvement Projects ordinance states that the City will budget one percent of its CIP budget for public art, with certain exceptions. A base level of funding in the amount of $50,000 is included each year, and a portion of this funding pays for staff to install and replace temporary and rotating art pieces around the City.

Prior to Fiscal Year 2015, one percent for public art was included in the budget for each applicable project. Beginning in Fiscal Year 2015, public art funding is accounted for within this capital project. This change provides a clearer picture of how much funding is available for public art, allows for the pooling of funds for more impactful projects, and ensures that the funds are preserved for public art.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	1,639,500	1,239,055	1,738,194	280,700	190,800	225,372	245,900	2,680,966	0	N/A
Total	**N/A**	**1,639,500**	**1,239,055**	**1,738,194**	**280,700**	**190,800**	**225,372**	**245,900**	**2,680,966**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	1,639,500	1,239,055	1,738,194	280,700	190,800	225,372	245,900	2,680,966	0	N/A
Total	**N/A**	**1,639,500**	**1,239,055**	**1,738,194**	**280,700**	**190,800**	**225,372**	**245,900**	**2,680,966**	**0**	**N/A**

Operating Impact

Annual funding of $30,000 for public art maintenance is allocated to the Community Services Department in the General Fund.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Parks and Gathering Places

Goal: L-8

Policy: L-8-5

Relationship to Comprehensive Plan

Secondary Connection

Element: Land Use and Community Design

Section: Commercial Centers

Goal: L-4

Policy: L-4.4

Potential Board/Commission Review:

Architectural Review Board

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Rinconada Tennis Courts, February 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Various

Managing Department: Community Services
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PG-06001

Athletic Courts Resurfacing

Description

This project provides funding for repair and resurfacing of various athletic courts such as tennis, pickleball, and basketball courts and gathering bowls in Palo Alto parks.

Justification

Athletic courts and gathering bowls in Palo Alto parks require ongoing repairs and resurfacing due to wear and tear. Resurfacing of courts will enhance the safety, quality, and condition of these athletic facilities.

Supplemental Information

Work to be completed under this project is scheduled as follows:

Fiscal Year 2021: Briones Park, Greer Park, Hoover Park, Johnson Park, Ramos Park, Robles Park, Seale Park, and Scott Park basketball courts resurfacing or reconstruction.

Fiscal Year 2022: Terman Park and Weisshaar Park tennis courts resurfacing or reconstruction.

Fiscal Year 2023: Terman Park basketball courts resurfacing or reconstruction.

Fiscal Year 2024: Hopkins Park tennis courts resurfacing or reconstruction.

Fiscal Year 2025: Will be determined based on facility needs as reassessed closer to Fiscal Year 2025

Significant Changes

2020-2024 CIP: The project name was changed from Tennis and Basketball Court Resurfacing to broaden the scope of the project and include more types of athletic courts such as tennis, basketball, pickleball, and gathering bowls in Palo Alto parks.

2017-2021 CIP: Tennis courts at Cubberley Community Center have been removed from this project and now are covered in a separate project within the Cubberley Infrastructure Fund.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	957,949	950,000	236,200	270,800	286,600	303,700	323,300	1,420,600	0	N/A
Total	**N/A**	**957,949**	**950,000**	**236,200**	**270,800**	**286,600**	**303,700**	**323,300**	**1,420,600**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	957,949	950,000	236,200	270,800	286,600	303,700	323,300	1,420,600	0	N/A
Total	**N/A**	**957,949**	**950,000**	**236,200**	**270,800**	**286,600**	**303,700**	**323,300**	**1,420,600**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Program: C3.2.1

Relationship to Comprehensive Plan

Secondary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Program: C3.3.1

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Baylands, March 2017

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Adjacent to Baylands Athletic Center (1900 Geng Road)

Managing Department: Community Services
IBRC Reference: New

Initial Project Start: Summer 2018
Initial Project Completion: Summer 2019

Revised Project Start: Fall 2018
Revised Project Completion: Summer 2000

Project Number: PG-19001

Baylands Athletic Center 10.5 Acre Expansion Plan

Description

This project provides funding for conceptual plans and public outreach for future use of the Baylands Athletic Center due to the addition of 10.5 acres from land previously part of the golf course.

Justification

During the golf course reconstruction, 10.5 acres were set aside for future park use and incorporation into the adjacent Baylands Athletic Center. The Parks, Trails, Open Space, and Recreation Master Plan calls for evaluating optimal usage including open space for the 10.5 acre land bank.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	(89,598)	105,553	10,000	81,400	0	0	0	0	81,400	0	1,802
Transfer from Parks Development Impact Fee Fund	100,000	0	0	0	0	0	0	0	0	0	100,000
Total	**10,402**	**105,553**	**10,000**	**81,400**	**0**	**0**	**0**	**0**	**81,400**	**0**	**101,802**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	10,401	105,553	10,000	81,400	0	0	0	0	81,400	0	101,801
Total	**10,401**	**105,553**	**10,000**	**81,400**	**0**	**0**	**0**	**0**	**81,400**	**0**	**101,801**

Operating Impact

The conceptual plans funded in this project do not have operating budget impacts, but once a conceptual plan is adopted and built, there will be operating budget impacts which will be brought forward as part of future budget cycles.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Program: C3.3.1

Relationship to Comprehensive Plan

Secondary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Program: C3.2.1

Potential Board/Commission Review:

Architectural Review Board

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

Environmental Review Required

Baylands, July 2014

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Baylands Nature Preserve (2500 Embarcadero Road)

Managing Department: Community Services
IBRC Reference: Catch-up

Initial Project Start: Fall 2016
Initial Project Completion: Winter 2018

Revised Project Start:
Revised Project Completion: Fall 2020

Project Number: PG-17000

Baylands Comprehensive Conservation Plan

Description

This project provides funding for a conservation plan that will examine the native vegetation, wildlife habitat resources, and wildlife-appropriate public access for the entire Baylands, including Byxbee Park. This plan will provide needed information on best areas to maintain wildlife habitat and appropriate areas to develop trails or other recreation amenities; provide a design overlay for appropriate types and locations of public art in the Baylands; and design interpretive messaging throughout the Baylands. The plan seeks to optimize opportunities for low impact recreation ensuring that these are compatible with the Baylands Master Plan direction for a passive park and nature preserve. The Conservation Plan will also provide input to the Byxbee Park Completion project.

Justification

Staff needs a guiding plan to provide insight on best management practices for wildlife, habitat, vegetation, and recreation management. The plan will also provide priorities, which will help staff and volunteers guide resources to the most important projects. With numerous changes taking place in environmentally significant areas, it is vital to have a holistic vision for the corridor that will balance the diverse needs of stakeholders.

Supplemental Information

A prior project to create a Baylands Comprehensive Conservation Plan was initiated in June 2006 but due to funding cuts the project was not completed. This project will involve hiring a consultant to complete the plan.

Significant Changes

2021-2025 CIP: CEQA work has been extended to FY 2021.

2019-2023 CIP: Additional funding of $90,000 added for CEQA. Completion date revised to FY 2019.

2017-2021 CIP: Additional funding of $60,000 was added to include design for interpretive messaging and design overlay for appropriate types and locations of public art.

2016-2020 CIP: Project established.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	322,219	97,738	90,000	7,100	0	0	0	0	7,100	0	419,319
Total	**322,219**	**97,738**	**90,000**	**7,100**	**0**	**0**	**0**	**0**	**7,100**	**0**	**419,319**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	322,219	97,738	90,000	7,100	0	0	0	0	71,100	0	419,319
Total	**322,219**	**97,738**	**90,000**	**7,100**	**0**	**0**	**0**	**0**	**7,100**	**0**	**419,319**

Operating Impact

This project is anticipated to impact operating expenses in the future. As these costs are quantified, adjustments will be brought forward in future budgets, as necessary.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Open Space

Goal: N-3

Policy: N-3.4

Potential Board/Commission Review:

Architectural Review Board

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project may be subject to CEQA review.

Baylands Levee, January 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Harbor Road near Baylands Nature Interpretive Center (2775 Embarcadero Road)

Managing Department: Community Services
IBRC Reference: New

Initial Project Start: Spring 2012
Initial Project Completion: Summer 2014

Revised Project Start: Summer 2024
Revised Project Completion: Summer 2026

Project Number: OS-09002

Baylands Levee Repair for Public Safety Access

Description

This project provides funding to restore the width and height of the earthen flood levee between Harbor Road near the Baylands Interpretive Center and the perimeter levee of the airport to six inches above its original height.

Justification

This section of City-maintained levee has significantly subsided since it was built in the early 1960s. High winter tides now overflow the top of the levee, causing significant erosion along both edges of the levee. This levee is important not only for flood control of the Baylands, but also for emergency response by fire and paramedic vehicles for fires, plane crashes and rescue of injured trail users. The section of levee between the road and the Nature Center is essential for public access.

Supplemental Information

Information from the Bay Conservation and Development Commission on sea level rise projections will be incorporated into the design of the restoration of the levee in order for the structure to function against increasing tide levels. This project is pending a cost estimate update as regulatory agencies have informed staff that this project will require mitigation.

Significant Changes

2020-2024 CIP: Project funding has been pushed out to FY 2024 and is pending an updated cost estimate.

2019-2023 CIP: Project funding has been pushed out to FY 2021 and is pending an updated cost estimate.

2018-2022 CIP: Securing the regulatory permits remain delayed and now may require mitigation.

2016-2020 CIP: Project completion has been extended by 2 1/2 years due to delays in securing the regulatory permits needed to construct the project.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	54,298	0	0	0	0	0	375,202	0	375,202	0	429,500
Total	**54,298**	**0**	**0**	**0**	**0**	**0**	**375,202**	**0**	**375,202**	**0**	**429,500**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	54,298	0	0	0	0	0	109,600	0	109,600	0	163,898
Design	0	0	0	0	0	0	265,602	0	265,602	0	265,602
Total	**54,298**	**0**	**0**	**0**	**0**	**0**	**375,202**	**0**	**375,202**	**0**	**429,500**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Open Space

Goal: N-1

Policy: N-1.5

Program: N1.5.1

Potential Board/Commission Review:

Planning and Transportation Commission

San Francisquito Creek Joint Powers Authority

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Greer Park, January 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Various

Managing Department: Community Services
IBRC Reference: Keep-up

Initial Project Start: 1997
Initial Project Completion: Recurring

Project Number: PG-06003

Benches, Signage, Walkways, Perimeter Landscaping, and Site Amenities

Description

This project provides funding for the restoration and replacement of existing benches, signage, fencing, walkways, and landscaping at various City facilities.

Justification

Benches, signage, fencing, walkways, and perimeter landscaping at various sites are due for replacement or upgrade based on their age and/or condition.

Supplemental Information

Replacements will be evaluated and recommended by the Community Services Department on a per park basis with actual work dependent upon bid results.

Significant Changes

2020-2024 CIP: On-going project budget increased by $25,000 annually for a total of $0.2 million per year.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	207,003	150,000	247,920	223,300	236,900	251,700	268,700	1,228,520	0	N/A
Total	**N/A**	**207,003**	**150,000**	**247,920**	**223,300**	**236,900**	**251,700**	**268,700**	**1,228,520**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	207,003	150,000	247,920	223,300	236,900	251,700	268,700	1,228,520	0	N/A
Total	**N/A**	**207,003**	**150,000**	**247,920**	**223,300**	**236,900**	**251,700**	**268,700**	**1,228,520**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses and if any maintenance costs increase, costs will be absorbed with the available maintenance funding in the annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Program: C3.2.1

Relationship to Comprehensive Plan

Secondary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Program: C3.3.1

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Bol Park, February 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 3590 Laguna Avenue

Managing Department: Public Works
IBRC Reference: Catch-up

Initial Project Start: Summer 2019
Initial Project Completion: Summer 2020

Revised Project Start: Summer 2023
Revised Project Completion: Summer 2024

Project Number: PE-16000

Bol Park Improvements

Description

This project provides funding for safety renovations and accessibility improvements, including repairs to the decomposed granite pathways, park lighting, and replacement of the playground equipment. Irrigation renovations and turf restoration are also included in this project, as well as the replacement of site amenities.

Justification

The decomposed granite pathway need regrading and resurfacing. The childrenís playground equipment will reach its 20 years life expectancy by 2024 and will need replacement. Park lighting and other site amenities including benches, tables, and trash receptacles are very old and need to be replaced.

Significant Changes

2021-2025 CIP: The playground replacement was added to the scope of the project as it will reach its 20 years life expectancy in 2024.

2020-2024 CIP: Project moved from Fiscal Year 2020 to Fiscal Year 2024 due to some interim improvements that were made, prolonging the remaining park structures to last until Fiscal Year 2024. This allows for work at other projects with more immediate needs.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	0	0	685,100	0	685,100	0	685,100
Total	**0**	**0**	**0**	**0**	**0**	**0**	**685,100**	**0**	**685,100**	**0**	**685,100**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	635,808	0	635,808	0	635,808
Design	0	0	0	0	0	0	49,292	0	49,292	0	49,292
Total	**0**	**0**	**0**	**0**	**0**	**0**	**685,100**	**0**	**685,100**	**0**	**685,100**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Boulware Park, February 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 410 Fernando Avenue

Managing Department: Public Works
IBRC Reference: Catch-up

Initial Project Start: Fall 2017
Initial Project Completion: Fall 2018

Revised Project Start: Fall 2019
Revised Project Completion: Fall 2020

Project Number: PE-17005

Boulware Park Improvements

Description

This project provides funding for improvements to the existing children's playgrounds, fencing, lighting, and site amenities, as well as accessibility upgrades at Boulware Park. Playground improvements include the installation of a new play structure and replacement of existing light pole fixtures, drinking fountains, benches, and trash receptacles. Rubberized surfacing will also be replaced and expanded to increase accessibility.

Justification

The existing playground equipment, installed in 1993, is approaching the end of its useful life and needs to be replaced. In addition, light poles and site amenities, including drinking fountains, benches and trash/recycle receptacles are aged and need replacing.

Significant Changes

2021-2025 CIP: Depending on the funding and timeline for PE-19003, Birch Street Improvements, work to update the playground equipment may be coordinated with PE-19003, as the two properties are adjacent to each other.

2019-2023 CIP: Project construction funding moved to Fiscal Year 2020 to address workload plus project priorities.

2018-2022 CIP: Project shifted back to Fiscal Year 2018 following consideration of staff workload and park priorities.

2017-2021 CIP: Project shifted from Fiscal Year 2018 to Fiscal Year 2021 pending completion of the Parks Master Plan and a reprioritization of parks projects.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	100,461	473,000	20,102	442,499	0	0	0	0	442,499	0	563,062
Total	**100,461**	**473,000**	**20,102**	**442,499**	**0**	**0**	**0**	**0**	**442,499**	**0**	**563,062**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	468,912	20,102	442,499	0	0	0	0	442,499	0	462,601
Design	100,459	4,088	0	0	0	0	0	0	0	0	100,459
Total	**100,459**	**473,000**	**20,102**	**442,499**	**0**	**0**	**0**	**0**	**442,499**	**0**	**563,060**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Byxbee Park , March 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 2500 Embarcadero Road

Managing Department: Public Works
IBRC Reference: New

Initial Project Start: Summer 2017
Initial Project Completion: Fall 2019

Revised Project Start: Fall 2019
Revised Project Completion: Spring 2021

Project Number: PE-18006

Byxbee Park Completion

Description

This project provides funding for the remaining improvements to Byxbee Park per the conceptual plan developed in the Baylands Comprehensive Conservation Plan. The conceptual plan calls for additional native planting islands, park seating, interpretive signage, and an expanded parking lot.

Justification

While some improvements and amenities have already been provided through the Byxbee Park Trails Project, this project will revisit the vision for the entire park, and implement the plan for the final park. Design of the project will incorporate recommendations from the Baylands Comprehensive Conservation Plan Project.

Supplemental Information

The Byxbee Park Completion Project is included in the Council Infrastructure Plan. Funds for the project are provided by the Parks Development Impact Fee Fund. The Parks, Trails, Natural Open Space and Recreational Master Plan projects were reviewed and adjusted according to staff availability as well as community and IBRC needs.

Significant Changes

2020-2024 CIP: A majority of the funding, including the transfer from the Parks Dedication Fund, has been moved to Fiscal Year 2021 to coordinate with the Baylands Comprehensive Conservation Plan and the Byxbee Park Master Plan.

2019-2023 CIP: Budget increased to reflect total project cost estimate of $3.6 million.

2018-2022 CIP: Funding has been moved to Fiscal Year 2019 to coordinate with the findings from the Baylands Comprehensive Conservation Plan project.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	(57,175)	597,220	16,074	781,146	0	0	0	0	781,146	0	740,045
Transfer from Parks Dedication Fund	0	0	0	2,400,000	0	0	0	0	2,400,000	0	2,400,000
Transfer from Parks Development Impact Fee Fund	400,000	0	0	0	0	0	0	0	0	0	400,000
Total	**342,825**	**597,220**	**16,074**	**3,181,146**	**0**	**0**	**0**	**0**	**3,181,146**	**0**	**3,540,045**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	342,823	214,600	16,074	3,181,146	0	0	0	0	3,181,146	0	3,540,043
Design	0	382,620	0	0	0	0	0	0	0	0	0
Total	**342,823**	**597,220**	**16,074**	**3,181,146**	**0**	**0**	**0**	**0**	**3,181,146**	**0**	**3,540,043**

Operating Impact

This project is anticipated to impact operating expenses in the future. Byxbee Park is maintained under a large parks maintenance contract which will be bid out for services. As these costs are quantified, adjustments will be brought forward in future budget cycles.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Potential Board/Commission Review:

Architectural Review Board

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is anticipated to require an environmental assessment in accordance with CEQA guidelines.

Cameron Park, January 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 2101 Wellesley Street between College and Stanford Avenues

Managing Department: Community Services
IBRC Reference: Catch-up

Initial Project Start: Summer 2017
Initial Project Completion: Summer 2018

Revised Project Start: Summer 2019
Revised Project Completion: Spring 2021

Project Number: PG-14002

Cameron Park Improvements

Description

This project provides funding to upgrade and renovate safety and accessibility features at Cameron Park with a primary focus on the park playground.

Justification

As park infrastructure ages, safety and compliance issues need to be addressed. This project will ensure compliance and address accessibility needs as well as safety issues.

Significant Changes

2021-2025 CIP: Project moved to Fiscal Year 2021 due to staffing constraints and other high priority projects.

2020-2024 CIP: Project shifted from Fiscal Year 2022 to Fiscal Year 2020 due to acceleration of playground damage, aging, and replacements needs. Also, funding increased by $95,000 to account for construction cost increases.

2018-2022 CIP: Project shifted from Fiscal Year 2020 to Fiscal Year 2022 due to a reprioritization of parks projects.

2017-2021 CIP: Project shifted from Fiscal Year 2018 to Fiscal Year 2020 pending completion of the Parks Master Plan and a reprioritization of parks projects.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	237,000	20,000	197,800	0	0	0	0	197,800	0	217,800
Total	**0**	**237,000**	**20,000**	**197,800**	**0**	**0**	**0**	**0**	**197,800**	**0**	**217,800**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	237,000	0	197,800	0	0	0	0	197,800	0	197,800
Design	0	0	20,000	0	0	0	0	0	0	0	20,000
Total	**0**	**237,000**	**20,000**	**197,800**	**0**	**0**	**0**	**0**	**197,800**	**0**	**217,800**

Operating Impact

This project is not anticipated to impact operating expenses and if any maintenance costs increase, costs will be absorbed with the available maintenance funding in the annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Program: C3.3.1

Relationship to Comprehensive Plan

Secondary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Program: C3.2.1

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Mitchell Park Dog Run, March 2017

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Various

Managing Department: Community Services
IBRC Reference: New

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PG-18001

Dog Park Installation and Renovation

Description

This project provides funding for building dog parks at various City parks and facilities that currently do not have dog parks, as well as renovating existing dog parks.

Justification

The Parks, Trails, Natural Open Space, and Recreation Master Plan provides guidance on dog parks. The policy states that Palo Alto should actively pursue adding dedicated, fenced, dog parks in multiple neighborhoods, equitably distributed between North and South Palo Alto. The size of the dog parks will vary, but should strive to be at least .25 acres and each new dog park installation will require a Park Improvement Ordinance.

When this project was established, Palo Alto had three dog parks at Mitchell Park, Hoover Park, and Greer Park. These dog parks were undersized and located only in the south side of the City. Funding from this project expanded the dog parks and provided a fourth dog park to serve the north side of the City, at Peers Park. Continued funding from this project allows additional dog parks to be built throughout Palo Alto.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	27,000	(150,000)	164,800	0	50,000	0	75,600	290,400	0	N/A
Transfer from Parks Dedication Fund	N/A	0	0	0	0	0	0	0	0	0	N/A
Transfer from Parks Development Impact Fee Fund	N/A	150,000	150,000	0	0	150,000	0	150,000	300,000	0	N/A
Total	**N/A**	**177,000**	**0**	**164,800**	**0**	**200,000**	**0**	**225,600**	**590,400**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	167,000	0	164,800	0	190,000	0	215,600	570,400	0	N/A
Design	N/A	10,000	0	0	0	10,000	0	10,000	20,000	0	N/A
Total	**N/A**	**177,000**	**0**	**164,800**	**0**	**200,000**	**0**	**225,600**	**590,400**	**0**	**N/A**

Operating Impact

Cleaning costs of $2,000 per year, per dog park, are currently budgeted in the Community Services Department operating budget. However, the addition of more dog parks may cause this amount to increase. Additional funding needs will be brought forward as part of future budget cycles.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Program: C3.3.1

Relationship to Comprehensive Plan

Secondary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Program: C3.2.1

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have possible exemption from CEQA under Section 15301

Boronda Lake Dock, February 2017

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Foothills Park Boronda Lake (3300 Page Mill Road between Central and Moody)

Managing Department: Community Services
IBRC Reference: Keep-up

Initial Project Start: Fall 2017
Initial Project Completion: Spring 2018

Revised Project Start: Fall 2020
Revised Project Completion: Spring 2021

Project Number: OS-18000

Foothills Park Boronda Lake Dock Replacement

Description

This project provides funding for the replacement of an aged and deteriorating Boronda Lake Dock.

Justification

The dock was originally built in 1965 and was last refurbished in 2010 with repairs to the wood decking. The current condition of the dock is declining and now requires a complete replacement of the dock with new decking, ramp, floats, and pilings.

Significant Changes

2021-2025 CIP: Project funding increased due to escalation of repair/construction costs.

2019-2023 CIP: Project funding has been pushed out to FY 2021.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	230,700	0	0	0	0	230,700	0	230,700
Total	**0**	**0**	**0**	**230,700**	**0**	**0**	**0**	**0**	**230,700**	**0**	**230,700**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	143,046	0	0	0	0	143,046	0	143,046
Design	0	0	0	87,654	0	0	0	0	87,654	0	87,654
Total	**0**	**0**	**0**	**230,700**	**0**	**0**	**0**	**0**	**230,700**	**0**	**230,700**

Operating Impact

This project is not anticipated to impact operating expenses and if any maintenance costs increase, costs will be absorbed with the available maintenance funding in the annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Program: C3.2.1

Potential Board/Commission Review:

Architectural Review Board

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

Possible exemption from CEQA under Section 15302

Foothills Park Orchard Glen picnic area, January 2016

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Foothills Park (3300 Page Mill Road between Central and Moody)

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Summer 2021
Initial Project Completion: Fall 2022

Revised Project Start: Fall 2023
Revised Project Completion: Summer 2024

Project Number: PE-21000

Foothills Park Improvement Project

Description

This project provides funding to replace the bridge to Sunfish Island, design and permitting to replace the footbridge in Los Trancos Valley, and to replace the grade control structures along Buckeye Creek.

Justification

The Sunfish Island Bridge (located at Boronda Lake) is in disrepair and needs to be replaced. The footbridge in Los Trancos Valley and grade control structures along Buckeye Creek are deteriorating and approaching the end of their useful life. If no action is taken, the footbridge and grade control structures will likely fail in the next 5-10 years. This would lead to severe erosion in several areas of Foothills Park, especially Wild Horse Valley where the existing utility corridors would be threatened.

Supplemental Information

Sunfish Island Bridge was built in the early 1960's and significant exterior wear and erosion have deteriorated the condition of this bridge as well as the Los Trancos Valley footbridge. The City recently completed a hydrology study of Buckeye Creek to provide recommendations to reduce erosion, sediment deposition, and flooding conditions in Foothills Park. The study recommended options to resolve the current erosion issues and to restore the creek channel, including replacement of the footbridge and grade control structures along Buckeye Creek.

Significant Changes

2021-2025 CIP: Project design and construction funding delayed from Fiscal Year 2021 to Fiscal Year 2023 for design and Fiscal Year 2024 for construction due to staffing constraints and other high-priority projects.

2019-2023 CIP: The Los Trancos Valley footbridge and Buckeye Creek grade control structures replacement has been added to the scope of this project. Funding has been increased by $150,000 to address added scope.

2018-2022 CIP: Funding has been moved from Fiscal Year 2020 to Fiscal Year 2021 to coordinate with the findings from the Foothills Park, Pearson Arastradero Preserve, and Esther Clark Park Comprehensive Conservation Plan project.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	0	83,300	397,200	0	480,500	0	480,500
Total	**0**	**0**	**0**	**0**	**0**	**83,300**	**397,200**	**0**	**480,500**	**0**	**480,500**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	397,200	0	397,200	0	397,200
Design	0	0	0	0	0	83,300	0	0	83,300	0	83,300
Total	**0**	**0**	**0**	**0**	**0**	**83,300**	**397,200**	**0**	**480,500**	**0**	**480,500**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Potential Board/Commission Review:

Architectural Review Board

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301

Pearson-Arastradero Preserve, January 2016

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Foothills Park, Pearson Arastradero Preserve, and Esther Clark Park

Managing Department: Community Services
IBRC Reference: Keep-up

Initial Project Start: Summer 2020
Initial Project Completion: Summer 2022

Revised Project Start: Summer 2022
Revised Project Completion: Summer 2024

Project Number: PG-17001

Foothills Park, Pearson Arastradero Preserve, and Esther Clark Park Conservation Plan

Description

This project provides funding to create a comprehensive conservation plan for Foothills Park, Pearson Arastradero Preserve, and Esther Clark Park. The plan will provide guidance on wildlife and habitat management, public access and recreation, trails, and interpretive messaging.

Justification

Staff needs a guiding plan to provide insight on best management practices for wildlife, habitat, vegetation, and recreation management. The plan will also provide priorities, which will help staff and volunteers guide resources to the most important projects.

Significant Changes

2021-2025 CIP: Funding for CEQA shifted to Fiscal Year 2024 due to a reprioritization of parks projects.

2020-2024 CIP: Added $0.1 million for CEQA and project shifted to Fiscal Year 2022 due to a reprioritization of parks projects.

2018-2022 CIP: Project shifted from Fiscal Year 2021 to Fiscal Year 2019 due to a reprioritization of parks projects.

2017-2021 CIP: Project established.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	355,000	0	319,200	0	0	170,400	0	489,600	0	489,600
Total	**0**	**355,000**	**0**	**319,200**	**0**	**0**	**170,400**	**0**	**489,600**	**0**	**489,600**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	355,000	0	319,200	0	0	170,400	0	489,600	0	489,600
Total	**0**	**355,000**	**0**	**319,200**	**0**	**0**	**170,400**	**0**	**489,600**	**0**	**489,600**

Operating Impact

Although this project is only to develop a conservation plan, it may result in increased operating expenses that will be brought forward as part of future budget recommendations.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Open Space

Goal: N-3

Policy: N-3.4

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project may be subject to CEQA review.

Golf Course Net and Artificial Turf

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Palo Alto Municipal Golf Course (1875 Embarcadero Road)

Managing Department: Community Services
IBRC Reference: Keep-up

Initial Project Start: Spring 2018
Initial Project Completion: Summer 2018

Revised Project Start: Winter 2022
Revised Project Completion: Spring 2022

Project Number: PG-18000

Golf Course Net and Artificial Turf Replacement

Description

This project provides funding for the removal and replacement of golf course driving range netting and synthetic turf.

Justification

Based on age, condition, and useful life expectancy, replacement golf course driving range netting and synthetic turf will be needed. The golf course driving range is a popular facility, and is used as a teaching area. The facility is an important source of revenue to the City, and keeping it in a state of good repair will aid in maintaining this revenue stream.

Supplemental Information

This project is pending a cost estimate update as current estimate was made in Fiscal Year 2013.

Significant Changes

2020-2024 CIP: Project shifted from Fiscal Year 2020 to Fiscal Year 2022 due to a reprioritization of parks projects.

2018-2022 CIP: Project shifted from Fiscal Year 2018 to Fiscal Year 2020 due to a reprioritization of parks projects.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	970,000	0	0	0	970,000	0	970,000
Total	**0**	**0**	**0**	**0**	**970,000**	**0**	**0**	**0**	**970,000**	**0**	**970,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	945,000	0	0	0	945,000	0	945,000
Design	0	0	0	0	25,000	0	0	0	25,000	0	25,000
Total	**0**	**0**	**0**	**0**	**970,000**	**0**	**0**	**0**	**970,000**	**0**	**970,000**

Operating Impact

This project is not anticipated to impact operating expenses and if any maintenance costs increase, costs will be absorbed with the available maintenance funding in the annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Program: C3.2.1

Relationship to Comprehensive Plan

Secondary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Program: C3.3.1

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Heritage Park Bench, March 2017

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 300 Homer Avenue (bounded by Waverley, Homer, and Bryant)

Managing Department: Community Services
IBRC Reference: Keep-up

Initial Project Start: Summer 2020
Initial Project Completion: Summer 2022

Revised Project Start: Summer 2024
Revised Project Completion: Summer 2025

Project Number: PG-21000

Heritage Park Site Amenities Replacement

Description

The project provides funding for replacement of select walkways and all of the site amenities in Heritage Park including: benches, picnic tables, trash receptacles, playground arbor, bicycle racks and drinking fountain.

Justification

Installed in 2005, the current site amenities have reached the use expectancy and need replacement. As park infrastructure ages, safety and compliance issues need to be addressed. This project will ensure compliance and address accessibility needs as well as safety issues.

Significant Changes

2021-2025 CIP: Project shifted from Fiscal Year 2022 to Fiscal Year 2025 due to a reprioritization of parks projects.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	0	0	0	195,500	195,500	0	195,500
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**195,500**	**195,500**	**0**	**195,500**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	0	165,500	165,500	0	165,500
Design	0	0	0	0	0	0	0	30,000	30,000	0	30,000
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**195,500**	**195,500**	**0**	**195,500**

Operating Impact

This project is not anticipated to impact operating expenses and if any maintenance costs increase, costs will be absorbed with the available maintenance funding in the annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Program: C3.3.1

Relationship to Comprehensive Plan

Secondary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Program: C3.2.1

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have possible exemption from CEQA under Section 15301

Hoover Park, February 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 2901 Cowper Street

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Fall 2018
Initial Project Completion: Spring 2019

Revised Project Start: Summer 2024
Revised Project Completion: Summer 2025

Project Number: PE-18012

Hoover Park Improvements

Description

This project provides funding for the replacement of the existing concrete walkway, playground, repairs to the existing decomposed granite walkway and replacement of site amenities, including playfield backstops, benches, drinking fountains, tables, and trash receptacles. Also included are repairs to the existing brick wall surrounding the children's playground.

Justification

The concrete walkway and decomposed granite pathway are cracked and/or uneven, creating safety hazards. The playground was installed in 2005 and will reach the end of its useful life by 2025. The brick wall at the playground and other site amenities, including the playfield backstops, are old or damaged.

Significant Changes

2021-2025 CIP: Replacement of the children's playground and drinking fountains have been added to the scope of work and the project has shifted from Fiscal Year 2023 to Fiscal Year 2025 due to a reprioritization of parks projects.

2020-2024 CIP: Project shifted from Fiscal Year 2022 to Fiscal Year 2023 due to a reprioritization of parks projects.

2018-2022 CIP: The Parks, Trails, Natural Open Space and Recreational Master Plan projects were reviewed and adjusted according to staff availability as well as community and Infrastructure Blue Ribbon Commission (IBRC) needs.

2017-2021 CIP: Project shifted from Fiscal Year 2018 to Fiscal Year 2021 pending completion of the Parks Master Plan and a reprioritization of parks projects.

2016-2020 CIP: Project moved from 2018 to 2017 based on review of staff work load.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	0	0	0	1,255,700	1,255,700	0	1,255,700
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,255,700**	**1,255,700**	**0**	**1,255,700**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	0	1,170,700	1,170,700	0	1,170,700
Design	0	0	0	0	0	0	0	85,000	85,000	0	85,000
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,255,700**	**1,255,700**	**0**	**1,255,700**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Johnson Park

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 251 Waverley Street

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Spring 2021
Initial Project Completion: Winter 2022

Revised Project Start: Fall 2023
Revised Project Completion: Summer 2025

Project Number: PE-21002

Johnson Park Renovation

Description

This project provides funding for the renovation of existing park elements, including asphalt concrete and brick pathways, site furnishings, playground equipment and resurfacing, fencing, and improvements to irrigation and lighting.

Justification

Pathways and park amenities are in need of repair or improvements to maintain functionality.

Significant Changes

2021-2025 CIP: Design and construction costs increased to align with increased scope of work and project shifted from Fiscal Years 2021 and 2022 to Fiscal Years 2024 and 2025 due to reprioritization of parks projects.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	0	0	474,800	1,573,900	2,048,700	0	2,048,700
Total	**0**	**0**	**0**	**0**	**0**	**0**	**474,800**	**1,573,900**	**2,048,700**	**0**	**2,048,700**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	289,800	1,573,900	1,863,700	0	1,863,700
Design	0	0	0	0	0	0	185,000	0	185,000	0	185,000
Total	**0**	**0**	**0**	**0**	**0**	**0**	**474,800**	**1,573,900**	**2,048,700**	**0**	**2,048,700**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Potential Board/Commission Review:

Architectural Review Board

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Magical Bridge Playground

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Mitchell Park: 600 E Meadow Drive, Palo Alto, CA 94306

Managing Department: Community Services
IBRC Reference: N/A

Initial Project Start: Spring 2021
Initial Project Completion: Summer 2021

Revised Project Start:
Revised Project Completion:

Project Number: PE-21003

Magical Bridge Playground Rubber and Synthetic Turf Resurfacing

Description

This project provides funding for the replacement of all rubberized and synthetic turf surfacing in the playground and play equipment.

Justification

The Magical Bridge Playground was opened to the public in March of 2015 and is the most heavily used playground in Palo Alto. Rubberized and synthetic surfacing has a life span of approximately 7 to 10 years depending upon the sun exposure and use and will need replacement by 2021. Play equipment including, but not limited to, swings, climbing net, and the playhouse would also reach the end of their useful life and will need replacement and repair by 2022. Since its installation, portions of the playground failed prematurely and have required periodic closures for repairs.

Supplemental Information

The City will work with internal and external stakeholders including the Friends of the Magical Bridge Playground to inform the community of the project schedule as the playground will need to be closed for a period of approximately two weeks to complete the work.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	404,050	463,250	0	0	0	867,300	0	867,300
Total	**0**	**0**	**0**	**404,050**	**463,250**	**0**	**0**	**0**	**867,300**	**0**	**867,300**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	344,050	463,250	0	0	0	807,300	0	807,300
Design	0	0	0	60,000	0	0	0	0	60,000	0	60,000
Total	**0**	**0**	**0**	**404,050**	**463,250**	**0**	**0**	**0**	**867,300**	**0**	**867,300**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Potential Board/Commission Review:

Parks and Recreation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under section 15302.

Mitchell Park, February 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 600 East Meadow Drive

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Fall 2018
Initial Project Completion: Summer 2019

Revised Project Start: Summer 2022
Revised Project Completion: Summer 2024

Project Number: PE-18010

Mitchell Park Improvements

Description

This project provides funding for repair and replacement of equipment and amenities throughout Mitchell Park. The improvements include replacement of the playground equipment located along East Meadow Drive, renovation of the water-play element, repair of the covered wood walkway structure, replacement of playground and water play area fencing, and new rubberized surfacing. Also included are irrigation renovations, turf restoration, and replacement of site amenities and decomposed granite pathways.

Justification

The playground equipment, water-play element, fencing, covered wood walkway structure, decomposed granite pathways, and site amenities have surpassed their expected lifecycle. Repair and/or replacement is necessary. Loss of vegetation has been linked to poor irrigation.

Supplemental Information

Design of the new playground equipment will include outreach to nearby schools that have provided input regarding the playground equipment in the past. The Parks, Trails, Natural Open Space and Recreational Master Plan projects were reviewed and adjusted according to staff availability as well as community needs and recommendations from the Infrastructure Blue Ribbon Committee (IBRC).

Significant Changes

2020-2024 CIP: This project has been deferred due to staffing constraints.

2019-2023 CIP: This project has been deferred due to staffing constraints.

2018-2022 CIP: Design shifted from Fiscal Year 2021 to Fiscal Year 2020.

2016-2020 CIP: Based on the IBRC keep-up schedule for the park, irrigation renovations, turf restoration and park amenities replacement were added to the project's scope with an additional budget allocation of $946,000. This additional work was scheduled for Fiscal Year 2020, and the project schedule was adjusted accordingly.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	0	374,000	1,059,895	0	1,433,895	0	1,433,895
Total	**0**	**0**	**0**	**0**	**0**	**374,000**	**1,059,895**	**0**	**1,433,895**	**0**	**1,433,895**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	86,000	1,059,895	0	1,145,895	0	1,145,895
Design	0	0	0	0	0	288,000	0	0	288,000	0	288,000
Total	**0**	**0**	**0**	**0**	**0**	**374,000**	**1,059,895**	**0**	**1,433,895**	**0**	**1,433,895**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Potential Board/Commission Review:

Architectural Review Board

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project may require an environmental assessment in accordance with CEQA guidelines.

Byxbee Park pole field, January 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Various

Managing Department: Community Services
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: OS-09001

Off-Road Pathway Resurfacing And Repair

Description

This project provides funding for the maintenance of Palo Alto's 9-miles of off-road paved trail system that is 35 years old and requires on-going, phased repairs. This project removes and and replaces severely damaged sections of asphalt, repairs, cracks and base failures, and resurfaces worn or uneven surfaces of off-road asphalt pathways and bicycle trails. Priority will be given to the repair of the most uneven sections of pathway. Staff uses surface assessment data prepared by Public Works Engineering and input from the public to prioritize repair or replacement projects.

Justification

This project is intended to maintain the existing system of off-road pathways and trails throughout Palo Alto in order to extend the useful like of pathway surfaces. The project will ensure safe, even and handicap-accessible surfaces for pedestrians, cyclists, and skaters. Repair of uneven trail surfaces will greatly reduce accidents.

Significant Changes

2019 -2023 CIP: The Adobe Creek Reach Trail is a 600 foot long segment of the existing Santa Clara Valley Water District's maintenance road on the east side of Adobe Creek, between West Bayshore Road and East Meadow Drive. This trail will provide an off-road, more direct access to the Highway 101 Pedestrian and Bicycle Overcrossing. The project includes trail pavement, grading, and drainage, and installation of safety railing and fencing.

2018 -2022 CIP: In accordance with the Funding Agreement for the project, a payment of approximately $170,000 will be made to the Joint Power Agreement (JPA) "Highway 101 to Bay Flood Control" project in FY 2018. The remaining balance will be used for off-road trail repairs.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	499,675	173,000	324,000	136,900	147,300	158,600	171,500	938,300	0	N/A
Total	**N/A**	**499,675**	**173,000**	**324,000**	**136,900**	**147,300**	**158,600**	**171,500**	**938,300**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	499,675	173,000	324,000	136,900	147,300	158,600	171,500	938,300	0	N/A
Total	**N/A**	**499,675**	**173,000**	**324,000**	**136,900**	**147,300**	**158,600**	**171,500**	**938,300**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses and if any maintenance costs increase, costs will be absorbed with the available maintenance funding in the annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Boronda Lake, January 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Foothills Park Boronda Lake (3300 Page Mill Road between Central and Moody)

Managing Department: Community Services
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: OS-00002

Open Space Lakes And Pond Maintenance

Description

This project rehabilitates lakes and ponds in open space nature preserves to protect wildlife habitat and recreational safety as well as to meet State Division of Safety of Dams requirements. The project funds annual harvesting of non-native pond weeds and cattails at Boronda Lake in Foothills Park. The project also funds maintenance of the Duck Pond aerator for improved water quality.

Justification

Pond weeds and cattails must be regularly removed from Boronda Lake to prevent non-native plants from displacing native plants that are essential to the survival of fish and foraging animals. This also will provide access for recreational fishing and boating safety. The State Division of Safety of Dams mandates cattail removal to maintain the Boronda Dam. The Baylands Duck Pond aeration system maintains water quality for wildlife.

Significant Changes

2016-2020 CIP: This project was converted to annual recurring status, rather than past practice of receiving additional funding every other year. The change addressed the changing needs of Boronda Lake. The aquatic weeds that are harvested need to be cleared more thoroughly every year.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	143,000	71,350	113,350	59,900	64,200	68,700	74,000	380,150	0	N/A
Total	**N/A**	**143,000**	**71,350**	**113,350**	**59,900**	**64,200**	**68,700**	**74,000**	**380,150**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	143,000	71,350	113,350	59,900	64,200	68,700	74,000	380,150	0	N/A
Total	**N/A**	**143,000**	**71,350**	**113,350**	**59,900**	**64,200**	**68,700**	**74,000**	**380,150**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses and if any maintenance costs increase, costs will be absorbed with the available maintenance funding in the annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Open Space

Goal: N-1

Policy: N-1.5

Program: N1.5.1

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Baylands Bench, January 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Various

Managing Department: Community Services
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: OS-00001

Open Space Trails and Amenities

Description

This project provides funding to restore unpaved trails, fences, picnic areas, and campgrounds at Foothills Park, the Baylands, and the Pearson-Arastradero Nature Preserves. The project also provides habitat protection by guiding park users towards areas dedicated for hiking, biking, and assembling. Benches, tables, footbridges, and fences that are at the end of their useful life will systematically be replaced.

Justification

Open Space trails require ongoing repair of natural erosion, storm damage, and control of aggressive plants, such as thistle and poison oak to ensure that facilities are safe, accessible, and maintained for recreational uses. These restoration projects are consistent with the Arastradero Preserve Trails Management Plan and the Foothills Park Trails Maintenance Plan.

Supplemental Information

Improvements to the trails within Pearson-Arastradero Preserve move trails away from environmentally sensitive areas and to correct the steeply sloped trails, thereby reducing erosion and providing better access to park users with disabilities. These restoration projects are consistent with the Arastradero Preserve Trails Management Plan and the Foothills Park Trails Maintenance Plan.

Significant Changes

2017-2021 CIP: Additional $55,000 in funding added in Fiscal Year 2017 for one-time repairs of the Los Trancos Trail.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	355,175	355,175	192,300	220,400	233,300	247,200	263,200	1,156,400	0	N/A
Total	**N/A**	**355,175**	**355,175**	**192,300**	**220,400**	**233,300**	**247,200**	**263,200**	**1,156,400**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	355,175	355,175	192,300	220,400	233,300	247,200	263,200	1,156,400	0	N/A
Total	**N/A**	**355,175**	**355,175**	**192,300**	**220,400**	**233,300**	**247,200**	**263,200**	**1,156,400**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses and if any maintenance costs increase, costs will be absorbed with the available maintenance funding in the annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Open Space

Goal: N-1

Policy: N-1.5

Program: N1.5.1

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Briones Park, January 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Various

Managing Department: Community Services
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PG-09002

Park and Open Space Emergency Repairs

Description

This project provides funding for the replacement or extensive repair of playgrounds, play yard surfaces, wooden structures, park amenities, and play equipment in the event of storms, fire, vandalism, or structural failure.

Justification

This project allows for the replacement or repair of damaged equipment or play structures for the convenience of the public.

Significant Changes

2019-2023 CIP: Funding is gradually increasing from $75,000 to $0.2 million annually over the 5 year CIP. The project is used to address unpredicted issues like trails closed due to strong storm damage, failing infrastructure that can be repaired (the Baylands Sailing Station), and premature failure of playground equipment and surfacing.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	142,000	40,000	211,721	201,500	266,100	306,900	325,000	1,311,221	0	N/A
Total	**N/A**	**142,000**	**40,000**	**211,721**	**201,500**	**266,100**	**306,900**	**325,000**	**1,311,221**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	142,000	40,000	211,721	201,500	266,100	306,900	325,000	1,311,221	0	N/A
Total	**N/A**	**142,000**	**40,000**	**211,721**	**201,500**	**266,100**	**306,900**	**325,000**	**1,311,221**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses and if any maintenance costs increase, costs will be absorbed with the available maintenance funding in the annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Program: C3.2.1

Relationship to Comprehensive Plan

Secondary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Program: C3.3.1

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Park Restroom, February 2017

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Various

Managing Department: Community Services
IBRC Reference: New

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PG-19000

Park Restroom Installation

Description

This project provides funding for installation of restrooms at City parks that currently do not have restroom facilities. The restrooms may be prefabricated, and each installation will require a Park Improvement Ordinance.

Justification

Many parks in the City have no restroom facilities within the park boundaries. This project will provide for one park restroom installation every other year in parks that are approximately two acres or larger, have amenities that encourage visitors to stay in the park, have high level of use, and where there are no nearby public restrooms available. The Parks, Trails, Natural Open Space, and Recreation Master Plan provides guidance on potential restroom locations.

Supplemental Information

Public outreach will occur as specific parks are considered for restroom installation.

Significant Changes

2021-2022 CIP: Fiscal Year 2021 funding moved to Fiscal Year 2022 to align with other park projects.

2020-2024 CIP: Fiscal Year 2019 funding moved to Fiscal Year 2020 as next restroom installation is being coordinated with other park renovation projects.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	64,000	(350,000)	0	90,900	0	144,400	0	235,300	0	N/A
Transfer from Parks Development Impact Fee Fund	N/A	350,000	350,000	0	350,000	0	350,000	0	700,000	0	N/A
Total	**N/A**	**414,000**	**0**	**0**	**440,900**	**0**	**494,400**	**0**	**935,300**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	384,000	0	0	410,900	0	464,400	0	875,300	0	N/A
Design	N/A	30,000	0	0	30,000	0	30,000	0	60,000	0	N/A
Total	**N/A**	**414,000**	**0**	**0**	**440,900**	**0**	**494,400**	**0**	**935,300**	**0**	**N/A**

Operating Impact

Cleaning costs of $8,400 per year, per restroom are currently budgeted in the Community Services Department, however the addition of more park restrooms may cause this amount to increase. Additional funding needs will be brought forward as part of future budget cycles.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Program: C3.3.1

Relationship to Comprehensive Plan

Secondary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Program: C3.2.1

Potential Board/Commission Review:

Architectural Review Board

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have possible exemption from CEQA under Section 15303

Pearson Arastradero Preserve

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 1530 Arastradero Road

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Summer 2020
Initial Project Completion: Fall 2021

Revised Project Start: Fall 2019
Revised Project Completion: Fall 2023

Project Number: PE-21001

Pearson Arastradero Improvement Project

Description

This project provides funds for replacing fencing, signs, gates, bridge decking, and making improvements to some of the seasonal trails to help reduce winter trail closures.

Justification

The fencing, signs, gates, and bridge decking have exceeded their useful lifespans, and need to be replaced. There are a number of seasonal trails that must be closed during the rainy season. The Parks, Trails, Natural Open Space and Recreational Master Plan projects were reviewed and adjusted according to staff availability as well as community needs and Infrastructure Blue Ribbon Committee recommedations.

Significant Changes

2020-2024 CIP: Project construction shifted from Fiscal Year 2021 to Fiscal Year 2023 due to a reprioritization of parks projects.

2018-2022 CIP: Design was advanced from Fiscal Year 2021 to Fiscal Year 2020.

2017-2021 CIP: Project established.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	0	70,800	306,700	0	377,500	0	377,500
Total	**0**	**0**	**0**	**0**	**0**	**70,800**	**306,700**	**0**	**377,500**	**0**	**377,500**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	306,700	0	306,700	0	306,700
Design	0	0	0	0	0	70,800	0	0	70,800	0	70,800
Total	**0**	**0**	**0**	**0**	**0**	**70,800**	**306,700**	**0**	**377,500**	**0**	**377,500**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Program: C3.2.1

Potential Board/Commission Review:

Architectural Review Board

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301

Pearson Arastradero Parking Lot - Overflow Area, February 2017

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 1530 Arastradero Road

Managing Department: Community Services
IBRC Reference: Keep-up

Initial Project Start: Fall 2017
Initial Project Completion: Spring 2018

Revised Project Start: Fall 2020
Revised Project Completion: Winter 2020

Project Number: OS-18001

Pearson Arastradero Preserve Parking Lot Improvement

Description

This project provides funding to improve the Pearson Arastradero Preserve parking lot by improving the base rock surfacing, adding drainage and fencing, and widening the entrance for safety. The improvement will allow the overflow parking area to be open year round, rather than only during the dry periods of the year.

Justification

The existing parking lot and overflow lot are in poor condition. The main parking lot holds approximately 32 cars when carefully parked. The adjacent overflow lot holds approximately 15 cars, and cannot be used during the rainy season. The parking lot fills typically on weekends by 9:00 am. On weekdays the lot fills with users by late afternoon to sunset.

Significant Changes

2019-2023 CIP: Completion date revised to FY 2021.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	170,300	0	0	0	0	170,300	0	170,300
Total	**0**	**0**	**0**	**170,300**	**0**	**0**	**0**	**0**	**170,300**	**0**	**170,300**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	155,772	0	0	0	0	155,772	0	155,772
Design	0	0	0	14,528	0	0	0	0	14,528	0	14,528
Total	**0**	**0**	**0**	**170,300**	**0**	**0**	**0**	**0**	**170,300**	**0**	**170,300**

Operating Impact

This project is not anticipated to impact operating expenses and if any maintenance costs increase, costs will be absorbed with the available maintenance funding in the annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Program: C3.2.1

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project may be exempt from CEQA under Section 15302.

Peers Park, January 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 1899 Park Boulevard

Managing Department: Community Services
IBRC Reference: Catch-up

Initial Project Start: Summer 2017
Initial Project Completion: Summer 2018

Revised Project Start: Summer 2023
Revised Project Completion: Summer 2024

Project Number: PG-14001

Peers Park Improvements

Description

This project provides funding for upgrades and renovations of the irrigation system and turf at Peers Park. The project will also replace the park benches and drinking fountains, resurface the basketball and tennis court playing surfaces, and repair court fencing.

Justification

The existing irrigation system, benches, and drinking fountains have exceeded their useful lives.

Significant Changes

2021-2025 CIP: Project shifted from Fiscal Year 2023 to Fiscal Year 2024 due to reprioritization of parks projects.

2019-2023 CIP: Project shifted from Fiscal Year 2021 to Fiscal Year 2023 due to reprioritization of parks projects.

2018-2022 CIP: Project shifted from Fiscal Year 2020 to Fiscal Year 2021 due to reprioritization of parks projects.

2017-2021 CIP: Project shifted from Fiscal Year 2018 to Fiscal Year 2020 pending completion of the Parks Master Plan and a reprioritization of parks projects.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	0	0	289,600	0	289,600	0	289,600
Total	**0**	**0**	**0**	**0**	**0**	**0**	**289,600**	**0**	**289,600**	**0**	**289,600**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	289,600	0	289,600	0	289,600
Total	**0**	**0**	**0**	**0**	**0**	**0**	**289,600**	**0**	**289,600**	**0**	**289,600**

Operating Impact

This project is not anticipated to impact operating expenses and if any maintenance costs increase, costs will be absorbed with the available maintenance funding in the annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Program: C3.3.1

Relationship to Comprehensive Plan

Secondary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Program: C3.2.1

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Rinconada Park February 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 777 Embarcadero Road

Managing Department: Public Works
IBRC Reference: New

Initial Project Start: Summer 2015
Initial Project Completion: Spring 2019

Revised Project Start: Summer 2019
Revised Project Completion: Spring 2025

Project Number: PE-08001

Rinconada Park Improvements

Description

Upon completion of the Rinconada Park Long Range Plan (LRP) adopted in 2017, funding was secured to begin these park improvements. Phase 1 improvements at Rinconada Park will be implemented in the western half of the park in fall 2020 and include funding for upgrades to safety, site amenities, playground facilities, irrigation, drainage, restrooms, and accessibility improvements.

Phase 2 improvements will include renovation of the eastern half of the park by 2024 including pathway improvements, a new restroom facility, renovated and expanded group picnic areas, native and habitat planting, irrigation improvements, ADA upgrades, directional signage, site furnishing, lighting and green infrastructure elements.

According to the LRP, future improvement phases would include renovation to the arbor area, development around the electrical substation, and renovation to the pool area.

Justification

Rinconada Park has not been renovated for several decades with the pathways in poor condition and aging playgrounds and site amenities. The Rinconada Park Long Range Plan outlined new restroom and improvements related to deferred maintenance items at the park, such as installing new, wider pathways rather than repairing the existing pathways.

Supplemental Information

The City will conduct a community based design process to determine the final scope of work for Rinconada Park Phase 2 improvements. Phase 1 improvements will be implemented in fall 2020.

Significant Changes

2021-2025 CIP: Funding included in Fiscal Year 2021 to add a new restroom facility. Rinconada Park Phase 2 design scheduled for Fiscal Year 2023 and construction in Fiscal Year 2025.

2020-2024 CIP: Funding moved from Fiscal Year 2019 to Fiscal Year 2020 to align with work being done in the JMZ Renovation project (AC-18001).

2019-2023 CIP: The project increased by $1.3 million to reconstruct the parking lot, update park signage, and renovate the playground and reconstruct the paths on the west end of the park. Funding from the Community Center Impact Fee Fund will be used for these items.

2018-2022 CIP: The project was delayed to coordinate with environmental assessments for the Junior Museum and Zoo (JMZ), Rinconada Park Long Range Plan and the Parks, Trails, Natural Open Space and Recreation Master Plan Parks (Master Plan), to be complete by Fiscal Year 2018. Park construction will be coordinated to follow the proposed JMZ rebuilding. $706,000 of the construction phase funding will be utilized for costs associated with relocation of the existing JMZ operation to Cubberley and permit & inspection fees needed for the JMZ rebuilding.

2017-2021 CIP: Timeline extended to reflect direction from Finance Committee and City Council during budget approval process.

2016-2020 CIP: Project was delayed to await the completion of the Rinconada Park Long Range Plan and environmental review. Funding for construction was advanced from Fiscal Year 2018 to 2017 and combined with funding from Fiscal Year 2015 to implement a single phase project. The total budget has been reduced by $600,000 from the budget shown in the Fiscal Years 2015-2019 CIP to focus on deferred maintenance items. Funding to enhance the park will be considered as part of the funding needs for the entire City park system once the Rinconada Park Long Range Plan and the Parks Master Plan are completed.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	2,280,050	310,100	(596,596)	1,057,296	0	538,300	0	3,073,800	4,669,396	0	6,352,850
Transfer from Community Center Impact Fee Fund	0	1,999,529	1,999,529	400,000	0	0	0	0	400,000	0	2,399,529
Total	**2,280,050**	**2,309,629**	**1,402,933**	**1,457,296**	**0**	**538,300**	**0**	**3,073,800**	**5,069,396**	**0**	**8,752,379**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	1,862,074	2,309,629	1,402,933	1,417,296	0	163,300	0	3,073,800	4,654,396	0	7,919,403
Design	417,972	0	0	40,000	0	375,000	0	0	415,000	0	832,972
Total	**2,280,046**	**2,309,629**	**1,402,933**	**1,457,296**	**0**	**538,300**	**0**	**3,073,800**	**5,069,396**	**0**	**8,752,375**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

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Robles Park, February 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 4116 Park Boulevard

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Fall 2018
Initial Project Completion: Summer 2019

Revised Project Start: Summer 2023
Revised Project Completion: Summer 2024

Project Number: PE-18015

Robles Park Improvements

Description

This project provides funding for the replacement of play equipment and resurfacing in two children's playground areas, repairs to a basketball court and adjacent concrete wall, and replacement of perimeter fencing, pathways, and other site amenities. Irrigation renovations and turf restoration are also included in this project.

Justification

The playground areas, backstop, basketball court, concrete pathways, and site amenities have surpassed their intended useful lives and are in need of replacement or repairs. Damaged and/or dead vegetation necessitates irrigation renovation as well as turf restoration.

Supplemental Information

The Parks, Trails, Natural Open Space and Recreational Master Plan projects were reviewed and adjusted according to staff availability as well as community and IBRC needs.

Significant Changes

2021-2025 CIP: Design and construction for this project shifted to Fiscal Year 2024 due to reprioritization of parks projects.

2020-2024 CIP: Design and construction for this project was shifted to Fiscal Year 2022.

2018-2022 CIP: Design was shifted from Fiscal Year 2020 to Fiscal Year 2021. Construction was shifted from Fiscal Year 2020 to Fiscal Year 2022.

2017-2021 CIP: Project shifted from Fiscal Year 2018 to Fiscal Year 2021 pending completion of the Parks Master Plan and a reprioritization of parks projects.

2016-2020 CIP: Project schedule moved forward by one year based on review of staff workload and resources.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	0	0	953,500	0	953,500	0	953,500
Total	**0**	**0**	**0**	**0**	**0**	**0**	**953,500**	**0**	**953,500**	**0**	**953,500**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	873,500	0	873,500	0	873,500
Design	0	0	0	0	0	0	80,000	0	80,000	0	80,000
Total	**0**	**0**	**0**	**0**	**0**	**0**	**953,500**	**0**	**953,500**	**0**	**953,500**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Seale Park, February 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 3100 Stockton Place

Managing Department: Community Services
IBRC Reference: Keep-up

Initial Project Start: Summer 2018
Initial Project Completion: Winter 2018

Revised Project Start: Summer 2021
Revised Project Completion: Summer 2023

Project Number: PG-14003

Seale Park Improvements

Description

This project provides funding for upgrades and renovations for safety and accessibility improvements at Seale Park. The project will replace existing park amenities, picnic tables, and playground structures including a playhouse and swings, refinish the playground perimeter fencing, and repair damaged decomposed granite and concrete pathways. Turf restoration and irrigation renovations will also be included as well as replacement of bollards at the park entrances, the park sign, and a small stone wall located in the middle of the park.

Justification

As park infrastructure ages, safety and compliance issues need to be addressed. This project will ensure compliance and address accessibility needs as well as safety issues. Drainage issues will be resolved with repairs to the damaged pathways. Irrigation renovations and turf restoration is required where existing areas are damaged or dead.

Significant Changes

2021-2025 CIP: Project shifted from Fiscal Year 2021 to Fiscal Years 2022 and 2023 due to a reprioritization of parks projects.

2018-2022 CIP: Project shifted from Fiscal Year 2020 to Fiscal Year 2021 due to a reprioritization of parks projects.

2017-2021 CIP: Project shifted from Fiscal Year 2018 to Fiscal Year 2020 pending completion of the Parks Master Plan and a reprioritization of parks projects.

2016-2020 CIP: Based on the IBRC keep-up schedule for the park, replacement of the playground structure has been added to the project's scope with an additional budget allocation of $209,000.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	67,800	360,000	0	0	427,800	0	427,800
Total	**0**	**0**	**0**	**0**	**67,800**	**360,000**	**0**	**0**	**427,800**	**0**	**427,800**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	42,800	360,000	0	0	402,800	0	402,800
Design	0	0	0	0	25,000	0	0	0	25,000	0	25,000
Total	**0**	**0**	**0**	**0**	**67,800**	**360,000**	**0**	**0**	**427,800**	**0**	**427,800**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Program: C3.3.1

Relationship to Comprehensive Plan

Secondary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Program: C3.2.1

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Cubberley Fields, March 2017

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Various

Managing Department: Community Services
IBRC Reference: New

Initial Project Start: Fall 2017
Initial Project Completion: Spring 2018

Revised Project Start: Fall 2018
Revised Project Completion: Spring 2021

Project Number: PG-18002

Turf Management Plan

Description

This project provides funding to evaluate select natural turf athletic fields maintained and brokered by the City for organized sports activities, and provides recommendations for improving the quality and durability of the fields.

Justification

The Parks, Trails, Open Space, and Recreation Master Plan emphasizes a high community priority to maintain quality turf fields to accommodate high demand and high use of the fields. With such volume of usage, the ability to maintain natural turf fields becomes difficult. The Turf Management Plan will make recommendations to upgrade the fields making them more durable for heavy use and recommend maintenance practices to ensure extensive use.

Significant Changes

2021-2025 CIP: Project funding moved to FY 2021 due to reprioritization of parks projects.

2020-2024 CIP: Project funding moved to FY 2020 as project will be solicited for proposals in Summer 2019.

2019-2023 CIP: Completion date revised to FY 2020.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	(100,000)	118,000	0	109,900	0	0	0	0	109,900	0	9,900
Transfer from Parks Development Impact Fee Fund	100,000	0	0	0	0	0	0	0	0	0	100,000
Total	**0**	**118,000**	**0**	**109,900**	**0**	**0**	**0**	**0**	**109,900**	**0**	**109,900**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	118,000	0	109,900	0	0	0	0	109,900	0	109,900
Total	**0**	**118,000**	**0**	**109,900**	**0**	**0**	**0**	**0**	**109,900**	**0**	**109,900**

Operating Impact

This project evaluates select athletic fields to provide recommendation plans and does not have an operating budget impact. Upon implementation of recommended plans, there will be operating budget impact that will be brought forward as part of future budget cycles.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Program: C3.3.1

Relationship to Comprehensive Plan

Secondary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Program: C3.2.1

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have possible exemption from CEQA under Section 15301

Werry Playground, March 2017

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 2100 Dartmouth Street between College and Stanford Avenues

Managing Department: Community Services
IBRC Reference: Keep-up

Initial Project Start: Fall 2021
Initial Project Completion: Spring 2022

Revised Project Start:
Revised Project Completion:

Project Number: PG-22000

Werry Park Playground Improvements

Description

This project provides funding for the replacement and ADA upgrades of the existing playground. The benches, tables, trash receptacles, bicycle rack, and drinking fountain have reached the end of their useful life and need replacement as well. Perimeter landscaping will be replaced as part of this project.

Justification

Built in 2002, the existing playground equipment has reached its use expectancy with limited accessibility. As park infrastructure ages, safety and compliance issues need to be addressed. This project will ensure compliance and address accessibility needs as well as safety issues.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	126,000	0	0	0	126,000	0	126,000
Total	**0**	**0**	**0**	**0**	**126,000**	**0**	**0**	**0**	**126,000**	**0**	**126,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	116,000	0	0	0	116,000	0	116,000
Design	0	0	0	0	10,000	0	0	0	10,000	0	10,000
Total	**0**	**0**	**0**	**0**	**126,000**	**0**	**0**	**0**	**126,000**	**0**	**126,000**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	**Secondary Connection**	Parks and Recreation Commission
Element: Community Services & Facilities	Element: Community Services & Facilities	Planning and Transportation Commission
Section: Maintenance of Parks and Community Facilities	Section: Maintenance of Parks and Community Facilities	
Goal: C-3	Goal: C-3	
Policy: C-3.3	Policy: C-3.2	
Program: C3.3.1	Program: C3.2.1	

Environmental Impact Analysis:

This project is expected to have possible exemption from CEQA under Section 15301

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Streets and Sidewalks

Laguna Avenue Bridge

Fund: Capital Improvement Fund
Category: Streets and Sidewalks
Project Location: Various

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PE-20001

City Bridge Improvements

Description

A Structural Bridge Assessment Study was completed in 2017, as part of the study, fifty City-owned bridges were inspected by a structural consulting firm. A recurring inspection and repair program defined a bridge maintenance, repair, and improvement program over the next 5 years. This program will include on-going inspections to report physical changes to the structures, recommendations for work to be done, and additional information to meet functional and structural standards in accordance with industry standards. Recurring inspections may vary from 2 to 5 years depending on the age and structural conditions.

Justification

There are 110 bridges maintained by the City of Palo Alto and by local agencies, of these, 80 are City-owned. There are 50 City-owned culvert and bridge structures that are inspected by the City and 30 City-owned structures inspected by Caltrans. The remaining 30 of 110 bridges are private (3) or owned by local agencies. Estimates were developed at a conceptual level and will be adjusted in the design phase.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	16,000	0	94,400	137,900	348,600	185,200	198,600	964,700	0	N/A
Total	**N/A**	**16,000**	**0**	**94,400**	**137,900**	**348,600**	**185,200**	**198,600**	**964,700**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	1,000	0	54,400	37,900	348,600	135,200	148,600	724,700	0	N/A
Design	N/A	15,000	0	40,000	100,000	0	50,000	50,000	240,000	0	N/A
Total	**N/A**	**16,000**	**0**	**94,400**	**137,900**	**348,600**	**185,200**	**198,600**	**964,700**	**0**	**N/A**

Operating Impact

This project may impact operating expenses in the future as the bridges are assessed and maintenance costs are determined. As these costs are quantified, adjustments will be brought forward in future budgets as necessary.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Public Streets and Public Spaces

Goal: L-9

Policy: L-9.10

Relationship to Comprehensive Plan

Secondary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Byron Street (1200 Block), January 2013

Fund: Capital Improvement Fund
Category: Streets and Sidewalks
Project Location: Various

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PO-12001

Curb and Gutter Repairs

Description

This project provides funding to repair curbs and gutters that have been uplifted by tree roots and allows for the installation of valley gutters in the Barron Park neighborhood to address ponding and poor drainage.

Justification

Ponding related to curb and gutter problems is a health hazard. Standing water can be a breeding ground for mosquitoes and encourage algae growth, becoming a hazard for bicyclists and pedestrians. The annual street maintenance project does not address these problems on small isolated sections of curb and gutter found on streets with good road surfaces.

Significant Changes

2020-2024 CIP: Additional funding in the amount of $150,000 for Fiscal Year 2020 to continue installing valley gutters as needed in the Barron Park neighborhood in coordination with Street Resurfacing Program work occurring in Barron Park.

2018-2022 CIP: Additional funding in the amount of $250,000 for Fiscal Year 2018 to install valley gutters as needed in the Barron Park neighborhood in coordination with Street Resurfacing Program work occurring in Barron Park.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	865,150	744,397	123,853	126,700	134,200	142,400	151,800	678,953	0	N/A
Total	**N/A**	**865,150**	**744,397**	**123,853**	**126,700**	**134,200**	**142,400**	**151,800**	**678,953**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	863,485	744,397	120,180	120,796	127,614	142,400	151,800	662,790	0	N/A
Design	N/A	1,665	0	3,673	5,904	6,586	0	0	16,163	0	N/A
Total	**N/A**	**865,150**	**744,397**	**123,853**	**126,700**	**134,200**	**142,400**	**151,800**	**678,953**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Public Streets and Public Spaces

Goal: L-9

Policy: L-9.10

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

El Camino Median Landscape Improvements March 2015

Fund: Capital Improvement Fund
Category: Streets and Sidewalks
Project Location: Various

Managing Department: Public Works
IBRC Reference: Catch-up

Initial Project Start: Summer 2015
Initial Project Completion: Spring 2017

Revised Project Start: Summer 2024
Revised Project Completion: Summer 2025

Project Number: PE-13017

El Camino Median Landscape Improvements

Description

This project provides funding for median improvements on El Camino Real. The improvements will include water conservation measures such as new drip irrigation systems and new drought tolerant trees, shrubs, and groundcover. Median designs will be consistent with the goals and objectives of the March 2007 El Camino Real Master Planning Study and will also consider any relevant guidance from the Grand Boulevard Initiative.

Justification

Medians, planters, and islands along El Camino Real have fallen into disrepair. Landscape plants and materials have exceeded their useful lives. These structures are primarily designed to regulate traffic and provide attractive landscapes and welcoming gateways to the City.

Supplemental Information

The provision of adequate landscaping and irrigation reduces siltation and runoff and removes carbon dioxide from the environment. The Fiscal Year 2025 improvements will address medians from City limits to University Avenue and from Page Mill Road to Arastradero Road.

Significant Changes

2021-2025 CIP: Project design is pending coordination with Grand Boulevard plan implementation. A majority of project funding has been pushed out from Fiscal Year 2022 to Fiscal Year 2025 as a result of capital project reprioritization.

2018-2022 CIP: The Cambridge to Grant median scope of work previously included in this project is now included in the El Camino Real Pedestrian Safety and Streetscape Project, PL-18002.

2017-2021 CIP: The Cambridge to Grant median work has been moved to Fiscal Year 2017. The City limits to University Avenue and Page Mill Road to Arastradero Road work has been moved to Fiscal Year 2021.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	12,329	83,000	0	108,300	0	0	0	901,500	1,009,800	0	1,022,129
Total	**12,329**	**83,000**	**0**	**108,300**	**0**	**0**	**0**	**901,500**	**1,009,800**	**0**	**1,022,129**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	5,846	0	108,300	0	0	0	901,500	1,009,800	0	1,009,800
Design	12,328	77,154	0	0	0	0	0	0	0	0	12,328
Total	**12,328**	**83,000**	**0**	**108,300**	**0**	**0**	**0**	**901,500**	**1,009,800**	**0**	**1,022,128**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Employment Districts

Goal: L-5

Policy: L-5.3

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Newell Road Bridge, February 2015

Fund: Capital Improvement Fund
Category: Streets and Sidewalks
Project Location: Newell Rd at San Francisquito Creek

Managing Department: Public Works
IBRC Reference: New

Initial Project Start: Spring 2012
Initial Project Completion: Spring 2015

Revised Project Start:
Revised Project Completion: Winter 2022

Project Number: PE-12011

Newell Road/San Francisquito Creek Bridge Replacement

Description

This project will provide funding to remove and replace the Newell Road bridge over San Francisquito Creek. Design considerations include a clear span over the creek to allow the channel to convey a flow consistent with the San Francisquito Joint Powers Authority's (JPA) initial flood protection project as well as bicycle and pedestrian traffic.

Justification

The existing bridge, constructed in 1911, acts as a flow restriction of San Francisquito Creek as its abutments encroach into the channel cross-section. Removal of the existing bridge is a necessary element of the San Francisquito Creek Joint Powers Authority (JPA) comprehensive flood management program. Additionally, the existing bridge does not have accommodations for either pedestrians or bicyclists.

Supplemental Information

Staff has secured grant funding from Caltrans Highway Bridge Program (HBP) for the design and environmental assessment/permitting of the project. HBP funds will likely be approved to pay for 88.53% of project construction costs. As the bridge links to East Palo Alto and is part of the JPAs comprehensive flood management plan, staff of all three agencies will coordinate closely on the design and public outreach elements of this project.

Due to community concern for traffic and the visual impacts of a replacement bridge, the scope of the project has expanded to include a CEQA Environmental Impact Report/NEPA Environ-

mental Assessment (EIR/EA) process that will evaluate multiple project alternatives, addressing flood control, traffic, aesthetics, and other potential impacts of the project. The cost estimate on this project will likely need to be reevaluated and adjusted since last done in 2015. The cost will likely increase due to escalation, project delays, and the need for more coordination with other agencies than initially anticipated.

Significant Changes

2021-2025 CIP: The design and construction cost increases include additional scope of work for street conforms, wall along adjacent properties, utility replacement and relocation, tree removal, landscape and in-creek restoration.

2020-2024 CIP: The project completion date has been revised to Winter 2022. This delay is a result of changes to Caltrans environmental assessment format and comments provided by others regarding the Draft Environmental Impact Report.

2017-2021 CIP: The project completion date has been extended to Fall 2018 to account for the expanded environmental analysis and project permitting requirements.

2016-2020 CIP: Construction funding moved to Fiscal Year 2017 to reflect delays in securing State funding for environmental work. Timeline extended to reflect project duration through construction phase.

2015-2020 CIP: Construction funding moved to Fiscal Year 2016 to reflect the time needed to complete the additional CEQA work.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	954,900	887,951	500,000	942,111	579,300	0	0	0	1,521,411	0	2,976,311
Revenue from Other Agencies	59,167	100,200	0	0	0	0	0	0	0	0	59,167
Revenue from the Federal Government	8,630	0	0	0	0	0	0	0	0	0	8,630
Revenue from the State of California	344,599	2,349,400	1,949,600	5,075,000	5,775,000	0	0	0	10,850,000	0	13,144,199
Total	**1,367,296**	**3,337,551**	**2,449,600**	**6,017,111**	**6,354,300**	**0**	**0**	**0**	**12,371,411**	**0**	**16,188,307**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	548,422	2,838,469	2,449,600	5,442,111	6,354,300	0	0	0	11,796,411	0	14,794,433
Design	818,870	499,082	0	575,000	0	0	0	0	575,000	0	1,393,870
Total	**1,367,292**	**3,337,551**	**2,449,600**	**6,017,111**	**6,354,300**	**0**	**0**	**0**	**12,371,411**	**0**	**16,188,303**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	**Secondary Connection**	Architectural Review Board
Element: Safety	Element: Community Services & Facilities	Historic Resources Board
Section: Natural Hazards	Section: Maintenance of Parks and Community Facilities	Planning and Transportation Commission
Goal: S-2	Goal: C-3	
Policy: S-2.8	Policy: C-3.2	
Program: S2.8.4		

Environmental Impact Analysis:

An Environmental Impact Report and NEPA analysis are being completed for this project.

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Middlefield Road (1500 Block), January 2013

Fund: Capital Improvement Fund
Category: Streets and Sidewalks
Project Location: Various

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PO-89003

Sidewalk Repairs

Description

This project provides funding for sidewalk repairs as part of an annual district-based rehabilitation program, alleviating the backlog of sidewalk repairs and enhancing pedestrian comfort and safety. Additionally, a sidewalk program assessment to evaluate options for improving the City's Sidewalk Repair Program was completed in Spring 2019 and provided suggestions for establishing goals and priorities related to repairs and replacements throughout the City.

Justification

The result of this project is better sidewalk conditions and a potential reduction in sidewalk-related injuries.

Supplemental Information

There are 23 sidewalk districts throughout the City. The district program began in 1986 with a goal of completing work in all 23 districts within 30 years. Work for all 23 districts was completed in early 2017 and the sidewalk program assessment was completed in 2016.

Significant Changes

2018-2022 CIP: Funding for this project has been reduced by $500k per year pending completion of the assessment study.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	2,546,579	1,534,312	2,195,982	1,395,500	1,400,900	1,406,500	1,410,600	7,809,482	0	N/A
Total	**N/A**	**2,546,579**	**1,534,312**	**2,195,982**	**1,395,500**	**1,400,900**	**1,406,500**	**1,410,600**	**7,809,482**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	2,506,191	1,534,312	2,165,986	1,364,382	1,368,724	1,406,500	1,410,600	7,716,192	0	N/A
Design	N/A	40,388	0	29,995	31,118	32,175	0	0	93,287	0	N/A
Total	**N/A**	**2,546,579**	**1,534,312**	**2,195,981**	**1,395,500**	**1,400,899**	**1,406,500**	**1,410,600**	**7,809,479**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Traffic sign, April 2015

Fund: Capital Improvement Fund
Category: Streets and Sidewalks
Project Location: Various

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PO-11000

Sign Reflectivity Upgrade

Description

This project provides funding for inventorying, upgrading, and maintaining all traffic signs owned by the City of Palo Alto in order to comply with new federal requirements for sign reflectivity standards.

Justification

The FHWA (Federal Highway Administration) passed regulations requiring minimum retroreflectivity levels for traffic signs. The new retroreflectivity regulations require regular annual sign inspections and replacement of signs not meeting the new minimum retroreflectivity standards.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	294,183	60,660	131,400	66,900	71,700	76,800	82,700	429,500	0	N/A
Total	**N/A**	**294,183**	**60,660**	**131,400**	**66,900**	**71,700**	**76,800**	**82,700**	**429,500**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	294,183	60,660	131,400	66,900	71,700	76,800	82,700	429,500	0	N/A
Total	**N/A**	**294,183**	**60,660**	**131,400**	**66,900**	**71,700**	**76,800**	**82,700**	**429,500**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Public Streets and Public Spaces

Goal: L-9

Policy: L-9.10

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Streetlight, Guinda Street, November 2014

Fund: Capital Improvement Fund
Category: Streets and Sidewalks
Project Location: Various

Managing Department: Public Works
IBRC Reference: N/A

Initial Project Start: Summer 2012
Initial Project Completion: Spring 2013

Revised Project Start: Summer 2020
Revised Project Completion: Spring 2021

Project Number: PE-13014

Street Lights Condition Assessment

Description

This project provides funding to assess the condition of the streetlight system. The assessment will include an inventory of the entire lighting system, including age and condition of conduit, wiring, street light poles, foundations, luminaires, and lighting coverage. Determining the inspection, maintenance, repair, and rehabilitation necessary to prolong the life of the City's streetlight system is also included in this project.

Justification

There are over 6,000 streetlights in Palo Alto. In some areas, existing conduit is over 40 years old and in such poor condition that no repairs can be made. Streetlight systems are integral as they afford safe routes for motorists and pedestrians. An assessment is needed to evaluate the age and condition of each element of the streetlight system in order to plan cost-effective maintenance and replacement programs for the future.

Supplemental Information

The Infrastructure Blue Ribbon Commission recommended that a streetlight system assessment be conducted to determine the condition of and replacement program for the City's streetlight infrastructure. The assessment will also consider appropriate recommendations for streetlights determined to be historic, or in neighborhoods with unique streetlights.

Significant Changes

2021-2025 CIP: Due to other high priority projects, this project has been delayed until Summer 2020.

2020-2024 CIP: Due to other high priority projects, this project has been delayed until Summer 2019.

2019-2023 CIP: Due to other high priority projects, this project has been delayed until Spring 2018.

2018-2022 CIP: Due to other high priority projects, this project has been delayed until Summer 2017.

2017-2021 CIP: Due to other high priority projects, initiation of this project has been delayed until Spring 2016.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	8,798	224,078	0	241,778	0	0	0	0	241,778	0	250,576
Total	**8,798**	**224,078**	**0**	**241,778**	**0**	**0**	**0**	**0**	**241,778**	**0**	**250,576**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	8,798	224,078	0	241,778	0	0	0	0	241,778	0	250,576
Total	**8,798**	**224,078**	**0**	**241,778**	**0**	**0**	**0**	**0**	**241,778**	**0**	**250,576**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Public Streets and Public Spaces

Goal: L-9

Policy: L-9.3

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

East Bayshore Road street lights, February 2015

Fund: Capital Improvement Fund
Category: Streets and Sidewalks
Project Location: Various

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PO-05054

Street Lights Improvements

Description

This project provides funding to replace street light poles, pole foundations, luminaires, and wiring as needed to restore or improve street lighting.

Justification

There are over 6,000 street lights in Palo Alto. In some areas existing concrete or cast iron street light poles are failing and no longer serviceable. Additionally, poles damaged due to accidents must be replaced immediately. Luminaires are replaced to improve lighting levels and therefore safety. The Electric Fund maintains the poles, luminaires, and circuits and installs new street lights as requested by the Public Works Department.

Supplemental Information

The Street Lights Condition Assessment project (PE-13014) is expected to be completed in 2021 and will result in recommendations for replacement of street lights. Where desired, efforts to match existing streetlight design will be made.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	374,352	38,306	456,287	203,800	219,000	235,500	254,400	1,368,987	0	N/A
Total	**N/A**	**374,352**	**38,306**	**456,287**	**203,800**	**219,000**	**235,500**	**254,400**	**1,368,987**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	374,352	38,306	456,287	203,800	219,000	235,500	254,400	1,368,987	0	N/A
Total	**N/A**	**374,352**	**38,306**	**456,287**	**203,800**	**219,000**	**235,500**	**254,400**	**1,368,987**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Public Streets and Public Spaces

Goal: L-9

Policy: L-9.3

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Curtner Avenue (300 Block), February 2015

Fund: Capital Improvement Fund
Category: Streets and Sidewalks
Project Location: Various

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PE-86070

Street Maintenance

Description

This project provides funding for annual resurfacing, slurry sealing, crack sealing, and reconstruction of various City streets.

Justification

The Pavement Maintenance Management System (PMMS) and Metropolitan Transportation Agency's StreetSaver software are used to identify streets requiring maintenance (based on the biennial Pavement Condition Index (PCI) survey of all City streets). City Council established a goal of achieving an average citywide PCI of 85, excellent pavement condition, by 2021 with no street below a PCI of 60. The citywide average PCI of 85 was achieved in December 2018.

Supplemental Information

Staff is supplementing the City's PMMS with Metropolitan Transportation Agency's StreetSaver software, whose modeling capabilities will be used to determine future funding levels to continue to work on streets with a PCI below 60 while still maintaining the citywide PCI average of 85.

The list of streets to be included in this project will be prioritized and coordinated with Utilities Department projects and in the 2012 Bicycle and Pedestrian Transportation Plan. This project is partially funded by revenues from gas taxes and vehicle registration fees.

Significant Changes

2021-2025 CIP: Additional funding was added for construction to offset inflation of material prices.

2020-2024 CIP: The $0.9 million from the San Antonio/W. Bayshore Impact Fee Fund will be moved to the Traffic Signal and Intelligent Transportation Systems project (PL-05053) for traffic signal improvements at San Antonio and Charleston in FY 2020.

2019-2023 CIP: FY 2019 costs are offset by One Bay Area Grant (OBAG) Cycle 2 guaranteed funding and San Antonio/W.Bayshore Impact Fee Fund in the amount of $1.0 million and $0.9 million, respectively. The impact fee funding will be used to make improvements on the San Antonio/Charleston intersection and repave the San Antonio overpass. Funding increased by $1.2 million annually from Road Maintenance and Rehabilitation Account (RMRA - S.B.1 funding) from the State of California in FY 2020.

2018-2022 CIP: The last phase of work on Alma Street (Rinconada Avenue to Palo Alto Avenue) is postponed until FY 2018 to incorporate additional transportation improvements that are currently in design.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	8,760,342	8,760,342	1,478,010	1,498,510	2,016,210	2,034,510	2,047,710	9,074,950	0	N/A
Revenue from Other Agencies	N/A	344,980	344,980	965,000	965,000	465,000	465,000	465,000	3,325,000	0	N/A
Revenue from the Federal Government	N/A	1,009,000	1,009,000	0	0	0	0	0	0	0	N/A
Revenue from the State of California	N/A	818,220	818,220	0	0	0	0	0	0	0	N/A
Transfer from Gas Tax Fund	N/A	2,453,997	2,453,997	2,610,690	2,610,690	2,610,690	2,610,690	2,610,690	13,053,450	0	N/A
Total	**N/A**	**13,386,539**	**13,386,539**	**5,053,700**	**5,074,200**	**5,091,900**	**5,110,200**	**5,123,400**	**25,453,400**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	13,203,071	13,203,071	4,739,042	4,515,361	4,474,817	5,060,200	5,073,400	23,862,820	0	N/A
Design	N/A	183,468	183,468	314,658	558,839	617,083	50,000	50,000	1,590,580	0	N/A
Total	**N/A**	**13,386,539**	**13,386,539**	**5,053,700**	**5,074,200**	**5,091,900**	**5,110,200**	**5,123,400**	**25,453,400**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

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Park and Oxford lane lines, February 2015

Fund: Capital Improvement Fund
Category: Streets and Sidewalks
Project Location: Various

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PO-11001

Thermoplastic Lane Marking and Striping

Description

This project provides funding for thermoplastic pavement markings on paved roadways to provide guidance and information to motorists, bicyclists, and pedestrians. By 2010, most pavement markings had been converted from paint to thermoplastic. While thermoplastic is a durable, long lasting pavement marking, most streets will require a second or third application of thermoplastic during the pavement's useful lifespan.

Justification

Upgrading all street painting to thermoplastic has improved roadway safety for motorists, pedestrians, and bicyclists as the reflectivity and durability of thermoplastic exceeds that of paint.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	231,457	98,328	133,400	97,100	103,300	110,100	117,800	561,700	0	N/A
Total	**N/A**	**231,457**	**98,328**	**133,400**	**97,100**	**103,300**	**110,100**	**117,800**	**561,700**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	231,457	98,328	133,400	97,100	103,300	110,100	117,800	561,700	0	N/A
Total	**N/A**	**231,457**	**98,328**	**133,400**	**97,100**	**103,300**	**110,100**	**117,800**	**561,700**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Public Streets and Public Spaces

Goal: L-9

Policy: L-9.10

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

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Traffic and Transportation

Ramona Street Bike Corral, March 2019

Fund: Capital Improvement Fund
Category: Traffic and Transportation
Project Location: Various

Managing Department: Office of Transportation
IBRC Reference: New

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PL-04010

Bicycle and Pedestrian Transportation Plan Implementation

Description

This project provides funding for the design and construction of bicycle boulevards, enhanced bikeways, shared-use paths, bicycle parking, and pedestrian improvements in accordance with the Palo Alto Bicycle and Pedestrian Transportation Plan, which was adopted by City Council in 2012.

Justification

Projects identified in the Palo Alto Bicycle and Pedestrian Transportation Plan, as well as bicycle parking facilities and bicycle/pedestrian project planning activities, will facilitate safer, traffic calmed biking and walking routes and provide better commute alternatives.

Supplemental Information

The elements installed as part of Phase 1 of this project include the implementation of improvements along Louis, Amarillo, Moreno, E. Meadow, and Ross. Improvements included widened sidewalks, roundabouts, a bicycle boulevard, and other traffic calming devices.

Significant Changes

2021-2025 CIP: Funding for this project spread to Fiscal Year 2024 due to funding constraints as well as to allow time for further planning related to implementing a citywide bicycle and pedestrian plan.

2020-2024 CIP: The Neighborhood Traffic Safety and Bicycle Boulevards Project - Phase 1 has been partially implemented. The rest of Phase 1 of the project has been paused for additional

review and evaluation. Upon direction to move forward, the project will resume with increased community engagement. The schedule for the initiation of Phase 2 will be determined at a later date.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	1,565,980	402,385	1,073,595	1,800,000	2,950,000	3,100,000	0	8,923,595	0	N/A
Transfer from Stanford University Medical Ctr Fund	N/A	1,200,000	0	1,200,000	1,200,000	0	0	0	2,400,000	0	N/A
Total	**N/A**	**2,765,980**	**402,385**	**2,273,595**	**3,000,000**	**2,950,000**	**3,100,000**	**0**	**11,323,595**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	2,616,365	252,770	2,273,595	3,000,000	2,950,000	3,100,000	0	11,323,595	0	N/A
Design	N/A	149,615	149,615	0	0	0	0	0	0	0	N/A
Total	**N/A**	**2,765,980**	**402,385**	**2,273,595**	**3,000,000**	**2,950,000**	**3,100,000**	**0**	**11,323,595**	**0**	**N/A**

Operating Impact

This project is anticipated to impact operating expenses in the future. As these costs are quantified, adjustments will be brought forward in future budgets, as necessary. There may be increased operating impacts due to ongoing maintenance of protected and separate bikeways. Certain types of bikeways may require special equipment or services to maintain them. The amount of impacts are unknown at this time.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Sustainable Transportation

Goal: T-1

Policy: T-1.19

Program: T1.19.2

Relationship to Comprehensive Plan

Secondary Connection

Element: Transportation

Section: Streets

Goal: T-3

Policy: T-3-5

Program: T3.5.1

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Charleston-Arastradero, Arastradero at Clemo, January 2013

Fund: Capital Improvement Fund
Category: Traffic and Transportation
Project Location: Charleston/Arastradero Corridor

Managing Department: Public Works
IBRC Reference: New

Initial Project Start: Spring 2013
Initial Project Completion: Summer 2016

Revised Project Start: Spring 2014
Revised Project Completion: Spring 2021

Project Number: PE-13011

Charleston/Arastradero Corridor Project

Description

This project provides funding for the reconfiguration of the Charleston/Arastradero corridor, including engineering design and construction of new landscaped median islands, bulb outs, enhanced bike lanes, new street trees, and lighting. During the design phase, opportunities for including "green infrastructure" features such as infiltration basins and porous hardscape surfaces were explored. The conceptual design and California Environmental Quality Act (CEQA) review for the entire corridor was completed in September 2015 and the National Environmental Protection Act (NEPA) was completed in October 2016. Final design for the corridor was completed in Fall 2017.

Justification

The project will result in enhanced travel safety, increased use of environmentally friendly travel alternatives, reduced motor vehicle congestion, and enhanced aesthetics on the Charleston-Arastradero Corridor. Construction will be addressed in phases due to grant funding deadlines starting with Arastradero Road (Clemo Avenue to Foothill Expressway) and Charleston Road (Middlefield Road to Alma Street). The last phase is Arastradero Road (Clemo Avenue to El Camino Real) and Charleston Road (El Camino Real to Alma Street and Middlefield Road to Fabian Way).

Supplemental Information

The Charleston/Arastradero Corridor project was adopted by City Council in January 2003, and included in the City Council Infrastructure Plan in 2014. City Council approved the permanent retention of the new lane configurations on Charleston in 2008 and on Arastradero in 2012.

Grant proceeds and funding from the State will be used to partially offset the costs of this project, including: a $0.50 million Caltrans Safe Routes to School (SR2S) grant, awarded in 2012; a $1.0 million Valley Transportation Authority - Vehicle Emissions Reductions Based at Schools (VERBS) grant, awarded in 2013; a $0.10 million CalRecycle grant for rubberized asphalt pavement, awarded in 2017; and $1.20 million for Road Maintenance and Rehabilitation (S.B.1 funding) from the State of California.

Significant Changes

2021-2025 CIP: Due to a delay obtaining the Caltrans Encroachment permit, Phase 3 will start construction in early 2020.

2020-2024 CIP: Phase 1 and 2 are expected to be complete in Summer 2019. Phase 3 will start construction in August 2019 and is anticipated to be complete in FY 2020.

2019-2023 CIP: Budget increased to reflect total project cost estimate of $19.6 million. This project will be completed in three phases, and the first phase is anticipated to be awarded at the end of Fiscal Year 2018.

2018-2022 CIP: This project is expected to be constructed in phases. The first phase of construction is anticipated to begin in November 2017.

2016-2020 CIP: The project completion date has been extended to reflect the full funding of the project's estimated cost.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	2,711,321	10,835,612	12,075,710	(1,303,710)	0	0	0	0	(1,303,710)	0	13,483,321
Revenue from the State of California	315,929	1,510,000	206,290	1,303,710	0	0	0	0	1,303,710	0	1,825,929
Transfer frm Charleston/ Arastradero Dev Impct Fund	847,000	0	18,000	0	0	0	0	0	0	0	865,000
Transfer from Gas Tax Fund	1,170,237	0	0	0	0	0	0	0	0	0	1,170,237
Transfer from Stanford University Medical Ctr Fund	1,550,000	0	0	0	0	0	0	0	0	0	1,550,000
Transfer From Stormwater Management Fund	660,000	0	0	0	0	0	0	0	0	0	660,000
Total	**7,254,487**	**12,345,612**	**12,300,000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**19,554,487**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	4,685,200	12,302,812	12,300,000	0	0	0	0	0	0	0	16,985,200
Design	2,569,273	42,800	0	0	0	0	0	0	0	0	2,569,273
Total	**7,254,473**	**12,345,612**	**12,300,000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**19,554,473**

Anticipated Operating Budget Needs

Fund	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
General Fund-Operating	72,000	74,000	75,000	77,000	79,000

Operating Impact

Landscaping and irrigation maintenance is estimated to increase by $52,000 in FY 2021 and by 3 percent annually thereafter. Tree trimming maintenance is estimated to be $20,000 per year.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Road Safety

Goal: T-6

Policy: T-6.7

Relationship to Comprehensive Plan

Secondary Connection

Element: Transportation

Section: Road Safety

Goal: T-6

Policy: T-6.6

Program: T6.6.6

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

A Mitigated Negative Declaration was completed in 2004, with an addendum completed in September 2015 for CEQA.

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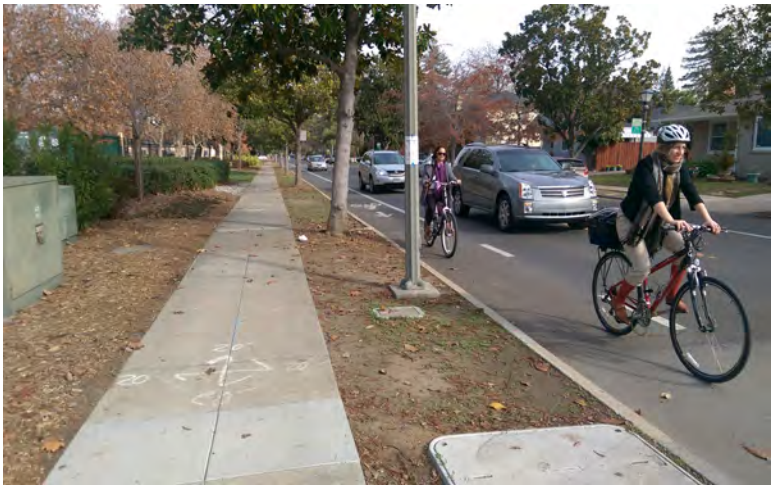

Bicyclists on Churchill Ave, December 2015

Fund: Capital Improvement Fund
Category: Traffic and Transportation
Project Location: El Camino Real & Churchill Avenue

Managing Department: Office of Transportation
IBRC Reference: New

Initial Project Start: Fall 2013
Initial Project Completion: Fall 2015

Revised Project Start:
Revised Project Completion: Fall 2021

Project Number: PL-14000

Churchill Avenue Enhanced Bikeway

Description

This project includes planning, design and construction of a shared-use path along the north side of Churchill Avenue between the existing shared-use path at Castelleja Avenue and the Stanford Perimeter Trail. It also includes intersection improvements at Churchill Avenue and El Camino Real, which will include a new dedicated westbound right-turn lane.

Justification

As a priority project within the Palo Alto Bicycle + Pedestrian Transportation Plan, this project advances objective three, which develops a core network of shared paths, bikeways, and traffic-calmed streets that connect residential districts, schools, and parks.

Significant Changes

2020-2024 CIP: Project delays occurred mainly due to additional time needed for easement acquisitions. The project timeline has been adjusted to reflect those changes as well as allowing for more time for enhanced community engagement and Caltrans review.

2019-2023 CIP: Acquisition of necessary easements has been more time-consuming that was originally estimated. Project completion timeline has also been adjusted in light of project management staff departures and a focus on enhanced community engagement.

2016-2020 CIP: Possible delays to this project could occur as the design goes through the Caltrans permitting process.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	(760,321)	3,132,400	181,534	3,159,466	0	0	0	0	3,159,466	0	2,580,679
Transfer from Traffic Impact Fee Fund	1,000,000	0	0	0	0	0	0	0	0	0	1,000,000
Total	**239,679**	**3,132,400**	**181,534**	**3,159,466**	**0**	**0**	**0**	**0**	**3,159,466**	**0**	**3,580,679**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	233,037	3,132,400	181,534	3,159,466	0	0	0	0	3,159,466	0	3,574,037
Design	6,640	0	0	0	0	0	0	0	0	0	6,640
Total	**239,677**	**3,132,400**	**181,534**	**3,159,466**	**0**	**0**	**0**	**0**	**3,159,466**	**0**	**3,580,677**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Road Safety

Goal: T-6

Policy: T-6.1

Relationship to Comprehensive Plan

Secondary Connection

Element: Transportation

Section: Sustainable Transportation

Goal: T-1

Policy: T-1.19

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Fund: Capital Improvement Fund
Category: Traffic and Transportation
Project Location: Churchill Avenue and Alma Street

Managing Department: Office of Transportation
IBRC Reference: N/A

Initial Project Start: Fall 2019
Initial Project Completion: Summer 2021

Revised Project Start:
Revised Project Completion:

Project Number: PL-20000

Churchill Avenue/Alma Street Railroad Crossing Safety Improvements: photo taken September 2018

Churchill Avenue/Alma Street Railroad Crossing Safety Improvements

Description

This project provides funding for the design and construction of pedestrian and bicycle safety improvements on the west side of the Churchill Avenue and Alma Street railroad crossing intersection. Design includes, but is not limited to, traffic signal modifications, street lighting improvements, roadway resurfacing, sidewalk realignment and/or widening, drainage improvements, utility relocations, signage and striping, innovative bicycle treatments, traffic calming elements, and way-finding improvements.

Justification

The rail crossing at Alma Street and Churchill Avenue experiences a large amount of bicycle traffic for Palo Alto High School and Stanford during the morning and afternoon commute hours. It is difficult for the existing sidewalk and roadway intersection to accommodate the large number of bicyclists using this intersection. Widening the sidewalk and new bicycle lane improvements will help move the bicyclists and pedestrians safely through the crossing.

Supplemental Information

In Fiscal Year 2019, this project was included in PL-17001, Railroad Grade Separation. Since the projects need to be tracked against different funding sources, the safety improvements at Churchill Avenue/Alma Street have been separated into this project. This crossing was identified through the Federal Section 130 funds, a federally funded program administered by the states, for increasing safety at at-grade highway-rail crossings. All construction and design costs are fully reimbursable by Section 130 funding from Caltrans.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	13,000	(100,000)	636,200	0	0	0	0	636,200	0	536,200
Revenue from Other Agencies	0	500,000	500,000	4,000,000	0	0	0	0	4,000,000	0	4,500,000
Total	**0**	**513,000**	**400,000**	**4,636,200**	**0**	**0**	**0**	**0**	**4,636,200**	**0**	**5,036,200**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	13,000	0	4,536,200	0	0	0	0	4,536,200	0	4,536,200
Design	0	500,000	400,000	100,000	0	0	0	0	100,000	0	500,000
Total	**0**	**513,000**	**400,000**	**4,636,200**	**0**	**0**	**0**	**0**	**4,636,200**	**0**	**5,036,200**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Road Safety

Goal: T-6

Policy: T-6.1

Program: T6.1.4

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project requires Environmental Impact Review

Parking Facility Management System

Fund: Capital Improvement Fund
Category: Traffic and Transportation
Project Location: Downtown

Managing Department: Office of Transportation
IBRC Reference: New

Initial Project Start: Summer 2015
Initial Project Completion: Summer 2020

Revised Project Start:
Revised Project Completion: Spring 2021

Project Number: PL-15002

Downtown Automated Parking Guidance Systems, Access Controls & Revenue Collection Equip.

Description

This project provides funding to address infrastructure and capital improvements for parking facilities. This includes a facility management system, lane equipment, lane access controls, and pay-on-foot pay stations. This project includes design and installation of new downtown parking guidance systems, access controls and revenue collection equipment that will be coordinated with the Downtown Parking Wayfinding project (PL-15004). This project includes cameras in garages for added security for patrons.

Justification

This project is identified in the City's Comprehensive Plan as a means to reduce congestion, minimize air quality impacts from motorist, and provide live occupancy counts of open parking spaces.

Supplemental Information

Due to the City Council's decision to defer the New Downtown Parking Garage Project (PE-15007) in February 2019, this project is recommended to be added as the tenth Infrastructure Plan project to mitigate parking congestion in downtown. Funding from the University Avenue Parking Permit Fund ($1.1 million) that was previously planned to be used to cover the costs for this project, will now be reserved in the University Avenue Parking Permit Fund for future use towards PE-15007 or other ongoing costs.

Significant Changes

2021-2025 CIP: Due to workload capacity constraints, this project was not started in Fiscal Year 2020 and will now be done solely in Fiscal Year 2021.

2020-2024 CIP: This project was delayed as part of the work to develop an more comprehensive downtown parking plan and is now scheduled to go out to bid in the summer of 2020. Implementation will span Fiscal Years 2020 and 2021.

2019-2023 CIP: This project is scheduled to go out to bid in summer of 2018. Implementation will span Fiscal Years 2019 and 2020. The budget has been increased to cover the cost of security cameras in garages in Fiscal Year 2020.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	130,027	1,319,400	448	2,726,860	0	0	0	0	2,726,860	0	2,857,335
Total	**130,027**	**1,319,400**	**448**	**2,726,860**	**0**	**0**	**0**	**0**	**2,726,860**	**0**	**2,857,335**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	1,319,400	448	2,726,860	0	0	0	0	2,726,860	0	2,727,308
Design	130,027	0	0	0	0	0	0	0	0	0	130,027
Total	**130,027**	**1,319,400**	**448**	**2,726,860**	**0**	**0**	**0**	**0**	**2,726,860**	**0**	**2,857,335**

Operating Impact

The ongoing operating costs for cameras and other equipment is not know at this time; however, as these costs are quantified, adjustments will be brought forward in the next budget cycle.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Motor Vehicle and Bycle Parking

Goal: T-5

Policy: T-5.2

Program: T5.2.1

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to be eligible for an exemption from CEQA under Section 15302.

El Camino Real and California Avenue Intersection

Fund: Capital Improvement Fund
Category: Traffic and Transportation
Project Location: El Camino Real between Stanford and Sheridan Avenues

Managing Department: Office of Transportation
IBRC Reference: New

Initial Project Start: Fall 2018
Initial Project Completion: Summer 2020

Revised Project Start:
Revised Project Completion: Summer 2021

Project Number: PL-18000

El Camino Real Pedestrian Safety and Streetscape Project

Description

The El Camino Real Pedestrian Safety and Streetscape Project will install improvements focused on pedestrian safety at controlled and uncontrolled crosswalks, enhanced bus operations at two existing major transit stops, and new urban design amenities between Stanford Avenue and Sheridan Avenue. The project includes: Curb extensions; median refuges; median shade trees; pedestrian scale lighting and potential bus enhancement.

Justification

This segment of El Camino Real has a history of reported collisions for all modes, particularly the most vulnerable roadway users. The City of Palo Alto Bicycle and Pedestrian Transportation Plan (BPTP, 2012), the Grand Boulevard Multimodal Transportation Corridor Plan (2010), and the El Camino Real Master Planning Study (2007) all document the collision history of this stretch of El Camino Real. The Palo Alto BPTP reported that some of the highest frequency of active mode collisions in the city occurred on the project segment, highlighting the California Avenue/ El Camino Real intersection as one of the top five locations for reported pedestrian collisions in Palo Alto. The design of El Camino Real will be enhanced to improve pedestrian safety. With its multi-lane cross-section, El Camino Real carries high volumes of traffic as a primary arterial connection between Peninsula cities in Santa Clara and San Mateo Counties, but it also has some of the highest levels of observed pedestrian activity along the Palo Alto segment of the corridor - particularly at the El Camino Real/Stanford Avenue and El Camino Real/California Avenue intersections, as documented in the El Camino Real Master Planning Study (2007). Despite the high

volumes of pedestrians, the high volumes of autos and general auto-orientation of the roadway design is uninviting and not conducive to pedestrian travel. The long crossing distances and infrequency of crossing opportunities in particular pose safety concerns on the corridor, which can be observed in the reported collision data.

Supplemental Information

The majority of construction of this project will be funded by an OBAG 2 grant through VTA.

Significant Changes

2020-2024 CIP: The construction for this project has been delayed to avoid a negative impact to traffic and parking while the New California Avenue Parking Garage is under construction. Construction cost estimates have been revised and the total cost of the project increased by $500,000 based on the current costs of construction.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	113,422	823,448	43,167	954,181	202,700	210,300	0	0	1,367,181	0	1,523,770
Revenue from Other Agencies	0	0	0	2,000,000	2,000,000	1,138,750	0	0	5,138,750	0	5,138,750
Total	**113,422**	**823,448**	**43,167**	**2,954,181**	**2,202,700**	**1,349,050**	**0**	**0**	**6,505,931**	**0**	**6,662,520**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	2,193,900	2,202,700	1,349,050	0	0	5,745,650	0	5,745,650
Design	113,422	823,448	43,167	760,281	0	0	0	0	760,281	0	916,870
Total	**113,422**	**823,448**	**43,167**	**2,954,181**	**2,202,700**	**1,349,050**	**0**	**0**	**6,505,931**	**0**	**6,662,520**

Operating Impact

The maintenance costs are unknown at this time; however, as these costs are quantified, adjustments will be brought forward in the next budget cycle.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Road Safety

Goal: T-6

Policy: T-6.1

Program: T6.1.4

Relationship to Comprehensive Plan

Secondary Connection

Element: Transportation

Section: Streets

Goal: T-3

Policy: T-3-6

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have possible exemption from CEQA

El Camino Real and Embarcadero Road Intersection Rendering, February 2018

Fund: Capital Improvement Fund
Category: Traffic and Transportation
Project Location: Embarcadero Road & El Camino Real

Managing Department: Office of Transportation
IBRC Reference: New

Initial Project Start: Summer 2015
Initial Project Completion: Spring 2019

Revised Project Start:
Revised Project Completion: Spring 2023

Project Number: PL-15001

Embarcadero Road at El Camino Improvements

Description

This project provides funding for the planning, design and construction of bicycle, pedestrian and traffic circulation improvements along Embarcadero Road between Bryant Street and El Camino Real. The concept approved by City Council includes Class IV raised separated bikeways between the Caltrain Path, Bryant Street Bicycle Boulevard and Stanford Perimeter Trail, a protected intersection for bicyclists and pedestrians at El Camino Real, intersection realignments at High Street, Emerson Street and Kingsley Avenue, new landscaping, transit amenities, and pedestrian safety enhancements.

Justification

This project provides mobility and safety improvements in response to resident and City Council concerns regarding congestion along Embarcadero Road.

Significant Changes

2020-2024 CIP: Construction of this project is being delayed to Fiscal Year 2022 as the City evaluates options for traffic mitigation related to railroad grade separation alternatives resulting from the Railroad Grade Separation Project (PL-17001).

2019-2023 CIP: Budget increased by $1.2 million due to estimated increases in construction costs.

2017-2021 CIP: Project name changed from Embarcadero Road Corridor Improvements.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	769,395	0	0	0	1,506,400	2,525,300	3,394,900	0	7,426,600	0	8,195,995
Other	102,151	0	0	0	0	0	0	0	0	0	102,151
Total	**871,546**	**0**	**0**	**0**	**1,506,400**	**2,525,300**	**3,394,900**	**0**	**7,426,600**	**0**	**8,298,146**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	598,401	0	0	0	1,506,400	2,525,300	3,394,900	0	7,426,600	0	8,025,001
Design	273,144	0	0	0	0	0	0	0	0	0	273,144
Total	**871,545**	**0**	**0**	**0**	**1,506,400**	**2,525,300**	**3,394,900**	**0**	**7,426,600**	**0**	**8,298,145**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Road Safety

Goal: T-6

Policy: T-6.6

Relationship to Comprehensive Plan

Secondary Connection

Element: Transportation

Section: Road Safety

Goal: T-6

Policy: T-6.1

Program: T6.1.1

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Bike path along E. Bayshore, Feb. 2015

Fund: Capital Improvement Fund
Category: Traffic and Transportation
Project Location: Highway 101 Corridor North of San Antonio Rd. Interchange by Adobe Creek

Managing Department: Public Works
IBRC Reference: New

Initial Project Start: Summer 2012
Initial Project Completion: Summer 2018

Revised Project Start: Summer 2016
Revised Project Completion: Summer 2021

Project Number: PE-11011

Highway 101 Pedestrian/Bicycle Overpass Project

Description

This project provides funding for a new pedestrian/bicycle bridge across Highway 101 at Adobe Creek.

Justification

The Highway 101 Pedestrian/Bicycle Overpass project is a priority project in the City's Bicycle & Pedestrian Transportation Plan 2012, providing safe, year-round access across Highway 101 in South Palo Alto to the Baylands and regional employment centers.

Supplemental Information

The Highway 101 Pedestrian/Bicycle Overpass project is included in the Council Infrastructure Plan. The project will replace the existing seasonal Benjamin Lefkowitz Underpass. A Santa Clara County - Recreation Trails Program grant, awarded to the City in November 2012, will provide $4 Million for the project. An additional $4.35 million will be provided by a grant from One Bay Area Grant (OBAG) Program Cycle 2. A contribution of $1 million from Google is also planned. Project design completed in early 2019. Caltrans granted Right-of-Way certification, encroachment permit, and Authorization of Proceed with construction (E-76) in Summer 2019. Project was issued for bids in Summer 2019 and Council awarded the construction contract in November 2019. Construction began in January 2019 and is anticipated to be completed by Summer 2021 and construction is anticipated from Fall 2019 through Spring 2021.

Significant Changes

2021-2025 CIP: Budget increased to $22.9 million when the project was awarded for construction in November 2019. Additional funding of $1.5 million from Santa Clara County is anticipated to recognized in Fiscal Year 2021 to offset costs associated with this project.

2019-2023 CIP: Budget increased to reflect total project cost estimate of $18.5 million.

2018-2022 CIP: The project budget has been increased by $1.0 million to include a contribution from Google toward the cost of the bridge. Additional design funding is budgeted in FY 2018.

2017-2021 CIP: The estimate for the project included in the prior budget document was $10 million. The City Council increased the total project budget to $13 million to account for construction cost escalation. The total project budget of $13 million includes a feasibility study, conceptual design, design competition, environmental assessment, and design costs. The $13 million figure does not include City staff time to support design and construction of the project

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	5,096,950	8,451,786	8,442,509	(1,500,000)	0	0	0	0	(1,500,000)	0	12,039,459
Revenue from Other Agencies	0	9,350,000	9,350,000	1,500,000	0	0	0	0	1,500,000	0	10,850,000
Total	**5,096,950**	**17,801,786**	**17,792,509**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**22,889,459**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	264,258	17,143,404	17,792,509	0	0	0	0	0	0	0	18,056,767
Design	4,832,686	658,382	0	0	0	0	0	0	0	0	4,832,686
Total	**5,096,944**	**17,801,786**	**17,792,509**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**22,889,453**

Operating Impact

This project is anticipated to impact operating expenses in the future. As these costs are quantified, adjustments will be brought forward in future budgets, as necessary. Maintenance and repairs will be provided through maintenance agreement executed in December 2018 between the City and Caltrans.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Sustainable Transportation

Goal: T-1

Policy: T-1.19

Program: T1.19.2

Potential Board/Commission Review:

Architectural Review Board

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project will require CEQA and NEPA environmental assessments.

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Parking Mitigation, March, 2019

Fund: Capital Improvement Fund
Category: Traffic and Transportation
Project Location: Various

Managing Department: Office of Transportation
IBRC Reference: New

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PL-15003

Parking District Implementation

Description

This project will fund the introduction of additional parking permit programs throughout the City. One aspect of this project is the City Council approved Residential Preferential Parking (RPP) ordinance to establish uniform procedures to implement RPP districts through the process outlined in the Municipal Code 10.50.

Justification

Implementing parking districts, including RPP, is a parking management strategy that regulates parking where it was previously unregulated. Parking management strategies are critical to maximizing the use of existing parking supply and prioritizing the "right space for the right use" concept. RPP prioritizes parking on residential streets for residents and business who reside within the boundaries of the district.

Significant Changes

2020-2024 CIP: The name of this project was changed from Residential Preferential Parking to accommodate a broader parking district strategy. In addition this project was changed to a recurring project in anticipation of implementing future parking districts.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	314,231	307,257	173,674	201,900	218,800	236,700	256,800	1,087,874	0	N/A
Total	**N/A**	**314,231**	**307,257**	**173,674**	**201,900**	**218,800**	**236,700**	**256,800**	**1,087,874**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	264,231	257,257	122,174	148,900	164,200	180,500	198,900	814,674	0	N/A
Design	N/A	50,000	50,000	51,500	53,000	54,600	56,200	57,900	273,200	0	N/A
Total	**N/A**	**314,231**	**307,257**	**173,674**	**201,900**	**218,800**	**236,700**	**256,800**	**1,087,874**	**0**	**N/A**

Operating Impact

RPPs and other City parking programs, are expected to have operating impacts to maintain the programs. The amounts of impact are not yet quantified and depend on the programs initiated.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Motor Vehicle and Bycle Parking

Goal: T-5

Policy: T-5.1

Program: T5.11.1

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to be eligible for an exemption from CEQA under Section 15301.

Parking and Citation Management

Fund: Capital Improvement Fund
Category: Traffic and Transportation
Project Location: Downtown

Managing Department: Office of Transportation
IBRC Reference: New

Initial Project Start: Summer 2016
Initial Project Completion: Winter 2017

Revised Project Start: Summer 2018
Revised Project Completion: Fall 2021

Project Number: PL-16002

Parking Management and System Implementation

Description

This project provides funding for the design and installation of the Comprehensive Parking Permit and Citation Management System. The all-inclusive system is a management tool staff will utilize in the management of parking permits for seven parking permit programs and associated on and off-street parking citations.

Justification

As part of the integrated strategy to address traffic and parking concerns, staff conducted a comprehensive study of parking management strategies, including paid parking and permit parking. The study included an evaluation on how to best use the City's existing parking supply and recommended comprehensive strategies in Palo Alto.

Supplemental Information

This project is funded proportionally by parking revenues from all parking funds. This may require a loan from the General Fund, to be repaid by the appropriate parking funds.

Significant Changes

2020-2024 CIP: The project name was changed from Downtown Parking Management and System Implementation to broaden the scope of the project. The bid for the Comprehensive Parking Permit and Citation System was released in the Spring of 2018 with complete system implementation expected by September 2020.

2019-2023 CIP: Recent accomplishments include the completion of the Downtown Parking Management Plan and development of a finance and implementation plan. The bid for the Comprehensive Parking Permit and Citation System is expected to be released in Summer of 2018 with system implementation expected by September, 2018.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	248	25,781	(518,220)	563,600	0	0	0	0	563,600	0	45,628
Transfer from California Ave Parking Permit Fund	0	138,000	138,000	0	0	0	0	0	0	0	138,000
Transfer from Residential Parking Fund	0	255,000	255,000	0	0	0	0	0	0	0	255,000
Transfer from University Ave Parking Permit Fund	0	752,220	752,220	0	0	0	0	0	0	0	752,220
Total	**248**	**1,171,001**	**627,000**	**563,600**	**0**	**0**	**0**	**0**	**563,600**	**0**	**1,190,848**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	1,171,000	627,000	563,600	0	0	0	0	563,600	0	1,190,600
Design	248	1	0	0	0	0	0	0	0	0	248
Total	**248**	**1,171,001**	**627,000**	**563,600**	**0**	**0**	**0**	**0**	**563,600**	**0**	**1,190,848**

Operating Impact

The permit and citation system is designed to cover its own costs. No operating impacts are anticipated.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Motor Vehicle and Bycle Parking

Goal: T-5

Policy: T-5.2

Program: T5.2.3

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to be eligible for an exemption from CEQA under Section 15302.

Quarry Road Multi-Use Path, December 2017

Fund: Capital Improvement Fund
Category: Traffic and Transportation
Project Location: Quarry Road between El Camino Real and Welch Road

Managing Department: Office of Transportation
IBRC Reference: Catch-up

Initial Project Start: Winter 2016
Initial Project Completion: Spring 2017

Revised Project Start:
Revised Project Completion: Fall 2022

Project Number: PL-16000

Quarry Road Improvements and Transit Center Access

Description

This project provides funding for the planning, design and construction of bicycle and pedestrian improvements along Quarry Road between El Camino Real and Welch Road, including, but not limited to, upgraded bicycle lanes and crosswalks, innovative intersection treatments for bicyclists, and improved access to transit stops. Planning, design, and construction of a new bicycle, pedestrian, and transitway between the Palo Alto Transit Center bus depot and the intersection of Quarry Road and El Camino Real has been completed.

Justification

The August 2011 Development Agreement between Stanford Hospitals and Clinics, the Lucille Salter Packard Children's Hospital at Stanford, the Board of Trustees of the Leland Stanford Junior University and the City of Palo Alto obligates the City to design and construct enhancements of various pedestrian and bicycle connections between the Palo Alto Intermodal Transit Center and the Stanford University Medical Center Campus (SUMC). Stanford provided funds for these projects. New to this project is a transit improvement element. The Comprehensive Plan Update 2030 identified the need for a transit, bicycle, and pedestrian linkage between the Palo Alto Transit Center bus depot and the Quarry Road and El Camino Real intersection to improve bus transit connectivity and service efficiency. As this project would directly benefit transit service between the Transit Center and the Medical Center campus, it would draw from the Stanford University Medical Center Development Agreement Intermodal Transit budget.

Implementation is timed to support expanded operations of the hospital and the completion of Caltrain electrification in 2022.

Supplemental Information

This project is funded by the Quarry Road Improvements and Intermodal Transit funds from the Stanford University Medical Center Development Agreement via transfer to the Capital Improvement Fund. Design and construction of the temporary bicycle and pedestrian Transit Center pathway was completed in Summer, 2017. The pathway is accented with seating, decorative lighting, and new landscaping. Design and construction was also completed for bicycle and pedestrian improvements along the Quarry Road corridor between El Camino Real and Welch Road.

Significant Changes

2021-2025 CIP: Funding for this project spread to Fiscal Year 2023 due to funding constraints and capital project prioritization.

2020-2024 CIP: Project increased by $1.1 million to account for increased construction costs, and construction moved to Fiscal Year 2022 to better align the workload with staff availability.

2019-2023 CIP: Changes include planning, design, and construction for a new bicycle, pedestrian, and transitway between El Camino Real and Quarry Road and the Palo Alto Transit Center. The location, project characteristics, and funding source are consistent with the portion of the project already completed.

2018-2022 CIP: The construction of the Quarry Road improvements (signing and striping along Quarry Road) has been delayed due to underground (trenching) electrical work needed to be done by Stanford. The project delay will most likely increase the cost to complete construction due to increasing construction costs.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	(159,953)	313,000	(194,000)	928,400	(139,613)	2,748,000	0	0	3,536,787	0	3,182,834
Transfer from Stanford University Medical Ctr Fund	1,442,004	200,000	200,000	0	1,493,513	0	0	0	1,493,513	0	3,135,517
Total	**1,282,051**	**513,000**	**6,000**	**928,400**	**1,353,900**	**2,748,000**	**0**	**0**	**5,030,300**	**0**	**6,318,351**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	1,021,902	195,599	0	634,400	1,353,900	2,748,000	0	0	4,736,300	0	5,758,202
Design	260,144	317,401	6,000	294,000	0	0	0	0	294,000	0	560,144
Total	**1,282,046**	**513,000**	**6,000**	**928,400**	**1,353,900**	**2,748,000**	**0**	**0**	**5,030,300**	**0**	**6,318,346**

Operating Impact

Street and landscaping maintenance of the street connection would be supported by the Public Works Department's operations fund. Costs are still being determined and will be brought forward as part of the next budget cycle.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Road Safety

Goal: T-3

Policy: T-3-10

Program: T3.10.4

Environmental Impact Analysis:

May Require Environmental Review

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

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Caltrain Crossing at Charleston Road, July 2018

Fund: Capital Improvement Fund
Category: Traffic and Transportation
Project Location: Various

Managing Department: Office of Transportation
IBRC Reference: New

Initial Project Start: Summer 2016
Initial Project Completion: Summer 2018

Revised Project Start:
Revised Project Completion: Summer 2024

Project Number: PL-17001

Railroad Grade Separation and Safety Improvements

Description

This project, Connecting Palo Alto, is a community-based process to advance the railroad grade crossing circulation study and context sensitive solutions study envisioned by the City Council. It will also fund the preparation of Project Study Report and environmental analysis that will be required for the City to realize its goals of advancing grade separations.

Justification

This project is essential to support the City Council work related to the Council rail grade separation priority. It provides engineering support, circulation studies, community engagement efforts, and other subsequent tasks needed to advance the City's goal of grade separating railroad crossings in Palo Alto.

Supplemental Information

Recent accomplishments include:

- Narrowing of grade separation ideas from 34 to 6 ideas currently being considered

- Successful engagement through community meetings and the establishment of a Community Advisory Panel (CAP)

- Further engaged with other agencies and narrowed the focus of the project

Significant Changes

2021-2025 CIP: Funding of $1.0 million from the Stanford University Medical Center Fund programmed in this project, spread over Fiscal Years 2021 and 2022. $1.0 million of Measure B funding shifted to PO-86070, Street Maintenance.

2020-2024 CIP: Funding for safety improvements at the railroad crossing at Alma Street and Churchill Avenue has been moved into a separate project, Churchill Avenue/Alma Street Railroad Crossing Safety Improvement Project (PL-20001).

2019-2023 CIP: The City has received a reimbursement grant from Caltrans for safety improvements at the railroad crossing at Alma Street and Churchill Avenue, an intersection with Palo Alto High School located in the northwest quadrant and a bicycle lane through the crossing for eastbound traffic. In addition, $1.0 million in annual funding from the VTA Measure B has been programmed for this project.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	2,101,073	2,879,846	(293,579)	3,260,625	233,600	271,900	311,400	190,700	4,268,225	0	6,075,719
Revenue from Other Agencies	0	2,000,000	2,000,000	500,000	500,000	1,000,000	1,000,000	1,000,000	4,000,000	0	6,000,000
Transfer from Stanford University Medical Ctr Fund	0	0	0	500,000	500,000	0	0	0	1,000,000	0	1,000,000
Total	**2,101,073**	**4,879,846**	**1,706,421**	**4,260,625**	**1,233,600**	**1,271,900**	**1,311,400**	**1,190,700**	**9,268,225**	**0**	**13,075,719**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	40,637	4,178,800	1,706,421	4,260,625	1,233,600	1,271,900	1,311,400	1,190,700	9,268,225	0	11,015,283
Design	2,060,434	701,046	0	0	0	0	0	0	0	0	2,060,434
Total	**2,101,071**	**4,879,846**	**1,706,421**	**4,260,625**	**1,233,600**	**1,271,900**	**1,311,400**	**1,190,700**	**9,268,225**	**0**	**13,075,717**

Operating Impact

Operating impacts, if any, will depend upon the grade separation alternative selected.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Streets

Goal: T-3

Policy: T-3-15

Program: T3.15.1

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project includes the completion of the necessary environmental analysis.

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Fletcher Students Using New Bike Box, April 2018

Fund: Capital Improvement Fund
Category: Traffic and Transportation
Project Location: Streets on Suggested Walk and Roll Routes for PAUSD schools

Managing Department: Office of Transportation
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PL-00026

Safe Routes To School

Description

This project provides funding for the City's Safe Routes to Schools program, including school commute planning, encouragement activities, and capital improvements along local and collector streets that may be impacted by school commute activities. Typical capital improvements include traffic calming devices, enhanced crosswalks, and improved signage along suggested routes to school. In Fiscal Year 2019, traffic calming projects from prior years will continue and traffic studies will be pursued for locations in need of traffic calming and other safety countermeasures.

Justification

In collaboration with the Palo Alto Unified School District and Parent Teacher Associations, the City is leading the design and construction of capital improvements for suggested routes to school, helping to reduce risks to students and encouraging more families to use alternatives to driving. The budget in Fiscal Years 2020 and 2021 reflects the award of a grant from the Santa Clara Valley Transportation Authority for enhanced signage, striping and buffers on East Meadow Drive from Alma to Fabian Way, on Fabian Way from East Meadow Drive to East Charleston Road, and the widening and repaving of the Waverly Bike Path between East Meadow Drive and Charleston Road.

Supplemental Information

The City was awarded a Vehicle Emissions Reductions Based at Schools (VERBS) grant of $0.9 million for the Meadow-Fabian protected bikeway. The local match is $0.2 million. Both amounts are included in the 2020-2024 CIP, and construction is scheduled for Fiscal Years 2021 and 2022.

Significant Changes

2020-2024 CIP: The East Meadow Drive/Fabian Way and Waverley Bike path, originally planned to be completed in Fiscal Years 2020 and 2021 is now expected to be undertaken in Fiscal Years 2021 and 2022 due to current staffing shortages and fully engage the community in coordination with other bicycle projects.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	158,290	118,800	101,500	117,800	141,200	166,500	160,600	687,600	0	N/A
Revenue from Other Agencies	N/A	0	0	459,677	459,677	0	0	0	919,354	0	N/A
Transfer from Gas Tax Fund	N/A	100,000	100,000	100,000	100,000	100,000	100,000	100,000	500,000	0	N/A
Total	**N/A**	**258,290**	**218,800**	**661,177**	**677,477**	**241,200**	**266,500**	**260,600**	**2,106,954**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	223,290	218,800	591,177	642,477	206,200	231,500	235,600	1,906,954	0	N/A
Design	N/A	35,000	0	70,000	35,000	35,000	35,000	25,000	200,000	0	N/A
Total	**N/A**	**258,290**	**218,800**	**661,177**	**677,477**	**241,200**	**266,500**	**260,600**	**2,106,954**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Road Safety

Goal: T-6

Policy: T-6.4

Program: T6.4.2

Relationship to Comprehensive Plan

Secondary Connection

Element: Transportation

Section: Sustainable Transportation

Goal: T-1

Policy: T-1.16

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Fund: Capital Improvement Fund
Category: Traffic and Transportation
Project Location: Various

Managing Department: Office of Transportation
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PL-05030

Installation of new traffic signal equipment at Embarcadero Road and Middlefield Road, April 2018

Traffic Signal and Intelligent Transportation Systems

Description

This project provides funding for the design and construction of traffic signals, traffic signal communications networks, video surveillance projects for transportation use, and maintenance of the City's traffic signal central system. The project includes the replacement of traffic signal controllers/cabinets, video detection systems, and other field equipment.

Justification

Traffic signal upgrades are essential in maintaining traffic safety and improving roadway operations including the reduction of roadway congestion with traffic signal retiming projects. To accomplish this, there is a need to add new traffic signals at locations throughout the city. This project replaces or adds traffic signal controller inventory in the field with new controllers and expands the current central management system to allow for communications to all signalized intersections. The new controllers enable additional traffic signal timing strategies and improve the reliability of the City's traffic signals.

Supplemental Information

Funding from this project contributed to signal improvements related to the Upgrade Downtown project, which was completed in March 2019.

Significant Changes

2020-2024 CIP: Although anticipated last fiscal year, this project will not include a new signal at Hamilton and Waverly since construction of a new downtown garage at that site is not proceed-

ing at this time. An additional $900,000 from the San Antonio/West Bayshore Transportation Impact Fund has been added in Fiscal Year 2020 for traffic signal improvements at San Antonio and Charleston.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	612,913	(287,700)	972,355	240,950	191,250	285,700	381,400	2,071,655	0	N/A
Revenue from Other Agencies	N/A	700,000	700,000	300,000	300,000	300,000	300,000	300,000	1,500,000	0	N/A
Transfer from SA/W Bayshore Traffic Impact Fee Fnd	N/A	900,000	1,283,400	0	0	0	0	0	0	0	N/A
Transfer from Traffic Impact Fee Fund	N/A	383,362	0	400,000	395,000	395,000	395,000	395,000	1,980,000	0	N/A
Total	**N/A**	**2,596,275**	**1,695,700**	**1,672,355**	**935,950**	**886,250**	**980,700**	**1,076,400**	**5,551,655**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	2,466,275	1,695,700	1,610,555	872,250	820,650	913,100	1,006,800	5,223,355	0	N/A
Design	N/A	130,000	0	61,800	63,700	65,600	67,600	69,600	328,300	0	N/A
Total	**N/A**	**2,596,275**	**1,695,700**	**1,672,355**	**935,950**	**886,250**	**980,700**	**1,076,400**	**5,551,655**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Traffic Delay and Congestion

Goal: T-2

Policy: T-2.1

Program: T2.1.1

Relationship to Comprehensive Plan

Secondary Connection

Element: Transportation

Section: Streets

Goal: T-3

Policy: T-3-6

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to be eligible for an exemption from CEQA under Section 15302.

New Crosswalk at Colorado Ave and Sandra Place, June 2018

Fund: Capital Improvement Fund
Category: Traffic and Transportation
Project Location: Various

Managing Department: Office of Transportation
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PL-12000

Transportation and Parking Improvements

Description

This project provides funding for the implementation of miscellaneous neighborhood traffic calming improvements including neighborhood traffic studies and parking improvements. This project also funds the development of grant proposals used to procure funding for future projects.

Justification

Traffic calming is identified as a high priority in the adopted Transportation element of the Comprehensive Plan. Traffic studies and miscellaneous traffic calming improvements help to improve the quality of life for residents and visitors.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	390,653	330,811	471,342	487,000	518,600	552,900	819,200	2,849,042	0	N/A
Total	**N/A**	**390,653**	**330,811**	**471,342**	**487,000**	**518,600**	**552,900**	**819,200**	**2,849,042**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	310,928	304,928	342,500	412,000	443,600	177,900	444,200	1,820,200	0	N/A
Design	N/A	79,725	25,883	128,842	75,000	75,000	375,000	375,000	1,028,842	0	N/A
Total	**N/A**	**390,653**	**330,811**	**471,342**	**487,000**	**518,600**	**552,900**	**819,200**	**2,849,042**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Streets

Goal: T-4

Policy: T-4.2

Program: T4.2.1

Relationship to Comprehensive Plan

Secondary Connection

Element: Transportation

Section: Road Safety

Goal: T-6

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to be eligible for an exemption from CEQA under Section 15301.

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Administration

Capital Management Team

Fund: Capital Improvement Fund
Category: Unallocated Salaries and Benefits
Project Location: N/A

Managing Department: Administrative Services
IBRC Reference: N/A

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: AS-10000

Capital Improvement Fund Administration

Description

This project provides funding for estimated administrative costs, including salaries and benefits costs of City staff assigned to manage the oversight of the General Fund Capital Improvement program.

Justification

Administrative costs are associated with the completion of CIP projects. As such, these costs are capitalized and are added to the total costs of projects.

Supplemental Information

Salaries and benefits have been included in CIP projects where appropriate and possible, in all fiscal years. The amounts included in this project represent salaries and benefits expense not associated with any particular project (for example, administration and oversight of the CIP process).

As part of the annual year-end process, the annually incurred amount will be allocated to all projects in the Capital Improvement Fund, on a proportional basis, and any unused balance will be returned to the Infrastructure Reserve.

Significant Changes

2019-2023 CIP: Salary and benefit expenses have been allocated to capital projects in all years of the CIP. In prior years, costs were allocated only in the first year of the CIP.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	469,123	469,123	293,977	2,697,243	2,970,525	2,906,821	3,915,300	12,783,866	0	N/A
Total	**N/A**	**469,123**	**469,123**	**293,977**	**2,697,243**	**2,970,525**	**2,906,821**	**3,915,300**	**12,783,866**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	N/A	469,123	469,123	293,977	2,697,243	2,970,525	2,906,821	3,915,300	12,783,866	0	N/A
Total	**N/A**	**469,123**	**469,123**	**293,977**	**2,697,243**	**2,970,525**	**2,906,821**	**3,915,300**	**12,783,866**	**0**	**N/A**

Operating Impact

There are no operating or maintenance expenses associated with this project.

Relationship to Comprehensive Plan

Primary Connection

Environmental Impact Analysis:

N/A

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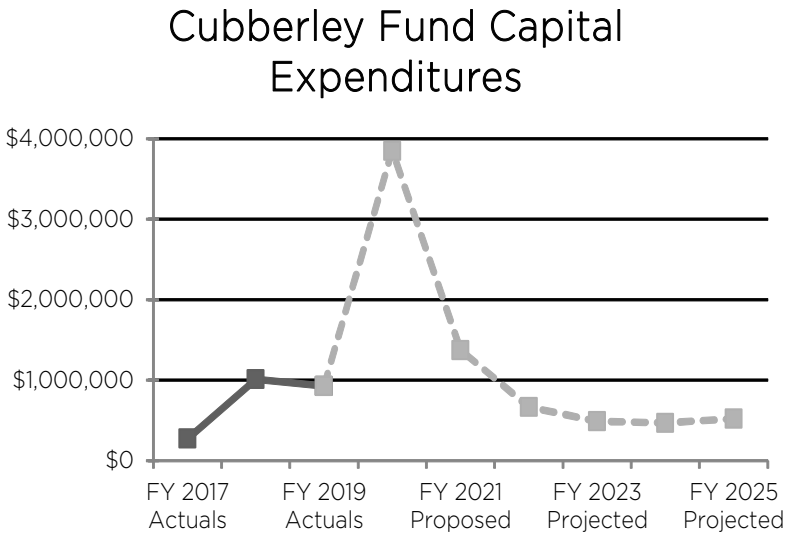
CUBBERLEY PROPERTY INFRASTRUCTURE FUND

Overview

The Cubberley Property Infrastructure Fund accounts for expenditures related to the maintenance and renovation of the Cubberley Community Center property, which was formerly Cubberley High School from 1955 to 1979. Due to budget constraints resulting from the passage of Proposition 13 and declining enrollment, the Palo Alto Unified School District (PAUSD) was forced to close and sell school properties, including Terman Middle School, which the City of Palo Alto acquired, while PAUSD retained ownership of the Cubberley site. In 1989, the City and PAUSD entered into a lease agreement with the City providing annual revenue to PAUSD in exchange for 1) a lease of the 35-acre Cubberley site; 2) a Covenant Not to Develop for five other neighborhood school sites; and 3) an agreement that PAUSD provide space for extended day care at each of the eleven remaining elementary school sites.

In 2001, the City relinquished ownership of the Terman site in exchange for ownership of eight acres of the Cubberley site. After several lease extensions and amendments in the years following, a restructured lease agreement was finalized in 2014. As part of the lease agreement, the previous Covenant Not to Develop clause, which required the City to transfer $1.86 million to the school district, was eliminated and the funds were dedicated towards repairing, renovating and/or improving the Cubberley site, which is jointly owned by the City and PAUSD.

The budget for the Cubberley Property Infrastructure Fund is divided into two project categories: Buildings and Facilities and Parks and Open Space. Additional categories may be established in future years once needs are identified through the Master Plan process.



Buildings and Facilities

The Buildings and Facilities category accounts for the projects funded to maintain the facilities on the Cubberley Community Center campus.

Infrastructure Inventory

CLASSIFICATION	QUANTITY
City-owned acres	8
PAUSD-owned acres	27
Total square footage of buildings	175,540 (94,402 City-owned)
Parking spaces	750 (130 City-owned)
Artist studios	22
Dance studios	3
Schools	2
Childcare facilities	2
Nonprofit community organizations	9

Recent Accomplishments

- Continued the joint City of Palo Alto and Palo Alto Unified School District development of the Master Plan with consultant assistance, anticipated to be completed in Fiscal Year 2020.
- Completed roof replacements for the Pavillion and Wing L.
- Implemented minor improvements to rental classrooms.
- Addressed safety issues identified concerning asphalt, sidewalk, and trees.

2021-2025 Capital Improvement Program

For the 2021-2025 Capital Improvement Program (CIP), $3.5 million is budgeted, with $1.4 million allocated in Fiscal Year 2021 for three projects in the Buildings and Facilities category.

Recurring Projects

- Cubberley Roofing Replacements (Fiscal Year 2021: $0.4 million; 5-Year CIP: $2.2 million)
- Cubberley Repairs (Fiscal Year 2021: $0.8 million; 5-Year CIP: $1.3 million)

Non-Recurring Projects

- Cubberley Building Management Systems (Fiscal Year 2021 and 5-Year CIP: $0.03 million)

Parks and Open Space

The Parks and Open Space category accounts for projects that maintain Cubberley outdoor space and facilities improvements.

Recent Accomplishments

- Completed the field restroom, which was anticipated to be installed in Fiscal Year 2020.

2021-2025 Capital Improvement Program

For the 2021-2025 CIP, $0.08 million is budgeted and allocated in Fiscal Year 2021 for one project in the Parks and Open Space category.

Non-Recurring Projects

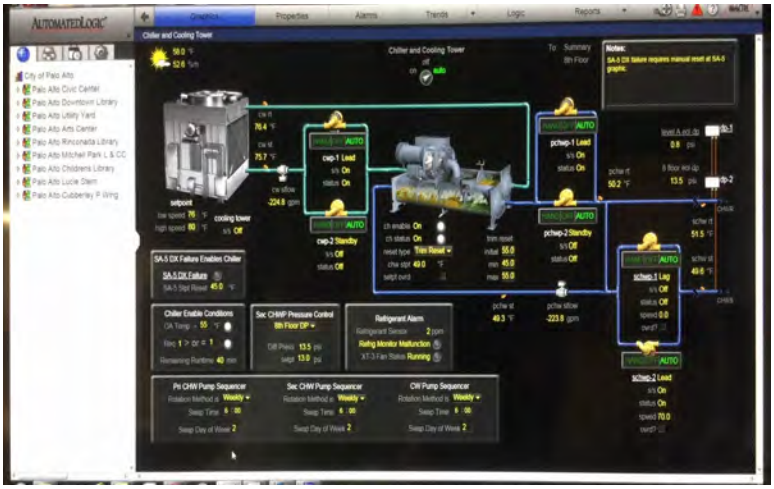
- Cubberley Field Restrooms (Fiscal Year 2021 and 5-Year CIP: $0.08 million)

Summary of Capital Activity

CUBBERLEY PROPERTY INFRASTRUCTURE FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Source of Funds									
Revenue from Other Agencies									
CB-16001	Cubberley Community Center Master Plan	282,986	0	0	0	0	0	0	0
	Total Revenue from Other Agencies	**282,986**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Transfers from the General Fund									
	General Fund Annual Capital Transfer	1,864,248	1,864,248	1,864,248	1,864,248	1,864,248	1,864,248	1,864,248	9,321,240
	Total Transfers from the General Fund	**1,864,248**	**1,864,248**	**1,864,248**	**1,864,248**	**1,864,248**	**1,864,248**	**1,864,248**	**9,321,240**
	Total Sources	**2,147,234**	**1,864,248**	**1,864,248**	**1,864,248**	**1,864,248**	**1,864,248**	**1,864,248**	**9,321,240**
Use of Funds									
Buildings and Facilities									
CB-19001	Cubberley Building Management Systems	0	320,000	30,000	0	0	0	0	30,000
CB-16001	Cubberley Community Center Master Plan	505,301	264,000	0	0	0	0	0	0
CB-17001	Cubberley Repairs	84,889	28,684	831,778	106,600	106,800	111,200	110,500	1,266,878
CB-16002	Cubberley Roof Replacements	282,779	1,110,806	432,692	561,211	383,249	358,318	412,000	2,147,470
	Buildings and Facilities Total	**872,970**	**1,723,490**	**1,294,470**	**667,811**	**490,049**	**469,518**	**522,500**	**3,444,348**
Parks and Open Space									
CB-17002	Cubberley Field Restrooms	31,265	259,167	79,684	0	0	0	0	79,684
CB-19000	Cubberley Track and Field Replacement	23,862	1,865,811	0	0	0	0	0	0
	Parks and Open Space Total	**55,127**	**2,124,978**	**79,684**	**0**	**0**	**0**	**0**	**79,684**
	Total Uses	**928,097**	**3,848,468**	**1,374,154**	**667,811**	**490,049**	**469,518**	**522,500**	**3,524,032**

Buildings and Facilities



Building Management System Controls, March 2018

Fund: Cubberley Property Infrastructure Fund
Category: Buildings and Facilities
Project Location: 4000 Middlefield Road

Managing Department: Public Works

Initial Project Start: Summer 2018
Initial Project Completion: Spring 2019

Revised Project Start:
Revised Project Completion: Fall 2019

Project Number: CB-19001

Cubberley Building Management Systems

Description

This project provides funding for replacement of the Building Management System (BMS) controls for the Pavilion, Theater, Wing I, and Gyms A and B boiler rooms at the Cubberley Community Center. The BMS is a software program that controls building systems such as air conditioning and heating.

Justification

The old BMS is no longer supported by the City's IT Department or the BMS vendor. The new BMS controls will align the buildings mentioned above with the City's current standard BMS.

Significant Changes

2021-2025 CIP: Installation work for the new BMS was not able to be fully completed in FY 2020. Funding to finalize the work will be reappropriated to FY 2021 to complete the project.

2020-2024 CIP: This project will be completed in the Fall of 2019 instead of the Spring due to specifications and bidding timeline.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Cubberley Property Infrastructure Fund	0	354,000	320,000	30,000	0	0	0	0	30,000	0	350,000
Total	**0**	**354,000**	**320,000**	**30,000**	**0**	**0**	**0**	**0**	**30,000**	**0**	**350,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	354,000	320,000	30,000	0	0	0	0	30,000	0	350,000
Total	**0**	**354,000**	**320,000**	**30,000**	**0**	**0**	**0**	**0**	**30,000**	**0**	**350,000**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Cubberley Pavement, 2016

Fund: Cubberley Property Infrastructure Fund
Category: Buildings and Facilities
Project Location: 4000 Middlefield Road

Managing Department: Public Works

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: CB-17001

Cubberley Repairs

Description

This project provides funding to make repairs and minor improvements at the Cubberley Community Center. Work completed under this project may include items such as painting, sidewalk repairs, breezeway pavement resurfacing, landscaping improvements, minor equipment replacement, and improvements to interior finishes.

Justification

This project allows minor improvements to occur that will address safety concerns, functionality of building systems, and aesthetics.

Supplemental Information

Repairs in various parts of the facility are scheduled on a per year basis. Funding is programmed for exterior maintenance, repairs to concrete and asphalt, tree removals, and interior maintenance and repairs including heating and ventilation, radiant floor heating, lighting, and painting.

Significant Changes

2021-2025 CIP: All projects pushed out one year due to staffing constraints.

2020-2024 CIP: Major projects for Fiscal Year 2020 will include Pavilion ceiling tile replacement, Theater lobby carpet replacement, and Wing M hallway flooring and carpet replacement.

2019-2023 CIP: This project has shifted from non-recurring to recurring to address repairs needed annually throughout the property. Funding will continue to be allocated on an annual basis until completion of the Cubberley Master Plan.

2017-2021 CIP: Project established.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Cubberley Property Infrastructure Fund	N/A	761,862	28,684	831,778	106,600	106,800	111,200	110,500	1,266,878	0	N/A
Total	**N/A**	**761,862**	**28,684**	**831,778**	**106,600**	**106,800**	**111,200**	**110,500**	**1,266,878**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	761,862	28,684	831,778	106,600	106,800	111,200	110,500	1,266,878	0	N/A
Total	**N/A**	**761,862**	**28,684**	**831,778**	**106,600**	**106,800**	**111,200**	**110,500**	**1,266,878**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Cubberley Wing P, January 2015

Fund: Cubberley Property Infrastructure Fund
Category: Buildings and Facilities
Project Location: 4000 Middlefield Road

Managing Department: Public Works

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: CB-16002

Cubberley Roof Replacements

Description

This project provides funding for the replacement or restoration of failing roofs at the Cubberley Community Center.

Justification

Most of the existing mineral cap roofs at Cubberley have exceeded their useful lives and are in poor condition. Rehabilitation is needed to prevent significant problems that may cause structural damage to buildings. In some cases, a more cost-effective roof restoration process is planned while in other cases a full replacement is necessary. A fluid, reinforced waterproofing system can be applied over the existing roof that also meets current cool roofing codes to optimize energy efficiency.

Supplemental Information

Facilities scheduled for re-roofing with a fluid applied system or for major repairs are:

Fiscal Year 2021: Cubberley Wing H and D

Fiscal Year 2022: Cubberley Pavilion Flat Section

Fiscal Year 2023: Cubberley Wing T1 and T2

Fiscal Year 2024: Cubberley Wing U

Fiscal Year 2025: Cubberley Wing A

Significant Changes

2021-2025 CIP: Cubberley Wings H and D were moved to Fiscal Year 2021 while Wings T1 and T2 were move to Fiscal Year 2023. Wing A was added for Fiscal Year 2025.

2020-2024 CIP: Cubberley Wings F and FH were postponed to Fiscal Year 2020 from Fiscal Year 2019 to prioritize Wings J and K from Fiscal Year 2021 to Fiscal Year 2019.

2016-2020 CIP: Project established in the Cubberley Property Infrastructure Fund. Funding was allocated in prior years for roofing replacements at Cubberley Community Center in the Capital Improvement Fund. Funding is now recommended in the Cubberley Property Infrastructure Fund for this purpose, consistent with the revised lease agreement with the Palo Alto Unified School District, approved by the City Council in 2014.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Cubberley Property Infrastructure Fund	N/A	1,253,848	1,110,806	432,692	561,211	383,249	358,318	412,000	2,147,470	0	N/A
Total	**N/A**	**1,253,848**	**1,110,806**	**432,692**	**561,211**	**383,249**	**358,318**	**412,000**	**2,147,470**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	577,200	1,110,806	432,692	561,211	383,249	358,318	412,000	2,147,470	0	N/A
Design	N/A	676,648	0	0	0	0	0	0	0	0	N/A
Total	**N/A**	**1,253,848**	**1,110,806**	**432,692**	**561,211**	**383,249**	**358,318**	**412,000**	**2,147,470**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Architectural Review Board

Historic Resources Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

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Parks and Open Space

Cubberley Fields, February 2016

Fund: Cubberley Property Infrastructure Fund
Category: Parks and Open Space
Project Location: 4000 Middlefield Road

Managing Department: Public Works

Initial Project Start: Summer 2016
Initial Project Completion: Summer 2018

Revised Project Start: Fall 2019
Revised Project Completion: Fall 2020

Project Number: CB-17002

Cubberley Field Restroom

Description

This project provides the installation of restroom at the Cubberley Community Center Fields. The restroom will be a prefabricated structure.

Justification

This project will provide a restroom facility to the Cubberley Community Center Fields due to intensive sports league and recreational usage. The facility consists of soccer and softball fields as well as tennis courts and a running track. It is the City's largest field complex without a restroom.

Significant Changes

2021-2025 CIP: This project was delayed from being completed in FY 2020 to FY 2021 due to staffing constraints.

2020-2024 CIP: This project was delayed from being completed in FY 2019 to FY 2020 due to staffing constraints and issues purchasing the prefabricated restroom.

2019-2023 CIP: Funding has been increased by $150,000 due to the placement, associated utility connections, and updated cost estimates.

2017-2021 CIP: Project established.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Cubberley Property Infrastructure Fund	104,276	338,851	259,167	79,684	0	0	0	0	79,684	0	443,127
Total	**104,276**	**338,851**	**259,167**	**79,684**	**0**	**0**	**0**	**0**	**79,684**	**0**	**443,127**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	13,589	335,901	256,217	79,684	0	0	0	0	79,684	0	349,490
Design	90,682	2,950	2,950	0	0	0	0	0	0	0	93,632
Total	**104,271**	**338,851**	**259,167**	**79,684**	**0**	**0**	**0**	**0**	**79,684**	**0**	**443,122**

Anticipated Operating Budget Needs

Fund	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Cubberley Property Infrastructure Fund	15,965	16,444	16,937	17,445	17,968

Operating Impact

This project is anticipated to impact operating expenses in the future. Custodial and maintenance costs are estimated to be $15,965 in Fiscal Year 2021 and increase by 3% annually thereafter. These costs will be included as part of the City's custodial contract

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.3

Potential Board/Commission Review:

Architectural Review Board

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible categorical exemption from CEQA under section 15301.

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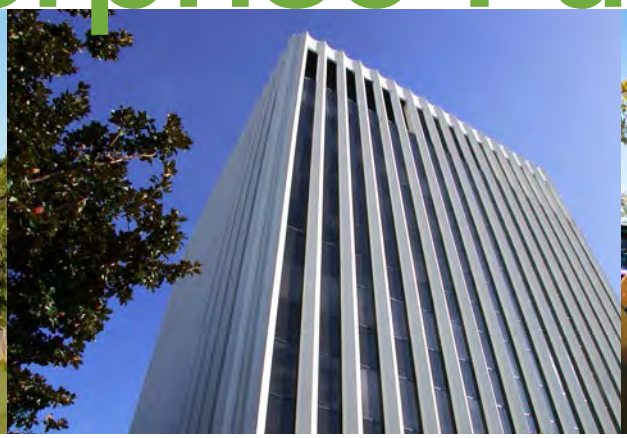
Enterprise Funds



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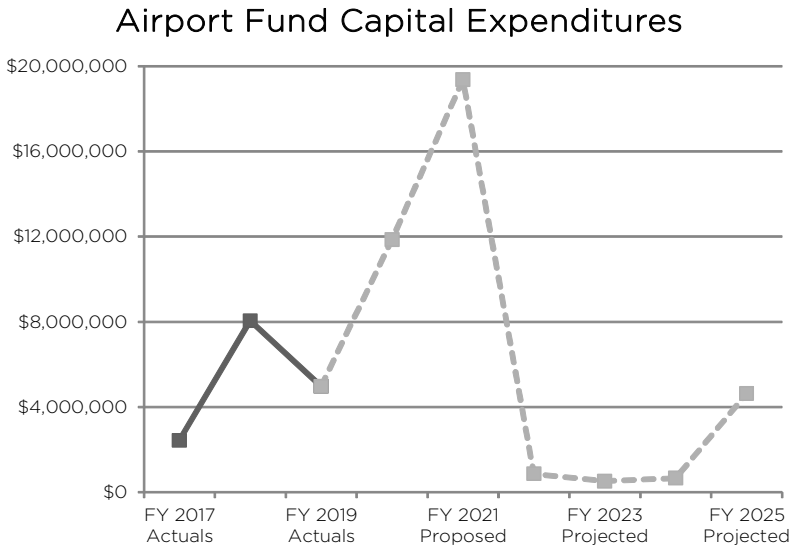
AIRPORT FUND

Overview

The Airport Fund Capital Improvement Program (CIP) accounts for activities related to the construction and replacement of infrastructure necessary to operate and maintain the airport. The Palo Alto Airport (PAO) is a federally obligated airport, which receives federal funds for airport capital improvement projects based on Federal Aviation Administration (FAA) established grant assurances that airport operators must adhere to in order to receive funds. For detailed information on the maintenance and operations of the airport, please refer to the Airport Fund section in the Operating Budget.

The 2021-2025 CIP includes projects totaling $26.0 million with Fiscal Year 2021 projects totaling $19.4 million. The FAA provides grants to public agencies for the planning and development of public-use airports and reimburses up to 90 percent of the non-salary cost of eligible projects. Staff intends to continue applying for FAA grants for eligible capital improvement projects to ensure a safe and well-maintained airport. Staff will also apply for state grant-matching opportunities when available. The budget for the Airport Fund CIP is divided into two categories: Airport Apron, Runways, and Taxiways and Airport Facilities.

Airport Apron, Runways, and Taxiways



The Airport Apron, Runways, and Taxiways category accounts for the design and construction of improvements and enhancements, which include pavement, lighting, drainage, and perimeter fencing. The Palo Alto Airport includes one runway of approximately 2,400 feet in length, one parallel taxiway of the same length, and four connector taxiways for entering and exiting the runway. In Fiscal Year 2015, staff conducted a survey to determine the pavement condition index (PCI) values for all airfield pavement. PCI values are rated as follows: 80+ = very good or excellent, 70-79 = good, 60-69 = fair, 50-59 = at risk, 25-49 = poor, 0-24 = failed. Based on visual inspection, the average apron PCI value was 36, indicating the need for full pavement reconstruction. The apron score of 36 is anticipated to improve when the next PCI evaluation is conducted with the completed Apron and Taxi Lane Reconstruction (AP-15003) and current Airport Apron Reconstruction (AP-16000) projects. The average PCI target range anticipated is a score between 75-80.

Infrastructure Inventory - Summary of Airport Taxiways

CLASSIFICATION	QUANTITY	DESCRIPTION
Apron or Ramp	468	Tie-down spots
Runway	1	2443 x 70 feet
Taxiway	5	4 connector taxiways1 parallel taxiway

Recent Accomplishments

- Completed construction of Phase II of the Apron Reconstruction project (AP-16000) in FY 2019 utilizing an FAA grant reimbursement awarded for 90 percent of project costs.

2021-2025 Capital Improvement Program

Recurring Projects

There are no recurring projects scheduled at this time.

Non-Recurring Projects

There are two non-recurring, multi-phase projects scheduled in the 2021-2025 CIP:

- Airport Apron Reconstruction project (Fiscal Year 2021 and 5-year CIP: $19.4 million)
- Airfield Electrical Improvements (5-year CIP:$5.3 million)

The FAA prioritized the Apron Reconstruction project to be completed before all other airport projects, deferring the Airfield Electrical Improvements project to Fiscal Year 2024. In 2015, the FAA requested a Pavement Maintenance Management Plan (PMMP) to document conditions and prioritize future airport pavement projects. The completed PMMP showed all areas in disrepair, with the apron being most critical. In total, the Apron Reconstruction project will reconstruct 38 acres of pavement.The final phase of construction costs and associated grant reimbursements for this multi-phased project are primarily budgeted in Fiscal Year 2021.

Airport Facilities

The Airport Facilities category accounts for buildings, security systems, parking lot and all other infrastructure improvements. Prior to April 2017, Fixed Base Operators (FBO) leased spaces at the Airport and were responsible for the maintenance of their structures with the exception of the terminal. In April 2017, the FBO leases expired and the City became responsible for the maintenance of these structures. Interim lease agreements (1-3 years) between the City and existing businesses were executed with the understanding that agreements will need to be renegotiated based on the completion of the Airport Business Plan.

Infrastructure Inventory - Summary of Airport Facilities

CLASSIFICATION	QUANTITY	DESCRIPTION
Buildings	2	Offices
Hangars	12	Medium Conventional Box Hangar
Hangars	2	Large Conventional Box Hangar
Hangars	45	Small Nested T-Hangar
Hangars	3	Large Conventional Multi-Aircraft Hangar
Trailers	2	Airport Terminal Building and Offices

Recent Accomplishments

- Adopted Airport Hangars into the Palo Alto Airport Schedule of Fees and Charges for Fiscal Year 2020.
- Completed a comprehensive facilities assessment for all buildings owned by the City at the Airport.

2021-2025 Capital Improvement Program

Recurring Projects

There are no recurring projects scheduled at this time.

Non-Recurring Projects

There are two non-recurring projects during the 2021-2025 CIP:

- Airport Layout Plan (5-Year CIP: $0.7 million)
- Automated Weather Observation System (AWOS) (5-Year CIP: $0.6 million)

The Airport Layout Plan is required by the FAA to ensure grant eligibility and will include existing facilities and planned development, air traffic activity, noise contours, environmental documentation and 20-year demand forecasts.

Summary of Capital Activity

AIRPORT FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Source of Funds									
Revenue from Federal Government									
AP-19001	Airfield Electrical Improvements	0	0	0	0	0	433,350	3,997,800	4,431,150
AP-16000	Airport Apron Reconstruction	1,643,483	10,363,100	17,288,640	0	0	0	0	17,288,640
AP-21000	Airport Layout Plan	0	0	0	544,500	0	0	0	544,500
AP-19000	Automated Weather Observation System (AWOS)	0	0	0	79,200	311,850	0	0	391,050
	Revenue from the Federal Government Total	**1,643,483**	**10,363,100**	**17,288,640**	**623,700**	**311,850**	**433,350**	**3,997,800**	**22,655,340**
Revenue from State of California									
AP-16000	Airport Apron Reconstruction	0	0	2,000,000	0	0	0	0	2,000,000
	Revenue from the State of California Total	**0**	**0**	**2,000,000**	**0**	**0**	**0**	**0**	**2,000,000**
	Total Sources	**1,643,483**	**10,363,100**	**19,288,640**	**623,700**	**311,850**	**433,350**	**3,997,800**	**24,655,340**
Use of Funds									
Airport Apron, Runways, and Taxiways									
AP-19001	Airfield Electrical Improvements	0	0	0	0	0	640,500	4,626,000	5,266,500
AP-16000	Airport Apron Reconstruction	4,954,464	11,654,568	19,367,600	51,000	0	0	0	19,418,600
	Airport Apron, Runways, and Taxiways Total	**4,954,464**	**11,654,568**	**19,367,600**	**51,000**	**0**	**640,500**	**4,626,000**	**24,685,100**
Airport Facilities									
AP-20000	Airport Facilities Electrical Improvements	0	206,000	0	0	0	0	0	0
AP-21000	Airport Layout Plan	0	0	0	710,000	30,000	0	0	740,000
AP-16003	Airport Perimeter Fence	13,129	0	0	0	0	0	0	0
AP-19000	Automated Weather Observation System (AWOS)	0	0	0	98,000	489,500	20,000	0	607,500
AP-16002	Wildlife Hazard Plan	5,121	0	0	0	0	0	0	0
	Airport Facilities Total	**18,250**	**206,000**	**0**	**808,000**	**519,500**	**20,000**	**0**	**1,347,500**
	Total Uses	**4,972,714**	**11,860,568**	**19,367,600**	**859,000**	**519,500**	**660,500**	**4,626,000**	**26,032,600**

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Airport Apron, Runways, and Taxiways

Airfield Electrical, July 2017

Fund: Airport Enterprise Fund
Category: Airport Apron, Runways, and Taxiways
Project Location: 1925 Embarcadero Road

Managing Department: Public Works

Initial Project Start: Fall 2019
Initial Project Completion: Summer 2020

Revised Project Start: Fall 2023
Revised Project Completion: Spring 2025

Project Number: AP-19001

Airfield Electrical Improvements

Description

This project provides funding for electrical and lighting improvements to the airfield.

Justification

The last known airfield electrical improvements were performed in 1993. Results of the electrical assessment conducted as part of the Airport Apron Reconstruction project will inform the necessary above ground electrical infrastructure needs including lighting, signage, and possible vault modifications.

Supplemental Information

The design and construction of underground infrastructure being utilized will be completed in the Airport Apron Reconstruction project. LED lighting may be installed for greater efficiency and to comply with City sustainability goals.

Significant Changes

2021-2025 CIP: The FAA deferred grant funding for this project from Fiscal Year 2023 to Fiscal Year 2024. Funding was increased due to project design cost estimates.

2020-2024 CIP: This project was changed from four phases to three phases and moved up from Fiscal Year 2024 to Fiscal Year 2023, in conjunction with the Airport Apron Reconstruction project (AP-16000). The project was increased to anticipate extra costs that are likely to result from the Airport Layout Plan in order to meet FAA design standards such as costs for the emergency generator, vault building, runway end identifier lights (REIL), precision approach path indicator (PAPI) units, and windcone installation.

2019-2023 CIP: The FAA deferred grant funding for this project from Fiscal Year 2019 to Fiscal Year 2024 to complete the Airport Apron Reconstruction project (AP-16000).

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Airport Fund	0	0	0	0	0	0	207,150	628,200	835,350	0	835,350
Revenue from the Federal Government	0	0	0	0	0	0	433,350	3,997,800	4,431,150	0	4,431,150
Total	**0**	**0**	**0**	**0**	**0**	**0**	**640,500**	**4,626,000**	**5,266,500**	**0**	**5,266,500**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	0	4,626,000	4,626,000	0	4,626,000
Design	0	0	0	0	0	0	640,500	0	640,500	0	640,500
Total	**0**	**0**	**0**	**0**	**0**	**0**	**640,500**	**4,626,000**	**5,266,500**	**0**	**5,266,500**

Operating Impact

This project is anticipated to have operating expenses related to pavement maintenance. As these costs are quantified, adjustments will be brought forward in future budgets, as necessary.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Airport

Goal: L-10

Policy: L-10.1

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project may be exempt from CEQA under Section 15301.

Airport Apron, March 2019

Fund: Airport Enterprise Fund
Category: Airport Apron, Runways, and Taxiways
Project Location: 1925 Embarcadero Road

Managing Department: Public Works

Initial Project Start: Summer 2015
Initial Project Completion: Spring 2020

Revised Project Start:
Revised Project Completion: Summer 2022

Project Number: AP-16000

Airport Apron Reconstruction

Description

This project provides funding for the design and reconstruction of the Palo Alto Airport apron in multiple phases within the existing footprint.

Justification

The pavement surfaces at the airport are failing and uneven and the need to reconstruct the aircraft parking apron is critical to airport safety. The City conducted a Pavement Management Study in Fiscal Year 2015 to determine the pavement condition index (PCI) and to assist in prioritization of pavement improvement projects. The average apron PCI value from the study was 36, which indicated a need for full pavement reconstruction.

Supplemental Information

This project is being implemented in multiple phases. Design commenced in FY 2016 and was completed in FY 2017. Construction began in FY 2018 and is expected to be complete in FY 2022. Construction of Phase I was completed in June 2018 and Phase II is anticipated to be completed in June 2019. FAA grants will fund 90 percent of design and construction costs while staff will pursue other funding opportunities to offset the City obligation for the remaining 10% where available.

Additionally, the FAA will use the average apron PCI information to prioritize the Palo Alto Airport against other airport applicants. Due to the condition of the airport infrastructure, staff anticipates the Palo Alto Airport will rank high in eligibility for grant funding of this project.

Significant Changes

2021-2025 CIP: Additional funding was added for construction to offset inflation of material prices and scope changing to meet new FAA subgrade treatment standards. A $2.0 million loan from the California Department of Transportation is anticipated to offset the City's 10 percent matching portion of the cost to complete Phase III.

2020-2024 CIP: Funding for the Airport Apron Reconstruction project was scheduled in FY 2019 for Phase III in FY 2020 and Phase IV in FY 2021. Now, both phases of the project have been combined into Phase III, with the final year of construction in FY 2021.

2019-2023 CIP: The apron reconstruction costs substantially increased from the previous estimate of $18.0 million to $39.3 million. Budget estimates for the project increased to include all remaining phases of the project as well as reconstruction design changes, solar infrastructure, and construction escalation costs identified while constructing Phase I.

2018-2022 CIP: Due to the findings of a geotechnical study, the subgrade requires more stabilization. The FAA recognizing the safety implications, has agreed to accelerate funding to expedite pavement corrections. Funding of $17.3 million added to the project to account for the multiple phases of this project over the 5-year CIP.

2017-2021 CIP: Additional funding of $715,845 in Fiscal Year 2017 to complete Phase I.

2016-2020 CIP: Project established.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Airport Fund	2,174,784	940,168	1,291,468	78,960	51,000	0	0	0	129,960	0	3,596,212
Revenue from the Federal Government	8,038,198	10,714,400	10,363,100	17,288,640	0	0	0	0	17,288,640	0	35,689,938
Revenue from the State of California	0	0	0	2,000,000	0	0	0	0	2,000,000	0	2,000,000
Total	**10,212,982**	**11,654,568**	**11,654,568**	**19,367,600**	**51,000**	**0**	**0**	**0**	**19,418,600**	**0**	**41,286,150**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	11,705,094	11,652,541	11,654,568	19,367,600	51,000	0	0	0	19,418,600	0	42,778,262
Design	1,794,848	2,027	0	0	0	0	0	0	0	0	1,794,848
Total	**13,499,942**	**11,654,568**	**11,654,568**	**19,367,600**	**51,000**	**0**	**0**	**0**	**19,418,600**	**0**	**44,573,110**

Operating Impact

This project will have operating expenses related to pavement maintenance for asphalt slurry seal estimated every five years. As these costs are quantified, adjustments will be brought forward in future budgets, as necessary.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Airport

Goal: L-10

Policy: L-10.1

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project may be exempt from CEQA under Section 15301.

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Runway and Taxiway, July 2017

Fund: Airport Enterprise Fund
Category: Airport Apron, Runways, and Taxiways
Project Location: 1925 Embarcadero Road

Managing Department: Public Works

Initial Project Start: Summer 2014
Initial Project Completion: Summer 2015

Revised Project Start: Summer 2025
Revised Project Completion: Summer 2026

Project Number: AP-22000

Runway and Taxiway Reconstruction and Drainage Improvements

Description

This project will provide funding for the design and implementation of runway and taxiway reconstruction and drainage improvements for the Palo Alto Airport.

Justification

In 2015, the Airport Pavement Management Plan identified integrity deficiencies beyond the immediate safety concerns addressed in the Airport Apron Reconstruction project (AP-16000). This project will address the lower priority repairs and drainage improvements after the Airport Apron Reconstruction project is completed in Fall 2022.

Significant Changes

2021-2025 CIP: The FAA is deferring grand funding for this project from Fiscal Year 2024 to Fiscal Year 2026. This project is included in the FY 2021 - FY 2025 CIP to document and memorialze the deferral of grant funding and the corresponding postponement of the project.

2020-2024 CIP: This CIP is pending FAA grant funding in Fiscal Year 2024.

2019-2023 CIP: The FAA is deferring grant funding for this project from Fiscal Year 2022 to Fiscal Year 2024 to complete the Airport Apron Reconstruction project (AP-16000).

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Airport Fund	0	0	0	0	0	0	0	0	0	463,950	463,950
Revenue from the Federal Government	0	0	0	0	0	0	0	0	0	4,175,550	4,175,550
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4,639,500**	**4,639,500**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	0	0	0	3,606,000	3,606,000
Design	0	0	0	0	0	0	0	0	0	1,033,500	1,033,500
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4,639,500**	**4,639,500**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Airport

Goal: L-10

Policy: L-10.1

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project may be exempt from CEQA under Section 15301.

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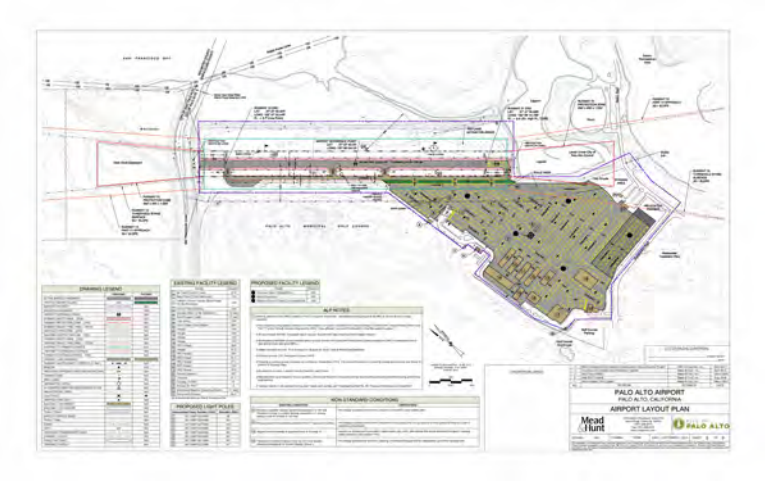
Airport Facilities



Airport Layout, March 2019

Fund: Airport Enterprise Fund
Category: Airport Facilities
Project Location: 1925 Embarcadero Road

Managing Department: Public Works

Initial Project Start: Fall 2021
Initial Project Completion: Summer 2022

Revised Project Start: Summer 2021
Revised Project Completion: Spring 2022

Project Number: AP-21000

Airport Layout Plan

Description

This project provides funding for an update to the Airport Layout Plan (ALP), including a narrative report and environmental study.

Justification

The ALP serves as a critical planning tool that depicts both existing facilities and planned development for an airport and is required by the FAA to ensure eligibility for the highest level of grant funding available for construction of safety and infrastructure improvements. A key objective of airport planning is to assure the effective use of airport resources to satisfy aviation demand in a financially feasible manner. Additionally, the plan will include air traffic activity, noise contours, environmental documentation, and 20-year demand forecasts.

Significant Changes

2021-2025 CIP: Funding increased due to revised engineer estimate. This project is dependent on FAA funding for Fiscal Year 2022.

2020-2024 CIP: Grant funding from the FAA was moved from Fiscal Year 2023 to Fiscal Year 2021. The anticipated increases in cost includes additional scope to complete a required airspace study identified by the FAA.

2019-2023 CIP: The FAA is deferring grant funding for this project from Fiscal Year 2021 to Fiscal Year 2023 to complete the Airport Apron Reconstruction project (AP-16000).

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Airport Fund	0	0	0	0	165,500	30,000	0	0	195,500	0	195,500
Revenue from the Federal Government	0	0	0	0	544,500	0	0	0	544,500	0	544,500
Total	**0**	**0**	**0**	**0**	**710,000**	**30,000**	**0**	**0**	**740,000**	**0**	**740,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	0	710,000	30,000	0	0	740,000	0	740,000
Total	**0**	**0**	**0**	**0**	**710,000**	**30,000**	**0**	**0**	**740,000**	**0**	**740,000**

Operating Impact

This project is not anticipated to impact operating costs in the future.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Airport

Goal: L-10

Policy: L-10.1

Program: L10.1.2

Environmental Impact Analysis:

Requires Environmental Review

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Automated Weather Observation System, July 2017

Fund: Airport Enterprise Fund
Category: Airport Facilities
Project Location: 1925 Embarcadero Road

Managing Department: Public Works

Initial Project Start: Fall 2019
Initial Project Completion: Summer 2020

Revised Project Start: Summer 2022
Revised Project Completion: Summer 2024

Project Number: AP-19000

Automated Weather Observation System (AWOS)

Description

This project provides funding for a new weather information system to be installed at the Palo Alto Airport.

Justification

The FAA tower is staffed from 7:00am to 9:00pm and uses ceilometers, wind indicators, altimeters, and known distances to communicate weather and visibility to users. The new Automated Weather Observation System (AWOS) will provide users more information about weather conditions, feed all weather services, and give present weather 24 hours a day, 7 days a week. Providing users with accurate and up-to-date weather information is essential to the safe and economic operation of the airport.

Significant Changes

2021-2025 CIP: Project funding was split between two phases: Phase I for design and Phase II for construction.

2020-2024 CIP: This project was moved from Fiscal Year 2024 to Fiscal Year 2022 by the FAA so that grant funding for 90 percent of the project cost will most likely be available. Design will begin in Fiscal Year 2022 and construction will begin in Fiscal Year 2023.

2019-2023 CIP: The FAA is deferring grant funding for this project from Fiscal Year 2019 to Fiscal Year 2024 to complete the Airport Apron Reconstruction project (AP-16000).

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Airport Fund	0	0	0	0	18,800	177,650	20,000	0	216,450	0	216,450
Revenue from the Federal Government	0	0	0	0	79,200	311,850	0	0	391,050	0	391,050
Total	**0**	**0**	**0**	**0**	**98,000**	**489,500**	**20,000**	**0**	**607,500**	**0**	**607,500**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	489,500	20,000	0	509,500	0	509,500
Design	0	0	0	0	98,000	0	0	0	98,000	0	98,000
Total	**0**	**0**	**0**	**0**	**98,000**	**489,500**	**20,000**	**0**	**607,500**	**0**	**607,500**

Operating Impact

This project is anticipated to have annual operating expenses related to maintenance and certification after project completion. These costs will be brought forward in future budgets, as necessary.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Airport

Goal: L-10

Policy: L-10.1

Environmental Impact Analysis:

May Require Environmental Review

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

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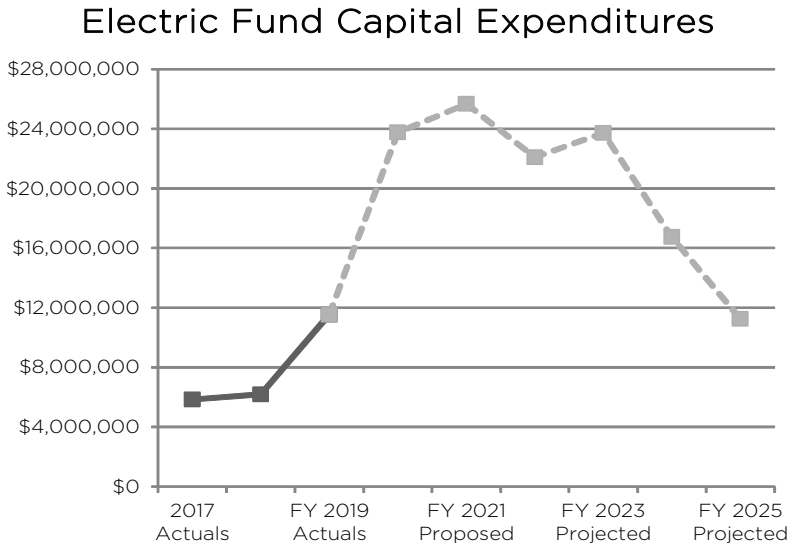
ELECTRIC FUND

Overview

The City of Palo Alto is the only municipality in California that operates a full suite of City-owned utility services. The municipal electric power system began operation in 1900 and continues to provide safe, reliable, and cost effective electric service to residents and customers of Palo Alto. For the 2021-2025 Capital Improvement Program (CIP), approximately $99.5 million in expenses is projected, with $25.7 million budgeted in Fiscal Year 2021, of which $3.7 million is recommended to be reappropriated from Fiscal Year 2020. Overall, a total of 28 projects are planned over the 5-year CIP.



Major projects funded in the 2021-2025 CIP include Foothills System Rebuild ($4.0 million), Substation 60kV Breaker Replacements ($3.0 million), Smart Grid Technology Installation ($19.0 million), Electric Customer Connections ($13.5 million), total 4/12kV conversion projects ($5.2 million), Wood Pole Replacement ($7.5 million), Electric System Improvements ($12.5 million), various underground system rebuild projects ($7.8 million), and Overhead to Underground Conversion ($4.1 million). The budget for the Electric Fund CIP is categorized into three types of projects: Customer Connections, System Improvements, and Undergrounding Projects.

Infrastructure Inventory

CLASSIFICATION	QUANTITY
Miles of 60kV sub transmission lines	18 miles
Substations (w/300 MVA total capacity)	9
Traffic Signals (intersections) maintained	101
Streetlights maintained	6,600
Overhead Primary Distribution	116 miles
Underground Primary Distribution	188 miles
Overhead Secondary Distribution	93 miles
Underground Secondary Distribution	75 miles

Customer Connections

As customers' electric power needs continually change due to equipment additions, new construction, building expansions, building remodels, teardowns and rebuilds, and new building occupancy types, the electric system must evolve to meet these needs. The Electric Customer Connections Project, which is one of the largest projects within the Electric Fund ($2.7 million in Fiscal Year 2021, $13.5 million over the 2021-2025 CIP), is accounted for within this category. Projects can range from new buildings associated with the Veterans Administration Hospital to residential electric panel upgrades. These projects allow for the completion of work required to meet the needs of customers who have applied for new or upgraded electric service, need temporary power for construction, or require other services. The Electric Fund pays for a portion of these projects, while remaining costs are supported by reimbursements from customers for project work performed by the City.

Recent Accomplishments

In Fiscal Year 2019 the Utilities Electric Division completed over 400 customer service projects with a total cost of $2.4 million and revenue of $1.7 million. Many projects in are progress with no major completions to report yet.

2021-2025 Capital Improvement Program

Recurring Projects

The Electric Customer Connections project discussed above is the only recurring project in this category. Actual costs vary year-over-year depending on activity levels.

Non-Recurring Projects

VA Hospital - Customer Load Requirements Project. This project has been reduced in scope and folded into the Electric Customer Connections project. Utilities is working with the VA on their plans and awaits a decision from VA on the interim electric feeder enhancement solution until the new 60kV VA substation is built.

Electric Engineering has received close to 200 applications for small cell attachments to Electric utility streetlight and wood poles. The Electric Utility has about 6,500 wood poles and 6,500 streetlight poles citywide, which are of interest to mobile phone companies. This trend of small cell applications is anticipated to rapidly increase in the next few years, which would increase both the workload and associated revenue in the Electric Customer Connections project. As these projects and associated costs solidify, they will be brought forward for consideration in future Capital Improvement Plans.

System Improvements

Key elements for ensuring reliable electric service to City of Palo Alto residents and customers include replacing electric system components before they reach their end of life; ensuring there is adequate capacity for the projected electric load; and installing protective equipment to minimize the impact of system problems. Projects in the System Improvements category allow for a

variety of improvements, including the replacement/upgrade of old cables and equipment and bringing designs up to current standards, installation of protective equipment and switches, conversion of the electric system from 4,160 Volts (4kV) to 12,470 Volts (12kV), and installation of capacitors to improve efficiency.

The 2021-2025 CIP includes total funding of $81.9 million in this category, with $23.0 million allocated in FY 2021. Significant projects in this category include Smart Grid Technology Installation ($19.0 million), 4/12kV conversion projects ($5.2 million), Electric System Improvements ($12.6 million), Wood Pole Replacements ($7.5 million), 60kV Circuit Breaker Replacements ($3.0 million), and various projects to rebuild underground districts and substation components.

Recent Accomplishments

- Completed replacement of one of twenty-four 60kV circuit breaker.
- Physical installation of new line relays and relay cabinets for protection of Colorado Bank #2. Commissioning to occur in FY 2020.
- Completed other miscellaneous system improvement projects dealing with replacement of deteriorated facilities or to improve system operation and reliability.
- Completed phase II of Supervisory Control and Data Acquisition (SCADA) cybersecurity upgrade.
- Engineered replacement of 85 wood utility poles.
- Facility Relocation for Caltrain Modernization Project engineering is scheduled to be completed in end of 2020.

2021-2025 Capital Improvement Program

Recurring Projects

A total of $28.5 million is programmed for System Improvements recurring projects in the 2021-2025 CIP, with $6.2 million allocated in Fiscal Year 2021. Recurring projects in this category include the following:

- Communication System Improvements (Fiscal Year 2021: $0.02 million; 5-Year CIP: $0.6 million)
- Electric Distribution System Improvements (Fiscal Year 2021: $2.5 million; 5-Year CIP: $12.5 million)
- Electric Utility Geographic Information System (Fiscal Year 2021: $0.2 million; 5-Year CIP: $0.8 million)
- SCADA System Upgrades (Fiscal Year 2021: $0.1 million; 5-Year CIP: $1.0 million)
- Substation Facility Improvements (Fiscal Year 2021: $0.7 million; 5-Year CIP: $2.0 million)
- Substation Protection Improvements (Fiscal Year 2021: $0.6 million; 5-Year CIP: $2.0 million)
- Underground System Rebuild (Fiscal Year 2021: $0.4 million; 5-Year CIP: $1.8 million)
- Wood Pole Replacements (Fiscal Year 2021: $1.5 million; 5-Year CIP: $7.5 million)

Non-Recurring Projects

A total of $53.4 million is allocated in the 2021-2025 CIP for non-recurring System Improvement projects. Significant projects include:

- Rebuild Underground Districts: (Fiscal Year 2021: $03.9 million; 5-Year CIP: $7.8 million)
- Colorado/Hopkins System Improvement: (5-Year CIP: $3.0 million)
- Smart Grid Technology Installation: (Fiscal Year 2021: $5.0 million; 5-Year CIP: $19.0 million)
- Foothills Distribution System Rebuild (Fiscal Year 2021: $2.0 million; 5-year CIP: $4.0 million)

Undergrounding Projects

The City of Palo Alto began a program to underground overhead electric, telephone, and cable TV facilities in 1965 with a project along Oregon Expressway. Since that time, 47 Underground Districts have been formed. The undergrounding of electrical lines is a joint process between the City and AT&T, due to joint ownership of the poles, and Comcast, which leases pole space from AT&T. All three entities share in the cost of the installation of underground conduit and boxes necessary to enclose and protect wires and equipment. The City typically takes the lead in the design, bidding, and construction processes with AT&T and Comcast reimbursing the City for construction and administrative costs.

Recent Accomplishments

- Underground District 46 – Design of the substructure installation is complete and installation of underground cables is in progress to facilitate conversion of the overhead lines portion near the intersection of El Camino Real and Arastradero Road/ West Charleston Road.
- Underground District 47 - ninety-nine percent of customers have completed the service conversions and connections to the underground system bound by Middlefield Road / Addision Avenue / Cowper Street / Homer Avenue.

2021-2025 Capital Improvement Program

Non-Recurring Projects

A total of $4.1 million is allocated in the 2021-2025 CIP for non-recurring Undergrounding projects, with projects starting in FY 2022. Significant projects in this category include the following:

- Underground District 42 ($2.0 million), which will underground overhead utility facilities in the area near Embarcadero Road/Emerson Street/Middlefield Road.
- Underground District 43 ($2.1 million), which will underground overhead utility facilities in the area along Alma Street and Embarcadero Road.

Summary of Capital Activity

ELECTRIC FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Source of Funds									
Transfers from Other Funds									
Gas Fund									
EL-11014	Smart Grid Technology Installation	180,000	0	0	0	0	0	800,000	800,000
	Total Gas Fund Transfers	**180,000**	**0**	**0**	**0**	**0**	**0**	**800,000**	**800,000**
Water Fund									
EL-11014	Smart Grid Technology Installation	290,000	0	0	0	0	0	1,300,000	1,300,000
	Total Water Fund Transfers	**290,000**	**0**	**0**	**0**	**0**	**0**	**1,300,000**	**1,300,000**
	Total Transfers from Other Funds	**470,000**	**0**	**0**	**0**	**0**	**0**	**2,100,000**	**2,100,000**
Reimbursement from Customers, Telephone, and Cable Television Companies									
EL-89028	Electric Customer Connections	3,149,534	1,700,000	1,700,000	1,700,000	1,700,000	1,700,000	1,700,000	8,500,000
EL-08001	Underground District 42 - Embarcadero Road, Emerson, Middlefield	0	0	0	0	0	300,000	0	300,000
EL-11009	Underground District 43 - Alma/Embarcadero	0	0	0	0	300,000	0	0	300,000
EL-12001	Underground District 46 - Charleston/El Camino Real	319,257	0	0	0	0	0	0	0
EL-19004	Wood Pole Replacement	0	0	150,000	150,000	150,000	150,000	150,000	750,000
	Reimbursement from Customers, Telephone, and Cable Television Companies Total	**3,468,791**	**1,700,000**	**1,850,000**	**1,850,000**	**2,150,000**	**2,150,000**	**1,850,000**	**9,850,000**
	Total Sources	**3,938,791**	**1,700,000**	**1,850,000**	**1,850,000**	**2,150,000**	**2,150,000**	**3,950,000**	**11,950,000**
Use of Funds									
Customer Connections									
EL-89028	Electric Customer Connections	2,691,341	2,400,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	13,500,000
EL-17003	VA Hospital Customer Load Requirements	4,825	0	0	0		0	0	0
	Customer Connections Total	**2,696,166**	**2,400,000**	**2,700,000**	**2,700,000**	**2,700,000**	**2,700,000**	**2,700,000**	**13,500,000**
System Improvements									
EL-06001	230 kV Electric Intertie	0	0	177,481	0	0	0	0	177,481
EL-16002	Capacitor Bank Installation	179,545	0	300,000	0	0	0	0	300,000
EL-14000	Coleridge/Cowper/Tennyson 4/12Kv Conversion	29,827	0	880,000	0	0	0	0	880,000
EL-19001	Colorado Power Station Equipment Upgrade	922,316	3,200,000	900,000	2,800,000	1,700,000	900,000	400,000	6,700,000

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
EL-19002	Colorado Substation Improvements	16,360	50,000	340,000	340,000	240,000	0	0	920,000
EL-15000	Colorado/Hopkins System Improvement	0	0	0	0	2,000,000	1,000,000	0	3,000,000
EL-89031	Communications System Improvements	800,766	100,000	170,000	170,000	100,000	100,000	103,000	643,000
EL-17001	East Meadow Circles 4/12kV Conversion	37,709	0	166,000	0	0	0	0	166,000
EL-98003	Electric System Improvements	2,407,460	1,320,645	2,504,700	2,597,000	2,406,000	2,505,000	2,549,700	12,562,400
EL-02011	Electric Utility Geographic Information System	68,904	327,700	165,000	165,000	165,000	165,000	169,950	829,950
EL-17007	Facility Relocation for Caltrain Modernization Project	83,487	300,000	0	0	0	0	0	0
EL-21001	Foothills Rebuild (Fire Mitigation)	0	0	2,000,000	2,000,000	0	0	0	4,000,000
EL-20000	Hopkins Substation 4/12kV Conversion	0	0	50,000	50,000	120,000	2,120,000	1,820,000	4,160,000
EL-17005	Inter-Substation Line Protection Relay	94,563	124,101	230,000	150,000	0	0	0	380,000
EL-14004	Maybell 1&2 4/12kV Conversion	52,417	0	0	0	0	0	0	0
EL-11003	Rebuild Underground District 15	6,844	0	1,169,609	0	0	0	0	1,169,609
EL-13003	Rebuild Underground District 16	3,270	0	699,667	0	0	0	0	699,667
EL-14002	Rebuild Underground District 20	0	50,000	0	0	0	1,400,000	100,000	1,500,000
EL-17000	Rebuild Underground District 23	0	0	214,000	0	0	1,100,000	0	1,314,000
EL-10006	Rebuild Underground District 24	156,277	579,651	0	0	0	0	0	0
EL-19000	Rebuild Underground District 25	9,266	0	0	0	0	0	0	0
EL-16000	Rebuild Underground District 26	3,469	0	1,845,500	0	0	0	0	1,845,500
EL-19003	Rebuild Underground District 30	0	0	0	0	50,000	1,200,000	0	1,250,000
EL-14005	Reconfigure Quarry Feeders	101,121	0	0	0	0	0	0	0
EL-02010	SCADA System Upgrades	63,805	180,000	135,000	380,000	140,000	175,000	178,900	1,008,900
EL-11014	Smart Grid Technology Installation	97,288	0	5,000,000	7,000,000	7,000,000	0	0	19,000,000
EL-17002	Substation 60kV Breaker Replacement	79,472	720,000	600,000	600,000	600,000	600,000	618,000	3,018,000
EL-89044	Substation Facility Improvements	375,144	348,332	740,000	450,000	400,000	200,000	206,000	1,996,000
EL-16003	Substation Physical Security	88,039	0	2,168,852	300,000	200,000	165,000	165,000	2,998,852
EL-89038	Substation Protection Improvements	690,592	80,000	620,000	480,000	300,000	300,000	309,000	2,009,000
EL-16001	Underground System Rebuild	22,478	350,000	400,000	350,000	350,000	350,000	360,500	1,810,500
EL-13008	Upgrade Estimating Software	23,148	0	0	0	0	0	0	0
EL-17008	Utility Control Center Upgrades	437,831	0	0	0	0	0	0	0
EL-04012	Utility Site Security Improvements	42,758	50,000	0	0	0	0	0	0
EL-19004	Wood Pole Replacement	26,395	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,545,000	7,545,000
	System Improvements Total	**6,920,551**	**9,280,429**	**22,975,809**	**19,332,000**	**17,271,000**	**13,780,000**	**8,525,050**	**81,883,859**
Undergrounding Projects									
EL-08001	Underground District 42 - Embarcadero Road, Emerson, Middlefield	0	0	0	0	1,750,000	250,000	0	2,000,000
EL-11009	Underground District 43 - Alma/Embarcadero	0	0	0	56,000	2,000,000	0	0	2,056,000

ELECTRIC FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
EL-12001	Underground District 46 - Charleston/El Camino Real	1,894,650	0	0	0	0	0	0	0
EL-11010	Underground District 47 - Middlefield/Homer/ Webster/Addison	25,365	0	0	0	0	0	0	0
	Undergrounding Projects Total	**1,920,015**	**0**	**0**	**56,000**	**3,750,000**	**250,000**	**0**	**4,056,000**
	Total Uses	**11,536,732**	**11,680,429**	**25,675,809**	**22,088,000**	**23,721,000**	**16,730,000**	**11,225,050**	**99,439,859**

Customer Connections

Electric Troubleman installing an electric meter to provide service to a customer

Fund: Electric Fund
Category: Customer Connections
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: EL-89028

Electric Customer Connections

Description

This project allows for the installation of services, transformers, meters for new customers, upgrades of existing services, temporary service connections, and overhead/underground extensions for new/existing customers.

Justification

The project provides funding for installing electric services for new customer connections and the upgrading existing services. These are critical functions for providing electrical service to the City's customers. During a typical year, over 200 electric services are installed or upgraded in the City.

Supplemental Information

Budget amounts requested for work covered by this project are based on historical expenditures and growth projections. The Electric Fund pays for a portion of this project while remaining costs are supported by reimbursements from customers, telephone, and cable television companies for project work performed by the City.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	N/A	822,862	700,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000	0	N/A
Other	N/A	1,700,000	1,700,000	1,700,000	1,700,000	1,700,000	1,700,000	1,700,000	8,500,000	0	N/A
Total	**N/A**	**2,522,862**	**2,400,000**	**2,700,000**	**2,700,000**	**2,700,000**	**2,700,000**	**2,700,000**	**13,500,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	2,522,862	2,400,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	13,500,000	0	N/A
Total	**N/A**	**2,522,862**	**2,400,000**	**2,700,000**	**2,700,000**	**2,700,000**	**2,700,000**	**2,700,000**	**13,500,000**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

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System Improvements

Possible electric substation connection point to existing 60 kV system

Fund: Electric Fund
Category: System Improvements
Project Location: National Accelerator Laboratory Substation

Managing Department: Utilities

Initial Project Start: Spring 2013
Initial Project Completion: Fall 2015

Revised Project Start:
Revised Project Completion: Winter 2020

Project Number: EL-06001

230 kV Electric Intertie

Description

Funding for this project is used to perform technical feasibility studies to determine the general project requirements to establish another transmission line to the City of Palo Alto along a different transmission corridor. The City's discussions with Stanford University and Stanford Linear Accelerator Laboratory (SLAC), on sharing interest and benefits in a new 230 kV intertie have come to an end with the decision by Stanford to withdraw from the project. Staff is seeking funding for an alternative solution to provide a second transmission source to Palo Alto.

Justification

This transmission line will provide the City with an alternate source of power during emergencies, such as the plane crash in 2010 that impacted electric power to the entire City.

Significant Changes

2021-2025 CIP: Stanford has withdrawn from the project. Staff will evaluate alternative solutions with PG&E/CAISO that will require new/updated technical feasibility studies.

2019-2023 CIP: The City presented its findings to Stanford and SLAC/DOE and is waiting for a response from SLAC to determine whether this project will move forward.

2017-2021 CIP: Project completion has been moved out as discussions with Stanford and SLAC/DOE are ongoing and no agreement has been finalized. Cooperation between these two entities is necessary for this project to move forward.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	262,564	177,481	0	177,481	0	0	0	0	177,481	0	440,045
Total	**262,564**	**177,481**	**0**	**177,481**	**0**	**0**	**0**	**0**	**177,481**	**0**	**440,045**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	210,049	177,481	0	0	0	0	0	0	0	0	210,049
Design	52,510	0	0	177,481	0	0	0	0	177,481	0	229,991
Total	**262,559**	**177,481**	**0**	**177,481**	**0**	**0**	**0**	**0**	**177,481**	**0**	**440,040**

Operating Impact

Projected net annual savings resulting from the interconnection fee reduction will be approximately $2.0 million based on projected energy purchases and the price difference between 115 kV and 230 kV service as lower voltage services are more expensive than higher voltage services. This project is just for the technical feasibility studies; as the timeline for operating impacts becomes clearer recommendations will be included in future budgets.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Capacitor Bank

Fund: Electric Fund
Category: System Improvements
Project Location: Electric Substation

Managing Department: Utilities

Initial Project Start: Fall 2014
Initial Project Completion: Spring 2016

Revised Project Start: Fall 2015
Revised Project Completion: Winter 2021

Project Number: EL-16002

Capacitor Bank Installation

Description

The City of Palo Alto is required to maintain a power factor greater than 0.95 at its main supply point as part of its agreement with the Northern California Power Association. The power factor is the ratio of power drawn from the main supply and the power that it actually consumes. This project will install capacitor banks at electric substations and on distribution lines to ensure this requirement is met.

Justification

In recent years, the power factor, as measured at the service point from PG&E transmission lines, has dropped below the required 0.95 lagging amount. To raise the power factor to an amount above the required limit the Utilities Department will install up to 10 mega volt ampere reactive (MVAR) of capacitors at various locations on the electric system. With the installation of the capacitor bank, this project will increase the power factor to meet current requirements and maintain a sufficient power factor for the next 7 years.

Significant Changes

2021-2025 CIP: Funding will allow for completion of the capacity installations to comply with NCPA member requirements. Installation is expected to be completed by Winter 2021.

2020-2024 CIP: Capacitor banks will be installed at Hanover, Hansen Way, Quarry Road and Park Boulevard Substations. Capacitor banks have been ordered, and installation is expected to be completed by fall 2019.

2019-2023 CIP: Staff has performed an analysis on where capacitors are needed to provide MVAR support to the system. This project has become a lower priority due to a decrease in the system electric load and staff shortages that have elevated other projects above this one.

2017-2021 CIP: Shifting project priorities have delayed the completion of this project.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	180,434	469,596	0	300,000	0	0	0	0	300,000	0	480,434
Total	**180,434**	**469,596**	**0**	**300,000**	**0**	**0**	**0**	**0**	**300,000**	**0**	**480,434**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	180,252	469,596	0	300,000	0	0	0	0	300,000	0	480,252
Design	177	0	0	0	0	0	0	0	0	0	177
Total	**180,429**	**469,596**	**0**	**300,000**	**0**	**0**	**0**	**0**	**300,000**	**0**	**480,429**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Overhead crews working on overhead lines

Fund: Electric Fund
Category: System Improvements
Project Location: Coleridge/Cowper/Tennyson area

Managing Department: Utilities

Initial Project Start: Spring 2016
Initial Project Completion: Spring 2017

Revised Project Start: Spring 2019
Revised Project Completion: Winter 2022

Project Number: EL-14000

Coleridge/Cowper/Tennyson 4/12kV Conversion

Description

This project will convert the primary electric distribution system in the Coleridge/Cowper/Tennyson area from 4kV to 12kV.

Justification

Because of the difference in voltage, the 4kV and 12kV systems cannot be directly connected and used to back up one another. Due to prior conversions to 12kV in adjacent areas, this 4kV area needs to be converted to 12kV so that adequate circuit connections can be restored. This will allow customers to be switched from one circuit to another during normal or emergency conditions, improve operating flexibility of the system, and enhance service reliability to customers in this area. Converting to 12kV will eliminate the need to replace this equipment as it is not needed at that voltage level.

Significant Changes

2021-2025 CIP: This project converts the primary electric distribution system in the Coleridge/Cowper/Tennyson area from 4 kV to 12 kV. This project is a necessary precursor to work being planned for Colorado/Hopkins Substations.

2020-2024 CIP: The majority of the project funding is moving to FY 2020 to coordinate with other projects planned in conjunction with the Colorado/Hopkins System Improvements.

2019-2023 CIP: This project is a precursor to work being planned for Colorado/Hopkins System Improvements (EL-15000). The purpose of this project converts the primary electric distribution system in the Coleridge/Cowper/Tennyson area from 4kV to 12kV. The start date has been pushed out to coordinate with other projects planned in conjunction with the Colorado/Hopkins System Improvements.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	29,827	930,000	0	880,000	0	0	0	0	880,000	0	909,827
Total	**29,827**	**930,000**	**0**	**880,000**	**0**	**0**	**0**	**0**	**880,000**	**0**	**909,827**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	930,000	0	880,000	0	0	0	0	880,000	0	880,000
Design	29,826	0	0	0	0	0	0	0	0	0	29,826
Total	**29,826**	**930,000**	**0**	**880,000**	**0**	**0**	**0**	**0**	**880,000**	**0**	**909,826**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Colorado Power Substation

Fund: Electric Fund
Category: System Improvements
Project Location: Colorado Substation

Managing Department: Utilities

Initial Project Start: Fall 2018
Initial Project Completion: Fall 2019

Revised Project Start:
Revised Project Completion: Spring 2027

Project Number: EL-19001

Colorado Power Station Equipment Upgrades

Description

This project will replace aging peripheral equipment used on the substation transformer banks at the Colorado Power Station. The Colorado Power Station is on the 115kV/60kV transmission side of the Colorado Substation, which transforms the electricity to a lower sub-transmission voltage that feeds the individual distribution stations around the city.

Justification

A project was done in 2015 to replace all the original primary and secondary bushings. With these preventative maintenance and operating practices, the transformers have a life expectancy well beyond the industry expectations; however, the condition of the auxiliary equipment is not as good. The tanks and radiators are rusty and the paint is chalky and faded, contributing to the breakdown of the steel. The transformers have many minor oil leaks around the radiator flanges, inspection covers and valve packings from old and compressed cork gaskets. The leaks are a potential environmental hazard if the oil migrates to the ground and into storm water. Additionally, wherever oil leaks out, water can seep in. This will eventually increase the moisture in the oil that could result in failure of the transformer. The temperature and level gauges show signs of long term UV exposure and the plastics have become brittle and cracked.

Significant Changes

2021-2025 CIP Due to the discoveries made during replacement of transformer #2, staff is assessing the need and timing of the replacement of transformer #3 and the associated 115kV

circuit breaker GCB-3. Funding requested in FY 2021 is considering the possibility of early replacement.

2020-2024 CIP The replacement of aging peripheral equipment at the Colorado Power Station has been reassigned to replacing the failed COP-2 transformer. The unexpected cost of replacing the failed transformer increased the project from $900,000 to $2,500,000. The aging peripheral equipment will be dealt with in a future year.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	922,315	3,377,671	3,200,000	900,000	2,800,000	1,700,000	900,000	400,000	6,700,000	0	10,822,315
Total	**922,315**	**3,377,671**	**3,200,000**	**900,000**	**2,800,000**	**1,700,000**	**900,000**	**400,000**	**6,700,000**	**0**	**10,822,315**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	922,313	3,377,671	3,200,000	900,000	2,800,000	1,700,000	900,000	400,000	6,700,000	0	10,822,313
Total	**922,313**	**3,377,671**	**3,200,000**	**900,000**	**2,800,000**	**1,700,000**	**900,000**	**400,000**	**6,700,000**	**0**	**10,822,313**

Operating Impact

There are no additional operating impacts anticipated from this project. Normal maintenance costs that will be absorbed within the available maintenance schedule and annual budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.3

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Colorado Electric Substation Driveway

Fund: Electric Fund
Category: System Improvements
Project Location: Colorado Substation

Managing Department: Utilities

Initial Project Start: Fall 2018
Initial Project Completion: Summer 2020

Revised Project Start: Fall 2021
Revised Project Completion: Spring 2023

Project Number: EL-19002

Colorado Substation Site Improvements

Description

This project will make modifications to the substation driveways and fence to provide adequate ingress and egress for utility vehicles used for maintenance and repair and build concrete barriers between transformers #1 and #3.

Justification

The Colorado Power Station (COP) site contains three large utility power transformers. It also contains the 60kV main bus that forms the backbone of the 60kV loop throughout the City. COP transformers #1 and #3 are situated near each other where catastrophic failure of one transformer can damage the other. In addition to the existing electrical protection systems a barrier between the two transformers reduces the damage risk to these assets.

Significant Changes

2021-2025 CIP: This is an ongoing project over several years to improve the accessibility in the substation for trucks and other machinery. Work will be planned in conjunction with work under EL-16003, Substation Physical Security.

2019-2023 CIP: Project established.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	16,359	475,780	50,000	340,000	340,000	240,000	0	0	920,000	0	986,359
Total	**16,359**	**475,780**	**50,000**	**340,000**	**340,000**	**240,000**	**0**	**0**	**920,000**	**0**	**986,359**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	16,358	475,780	50,000	340,000	340,000	240,000	0	0	920,000	0	986,358
Total	**16,358**	**475,780**	**50,000**	**340,000**	**340,000**	**240,000**	**0**	**0**	**920,000**	**0**	**986,358**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Relationship to Comprehensive Plan

Secondary Connection

Element: Land Use and Community Design

Section: Public Streets and Public Spaces

Goal: L-9

Policy: L-9.11

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Electric Substation

Fund: Electric Fund
Category: System Improvements
Project Location: Hopkins and Colorodo Substations

Managing Department: Utilities

Initial Project Start: Spring 2015
Initial Project Completion: Spring 2018

Revised Project Start: Spring 2023
Revised Project Completion: Summer 2024

Project Number: EL-15000

Colorado/Hopkins System Improvement

Description

This project will replace deteriorating equipment, which will increase system capacity and improve service reliability for the areas served by the Hopkins and Colorado substations and adjacent substations.

Justification

Transformers at both the Hopkins and Colorado Substations are near the end of their useful life, along with much of the other equipment at Hopkins. Hopkins is a 4kV substation and has no connections to other substations, so there is no backup to serve customers should there be a catastrophic problem at that substation.

Supplemental Information

Improvements are necessary to serve future electrical load projections and provide backup service to Hopkins. This project will evaluate solutions to best solve the multitude of issues facing these substations, such as how best to accommodate the replacement of this equipment, how best to provide backup power to the Downtown University Avenue area, and how best to ensure adequate capacity for the area considering load increase around the Stanford Hospital area.

Significant Changes

2021-2025 CIP: This project is contingent on completion of other work in the area to convert the 4kV distribution system to 12kV.

This project will replace deteriorating equipment which will increase system capacity and improve service reliability for the areas served by the Hopkins and Colorado substations and adjacent substations.

2020-2024 CIP: The revised project total of $3.0 million includes the complete demolition of 4kV equipment at Hopkins Substation and rebuild with new 12kV equipment. The project is still in the planning phase and staff will return to Council once the design is complete.

2019-2023 CIP: Staff has completed the initial cost/benefit analysis to assess various alternatives to meet distribution system needs and increased the budget accordingly.

2018-2022 CIP: Revised load projections associated with new loads in the Stanford Hospital area and has necessitated adjustment to the project plans.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	0	0	0	0	0	2,000,000	1,000,000	0	3,000,000	0	3,000,000
Total	**0**	**0**	**0**	**0**	**0**	**2,000,000**	**1,000,000**	**0**	**3,000,000**	**0**	**3,000,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	2,000,000	1,000,000	0	3,000,000	0	3,000,000
Total	**0**	**0**	**0**	**0**	**0**	**2,000,000**	**1,000,000**	**0**	**3,000,000**	**0**	**3,000,000**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Traffic/Fiber technicians repairing the city fiber optic cables

Fund: Electric Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: EL-89031

Communications System Improvements

Description

This project installs copper wire cable systems, high frequency coaxial cable, fiber optic cable, and related equipment to provide communications services for traffic signal coordination, telephone links, computer data transmission, and the Electric Supervisory Control and Data Acquisition (SCADA) system.

Justification

Installation of communication lines is essential for the provision of City services. The broadband system provides communication between the Utility Control Center to substations and field equipment and between substation protection equipment. This annual project funds, as necessary, expansion of the system and replacement of deteriorating facilities.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	N/A	100,001	100,000	170,000	170,000	100,000	100,000	103,000	643,000	0	N/A
Total	**N/A**	**100,001**	**100,000**	**170,000**	**170,000**	**100,000**	**100,000**	**103,000**	**643,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	100,000	100,000	170,000	170,000	100,000	100,000	103,000	643,000	0	N/A
Total	**N/A**	**100,000**	**100,000**	**170,000**	**170,000**	**100,000**	**100,000**	**103,000**	**643,000**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302

Electric Lineperson working on utility pole

Fund: Electric Fund
Category: System Improvements
Project Location: East Charleston/Alma Street/East Meadow Drive/Middlefield Road area

Managing Department: Utilities

Initial Project Start: Summer 2017
Initial Project Completion: Spring 2018

Revised Project Start: Fall 2021
Revised Project Completion: Spring 2022

Project Number: EL-17001

East Meadow Circles 4/12kV Conversion

Description

This project will convert the primary electric distribution system in the East Charleston/Alma Street/East Meadow Drive/Middlefield Road area from 4kV to 12kV.

Justification

Because of the difference in voltage, the 4kV and 12kV systems cannot be directly connected and used to back up one another. Due to prior 12kV conversions in adjacent areas, this 4kV area needs to be converted to 12kV so that adequate circuit connections can be restored. This will allow customers to be switched from one circuit to another during normal or emergency conditions, and improve operating flexibility of the system and service reliability to customers in this area. Converting to 12kV will eliminate the need to replace this equipment as it is not needed at that voltage level.

Significant Changes

2021-2025 CIP: Project design is in progress and additional funding is requested to facilitate construction.

2019-2023 CIP: The project converts the primary electric distribution system in the East Charleston/Alma Street/East Meadow Drive/Middlefield Road area from 4kV to 12kV. This project is in the preliminary stages of assessment for engineering design and is being reevaluated to determine the scope of work that should be involved. Issues with replacing the rear-easement

facilities may dictate a change in direction of the project scope. Project funding has been decreased by $0.9 million and pushed out.

2017-2021 CIP: Project established.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	38,704	800,000	0	166,000	0	0	0	0	166,000	0	204,704
Total	**38,704**	**800,000**	**0**	**166,000**	**0**	**0**	**0**	**0**	**166,000**	**0**	**204,704**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	795	800,000	0	166,000	0	0	0	0	166,000	0	166,795
Design	37,906	0	0	0	0	0	0	0	0	0	37,906
Total	**38,701**	**800,000**	**0**	**166,000**	**0**	**0**	**0**	**0**	**166,000**	**0**	**204,701**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Electric linemen working on overhead electric connection

Fund: Electric Fund
Category: System Improvements
Project Location: Edgewood/Wildwood area

Managing Department: Utilities

Initial Project Start: Spring 2016
Initial Project Completion: Spring 2017

Revised Project Start: N/A
Revised Project Completion: N/A

Project Number: EL-13000

Edgewood/Wildwood 4kV Tie

Description

This project will install new overhead wires to connect the Hopkins electric feeders #3 (HO-3) and #7 (HO-7) in the Edgewood/Wildwood area.

Justification

Because of the voltage difference, the 4kV and 12kV systems cannot be directly connected and provide redundancy. When the East Meadow 4kV feeders are converted to 12kV (EL-17001), the 4kV back-up connections from East Meadow to Hopkins substations will be eliminated. In order to maintain reliable service in the event of a feeder outage at the Hopkins Substation, this project will construct a tie between the HO-3 and HO-7 feeders.

Significant Changes

2021-2025 CIP: This project has been cancelled and the proposed work will be incorporated into EL-20000, phases 3 and 4. Project displayed here to memorialize the project cancellation.

2019-2023 CIP: The project has shifted to begin in Fiscal Year 2021 after completion of project EL-17001.

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Electric crews working in an underground vault terminating cables

Fund: Electric Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: EL-98003

Electric System Improvements

Description

This project provides funding, as needed, to improve the Electric Distribution System. Typical activities include: increasing system capacity for load growth, replacing deteriorated capital facilities, reconfiguring/adding to the system to improve service reliability, repairing and replacing storm damaged equipment, and making general improvements to the system.

Justification

Electric system service reliability and adequate system capacity are critical to providing a high level of service to customers in Palo Alto. When service interruptions occur, customers may experience significant economic losses. The City must continuously evaluate service reliability needs and make improvements to the system to maintain top-level service to City customers.

Supplemental Information

Other funding sources include reimbursements from the telephone company for work performed on their behalf by City staff.

Significant Changes

2021-2025 CIP: Additional funding is requested to fund additional service reliability work and SF6 switch replacements.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	N/A	1,725,749	1,320,645	2,504,700	2,597,000	2,406,000	2,505,000	2,549,700	12,562,400	0	N/A
Total	**N/A**	**1,725,749**	**1,320,645**	**2,504,700**	**2,597,000**	**2,406,000**	**2,505,000**	**2,549,700**	**12,562,400**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	1,725,749	1,320,645	2,504,700	2,597,000	2,406,000	2,505,000	2,549,700	12,562,400	0	N/A
Total	**N/A**	**1,725,749**	**1,320,645**	**2,504,700**	**2,597,000**	**2,406,000**	**2,505,000**	**2,549,700**	**12,562,400**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

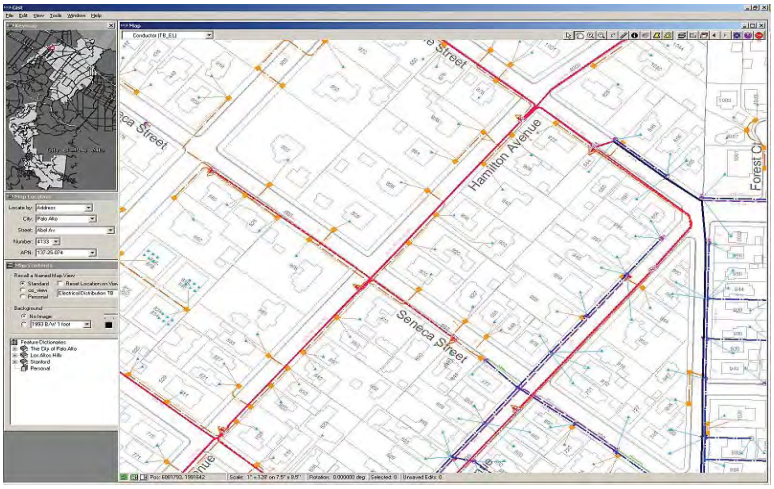
Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.



View of City of Palo Alto GIS System

Fund: Electric Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: EL-02011

Electric Utility Geographic Information System

Description

This project will enhance the citywide Geographical Information System (GIS). The primary emphasis will be to provide a compatible user interface and estimating software to edit and update data, which will reside in the citywide GIS. The project includes the migration of the existing electric and fiber networks to a unified mapping solution compatible with the citywide GIS.

Justification

GIS has grown from being a set of special purpose computer applications to being an information tool that serves all segments of the City. Applications have been developed that make GIS information accessible to hundreds of users, which has greatly increased the value of the system. Funding in the CIP is for ongoing mapping system modifications to facilitate technical requirements, external contractor system support, anticipated system upgrades, and to meet future needs and facilitate integration to the new citywide GIS. This could include recommendations for upgrade or replacement of existing systems.

Significant Changes

2021-2025 CIP: In conjunction with the City effort to convert the city's GIS data from GIST (Geodesy) to an Esri Mapping platform, Electric Engineering will begin investigating the transition of the electric information to Esri. This transition will eventually support other utility applications, such as the Outage Management System, System Restoration practices, customer notifications, and system modeling and analysis.

2020-2024 CIP: The City will move to a new GIS platform, Esri, in FY 2020. Annual funding will support Electric's portion of the implementation and ongoing support of the new GIS system.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	N/A	378,306	327,700	165,000	165,000	165,000	165,000	169,950	829,950	0	N/A
Total	**N/A**	**378,306**	**327,700**	**165,000**	**165,000**	**165,000**	**165,000**	**169,950**	**829,950**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	378,306	327,700	165,000	165,000	165,000	165,000	169,950	829,950	0	N/A
Total	**N/A**	**378,306**	**327,700**	**165,000**	**165,000**	**165,000**	**165,000**	**169,950**	**829,950**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Efficient and Effective Service Delivery

Goal: C-1

Policy: C-1.3

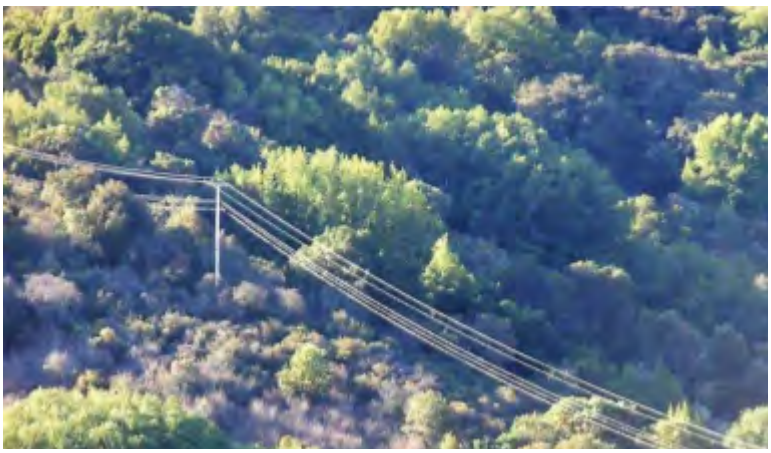
Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.



Overhead electric lines in Foothills Park

Fund: Electric Fund
Category: System Improvements
Project Location: Foothills

Managing Department: Utilities

Initial Project Start: Summer 2020
Initial Project Completion: Fall 2022

Revised Project Start:
Revised Project Completion:

Project Number: EL-21001

Foothills Rebuild (Fire Mitigation)

Description

Devastating wildfires throughout the State of California have prompted electric utilities throughout the state to identify areas within their jurisdiction that are susceptible to power-line ignited wildfires and to take steps to prevent their occurrence.

This project proposes to rebuild the approximately 11 miles of overhead line, as necessary to mitigate the possibility of a wildfire due to overhead electric lines. This could include: utilization of more robust equipment or construction practices; rerouting to avoid vegetation and improve access for inspection and maintenance; or converting the overhead lines to underground where feasible.

Justification

At the direction of the CPUC all electric Utilities in the state of California were required to review their service territories and determine areas that may be susceptible to wildfire that should be considered for inclusion on statewide Fire Threat Map. CPAU, with the assistance of a Fire Science Consultant, determined that the area within our service territory west of 280 had an "Elevated Risk" (categories: Moderate, Elevated, Extreme) of wildfire, requiring more stringent construction, inspection, and vegetation management requirements.

Subsequent state legislation required all utilities to prepare Wildfire Mitigation Plans outlining the processes and procedures CPAU will undertake to mitigate the threat of wildfires associated with overhead electric lines and equipment. In 2011 CPAU hired a consultant to perform a hazard risk assessment to assess natural and man made hazard risks associated with Utilities department assets, focusing on risk exposure and financial responsibility. Of all of the hazards evaluated, wildfire due to wind and in the foothills posed the highest financial risk.

Supplemental Information

This project proposes to solicit a design/build contractor to rebuild/relocate/replace the overhead portions of the CPAU electric system serving customers in the High Fire Threat areas of Palo Alto to reduce the probability of a wildfire caused by overhead electric facilities. CPAU will solicit bids from qualified engineering/construction contractors to design, engineer, and construct a 12kV electric distribution line to replace, reinforce, reroute, and in some places expand, the existing city-owned overhead electric and fiber optic lines in the Foothills in Palo Alto.

Design and construction will be performed in several phases, starting with the upper portion of the 12 kV line, including a new fiber optic cable installation between two CPAU water reservoirs and working down the hill.

The estimated cost of this project is assuming replacement of the existing overhead system with overhead facilities in the same locations. Relocation or undergrounding of the lines will increase this cost but the amount will not be known until we start a design process with the contractor.

Significant Changes

2021-2025 CIP: Project established.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	0	0	0	2,000,000	2,000,000	0	0	0	4,000,000	0	4,000,000
Total	**0**	**0**	**0**	**2,000,000**	**2,000,000**	**0**	**0**	**0**	**4,000,000**	**0**	**4,000,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	2,000,000	2,000,000	0	0	0	4,000,000	0	4,000,000
Total	**0**	**0**	**0**	**2,000,000**	**2,000,000**	**0**	**0**	**0**	**4,000,000**	**0**	**4,000,000**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan Secondary Connection:	Potential Board/Commission Review:
Primary Connection	Element: Natural Environment	Utilities Advisory Commission
Element: Safety	Section: Open Space	
Section: Natural Hazards	Goal: N-1	
Goal: S-2	Policy: N-1.1	
Policy: S-2.13		
Program: S1.3.1		

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under section 15302.

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Garland Drive

Fund: Electric Fund
Category: System Improvements
Project Location: Louis/Oregon/Embarcadero/St Francis

Managing Department: Utilities

Initial Project Start: Fall 2019
Initial Project Completion: Spring 2023

Revised Project Start: Spring 2022
Revised Project Completion: Fall 2026

Project Number: EL-20000

Hopkins Substation 4/12kV Conversion

Description

This project will fund the conversion of the distribution system connected to the Hopkins Substation from 4kV to 12kV.

Justification

The future conversion of the Hopkins Substation from 4kV to 12kV requires that all the areas currently served at 4kV from the Hopkins Substation be converted to 12kV. This project will improve operating flexibility of the system, service reliability, and back-up to customers in downtown and other adjacent areas.

Supplemental Information

This project will be completed in the following seven phases, (schedule subject to change):

FY 2024 - 1) Louis/California/Middlefield/Moreno and 2) Louis/Oregon/Embarcadero/St. Francis

FY 2025 - 3) St. Francis/Oregon/Amarillo/Louis; 4) Channing/Edgewood/Jackson/Greer; and 5) Channing/Embarcadero/Newell/Greer

FY 2026 - 6) Channing/Center/Dana and 7) Channing/Embarcadero/Melville/Newell

Significant Changes

2021-2025 CIP: This project has been deferred until related work in the area is completed.

2019-2023 CIP: Project established.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	0	0	0	50,000	50,000	120,000	2,120,000	1,820,000	4,160,000	0	4,160,000
Total	**0**	**0**	**0**	**50,000**	**50,000**	**120,000**	**2,120,000**	**1,820,000**	**4,160,000**	**0**	**4,160,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	120,000	2,120,000	1,820,000	4,060,000	0	4,060,000
Design	0	0	0	50,000	50,000	0	0	0	100,000	0	100,000
Total	**0**	**0**	**0**	**50,000**	**50,000**	**120,000**	**2,120,000**	**1,820,000**	**4,160,000**	**0**	**4,160,000**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Aging electric equipment

Fund: Electric Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Summer 2017
Initial Project Completion: Spring 2019

Revised Project Start: Winter 2019
Revised Project Completion: Summer 2022

Project Number: EL-17005

Inter-substation Line Protection Relay

Description

This project funds the replacement of existing wire relays with new microprocessor-based line differential protective relays to protect the City's 60kV sub-transmission line sections and equipment from damage due to faults (i.e. short circuits) on the 60kV line sections.

Justification

The existing electro-mechanical wire differential relays are approaching the end of their useful life and rely on a copper pilot wire cable system running between each substation to maintain communication between the relay pairs located at the ends of each 60kV line section. These pilot wire cables have aged significantly and are the source of repeated failures due to corrosion in connections and splices, which cause open circuits, particularly during the rainy season. During these periods of interrupted pilot wire communication, the existing pilot wire relays do not provide adequate back-up protection, putting the City at risk of an outage should a fault occur on the 60kV line section.

Significant Changes

2020-2024 CIP: Project title change from HCB Pilot Wire Replay Replacement to Inter-substation Line Protection Relay. The scope and funding for the project have increased as staff has determined that replacing the entire 60kV protection system is the best way to ensure reliable service.

2019-2023 CIP: Staff completed the relay replacements between Quarry and Hopkins Substations, installation of fiber optic communication cables between Colorado, Maybell, East Meadow

and Adobe Creek Substations, and is now working on installation of the relays at Maybell and East Meadow and placing them in service.

2017-2021 CIP: Project established.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	305,121	215,928	124,101	230,000	150,000	0	0	0	380,000	0	809,222
Total	**305,121**	**215,928**	**124,101**	**230,000**	**150,000**	**0**	**0**	**0**	**380,000**	**0**	**809,222**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	244,088	130,927	124,101	230,000	150,000	0	0	0	380,000	0	748,189
Design	61,015	85,001	0	0	0	0	0	0	0	0	61,015
Total	**305,103**	**215,928**	**124,101**	**230,000**	**150,000**	**0**	**0**	**0**	**380,000**	**0**	**809,204**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Underground transformer and cable after years of service

Fund: Electric Fund
Category: System Improvements
Project Location: Area bounded by Los Palos, Glenbrook, Pomona, and Arastradero

Managing Department: Utilities

Initial Project Start: Spring 2010
Initial Project Completion: Summer 2012

Revised Project Start: Spring 2018
Revised Project Completion: Winter 2022

Project Number: EL-11003

Rebuild Underground District 15

Description

This project will rebuild and replace the underground electric system in Underground District 15. The area is bounded by Los Palos, Glenbrook, Pomona, and Arastradero. Work will include the replacement of deteriorated electrical cables, transformers and enclosures. Installation of new equipment will bring the electrical system up to current construction standards.

Justification

The underground system serving Underground District 15 was installed in 1973. The cables and equipment in the area have exceeded their expected life of 30 years. In addition, most of the equipment and cables were installed in subsurface enclosures that have standing water in winter. The water reduces the life of the equipment and electrical connections and requires the rebuilding of the facilities.

Significant Changes

2021-2025 CIP: The project has been delayed to facilitate a request from residents to place the transformer below ground. Staff is working on the added cost to residents and will prepare an agreement. The project is planned for construction in FY 2021, and will be combined with the work in EL-13003 and El-16000 in a single bid package to solicit a construction contractor.

2020-2024 CIP: Work on this project has been delayed due to public input regarding the design of the project.

2019-2023 CIP: This project rebuilds and replaces the underground electric system in Underground District 15, the area bounded by Los Palos, Glenbrook, Pomona, and Arastradero. This project is in the preliminary stages of assessment for engineering design and work will be coor-

dinated with Rebuild Underground District 26 (EL-16000) which is rebuilding the electric system along Arastradero Road. Work on this project has been delayed due to staffing shortages.

2017-2021 CIP: Shifting project priorities and the loss of Engineering staff have delayed the completion of this project.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	43,345	459,609	0	1,169,609	0	0	0	0	1,169,609	0	1,212,954
Total	**43,345**	**459,609**	**0**	**1,169,609**	**0**	**0**	**0**	**0**	**1,169,609**	**0**	**1,212,954**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	34,513	419,609	0	1,169,609	0	0	0	0	1,169,609	0	1,204,122
Design	8,824	40,000	0	0	0	0	0	0	0	0	8,824
Total	**43,337**	**459,609**	**0**	**1,169,609**	**0**	**0**	**0**	**0**	**1,169,609**	**0**	**1,212,946**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Electric crews installing new underground cables

Fund: Electric Fund
Category: System Improvements
Project Location: Louis Road between Greer Street and Loma Verde Avenue

Managing Department: Utilities

Initial Project Start: Winter 2016
Initial Project Completion: Spring 2018

Revised Project Start: Spring 2019
Revised Project Completion: Winter 2022

Project Number: EL-13003

Rebuild Underground District 16

Description

This project will rebuild and replace the underground electric system in Underground District 16. The area is located along Louis Road between Greer Street and Loma Verde Avenue. Work will include the replacement of deteriorated electrical cables, transformers, and enclosures. Installation of new equipment will bring the electrical system up to current construction standards.

Justification

The underground system serving Underground District 16 was installed in 1974, and cables and equipment in the area have exceeded their expected life of 30 years. In addition, most of the equipment and cables were installed in subsurface enclosures that have standing water in them in the winter. The water reduces the life of the equipment and electrical connections and requires the rebuilding of the facilities.

Significant Changes

2021-2025 CIP: Design engineering is underway and project construction will be combined with the work for EL-11003 and EL-16000 in a single bid package to solicit a construction contractor.

2020-2024 CIP: Work on this project has been delayed as Staff continues with the process of receiving public input regarding the design of the project.

2019-2023 CIP: This project is in the preliminary stages of assessment for engineering design and work will be coordinated with Rebuild Underground District 26 (EL-16000), which is rebuilding the electric system along Arastradero Road. Funding has increased to reflect market prices and moved to FY 2019.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	10,857	387,667	0	699,667	0	0	0	0	699,667	0	710,524
Total	**10,857**	**387,667**	**0**	**699,667**	**0**	**0**	**0**	**0**	**699,667**	**0**	**710,524**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	6,069	387,667	0	699,667	0	0	0	0	699,667	0	705,736
Design	4,785	0	0	0	0	0	0	0	0	0	4,785
Total	**10,854**	**387,667**	**0**	**699,667**	**0**	**0**	**0**	**0**	**699,667**	**0**	**710,521**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Utility Engineer planning out the next underground rebuild project

Fund: Electric Fund
Category: System Improvements
Project Location: Channing Avenue; Center Street; Hamilton Avenue; and Lincoln Avenue

Managing Department: Utilities

Initial Project Start: Winter 2017
Initial Project Completion: Spring 2018

Revised Project Start: Spring 2020
Revised Project Completion: Spring 2024

Project Number: EL-14002

Rebuild Underground District 20

Description

This project will rebuild and replace the underground electric system in Underground District 20. Work will include the replacement of deteriorated electrical cables, transformers, and enclosures. Installation of new equipment will bring the electrical system up to current construction standards.

Justification

The underground system serving Underground District 20 was installed in 1979, and cables and equipment in the area have exceeded their expected life of 30 years. In addition, most of the equipment and cables were installed in subsurface enclosures that have standing water during winter. The water reduces the life of the equipment and electrical connections and requires the rebuilding of the facilities.

Significant Changes

2021-2025 CIP: This project has been deferred to later years due to delays in completing related work in the area.

2019-2023 CIP: This project rebuilds and replaces the underground electric system in Underground District 20, the area bounded by Channing Avenue, Center Street, Hamilton Avenue, and Lincoln Avenue. This project is in the preliminary stages of assessment for engineering design.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	9,968	50,000	50,000	0	0	0	1,400,000	100,000	1,500,000	0	1,559,968
Total	**9,968**	**50,000**	**50,000**	**0**	**0**	**0**	**1,400,000**	**100,000**	**1,500,000**	**0**	**1,559,968**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	7,974	50,000	50,000	0	0	0	1,400,000	100,000	1,500,000	0	1,557,974
Design	1,991	0	0	0	0	0	0	0	0	0	1,991
Total	**9,965**	**50,000**	**50,000**	**0**	**0**	**0**	**1,400,000**	**100,000**	**1,500,000**	**0**	**1,559,965**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Electric underground cable vault

Fund: Electric Fund
Category: System Improvements
Project Location: Hamilton Avenue, San Francisquito Creek, Southwood Drive and Chaucer Street

Managing Department: Utilities

Initial Project Start: Fall 2016
Initial Project Completion: Summer 2019

Revised Project Start: Spring 2021
Revised Project Completion: Spring 2024

Project Number: EL-17000

Rebuild Underground District 23

Description

This project will rebuild and replace the underground electric system in the area of the City bounded by Hamilton Avenue, San Francisquito Creek, Southwood Drive, and Chaucer Street. Work will include the replacement of deteriorated electrical cables, transformers, switches and enclosures.

Justification

The underground electric distribution system in the area bounded by Hamilton Avenue, San Francisquito Creek, Southwood Drive, and Chaucer Street was installed in 1983. Typical underground cable and equipment expected life is approximately 30 years in ideal conditions and now needs to be replaced. Installation of new equipment will bring the electrical system up to current construction standards.

Significant Changes

2021-2025 CIP: This project has been deferred to later years due to delays in completing related work in the area.

2020-2024 CIP: The budget has increased $600,000 to account for increased substructure work and construction costs.

2019-2023 CIP: This project rebuilds and replaces the underground electric system in the area bounded by Chaucer Street, San Francisquito Creek, Hamilton Avenue, and Southwood Drive. This project is in the preliminary stages of assessment for engineering design.

2017-2021 CIP: Project established.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	0	164,000	0	214,000	0	0	1,100,000	0	1,314,000	0	1,314,000
Total	**0**	**164,000**	**0**	**214,000**	**0**	**0**	**1,100,000**	**0**	**1,314,000**	**0**	**1,314,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	164,000	0	214,000	0	0	1,100,000	0	1,314,000	0	1,314,000
Total	**0**	**164,000**	**0**	**214,000**	**0**	**0**	**1,100,000**	**0**	**1,314,000**	**0**	**1,314,000**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Arastradero Road (part of Underground District 26)

Fund: Electric Fund
Category: System Improvements
Project Location: Arastradero Road between El Camino Real and Hillview Avenue

Managing Department: Utilities

Initial Project Start: Spring 2016
Initial Project Completion: Spring 2016

Revised Project Start: Spring 2019
Revised Project Completion: Winter 2022

Project Number: EL-16000

Rebuild Underground District 26

Description

This project will rebuild and replace the underground electric system in Underground District 26. Work will include the replacement of deteriorated electrical cables, transformers, switches, and enclosures. Installation of new equipment will bring the electrical system up to current construction standards.

Justification

The electric system included in the scope of work of Underground District 26 was installed in 1984. Underground District 26 includes Arastradero Road between El Camino Real and Hillview Avenue. The cables are nearing the end of their expected life of 30 years and the fused switches that were installed at that time have operation issues and need to be replaced. In addition, most of the other equipment (transfomers, junctions, etc.) were installed in subsurface enclosures that have standing water, garden chemicals, oil, and other corrosive materials that impact equipment life.

Significant Changes

2021-2025 CIP: Design engineering is underway and project construction will be combined with the work for EL-11003 and EL-13003 in a single bid package to solicit a construction contractor.

2019-2023 CIP: This project is in the preliminary stages of assessment for engineering design and will be designed in conjunction with the Underground District 15 project, which is rebuilding the electric system on Los Palos/Glenbrook/Pomona area.

2017-2021 CIP: Shifting project priorities and turnover of engineering staff have caused the delay for the completion of this project.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	4,798	307,458	0	1,845,500	0	0	0	0	1,845,500	0	1,850,298
Total	**4,798**	**307,458**	**0**	**1,845,500**	**0**	**0**	**0**	**0**	**1,845,500**	**0**	**1,850,298**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	3,837	194,000	0	0	0	0	0	0	0	0	3,837
Design	957	113,458	0	1,845,500	0	0	0	0	1,845,500	0	1,846,457
Total	**4,794**	**307,458**	**0**	**1,845,500**	**0**	**0**	**0**	**0**	**1,845,500**	**0**	**1,850,294**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Underground Utilities Enclosure

Fund: Electric Fund
Category: System Improvements
Project Location: Louis/California/Middlefield/Moreno

Managing Department: Utilities

Initial Project Start: Fall 2018
Initial Project Completion: Spring 2020

Revised Project Start: Spring 2020
Revised Project Completion: Winter 2024

Project Number: EL-19003

Rebuild Underground District 30

Description

This project will rebuild and replace the underground electric system in the area of the City bounded by San Francisquito Creek, Edgewood Drive, Island Drive, Hamilton Avenue, Center Drive, Dana Avenue, Alester Avenue, and Jackson Drive. Work will include the replacement of deteriorated electrical cables, transformers, switches, and enclosures.

Justification

The underground electric distribution system in the area bounded by San Francisquito Creek, Edgewood Drive, Island Drive, Hamilton Avenue, Center Drive, Dana Avenue, Alester Avenue, and Jackson Drive was installed in 1987. Typical underground cable and equipment expected life is approximately 30 years in ideal conditions and now need to be replaced. Installation of new equipment will bring the electrical system up to current construction standards. Rebuild of this area is being done ahead of other older underground areas to facilitate the 4/12kV conversions needed for changes at Hopkins Substation (EL-20000).

Significant Changes

2021-2025 CIP: This project is deferred to later years because of delays in completing related work in the area.

2020-2024 CIP: The budget has increased $300,000 to account for increased substructure work and construction costs.

2019-2023 CIP: Project established

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	0	0	0	0	0	50,000	1,200,000	0	1,250,000	0	1,250,000
Total	**0**	**0**	**0**	**0**	**0**	**50,000**	**1,200,000**	**0**	**1,250,000**	**0**	**1,250,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	50,000	1,200,000	0	1,250,000	0	1,250,000
Total	**0**	**0**	**0**	**0**	**0**	**50,000**	**1,200,000**	**0**	**1,250,000**	**0**	**1,250,000**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

San Francisquito Creek Joint Powers Authority

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Electric linemen working on 60kV overhead lines

Fund: Electric Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Spring 2018
Initial Project Completion: Spring 2020

Revised Project Start: Spring 2020
Revised Project Completion: Fall 2019

Project Number: EL-13002

Relocate Quarry/Hopkins Substation 60kV Line (A & B)

Description

This project relocates the Quarry/Hopkins (QR/HO) 60kV sub-transmission line and associated facilities in Lanes A & B, and the nearby Alma Street area to a more physically accessible route for electric crews and equipment. When the Alma Substation was removed, the current transmission line route was no longer required. This project will investigate relocating this line to a more acceptable location that meets technical and aesthetic requirements.

Justification

The old 60kV overhead lines are located in a congested area of downtown and are difficult to access and maintain. The existing configuration is awkward and space consuming.

Significant Changes

2021-2025 CIP: This project has been deferred to focus on higher priority work. Project displayed here to memorialize the project deferral.

2019-2023 CIP: This project relocates the Quarry/Hopkins (QR/HO) 60kV sub-transmission line and associated facilities in Lanes A & B, and the nearby Alma Street area to a more physically accessible route for electric crews and equipment. The engineering design has been delayed to FY 2020 with construction anticipated to begin in FY 2021.

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

SCADA Technologist configuring SCADA software

Fund: Electric Fund
Category: System Improvements
Project Location: SCADA System at Utility Control Center

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: EL-02010

SCADA System Upgrades

Description

This project will upgrade the Supervisory Control and Data Acquisition (SCADA) system hardware. The SCADA system is used to monitor and control critical assets of the City's Electric, Gas, and Water utility systems from the Utility Control Center.

Justification

An upgrade to peripheral equipment is necessary each year to keep the hardware and software current in order to handle the ever-increasing demands on the system and maintain manufacturer/industry support.

Supplemental Information

Annual budget amounts are for minor system upgrades/replacements. Full system upgrades are on a 3 to 4 year cycle.

Significant Changes

2021-2025 CIP: This is an annual budget to fund various upgrades to the SCADA system and peripheral equipment. Increases reflect the increased cost of equipment and support.

2020-2024 CIP: The increase in FY 2021 budget increase is to fund the purchase and installation of a demilitarized zone (DMZ) to add an additional layer of security to the City's local area network (LAN). An external network node can access only what is exposed in the DMZ, while the rest of the organization's network is firewalled. The DMZ functions as a small, isolated network positioned between the Internet and the LAN which will allow the City extra time to detect and address breaches before they further penetrate into the internal networks.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	N/A	265,000	180,000	135,000	380,000	140,000	175,000	178,900	1,008,900	0	N/A
Total	**N/A**	**265,000**	**180,000**	**135,000**	**380,000**	**140,000**	**175,000**	**178,900**	**1,008,900**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	265,000	180,000	135,000	380,000	140,000	175,000	178,900	1,008,900	0	N/A
Total	**N/A**	**265,000**	**180,000**	**135,000**	**380,000**	**140,000**	**175,000**	**178,900**	**1,008,900**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Program: C3.2.1

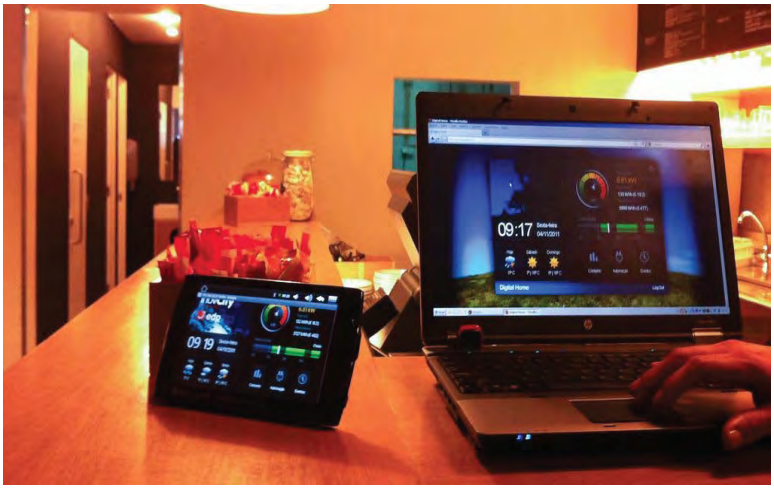
Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.



Sample of energy use information that could be available to customers

Fund: Electric Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Fall 2016
Initial Project Completion: Fall 2022

Revised Project Start: Fall 2021
Revised Project Completion: Fall 2029

Project Number: EL-11014

Smart Grid Technology Installation

Description

This project will implement portions of the Smart Grid Road Map that can be cost effectively applied to the City's Electric, Gas, and Water utility systems resulting in operating cost savings, environmental benefits, plus an increased quality of life and productivity for the residents and businesses of Palo Alto.

Justification

The Smart Grid will help the City of Palo Alto achieve its goals in: energy conservation, carbon emission reduction, efficient utilization of aging infrastructure, improved system reliability, integration of distributed energy resources, accommodation of battery charging demands, cost-effective commodity purchases, and meeting customer demands for information.

Supplemental Information

This project could include aspects of data management system, smart metering, fiber optic infrastructure improvement, distribution system automation, outage management system, load management system, demand-side management system, leak and revenue protection, customer interface to energy usage, and customer equipment control.

Significant Changes

2021-2025 CIP: This project will implement portions of the Smart Grid Road Map that can be cost effectively applied to the City's electric, gas, and water utility systems, resulting in operating cost savings, environmental benefits, plus an increased quality of life and productivity for the residents and businesses of Palo Alto. Staff completed a Request for Proposal to solicit bids

to evaluate the implementation of Smart Grid technologies in Palo Alto incorporating information gathered from completed pilot projects.

2020-2024 CIP: In December 2018, the City Council accepted the 'Smart Grid and Utilities Technology Implementation Plan' that recommended the implementation of an Automated Metering Infrastructure (AMI) based smart grid system at an estimated cost of $19 million. The Smart Grid will help the City achieve its goals in: energy and water conservation, carbon emission reduction, efficient utilization of aging infrastructure, improved system reliability, integration of distributed energy resources, cost-effective commodity purchases, and meeting customer demands for information.

The cost is estimated to be borne by the Electric ($10.5 million), Gas ($3.4 million) and Water ($5.1 million) Funds. The actual project implementation is not expected to begin until 2023, upon the implementation of the customer information system upgrade project. It is also anticipated the funds from the Electric Special Projects (ESP) reserves will be used to cover the initial capital costs. The Gas and Water Funds will then repay the ESP reserve loan over 10 years at 3.5% interest with an annualized payment of $0.41 million and $0.61 million respectively.

2019-2023 CIP: Project activities in 2019 include consultant development of system specifications in preparation for an RFP to solicit contracts with meter data management systems and advanced metering infrastructure vendors for delivery in 2021 and 2022, respectively. Implementation will begin in 2021 once the upgrade of Utilities' Customer Information System is complete.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	(965,279)	932,763	0	5,000,000	7,000,000	7,000,000	0	(2,100,000)	16,900,000	(8,400,000)	7,534,721
Transfer from Gas Fund	616,335	0	0	0	0	0	0	800,000	800,000	3,200,000	4,616,335
Transfer from Water Fund	726,335	0	0	0	0	0	0	1,300,000	1,300,000	5,200,000	7,226,335
Total	**377,391**	**932,763**	**0**	**5,000,000**	**7,000,000**	**7,000,000**	**0**	**0**	**19,000,000**	**0**	**19,377,391**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	299,136	932,763	0	5,000,000	7,000,000	7,000,000	0	0	19,000,000	0	19,299,136
Design	78,255	0	0	0	0	0	0	0	0	0	78,255
Total	**377,391**	**932,763**	**0**	**5,000,000**	**7,000,000**	**7,000,000**	**0**	**0**	**19,000,000**	**0**	**19,377,391**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Sustainable Transportation

Goal: T-1

Policy: T-1.5

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

P4 This project is expected to have a possible exemption from CEQA under Section 15301.

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High voltage circuit breakers

Fund: Electric Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Summer 2017
Initial Project Completion: Summer 2020

Revised Project Start: Summer 2020
Revised Project Completion: Summer 2028

Project Number: EL-17002

Substation 60kV Breaker Replacement

Description

This project funds the purchase and replacement of high voltage circuit breakers that interconnect the nine electric substations and two power switching stations. There are 25 circuit breakers reaching the end of their recommended reliable useful life expectancy and/or are now underrated for the use.

Justification

A recent 60kV circuit breaker study performed for the City of Palo Alto found that the interrupting current rating of two of these circuit breakers on the system is not high enough to handle the expected maximum fault current level. Three other circuit breakers are marginal with respect to their interrupting current rating. Six additional older oil circuit breakers are obsolete and have reached or are reaching the ends of their operable lives. One oil circuit breaker has experienced a non-catastrophic failure. Should there be a fault, it could result in a failure of any one of these twelve circuit breakers to operate properly, damaging the breaker and leading to a prolonged electric outage. These circuit breakers are integral and critical components of the electric utility transmission system.

Significant Changes

2021-2025 CIP: This is an ongoing project over several years to replace 60 kV breakers at substations. The increased cost is to cover anticipated increases in material and installation cost.

2020-2024 CIP: Staff has increased the project scope to include all 60 kV circuit breakers in the distribution system, bringing the number of circuit breakers to replace from 12 to 25. This project will be a 10-year program replacing 5 breakers per year. The annual budget of $600,000 includes engineering consulting services, material, and construction.

2017-2021 CIP: Project established.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	242,650	770,000	720,000	600,000	600,000	600,000	600,000	618,000	3,018,000	0	3,980,650
Total	**242,650**	**770,000**	**720,000**	**600,000**	**600,000**	**600,000**	**600,000**	**618,000**	**3,018,000**	**0**	**3,980,650**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	210,009	720,000	720,000	600,000	600,000	600,000	600,000	618,000	3,018,000	0	3,948,009
Design	32,630	50,000	0	0	0	0	0	0	0	0	32,630
Total	**242,639**	**770,000**	**720,000**	**600,000**	**600,000**	**600,000**	**600,000**	**618,000**	**3,018,000**	**0**	**3,980,639**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Electric Substation transformer and bus structure

Fund: Electric Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: EL-89044

Substation Facility Improvements

Description

This project involves several improvements to each of the nine substation facilities in Palo Alto, including installation and replacement of capacitors, replacement of various substation equipment, renovation of security fences and entry gates, paving of driveways and parking areas in substations, upgrading of substation drainage systems, replacement of Remote Terminal Unit (RTU) equipment, bus voltage monitoring and local area network (LAN) connections, as well as other improvements.

Justification

The electric substations are the link between the transmission and distribution systems. At the substations, voltage levels are converted and distribution circuits branch out to provide power throughout the City. They are a key element to providing reliable electric service to residents and customers in Palo Alto. Work completed under this project helps to ensure reliable operation and electric service.

Significant Changes

2021-2025 CIP: Budget increase in FY 2021 for grounding upgrades.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	N/A	348,332	348,332	740,000	450,000	400,000	200,000	206,000	1,996,000	0	N/A
Total	**N/A**	**348,332**	**348,332**	**740,000**	**450,000**	**400,000**	**200,000**	**206,000**	**1,996,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	348,332	348,332	740,000	450,000	400,000	200,000	206,000	1,996,000	0	N/A
Total	**N/A**	**348,332**	**348,332**	**740,000**	**450,000**	**400,000**	**200,000**	**206,000**	**1,996,000**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Substation perimeter wall providing security for the enclosed equipment

Fund: Electric Fund
Category: System Improvements
Project Location: Colorado Substation

Managing Department: Utilities

Initial Project Start: Fall 2015
Initial Project Completion: Spring 2017

Revised Project Start: Fall 2018
Revised Project Completion: Winter 2025

Project Number: EL-16003

Substation Physical Security

Description

The electric substations are a key element of the Electric Distribution System used to provide electricity to residents and customers of Palo Alto. This project will evaluate options for protecting electric substations from outside vandalism and intrusion. If necessary, fences and other protections will be repaired. If warranted and approved, a request for proposal will be issued for construction.

Justification

The 2013 incident involving PG&E's Metcalf Substation in South San Jose prompted increased security concerns regarding utility sites and systems. A severe disruption to one of Palo Alto's substations could result in outages of an extended period. The Utility Site Security Improvements project (EL-04012) addresses the aspects of visual security such as digital cameras, while this project addresses the need for physical protection.

Significant Changes

2021-2025 CIP: This is an ongoing project over several years to improve security of electric substations. Project work will be coordinated with work proposed in EL-19002, Colorado Substation Site Improvements.

2020-2024 CIP: Project title changed from Substation Security to Substation Physical Security. The project budget has increased by $1.0 million to account for increased project scope at Colorado and Hansen Substations and construction cost escalation.

2019-2023 CIP: Project budget increased by $0.3 million to account for construction escalation.

2017-2021 CIP: Shifting project priorities have caused the delay for the completion of this project. A consultant assessed and recommended security measures in 2017. Staff will review recommendations and issue bids for selected improvements.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	212,716	707,507	0	2,168,852	300,000	200,000	165,000	165,000	2,998,852	0	3,211,568
Total	**212,716**	**707,507**	**0**	**2,168,852**	**300,000**	**200,000**	**165,000**	**165,000**	**2,998,852**	**0**	**3,211,568**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	164,231	627,743	0	2,168,852	300,000	200,000	165,000	165,000	2,998,852	0	3,163,083
Design	48,458	79,764	0	0	0	0	0	0	0	0	48,458
Total	**212,689**	**707,507**	**0**	**2,168,852**	**300,000**	**200,000**	**165,000**	**165,000**	**2,998,852**	**0**	**3,211,541**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Electric Substation used to distribute power to City of Palo Alto customers

Fund: Electric Fund
Category: System Improvements
Project Location: Electric Substations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: EL-89038

Substation Protection Improvements

Description

This project funds the purchase of protective overcurrent relays, circuit breakers, high voltage fuses, and other equipment used at electric substations to protect the equipment and circuits emanating from the substation from damage due to faults (i.e. short circuits) on the electric system.

Justification

The electric substations are the link between the transmission and distribution systems. At the substations, voltage levels are converted and distribution circuits branch out to provide power throughout the City. They are a key element to providing reliable electric service to residents and customers in Palo Alto. Protective equipment is used to stop power flow when there are problems on the electric system. As the Electric Distribution System becomes more complex and reliability more critical, maintenance of these systems is imperative.

This project includes replacement of old protective devices and controls that no longer provide the level of functionality now required for more sophisticated and sensitive devices. Properly designed and operating protective systems are required to ensure public safety, reduce equipment damage, and minimize the impact of faults such as reduction in outage durations.

Significant Changes

FY 2020-2024 CIP: Staff completed the 60kV coordination study and is working on designs for replacement of current transformers that would be overloaded during faults. Staff is also working on the designs to replace the relays on the Maybell Substation feeders. Due to the size and

complexity of this project, staff is in the process of procuring an Engineering Consultant to do the detailed design of the equipment layout and wiring.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	N/A	426,518	80,000	620,000	480,000	300,000	300,000	309,000	2,009,000	0	N/A
Total	**N/A**	**426,518**	**80,000**	**620,000**	**480,000**	**300,000**	**300,000**	**309,000**	**2,009,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	426,518	80,000	620,000	480,000	300,000	300,000	309,000	2,009,000	0	N/A
Total	**N/A**	**426,518**	**80,000**	**620,000**	**480,000**	**300,000**	**300,000**	**309,000**	**2,009,000**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Electric crews preparing to enter underground vault

Fund: Electric Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: EL-16001

Underground System Rebuild

Description

Underground primary electric cables and equipment have a limited life span and need to be replaced before they fail and cause outages. This project will replace underground electric equipment in areas that were originally installed underground instead of as a part of an Underground District. Work will include the replacement of deteriorated electrical cables, transformers, switches and enclosures. Installation of new equipment will bring the electrical system up to current construction standards.

Justification

The underground system cables and equipment installed prior to 1990 have an expected life of 30 years and now need to be replaced. In addition, most of the equipment and cables were installed in subsurface enclosures that have standing water in them in the winter. Exposure to water reduces the life of the equipment and electrical connections and require the rebuilding of the facilities. Utilities has specific projects to address rebuilding Underground Districts. This project will address replacing underground equipment that was installed originally as underground and not part of an Underground District.

Significant Changes

2021-2025 CIP: This is an annual budget to fund various projects to replace underground cable as the need is identified. Increases reflect the increased cost of materials and installation.

2020-2024 CIP: Staff is working to identify areas that are high priority for cable replacement based on the age of the existing cables. This currently includes areas in the Stanford Research Park, Arastradero Road, and along East Bayshore Road.

2019-2023 CIP: Shifting project priorities and staffing shortages have delayed identification and development of projects to replace underground facilities that fall under this project.

2016-2021 CIP: Project established.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	N/A	350,000	350,000	400,000	350,000	350,000	350,000	360,500	1,810,500	0	N/A
Total	**N/A**	**350,000**	**350,000**	**400,000**	**350,000**	**350,000**	**350,000**	**360,500**	**1,810,500**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	350,000	350,000	400,000	350,000	350,000	350,000	360,500	1,810,500	0	N/A
Total	**N/A**	**350,000**	**350,000**	**400,000**	**350,000**	**350,000**	**350,000**	**360,500**	**1,810,500**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Security cameras for system security and monitoring

Fund: Electric Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Spring 2004
Initial Project Completion: Spring 2016

Revised Project Start: Summer 2014
Revised Project Completion: Summer 2021

Project Number: EL-04012

Utility Site Security Improvements

Description

The Utilities Electric, Water, and Gas Distribution Systems provide services to residents and businesses that are fundamental necessities of living and working in Palo Alto. This project will add electronic security systems at utility sites to protect equipment at electric substations, water pumping plants, reservoirs, and gas stations from intrusion and vandalism.

Justification

This project addresses security risks and mitigation methods for City utility facilities identified in a utility site assessment that was completed in 2003. The 2013 vandalism incident at PG&E's Metcalf Substation has heightened security concerns regarding utility sites and systems. This project implements the recommendations in the site assessment report and installs equipment at two to three facilities per year.

Significant Changes

2021-2025 CIP: This project adds electronic security systems at utility sites to protect equipment at electric substations, water pumping plants, reservoirs, and gas stations from intrusion and vandalism. To date, cameras and detection systems have been installed at seven (7) electric substations, three (3) water stations, and one (1) natural gas station to monitor facilities. Staff is working on finalizing software agreements and assessing the need for electronic security at remaining substations.

2020-2024 CIP: To date, cameras and detection systems have been installed at seven of nine electric substations, three water stations, and one natural gas station to monitor the facilities. Software agreements and assessing the need for electronic security at the remaining substa-

tions continue to be finalized. After FY 2021, any scope improvements to physical substation security will be absorbed in Substation Physical Security (EL-16003).

2017-2021 CIP: Shifting project priorities have caused the delay for the completion of this project.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	1,458,939	133,500	50,000	0	0	0	0	0	0	0	1,508,939
Total	**1,458,939**	**133,500**	**50,000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,508,939**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	1,171,285	133,500	50,000	0	0	0	0	0	0	0	1,221,284
Design	287,639	0	0	0	0	0	0	0	0	0	287,639
Total	**1,458,924**	**133,500**	**50,000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,508,923**

Anticipated Operating Budget Needs

Fund	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Electric Fund	0	30,000	30,000	30,000	30,000

Operating Impact

After Fiscal Year 2021, operating and maintenance cost will increase by $30,000 annually for ongoing maintenance of the cameras and detection equipment installed as part of this project.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Aging pole that needs to be replaced.

Fund: Electric Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: EL-19004

Wood Pole Replacement

Description

This project will fund the annual replacement of deteriorated wood poles.

Justification

Wood poles are used to support overhead utility lines throughout the City of Palo Alto. Though poles are inspected, tested, and treated to maintain their integrity, over time poles will deteriorate to the point that they are no longer safe for utility workers. Replacement of wood poles has been funded under the Electric System Improvement project (EL-98003); however, wood pole replacement competes with other system improvement and service reliability work for funding. A new specific project for pole replacement is being established to give pole replacement a higher priority, as poles are getting older, and to ensure proper funding is approved and allocated each year.

Significant Changes

2021-2025 CIP: This is an annual project to replace deteriorated poles. The increased costs are due to increases in cost of materials and construction labor.

2020-2024 CIP: Project revenues updated to reflect estimated shared costs from AT&T for joint pole access.

2019-2023 CIP: Project established.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	N/A	1,350,000	1,500,000	1,350,000	1,350,000	1,350,000	1,350,000	1,395,000	6,795,000	0	N/A
Other	N/A	150,000	0	150,000	150,000	150,000	150,000	150,000	750,000	0	N/A
Total	**N/A**	**1,500,000**	**1,500,000**	**1,500,000**	**1,500,000**	**1,500,000**	**1,500,000**	**1,545,000**	**7,545,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,545,000	7,545,000	0	N/A
Total	**N/A**	**1,500,000**	**1,500,000**	**1,500,000**	**1,500,000**	**1,500,000**	**1,500,000**	**1,545,000**	**7,545,000**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301

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Undergrounding Projects

Intersection of Embarcadero Road and Waverley Street (part of Underground District 42)

Fund: Electric Fund
Category: Undergrounding Projects
Project Location:

Managing Department: Utilities

Initial Project Start: Spring 2017
Initial Project Completion: Spring 2019

Revised Project Start: Spring 2023
Revised Project Completion: Spring 2025

Project Number: EL-08001

Underground District 42 - Embarcadero Road, Emerson, Middlefield

Description

This project will replace the existing overhead electrical distribution system with an underground system along Embarcadero between Emerson and Middlefield. This project involves creating an Underground Utilities District and performing the work on a general benefit basis under the provisions of Utility Rule 17 which requires the Utility to bear the cost of the distribution system and the property owners to bear the cost of undergrounding their services.

Justification

Benefits of undergrounding include system improvement, higher reliability, reduced tree trimming, and improved aesthetics. Undergrounding has been approved to continue the ongoing underground conversion program and also because the area meets the California Public Utilities Commission rules dictating the areas where a telephone company can underground their lines.

Significant Changes

2021-2025 CIP: This project is deferred to later years to focus on higher priority work.

2020-2024 CIP: Design and construction are being spread over two years.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	0	50,000	0	0	0	1,750,000	(50,000)	0	1,700,000	0	1,700,000
Other	0	0	0	0	0	0	300,000	0	300,000	0	300,000
Total	**0**	**50,000**	**0**	**0**	**0**	**1,750,000**	**250,000**	**0**	**2,000,000**	**0**	**2,000,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	1,750,000	250,000	0	2,000,000	0	2,000,000
Design	0	50,000	0	0	0	0	0	0	0	0	0
Total	**0**	**50,000**	**0**	**0**	**0**	**1,750,000**	**250,000**	**0**	**2,000,000**	**0**	**2,000,000**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to be categorically exempt from CEQA under Section 15301.

Alma Street at Embarcadero Road (part of Underground District 43)

Fund: Electric Fund
Category: Undergrounding Projects
Project Location: Alma, Addison, Bryant, and Melville

Managing Department: Utilities

Initial Project Start: Spring 2018
Initial Project Completion: Spring 2019

Revised Project Start: Spring 2022
Revised Project Completion: Spring 2024

Project Number: EL-11009

Underground District 43 - Alma/ Embarcadero

Description

This project will replace the existing overhead electrical distribution system with an underground system in the area bounded by Alma, Addison, Bryant, and Melville. This project involves creating an Underground Utilities District and performing the work on a general benefit basis under the provisions of Utility Rule 17, which requires the Utility to bear the cost of the distribution system and the property owners to bear the cost of undergrounding their services.

Justification

Benefits of undergrounding include system improvement, higher reliability, reduced tree trimming, and improved aesthetics. Undergrounding has been approved to continue the ongoing underground conversion program and also because the area meets California Public Utilities Commission rules dictating the areas where a telephone company can underground their lines.

Significant Changes

2021-2025 CIP: This project is deferred to FY 2022 to focus on higher priority work.

2020-2024 CIP: Design and construction work is being spread over two years.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	0	0	0	0	56,000	1,700,000	0	0	1,756,000	0	1,756,000
Other	0	0	0	0	0	300,000	0	0	300,000	0	300,000
Total	**0**	**0**	**0**	**0**	**56,000**	**2,000,000**	**0**	**0**	**2,056,000**	**0**	**2,056,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	2,000,000	0	0	2,000,000	0	2,000,000
Design	0	0	0	0	56,000	0	0	0	56,000	0	56,000
Total	**0**	**0**	**0**	**0**	**56,000**	**2,000,000**	**0**	**0**	**2,056,000**	**0**	**2,056,000**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

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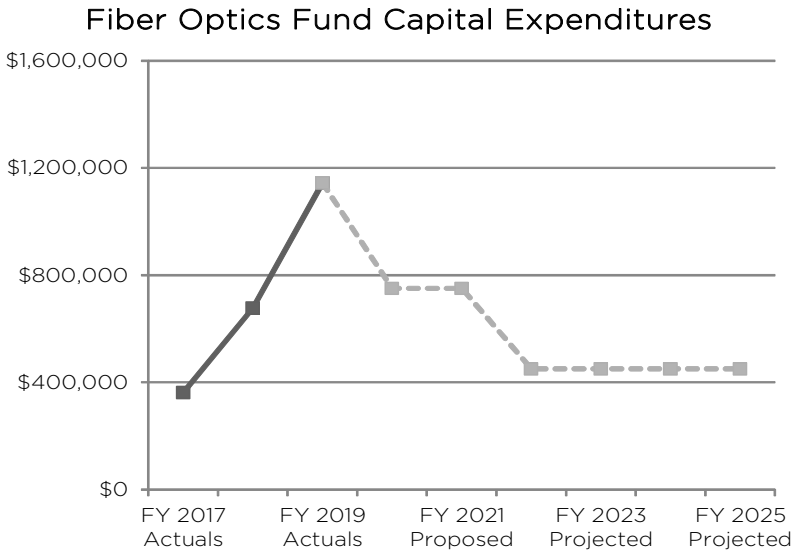
FIBER OPTICS FUND

Overview

The City of Palo Alto is the only municipality in the State of California that operates a full suite of City-owned utility services. The most recent addition to this list of services provided to City of Palo Alto residents and commercial customers is the licensing of dark fiber service connections on a dark optical fiber backbone network (fiber network), originally designed and built by the City in the mid to late 1990s.

For the 2021-2025 Capital Improvement Program (CIP), expenditures of $2.6 million are programmed, with $0.8 million allocated in Fiscal Year 2021. Major projects funded in the 2021-2025 CIP include Fiber Optics Customer Connections ($1.3 million), Fiber Network System Improvements ($1.0 million) and Fiber Network System Rebuild ($0.3 million). The budget for the Fiber Optics CIP can be categorized into two types of projects: Capacity Improvements and Customer Connections.



Infrastructure Inventory

CLASSIFICATION	QUANTITY
Route Miles of Underground Backbone Fiber Optic Cable	33
Route Miles of Overhead Backbone Fiber Optic Cable	16
Total Route Miles of Backbone Fiber Cable	49

Capacity Improvements

With advances in various technologies dependent on high-bandwidth broadband connectivity, increases in online services and applications, and significant increases in data transmission over fiber optic networks, access to fiber optic cables is increasingly in demand. To ensure reliable fiber optic service to City of Palo Alto residents and commercial customers, network components such as fiber optic cables and splice cabinets need to be upgraded or added to increase capacity; replaced or protected from damage by animals; and rerouted away from hazardous conditions.

Recent Accomplishments

- Added new fiber conduit on University Avenue as part of the Upgrade Downtown project.
- Completed field investigation and design of new fiber backbone cables from Park Boulevard Substation to Stanford Research Park area.

2021-2025 Capital Improvement Program

Recurring Projects

There is one recurring project in the Capacity Improvements category in the 2021-2025 CIP:

- Fiber Network System Improvements (Fiscal Year 2021: $0.2 million; 2021-2025 CIP: $1.0 million)

Non-Recurring Projects

There is one non-recurring project in the Capacity Improvements category in the 2021-2025 CIP:

- Fiber Network System Rebuild (Fiscal Year 2021: $0.3 million; 2021-2025 CIP: $0.3 million)

The Fiber Network System Rebuild project is expected to extend through Fiscal Year 2021 and will rebuild portions of the network that have reached capacity, which limits the City's ability to provide dark fiber optic service connections to all potential customers. Rebuilding portions of the fiber network includes installation of additional fiber optic cables in the Stanford Research Park area and replacement of several below ground splice closures with pad-mounted pedestals. Rebuild work scheduled for Fiscal Year 2021 includes installing substructure and dark fiber for a new fiber path from Park Boulevard Substation to the Stanford Research Park area.

Customer Connections

As customers continually change their fiber optic needs due to equipment additions, new construction, building expansions, building remodels, teardowns and rebuilds, and new building occupancy types, the fiber network must evolve to meet these needs. Projects in this category include work required to meet the needs of customers who have applied for new or upgraded dark fiber optic service connections. The connection costs associated with new or upgraded connections are offset by non-recurring charges (NRC) to establish the connections and monthly recurring charges (MRC) or dark fiber license fees.

Recent Accomplishments

- Installed public Wi-Fi to unserved City facilities, including community areas in Cubberley Community Center, Lucie Stern Community Center, and Baylands Golf Links.

2021-2025 Capital Improvement Program

Recurring Projects

In the Customer Connections category there is one recurring project: Fiber Optics Customer Connections. In the 2021-2025 Capital Improvement Program, recurring funding in this project

remains at $0.25 million annually. This project provides funding for the installation of fiber optic infrastructure for new service connections.

Non-Recurring Projects

There are no non-recurring projects in this category.

Summary of Capital Activity

FIBER OPTICS FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Source of Funds									
Other Revenues									
FO-10000	Fiber Optics Customer Connections: Connection Charges	42,396	35,000	200,000	200,000	200,000	200,000	200,000	1,000,000
	Other Revenues Total	**42,396**	**35,000**	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**1,000,000**
	Total Sources	**42,396**	**35,000**	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**1,000,000**
Use of Funds									
Capacity Improvements									
FO-10001	Fiber Optics Network System Improvements	1,009,942	125,000	200,000	200,000	200,000	200,000	200,000	1,000,000
FO-16000	Fiber Optics System Rebuild	0	150,000	300,000	0	0	0	0	300,000
	Capacity Improvements Total	**1,009,942**	**275,000**	**500,000**	**200,000**	**200,000**	**200,000**	**200,000**	**1,300,000**
Customer Connections									
FO-10000	Fiber Optics Customer Connections	133,326	77,000	250,000	250,000	250,000	250,000	250,000	1,250,000
	Customer Connections Total	**133,326**	**77,000**	**250,000**	**250,000**	**250,000**	**250,000**	**250,000**	**1,250,000**
	Total Uses	**1,143,268**	**352,000**	**750,000**	**450,000**	**450,000**	**450,000**	**450,000**	**2,550,000**

Capacity Improvements

Fiber optic crew installing new fiber optic cables

Fund: Fiber Optics Fund
Category: Capacity Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: FO-10001

Fiber Optics Network - System Improvements

Description

This project provides funding to improve reliability within the existing fiber network. Typical activities in this project include: purchasing, upgrading, and installing fiber optic cables, conduits, and splice enclosures.

Justification

This project promotes the formation of a competitive market for telecommunications in Palo Alto by accelerating the pace at which high-quality, low-cost, advanced telecommunications services are delivered to the residents and businesses in Palo Alto. This occurs while limiting the negative impacts on Palo Alto's environment by using existing conduit and wood utility poles in the public rights-of-way. This also enables the Fiber Optics Fund to generate additional revenues through the enhanced use of its existing conduit and wood utility poles.

Supplemental Information

The Fiber Optics Utility continues to add capacity improvements in the form of additional fiber in congested areas as well as areas of predicted growth.

Significant Changes

2021-2025 CIP: Changed project title from Fiber Optic System Improvements to Fiber Optic Network - System Improvements.

2020-2024 CIP: The Fiber Optics Fund will build emergency water supply resiliency at Montebello reservoir to enable the Utilities Supervisory Control and Data Acquisition (SCADA) system to add full remote-control valves at the reservoir. Montebello is the only reservoir (1 of 7) remaining without available fiber service connections. Staff must manually turn on/off the valves which may be difficult after a major earthquake or unsafe during a wildfire or similar emergencies. In addition, intermittent loss of cellular and radio coverage in the foothills area where the reservoir is located may occur. This is a major impediment for emergency response calls. Finally, if fiber is available at Montebello Reservoir, Utilities can use this fiber for backhaul communication links for Advanced Metering Infrastructure (AMI) collectors to serve customers.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Fiber Optics Fund	N/A	791,665	125,000	200,000	200,000	200,000	200,000	200,000	1,000,000	0	N/A
Total	**N/A**	**791,665**	**125,000**	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**1,000,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	791,665	125,000	200,000	200,000	200,000	200,000	200,000	1,000,000	0	N/A
Total	**N/A**	**791,665**	**125,000**	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**1,000,000**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Business & Economics

Section: Culture of Innovation and Business Diversity

Goal: B-4

Policy: B-4.1

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is categorically exempt form CEQA under section 15302.

Fiber optic splice closer ready for inspection and work

Fund: Fiber Optics Fund
Category: Capacity Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Spring 2016
Initial Project Completion: Spring 2018

Revised Project Start: Spring 2019
Revised Project Completion: Spring 2021

Project Number: FO-16000

Fiber Optics Network - System Rebuild

Description

This project rebuilds portions of the fiber network to improve capacity, which facilitates licensing of dark fiber to companies providing telecommunication services to residents and businesses in Palo Alto. The project will install new aerial duct or substructures (conduit and boxes) and additional fiber backbone cables to increase capacity for sections of the network that are at or near capacity. This will allow the Utilities Department to meet customer requests for service connections. The main rebuild project areas are the Stanford Research Park, the Palo Alto Internet Exchange (PAIX) at 529 Bryant Street, and the downtown business district.

Justification

The fiber network was planned, designed, and constructed in the mid to late 1990s by the City of Palo Alto's Utilities Department. The Utilities Department began to license dark fiber service connections for commercial purposes in the late 1990s. Since then, several sections of the fiber network have reached capacity and limited the City's ability to efficiently serve its customers. This project will increase network capacity and improve reliability, allowing the City to maintain a competitive market for telecommunications by accelerating the pace at which high-quality and low-cost advanced telecommunications services are delivered to residents and businesses.

Supplemental Information

Coordination of FTTP with electric and natural gas utility planning enables an integrated approach to strategies such as building electrification and electric vehicle support infrastructure at the scale of neighborhood blocks and potentially entire neighborhoods. Contingent on com-

pleting a competitive Request for Proposals process and seeking Council approval, a telecommunications consulting firm will be retained under a Professional Services Agreement to develop a fiber network expansion plan in four (4) phases. The scope of work entails the following:

Phase 1 seeks a high-level design and cost estimate for fiber expansion to support AMI, SCADA) and wireless communication for City field staff and other City services;

Phase 2 seeks a detailed engineering design and cost estimate for fiber expansion to support AMI, SCADA, and wireless communication for City field staff and other City services;

Phase 3 seeks a business case and high-level design for a citywide FTTP network. The FTTP network and high-level design in the business case should expand on the fiber network for AMI, SCADA and wireless communication; and

Phase 4 seeks a detailed engineering design, cost estimate and a phased deployment approach for FTTP.

Upon the completion of each phase, staff will return to the Council with findings and recommendations and request authorization to proceed to the next phase.

Note: The Electric Reserve Fund will pay one hundred percent (100%) of the fiber optic connections for AMI implementation and connections for the existing SCADA system.

Significant Changes

2021-2025 CIP: Changed project title from Fiber Optic System Rebuild to Fiber Optic Network - System Rebuild. In November 2018, the Council accepted the Smart Grid and Technology Implementation Plan and directed staff to align fiber network expansion with the Advanced Metering Infrastructure (AMI) implementation plan.

In June 2019, the Council directed staff to expand the fiber network to support a communication platform for AMI, Supervisory Control and Data Acquisition (SCADA) systems, and emerging Smart City initiatives (e.g. traffic management, smart streetlights, parking garage sensors, data collection). Additionally, staff was directed to deploy wireless technologies to support Public Safety and Utilities staff working in the field to enhance the delivery of essential City services. The objective is to pursue a comprehensive fiber expansion strategy from an integrated cross-utility perspective. This strategy is focused on evaluating the feasibility of integrating fiber network expansion into other ongoing utility capital improvement projects and programs, if practical, to fully leverage the City's fiber asset. This integrated strategy for fiber expansion planning includes the above-noted fiber network rebuild project and may also become a foundation for fiber-to-the-premises (FTTP), because the City is adding new telecommunication infrastructure which may reduce the incremental cost to extend fiber and wireless communications infrastructure to residential and commercial areas.

2019-2023 CIP: Due to limited staffing, this project has shifted to start in FY 2019. Additionally, $0.3 million has been added to the following two years to address additional site locations.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Fiber Optics Fund	167,165	775,000	150,000	300,000	0	0	0	0	300,000	0	617,165
Total	**167,165**	**775,000**	**150,000**	**300,000**	**0**	**0**	**0**	**0**	**300,000**	**0**	**617,165**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	133,727	775,000	150,000	300,000	0	0	0	0	300,000	0	583,727
Design	33,429	0	0	0	0	0	0	0	0	0	33,429
Total	**167,156**	**775,000**	**150,000**	**300,000**	**0**	**0**	**0**	**0**	**300,000**	**0**	**617,156**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Business & Economics

Section: Culture of Innovation and Business Diversity

Goal: B-4

Policy: B-4.1

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is categorically exempt form CEQA under section 15302.

Customer Connections

Technician installing new fiber optic cables

Fund: Fiber Optics Fund
Category: Customer Connections
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: FO-10000

Fiber Optics Customer Connections

Description

This project provides funding for the installation of fiber optic infrastructure for new service connections. Typical activities in this project include: purchasing, upgrading, and installing fiber optic cables, conduits, and splice enclosures at customer sites.

Justification

This project promotes the formation of a competitive market for telecommunications in Palo Alto, accelerating the pace at which high-quality, low-cost, advanced telecommunications services are delivered to businesses while limiting the negative impacts on Palo Alto's environment by using existing conduits and wood utility poles rather than adding additional infrastructure to support the system. Finally, it enables the Fiber Optics Fund to generate additional revenues through the enhanced use of its conduits and poles.

Supplemental Information

The cost to the Fiber Optics Fund associated with new service connections and the City's cost of ownership are billed to the requesting parties.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Fiber Optics Fund	N/A	75,000	77,000	50,000	50,000	50,000	50,000	250,000	450,000	0	N/A
Other	N/A	200,000	0	200,000	200,000	200,000	200,000	0	800,000	0	N/A
Total	**N/A**	**275,000**	**77,000**	**250,000**	**250,000**	**250,000**	**250,000**	**250,000**	**1,250,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	275,000	77,000	250,000	250,000	250,000	250,000	250,000	1,250,000	0	N/A
Total	**N/A**	**275,000**	**77,000**	**250,000**	**250,000**	**250,000**	**250,000**	**250,000**	**1,250,000**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Business & Economics

Section: Culture of Innovation and Business Diversity

Goal: B-4

Policy: B-4.1

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is categorically exempt form CEQA under section 15302.

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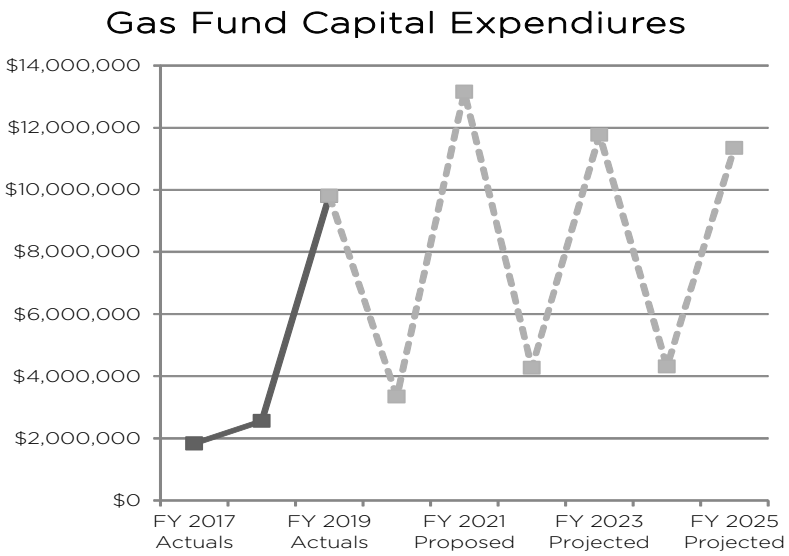
GAS FUND

Overview

The City of Palo Alto is the only municipality in California that operates a full suite of City-owned utility services. The municipal natural gas distribution system began operation in 1917 and provides safe, reliable, and cost effective gas service to residents and customers of Palo Alto. For the 2021-2025 Capital Improvement Program (CIP), approximately $45.3 million is projected, with $13.2 million allocated in Fiscal Year 2021. Overall, a total of seven projects are planned for the 5-year CIP.



Major projects funded in the 2021-2025 CIP include Gas Main Replacements (cumulative total of $32.6 million), Gas System, Customer Connections ($5.8 million), and Gas Meters and Regulators ($3.9 million). The budget for the Gas Fund CIP can be categorized into three separate types of projects: Customer Connections, Gas Main Replacements, and System Improvements.

Infrastructure Inventory

CLASSIFICATION	QUANTITY
Total miles of gas main distribution system	211
Total miles of gas service extension to residents and businesses	205
Number of gas receiving stations	4

Natural Gas System

MATERIAL TYPE	MILES OF MAINS IN SYSTEM	NUMBER OF SERVICES IN SYSTEM	MILES OF SERVICES IN SYSTEM (AVG 62'/SERVICE)
Steel	62.68	1,735	20.37
Plastic, PVC	33.70	691	8.11
Plastic, PE	114.02	14,129	165.94
Plastic, ABS	0.11	50	0.59
Plastic, Other	0.01	35	0.41
Other	0	766	8.99
TOTAL	210.52	17,406	204.41

Customer Connections

As customers continually change their gas needs due to equipment additions, building expansions, building remodels, and new building occupancy types, the gas system must evolve to meet these needs. The Gas System Customer Connections project, which is one of the largest recurring projects within the Gas Fund ($1.1 million in Fiscal Year 2021, $5.8 million over the 2021-2025 CIP), is accounted for within this category. This project allows for the completion of work required to meet the needs of customers who have applied for new or upgraded gas service. The Gas Fund pays for a portion of this project, while remaining costs are supported by reimbursements from customers for connection work performed by the City. The only project in the FY 2021 - FY 2025 CIP in this category is a recurring project.

Recent Accomplishments

- In Fiscal Year 2019, the Utilities Gas Division completed approximately 153 customer service projects, at a cost of $0.9 million.

2021-2025 Capital Improvement Program

Recurring Projects

A total of $5.8 million is programmed for Customer Connections recurring projects in the 2021-2025 CIP, with $1.1 million allocated in Fiscal Year 2021. Recurring projects in this category include the following:

- Gas System, Customer Connections (Fiscal Year 2021: $1.1 million; 5-Year CIP: $5.8 million)

Gas Main Replacements

The Gas Main Replacements (GMR) category accounts for the replacement of inadequately-sized and structurally deficient gas mains and services that are subject to corrosion or reaching the end of their expected life. The Utilities Department coordinates with the Public Works Department's street maintenance projects to minimize damage to the City's pavement and maximize cost efficiency. In the next five years, it is anticipated that approximately 90,000 linear feet of gas mains, or eight percent of the entire system, will be replaced. The 2021-2025 CIP includes $32.6 million in funding for projects within this category, which are each non-recurring.

Recent Accomplishments

- Finalizing designs of the Gas Main Replacement 23 project within business districts to replace approximately 27,000 linear feet of natural gas mains and 350 natural gas service pipelines made of Polyvinyl Chloride (PVC) and Steel Black Wrap Pipe (BWP).

2021-2025 Capital Improvement Program

Non-Recurring Projects

Three GMR projects are included in the 2021-2025 CIP (Fiscal Year 2021: $10.6 million; 5-Year CIP: $32.6 million).

System Improvements

To ensure reliable gas services for the City of Palo Alto residents and customers, gas infrastructure must be replaced upon reaching the end of its expected life. The System Improvements category includes three projects during the 2021-2025 CIP at a total cost of $6.9 million, with $1.5 million allocated in Fiscal Year 2021. There are three projects in this category in the FY 2021 - FY 2025 CIP; each is recurring.

Recent Accomplishments

- Addressed 102 Grade 1, 2, and 3 Leaks throughout the City.
- Established an outreach program to address gas meter abnormal operating conditions (AOC) through the notification of property owners, initiating a coordinated effort to relocate the gas meter classified as an AOC. These notifications resulted in a 50% response rate.
- Completed replacement of approximately 85 of the 103 natural gas services with pipeline material of Acrylonitrile Butadiene Styrene (ABS) or Tenite, at various locations within the City.
- Completed inspection of 360 of the 1250 sanitary sewer laterals to be inspected in year one under the Phase II Crossbore Gas Safety Program. The Crossbore Gas Safety Program is to inspect existing sanitary sewer laterals for damages caused during the installation of natural gas main and service pipelines.
- Purchased new 6" and 8" Mueller tapping and stopping equipment for City Staff operations and maintenance work on 6" and 8" steel pipelines. Acquisition of this equipment is crucial to safely perform maintenance or complete improvements on the City's larger steel mains which transport gas from the distribution stations to the smaller distribution mains throughout the City.

2021-2025 Capital Improvement Program

Recurring Projects

There are three funded recurring projects in the System Improvements category in the 2021-2025 CIP:

- Gas Distribution System Improvements (Fiscal Year 2021: $0.5 million; 5-Year CIP: $2.5 million)
- Gas Equipment and Tools (Fiscal Year 2021: $0.1 million; 5-Year CIP: $0.5 million)
- Gas Meters and Regulators (Fiscal Year 2021: $0.9 million; 5-Year CIP: $3.9 million)

Please refer to the City of Palo Alto Utilities webpage to confirm project details:

http://www.cityofpaloalto.org/gov/depts/utl/projects/default.asp

Summary of Capital Activity

GAS FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Source of Funds									
Other Revenues									
GS-12001	Gas Main Replacement - Project 22	8,548	0	0	0	0	0	0	0
GS-80017	Gas System, Customer Connections	1,001,785	1,110,303	900,000	900,000	900,000	900,000	900,000	4,500,000
	Other Revenue Total	**1,010,333**	**1,110,303**	**900,000**	**900,000**	**900,000**	**900,000**	**900,000**	**4,500,000**
	Total Sources	**1,010,333**	**1,110,303**	**900,000**	**900,000**	**900,000**	**900,000**	**900,000**	**4,500,000**
Use of Funds									
Customer Connections									
GS-80017	Gas System, Customer Connections	1,039,110	1,403,926	1,082,688	1,124,169	1,166,894	1,210,901	1,247,228	5,831,880
GS-03009	System Extensions - Unreimbursed	38,679	40,000	0	0	0	0	0	0
	Customer Connections Total	**1,077,789**	**1,443,926**	**1,082,688**	**1,124,169**	**1,166,894**	**1,210,901**	**1,247,228**	**5,831,880**
Gas Main Replacements									
GS-12001	Gas Main Replacement - Project 22	8,400,336	968,137	0	0	0	0	0	0
GS-13001	Gas Main Replacement - Project 23	90,291	289,655	10,620,046	0	0	0	0	10,620,046
GS-14003	Gas Main Replacement - Project 24	0	0	0	2,000,000	9,000,000	0	0	11,000,000
GS-15000	Gas Main Replacement - Project 25	0	0	0	0	0	2,000,000	9,000,000	11,000,000
	Gas Main Replacements Total	**8,490,627**	**1,257,792**	**10,620,046**	**2,000,000**	**9,000,000**	**2,000,000**	**9,000,000**	**32,620,046**
System Improvements									
GS-18000	Gas ABS/Tenite Replacement Project	31,015	1,500,000	0	0	0	0	0	0
GS-11002	Gas Distribution System Improvements	9,600	500,000	500,000	500,000	500,000	500,000	500,000	2,500,000
GS-14004	Gas Distribution System Model	2,157	0	0	0	0	0	0	0
GS-13002	Gas Equipment and Tools	117,005	273,576	100,000	100,000	100,000	100,000	100,000	500,000
GS-80019	Gas Meters and Regulators	45,551	171,000	850,001	1,000,000	1,000,000	500,000	500,000	3,850,001
GS-15001	Security at City's Gas Receiving Stations	31,134	0	0	0	0	0	0	0
	System Improvements Total	**236,462**	**2,444,576**	**1,450,001**	**1,600,000**	**1,600,000**	**1,100,000**	**1,100,000**	**6,850,001**
	Total Uses	**9,804,878**	**5,146,294**	**13,152,735**	**4,724,169**	**11,766,894**	**4,310,901**	**11,347,228**	**45,301,927**

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Customer Connections

Gas System

Fund: Gas Fund
Category: Customer Connections
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: GS-80017

Gas System, Customer Connections

Description

This funding allows for the Gas Distribution System to be extended in order to provide gas service to new customers and augment service to customers with increased natural gas demands. Improvements include new mains, services, valves, regulators, meters, and accessories.

Justification

This project upgrades infrastructure to provide gas service connections to new customers, meet changes in existing customer service demands, and respond to changes in gas service requirements due to new development or redevelopment. This project is funded partially from reimbursements by customers.

Significant Changes

2021-2025 CIP: Funding was decreased slightly to reflect actual expenditures from prior years.

2015-2019 CIP: Project was retitled from Gas Systems Extensions.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Gas Fund	N/A	292,623	1,403,926	182,688	224,169	266,894	310,901	347,228	1,331,880	0	N/A
Other	N/A	1,111,303	0	900,000	900,000	900,000	900,000	900,000	4,500,000	0	N/A
Total	**N/A**	**1,403,926**	**1,403,926**	**1,082,688**	**1,124,169**	**1,166,894**	**1,210,901**	**1,247,228**	**5,831,880**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	1,403,926	1,403,926	1,082,688	1,124,169	1,166,894	1,210,901	1,247,228	5,831,880	0	N/A
Total	**N/A**	**1,403,926**	**1,403,926**	**1,082,688**	**1,124,169**	**1,166,894**	**1,210,901**	**1,247,228**	**5,831,880**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

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Gas Main Replacements

Installation of new HDPE gas service main

Fund: Gas Fund
Category: Gas Main Replacements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Summer 2016
Initial Project Completion: Winter 2018

Revised Project Start: Summer 2019
Revised Project Completion: Winter 2021

Project Number: GS-13001

Gas Main Replacement - Project 23

Description

This project replaces approximately 27,136 linear feet (which represents 1.8% of the City's Gas Distribution System) of gas mains that may be leaking, inadequately-sized, and/or structurally deficient. These replacements are located on various streets in Evergreen Park, College Terrace, Ventura, Green Acres, and Midtown neighborhoods. Staff identifies problematic mains/services by researching maintenance and leak histories, analyzing performance of the entire Gas Distribution System, and considering risks ratings of the Distribution Integrity Management Plan.

Justification

The project will target replacing PVC mains and services located in business districts and steel mains and services with ineffective corrosion protection, also known as cathodic protection. This project is mandatory due to the need to replace aging infrastructure and to reduce the City's liability exposure due to PVC and steel gas facilities with ineffective cathodic protection.

Supplemental Information

The City of Palo Alto Distribution Integrity Management Plan's mathematical model is used to evaluate risks presented by PVC and steel facilities located within business districts that have been assigned the highest probability and consequence scores. Targeted streets will be coordinated with the Public Works Street Maintenance Program to complete replacement before streets are paved. Linear footage and locations are subject to change. Please refer to the City of Palo Alto Utilities webpage for the most recent project details.

Significant Changes

2021-2025 CIP: The construction is postponed to start later in FY 2021 due to GMR 22 being delayed.

2020-2024 CIP: City staff has proposed a new replacement schedule of completing a water, gas and wastewater construction project every other year instead of annually to reduce the amount of construction when prices are high. In the last few years there have been fewer bidders and higher prices on construction projects due to the increased demand for construction services. Revised total project estimate to $11.0 million, an increase of $3.8 million, due to higher construction costs. The project scope has also increased by 7,136 in linear footage.

2019-2023 CIP: The budget has been revised to account for construction cost escalation.

2018-2022 CIP: The construction is postponed to start in FY 2018 due to GMR 22 being delayed.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Gas Fund	154,871	909,701	289,655	10,620,046	0	0	0	0	10,620,046	0	11,064,572
Total	**154,871**	**909,701**	**289,655**	**10,620,046**	**0**	**0**	**0**	**0**	**10,620,046**	**0**	**11,064,572**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	51,664	850,001	289,655	10,620,046	0	0	0	0	10,620,046	0	10,961,365
Design	103,205	59,700	0	0	0	0	0	0	0	0	103,205
Total	**154,869**	**909,701**	**289,655**	**10,620,046**	**0**	**0**	**0**	**0**	**10,620,046**	**0**	**11,064,570**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Installation of new HDPE gas service main

Fund: Gas Fund
Category: Gas Main Replacements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Summer 2017
Initial Project Completion: Winter 2020

Revised Project Start: Summer 2022
Revised Project Completion: Fall 2023

Project Number: GS-14003

Gas Main Replacement - Project 24

Description

This project replaces approximately 33,050 linear feet (which represents 2.9% of the City's Gas Distribution System) of leaking, inadequately-sized, and structurally deficient gas mains and services located on various streets in neighborhoods of the Stanford Research Park, Green Acres, Charleston Terrace, and the Stanford Industrial business districts. Staff identifies problematic mains/services by researching maintenance and leak histories, analyzing performance of the entire Gas Distribution System, and considering risks ratings of the Distribution Integrity Management Plan.

Justification

The project will target replacing PVC mains and services located in business districts and steel mains and services with ineffective corrosion protection, also known as cathodic protection. This project is mandatory due to the need to replace aging infrastructure and to reduce the City's liability exposure due to PVC and steel gas facilities with ineffective cathodic protection.

Supplemental Information

The City of Palo Alto Distribution Integrity Management Plan's mathematical model is used to evaluate risks presented by PVC and steel facilities, located within business districts that have been assigned the highest probability and consequence scores. Targeted streets will be coordinated with the Public Works Street Maintenance Program to complete replacement before streets are paved. Linear footage and locations are subject to change. Please refer to the City of Palo Alto Utilities webpage for the most recent project details.

Significant Changes

2021-2025 CIP: Due to delays of GMR 23, construction for GMR 24 is being postponed to FY 2023.

2020-2024 CIP: City staff has proposed a new replacement schedule of completing a water, gas and wastewater construction project every other year instead of annually to reduce the amount of construction when prices are high. In the last few years there have been fewer bidders and higher prices on construction projects due to the increased demand for construction services. Revised total project estimate to $11.0 million, an increase of $3.8 million, due to higher construction costs. Project scope increased by 4,030 in linear footage.

2019-2023 CIP: The budget has been revised to account for construction cost escalation.

2018-2022 CIP: Due to delays of GMR 22 and GMR 23, GMR 24 is being postponed to FY 2019.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Gas Fund	0	0	0	0	2,000,000	9,000,000	0	0	11,000,000	0	11,000,000
Total	**0**	**0**	**0**	**0**	**2,000,000**	**9,000,000**	**0**	**0**	**11,000,000**	**0**	**11,000,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	9,000,000	0	0	9,000,000	0	9,000,000
Design	0	0	0	0	2,000,000	0	0	0	2,000,000	0	2,000,000
Total	**0**	**0**	**0**	**0**	**2,000,000**	**9,000,000**	**0**	**0**	**11,000,000**	**0**	**11,000,000**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

New gas service meter and regulating equipment

Fund: Gas Fund
Category: Gas Main Replacements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Summer 2018
Initial Project Completion: Winter 2020

Revised Project Start: Summer 2024
Revised Project Completion: Winter 2026

Project Number: GS-15000

Gas Main Replacement - Project 25

Description

This project replaces approximately 31,260 linear feet (which represents 2.8% of the City's Gas Distribution System) of leaking, inadequately-sized, and structurally deficient gas mains and services located on various streets in the neighborhoods of Palo Verde, Midtown, Evergreen, and Ventura. Staff identifies problematic mains/services by researching maintenance and leak histories, analyzing performance of the entire Gas Distribution System, and considering risks ratings of the Distribution Integrity Management Plan.

Justification

The project will target replacing PVC mains and services, also known in the industry as cathodic protection, located in business districts and steel mains and services with ineffective corrosion protection. This project is mandatory due to the need to replace aging infrastructure and to reduce the City's liability exposure due to PVC and steel gas facilities with ineffective cathodic protection.

Supplemental Information

The City of Palo Alto Distribution Integrity Management Plan's mathematical model is used to evaluate risks presented by PVC facilities located within business districts that have been assigned the highest probability and consequence scores. Targeted streets will be coordinated with the Public Works Street Maintenance Program to complete replacement before streets are paved. Linear footage and locations are subject to change. Please refer to the City of Palo Alto Utilities webpage for the most recent project details.

Significant Changes

2021-2025 CIP: Due to delays of GMR 22, GMR 23, and GMR 24, GMR 25 postponed to FY 2024.

2020-2024 CIP: City staff has proposed a new replacement schedule of completing a water, gas and wastewater construction project every other year instead of annually to reduce the amount of construction when prices are high. Revised total project estimate to $12.0 million, an increase of $3.8 million, due to higher construction costs. In the last few years there have been fewer bidders and higher prices on construction projects due to the increased demand for construction services.

2019-2023 CIP: The budget has been revised to account for construction cost escalation.

2018-2022 CIP: Project postponed to begin in FY 2020 due to GMR 22 being delayed.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Gas Fund	0	0	0	0	0	0	2,000,000	9,000,000	11,000,000	0	11,000,000
Total	**0**	**0**	**0**	**0**	**0**	**0**	**2,000,000**	**9,000,000**	**11,000,000**	**0**	**11,000,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	941,000	6,131,000	7,072,000	0	7,072,000
Design	0	0	0	0	0	0	1,059,000	2,869,000	3,928,000	0	3,928,000
Total	**0**	**0**	**0**	**0**	**0**	**0**	**2,000,000**	**9,000,000**	**11,000,000**	**0**	**11,000,000**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

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System Improvements

Gas system improvements

Fund: Gas Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: GS-11002

Gas Distribution System Improvements

Description

This project provides funding as needed to improve the Gas Distribution System. Typical activities include: increasing distribution system capacity for load growth, replacing deteriorated capital facilities, re-configuring/adding to the system to improve service reliability, conducting research related to performance of the Gas Distribution System or its various components, and making general improvements to the system.

Justification

Gas Distribution System reliability and adequate capacity are critical to providing a high level of service to customers. When service interruptions occur, customers may experience significant economic losses. The City must continuously evaluate service reliability needs and make improvements to the system to maintain top-level service to City customers.

Significant Changes

2020-2024 CIP: Project funding increased in Fiscal Years 2020 to 2024 by $254,000 each year. This project has been consolidated with GS-03009 as the project activities are similar in nature.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Gas Fund	N/A	500,000	500,000	500,000	500,000	500,000	500,000	500,000	2,500,000	0	N/A
Total	**N/A**	**500,000**	**500,000**	**500,000**	**500,000**	**500,000**	**500,000**	**500,000**	**2,500,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	500,000	500,000	500,000	500,000	500,000	500,000	500,000	2,500,000	0	N/A
Total	**N/A**	**500,000**	**500,000**	**500,000**	**500,000**	**500,000**	**500,000**	**500,000**	**2,500,000**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

New HDPE gas pipe being fused prior to installation

Fund: Gas Fund
Category: System Improvements
Project Location: Municipal Service Center

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: GS-13002

Gas Equipment and Tools

Description

This project funds the purchase of polyethylene (PE) fusion equipment and tools, directional boring/locating equipment and tools, and general shop equipment and tools.

Justification

In order to safely operate and maintain a natural gas distribution system and support operating personnel safety and productivity, PE fusion, directional boring/locating, and general equipment and tools need to be upgraded on an annual basis.

Significant Changes

2019-2023 CIP: Project funding increased to include purchase of new tapping and stopping equipment for Operations. This equipment is required to safely interrupt the flow of gas without performing large shutdowns of service to customers.

2015-2019 CIP: Project was retitled from General Shop Equipment and Tools.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Gas Fund	N/A	273,576	273,576	100,000	100,000	100,000	100,000	100,000	500,000	0	N/A
Total	**N/A**	**273,576**	**273,576**	**100,000**	**100,000**	**100,000**	**100,000**	**100,000**	**500,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	273,576	273,576	100,000	100,000	100,000	100,000	100,000	500,000	0	N/A
Total	**N/A**	**273,576**	**273,576**	**100,000**	**100,000**	**100,000**	**100,000**	**100,000**	**500,000**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Gas Meters and Regulators

Fund: Gas Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: GS-80019

Gas Meters and Regulators

Description

This project provides replacement of the existing meters and regulators at approximately 1,000 meter sets per year.

Justification

The meter replacement program ensures accuracy of gas consumption measurement, reduces possible revenue loss due to under-registering gas, and provides customers with accurate monthly bills. The program exchanges large meters (630 cubic feet per hour and larger) every 10 years and smaller meters every 17 to 20 years.

Significant Changes

2021-2025 CIP: The Advanced Metering Infrastructure (AMI) project, funded through this Capital Project, is expected to replace up to 11,906 gas meters with meters that are compatible with a smart grid system to collect usage information remotely. The remaining 12,287 meters will be assessed for their compatibility with the AMI smart grid and will either be retrofitted or replaced.

2020-2024 CIP: The number of meters replaced annually was updated from 2,000 to 1,000 meters and the annual funding was reduced to $250,000 throughout the 2020-2024 CIP. The division has adjusted the replacement number and budget accordingly after reviewing their workload and available resources.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Gas Fund	N/A	250,001	171,000	850,001	1,000,000	1,000,000	500,000	500,000	3,850,001	0	N/A
Total	**N/A**	**250,001**	**171,000**	**850,001**	**1,000,000**	**1,000,000**	**500,000**	**500,000**	**3,850,001**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	250,001	171,000	850,001	1,000,000	1,000,000	500,000	500,000	3,850,001	0	N/A
Total	**N/A**	**250,001**	**171,000**	**850,001**	**1,000,000**	**1,000,000**	**500,000**	**500,000**	**3,850,001**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-7

Policy: N-7.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

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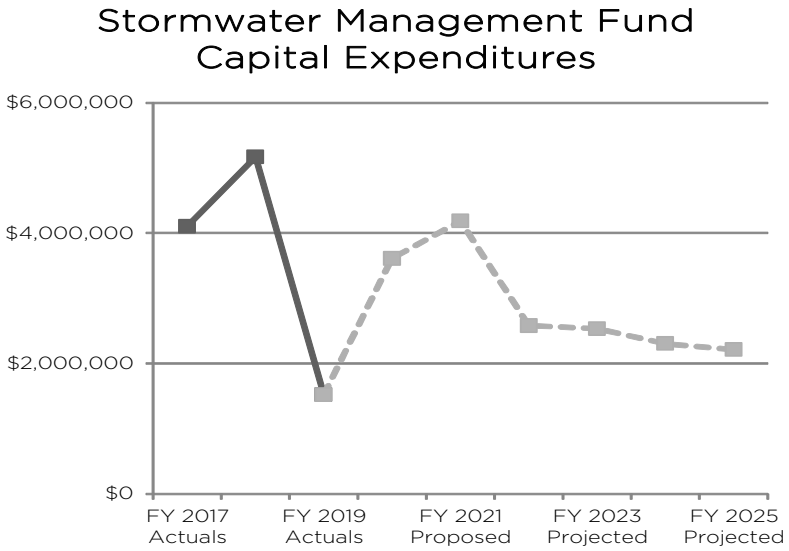
STORMWATER MANAGEMENT FUND

Overview

The Stormwater Management Fund Capital Improvement Program (CIP) accounts for activities related to the improvement of the City's storm drain system (including pipelines, manholes, catch basins, and pump stations). The 2021-2025 CIP includes projects totaling $13.8 million with Fiscal Year 2021 projects totaling $4.2 million. The budget for the Stormwater Management CIP is divided into two categories: Capacity Improvements (projects to upgrade the conveyance capacity of the storm drain system as a whole) and System Rehabilitation (projects for the replacement and rehabilitation of the existing storm drain infrastructure).

In April 2017, the Storm Water Management Fee was approved by a majority of property owners via a ballot-by-mail process, establishing a base rate of $13.65 per Equivalent Residential Unit (ERU) per month along with a provision that the City Council could increase the rate on an annual basis by the local inflation rate (as measured by the Consumer Price Index) or 6%, whichever is less. Under the provisions of the ballot measure, the fee is recommended to be increased by 2.5%, from $14.68 in FY 2020 to $15.04 per ERU for Fiscal Year 2021.

Capacity Improvements



The Capacity Improvements category accounts for new or enhanced infrastructure added to the storm drain system, increasing its capacity to convey stormwater runoff to local creeks and San Francisco Bay. In Fiscal Year 2015, an update to the Storm Drain Master Plan resulted in the identification of $98.0 million in additional recommended storm drainage improvements, with $22.0 million identified as high-priority projects. With the passage of the 2017 Storm Water Management Fee ballot measure, 13 drainage improvement projects will be recommended over the next 13 years.

Recent Accomplishments

- Completed design of the Loma Verde Avenue Trunk Line Improvements project, the first of the 13 high-priority projects included in the 2017 Storm Water Management Fee ballot measure.
- Initiated the combined design for the Corporation Way System Upgrades and Pump Station project, West Bayshore Road Pump Station project and West Bayshore Road Trunk Line Improvements project with one design consultant.

2021-2025 Capital Improvement Program

Recurring Projects

There are no recurring Capacity Improvement projects scheduled.

Non-Recurring Projects

There are five projects in this category during the 2021-2025 CIP:

- Corporation Way System Upgrades and Pump Station (Fiscal Year 2021: $1.9 million; 5-Year CIP: $3.7 million)
- East Meadow Drive System Upgrades (5-Year CIP: $0.8 million)
- Louis Road System Upgrades (5-Year CIP: $1.8 million)
- West Bayshore Road Pump Station (Fiscal Year 2021: $0.2 million; 5-Year CIP: $1.5 million)
- West Bayshore Road Trunk Line Improvements (Fiscal Year 2021: $0.1 million; 5-Year CIP: $2.4 million)

Improvements to the trunk storm drain pipelines along Loma Verde Avenue to the Matadero Creek Pump Station will increase capacity, benefiting a watershed area of 1,250-acres including the Midtown and Palo Verde neighborhoods. The upgrade of pipes located under East Meadow Drive between East Meadow Circle and the Adobe Pump Station will reduce flooding in the area. The design and construction of the two new pump stations at Corporation Way and West Bayshore Road will reduce flooding where stormwater is discharged into Adobe Creek.

System Rehabilitation

The System Rehabilitation category accounts for the replacement or rehabilitation of deteriorated components of the storm drain system. Funding is budgeted annually to replace or rehabilitate storm drain pipelines, manholes, catch basins, and pump station equipment. Funding is also budgeted for system modifications needed to accommodate new operational requirements, such as the mandate in the Municipal Regional Stormwater Discharge Permit to incorporate trash capture devices into the storm drain system to reduce the amount of trash entering local creeks and San Francisco Bay.

Recent Accomplishments

- Completed the design for rehabilitation project to a damaged box culver located at Oregon Expressway to prevent long-term leakage, and began construction of the project.

Infrastructure Inventory

CLASSIFICATION	QUANTITY
Storm drain pipelines	130 miles
Catch Basins	3,000
Manholes	800
Stormwater pump stations	8

2021-2025 Capital Improvement Program

Recurring Projects

The 2021-2025 CIP includes funding for one project in this category: Storm Drain System Replacement and Rehabilitation (Fiscal Year 2021: $2.1 million; 5-Year CIP: $3.6 million), focused on the replacement and rehabilitation of the existing storm drain pipelines, manholes, and catch basins.

Non-Recurring Projects

There are no non-recurring System Rehabilitation projects scheduled.

Summary of Capital Activity

STORMWATER MANAGEMENT FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Use of Funds									
Capacity Improvements									
SD-21000	Corporation Way System Upgrades and Pump Station	0	231,000	1,879,186	1,862,147	0	0	0	3,741,333
SD-22000	East Meadow Drive System Upgrades	0	0	0	0	0	70,757	722,567	793,324
SD-19000	Loma Verde Avenue Trunk Line Improvements	45,028	2,385,900	0	0	0	0	0	0
SD-24000	Louis Road System Upgrades	0	0	0	0	0	291,477	1,488,500	1,779,977
SD-13003	Matadero Creek Storm Water Pump Station and Trunk Line Improvements	1,013,135	10,500	0	0	0	0	0	0
SD-20000	West Bayshore Road Pump Station	2,624	231,000	190,039	438,000	912,990	0	0	1,541,029
SD-23000	West Bayshore Road Trunk Line Improvements	0	0	49,840	0	1,031,635	1,315,000	0	2,396,475
	Capacity Improvements Total	**1,060,787**	**2,858,400**	**2,119,065**	**2,300,147**	**1,944,625**	**1,677,234**	**2,211,067**	**10,252,138**
System Rehabilitation									
SD-06101	Storm Drain System Replacement and Rehabilitation	461,993	753,534	2,069,475	282,000	588,000	628,000	0	3,567,475
	System Rehabilitation Total	**461,993**	**753,534**	**2,069,475**	**282,000**	**588,000**	**628,000**	**0**	**3,567,475**
	Total Uses	**1,522,780**	**3,611,934**	**4,188,540**	**2,582,147**	**2,532,625**	**2,305,234**	**2,211,067**	**13,819,613**

Capacity Improvements

E. Bayshore Road at Corporation Way, 2017

Fund: Stormwater Management Fund
Category: Capacity Improvements
Project Location: East Bayshore Road- from Corporation Way to Adobe Creek

Managing Department: Public Works

Initial Project Start: Summer 2020
Initial Project Completion: Winter 2021

Revised Project Start: Summer 2021
Revised Project Completion: Winter 2022

Project Number: SD-21000

Corporation Way System Upgrades and Pump Station

Description

This project provides funding for the design of a new small pump station with 25 cubic feet per second capacity and the upgrade of 700 linear feet of storm drain pipe to 30-inch High Density Polyethylene.

Justification

The invert elevations of the existing storm drain lines are lower than the outfall and, as a result, this area is subject to flooding problems. Adding a pump in advance of the outfall will eliminate the routine flooding along East Bayshore Road and upsizing the pipe from 21 inches will eliminate ponding and increase capacity to convey runoff from a 10-year storm event. Due to hydraulics requirements, the pump station will be constructed before the storm drain line will be replaced. The pump station design is scheduled in Fiscal Year 2020, construction in Fiscal Year 2021, and associated pipe upgrades are scheduled in Fiscal Year 2022 due to funding constraints.

Supplemental Information

This project is funded by the Storm Water Management Fee approved via a ballot measure by Palo Alto voters in April 2017. On the ballot, this project is referred to as 2. Corporation Way/E. Bayshore Road Pump Station to Adobe Creek. The need for this project was identified in Fiscal Year 2015 in the Storm Drain Master Plan dated June 2015. The funding amount is based on the engineer's cost estimate prepared for the Storm Drain Master Plan, which references the 2014 Current Construction Cost, Saylor Publications Inc.

Significant Changes

2021-2025 CIP: This project will be designed concurrently with West Bayshore Road Pump Station (SD-20000), and construction will take place in FY 2021 and FY 2022.

2020-2024 CIP: Design and construction expenses were adjusted by 3% to account for escalation.

2019-2023 CIP: Previously split between Storm Drainage Pump Stations to Adobe Creek (SD-20000) and Storm Drainage System Upgrades-East Bayshore Road and East Meadow Drive (SD-22000), the scope of this project was combined in alignment with the 13 projects approved in April 2017 as part of the Storm Water Management Fee ballot measure.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Stormwater Management Fund	0	231,000	231,000	1,879,186	1,862,147	0	0	0	3,741,333	0	3,741,333
Total	**0**	**231,000**	**231,000**	**1,879,186**	**1,862,147**	**0**	**0**	**0**	**3,741,333**	**0**	**3,972,333**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	1,699,147	1,862,147	0	0	0	3,561,294	0	3,792,294
Design	0	231,000	231,000	180,039	0	0	0	0	180,039	0	411,039
Total	**0**	**231,000**	**231,000**	**1,879,186**	**1,862,147**	**0**	**0**	**0**	**3,741,333**	**0**	**3,972,333**

Operating Impact

This project is anticipated to impact operating expenses in the future with costs for electricity to serve the pump station; future routine inspections; and maintenance of the mechanical, electrical, and fiber operating systems. As these costs are quantified, and if the department determines they cannot be absorbed within the available maintenance schedule and annual operating budget, adjustments will be brought forward in future budgets, as necessary.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.14

Potential Board/Commission Review:

Storm Drain Oversight Committee

Environmental Impact Analysis:

This project is expected to have an exemption from CEQA under Section 15302.

East Meadow Drive

Fund: Stormwater Management Fund
Category: Capacity Improvements
Project Location: East Meadow Drive from East Meadow Circle to Adobe Creek Pump Station

Managing Department: Public Works

Initial Project Start: Winter 2021
Initial Project Completion: Winter 2022

Revised Project Start: Summer 2023
Revised Project Completion: Winter 2024

Project Number: SD-22000

East Meadow Drive System Upgrades

Description

This project provides funding for the upgrade of approximately 400 linear feet of 36-inch pipe located in East Meadow Drive between East Meadow Circle and the Adobe Pump Station.

Justification

Upgrading this segment of pipe to 48-inches will reduce flooding, contain runoff from a 10-year storm event, and allow for upstream improvements at a later date. Along with the new pipelines, this project will also replace storm drain manholes, reconnect and/or install new inlets, and connect lines to the pump station.

Supplemental Information

This project is funded by the Storm Water Management Fee approved via a ballot measure by Palo Alto voters in April 2017. On the ballot, this project is referred to as 7. East Meadow Drive to Adobe Creek Pump Station capacity upgrades. The need for this project was identified in Fiscal Year 2015 and ranked as highest priority on the Storm Drain Master Plan dated June 2015. The funding amount shown here is based on the engineer's cost estimate prepared for the 2015 Storm Drain Master Plan, which references the 2014 Current Construction Cost, Saylor Publications Inc.

Significant Changes

2021-2025 CIP: Due to limited funds, rising construction costs, and prioritization of other higher ranked projects, the design of this project is scheduled for FY 2024 and construction for FY 2025.

2020-2024 CIP: Design and construction expenses were adjusted by 3% to account for escalation.

2019-2023 CIP: Previously incorporating two separate projects, the scope of this project was separated in alignment with the 13 projects approved in April 2017 as part of the Storm Water Management Fee ballot measure. SD-22000 was renamed East Meadow Drive System Upgrades from the previous title Storm Drainage System Upgrades - East Bayshore Road and East Meadow Drive in the 2018-2022 CIP.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Stormwater Management Fund	0	0	0	0	0	0	70,757	722,567	793,324	0	793,324
Total	**0**	**0**	**0**	**0**	**0**	**0**	**70,757**	**722,567**	**793,324**	**0**	**793,324**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	0	722,567	722,567	0	722,567
Design	0	0	0	0	0	0	70,757	0	70,757	0	70,757
Total	**0**	**0**	**0**	**0**	**0**	**0**	**70,757**	**722,567**	**793,324**	**0**	**793,324**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.14

Potential Board/Commission Review:

Storm Drain Oversight Committee

Environmental Impact Analysis:

This project is expected to have an exemption from CEQA under Section 15302.

Intersection of Louis Road and Clara Drive

Fund: Stormwater Management Fund
Category: Capacity Improvements
Project Location: Louis Road from Sycamore Drive to Matadero Creek

Managing Department: Public Works

Initial Project Start: Fall 2023
Initial Project Completion: Winter 2024

Revised Project Start:
Revised Project Completion: Summer 2025

Project Number: SD-24000

Louis Road System Upgrades

Description

This project provides funding to install 1,100 linear feet of new high density polyethylene storm drain pipe, concrete inlets and manholes northwest of Sycamore Drive to a new outfall with a flap-gate at Matadero Creek.

Justification

Installing new storm drain improvements will divert flows that currently drain into Colorado Avenue directly into Matadero Creek. In addition the proposed 72-inch pipe will provide storage during the storm peak. This is recommended to alleviate flooding in the pipes northwest of Sycamore Drive and achieve a 10 year level of service.

Supplemental Information

This project is funded by the Storm Water Management Fee approved via a ballot measure by Palo Alto residents in April 2017. The need for this project was identified in Fiscal Year 2015 and this project ranked as high-priority on the Storm Drain Master Plan dated June 2015. This is the eleventh project on the Storm Drain Blue Ribbon Committee Recommended list that was described to voters. Once this project is complete, other upstream improvements along Louis Road can be scheduled. The funding amount shown is based on the engineer's estimate prepared for the Storm Drain Master Plan, which references the 2014 Current Construction Cost, Saylor Publications Inc., and includes a 3% annual increase for escalation.

Significant Change

2021-2025 CIP: Construction delayed due to staffing constraints and moved to FY 2025 and FY 2026. Design funding increased to add scope for surveying and potholing. Construction increased using 3% escalation.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Stormwater Management Fund	0	0	0	0	0	0	291,477	1,488,500	1,779,977	1,140,725	2,920,702
Total	**0**	**0**	**0**	**0**	**0**	**0**	**291,477**	**1,488,500**	**1,779,977**	**1,140,725**	**2,920,702**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	0	1,488,500	1,488,500	1,140,725	2,629,225
Design	0	0	0	0	0	0	291,477	0	291,477	0	291,477
Total	**0**	**0**	**0**	**0**	**0**	**0**	**291,477**	**1,488,500**	**1,779,977**	**1,140,725**	**2,920,702**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.14

Potential Board/Commission Review:

Storm Drain Oversight Committee

Environmental Impact Analysis:

This project is expected to have an exemption from CEQA under Section 15302.

Location of New West Bayshore Pump Station

Fund: Stormwater Management Fund
Category: Capacity Improvements
Project Location: West Bayshore Road at Adobe and Barron Creek junction

Managing Department: Public Works

Initial Project Start: Summer 2019
Initial Project Completion: Winter 2021

Revised Project Start: Winter 2019
Revised Project Completion: Winter 2022

Project Number: SD-20000

West Bayshore Road Pump Station

Description

This project provides funding for the design and construction of a new small pump station with 15 cubic feet per second capacity.

Justification

The invert elevations of the existing storm drain lines are lower than the outfall. As such, this area is subject to flooding problems. Adding a pump in advance of the outfall would eliminate the routine flooding along West Bayshore Road. The pump station design is scheduled for Fiscal Year 2020 and construction is scheduled for Fiscal Year 2021.

Supplemental Information

This project is funded by the Storm Water Management Fee approved via a ballot measure by Palo Alto voters in April 2017. On the ballot, this project is referred to as 4. West Bayshore Road Pump Station to Adobe Creek. The need for this project was identified in Fiscal Year 2015 and ranked as highest priority on the Storm Drain Master Plan dated June 2015. The funding amount shown here is based on the engineer's cost estimate prepared for the Storm Drain Master Plan, which references the 2014 Current Construction Cost, Saylor Publications Inc.

Significant Changes

2021-2025 CIP: This project will be designed concurrently with Corporation Way System Upgrades and Pump Station (SD-21000). However, due to limited funds these projects cannot be constructed in the same year. Since SD-21000 is ranked as the highest priority on the Storm Drain Master Plan, construction of SD-20000 is now scheduled for FY 2023.

2020-2024 CIP: Design and construction expenses were adjusted by 3% to account for escalation.

2019-2023 CIP: Previously incorporating two separate projects, the scope of this project was separated in alignment with the 13 projects approved in April 2017 as part of the Storm Water Management Fee ballot measure. SD-20000 was renamed West Bayshore Road Pump Station from the previous title Storm Drain Pump Stations to Adobe Creek in the 2018-2022 CIP.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Stormwater Management Fund	2,624	231,000	231,000	190,039	438,000	912,990	0	0	1,541,029	0	1,774,653
Total	**2,624**	**231,000**	**231,000**	**190,039**	**438,000**	**912,990**	**0**	**0**	**1,541,029**	**0**	**1,774,653**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	438,000	912,990	0	0	1,350,990	0	1,350,990
Design	2,624	231,000	231,000	190,039	0	0	0	0	190,039	0	423,663
Total	**2,624**	**231,000**	**231,000**	**190,039**	**438,000**	**912,990**	**0**	**0**	**1,541,029**	**0**	**1,774,653**

Operating Impact

This project is anticipated to impact operating expenses in the future with costs for electricity to serve the pump station; future routine inspections; and maintenance of the mechanical, electrical, and fiber operating systems. As these costs are quantified, and if the department determines they cannot be absorbed within the available maintenance schedule and annual operating budget, adjustments will be brought forward in future budgets, as necessary.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.14

Potential Board/Commission Review:

Storm Drain Oversight Committee

Environmental Impact Analysis:

This project is expected to have an exemption from CEQA under Section 15302.

West Bayshore Road, North of Adobe and Barron Creek confluence

Fund: Stormwater Management Fund
Category: Capacity Improvements
Project Location: West Bayshore Road from Adobe Creek to Loma Verde Avenue

Managing Department: Public Works

Initial Project Start: Spring 2021
Initial Project Completion: Summer 2024

Revised Project Start:
Revised Project Completion:

Project Number: SD-23000

West Bayshore Road Trunk Line Improvements

Description

This project provides funding to upgrade 1,400 linear feet of storm drain pipe with 36-inch High Density Polyethylene.

Justification

Upsizing the existing 15-inch pipes will eliminate ponding and increase the capacity required to convey runoff from a 10-year storm event along West Bayshore Road.

Supplemental Information

This project is funded by the Storm Water Management Fee approved via ballot measure by Palo Alto voters in April 2017. The need for this project was identified in Fiscal Year 2015 and ranked as a high priority in the Storm Drain Master Plan dated June 2015. This is the third project on the Storm Drain Blue Ribbon Committee Recommended list that was described to voters. The funding amount shown is based on the engineer's estimate prepared for the Storm Drain Master Plan, which references the 2014 Current Construction Cost, Saylor Publications Inc., and includes a 3% annual increase for escalation.

Significant Changes

2021-2025 CIP: This project is part of the same system as SD-20000 and SD-21000, so a consultant will analyze and design the entire system up to and including the associated pump station. Design is scheduled to occur in FY 2021, but construction of SD-23000 will be delayed to FY 2023.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Stormwater Management Fund	0	0	0	49,840	0	1,031,635	1,315,000	0	2,396,475	0	2,396,475
Total	**0**	**0**	**0**	**49,840**	**0**	**1,031,635**	**1,315,000**	**0**	**2,396,475**	**0**	**2,396,475**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	1,031,635	1,315,000	0	2,346,635	0	2,346,635
Design	0	0	0	49,840	0	0	0	0	49,840	0	49,840
Total	**0**	**0**	**0**	**49,840**	**0**	**1,031,635**	**1,315,000**	**0**	**2,396,475**	**0**	**2,396,475**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.14

Program: N4.14.2

Potential Board/Commission Review:

Storm Drain Oversight Committee

Environmental Impact Analysis:

This project is expected to have an exemption from CEQA under Section 15302.

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System Rehabilitation

Storm Drain Repair & Rehabilitation

Fund: Stormwater Management Fund
Category: System Rehabilitation
Project Location: Various

Managing Department: Public Works

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: SD-06101

Storm Drainage System Replacement And Rehabilitation

Description

This project provides funding for annual replacement and rehabilitation projects, identified by a previous condition assessment, to help maintain the integrity of the storm drain system, including the replacement or rehabilitation of deteriorated storm drain pipes, manholes, and storm drain inlets.

Justification

The project implements the recommendations established by the 1993 Storm Drain Condition Assessment Report. The specific pipes and drainage structures selected for replacement and/or rehabilitation were determined based on their 1993 condition score and recommendations by field maintenance staff. The pipelines and structures need to be replaced since they are approaching the end of their intended useful life.

Supplemental Information

The proposed improvements are feasible due to the passing of the Storm Water Management Fee ballot measure. Several of the highest priority projects are located under Page Mill Road and will be coordinated as part of a resurfacing project. Pipe and structure replacements also include recommendations by field maintenance staff who inspect structures during routine inlet and pipe cleaning, identifying broken segments or structures. Lastly, if an existing storm drain line is located near or within another public improvement project, replacement may be warranted to extend useful life and/or avoid limited future access.

Fiscal Year 2021: New program logic controllers (PLC) will be installed to operate the pump stations associated with SD-21000 and SD-20000.

Fiscal Year 2022: Replace or line a low priority lines as identified by staff during the 2017 inspections.

Fiscal Year 2023: Remove sediment and debris within the 6'x6' box culvert located above Oregon Expressway to improve flows.

Fiscal Year 2024: Hire a consultant to design a cat-walk along Matadero Creek pump station trash rack to facilitate clean-up.

Fiscal Year 2025: No work planned.

Significant Changes

2021-2025 CIP: Reappropriated funding will be used to replace or rehabilitate broken pipes and catch basins identified in the last inspection. Additional funding will return to the storm drain fund to help support other Storm capital improvement program project increases.

2019-2023 CIP: Replace pipes within Page Mill ranked high priority and pipes within public utility easements associated with public infrastructure.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Stormwater Management Fund	N/A	2,737,784	753,534	2,069,475	282,000	588,000	628,000	0	3,567,475	0	N/A
Total	**N/A**	**2,737,784**	**753,534**	**2,069,475**	**282,000**	**588,000**	**628,000**	**0**	**3,567,475**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	2,701,957	753,534	2,069,475	282,000	588,000	628,000	0	3,567,475	0	N/A
Design	N/A	35,827	0	0	0	0	0	0	0	0	N/A
Total	**N/A**	**2,737,784**	**753,534**	**2,069,475**	**282,000**	**588,000**	**628,000**	**0**	**3,567,475**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.14

Potential Board/Commission Review:

Storm Drain Oversight Committee

Environmental Impact Analysis:

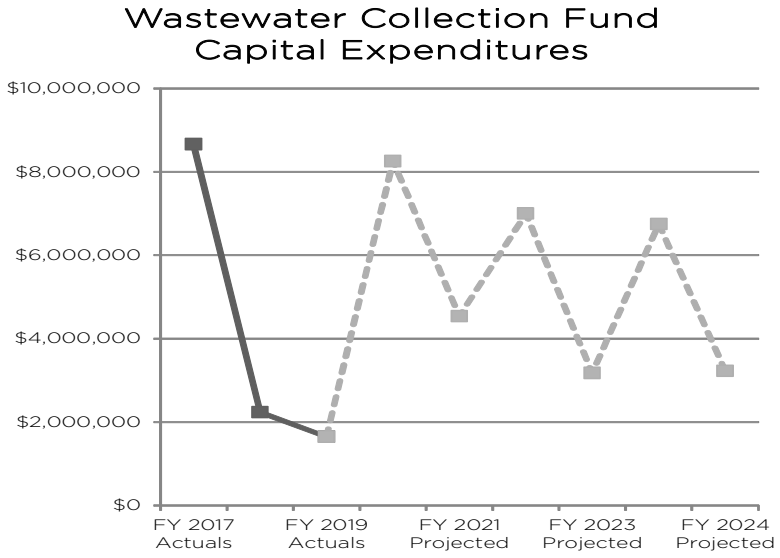
This project is exempt from CEQA under Section 15302.

WASTEWATER COLLECTION FUND

Overview

The City of Palo Alto is the only municipality in California that operates a full suite of City-owned utility services. The municipal Wastewater Collection System began operation in 1898 and continues to provide safe, reliable, and cost effective services to residents and customers of Palo Alto. For the 2021-2025 Capital Improvement Program (CIP), approximately $24.7 million in expenses is projected, with $4.5 million allocated in Fiscal Year 2021. Overall, a total of 8 projects are programmed for the 5-year CIP.

Major projects funded in the 2021-2025 CIP include Wastewater Collection System Rehabilitation/Augmentation projects (cumulative total of $16.9 million), Sewer Lateral/Manhole Rehabilitation and Replacement ($4.3 million), and Sewer System, Customer Connections ($2.2 million). The budget for the Wastewater Collection Fund CIP is categorized into two separate types of projects: Customer Connections and System Improvements.



Infrastructure Inventory

CLASSIFICATION	QUANTITY
Total miles of sanitary sewer lines	216.3
Total number of sanitary laterals	18,028

Customer Connections

As customers continually change their wastewater needs due to equipment additions, new construction, building expansions, building remodels, teardowns and rebuilds, and new building occupancy types, the Wastewater Collection System must evolve to meet these needs. The Sewer System Customer Connections project is the only project within this category and includes work required to meet the needs of customers who have applied for new sewer laterals. The Wastewater Collection Fund pays for a portion of this project while remaining costs are supported by reimbursements from customers for project work performed by the City.

Recent Accomplishments

- In Fiscal Year 2019, the Utilities Wastewater Division completed over 56 customer service projects with a total cost of $0.7 million.

2021-2025 Capital Improvement Program

Recurring Projects

There is one project within this category, the Sewer System, Customer Connections project, with funding of $2.2 million over the 5 year CIP. This project funds changes to customer connections and costs are partially offset by reimbursements from customers requesting the service.

System Improvement

To ensure reliable wastewater services for the City of Palo Alto residents and customers, infrastructure must be replaced upon reaching the end of its useful life. The infrastructure replacement program includes projects that will rehabilitate or replace deteriorated pipelines. In the next five years, it is estimated that approximately 40,000 linear feet of wastewater mains will be replaced.

Recent Accomplishments

- Completed construction of Sanitary Sewer Replacement Project (SSR 28) Part B to replace approximately 7,655 feet of sewer pipes, 77 service laterals, and 12 manholes on Oregon Expressway and rehabilitate 2,000 linear feet of sewer main pipelines on lower Page Mill Road and Colorado Avenue.
- Completed design and solicitation package of Sanitary Sewer Replacement Project (SSR 29) to replace approximately 8,952 linear feet of sanitary sewer mains, as well as replacement and rehabilitation of 41 sewer manholes in the Charleston Meadows neighborhood. The existing clay pipe mains will be replaced with High Density Polyethylene pipe. In addition, 154 existing City-owned sewer service laterals and cleanouts will be replaced with new 4“ and 6“ service laterals and cleanouts.

2021-2025 Capital Improvement Program

Recurring Projects

A total of $5.6 million is programmed for System Improvement recurring projects in the 2021-2025 CIP, with $1.3 million allocated in Fiscal Year 2021. Recurring projects in this category include the following:

- Wastewater System Improvements (Fiscal Year 2021: $0.2 million; 5-Year CIP: $1.0 million)
- Wastewater General Equipment and Tools (Fiscal Year 2021: $0.2 million; 5-Year CIP: $0.4 million)
- Sewer Lateral/Manhole Rehabilitation and Replacement (Fiscal Year 2021: $0.9 million; 5-Year CIP: $4.3 million)

Non-Recurring Projects

The majority of funding within this category is allocated towards Wastewater Collection System Rehabilitation/Augmentation Projects (cumulative total of $16.9 million). These projects implement high-priority rehabilitation, augmentation, and lateral replacement work which reduces inflow of rainfall and groundwater into the collection system. The Utilities Department coordi-

nates with the Public Works Department's street maintenance projects to minimize damage to the City's pavement and maximize cost efficiencies.

Linear footage and locations are subject to change, please refer to the City of Palo Alto Utilities webpage to confirm project details: www.cityofpaloalto.org/gov/depts/utl/projects/default.asp.

Summary of Capital Activity

WASTEWATER COLLECTION FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Source of Funds									
Other Revenues									
WC-80020	Sewer System, Customer Connections	597,315	430,534	300,000	300,000	300,000	300,000	300,000	1,500,000
	Other Revenue Total	**597,315**	**430,534**	**300,000**	**300,000**	**300,000**	**300,000**	**300,000**	**1,500,000**
	Total Sources	**597,315**	**430,534**	**300,000**	**300,000**	**300,000**	**300,000**	**300,000**	**1,500,000**
Use of Funds									
Customer Connections									
WC-80020	Sewer System, Customer Connections	301,755	445,000	420,000	450,000	450,000	450,000	450,000	2,220,000
	Customer Connections Total	**301,755**	**445,000**	**420,000**	**450,000**	**450,000**	**450,000**	**450,000**	**2,220,000**
System Improvements									
WC-99013	Sewer Lateral/Manhole Rehabilitation and Replacement	802,497	944,728	876,000	800,000	825,000	850,000	875,500	4,226,500
WC-15001	Wastewater Collection System Rehabilitation/ Augmentation Project 28	430,621	0	0	0	0	0	0	0
WC-16001	Wastewater Collection System Rehabilitation/ Augmentation Project 29	113,466	300,000	1,638,000	0	0	0	0	1,638,000
WC-17001	Wastewater Collection System Rehabilitation/ Augmentation Project 30	0	200,000	1,221,000	5,500,000	0	0	0	6,721,000
WC-19001	Wastewater Collection System Rehabilitation/ Augmentation Project 31	0	0	0	0	1,650,000	5,200,000	0	6,850,000
WC-20000	Wastewater Collection System Rehabilitation/ Augmentation Project 32	0	0	0	0	0	0	1,650,000	1,650,000
WC-13002	Wastewater General Equipment and Tools	0	30,000	185,000	50,000	50,000	50,000	50,000	385,000
WC-15002	Wastewater System Improvements	0	260,000	200,000	200,000	200,000	200,000	200,000	1,000,000
	System Improvements Total	**1,346,584**	**1,734,728**	**4,120,000**	**6,550,000**	**2,725,000**	**6,300,000**	**2,775,500**	**22,470,500**
	Total Uses	**1,648,339**	**2,179,728**	**4,540,000**	**7,000,000**	**3,175,000**	**6,750,000**	**3,225,500**	**24,690,500**

Customer Connections

Sewer System, Customer Connections

Fund: Wastewater Collection Fund
Category: Customer Connections
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: WC-80020

Sewer System, Customer Connections

Description

This project provides for the installation of sewer lateral connections, additions of existing mains, and extensions of mains for new or existing customers.

Justification

It is necessary to provide sewer connections to serve new customers and to respond to changes in sewer requirements due to redevelopment. Old existing non-plastic sewer service laterals become cracked and broken by tree root intrusion, ground movement, and third party excavation damages requiring the laterals to be replaced.

Supplemental Information

Other funding sources include customer connection and capacity fees for connecting to the Wastewater Collection System. Capacity fees are collected through connection charges to cover the proportionate cost of system improvements required to serve new customers.

Significant Changes

2021-2025 CIP: The annual amount budgeted for this project has been decreased to align with actual costs experienced in prior years for this project.

2015-2019 CIP: This project was previously titled Sewer System Extension. As part of the Fiscal Year 2015 budget, it was retitled to more accurately reflect the work done with this funding.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	N/A	430,534	430,534	300,000	300,000	300,000	300,000	300,000	1,500,000	0	N/A
Wastewater Collection Fund	N/A	189,649	14,466	120,000	150,000	150,000	150,000	150,000	720,000	0	N/A
Total	**N/A**	**620,183**	**445,000**	**420,000**	**450,000**	**450,000**	**450,000**	**450,000**	**2,220,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	620,183	445,000	420,000	450,000	450,000	450,000	450,000	2,220,000	0	N/A
Total	**N/A**	**620,183**	**445,000**	**420,000**	**450,000**	**450,000**	**450,000**	**450,000**	**2,220,000**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.16

Program: N4.16.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

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System Improvements

Sewer manhole base

Fund: Wastewater Collection Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: WC-99013

Sewer Lateral/Manhole Rehabilitation and Replacement

Description

This project will replace defective sewer laterals, cleanouts, and manholes; install backwater devices; and purchase equipment to support these activities in order to maintain the Wastewater Collection System. Information collected during routine annual maintenance activities is used to prioritize work. Defective laterals, for example, will be replaced to re-establish existing services, reduce maintenance expenses, and eliminate ground water intrusion. Backwater devices will be installed to reduce backflows of sewage. New manholes will be installed or rehabilitated to improve structural integrity.

Justification

The work will help reduce both the backflow of sewage onto private property and the City's treatment expenses. This project also cleans and takes videos of sewer collection mains and laterals as necessary.

Significant Changes

2021-2025 CIP: Due to the anticipated cost for construction, the budget was increased for this multi-year lateral replacement project. Upon analysis, the bid result indicated that the contractor's cost is dramatically higher than in-house cost, therefore WWC Operations decided to perform the work themselves. It is anticipated that this budget will be adjusted downward to align with refined estimates of completing it in-house.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Collection Fund	N/A	848,228	944,728	876,000	800,000	825,000	850,000	875,500	4,226,500	875,000	N/A
Total	**N/A**	**848,228**	**944,728**	**876,000**	**800,000**	**825,000**	**850,000**	**875,500**	**4,226,500**	**875,000**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	848,228	944,728	876,000	800,000	825,000	850,000	875,500	4,226,500	875,000	N/A
Total	**N/A**	**848,228**	**944,728**	**876,000**	**800,000**	**825,000**	**850,000**	**875,500**	**4,226,500**	**875,000**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.16

Program: N4.16.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Rehabilitation Equipment

Fund: Wastewater Collection Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Summer 2017
Initial Project Completion: Winter 2019

Revised Project Start: Summer 2019
Revised Project Completion: Fall 2020

Project Number: WC-16001

Wastewater Collection System Rehabilitation/Augmentation Project 29

Description

This project funds the design and construction of high priority main and lateral replacement work, which reduces inflow of rainfall and groundwater into the collection system. The project replaces 9,965 linear feet (which represents 0.9% of the City's Wastewater Collection System) for large sections in the Charleston neighborhood and along several streets on El Camino Real. The project will be comprised of laterals identified in video inspection work or through maintenance records as deficient and in need of replacement. Priority will be given to areas identified by Public Works as targeted work zones ensuring infrastructure coordination among different City departments.

Justification

The 2004 Collection System Master Plan (Master Plan Study) update indicated certain facilities are in need of enlargement to handle growth and peak flows. The mains selected for replacement and/or rehabilitation are informed by the Master Plan Study; research and analysis of sewer main maintenance records; cleaning and videotaping of sanitary sewer mains; condition assessment; real time flow monitoring of existing sewers; and hydraulic computer modeling.

Supplemental Information

Linear footage and locations are subject to change, please refer to the City of Palo Alto Utilities webpage to confirm project details.

Significant Changes

2020-2024 CIP: Project footage has been decreased by 4,387 linear feet.

2019-2023 CIP: Project budget has increased by $0.9 million to account for construction cost escalation.

2018-2022 CIP: Due to delays in SSR 24, 25, 26, and 27, the construction for this project is postponed to FY 2020.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Collection Fund	113,466	4,394,839	300,000	1,638,000	0	0	0	0	1,638,000	0	2,051,466
Total	**113,466**	**4,394,839**	**300,000**	**1,638,000**	**0**	**0**	**0**	**0**	**1,638,000**	**0**	**2,051,466**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	4,024,466	300,000	1,638,000	0	0	0	0	1,638,000	0	1,938,000
Design	113,466	370,373	0	0	0	0	0	0	0	0	113,466
Total	**113,466**	**4,394,839**	**300,000**	**1,638,000**	**0**	**0**	**0**	**0**	**1,638,000**	**0**	**2,051,466**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.16

Program: N4.16.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Trenching for installation of High Density Polyethylene (HDPE) sewer main by open trench method

Fund: Wastewater Collection Fund
Category: System Improvements
Project Location:

Managing Department: Utilities

Initial Project Start: Summer 2018
Initial Project Completion: Winter 2020

Revised Project Start: Summer 2020
Revised Project Completion: Winter 2022

Project Number: WC-17001

Wastewater Collection System Rehabilitation/Augmentation Project 30

Description

This project funds the design and construction of high priority main and lateral replacement work, which reduces inflow of rainfall and groundwater into the collection system. The project replaces 12,066 linear feet (which represents 1.1% of the City's Wastewater Collection System) for various streets in the City, including Ventura and Research Park neighborhoods. The project will be comprised of laterals identified in video inspection work or through maintenance records as deficient and in need of replacement. Priority will be given to areas identified by Public Works as targeted work zones ensuring coordination between departments.

Justification

The 2004 Collection System Master Plan (Master Plan Study) update indicated certain facilities are in need of enlargement to handle growth and peak flows. The mains selected for replacement and/or rehabilitation are informed by the Master Plan Study; research and analysis of sewer main maintenance records; cleaning and videotaping of sanitary sewer mains; condition assessment; real time flow monitoring of existing sewers; and hydraulic computer modeling.

Supplemental Information

Linear footage and locations are subject to change, please refer to the City of Palo Alto Utilities webpage to confirm project details.

Significant Changes

2020-2024 CIP: City staff has proposed a new replacement schedule of completing a water, gas and wastewater construction project every other year instead of annually to reduce the amount of construction when prices are high. In the last few years there have been fewer bidders and higher prices on construction projects due to the increased demand for construction services. The overall project budget has increased by $2.3 million to account for a reduction of 3,614 in linear feet and construction cost escalation.

2019-2023 CIP: Project budget has increased by $0.9 million to account for construction cost escalation.

2018-2022 CIP: Due to delays in SSR 24, 25, 26, and 27, the construction for this project is postponed to FY 2021.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Collection Fund	0	421,684	200,000	1,221,000	5,500,000	0	0	0	6,721,000	0	6,921,000
Total	**0**	**421,684**	**200,000**	**1,221,000**	**5,500,000**	**0**	**0**	**0**	**6,721,000**	**0**	**6,921,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	1,000,000	5,500,000	0	0	0	6,500,000	0	6,500,000
Design	0	421,684	200,000	221,000	0	0	0	0	221,000	0	421,000
Total	**0**	**421,684**	**200,000**	**1,221,000**	**5,500,000**	**0**	**0**	**0**	**6,721,000**	**0**	**6,921,000**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.16

Program: N4.16.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Sewer Trench Line

Fund: Wastewater Collection Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Summer 2019
Initial Project Completion: Winter 2021

Revised Project Start: Summer 2023
Revised Project Completion: Winter 2024

Project Number: WC-19001

Wastewater Collection System Rehabilitation/Augmentation Project 31

Description

This project funds the design and construction of high priority lateral replacement work, which reduces inflow of rainfall and groundwater into the collection system. The project replaces 12,874 linear feet (which represents 1.1% of the City's Wastewater Collection System) for various streets in the City, including Old Palo Alto, Ventura, and Green Acres neighborhoods. The project will be comprised of laterals identified in video inspection work or through maintenance records as deficient and in need of replacement. Priority will be given to areas identified by Public Works as targeted work zones ensuring coordination between departments.

Justification

The 2004 Collection System Master Plan (Master Plan Study) update indicated certain facilities are in need of enlargement to handle growth and peak flows. The mains selected for replacement and/or rehabilitation are informed by the Master Plan Study; research and analysis of sewer main maintenance records; cleaning and videotaping of sanitary sewer mains; condition assessment; real time flow monitoring of existing sewers; and hydraulic computer modeling.

Supplemental Information

Linear footage and locations are subject to change, please refer to the City of Palo Alto Utilities webpage to confirm project details.

Significant Changes

2020-2024 CIP: City staff has proposed a new replacement schedule of completing a water, gas and wastewater construction project every other year instead of annually to reduce the amount of construction when prices are high. In the last few years there have been fewer bidders and higher prices on construction projects due to the increased demand for construction services. The overall project budget has increased by $2.3 million and decreased in linear footage by 12,109 to account for construction cost escalation.

2019-2023 CIP: Project budget has increased by $1.0 million to account for construction cost escalation.

2018-2022 CIP: Due to delays in WCSR 24, 25, 26, and 27, the construction for this project is postponed to FY 2022.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Collection Fund	0	0	0	0	0	1,650,000	5,200,000	0	6,850,000	0	6,850,000
Total	**0**	**0**	**0**	**0**	**0**	**1,650,000**	**5,200,000**	**0**	**6,850,000**	**0**	**6,850,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	475,000	4,994,000	0	5,469,000	0	5,469,000
Design	0	0	0	0	0	1,175,000	206,000	0	1,381,000	0	1,381,000
Total	**0**	**0**	**0**	**0**	**0**	**1,650,000**	**5,200,000**	**0**	**6,850,000**	**0**	**6,850,000**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.16

Program: N4.16.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Sewer Main Replacement Project using Pipe Bursting Method

Fund: Wastewater Collection Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Summer 2020
Initial Project Completion: Winter 2022

Revised Project Start: Summer 2024
Revised Project Completion: Winter 2026

Project Number: WC-20000

Wastewater Collection System Rehabilitation/Augmentation Project 32

Description

This project funds the design and construction of high priority main and lateral replacement work, which reduces inflow of rainfall and groundwater into the collection system. The project replaces approximately 15,437 linear feet (which represents 1% of the City's Wastewater Collection System) for various streets in the City, including sections in the Midtown/Midtown West and Palo Verde neighborhoods and a portion of University Avenue in the Crescent Park neighborhood. The project will be comprised of laterals identified in video inspection work or through maintenance records as deficient and in need of replacement. Priority will be given to areas identified by Public Works as targeted work zones ensuring coordination between departments.

Justification

The 2004 Collection System Master Plan (Master Plan Study) update indicated certain facilities are in need of enlargement to handle growth and peak flows. The mains selected for replacement and/or rehabilitation are informed by the Master Plan Study; research and analysis of sewer main maintenance records; cleaning and videotaping of sanitary sewer mains; condition assessment; real time flow monitoring of existing sewers; and hydraulic computer modeling.

Supplemental Information

Linear footage and locations are subject to change, please refer to the City of Palo Alto Utilities webpage to confirm project details.

Significant Changes

2020-2024 CIP: City staff has proposed a new replacement schedule of completing a water, gas and wastewater construction project every other year instead of annually to reduce the amount of construction when prices are high. In the last few years there have been fewer bidders and higher prices on construction projects due to the increased demand for construction services. The overall project budget has increased by $2.3 million to account for construction cost escalation.

2019-2023 CIP: Project budget has increased by $1.0 million to account for construction cost escalation.

2018-2022 CIP: Due to delays in WCSR 24, 25, 26, and 27, the construction for this project is postponed to FY 2023.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Collection Fund	0	0	0	0	0	0	0	1,650,000	1,650,000	5,500,000	7,150,000
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,650,000**	**1,650,000**	**5,500,000**	**7,150,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	0	1,490,000	1,490,000	5,500,000	6,990,000
Design	0	0	0	0	0	0	0	160,000	160,000	0	160,000
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,650,000**	**1,650,000**	**5,500,000**	**7,150,000**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.16

Program: N4.16.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Equipment used to install fuse High Density Polyethylene (HDPE) pipe

Fund: Wastewater Collection Fund
Category: System Improvements
Project Location: Municipal Service Center

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: WC-13002

Wastewater General Equipment and Tools

Description

This funding allows for the acquisition of new fusion equipment and other associated tools. This equipment is used to fuse together pipe joints in the City's Wastewater Collection System.

Justification

As the equipment ages, the quality of the fusion joints begin to decline and the operators must spend more time scraping, aligning, and fusing construction joints. In order to maintain high quality standards for the installation of the City's wastewater collection mains, along with the associated service standards and worker safety and productivity measures, equipment and tools require continuous upgrades.

Significant Changes

2021-2024 CIP: Project increased from $50,000 to $185,000 for FY 2021. This funding enables the purchase of a new trailer flusher (pressure washer) and replacement of new closed-circuit television equipment.

2015-2019 CIP: Project was retitled from Wastewater Fusion and General Equipment/Tools.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Collection Fund	N/A	50,000	30,000	185,000	50,000	50,000	50,000	50,000	385,000	0	N/A
Total	**N/A**	**50,000**	**30,000**	**185,000**	**50,000**	**50,000**	**50,000**	**50,000**	**385,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	50,000	30,000	185,000	50,000	50,000	50,000	50,000	385,000	0	N/A
Total	**N/A**	**50,000**	**30,000**	**185,000**	**50,000**	**50,000**	**50,000**	**50,000**	**385,000**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.1

Program: N4.13.2

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Fund: Wastewater Collection Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: WC-15002

Trenching for installation of High Density Polyethylene (HDPE) sewer main by directional drilling method

Wastewater System Improvements

Description

This project provides funding as needed to improve the Wastewater Collection System. Typical activities include: increasing system capacity for growth, flow monitoring, hydraulic modeling and system analysis, load simulations, asset management analysis and assessment, system inflow/infiltration analysis, and sanitary sewer overflow monitoring and reduction.

Justification

Wastewater Collection System reliability and adequate capacity are critical to providing a high level of service to customers. Mainline sewer backups and overflows into homes and businesses are costly and a health risk. Reducing the losses associated with these backup claims requires a continuous evaluation of system needs and making improvements to maintain a high level of service.

Significant Changes

2021-2025 CIP: This budget is lowered based on past expenditures. In the upcoming years, the proposed budget will be used to improve the system due to unexpected conditions, purchase and implement a new wastewater collection system maintenance software, conduct system assessment, etc.

Currently acquiring a new asset management software platform to replace the current software used to manage Wastewater Operations maintenance activities. All maintenance history, records, and attachments stored in the current database will be exported from cloud-based database and converted or migrated into the new software system. The new wastewater management system will be used by Utilities Wastewater Operations staff to generate work orders,

schedule planned or unplanned maintenance work in order to help plan/prioritize pipeline capital improvement replacement.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Collection Fund	N/A	426,682	260,000	200,000	200,000	200,000	200,000	200,000	1,000,000	303,000	N/A
Total	**N/A**	**426,682**	**260,000**	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**1,000,000**	**303,000**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	426,682	260,000	200,000	200,000	200,000	200,000	200,000	1,000,000	303,000	N/A
Total	**N/A**	**426,682**	**260,000**	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**1,000,000**	**303,000**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.16

Program: N4.16.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

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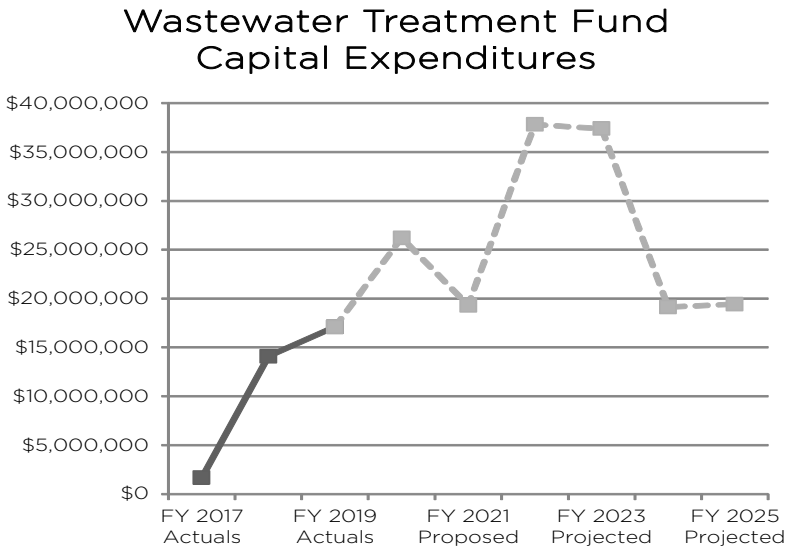
WASTEWATER TREATMENT FUND

Overview

Activities related to the replacement, rehabilitation, optimization, and upgrading of the City's wastewater treatment plant infrastructure are accounted for in the Wastewater Treatment Fund. For detailed information on the maintenance and operation of the wastewater treatment plant, please refer to the Wastewater Treatment Fund section of the Operating Budget. As part of the 2021-2025 Capital Improvement Program (CIP) expenditures of $133.3 million are programmed with $19.3 million allocated in Fiscal Year 2021. The Wastewater Treatment Fund recovers approximately 65 percent of its costs from the Palo Alto Wastewater Collection Fund, Stanford University, East Palo Alto Sanitary District, Mountain View, Los Altos, and Los Altos Hills based on each agency's expected share of the capacity. Each agency bills their respective sewer ratepayers for associated sewer and treatment costs as well as the Wastewater Treatment Fund's capital projects. Approximately 250,000 residents are served by the six agencies contributing sewage to the Regional Water Quality Control Plant (RWQCP). Overall, a total of seven projects are programmed in the 2021-2025 CIP with the budget accounted for in two categories: Buildings and Facilities and System Improvements.



The 2012 Long Range Facilities Plan evaluated the infrastructure needs of the RWQCP. It analyzed and made recommendations on future regulations, replacement and rehabilitation needed, site planning, and flow and load projections. Funding for the major projects included in the 2021-2025 CIP requires debt financing and approval by the partners, per the individual agreements between the City and each of the partners. Over the years, staff has met with partner agencies at the staff and board/council level to discuss major capital projects. It should be noted that a portion of the expenses for these projects are expected to be incurred after the five years included in the 2021-2025 CIP. Staff has applied for state revolving fund loans and has considered revenue bonds for these projects.

Major projects planned include:

- Advanced Water Purification Facility (5-Year CIP: $21.1 million)
- Headworks Facility Replacement (5-Year CIP: $20.3 million)
- New Laboratory and Environmental Services Building (Fiscal Year 2021: $1.1 million; 5-Year CIP: $22.7 million)
- Outfall Line Construction (Fiscal Year 2021: $3.9 million; 5-Year CIP: $5.0 million)

- Primary Sedimentation Tank Rehabilitation (Fiscal Year 2021: $6.3 million; 5-Year CIP: $11.9 million)
- Secondary Treatment Upgrades (Fiscal Year 2021: $0.7 million; 5-Year CIP: $30.7 million)

Minor CIP projects are funded through recurring payments to the City by the partner agencies, with the total dollar amount for the minor CIP projects capped by the partner agreements and adjusted annually for inflation. Minor projects are budgeted in Plant Repair, Retrofit, and Equipment Replacement (Fiscal Year 2021: $7.3 million; 5-Year CIP: $21.5 million).

Infrastructure Inventory

CLASSIFICATION	TYPE
Liquid Treatment Systems	Preliminary, Primary, Secondary, and Tertiary Treatment, UV Disinfection, and Outfall
Solids Treatment Systems	Solids Handling
Staff Buildings	Staff Buildings and Support Systems
Recycled Water	Recycled Water Treatment

Buildings and Facilities

The Buildings and Facilities category accounts for projects that will improve or construct facilities that house equipment related to wastewater treatment at the RWQCP. During the 2021-2025 CIP, one project is programmed in this category.

Recent Accomplishments

- Began operation of the Dewatering and Loadout Facility and retired two sludge-burning incinerators.

2021-2025 Capital Improvement Program

Recurring Projects

There are no recurring projects scheduled.

Non-Recurring Projects

There is one non-recurring project in this category as part of the 2021-2025 CIP. New Laboratory and Environmental Services Building (Fiscal Year 2021: $1.1 million; 5-Year CIP: $22.7 million).

System Improvements

The System Improvements category accounts for all infrastructure and equipment related to the safe and efficient treatment of wastewater received at the RWQCP. Over the course of the 2021-2025 CIP, approximately $110.5 million is allocated towards System Improvements projects, with $18.2 million allocated in Fiscal Year 2021.

Recent Accomplishments

- Completed environmental review on the Advanced Water Purification Facility.

2021-2025 Capital Improvement Program

Recurring Projects

There is one recurring project in this category: Plant Repair, Retrofit, and Equipment Replacement (Fiscal Year 2021: $7.3 million; 5-Year CIP: $21.5 million). This project provides funding for the assessment, repair, and retrofit of the concrete and metal structural condition of the plant; the replacement of necessary plant equipment to maintain treatment reliability and ancillary facilities to maintain existing infrastructure; and the replacement of large diameter flow meters built into the wastewater treatment system on sewers, pipes, and water lines. The United States Environmental Protection Agency mandates that funding is allocated for equipment replacement to ensure adequate wastewater treatment reliability.

Non-Recurring Projects

There are five non-recurring projects in this category:

- Advanced Water Purification Facility (5-Year CIP: $21.1 million)
- Headworks Facility Replacement (5-Year CIP: $20.3 million)
- Outfall Line Construction (Fiscal Year 2021: $3.9 million; 5-Year CIP: $5.0 million).
- Primary Sedimentation Tank Rehabilitation (Fiscal Year 2021: $6.3 million; 5-Year CIP: $11.9 million)
- Secondary Treatment Upgrades (Fiscal Year 2021: $0.7 million; 5-Year CIP: $30.7 million)

Summary of Capital Activity

WASTEWATER TREATMENT FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Source of Funds									
Revenue from the State of California									
WQ-14001	Dewatering and Loadout Facility	1,368,530	0	0	0	0	0	0	0
WQ-10001	Plant Master Plan	12,961	0	0	0	0	0	0	0
	Revenue from the State of California Total	**1,381,491**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Miscellaneous Revenue									
WQ-19003	Advanced Water Purification Facility	0	3,000,000	0	15,400,000	5,500,000	0	0	20,900,000
WQ-16002	Headworks Facility Replacement	0	0	0	1,500,000	1,500,000	1,500,000	15,360,000	19,860,000
WQ-14002	New Laboratory and Environmental Services Building	0	1,910,000	150,000	6,750,000	6,750,000	7,850,000	0	21,500,000
WQ-19000	Outfall Line Construction	0	3,850,000	3,850,000	1,100,000	0	0	0	4,950,000
WQ-14003	Primary Sedimentation Tank Rehabilitation	0	8,148,000	4,954,000	4,530,000	0	0	0	9,484,000

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
WQ-19001	Secondary Treatment Upgrades	0	2,300,000	700,000	3,800,000	19,800,000	5,830,000	0	30,130,000
	Miscellaneous Revenue Total	**0**	**19,208,000**	**9,654,000**	**33,080,000**	**33,550,000**	**15,180,000**	**15,360,000**	**106,824,000**
	Total Sources	**1,381,491**	**19,208,000**	**9,654,000**	**33,080,000**	**33,550,000**	**15,180,000**	**15,360,000**	**106,824,000**
Use of Funds									
Buildings and Facilities									
WQ-14001	Dewatering and Loadout Facility	13,408,858	2,018,300	0	0	0	0	0	0
WQ-04011	Facility Condition Assessment and Retrofit	266,874	142,881	0	0	0	0	0	0
WQ-14002	New Laboratory and Environmental Services Building	76,175	1,357,993	1,069,292	6,819,000	6,822,000	8,023,000	0	22,733,292
WQ-10001	Plant Master Plan	319,864	1,973,804	0	0	0	0	0	0
	Buildings and Facilities Total	**14,071,771**	**5,492,978**	**1,069,292**	**6,819,000**	**6,822,000**	**8,023,000**	**0**	**22,733,292**
System Improvements									
WQ-19003	Advanced Water Purification Facility	0	3,000,000	0	15,557,000	5,559,000	0	0	21,116,000
WQ-16002	Headworks Facility Replacement	0	0	0	1,515,000	1,516,000	1,533,000	15,704,000	20,268,000
WQ-19000	Outfall Line Construction	0	3,890,000	3,925,000	1,111,000	0	0	0	5,036,000
WQ-80021	Plant Equipment Replacement	1,707,357	1,352	0	0	0	0	0	0
WQ-19002	Plant Repair, Retrofit, and Equipment Replacement	327,099	3,855,894	7,311,890	3,381,000	3,476,000	3,612,000	3,713,000	21,493,890
WQ-14003	Primary Sedimentation Tank Rehabilitation	508,477	8,148,000	6,294,187	5,586,000	0	0	0	11,880,187
WQ-19001	Secondary Treatment Upgrades	483,059	1,824,921	714,000	3,840,000	20,212,000	5,958,000	0	30,724,000
	System Improvements Total	**3,025,992**	**20,720,167**	**18,245,077**	**30,990,000**	**30,763,000**	**11,103,000**	**19,417,000**	**110,518,077**
	Total Uses	**17,097,763**	**26,213,145**	**19,314,369**	**37,809,000**	**37,585,000**	**19,126,000**	**19,417,000**	**133,251,369**

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Buildings and Facilities

Water Quality Control Plant Laboratory

Fund: Wastewater Treatment Fund
Category: Buildings and Facilities
Project Location: 2501 Embarcadero Way

Managing Department: Public Works

Initial Project Start: Winter 2015
Initial Project Completion: Fall 2021

Revised Project Start: Spring 2019
Revised Project Completion: Fall 2024

Project Number: WQ-14002

New Laboratory And Environmental Services Building

Description

This project provides funding for a new building to consolidate staff into a larger updated lab.

Justification

The existing laboratory does not have adequate space for staff, instruments, chemical storage, and microbiology testing. Staff is currently located in four separate buildings, which house industrial pumps, limiting the number of staff that can be assigned to each building.

Supplemental Information

This project was identified in the Long Range Facilities Plan accepted by City Council in 2012. Construction funding via a low interest state revolving fund loan (SRF) or a revenue bond will be pursued for this project, which is subject to approval from partner agencies (Stanford University, Mountain View, Los Altos, Los Altos Hills, and the East Palo Alto Sanitary District). Partners have already approved repayment of an SRF design and planning loan, while staff evaluate the revenue bond option as an alternative funding source.

Significant Changes

2021-2025 CIP: Construction has been delayed and projected to begin in Fiscal Year 2022.

2020-2024 CIP: Design contract slightly delayed and awarded in February 2019.

2019-2023 CIP: Design phase of the project is expected to start in Fall 2018. The City is exploring funding alternatives; therefore the funding source is no longer stated as Revenue from the State of California.

2018-2022 CIP: Partners approved repayment of the SRF design and planning loan, but securing the loan took longer than expected and there was uncertainty about availability of State funds. The City will explore alternate methods of funding such as a revenue bond. Project planning/design can commence once the funds are secured, but the timeline has been impacted.

2017-2021 CIP: Approval by partner agencies was required for project approval and to guarantee repayment of any state loans.

2016-2020 CIP: Project budget in Fiscal Year 2016 now captures an additional $4.0 million more in Fiscal Year 2020 for final design and start of construction.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	1,910,000	1,910,000	150,000	6,750,000	6,750,000	7,850,000	0	21,500,000	0	23,410,000
Wastewater Treatment Fund	76,174	371,819	(552,007)	919,292	69,000	72,000	173,000	0	1,233,292	0	757,459
Total	**76,174**	**2,281,819**	**1,357,993**	**1,069,292**	**6,819,000**	**6,822,000**	**8,023,000**	**0**	**22,733,292**	**0**	**24,167,459**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	6,669,000	6,672,000	7,873,000	0	21,214,000	0	21,214,000
Design	76,174	2,281,819	1,357,993	1,069,292	150,000	150,000	150,000	0	1,519,292	0	2,953,459
Total	**76,174**	**2,281,819**	**1,357,993**	**1,069,292**	**6,819,000**	**6,822,000**	**8,023,000**	**0**	**22,733,292**	**0**	**24,167,459**

Operating Impact

This project is anticipated to impact operating expenses in the future such as utilities, janitorial services, and alarm/security systems. Once the design, including features and square feet, is complete, costs will be quantified and adjustments will be brought forward in future budgets.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.16

Program: N4.16.1

Environmental Impact Analysis:

CEQA will be required.

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

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System Improvements

Filtration system testing unit

Fund: Wastewater Treatment Fund
Category: System Improvements
Project Location: 2501 Embarcadero Way

Managing Department: Public Works

Initial Project Start: Winter 2018
Initial Project Completion: Spring 2021

Revised Project Start: Summer 2020
Revised Project Completion: Summer 2022

Project Number: WQ-19003

Advanced Water Purification Facility

Description

This project provides funding for an Advanced Water Purification Facility to further improve the quality of the tertiary-treated recycled water by microfiltration or ultrafiltration followed by reverse osmosis to reduce the level of total dissolved solids (TDS).

Justification

The Regional Water Quality Control Plant (RWQCP) currently provides tertiary-treated recycled water to permitted users in its service area, mostly for irrigation. The current recycled water delivered has a TDS level of 800-900 mg/L. City Council adopted a goal to reduce the TDS level to 600 mg/L in 2010. In 2015, City Council adopted an Environmental Impact Report for the Phase III Recycled Water Pipeline to South Palo Alto and Stanford Research Park, which specifically mentioned recycled water quality would be improved through additional treatment at the RWQCP. In addition, there are approximately 40 potential recycled water users in the service area with their connection still pending until the RWQCP lowers the recycled water TDS level.

Supplemental Information

The RWQCP, in collaboration with Valley Water (formerly known as the Santa Clara Valley Water District) and the City of Mountain View, conducted an Advanced Water Purification System Feasibility Study. This study recommended microfiltration or ultrafiltration followed by reverse osmosis after comparing different water quality improvement options. The study also included evaluations of greenhouse gas emissions, storage requirements, facility sites, concentrate treatment options, and initial design and construction cost estimates.

This project was also identified in the Long Range Facilities Plan accepted by City Council in 2012. Funding via contributions from Valley Water, the City of Mountain View, and other external sources such as a low interest state revolving fund loan or revenue bond will be pursued for this project.

Significant Changes

2021-2025 CIP: Construction of project has been delayed and projected to begin in Fiscal Year 2022.

2020-2024 CIP: Project start delayed from Winter 2018 to Winter 2019 due to lack of funding as staff is still negotiating with the City of Mountain View and Valley Water to secure funding for this project.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	3,000,000	3,000,000	0	15,400,000	5,500,000	0	0	20,900,000	0	23,900,000
Wastewater Treatment Fund	0	113,000	0	0	157,000	59,000	0	0	216,000	0	216,000
Total	**0**	**3,113,000**	**3,000,000**	**0**	**15,557,000**	**5,559,000**	**0**	**0**	**21,116,000**	**0**	**24,116,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	82,377	0	0	15,557,000	5,559,000	0	0	21,116,000	0	21,116,000
Design	0	3,030,623	3,000,000	0	0	0	0	0	0	0	3,000,000
Total	**0**	**3,113,000**	**3,000,000**	**0**	**15,557,000**	**5,559,000**	**0**	**0**	**21,116,000**	**0**	**24,116,000**

Operating Impact

This project is anticipated to impact operating expenses in the future such as utilities, janitorial services, and alarm/security systems. Once the design, including features and square feet, is complete, costs will be quantified and adjustments will be brought forward in future budgets.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.17

Relationship to Comprehensive Plan

Secondary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.16

Program: N4.16.1

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

An addendum to the existing EIR completed in 2015 for the expansion of the Palo Alto recycled water distribution system will be required.

Headworks Facility

Fund: Wastewater Treatment Fund
Category: System Improvements
Project Location: 2501 Embarcadero Way

Managing Department: Public Works

Initial Project Start: Spring 2020
Initial Project Completion: Winter 2024

Revised Project Start: Winter 2020
Revised Project Completion: Summer 2027

Project Number: WQ-16002

Headworks Facility Replacement

Description

This project provides funding for replacing influent pumping, including the suction and discharge piping, pipe manifolds, valves, the electrical and controls system, screening equipment, grit handling equipment, the force main to the primaries and modifying headworks building, and yard piping.

Justification

This project was identified in the Long Range Facilities Plan (LRFP) report accepted by City Council in 2012. The existing headworks are at the end of their useful life and replacement is required for operational reliability of pumping the raw sewage from the influent sewers into the treatment plant.

Supplemental Information

Partner agencies' approval to repay design and construction loans is needed as a low interest state revolving fund loan or a revenue bond will be pursued to fund the project.

Significant Changes

2021-2025 CIP: Project is delayed from Winter 2020 to Winter 2021 due to budget constraints, staffing resources, and construction logistics with other projects in progress.

2020-2024 CIP: Project start delayed from Summer 2019 to Winter 2020 due to budget constraints, staffing resources, and construction logistics with other projects in progress.

2019-2023 CIP: Staff is evaluating alternative funding options, therefore the funding source is no longer stated explicitly as Revenue from the State of California.

2018-2022 CIP: Staff revised the Funding Sources Schedule and the Expenditure Schedule to better reflect the project timeline recommended in the LRFP, where design will take place from 2020 to 2022, with CEQA and construction to follow.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	0	0	0	1,500,000	1,500,000	1,500,000	15,360,000	19,860,000	14,960,000	34,820,000
Wastewater Treatment Fund	0	0	0	0	15,000	16,000	33,000	344,000	408,000	0	408,000
Total	**0**	**0**	**0**	**0**	**1,515,000**	**1,516,000**	**1,533,000**	**15,704,000**	**20,268,000**	**14,960,000**	**35,228,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	0	15,304,000	15,304,000	14,960,000	30,264,000
Design	0	0	0	0	1,515,000	1,516,000	1,533,000	400,000	4,964,000	0	4,964,000
Total	**0**	**0**	**0**	**0**	**1,515,000**	**1,516,000**	**1,533,000**	**15,704,000**	**20,268,000**	**14,960,000**	**35,228,000**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.16

Program: N4.16.1

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Outfall, Winter 2017

Fund: Wastewater Treatment Fund
Category: System Improvements
Project Location: Wastewater Treatment Plant and Palo Alto Airport

Managing Department: Public Works

Initial Project Start: Summer 2018
Initial Project Completion: Fall 2019

Revised Project Start: Summer 2020
Revised Project Completion: Fall 2022

Project Number: WQ-19000

Outfall Line Construction

Description

This project consists of the construction of a new parallel outfall pipe to convey final plant effluent to San Francisco Bay.

Justification

Installation of a new outfall line is needed to address outfall age (built in 1964) and, more importantly, to address the outfall capacity in light of peak wet-weather flow, peak tide, and future sea level rise scenarios. The existing system of a 54-inch outfall line and a 36-inch emergency backup outfall line are inadequate to pass the Plant's peak wet-weather hydraulic flow capacity of 80 million gallons per day.

Supplemental Information

This project was identified in the Long Range Facilities Plan report accepted by City Council in 2012. Construction funding via a low-interest state revolving fund loan will be pursued for this project, while staff evaluate revenue bond options as an alternative funding source.

The existing 54-inch outfall needs rehabilitation, which can only be completed after the new outfall is operational. Rehabilitating the existing 54-inch outfall will be a future project. Once rehabilitated, the 54-inch outfall along with the new parallel outfall in this project are anticipated to work together to convey peak flows for another 50 or more years. The 36-inch emergency backup line will be plugged and abandoned in place.

Significant Changes

2021-2025 CIP: Construction cost for the project is estimated to be increased by approximately $660,000 as staff finalized the SRF loan application. The SRF loan funding, including this budget increased, is being secured and finalized.

2020-2024 CIP: Project design was completed and construction has not begun due to permitting and finalization on the lease agreement with California State Lands Commission (CSLC).

2019-2023 CIP: Staff is evaluating alternative funding options, therefore the funding source is no longer stated explicitly as Revenue from the State of California.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	3,850,000	3,850,000	3,850,000	1,100,000	0	0	0	4,950,000	0	8,800,000
Wastewater Treatment Fund	0	40,000	40,000	75,000	11,000	0	0	0	86,000	0	126,000
Total	**0**	**3,890,000**	**3,890,000**	**3,925,000**	**1,111,000**	**0**	**0**	**0**	**5,036,000**	**0**	**8,926,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	3,890,000	3,890,000	3,925,000	1,111,000	0	0	0	5,036,000	0	8,926,000
Total	**0**	**3,890,000**	**3,890,000**	**3,925,000**	**1,111,000**	**0**	**0**	**0**	**5,036,000**	**0**	**8,926,000**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.16

Program: N4.16.1

Relationship to Comprehensive Plan

Secondary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.16

Program: N4.16.2

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project had a mitigated negative declaration from CEQA under Section 15070.

Old pumping plant

Fund: Wastewater Treatment Fund
Category: System Improvements
Project Location: 2501 Embarcadero Way

Managing Department: Public Works

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: WQ-19002

Plant Repair, Retrofit, and Equipment Replacement

Description

This project provides funding for the assessment, repair, and retrofit of the RWQCP's concrete and metal structures; the replacement of necessary RWQCP equipment and ancillary facilities to maintain treatment reliability and existing infrastructure; and the replacement of large diameter flow meters built into the wastewater treatment system on sewers, pipes, and water lines.

Tasks and funding previously budgeted in three separate maintenance related projects, WQ-80021, WQ-80022, and WQ-04011, will now be consolidated and budgeted in this one recurring project.

Justification

Plant facilities are subject to many adverse conditions and plant equipment requires periodic replacement to maintain reliability. Concrete and metal structures are evaluated for evidence of damage caused by corrosion, weathering, age, and ground movement. Facilities with repair and retrofit deficiencies need to be repaired to good structural condition to ensure that the plant continues to operate safely and reliably. In addition, United States Environmental Protection Agency and State Water Resources Control Board regulations and permits require ongoing allocated funding for equipment replacement to ensure adequate treatment reliability.

In addition to equipment physically located at the plant, there are 13 key magnetic flow meters throughout the collection system. Meters have an average life of ten years, however when the meter's reliability fails, the meter must be replaced immediately to continue accurate partner billing, process control, and regulatory reporting.

Supplemental Information

Planned projects include replacement of equipment mechanisms for secondary clarifiers and sludge thickeners; and replacement of wire, transformers, switches, and electrical components in the medium voltage electrical network.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Treatment Fund	N/A	7,772,784	3,855,894	7,311,890	3,381,000	3,476,000	3,612,000	3,713,000	21,493,890	0	N/A
Total	**N/A**	**7,772,784**	**3,855,894**	**7,311,890**	**3,381,000**	**3,476,000**	**3,612,000**	**3,713,000**	**21,493,890**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	7,230,216	3,313,326	6,920,890	2,979,000	3,063,000	3,188,000	3,277,000	19,427,890	0	N/A
Design	N/A	542,568	542,568	391,000	402,000	413,000	424,000	436,000	2,066,000	0	N/A
Total	**N/A**	**7,772,784**	**3,855,894**	**7,311,890**	**3,381,000**	**3,476,000**	**3,612,000**	**3,713,000**	**21,493,890**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.16

Program: N4.16.1

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Primary Sedimentation Tank

Fund: Wastewater Treatment Fund
Category: System Improvements
Project Location: 2501 Embarcadero Way

Managing Department: Public Works

Initial Project Start: Spring 2014
Initial Project Completion: Fall 2019

Revised Project Start: Winter 2017
Revised Project Completion: Fall 2022

Project Number: WQ-14003

Primary Sedimentation Tank Rehabilitation

Description

This project provides funding for new protective coatings on each of the four concrete primary sedimentation tanks and replacement of worn rotating parts and aging power distribution equipment. The tanks, installed in 1972, are 220 feet long by 41 feet wide by 14 feet deep and remove settleable solids and floatable grease with mechanical and electrical equipment. The new coating ensures steel reinforcing bars within the concrete are protected from corrosive sewer gases and extends the concrete's life for another 30 years.

Justification

Without recoating, the concrete will lose its structural integrity, gradually spalling and harming pumps, pipes, and treatment systems as a result. In a mild seismic event, weakened concrete could potentially collapse, endangering staff and the treatment system. Rehabilitation of the concrete slabs will extend the life of the tanks, preserving capital resources for other uses.

Supplemental Information

This project was identified in the Long Range Facilities Plan report accepted by the City Council in 2012. Construction funding via a low-interest state revolving fund loan (SRF) will be pursued, which is subject to approval from the partner agencies. The partners already approved repayment of an SRF design and planning loan, while staff evaluate a revenue bond as an alternative to an SRF for construction.

Significant Changes

2021-2025 CIP: Construction has been delayed, moving the estimated completion to Fall 2022. SRF loan funding is being secured and finalized.

2019-2023 CIP: Design started in January-March of 2018. The City is exploring funding alternatives; therefore, the funding source is no longer stated as Revenue from the State of California.

2018-2022 CIP: All partner agencies approved repayment of a planning/design loan. Securing the loan took longer than expected, and there is uncertainty about availability of State funds. The City will explore alternative methods of funding such as a revenue bond, but the project planning/design can commence once the funds are secured. Project timeline is impacted.

2017-2021 CIP: Approval by the partner agencies was required for project approval and to guarantee repayment of any state loans.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	8,302,000	8,148,000	4,954,000	4,530,000	0	0	0	9,484,000	0	17,632,000
Wastewater Treatment Fund	653,662	220,187	0	1,340,187	1,056,000	0	0	0	2,396,187	0	3,049,849
Total	**653,662**	**8,522,187**	**8,148,000**	**6,294,187**	**5,586,000**	**0**	**0**	**0**	**11,880,187**	**0**	**20,681,849**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	7,896,080	7,521,893	5,981,806	5,386,000	0	0	0	11,367,806	0	18,889,699
Design	653,662	626,107	626,107	312,381	200,000	0	0	0	512,381	0	1,792,150
Total	**653,662**	**8,522,187**	**8,148,000**	**6,294,187**	**5,586,000**	**0**	**0**	**0**	**11,880,187**	**0**	**20,681,849**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.16

Program: N4.16.1

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Aeration basins

Fund: Wastewater Treatment Fund
Category: System Improvements
Project Location: 2501 Embarcadero Way

Managing Department: Public Works

Initial Project Start: Summer 2018
Initial Project Completion: Fall 2021

Revised Project Start: Fall 2018
Revised Project Completion: Fall 2024

Project Number: WQ-19001

Secondary Treatment Upgrades

Description

This project provides funding for upgrades to the Secondary Treatment process at the Regional Water Quality Control Plant. The existing Secondary Treatment process has two main components; the Fixed Film Reactors (FFR) and the Activated Sludge (AS) Process. This project includes the reconfiguration of the aeration basins, modification of the AS Process, and the elimination of the FFRs. The AS Aeration Basins will be subdivided with concrete walls creating different zones where different pollutants can be treated. Some of the zones will operate without oxygen, treating nitrogen and cutting the nitrogen in the treated wastewater by roughly half. The project will not only reduce organics and ammonia in the existing processes, but will also reduce total nitrogen, the next pollutant being targeted for more stringent regulation.

Justification

The components of the Secondary Treatment process are between 35 and 45 years old and show extreme signs of wear and structural weakness. The rehabilitation of both the FFRs and the AS Process were identified in the Long Range Facilities Plan accepted by Council in 2012. In addition, regulatory agencies are developing new compliance and permit requirements for total nitrogen. A special study was completed in 2017, which proposed a complete Secondary Treatment process upgrade instead of individual rehabilitation projects. The completion of the upgrades will meet several objectives.

Supplemental Information

The project cost is estimated to be $30.6 million, which is less than the combined estimated cost for the FFRs, AS Aeration Basins rehabilitation, and large-scale Denitrification System (or other nutrients removal) projects.

Significant Changes

2021-2025 CIP: The expenses for design have increased as the plans have been refined to reflect anticipated completion of a a feasibility assessment to intensify the treatment process. As a result of the assessment, construction has been delayed and projected to begin in Fiscal Year 2022.

2020-2024 CIP: Design phase began in October 2018. Project start delayed from Summer 2018 to Fall 2018 with project completion now estimated to be in Winter 2022.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	2,300,000	2,300,000	700,000	3,800,000	19,800,000	5,830,000	0	30,130,000	0	32,430,000
Wastewater Treatment Fund	483,058	(475,079)	(475,079)	14,000	40,000	212,000	128,000	0	394,000	0	401,979
Total	**483,058**	**1,824,921**	**1,824,921**	**714,000**	**3,840,000**	**20,012,000**	**5,958,000**	**0**	**30,524,000**	**0**	**32,831,979**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	3,340,000	20,012,000	5,958,000	0	29,310,000	0	29,310,000
Design	483,058	1,824,921	1,824,921	714,000	500,000	0	0	0	1,214,000	0	3,521,979
Total	**483,058**	**1,824,921**	**1,824,921**	**714,000**	**3,840,000**	**20,012,000**	**5,958,000**	**0**	**30,524,000**	**0**	**32,831,979**

Operating Impact

This project is anticipated to impact operating expenses in the future, potentially by lowering utilities usage. As these costs are quantified, adjustments will be brought forward in future budgets, as necessary.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.16

Program: N4.16.1

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

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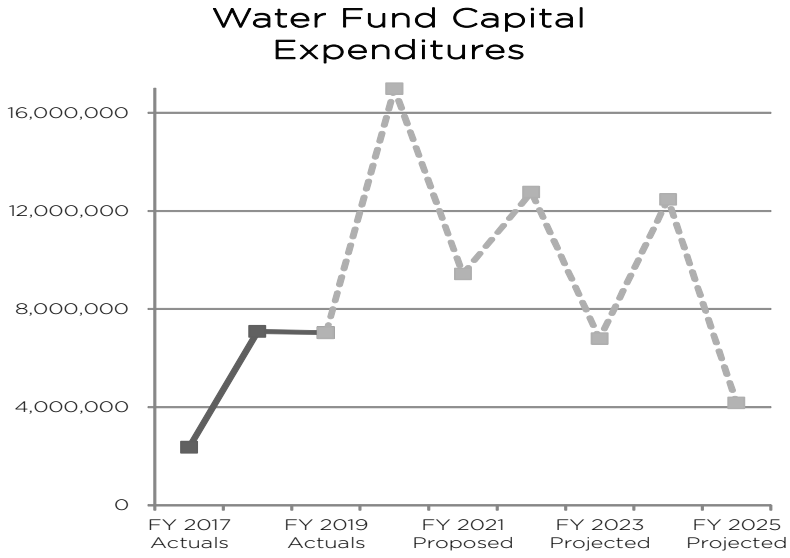
WATER FUND

Overview

The City of Palo Alto is the only municipality in California that operates a full suite of City-owned utility services. The municipal Water Distribution System began operation in 1896 and continues to provide safe, reliable, and cost-effective water service to residents and customers of Palo Alto. For the 2021-2025 Capital Improvement Program (CIP), approximately $45.6 million in expenses are projected, with $9.4 million allocated in Fiscal Year 2021. Overall, a total of 14 projects are planned for the 5-year CIP.

Major projects funded in the 2021-2025 CIP include Water Main Replacements (cumulative total of $21.7 million), Water System Customer Connections ($4.5 million), Water Meters ($3.8 million) and Water, Gas, and Wastewater Utility GIS Data ($2.5 million). The budget for the Water Fund CIP is categorized into three types of projects: Customer Connections, System Improvements, and Water Main Replacements.



Infrastructure Inventory

Classification	Quantity
Miles of water main	233.16
Number of wells	1 active standby and 7 emergency standby
Number of reservoirs	4 steel and 3 reinforced concrete

Water Distribution System Main Materials

MATERIAL TYPE	TOTAL LENGTH	PERCENT
Asbestos Cement Pipe	132.57 mi	56.86%
Concrete Cylinder Pipe	16.81 mi	7.21%
Cast Iron Pipe	21.22 mi	9.10%
Ductile Iron Pipe	4.59 mi	1.97%
Polyethylene	14.73 mi	6.32%
Polyvinyl Chloride	42.54 mi	18.24%
Steel	0.7 mi	0.3%
Total:	233.16 mi	

Customer Connections

As customers continually change their water needs due to equipment additions, new construction, building expansions, building remodels, teardowns and rebuilds, and new building occupancy types, the water system must evolve to meet these needs. The Water System Customer Connections is the only project in this category and includes work required to meet the needs of customers who have applied for new or upgraded water service. The Water Fund pays for a portion of this project, while remaining costs are supported by reimbursements from customers for project work performed by the City.

Recent Accomplishments

In Fiscal Year 2019 the Water Utility completed over 100 water service projects with a total cost of $1.3 million.

2021-2025 Capital Improvement Program

Recurring Projects

The Water System Customer Connections is the only project within this category. Over the course of the 2021-2025 CIP, $4.5 million is forecasted, with $0.85 million allocated in Fiscal Year 2021.

System Improvements

To ensure reliable water services for the City of Palo Alto's residents and customers, infrastructure must be replaced at the end of its expected life. The System Improvements category includes 9 projects as part of the 2021-2025 CIP at a total cost of $19.4 million, with $5.6 million allocated in Fiscal Year 2021.

Recent Accomplishments

- Repaired water main transmission pipeline on Old Page Mill Road and installed associated hydrants and valves.

- Completed the design of the Mayfield Reservoir Vent and Crack Repair project.
- Completed the El Camino Real Pump Station and Mayfield Pump Station modifications to the system and control programs to improve operational flexibility and system resiliency.
- Completed the steady state and extended period simulation water models that will assist in storage and operational recommendations.
- Started development of the Water Infrastructure Risk and Resilience Assessment document as required by America's Water Infrastructure Act of 2018 (AWIA '18). AWAI '18 requires community water systems serving 3,300 or more persons to conduct a risk and resilience assessment and develop an emergency response plan that must be actively updated every five years.
- Developed the test procedure for collecting data to evaluate the condition of our aging Asbestos Cement Pipe (ACP). The test result is a tool to help determine the life expectancy of ACPs.

2021-2025 Capital Improvement Program

Recurring Projects

A total of $12.4 million is programmed for System Improvement recurring projects during the 2021-2025 CIP, with $3.4 million allocated in Fiscal Year 2021. Recurring projects in this category include the following:

- Water Distribution System Improvements (Fiscal Year 2021: $0.3 million; 5-Year CIP: $1.4 million)
- Water General Equipment/Tools (Fiscal Year 2021: $0.05 million; 5-Year CIP: $0.25 million)
- Water, Gas, Wastewater Utility GIS Data (Fiscal Year 2021: $0.5 million; 5-Year CIP: $2.5 million)
- Water Meters (Fiscal Year 2021: $1.5 million; 5-Year CIP: $3.8 million)
- Water Service Hydrant Replacement (Fiscal Year 2021: $0.4 million; 5-Year CIP: $2.0 million)
- Water System Supply Improvements (Fiscal Year 2021: $0.7 million; 5-Year CIP: $2.4 million)

Non-Recurring Projects

A total of $6.3 million is programmed for non-recurring projects during the 2021-2025 CIP, with $1.4 million allocated in Fiscal Year 2021. Non-recurring projects in this category include the following:

- Water Recycling Facilities (Fiscal Year 2021: $0.4 million)
- Water Tank Seismic Upgrade and Rehabilitation (Fiscal Year 2021: $1.0 million; 5-year CIP: $5.9 million)

Water Main Replacements

The Water Main Replacements category accounts for the replacement of inadequately sized and structurally deficient water mains. In the next five years, it is estimated that approximately 50,000 linear feet of water mains will be replaced. The annual linear feet replacement totals were reduced by approximately 23% due to significant increases in labor and material

costs. City staff has proposed a new replacement schedule of water & wastewater construction every even year and gas construction every odd year to reduce the amount of construction when prices are high and allow staff to focus on other priorities such as ABS/Tenite gas services replacement, water tank replacement and cross-bore inspections.

In 2019 the annual replacement footage was reduced to compensate for some of the market changes that forced a rebid and a single bid in the past. Rebids and the reduction of total footage completed annually will extend the overall time it will take to complete the entire system replacement; however, a recent study indicated that the City has already replaced many of the most leak-prone and deteriorated pipes from the past water main replacement projects 1 through 26. This study recommended replacing 13.5 miles of mains within the next decade, and confirmed that the every-other-year construction program will allow staff to replace these 13.5 miles of water mains within the next 10 years.

Recent Accomplishments

- Started construction of Water Main Replacement project (WMR 27) to replace approximately 5,000 linear feet of water main pipelines in the Sand Hill Road and Fulton Street areas. Star ted design of the remaining 3800 linear feet in an easement off of Sand Hill Road.

2021-2025 Capital Improvement Program

Non-Recurring Projects

The 2021-2025 CIP includes $21.7 million in funding for 4 non-recurring projects within this category, with $3.0 million appropriated for Fiscal Year 2021. The Utilities Department coordinates with the Public Works Department's street maintenance projects to minimize damage to the City's pavement and maximize cost efficiencies when replacing water mains.

Summary of Capital Activity

WATER FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Source of Funds									
Transfer from Other Funds									
Gas Fund									
WS-02014	Water Gas Wastewater GIS Data	147,630	152,059	156,621	161,320	166,160	166,160	176,266	826,527
	Total Gas Fund Transfers	**147,630**	**152,059**	**156,621**	**161,320**	**166,160**	**166,160**	**176,266**	**826,527**
Wastewater Collection Fund									
WS-02014	Water Gas Wastewater GIS Data	147,630	152,059	156,621	161,320	166,160	166,160	176,266	826,527
	Total Wastewater Collection Fund	**147,630**	**152,059**	**156,621**	**161,320**	**166,160**	**166,160**	**176,266**	**826,527**
	Total Transfer from Other Funds	**295,260**	**304,118**	**313,242**	**322,640**	**332,320**	**342,286**	**352,532**	**1,653,054**

WATER FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Other Revenues									
WS-80013	Water System, Customer Connections	1,766,050	957,228	1,285,946	1,315,524	1,345,990	1,495,819	1,539,875	6,983,154
	Other Revenue Total	**1,766,050**	**957,228**	**1,285,946**	**1,315,524**	**1,345,990**	**1,495,819**	**1,539,875**	**6,983,154**
	Total Sources	**2,061,310**	**1,261,346**	**1,599,188**	**1,638,164**	**1,678,310**	**1,838,105**	**1,892,407**	**8,646,174**
Use of Funds									
Customer Connections									
WS-80013	Water System, Customer Connections	851,385	761,424	850,000	877,250	904,595	931,955	960,500	4,524,300
	Customer Connections Total	**851,385**	**761,424**	**850,000**	**877,250**	**904,595**	**931,955**	**960,500**	**4,524,300**
System Improvements									
WS-19000	Mayfield Reservoir Subgrade and Venting Repair	0	200,000	0	0	0	0	0	0
WS-11003	Water Distribution System Improvements	148,016	495,741	269,469	277,553	285,880	294,456	305,000	1,432,358
WS-13002	Water General Equipment/Tools	0	50,000	50,000	50,000	50,000	50,000	50,000	250,000
WS-02014	Water, Gas, Wastewater Utility GIS Data	178,991	1,066,277	469,862	483,958	498,477	513,431	528,800	2,494,528
WS-80015	Water Meters	122,265	300,000	1,530,450	546,364	562,755	579,638	600,000	3,819,207
WS-07001	Water Recycling Facilities	0	0	395,649	0	0	0	0	395,649
WS-07000	Water Regulation Station Improvements	74,430	0	759,000	0	0	0	0	759,000
WS-08001	Water Reservoir Coating Improvements	90,707	0	0	0	0	0	0	0
WS-80014	Water Service Hydrant Replacement	72,158	449,673	400,000	400,000	400,000	400,000	412,000	2,012,000
WS-11004	Water System Supply Improvements	61,673	263,327	749,469	277,553	285,880	345,131	715,000	2,373,033
WS-09000	Water Tank Seismic Upgrade and Rehabilitation	752,256	5,252,188	951,000	500,000	3,800,000	0	600,000	5,851,000
	System Improvements Total	**1,500,496**	**8,077,206**	**5,574,899**	**2,535,428**	**5,882,992**	**2,182,656**	**3,210,800**	**19,386,775**
Water Main Replacements									
WS-12001	Water Main Replacement - Project 26	4,574,968	746,315	0	0	0	0	0	0
WS-13001	Water Main Replacement - Project 27	105,524	4,568,639	2,500,000	0	0	0	0	2,500,000
WS-14001	Water Main Replacement - Project 28	0	80,000	500,000	8,500,000	0	0	0	9,000,000
WS-15002	Water Main Replacement - Project 29	0	0	0	850,000	0	8,500,000	0	9,350,000
WS-16001	Water Main Replacement - Project 30	0	0	0	0	0	850,000	0	850,000
	Water Main Replacements Total	**4,680,492**	**5,394,954**	**3,000,000**	**9,350,000**	**0**	**9,350,000**	**0**	**21,700,000**
	Total Uses	**7,032,373**	**14,233,584**	**9,424,899**	**12,762,678**	**6,787,587**	**12,464,611**	**4,171,300**	**45,611,075**

Customer Connections

Installation of 8" HDPE pipe by directional drilling method

Fund: Water Fund
Category: Customer Connections
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: WS-80013

Water System Customer Connections

Description

This project allows for improvements that include new main extensions, valves, domestic services, meters on upgraded services, backflow devices, fire services, and fire hydrants.

Justification

System extensions are required to provide service to new customers and to serve existing customers requesting expanded service.

Supplemental Information

Revenues appear to exceed expense budget due to the addition of capacity fees.

Significant Changes

2015-2019 CIP: This project was previously titled Water System Extensions. As part of the Fiscal Year 2015 budget, it was re-titled to more accurately reflect the work done with this funding.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	N/A	957,228	957,228	1,285,946	1,315,524	1,345,990	1,495,819	1,539,875	6,983,154	0	N/A
Water Fund	N/A	(195,804)	(195,804)	(435,946)	(438,274)	(441,395)	(563,864)	(579,375)	(2,458,854)	0	N/A
Total	**N/A**	**761,424**	**761,424**	**850,000**	**877,250**	**904,595**	**931,955**	**960,500**	**4,524,300**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	761,424	761,424	850,000	877,250	904,595	931,955	960,500	4,524,300	0	N/A
Total	**N/A**	**761,424**	**761,424**	**850,000**	**877,250**	**904,595**	**931,955**	**960,500**	**4,524,300**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.1

Program: N4.13.2

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

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System Improvements

Exterior view of Mayfield Reservoir

Fund: Water Fund
Category: System Improvements
Project Location: Mayfield Reservoir

Managing Department: Utilities

Initial Project Start: Fall 2019
Initial Project Completion: Fall 2021

Revised Project Start:
Revised Project Completion: Summer 2020

Project Number: WS-19000

Mayfield Reservoir Subgrade and Venting Repair

Description

As part of the City's recent Seismic Upgrade and Emergency Water Supply and Storage projects, the reservoir was drained in 2012 for approximately two years to allow extensive seismic rehabilitation work to be performed and construction of a new pump station. While the reservoir was empty, a number of cracks developed in the concrete slabs. After construction was completed and the reservoir was refilled, the cracks that had formed in the concrete caused the reservoir to leak. It was determined that the cracking had not been caused by construction activities but was due to the age of the concrete and the expansion and contraction of the structure during the extended period of time the reservoir was empty

Justification

In order to minimize the risk of further damage to the reservoir and adjacent properties, the City hired a contractor to perform a crack assessment within the reservoir. Once the assessment was complete the contractor sealed cracks in the concrete slabs and filled voids that had developed under the concrete slabs. The reservoir was filled and all leaks appeared to be sealed. However, during a recent inspection of the reservoir it was found that a large number of additional cracks had formed on the concrete slabs, indicating potential problems with the structure and subgrade support. Furthermore, the perimeter venting was also found inadequate for keeping debris out and preserving water quality as required by the State Water Resources Control Board (SWRCB). To protect the reservoir's existing subgrade, this project will include coring

through the floor to grout a void and sealing the new cracks that were found on the reservoir floor. The project will also include State required improvements to the existing venting system.

Significant Changes

2021-2025 CIP: The work based on the crack assessment and geotechnical study did not require all of the budgeted amount. The proposed funds for FY 2021 were reduced by $200,000.

2019-2023 CIP: Project established.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	0	400,000	200,000	0	0	0	0	0	0	0	200,000
Total	**0**	**400,000**	**200,000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**200,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	400,000	200,000	0	0	0	0	0	0	0	200,000
Total	**0**	**400,000**	**200,000**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**200,000**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.1

Program: N4.13.2

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Installation of a new fire hydrant with FlowGuard fire hydrant check valve

Fund: Water Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: WS-11003

Water Distribution System Improvements

Description

This project provides funds to improve Water Distribution System deliverability and reliability. Typical activities include: installing restraining joints at critical pipelines and bridge crossings, increasing the size of inadequate facilities, system leakage surveys, network modeling, and fire flow studies or other system improvements as required.

Justification

Water Distribution System reliability and adequate capacity are critical to providing a high level of service to customers in Palo Alto. Continuous evaluation of system needs and making required improvements are necessary to maintain adequate quantities of quality water, that meets local, state, and federal safe drinking water standards.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	N/A	495,471	495,741	269,469	277,553	285,880	294,456	305,000	1,432,358	0	N/A
Total	**N/A**	**495,471**	**495,741**	**269,469**	**277,553**	**285,880**	**294,456**	**305,000**	**1,432,358**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	495,471	495,741	269,469	277,553	285,880	294,456	305,000	1,432,358	0	N/A
Total	**N/A**	**495,471**	**495,741**	**269,469**	**277,553**	**285,880**	**294,456**	**305,000**	**1,432,358**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.1

Program: N4.13.2

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

16" HDPE pipe being fused prior to installation

Fund: Water Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: WS-13002

Water General Equipment/Tools

Description

This funding allows for the acquisition of new equipment and tools, replacement of existing fusion equipment, and other associated tools. The fusion equipment is used to fuse together pipe joints in the City's Water Distribution System.

Justification

As equipment ages, the quality of the fusion joints begins to decline, and the operators must spend more time scraping, aligning, and fusing construction joints. In order to maintain high quality standards for the installation of the City's water distribution mains, along with the associated service standards and worker safety and productivity measures, equipment and tools are required to be upgraded on an annual basis.

Significant Changes

2015-2019 CIP: Project was retitled from Water Fusion and General Equipment/Tools.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	N/A	50,000	50,000	50,000	50,000	50,000	50,000	50,000	250,000	0	N/A
Total	**N/A**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**250,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	50,000	50,000	50,000	50,000	50,000	50,000	50,000	250,000	0	N/A
Total	**N/A**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**250,000**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.1

Program: N4.13.2

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

5/8" Badger water meter

Fund: Water Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: WS-80015

Water Meters

Description

This funding allows for the purchase of meters for new customers, upgrading meters for current customers, installing meter bypasses, and replacing obsolete meters that are no longer repairable. This funding also allows for annual testing and calibration of select meters.

Justification

This project will maintain meter accuracy, reliability, and stock meter equipment and replacement parts. Meter replacements enhance information on system water volume; align the Utility's ten-year meter testing and replacement cycle in accordance with industry-standard best management practices; and provide accurate data for the Water Utility billing system.

Significant Changes

2021-2025 CIP: The Advanced Metering Infrastructure (AMI) Project is expected to replace up to 9,000 water meters to install meters that are compatible with a smart grid system to collect usage information remotely. The remaining meters will be assessed for their compatibility with the AMI smart grid and will either be retrofitted or replaced.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	N/A	1,292,700	300,000	1,530,450	546,364	562,755	579,638	600,000	3,819,207	0	N/A
Total	**N/A**	**1,292,700**	**300,000**	**1,530,450**	**546,364**	**562,755**	**579,638**	**600,000**	**3,819,207**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	1,292,700	300,000	1,530,450	546,364	562,755	579,638	600,000	3,819,207	0	N/A
Total	**N/A**	**1,292,700**	**300,000**	**1,530,450**	**546,364**	**562,755**	**579,638**	**600,000**	**3,819,207**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.1

Program: N4.13.2

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Recycled water piping

Fund: Water Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Spring 2011
Initial Project Completion: Spring 2015

Revised Project Start:
Revised Project Completion: Fall 2021

Project Number: WS-07001

Water Recycling Facilities

Description

This funding allows the City to hire a consultant to prepare a business plan, prepare a preliminary design, and secure funding options for an expansion of the existing recycled water delivery system in the City. The pipeline will primarily serve the Stanford Research Park and provide an alternative supply source of 435,600 cubic feet per year, roughly 10% of Palo Alto's total water consumption in 2015. A key part of the proposed business plan will be evaluating potential alternative uses of the new pipeline to serve future needs in Direct Potable Reuse and Indirect Potable Reuse. This more detailed plan follows the successful completion and certification of the project's environmental impact report in September 2015. The next phase of the project is to evaluate the results of this business plan and other deliverables, and pending a satisfactory assessment, move forward with the full design work of the proposed expansion of the recycled water delivery system.

Justification

Palo Alto is aggressively pursuing all options to meet future water supply needs. Recycled water provides a stable, drought-proof supply of water that replaces the need to use Hetch Hetchy potable supplies for irrigation purposes and other non-potable uses in anticipation of extended periods of drought and mandatory potable water reduction imposed by the State. The City is taking an integrated approach to evaluating the most flexible and robust strategic plan for non-potable recycled water, shallow aquifer groundwater, deep aquifer groundwater, and Direct Potable Reuse and Indirect Potable Reuse.

Significant Changes

2021-2025 CIP: On November 18, 2019, Council approved a Partnership Agreement that gives the Santa Clara alley Water District (Valley Water) an option to acquire about half of the treated wastewater produced by the Regional Water Quality Control Plant (RWQCP). The Agreement addresses multiple objectives, including diverting treated wastewater discharge from the San Francisco Bay, increasing the use of treated wastewater from the RWQCP, and displacing potable imported water where appropriate and feasible. Construction funding is supported through RWQCP project WQ-19003.

2020-2024 CIP: The remaining build portion of this project will be implemented in the RWQCP's project WQ-19003, Advanced Water Purification Facility.

2018-2022 CIP: While staff has addressed many issues regarding a future recycled water project, including the completion and certification by the Council of the project's environmental impact report (EIR), the replacement of high quality potable water with recycled water remains a concern for the landscape community among others. Completion of the EIR was essential for securing Federal or State grant or loan funding for the construction of the project, and now the City needs to reassess a more exhaustive number of potential end uses, assess customer demand, prepare a business plan, finish a preliminary design, and secure funding.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Revenue from the Federal Government	111,013	0	0	0	0	0	0	0	0	0	111,013
Water Fund	346,037	395,649	0	395,649	0	0	0	0	395,649	0	741,686
Total	**457,050**	**395,649**	**0**	**395,649**	**0**	**0**	**0**	**0**	**395,649**	**0**	**852,699**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	365,639	395,649	0	395,649	0	0	0	0	395,649	0	761,288
Design	91,409	0	0	0	0	0	0	0	0	0	91,409
Total	**457,048**	**395,649**	**0**	**395,649**	**0**	**0**	**0**	**0**	**395,649**	**0**	**852,697**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.1

Program: N4.13.2

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

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Siesmic Upgrade, Arastradero Turnout, June 2010

Fund: Water Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Fall 2006
Initial Project Completion: Summer 2008

Revised Project Start: Summer 2014
Revised Project Completion: Spring 2021

Project Number: WS-07000

Water Regulation Station Improvements

Description

This project will improve fourteen underground vaults and two above-ground water regulation facility locations. The improvements include: supervisory control and data acquisition (SCADA) chloramine monitors, pipe coating, wall sealing/painting, vault door replacement, lighting, valve replacement, and electrical upgrades.

Justification

These critical components in the water system require various improvements to increase reliability, safety and to prolong their service life. The San Francisco Public Utility Commission (SFPUC) turnouts are the main source of water supply to Palo Alto residents and need maintenance improvements. The pressure regulating stations protect pipelines from over-pressurization, which prevents water main breaks and customer outages. The electrical systems for these facilities need to be improved for staff safety.

Supplemental Information

The work locations of this project include Page Mill, Arastradero, California, Charleston, Mayfield, Hillview, Hewlett, Foothill 6, Foothill 7, Corte Madera, Boronda, Park, Dahl, Montebello vaults, Dahl booster, and Lytton pump station.

Significant Changes

2019-2023 CIP: Seismic and vault improvements were completed at Page Mill and Arastradero. In Fiscal Year 2019, staff will address the turnout at California.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	1,302,909	797,100	0	759,000	0	0	0	0	759,000	0	2,061,909
Total	**1,302,909**	**797,100**	**0**	**759,000**	**0**	**0**	**0**	**0**	**759,000**	**0**	**2,061,909**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	1,042,323	797,100	0	759,000	0	0	0	0	759,000	0	1,801,323
Design	260,575	0	0	0	0	0	0	0	0	0	260,575
Total	**1,302,898**	**797,100**	**0**	**759,000**	**0**	**0**	**0**	**0**	**759,000**	**0**	**2,061,898**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.1

Program: N4.13.2

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Newly installed fire hydrant service line and assembly on Greenwood Avenue

Fund: Water Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: WS-80014

Water Service and Hydrant Replacement

Description

This project replaces system control valves, deteriorated galvanized service lines, lead goose-necks, and fire hydrant valves and assemblies needed for Fire Department flow testing; upgrades fire hydrants in main replacement project areas; and replaces existing undersized or deteriorated copper water services. Upgrading hydrants and system control valves is consistent with fire protection policies.

Justification

In order to maintain a high water quality standard for Palo Alto's water supplies, it is necessary to replace old, lead, galvanized, and corroded copper water service lines.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	N/A	449,673	449,673	400,000	400,000	400,000	400,000	412,000	2,012,000	0	N/A
Total	**N/A**	**449,673**	**449,673**	**400,000**	**400,000**	**400,000**	**400,000**	**412,000**	**2,012,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	449,673	449,673	400,000	400,000	400,000	400,000	412,000	2,012,000	0	N/A
Total	**N/A**	**449,673**	**449,673**	**400,000**	**400,000**	**400,000**	**400,000**	**412,000**	**2,012,000**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.1

Program: N4.13.2

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Installation of 8" HDPE pipe and valve between two main connection points on El Camino Real at El Camino Way

Fund: Water Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: WS-11004

Water System Supply Improvements

Description

This project provides funding to improve the City's Water Distribution System, which connects facilities between the City's and the San Francisco Public Utility Commission's pipelines, emergency water wells within the City, pumping stations, and water reservoirs.

Justification

It is critical that the City has an adequate supply of water that meets federal and state drinking water requirements. To meet these objectives, the City must continually evaluate the system and make improvements as needed.

Supplemental Information

Typical activities performed under this project include: piping modifications, equipment replacements associated with water delivery, Supervisory Control software upgrades, system modifications for water system quality compliance, implementation of an asset management system, conditional assessment of the reliability of transmission mains, and security system installations.

Significant Changes

2021-2025 CIP: SCADA router and firewall components are in the process of being upgraded. Budget increases in FY 2021 and FY 2025 are for upgrading the PLCs (Programmable Logic Controllers (Computers) that control the equipment in the system.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	N/A	263,327	263,327	749,469	277,553	285,880	345,131	715,000	2,373,033	0	N/A
Total	**N/A**	**263,327**	**263,327**	**749,469**	**277,553**	**285,880**	**345,131**	**715,000**	**2,373,033**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	263,327	263,327	749,469	277,553	285,880	345,131	715,000	2,373,033	0	N/A
Total	**N/A**	**263,327**	**263,327**	**749,469**	**277,553**	**285,880**	**345,131**	**715,000**	**2,373,033**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.1

Program: N4.13.2

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Seismic Upgrade, Boronda Reservoir, December 2014

Fund: Water Fund
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Spring 2014
Initial Project Completion: Winter 2017

Revised Project Start:
Revised Project Completion: Fall 2021

Project Number: WS-09000

Water Tank Seismic Upgrade and Rehabilitation

Description

This project will provide tank rehabilitation, seismic upgrades, and/or tank replacement structural reinforcement for the Corte Madera, Park, Boronda, and Dahl reservoirs in order to improve earthquake resistance in compliance with the American Society of Civil Engineers (ASCE 7) seismic codes. Work at the reservoir sites will also include the installation of: new seismic shut off valves between the reservoirs and valve vaults, new plug valves, piping and pipe supports in the valve vaults, and recoating of the interior and exterior reservoir walls.

Justification

Palo Alto's water tanks have no protection from water loss in a seismic event. If an earthquake causes a significant water leak, various impacts such as loss of water for fire fighting purposes, loss of water storage for drinking, property damage from flooding or mudslides, and environmental damages could occur. The seismic protection systems will preserve potable water after a seismic event. Additionally, during the seismic upgrade of the Montebello reservoir the structural condition of the tank required significant repair, which is now anticipated in the remaining three tanks constructed in a similar time period.

Significant Changes

2021-2025 CIP: The Corte Madera reservoir is in the process of being replaced using the Design-Build method. Construction is anticipated to start in FY 2021. Staff is currently evaluating the plan for both Dahl and Park Reservoirs. These reservoirs will need to be replaced in the future at their current locations or at a location that improves the reliability and resiliency of the

system. The budget for FY 2023 was increased to cover the replacement of Dahl Reservoir. Park Reservoir will follow in FY 2026.

2019-2023 CIP: Project was retitled from "Seismic Water System Upgrade". Budget has also increased to account for scope changes and construction cost escalation.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	3,459,192	5,252,188	5,252,188	951,000	500,000	3,800,000	0	600,000	5,851,000	0	14,562,380
Total	**3,459,192**	**5,252,188**	**5,252,188**	**951,000**	**500,000**	**3,800,000**	**0**	**600,000**	**5,851,000**	**0**	**14,562,380**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	2,767,349	5,252,188	5,252,188	951,000	500,000	3,800,000	0	600,000	5,851,000	0	13,870,537
Design	691,830	0	0	0	0	0	0	0	0	0	691,830
Total	**3,459,179**	**5,252,188**	**5,252,188**	**951,000**	**500,000**	**3,800,000**	**0**	**600,000**	**5,851,000**	**0**	**14,562,367**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.1

Program: N4.13.2

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

Staff collecting data for GIS system

Fund: Water Fund
Category: System Improvements
Project Location: Software maintenance & update

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: WS-02014

Water, Gas, Wastewater Utility GIS Data

Description

This project covers the annual maintenance and support contract to improve the ability of Utilities Department staff to use the Geographic Information System (GIS). As with other GIS activities, continuing the completion of data-related tasks is the primary emphasis. Because field personnel still need accurate paper maps in the field, standard map books will be produced to meet their specific needs. Funding is also included to improve the GIS user interface to better serve the unique requirements of Utility Department users.

Justification

The GIS program is used for interfacing with modeling software to perform engineering analysis and master planning, develop and prioritize cost-effective capital improvement designs, and asset management of the City's utility enterprise system to enhance the level of service to utility customers.

Significant Changes

2020-2024 CIP: The City will transition to a new GIS platform in FY 2020. Remaining FY 2019 funds are being reappropriated to fund the conversion activities required to bring the maps to the new platform.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Transfer from Gas Fund	N/A	152,059	152,059	156,621	161,320	166,160	171,143	176,266	831,510	0	N/A
Transfer from Wastewater Collection Fund	N/A	152,059	152,059	156,621	161,320	166,160	171,143	176,267	831,511	0	N/A
Water Fund	N/A	762,159	762,159	156,620	161,318	166,157	171,145	176,267	831,507	0	N/A
Total	**N/A**	**1,066,277**	**1,066,277**	**469,862**	**483,958**	**498,477**	**513,431**	**528,800**	**2,494,528**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	736,399	1,066,277	469,862	483,958	498,477	513,431	528,800	2,494,528	0	N/A
Design	N/A	329,878	0	0	0	0	0	0	0	0	N/A
Total	**N/A**	**1,066,277**	**1,066,277**	**469,862**	**483,958**	**498,477**	**513,431**	**528,800**	**2,494,528**	**0**	**N/A**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Efficient and Effective Service Delivery

Goal: C-1

Policy: C-1.3

Program: C1.3.1

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

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Water Main Replacements

Installed 16" HDPE pipe waiting to be backfilled

Fund: Water Fund
Category: Water Main Replacements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Summer 2016
Initial Project Completion: Winter 2018

Revised Project Start: Summer 2019
Revised Project Completion: Summer 2020

Project Number: WS-13001

Water Main Replacement - Project 27

Description

This project will fund the design and replacement of structurally deficient water mains and appurtenances, starting in Fiscal Year 2020. Mains are selected by researching the maintenance history of the system and identifying those that are undersized, corroded, and subject to breaks. The project scope includes approximately 9,150 linear feet (which represents 0.8% of the City's Water Distribution System) of mains and services on various streets within the City, including areas in the Oak Creek and Greenmeadow neighborhoods.

Justification

Some mains are inadequate in size to supply required flows and pressures for fire protection, some are located in areas of high liquefaction, and others are subject to recurring breaks.

Supplemental Information

Each year the projects are re-evaluated and the highest priority is given to the most deteriorated portions of the system. Linear footage and locations are subject to change; please refer to the City of Palo Alto Utilities webpage to confirm project details.

Significant Changes

2019-2023 CIP: Project budget has increased by $0.6 million to account for construction cost escalation.

2018-2022 CIP: The construction is postponed to start in the later part of FY 2019 due to delays of WMR 26.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	148,885	7,068,639	4,568,639	2,500,000	0	0	0	0	2,500,000	0	7,217,524
Total	**148,885**	**7,068,639**	**4,568,639**	**2,500,000**	**0**	**0**	**0**	**0**	**2,500,000**	**0**	**7,217,524**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	34,689	7,068,639	4,568,639	2,500,000	0	0	0	0	2,500,000	0	7,103,328
Design	114,194	0	0	0	0	0	0	0	0	0	114,194
Total	**148,883**	**7,068,639**	**4,568,639**	**2,500,000**	**0**	**0**	**0**	**0**	**2,500,000**	**0**	**7,217,522**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.1

Program: N4.13.2

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

New HDPE main connecting to side street with new valve

Fund: Water Fund
Category: Water Main Replacements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Summer 2017
Initial Project Completion: Winter 2019

Revised Project Start: Summer 2020
Revised Project Completion: Spring 2022

Project Number: WS-14001

Water Main Replacement - Project 28

Description

This project will fund the design and replacement of structurally deficient water mains and appurtenances in Fiscal Years 2021 and 2022. Mains are selected by researching the maintenance history of the system and identifying those that are undersized, corroded, and subject to breaks. The project scope includes approximately 14,985 linear feet (which represents 1.2% of the City's Water Distribution System) of mains and services on various streets within the City, including areas in the Crescent ParK, Barron Park, and Charleston Meadows neighborhoods.

Justification

Some mains are inadequate in size to supply required flows and pressures for fire protection, some are located in areas of high liquefaction, and others are subject to recurring breaks.

Supplemental Information

Each year the projects are re-evaluated and the highest priority is given to the most deteriorated portions of the system. Linear footage and locations are subject to change; please refer to the City of Palo Alto Utilities webpage to confirm project details.

Significant Changes

2020-2024 CIP: City staff has proposed a new replacement schedule of completing a water, gas and wastewater construction project every other year instead of annually to reduce the amount of construction when prices are high. In the last few years there have been fewer bidders and higher prices on construction projects due to the increased demand for construction services. The total project cost increased to $9.0 million to account for an additional 1,400 in linear feet and escalating construction costs.

2018-2022 CIP: Due to delays of WMR 26 and 27, the project design and construction will be delayed to FY 2019 and FY 2020.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	0	585,107	80,000	500,000	8,500,000	0	0	0	9,000,000	0	9,080,000
Total	**0**	**585,107**	**80,000**	**500,000**	**8,500,000**	**0**	**0**	**0**	**9,000,000**	**0**	**9,080,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	8,500,000	0	0	0	8,500,000	0	8,500,000
Design	0	585,107	80,000	500,000	0	0	0	0	500,000	0	580,000
Total	**0**	**585,107**	**80,000**	**500,000**	**8,500,000**	**0**	**0**	**0**	**9,000,000**	**0**	**9,080,000**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.1

Program: N4.13.2

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

16" HDPE pipe ready to be installed by open trench method

Fund: Water Fund
Category: Water Main Replacements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Summer 2018
Initial Project Completion: Winter 2020

Revised Project Start: Summer 2022
Revised Project Completion: Spring 2024

Project Number: WS-15002

Water Main Replacement - Project 29

Description

This project will fund the design and replacement of structurally deficient water mains and appurtenances in Fiscal Years 2022 and 2024. Mains are selected by researching the maintenance history of the system and identifying those that are undersized, corroded, and subject to breaks. The project scope includes approximately 13,425 linear feet (which represents 1.2% of the City's Water Distribution System) of mains and services on various streets within the City, including areas in the Evergreen Park, Ventura, and Midtown/Midtown West neighborhoods.

Justification

Some mains are inadequate in size to supply required flows and pressures for fire protection, some are located in areas of high liquefaction, and others are subject to recurring breaks.

Supplemental Information

Each year the projects are re-evaluated and the highest priority is given to the most deteriorated portions of the system. Linear footage and locations are subject to change, please refer to the City of Palo Alto Utilities webpage to confirm project details.

Significant Changes

2020-2024 CIP: City staff has proposed a new replacement schedule of completing a water, gas and wastewater construction project every other year instead of annually to reduce the amount of construction when prices are high. In the last few years there have been fewer bidders and higher prices on construction projects due to the increased demand for construction services. The total project linear footage increased by 1,475 and overall project cost increased to $9.4 million to account for escalating construction costs.

2018-2022 CIP: Due to delays of WMR 26, 27 and 28, the project design and construction will be postponed to FY 2020 and FY 2021.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	0	0	0	0	850,000	0	8,500,000	0	9,350,000	0	9,350,000
Total	**0**	**0**	**0**	**0**	**850,000**	**0**	**8,500,000**	**0**	**9,350,000**	**0**	**9,350,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	8,500,000	0	8,500,000	0	8,500,000
Design	0	0	0	0	850,000	0	0	0	850,000	0	850,000
Total	**0**	**0**	**0**	**0**	**850,000**	**0**	**8,500,000**	**0**	**9,350,000**	**0**	**9,350,000**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.1

Program: N4.13.2

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

HDPE pipe waiting to be fused

Fund: Water Fund
Category: Water Main Replacements
Project Location:

Managing Department: Utilities

Initial Project Start: Summer 2019
Initial Project Completion: Winter 2021

Revised Project Start: Summer 2024
Revised Project Completion: Spring 2026

Project Number: WS-16001

Water Main Replacement - Project 30

Description

This project will fund the design and replacement of structurally deficient water mains and appurtenances in Fiscal Years 2024 and 2026. Mains are selected by researching the maintenance history of the system and identifying those that are undersized, corroded, and subject to breaks. The project scope includes approximately 13,025 linear feet (which represents 1.1% of the City's Water Distribution System) of mains and services on various streets within the City, including areas in the Midtown/Midtown West, Palo Verde, and Greenmeadow neighborhoods.

Justification

Some mains are inadequate in size to supply required flows and pressures for fire protection, some are located in areas of high liquefaction, and others are subject to recurring breaks.

Supplemental Information

Each year the projects are re-evaluated and the highest priority is given to the most deteriorated portions of the system. Linear footage and locations are subject to change; please refer to the City of Palo Alto Utilities webpage to confirm project details.

Significant Changes

2020-2024 CIP: City staff has proposed a new replacement schedule of completing a water, gas and wastewater construction project every other year instead of annually to reduce the amount of construction when prices are high. In the last few years there have been fewer bidders and higher prices on construction projects due to the increased demand for construction services. The project increased by 2,600 linear footage and the overall cost increased to $9.4 million to account for escalating construction costs.

2018-2022 CIP: Due to delays of WMR 26 - 29, the project design and construction is postponed to FY 2021 and FY 2022.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	0	0	0	0	0	0	850,000	0	850,000	8,500,000	9,350,000
Total	**0**	**0**	**0**	**0**	**0**	**0**	**850,000**	**0**	**850,000**	**8,500,000**	**9,350,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	0	0	0	850,000	0	850,000	8,500,000	9,350,000
Total	**0**	**0**	**0**	**0**	**0**	**0**	**850,000**	**0**	**850,000**	**8,500,000**	**9,350,000**

Operating Impact

There are no additional operating impacts anticipated from this project. Any maintenance costs that arise will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-4.1

Program: N4.13.2

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15302.

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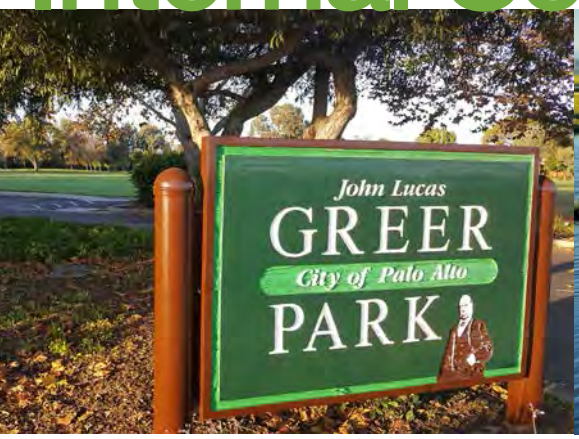
Internal Service Fund Projects



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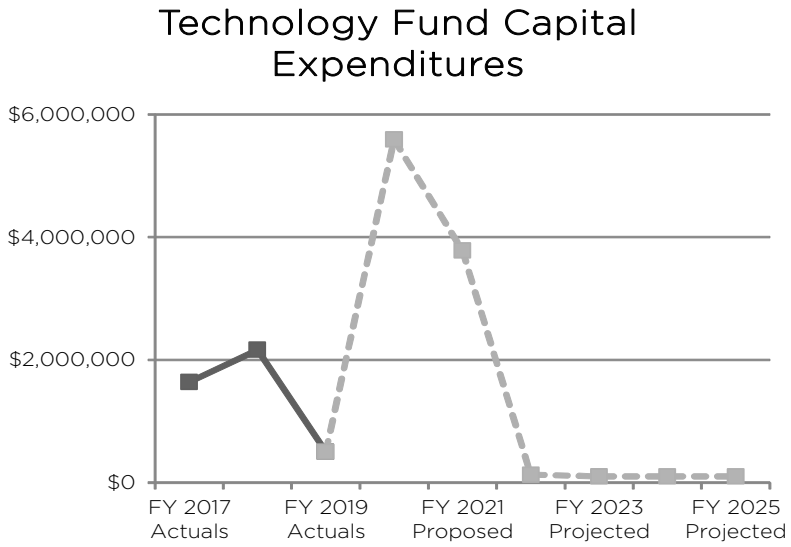
TECHNOLOGY FUND

Overview

The Technology Fund accounts for expenses associated with citywide Information Technology activities. Technology Fund capital projects enhance service delivery to the community and to City staff through the delivery and implementation of Information Technology infrastructure. It is important to note that all expenditures in the Technology Fund are reimbursed by transfers from the other City funds benefiting from the services and purchases incurred in the Technology Fund. Overall, a total of seven capital projects are programmed over the five-year Capital Improvement Program (CIP). The projects outlined in the capital program represent only a small subset of the total number of technology projects delivered to the City, as most technology projects are funded through the operating budget and do not meet the criteria of a capital project. Please refer to the Information Technology Department section of the Operating Budget for additional information.

The budget for the Technology Fund Capital Improvement Program is accounted for in two separate categories: Citywide Technology Upgrades and Department Technology Upgrades and Improvements.

Citywide Technology Upgrades



The Citywide Technology Upgrades category includes projects that benefit multiple City departments. They tend to have a larger scope than projects for individual departments and thus entail more coordination and complexity. For the 2021-2025 Capital Improvement Program, $2.4 million is allocated within this category, all of which was approved by the City Council in prior years.

Recent Accomplishments:

- Implemented additional disaster recovery and security software/hardware to further bolster the City's network security presence.
- Purchased additional radios and related equipment to move to the new countywide radio communication system.
- The upgrade implementation of the City's Enterprise Resource Planning (ERP) system is fully underway.

2021-2025 Capital Improvement Program

Recurring Projects:

There is one recurring project within this category:

- Radio Infrastructure Replacement: This project, which is funded by annual transfers from the General Fund and Utility Enterprise Funds as well as funding from Stanford, allows for the replacement of various items in the City's Public Safety infrastructure inventory (Fiscal Year 2021 and 5-Year CIP: $0.2 million).

Non-Recurring Projects:

- IT Disaster Recovery: This initiative identifies and addresses gaps in business continuity. There are $0.03 million in additional enhancements remaining for this project, which is scheduled to be completed by the end of Fiscal Year 2021 (Fiscal Year 2021 and 5-Year CIP: $0.03 million).
- Enterprise Resource Planning Upgrade: This project will upgrade the existing Enterprise Resource Planning (ERP) system and replace the existing Customer Information System (CIS) to better meet the City's needs (Fiscal Year 2021 and 5-Year CIP: $2.0 million).
- City Council Chambers Upgrade: This project will upgrade the necessary audio visual equipment in Council Chambers as the equipment in place now is unsupportable and outdated. This project will also bring the identified Americans with Disabilities Act (ADA) components to compliance (Fiscal Year 2021 and 5-Year CIP: $0.1 million).
- Infrastructure Management System: This project establishes an Enterprise Asset Management System (EAMS) to maintain an up-to-date inventory of the City's infrastructure, its catch-up and keep-up needs, and available funding (Fiscal Year 2021 and 5-Year CIP: $0.02 million).

Department Technology Upgrades and Improvements

The Department Technology Upgrades and Improvements category includes projects that benefit one or a limited number of City departments. For the 2021-2025 Capital Improvement Program, $1.4 million is programmed within this category.

Recent Accomplishments:

- The new customer self-service portal, MyCPAU, went live to all customers in March 2020. This new portal replaced the My Utilities Account (MUA).
- Continued technology enhancements at the Development Center to increase efficiency and effectiveness of the services offered.

2021-2025 Capital Improvement Program

Recurring Projects:

The 2021-2025 CIP includes one recurring project within this category:

- Utilities Customer Bill System Improvements: This project allows for enhancements to the Utilities Billing system particularly in response to new legislative, regulatory, and security requirements. Other system enhancements may include third party or hosted services for bill printing and invoicing, customer self-service portal, and reporting capabilities. This project will continue to be recurring until the upgrade of the ERP and replacement of the Utilities Billing system is completed. After the systems are implemented, the project will be reevaluated to determine if recurring funding is required (Fiscal Year 2021: $0.2 million; 5-Year CIP: $0.6 million).

Non-Recurring Projects:

- Public Safety Records Management System: This replacement of the Records Management System (RMS) is a Tri-City Consortium coordinated effort between Mountain View, Los Altos, and Palo Alto (Fiscal Year 2021 and 5-Year CIP: $0.8 million).
- Development Center Blueprint Technology Enhancements: This project allows for the introduction of new technologies to support business processes and optimize customer service at the Development Center. Major enhancements to the existing Accela permitting system are included in this initiative (Fiscal Year 2021 and 5-Year CIP: $0.5 million).

Summary of Capital Activity

TECHNOLOGY FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Source of Funds									
Transfers from Other Funds									
Transfers from Airport Fund									
TE-19001	City Council Chambers Upgrade	0	9,200	500	0	0	0	0	500
	Transfers from Airport Fund Total	**0**	**9,200**	**500**	**0**	**0**	**0**	**0**	**500**
Transfers from General Fund									
TE-05000	Radio Infrastructure Replacement	64,000	64,000	0	0	0	0	0	0
	Transfers from General Fund Total	**64,000**	**64,000**	**0**	**0**	**0**	**0**	**0**	**0**
Transfers from Print and Mail Fund									
TE-19001	City Council Chambers Upgrade	0	9,200	400	0	0	0	0	400
	Transfers from Print and Mail Fund Total	**0**	**9,200**	**400**	**0**	**0**	**0**	**0**	**400**
Transfers from Refuse Fund									
TE-19001	City Council Chambers Upgrade	0	55,100	5,600	0	0	0	0	5,600
TE-10001	Utilities Customer Bill System Improvements	20,103	0	20,125	14,950	11,500	11,500	11,500	69,575
	Transfers from Refuse Fund Total	**20,103**	**55,100**	**25,725**	**14,950**	**11,500**	**11,500**	**11,500**	**75,175**

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Transfers from Stormwater Management Fund									
TE-19001	City Council Chambers Upgrade	0	36,700	2,500	0	0	0	0	2,500
TE-10001	Utilities Customer Bill System Improvements	4,299	0	4,550	3,380	2,600	2,600	2,600	15,730
	Transfers from Stormwater Management Fund Total	**4,299**	**36,700**	**7,050**	**3,380**	**2,600**	**2,600**	**2,600**	**18,230**
Transfers from Utilities Administration Fund									
TE-19001	City Council Chambers Upgrade	0	587,500	19,500	0	0	0	0	19,500
TE-05000	Radio Infrastructure Replacement	20,000	20,000	0	0	0	0	0	0
TE-10001	Utilities Customer Bill System Improvements	150,598	0	150,325	111,670	85,900	85,900	85,900	519,695
	Transfers from Utilities Administration Fund Total	**170,598**	**607,500**	**169,825**	**111,670**	**85,900**	**85,900**	**85,900**	**539,195**
Transfer from Vehicle Replacement Fund									
TE-19001	City Council Chambers Upgrade	0	64,200	3,500	0	0	0	0	3,500
	Transfers from Vehicle Replacement Fund Total	**0**	**64,200**	**3,500**	**0**	**0**	**0**	**0**	**3,500**
Transfers from Wastewater Treatment Fund									
TE-19001	City Council Chambers Upgrade	0	156,100	14,000	0	0	0	0	14,000
	Transfers from Wastewater Treatment Fund Total	**0**	**156,100**	**14,000**	**0**	**0**	**0**	**0**	**14,000**
	Total Transfers from Other Funds	**259,000**	**1,002,000**	**221,000**	**130,000**	**100,000**	**100,000**	**100,000**	**651,000**
Other Revenue									
TE-05000	Radio Infrastructure Replacement: Stanford	0	362,000	0	0	0	0	0	0
	Other Revenue Total	**0**	**362,000**	**0**	**0**	**0**	**0**	**0**	**0**
	Total Sources	**259,000**	**1,364,000**	**221,000**	**130,000**	**100,000**	**100,000**	**100,000**	**651,000**
Use of Funds									
Citywide Technology Upgrades and Improvements									
TE-19001	City Council Chambers Upgrade	0	1,700,000	93,000	0	0	0	0	93,000
TE-19000	Enterprise Resource Planning Upgrade	0	2,921,000	2,029,000	0	0	0	0	2,029,000
TE-13004	Infrastructure Management System	3,650	75,600	21,800	0	0	0	0	21,800
TE-01012	IT Disaster Recovery Plan	31,148	50,000	33,600	0	0	0	0	33,600
TE-05000	Radio Infrastructure Replacement	319,863	366,400	201,000	0	0	0	0	201,000
	Total Citywide Technology Upgrades and Improvements	**354,661**	**5,113,000**	**2,378,400**	**0**	**0**	**0**	**0**	**2,378,400**

TECHNOLOGY FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Department Technology Upgrades and Improvements									
TE-12001	Development Center Blueprint Technology Enhancement	23,844	25,000	477,600	0	0	0	0	477,600
TE-11001	Library Computer System Software	50,108	48,700	0	0	0	0	0	0
TE-95016	Permit Information Tracking System	60,442	0	0	0	0	0	0	0
TE-09000	Public Safety Computer-Aided Dispatch Replacement	0	133,000	0	0	0	0	0	0
TE-21000	Public Safety Records Management System Replacement	0	0	750,000	0	0	0	0	750,000
TE-10001	Utilities Customer Bill System Improvements	15,399	271,300	175,000	130,000	100,000	100,000	100,000	605,000
	Total Department Technology Upgrades and Improvements	**149,793**	**478,000**	**1,402,600**	**130,000**	**100,000**	**100,000**	**100,000**	**1,832,600**
	Total Uses	**504,454**	**5,591,000**	**3,781,000**	**130,000**	**100,000**	**100,000**	**100,000**	**4,211,000**

Citywide Technology Upgrades and Improvements

City Council Chambers

Fund: Technology Fund
Category: Citywide Technology Upgrades and Improvements
Project Location: City Hall

Managing Department: Information Technology

Initial Project Start: Summer 2019
Initial Project Completion: Summer 2020

Revised Project Start:
Revised Project Completion:

Project Number: TE-19001

City Council Chambers Upgrade

Description

On December 17th, 2018, the City Council approved upgrading the City Council Chambers without using a phased approach as recommended by the Finance Committee. Funding will be used to upgrade outdated electronic equipment that has become unsupportable in City Council Chambers. This will help address technical issues and ensure compliance with Americans with Disabilities Act (ADA) requirements. This project will:

- Replace and upgrade outdated audio/visual equipment and make the City Council Chambers ADA compliant

- Upgrade the City Council Chambers broadcast booth, overhead display equipment, and dais equipment (including a supportable voting system)

- Make the City Council Chambers broadcast booth compliant with ADA and State regulations

- Obtain adequate support, maintenance, and warranty for all equipment

- Integrate the City Hall Lobby Video Wall, Community Meeting Room, and Council Conference Room with new City Council Chambers equipment to enable viewing and/or broadcasting

Justification

Most of the electronic equipment in the City Council Chambers is obsolete and unsupportable. The City's recent ADA transition plan update identified accessibility deficiencies in the City Council Chambers. The broadcast booth contains some equipment with expired warranties, unused equipment, and cabling that is not well managed. These issues pose potential hazards for the broadcasting operators. The broadcast booth also lacks back-up power supplies, which

could hinder broadcasting and recording of the session. The rear projected overhead display is not clear, presents dissimilar sizes, and can only display two inputs. These issues unnecessarily hinder the City Clerks' administrative function during Council meetings. The existing voting system has been deemed unsupportable and unrepairable by electricians and could stop functioning at any time. The broadcast booth is not currently integrated with the upgraded equipment that has been installed in the Community Meeting Room, Council Conference Room, Flexible Training Room, and several library meeting rooms, which prevents the City from fully utilizing the new capabilities and functionality this upgraded equipment offers.

Significant Changes

FY 2021-2025 CIP: RFP is in the process of being issued to procure a vendor to help with the upgrade. Contract award is anticipated in June or July of 2020.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Technology Fund	0	782,000	782,000	47,000	0	0	0	0	47,000	0	829,000
Transfer from Airport Fund	0	9,200	9,200	500	0	0	0	0	500	0	9,700
Transfer from Print & Mail Fund	0	9,200	9,200	400	0	0	0	0	400	0	9,600
Transfer from Refuse Fund	0	55,100	55,100	5,600	0	0	0	0	5,600	0	60,700
Transfer From Stormwater Management Fund	0	36,700	36,700	2,500	0	0	0	0	2,500	0	39,200
Transfer from Utilities Administration Fund	0	587,500	587,500	19,500	0	0	0	0	19,500	0	607,000
Transfer from Vehicle Replacement and Maintenance	0	64,200	64,200	3,500	0	0	0	0	3,500	0	67,700
Transfer from Wastewater Treatment Fund	0	156,100	156,100	14,000	0	0	0	0	14,000	0	170,100
Total	**0**	**1,700,000**	**1,700,000**	**93,000**	**0**	**0**	**0**	**0**	**93,000**	**0**	**1,793,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	1,700,000	1,700,000	93.000	0	0	0	0	93,000	0	1,700,000
Total	**0**	**1,700,000**	**1,700,000**	**93,000**	**0**	**0**	**0**	**0**	**93,000**	**0**	**1,793,000**

Operating Impact

Operating costs have not been determined at this time as the RFP has not been released.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Maintenance of Parks and Community Facilities

Goal: C-3

Policy: C-3.2

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

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New Financial System

Fund: Technology Fund
Category: Citywide Technology Upgrades and Improvements
Project Location: Various

Managing Department: Information Technology

Initial Project Start: Summer 2018
Initial Project Completion: Summer 2022

Revised Project Start:
Revised Project Completion: Summer 2021

Project Number: TE-19000

Enterprise Resource Planning Upgrade

Description

This project provides funding to upgrade the existing Enterprise Resource Planning (ERP) system and Customer Information System (CIS) to better meet the City's needs.

Justification

The City's existing ERP system, SAP, was selected in 2002 with the purpose of integrating various business processes and moving towards electronic Government (eGovernment). In Fiscal Year 2003, the implementation of SAP's Enterprise Central Component (ECC 4.6C) core modules was completed and since then the City has been running SAP to support Accounting, Finance, Purchasing, Project Management, Plant Maintenance, Budgeting, Payroll, Human Resource Management, and Service Order Management. In 2009, the City completed a major upgrade to SAP (ECC 6.0). The City also replaced the former utility billing system (Banner) with the implementation of SAP's Customer Relationship Management (CRM) Utilities Customer Electronic Services (also known as My Utilities Account customer portal) and Business Intelligence Systems (BI).

Supplemental Information

Technology and business needs have changed dramatically since the current ERP solution was selected and implemented. The upgrade of the existing ERP is anticipated to address a number of issues currently facing the City, including the following:

- The City is currently running an old version of SAP which does not support increasing demands in business and technology.

- The City requires a system that is user friendly with faster response times for any add/modify needs.

- The upgraded system will facilitate automation of additional business processes which are not supported in the current software.

- The City anticipates improvements to quality and reliability of information that will enhance decision making and strengthen the reporting capacity of the City in a user-friendly manner.

Funds currently recommended reflect only estimated costs. Once a vendor is selected, full system and implementation costs will be updated.

Significant Changes

FY 2021-2025 CIP: The necessary licensing has been purchased for the SAP upgrade and the contract is in place with LSI, Inc to help the City upgrade the SAP system. Implementation has started and is anticipated to be finished in FY 2021.

FY 2020-2024 CIP: After thorough consideration, it was determined that an upgrade to the current SAP environment would be more appropriate than a complete system replacement at this time. The request for proposal (RFP) was therefore canceled on November 14th, 2018 and the vendors were notified of the cancellation. An upgrade to the current SAP system will avoid the risks, costs, and management challenges associated with migration to a new ERP.

The upgrade cost of the current SAP environment is estimated at $4.0 million, which includes Financial/Human Resources system software and services, hardware, project staffing and other costs. The scope of this upgrade includes moving from the current SAP ECC 6.0 Enhancement Package (EHP) 2.0 to SAP ECC 6.0 EHP 8.0. The recurring annual SAP licensing cost for EHP 8.0 is estimated at $0.4 million. The annual licensing cost is approximately $0.6 million less annually when compared to a new ERP. The difference in cost to implement the upgrade versus a new ERP saves the City approximately $2.0 million.

With this upgrade, the City will be able to benefit from a more user-friendly interface, mobile friendly workflows and timesheets, and faster and easier access to necessary operational reports enabling data driven decisions. Staff can anticipate tight integration with key external solutions such as Geographic Information System (GIS) Spatial Mapping solution, Smart Water Metering Technologies, and SAP Business Intelligence and reporting solution. While it is expected that all major Financial and Human Resource functions will be maintained within this upgraded SAP, many business processes will see improvements or changes to increase efficiency and improved controls.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Technology Fund	0	4,949,976	2,921,000	2,029,000	0	0	0	0	2,029,000	0	4,950,000
Total	**0**	**4,949,976**	**2,921,000**	**2,029,000**	**0**	**0**	**0**	**0**	**2,029,000**	**0**	**4,950,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	3,700,000	1,250,000	2,029,000	0	0	0	0	2,029,000	0	3,279,000
Design	0	1,249,976	1,671,000	0	0	0	0	0	0	0	1,671,000
Total	**0**	**4,949,976**	**2,921,000**	**2,029,000**	**0**	**0**	**0**	**0**	**2,029,000**	**0**	**4,950,000**

Anticipated Operating Budget Needs

Fund	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Technology Fund	100,000	100,000	100,000	100,000	100,000

Operating Impact

Annual licensing fees of $0.4 million are anticipated to begin in FY 2021 for this project once the ERP system is upgraded, which is approximately $0.1 million more than the current licensing costs.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Efficient and Effective Service Delivery

Goal: C-1

Policy: C-1.3

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

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Infrastructure Management System

Fund: Technology Fund
Category: Citywide Technology Upgrades and Improvements
Project Location: Various

Managing Department: Information Technology

Initial Project Start: Summer 2013
Initial Project Completion: Summer 2014

Revised Project Start:
Revised Project Completion: Fall 2020

Project Number: TE-13004

Infrastructure Management System

Description

This project establishes an Enterprise Asset Management System (EAMS) to maintain an up-to-date inventory of the City's infrastructure, its catch-up and keep-up needs, and available funding. Such a management tool will support ongoing staff and Council attention to infrastructure budgeting, planning, and accountability. This system will be integrated with the programs the City now uses to manage infrastructure and finance.

Justification

As recommended by the Infrastructure Blue Ribbon Commission, an Infrastructure Management System (IMS) is needed to enable staff to monitor facility conditions, forecast maintenance needs, factor inflation, and assemble usage data. An IMS would provide decision makers with invaluable cost and funding data. Currently, the relevant information is not maintained within a single system. Several outside consultants, as well as the City Auditor (2008), have recommended that the City put in place such a system, widely used in industry and government and available commercially.

Supplemental Information

Based on the results of the needs assessment study, two software applications already in use by the City will be used to form an integrated IMS. One application will be used to maintain an asset inventory and to track maintenance and condition information, while the other will be used to schedule projected capital maintenance needs and to track catch-up and keep-up.

Significant Changes

2021-2025 CIP: Customization and configuration work was not able to be fully completed in FY 2020. Funding to finalize the integration will be reappropriated to FY 2021 to complete the project.

2020-2024 CIP: Additional work is required for the integrated Infrastructure Management System, such as further professional service hours required for customization and configuration for the two systems that have been identified as the integrated IMS. This CIP is anticipated to close at the end of Fiscal Year 2020.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Technology Fund	171,445	97,410	75,600	21,800	0	0	0	0	21,800	0	268,845
Total	**171,445**	**97,410**	**75,600**	**21,800**	**0**	**0**	**0**	**0**	**21,800**	**0**	**268,845**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	171,445	97,410	75,600	21,800	0	0	0	0	21,800	0	268,845
Total	**171,445**	**97,410**	**75,600**	**21,800**	**0**	**0**	**0**	**0**	**21,800**	**0**	**268,845**

Operating Impact

No operating costs have been identified after the completion of this project.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Public Streets and Public Spaces

Goal: L-9

Policy: L-9.11

Program: L9.11.2

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

IT Disaster Recovery

Fund: Technology Fund
Category: Citywide Technology Upgrades and Improvements
Project Location: Various

Managing Department: Information Technology

Initial Project Start: Summer 2012
Initial Project Completion: Summer 2015

Revised Project Start: Summer 2015
Revised Project Completion: Fall 2020

Project Number: TE-01012

IT Disaster Recovery Plan

Description

Provide the means to resume mission critical business operations should any disaster occur that renders the City's primary computer system infrastructure inoperable. The funding within this project allows for the City to deploy appropriate disaster recovery and business continuity solutions.

Justification

Over the last five years the City has deployed disaster recovery solutions for the City's data and mission critical applications. Remaining funds from this CIP will be used to further enhance the disaster recovery and business continuity solutions.

Significant Changes

2021-2025 CIP: This CIP is anticipated to close in Fiscal Year 2021. Staff is currently reviewing further security solutions to enhance cybersecurity threat detection at the City. This analysis is anticipated to be completed at the end of FY 2020 and a solution implemented in FY 2021.

2020-2024 CIP: This CIP is anticipated to close in the fall of Fiscal Year 2020.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Technology Fund	495,054	83,600	50,000	33,600	0	0	0	0	33,600	0	578,654
Total	**495,054**	**83,600**	**50,000**	**33,600**	**0**	**0**	**0**	**0**	**33,600**	**0**	**578,654**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	463,112	83,600	50,000	33,600	0	0	0	0	33,600	0	546,712
Design	31,941	0	0	0	0	0	0	0	0	0	31,941
Total	**495,053**	**83,600**	**50,000**	**33,600**	**0**	**0**	**0**	**0**	**33,600**	**0**	**578,653**

Anticipated Operating Budget Needs

Fund	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Technology Fund	40,000	40,000	40,000	40,000	40,000

Operating Impact

$40,000 in operating costs starting in FY 2021 to be used for Data Loss Prevention (DLP) tools. DLP is used to ensure that sensitive data is not lost, misused, or accessed by unauthorized users.

Relationship to Comprehensive Plan

Primary Connection

Element: Safety

Section: Natural Hazards

Goal: S-2

Policy: S-2.1

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Public Safety Radios

Fund: Technology Fund
Category: Citywide Technology Upgrades and Improvements
Project Location: Various
Managing Department: Information Technology
Initial Project Start: Recurring
Initial Project Completion: Recurring
Project Number: TE-05000

Radio Infrastructure Replacement

Description

This project funds the transition from the City's legacy analog radio system to the new Silicon Valley Regional Communications System (SVRCS). The City is participating with 14 other local agencies in an effort organized by the Silicon Valley Regional Interoperability Authority (SVRIA) to move to a countywide 700 Mhz radio communication system. This project provides funding for the City's share of establishing an interoperable radio communication system within the region and radios for all Palo Alto City users. Upon completion of the project, the law enforcement, fire and rescue service, emergency medical response, and disaster recovery units within the participating agencies will be able to communicate via an integrated voice and data communications system.

Justification

Communications systems require continued replacement as infrastructure and equipment ages. Within the region, the communications systems have been fragmented. The new SVRCS will provide interoperable communications compliant with Department of Homeland Security communications guidelines.

Supplemental Information

2021-2025 CIP: Migration of the remaining City radios was not able to be fully completed in FY 2020. Funding to finalize this work will be reappropriated to FY 2021 to complete the project.

2020-2024 CIP: The infrastructure for the West Cell (location of multiple transmit/receive sites) is close to complete. The City has installed all of the required consoles and base stations. Public

Works and Utilities migrated to the new system in November of 2018 and Public Safety and the remaining City radio users will be on the new system in FY 2020.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Revenue from Other Agencies	N/A	86,000	362,000	0	0	0	0	0	0	0	N/A
Technology Fund	N/A	397,416	(79,600)	201,000	0	0	0	0	201,000	0	N/A
Transfer from General Fund	N/A	64,000	64,000	0	0	0	0	0	0	0	N/A
Transfer from Utilities Administration Fund	N/A	20,000	20,000	0	0	0	0	0	0	0	N/A
Total	**N/A**	**567,416**	**366,400**	**201,000**	**0**	**0**	**0**	**0**	**201,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	567,416	366,400	201,000	0	0	0	0	201,000	0	N/A
Total	**N/A**	**567,416**	**366,400**	**201,000**	**0**	**0**	**0**	**0**	**201,000**	**0**	**N/A**

Operating Impact

City departments will fund the maintenance of their department's radios out of their respective departmental operating budgets.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Service to the Public

Goal: C-2

Policy: C-2.2

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

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Department Technology Upgrades and Improvements

Development Center

Fund: Technology Fund
Category: Department Technology Upgrades and Improvements
Project Location: Various

Managing Department: Information Technology

Initial Project Start: Summer 2011
Initial Project Completion: Spring 2014

Revised Project Start:
Revised Project Completion: Summer 2021

Project Number: TE-12001

Development Center Blueprint Technology Enhancements

Description

This project will focus on installing an operating electronic permitting system, including the hardware, software, and training for system operations. Project funds may also be used to provide continued enhancement and integration with the City's permitting software Accela. The department, in collaboration with the City Manager's Office and Information Technology Department, may also utilize funds for new emerging technologies, which increase customer service or improve service delivery.

Justification

This project falls under the scope of the Development Center Blueprint Project that was approved by the City Council in December of 2011 and will enhance the efficiency and effectiveness of the Planning and Development Services Department.

Supplemental Information

This project has funded many software and customer service based enhancements, which include advances associated with the Department's core software system, Accela, through system upgrades, customized reporting tools, and customer service portals. A mobile application (app) was developed for scheduling building inspections and for inspectors to use in the field for reporting along with an electronic document management system to organize the filing of permits and plans. Remaining projects include implementation of a customer queuing system and electronic plan review.

Significant Changes

2021-2025 CIP: Due to the reorganization of the Planning and Development Services Department and other high priority projects, this project has not been completed. The Department will continue working on the transition to electronic plan review, including the hardware, software, and training for system operations as well as the implementation of a customer queuing system.

2020-2024 CIP: The Department will continue working on transition to electronic plan review, including the hardware, software, and training for system operations as well as a customer queuing system.

2018-2022 CIP: The Department will focus on installing an operating electronic permitting system, including the hardware, software and training for system operations. Other projects in progress are the creation of web self-service and publications sites; development of permit-centric mobile apps; purchase of field ready hardware and associated data plans to support inspections; and creation of performance reports/metrics.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Technology Fund	1,235,378	502,614	25,000	477,600	0	0	0	0	477,600	0	1,737,978
Total	**1,235,378**	**502,614**	**25,000**	**477,600**	**0**	**0**	**0**	**0**	**477,600**	**0**	**1,737,978**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	1,204,229	502,614	25,000	477,600	0	0	0	0	477,600	0	1,706,829
Design	31,149	0	0	0	0	0	0	0	0	0	31,149
Total	**1,235,378**	**502,614**	**25,000**	**477,600**	**0**	**0**	**0**	**0**	**477,600**	**0**	**1,737,978**

Operating Impact

This project is anticipated to impact operating expenses in the future. As these costs are quantified, adjustments will be brought forward in future budgets, as necessary.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Service to the Public

Goal: C-2

Policy: C-2.2

Potential Board/Commission Review:

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Folders of Police cases

Fund: Technology Fund
Category: Department Technology Upgrades and Improvements
Project Location: Police Department
Managing Department: Information Technology
Initial Project Start: Summer 2020
Initial Project Completion: Spring 2021
Revised Project Start:
Revised Project Completion:
Project Number: TE-21000

Public Safety Records Management System Replacement

Description

This project provides funding for the replacement of the Records Management System (RMS) utilized by the Police Department. This project will be implemented in conjunction with the cities of Mountain View and Los Altos.

Justification

This project provides law enforcement records database system upgrades to meet mandatory security, regulatory, and governing requirements. This includes integrating with the current Computer Aided Dispatch (CAD) database and online reporting system. The system was last upgraded in 1999.

Supplemental Information

This project was previously included in the Public Safety Computer Aided Dispatch (CAD) Replacement project (TE-09000). It consisted of two phases. Phase one, the Computer Aided Dispatch (CAD) installation was completed in 2014, replacing the original system from 1999. The Records Management System (RMS) replacement phase was intended to be the second phase of the project but, due to vendor product development and resource management, encountered delays and RMS was separated into this project for better management and tracking.

Significant Changes

2021-2025 CIP: A new RMS has been selected and is in the contracting phase. Full implementation is anticipated to be complete in FY 2021.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Technology Fund	0	0	0	750,000	0	0	0	0	750,000	0	750,000
Total	**0**	**0**	**0**	**750,000**	**0**	**0**	**0**	**0**	**750,000**	**0**	**750,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	750,000	0	0	0	0	750,000	0	750,000
Total	**0**	**0**	**0**	**750,000**	**0**	**0**	**0**	**0**	**750,000**	**0**	**750,000**

Anticipated Operating Budget Needs

Fund	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Technology Fund	0	65,000	65,000	65,000	65,000

Operating Impact

This project is anticipated to impact operating expenses in the future. The current RMS annual costs are $33,000. The upgraded system would increase the annual cost $43,000 to $65,000 annually. The variability is dependent on how much the other two cities integrate the software into their current reporting infrastructure.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Efficient and Effective Service Delivery

Goal: C-1

Policy: C-1.3

Program: C1.3.1

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Utilities Customer Bill System Improvements

Fund: Technology Fund
Category: Department Technology Upgrades and Improvements
Project Location: Various
Managing Department: Information Technology
Initial Project Start: Recurring
Initial Project Completion: Recurring
Project Number: TE-10001

Utilities Customer Bill System Improvements

Description

This project provides regulatory enhancements and improved security for the Utilities Billing system. Through the implementation of this recurring project the Utilities Department will be responsive to new legislation and legal requirements. Securing customer sensitive information and complying with Payment Card Industry (PCI) data security standards will continue to be a priority as well.

Justification

This project provides software system updates to meet mandatory security, regulatory, and governing requirements. This includes reviewing the various Meter-to-Cash business processes, the My Utilities Account online customer portal, reporting tools, bill print software, and the Customer Relationship Management (CRM) solution for the Utilities Billing system. The Enterprise Funds share proportionately in the costs of this project.

Supplemental Information

During the FY 2016 budget cycle, the ongoing budget for system enhancements was removed in anticipation of the City's Enterprise Resource Planning (ERP) system and Utilities Billing system implementations. Those projects have been delayed and as such, this project will continue to be recurring until the upgrade or replacements are complete. After the systems are implemented, the project will be reevaluated to determine if recurring funding is required.

Significant Changes

2021-2025 CIP: The customer portal went live to all customers in March 2020. In conjunction with the launch of MyCPAU, minor cosmetic enhancement to the utilities invoice were made including the update of the logo. Additional enhancements to the MyCPAU portal are planned for FY 2021 and FY 2022 including the integration of MyCPAU to the new third party energy efficiency portals. Funds will also be used for any critical billing system enhancements for legislation and regulatory requirements.

2020-2024 CIP: Continuing replacement of the My Utilities Account (MUA) self-service customer portal, initiated in Summer 2017, to provide new online services and functionality. The design and implementation of the portal have taken longer than initially anticipated and the portal is now expected to be fully operational in Summer 2019.

2019-2023 CIP: Enhancements to the new customer portal will continue to allow for enhancements to the bill print software and Utilities Billing system, particularly in response to new legislative, regulatory, and security requirements.

2018-2022 CIP: A replacement of the MUA self-customer service portal is scheduled to be completed by Summer 2018 and will provide new online self-services and functionality.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Technology Fund	N/A	271,263	271,300	0	0	0	0	0	0	0	N/A
Transfer from Refuse Fund	N/A	0	0	20,125	14,950	11,500	11,500	11,500	69,575	0	N/A
Transfer from Stormwater Management Fund	N/A	0	0	4,550	3,380	2,600	2,600	2,600	15,730	0	N/A
Transfer from Utilities Administration Fund	N/A	0	0	150,325	111,670	85,900	85,900	85,900	519,695	0	N/A
Total	**N/A**	**271,263**	**271,300**	**175,000**	**130,000**	**100,000**	**100,000**	**100,000**	**605,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	107,263	107,300	0	0	0	0	0	0	0	N/A
Design	N/A	164,000	164,000	175,000	130,000	100,000	100,000	100,000	605,000	0	N/A
Total	**N/A**	**271,263**	**271,300**	**175,000**	**130,000**	**100,000**	**100,000**	**100,000**	**605,000**	**0**	**N/A**

Operating Impact

There are no additional operating impacts. The maintenance costs of this new customer portal is offset by the old utilities account portal.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Service to the Public

Goal: C-2

Policy: C-2.2

Potential Board/Commission Review:

Planning and Transportation Commission

Utilities Advisory Commission

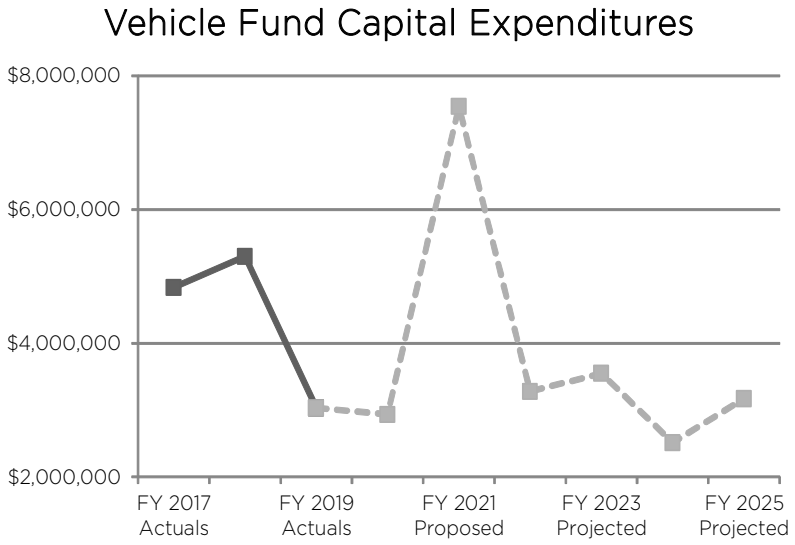
Environmental Impact Analysis:

This project is categorically exempt from CEQA under section 15301.

VEHICLE REPLACEMENT FUND

Overview

Activities related to the replacement, maintenance, and operations of the City's fleet and equipment are accounted for within the Vehicle Replacement and Maintenance Fund (VRF). The VRF Capital Improvement Program (CIP) accounts for activities related to the replacement of the City's fleet and equipment and infrastructure necessary to operate and maintain the fleet and equipment. For detailed information on the maintenance and operation of the fleet, please refer to the Vehicle Replacement and Maintenance Fund section of the Operating Budget. Over the 2021-2025 CIP, approximately 28.4% of the fleet is programmed for replacement at a cost of $20 million, with $7.5 million allocated in Fiscal Year 2021. Of the $7.5 million, $4.2 million is recommended to be reappropriated for the continuation of projects approved by City Council in prior fiscal years. It is important to note that all expenditures in the fund are reimbursed by transfers from the funds benefiting from the services and purchases incurred in the fund. A total of nine capital projects are programmed over the five-year program. The budget for the VRF Capital Improvement Program is divided into two categories: Fleet Infrastructure Improvements and Vehicle and Equipment Replacement.



Fleet Infrastructure Improvements

The Fleet Infrastructure Improvements category accounts for the repair or improvement of existing systems or structures. Examples of projects previously funded in this category include fuel management software, diesel particulate filters required by Bay Area Air Quality Management District, and new fuel tanks. No projects are recommended in this category for the 2021-2025 CIP.

Recent Accomplishments

- Awarded 3-year contract for AssetWorks/Verizon GPS monitoring services.
- Continued evaluation and revision to rates to ensure cost-recovery is being achieved for Compressed Natural Gas (CNG), shop and commercial maintenance and repairs, and parts.

Vehicle and Equipment Replacement

The Vehicle and Equipment Replacement Category accounts for the purchase, repair, and replacement of vehicles/equipment. Over the projected life of the vehicle/equipment, funds are

collected in the Vehicle Fund from the department/fund that will utilize the asset so funding will be available to replace the asset when its reached the end of its useful life. When a vehicle or piece of equipment is estimated to meet replacement criteria and has been reviewed and approved for replacement by the Fleet Review Committee, it is programmed into the Vehicle and Equipment Replacement CIP that corresponds to the year the useful life of the vehicle/equipment will expire.

Key replacements in the 2021-2025 CIP include four ambulances ($1.3 million); two fire engines ($1.70 million); 19 marked patrol vehicles ($1.30 million); two aerial tree trucks ($0.75 million); one air support unit ($0.5 million); and one wildland unit ($0.6 million).

Infrastructure Inventory

TYPE/GROSS VEHICLE WEIGHT (GVW)	UNLEADED	DIESEL	CNG	HYBRID	ELECTRIC	NO ENGINE TRAILER	TOTAL
Sedans/SUVs	27	-	19	10	4	-	60
Police marked units	24	-	-	-	-	-	24
Motorcycles	4	-	-	-	-	-	4
Scooters	5	-	-	-	1	-	6
Truck/Van 6k GVW[1]	68	-	-	-	-	-	68
Truck/Van 6K-11K GVW[2]	69	4	19	-	3	-	95
Trucks 11K-15K GVW[1]	10	3	-	-	-	-	13
Trucks 15K-26K GVW[1]	5	13	-	-	-	-	18
Dump Truck 11K GVW[1]	19	16	-	-	-	-	35
Large Equip: Boom & crane trucks, aerials	-	15	-	-	-	-	15
Wildland patrol vehicles	3	-	-	-	-	-	3
Water truck	-	2	-	-	-	-	2
Fire safety	-	19	-	-	-	-	19
Sweepers	-	5	-	-	-	-	5
Backhoe, mowers, tractors, forklifts, rollers, air compressors, chippers, trailers[1]	6	51	-	-	4	58	119
Asphalt rollers, water pumps, spray rigs[1]	2	7	-	-	-	4	13
Generators, ditch witches, cable reelers[1]	11	41	4	-	-	-	56
TOTAL	**253**	**176**	**42**	**10**	**12**	**62**	**555**

[1] Vehicle classification aligned with recommended study results, shifting budgeted inventory within these categories

[2] Budgeted inventory in this category shifted due to restricted availability of fuel types from the manufacturer

Recent Accomplishments

- Delivered 23 vehicles and 4 pieces of equipment in FY 2020 to maintain safe, reliable, and efficient use of resources.
- Continued a pilot program to evaluate the performance of Plug-in Hybrid electric pick-up trucks assigned to field operations in all departments. This pilot will provide assistance in evaluating total cost of ownership, maintenance and repair issues, and the operational compatibility for user departments.

20201-2025 Capital Improvement Program

Recurring Projects

The 2021-2025 CIP includes one recurring project, Emergency Repair and Replacement, providing $100,000 annually, plus salary and benefits for maintenance staff, to repair and/or replace vehicles/equipment that sustain damage due to accidents or unpreventable failure. This project mitigates impact to service delivery that could occur if these vehicles experienced lengthy times out of service. Since the inception of this project in Fiscal Year 2015, it has funded 56 repairs on vehicles/equipment and five replacements.

Non-Recurring Projects

The 2021-2025 CIP includes eight projects, with $19.5 million allocated for vehicle and equipment replacements. All replacements are programmed for vehicles/equipment at the end of their useful life. Criteria for vehicles/equipment replacement include but are not limited to: utilization based on mileage or hours of operation, age, maintenance/repair records, and funding availability. As part of the replacement policy, and wherever possible, electric vehicles are considered first, then vehicles that use alternative fuels.

Summary of Capital Activity

VEHICLE REPLACEMENT FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Use of Funds									
Vehicle and Equipment Replacement									
VR-15001	Emergency Repair and Replacement	33,685	67,000	113,000	114,000	114,000	120,000	120,000	581,000
VR-16000	Scheduled Vehicle and Equipment Replacement - Fiscal Year 2016	30,348	0	0	0	0	0	0	0
VR-17000	Scheduled Vehicle and Equipment Replacement - Fiscal Year 2017	405,478	177,000	0	0	0	0	0	0
VR-18000	Scheduled Vehicle and Equipment Replacement - Fiscal Year 2018	1,395,343	627,000	630,000	0	0	0	0	630,000
VR-19000	Scheduled Vehicle and Equipment Replacement - Fiscal Year 2019	1,165,766	1,020,000	1,338,000	0	0	0	0	1,338,000
VR-20000	Scheduled Vehicle and Equipment Replacement - Fiscal Year 2020	0	1,042,000	2,268,000	0	0	0	0	2,268,000

VEHICLE REPLACEMENT FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
VR-21000	Scheduled Vehicle and Equipment Replacement - Fiscal Year 2021	0	0	3,191,000	0	0	0	0	3,191,000
VR-22000	Scheduled Vehicle and Equipment Replacement - Fiscal Year 2022	0	0	0	3,163,000	0	0	0	3,163,000
VR-23000	Scheduled Vehicle and Equipment Replacement - Fiscal Year 2023	0	0	0	0	3,434,000	0	0	3,434,000
VR-24000	Scheduled Vehicle and Equipment Replacement - Fiscal Year 2024	0	0	0	0	0	2,392,000	0	2,392,000
VR-25000	Scheduled Vehicle and Equipment Replacement - Fiscal Year 2025	0	0	0	0	0	0	3,050,000	3,050,000
	Vehicle and Equipment Replacement Total	**3,030,620**	**2,933,000**	**7,540,000**	**3,277,000**	**3,548,000**	**2,512,000**	**3,170,000**	**20,047,000**
	Total Uses	**3,030,620**	**2,933,000**	**7,540,000**	**3,277,000**	**3,548,000**	**2,512,000**	**3,170,000**	**20,047,000**

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Vehicle and Equipment Replacement

Marked Police & Fire Vehicle, February 2013

Fund: Vehicle Replacement & Maintenance Fund
Category: Vehicle and Equipment Replacement
Project Location: 3201 East Bayshore Road

Managing Department: Public Works

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: VR-15001

Emergency Repair and Replacement

Description

This project provides funding to replace or repair vehicles/equipment that sustain damage due to accidents or unpreventable failure.

Justification

Service levels are impacted when critical vehicles/equipment such as utility trucks and police sedans experience lengthy down times. Therefore, when damage or failure occurs, these critical vehicles/equipment need to be replaced or repaired quickly to ensure uninterrupted service. In some cases, reserve vehicles/equipment exist; however, it is unrealistic to have a back-up for each vehicle and piece of equipment in the City.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Vehicle Replacement Fund	N/A	113,000	67,000	113,000	114,000	114,000	120,000	120,000	581,000	0	N/A
Total	**N/A**	**113,000**	**67,000**	**113,000**	**114,000**	**114,000**	**120,000**	**120,000**	**581,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	N/A	113,000	67,000	113,000	114,000	114,000	120,000	120,000	581,000	0	N/A
Total	**N/A**	**113,000**	**67,000**	**113,000**	**114,000**	**114,000**	**120,000**	**120,000**	**581,000**	**0**	**N/A**

Operating Impact

Costs to operate and maintain the City's fleet are budgeted annually in the Vehicle Replacement Fund and allocated to other City departments based on historical maintenance and repair needs. There are no additional operating impacts anticipated from this project and maintenance will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Air Quality

Goal: N-5

Policy: N-5.2

Potential Board/Commission Review:

Fleet Review Committee

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Freightliner with aerial, February 2012

Fund: Vehicle Replacement & Maintenance Fund
Category: Vehicle and Equipment Replacement
Project Location: 3201 East Bayshore Road

Managing Department: Public Works

Initial Project Start: Summer 2017
Initial Project Completion: Spring 2019

Revised Project Start:
Revised Project Completion: Winter 2020

Project Number: VR-18000

Scheduled Vehicle and Equipment Replacement - Fiscal Year 2018

Description

This project provides funding for the existing City fleet vehicles and equipment scheduled for replacement in Fiscal Year 2018.

Justification

The ongoing replacement of City fleet vehicles and equipment is prescribed by the City's policy for vehicle replacement, which includes guidelines based on age, mileage accumulation, and obsolescence. Timely replacement of vehicles lowers maintenance costs, helps to maintain or even increase the productivity of client departments, and allows the City to take advantage of new technology. As part of the policy, staff will first consider electric vehicles and then other alternative fuel vehicles when replacing existing vehicles.

Supplemental Information

Funding in this project allows for the following replacements: one sedan; five pickups; eight patrol vehicles; three SUVs; six vans; one aerial truck; three wildland trucks; one dump truck; and seven miscellaneous equipment units. Of the 35 vehicles and pieces of equipment, 22 support the operations in the General Fund ($1.7 million) and 13 support the operations of various Enterprise Funds ($1.5 million).

Significant Changes

2021-2025 CIP: All vehicles ordered and one vehicle remaining to be delivered and outfitted.

2020-2024 CIP: One vehicle deferred to FY 2021; 31 vehicles/equipment ordered, delivered and outfitted; awaiting delivery and outfitting of last two vehicles.

2019-2023 CIP: 10 vehicles/equipment have been delivered; 10 vehicles still to be ordered, 15 vehicles are expected to be delivered by Fall 2018 and outfitting on those 15 should be completed by Winter 2019. One vehicle moved to VR-19000.

2018-2022 CIP: Current backlog is being addressed. A generator and forklift were taken off the list for this year and five other vehicles were added instead due to maintenance exceeding the surplus value for each vehicle.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Vehicle Replacement Fund	2,076,114	1,338,856	627,000	630,000	0	0	0	0	630,000	0	3,333,114
Total	**2,076,114**	**1,338,856**	**627,000**	**630,000**	**0**	**0**	**0**	**0**	**630,000**	**0**	**3,333,114**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	2,076,087	1,338,856	627,000	630,000	0	0	0	0	630,000	0	3,333,087
Total	**2,076,087**	**1,338,856**	**627,000**	**630,000**	**0**	**0**	**0**	**0**	**630,000**	**0**	**3,333,087**

Operating Impact

Costs to operate and maintain the City's fleet are budgeted annually in the Vehicle Replacement Fund and allocated to other City departments based on historical maintenance and repair needs. There are no additional operating impacts anticipated from this project and maintenance will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Air Quality

Goal: N-5

Policy: N-5.2

Potential Board/Commission Review:

Fleet Review Committee

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Ambulance, January 2011

Fund: Vehicle Replacement & Maintenance Fund
Category: Vehicle and Equipment Replacement
Project Location: 3201 East Bayshore Road

Managing Department: Public Works

Initial Project Start: Summer 2018
Initial Project Completion: Spring 2020

Revised Project Start:
Revised Project Completion: Spring 2021

Project Number: VR-19000

Scheduled Vehicle and Equipment Replacement - Fiscal Year 2019

Description

This project provides funding for the existing City fleet vehicles and equipment scheduled for replacement in Fiscal Year 2019.

Justification

The ongoing replacement of City fleet vehicles and equipment is prescribed by the City's policy for vehicle replacement, which includes guidelines based on age, mileage accumulation, and obsolescence. Timely replacement of vehicles lowers maintenance costs, helps to maintain or even increase the productivity of client departments, and allows the City to take advantage of new technology. As part of the policy, staff will first consider electric vehicles and then other alternative fuel vehicles when replacing existing vehicles.

Supplemental Information

Funding in this project allows for the following replacements: two ambulances; two Compressed Natural Gas (CNG) sedans; eight CNG pickups; eight gasoline pickups; seven patrol vehicles; two SUVs; two dump trucks; one patch truck; seven miscellaneous equipment units; and two sweepers. Of the 41 vehicles and pieces of equipment, 23 support the operations in the General Fund ($2.1 million) and 18 support the operations of various Enterprise Funds ($1.3 million).

Significant Changes

2021-2025 CIP: Two vehicles to be ordered; six vehicles to be delivered and outfitted; and one vehicle moved to FY 2022.

2020-2024 CIP: 36 vehicles/equipment were ordered, leaving a remaining five to be ordered; 14 vehicles/equipment were delivered and outfitted, leaving a remaining 27 to be delivered and outfitted. Project completion date extended to FY 2021.

2019-2023 CIP: Five trailers were deferred to a future year and nine vehicles were added to the list, including one forklift, one grappler, one marked Interceptor, one GMC Terrain Code 3, one F-250, two F-150s, and two sweepers. General Fund increased by $0.2 million. Enterprise Funds increased by $0.4 million. There was shift in vehicle fuel type due to restricted availability from manufactures on inventory for the 8 CNG F-150 pickups, and therefore they will be replaced with regular fueled pickups.

2018-2022 CIP: One patrol vehicle was removed from the Fiscal Year 2019 replacement list.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Vehicle Replacement Fund	1,165,766	2,512,069	1,020,000	1,338,000	0	0	0	0	1,338,000	0	3,523,766
Total	**1,165,766**	**2,512,069**	**1,020,000**	**1,338,000**	**0**	**0**	**0**	**0**	**1,338,000**	**0**	**3,523,766**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	1,165,744	2,512,069	1,020,000	1,338,000	0	0	0	0	1,338,000	0	3,523,744
Total	**1,165,744**	**2,512,069**	**1,020,000**	**1,338,000**	**0**	**0**	**0**	**0**	**1,338,000**	**0**	**3,523,744**

Operating Impact

Costs to operate and maintain the City's fleet are budgeted annually in the Vehicle Replacement Fund and allocated to other City departments based on historical maintenance and repair needs. There are no additional operating impacts anticipated from this project and maintenance will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Air Quality

Goal: N-5

Policy: N-5.2

Potential Board/Commission Review:

Fleet Review Committee

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Isuzu cab chasis with custom utility body, February 2014

Fund: Vehicle Replacement & Maintenance Fund
Category: Vehicle and Equipment Replacement
Project Location: 3201 East Bayshore Road

Managing Department: Public Works

Initial Project Start: Summer 2019
Initial Project Completion: Spring 2021

Revised Project Start:
Revised Project Completion:

Project Number: VR-20000

Scheduled Vehicle and Equipment Replacement - Fiscal Year 2020

Description

This project provides funding for the existing City fleet vehicles and equipment scheduled for replacement in Fiscal Year 2020.

Justification

The ongoing replacement of City fleet vehicles and equipment is prescribed by the City's policy for vehicle replacement, which includes guidelines based on age, mileage accumulation, and obsolescence. Timely replacement of vehicles lowers maintenance costs, helps to maintain or even increase the productivity of client departments, and allows the City to take advantage of new technology. As part of the policy, staff will first consider electric vehicles and then other alternative fuel vehicles when replacing existing vehicles.

Supplemental Information

Funding in this project allows for the following replacements: five sedans; one motorcycle; one marked patrol vehicle; 18 pickups; two vans; two dump trucks; one aerial truck; seven miscellaneous equipment units. Of the 37 vehicles and pieces of equipment, 25 support the operations in the General Fund ($1.5 million) and 12 support the operations of various Enterprise Funds ($1.8 million).

Significant Changes

2021-2025 CIP: Seven vehicles to be ordered; twenty-six vehicles to be delivered and outfitted; and one vehicle removed from list.

2020-2024 CIP: The replacement list is reviewed each year and changes are tracked but not finalized until the year preceding replacement. Changes in the FY 2020 list include the addition of six vehicles and the removal of 12 vehicles, bringing the total number of vehicles and pieces of equipment to be replaced to 37 and an overall funding increase of $31,000.

2019-2023 CIP: Five vehicles/pieces of equipment were removed including two sedans, one van, one generator, and one mower; while three were added including one F-150 and two F-350s with utility bodies. General Fund reduced by $0.3 million. Enterprise funds increased by $0.2 million.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Vehicle Replacement Fund	0	3,469,000	1,042,000	2,268,000	0	0	0	0	2,268,000	0	3,310,000
Total	**0**	**3,469,000**	**1,042,000**	**2,268,000**	**0**	**0**	**0**	**0**	**2,268,000**	**0**	**3,310,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	3,469,000	1,042,000	2,268,000	0	0	0	0	2,268,000	0	3,310,000
Total	**0**	**3,469,000**	**1,042,000**	**2,268,000**	**0**	**0**	**0**	**0**	**2,268,000**	**0**	**3,310,000**

Operating Impact

Costs to operate and maintain the City's fleet are budgeted annually in the Vehicle Replacement Fund and allocated to other City departments based on historical maintenance and repair needs. There are no additional operating impacts anticipated from this project and maintenance will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Air Quality

Goal: N-5

Policy: N-5.2

Potential Board/Commission Review:

Fleet Review Committee

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Ford F-550 Saw Truck, March 2019

Fund: Vehicle Replacement & Maintenance Fund
Category: Vehicle and Equipment Replacement
Project Location: 3201 East Bayshore Road

Managing Department: Public Works

Initial Project Start: Summer 2020
Initial Project Completion: Spring 2022

Revised Project Start:
Revised Project Completion:

Project Number: VR-21000

Scheduled Vehicle and Equipment Replacement - Fiscal Year 2021

Description

This project provides funding for the existing City fleet vehicles and equipment scheduled for replacement in Fiscal Year 2021.

Justification

The ongoing replacement of City fleet vehicles and equipment is prescribed by the City's policy for vehicle replacement, which includes guidelines based on age, mileage accumulation, and obsolescence. Timely replacement of vehicles lowers maintenance costs, helps to maintain or even increase the productivity of client departments, and allows the City to take advantage of new technology. As part of the policy, staff will first consider electric vehicles and then other alternative fuel vehicles when replacing existing vehicles.

Supplemental Information

Funding in this project will allow for the replacement of 34 vehicles and pieces of equipment scheduled for replacement in Fiscal Year 2021. Of those vehicles, 22 support the operations of the General Fund ($1.7 million) and 12 support the operations of various Enterprise Funds ($1.5 million).

Significant Changes

2020-2024 CIP: The replacement list is reviewed each year and changes are tracked but not finalized until the year preceding replacement. Changes in the FY 2021 list include the addition

of four vehicles and the removal of eight vehicles, bringing the total number of vehicles and pieces of equipment to be replaced to 34.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Vehicle Replacement Fund	0	0	0	3,191,000	0	0	0	0	3,191,000	0	3,191,000
Total	**0**	**0**	**0**	**3,191,000**	**0**	**0**	**0**	**0**	**3,191,000**	**0**	**3,191,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	0	0	3,191,000	0	0	0	0	3,191,000	0	3,191,000
Total	**0**	**0**	**0**	**3,191,000**	**0**	**0**	**0**	**0**	**3,191,000**	**0**	**3,191,000**

Operating Impact

Costs to operate and maintain the City's fleet are budgeted annually in the Vehicle Replacement Fund and allocated to other City departments based on historical maintenance and repair needs. There are no additional operating impacts anticipated from this project and maintenance will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Air Quality

Goal: N-5

Policy: N-5.2

Potential Board/Commission Review:

Fleet Review Committee

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Pierce Heavy Rescue Unit, February 2012

Fund: Vehicle Replacement & Maintenance Fund
Category: Vehicle and Equipment Replacement
Project Location: 3201 East Bayshore Road

Managing Department: Public Works

Initial Project Start: Summer 2021
Initial Project Completion: Spring 2023

Revised Project Start:
Revised Project Completion:

Project Number: VR-22000

Scheduled Vehicle and Equipment Replacement - Fiscal Year 2022

Description

This project provides funding for the existing City fleet vehicles and equipment scheduled for replacement in Fiscal Year 2022.

Justification

The ongoing replacement of City fleet vehicles and equipment is prescribed by the City's policy for vehicle replacement, which includes guidelines based on age, mileage accumulation, and obsolescence. Timely replacement of vehicles lowers maintenance costs, helps to maintain or even increase the productivity of client departments, and allows the City to take advantage of new technology. As part of the policy, staff will first consider electric vehicles and then other alternative fuel vehicles when replacing existing vehicles.

Supplemental Information

Funding in this project will allow for the replacement of 43 vehicles and pieces of equipment scheduled for replacement in Fiscal Year 2022. Of those vehicles, 25 support the operations of the General Fund ($1.8 million) and 18 support the operations of various Enterprise Funds ($1.4 million).

The replacement list is reviewed each year and changes are tracked but not finalized until the year preceding replacement.

Significant Changes

2020-2024 CIP: Changes in the FY 2022 list include the addition of 11 vehicles and the removal of seven vehicles, bringing the total number of vehicles and pieces of equipment to be replaced to 43.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Vehicle Replacement Fund	0	0	0	0	3,163,000	0	0	0	3,163,000	0	3,163,000
Total	**0**	**0**	**0**	**0**	**3,163,000**	**0**	**0**	**0**	**3,163,000**	**0**	**3,163,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	0	0	0	3,163,000	0	0	0	3,163,000	0	3,163,000
Total	**0**	**0**	**0**	**0**	**3,163,000**	**0**	**0**	**0**	**3,163,000**	**0**	**3,163,000**

Operating Impact

Costs to operate and maintain the City's fleet are budgeted annually in the Vehicle Replacement Fund and allocated to other City departments based on historical maintenance and repair needs. There are no additional operating impacts anticipated from this project and maintenance will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Air Quality

Goal: N-5

Policy: N-5.2

Potential Board/Commission Review:

Fleet Review Committee

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Peterbilt Dump Truck, March 2018

Fund: Vehicle Replacement & Maintenance Fund
Category: Vehicle and Equipment Replacement
Project Location: 3201 East Bayshore Road

Managing Department: Public Works

Initial Project Start: Summer 2022
Initial Project Completion: Spring 2024

Revised Project Start:
Revised Project Completion:

Project Number: VR-23000

Scheduled Vehicle and Equipment Replacement - Fiscal Year 2023

Description

This project provides funding for the existing City fleet vehicles and equipment scheduled for replacement in Fiscal Year 2023.

Justification

The ongoing replacement of City fleet vehicles and equipment is prescribed by the City's policy for vehicle replacement, which includes guidelines based on age, mileage accumulation, and obsolescence. Timely replacement of vehicles lowers maintenance costs, helps to maintain or even increase the productivity of client departments, and allows the City to take advantage of new technology. As part of the policy, staff will first consider electric vehicles and then other alternative fuel vehicles when replacing existing vehicles.

Supplemental Information

Funding in this project will allow for the replacement of 30 vehicles and pieces of equipment scheduled for replacement in Fiscal Year 2023. Of those vehicles, 22 support the operations of the General Fund ($2.8 million) and eight support the operations of various Enterprise Funds ($0.6 million).

The replacement list is reviewed each year and changes are tracked but not finalized until the year preceding replacement.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Vehicle Replacement Fund	0	0	0	0	0	3,434,000	0	0	3,434,000	0	3,434,000
Total	**0**	**0**	**0**	**0**	**0**	**3,434,000**	**0**	**0**	**3,434,000**	**0**	**3,434,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	0	0	0	0	3,434,000	0	0	3,434,000	0	3,434,000
Total	**0**	**0**	**0**	**0**	**0**	**3,434,000**	**0**	**0**	**3,434,000**	**0**	**3,434,000**

Operating Impact

Costs to operate and maintain the City's fleet are budgeted annually in the Vehicle Replacement Fund and allocated to other City departments based on historical maintenance and repair needs. There are no additional operating impacts anticipated from this project and maintenance will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Air Quality

Goal: N-5

Policy: N-5.2

Potential Board/Commission Review:

Fleet Review Committee

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Freightliner FL-70 Aerial, March 2019

Fund: Vehicle Replacement & Maintenance Fund
Category: Vehicle and Equipment Replacement
Project Location:

Managing Department: Public Works

Initial Project Start: Summer 2023
Initial Project Completion: Spring 2024

Revised Project Start:
Revised Project Completion:

Project Number: VR-24000

Scheduled Vehicle and Equipment Replacement - Fiscal Year 2024

Description

This project provides funding for the existing City fleet vehicles and equipment scheduled for replacement in Fiscal Year 2024.

Justification

The ongoing replacement of City fleet vehicles and equipment is prescribed by the City's policy for vehicle replacement, which includes guidelines based on age, mileage accumulation, and obsolescence. Timely replacement of vehicles lowers maintenance costs, helps to maintain or even increase the productivity of client departments, and allows the City to take advantage of new technology. As part of the policy, staff will first consider electric vehicles and then other alternative fuel vehicles when replacing existing vehicles.

Supplemental Information

Funding in this project will allow for the replacement of 12 vehicles and pieces of equipment scheduled for replacement in Fiscal Year 2024. Of those vehicles, nine support the operations of the General Fund ($2.1 million) and three support the operations of various Enterprise Funds ($0.3 million).

The replacement list is reviewed each year and changes are tracked but not finalized until the year preceding replacement.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Vehicle Replacement Fund	0	0	0	0	0	0	2,392,000	0	2,392,000	0	2,392,000
Total	**0**	**0**	**0**	**0**	**0**	**0**	**2,392,000**	**0**	**2,392,000**	**0**	**2,392,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	0	0	0	0	0	2,392,000	0	2,392,000	0	2,392,000
Total	**0**	**0**	**0**	**0**	**0**	**0**	**2,392,000**	**0**	**2,392,000**	**0**	**2,392,000**

Operating Impact

Costs to operate and maintain the City's fleet are budgeted annually in the Vehicle Replacement Fund and allocated to other City departments based on historical maintenance and repair needs. There are no additional operating impacts anticipated from this project and maintenance will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Air Quality

Goal: N-5

Policy: N-5.2

Potential Board/Commission Review:

Fleet Review Committee

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to have a possible exemption from CEQA under Section 15301.

Isuzu NPR with Utility Body

Fund: Vehicle Replacement & Maintenance Fund
Category: Vehicle and Equipment Replacement
Project Location:

Managing Department: Public Works

Initial Project Start: Summer 2024
Initial Project Completion: Spring 2026

Revised Project Start:
Revised Project Completion:

Project Number: VR-25000

Scheduled Vehicle and Equipment Replacement - Fiscal Year 2025

Description

This project provides funding for the existing City fleet vehicles and equipment scheduled for replacement in Fiscal Year 2025.

Justification

The ongoing replacement of City fleet vehicles and equipment is prescribed by the City's policy for vehicle replacement, which includes guidelines based on age, mileage accumulation, and obsolescence. Timely replacement of vehicles lowers maintenance costs, helps to maintain or even increase the productivity of client departments, and allows the City to take advantage of new technology. As part of the policy, staff will first consider electric vehicles and then other alternative fuel vehicles when replacing existing vehicles.

Supplemental Information

Funding in this project will allow for the replacement of 30 vehicles and pieces of equipment scheduled for replacement in Fiscal Year 2025. Of those vehicles, twenty-one support the operations of the General Fund ($2.0 million) and nine support the operations of various Enterprise Funds ($1.0 million).

The replacement list is reviewed each year and changes are tracked but not finalized until the year preceding replacement.

Funding Sources Schedule

Funding Source	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Vehicle Replacement Fund	0	0	0	0	0	0	0	3,050,000	3,050,000	0	3,050,000
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,050,000**	**3,050,000**	**0**	**3,050,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2020 Budget	FY 2020 Est.	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	0	0	0	0	0	0	3,050,000	3,050,000	0	3,050,000
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,050,000**	**3,050,000**	**0**	**3,050,000**

Operating Impact

Costs to operate and maintain the City's fleet are budgeted annually in the Vehicle Replacement Fund and allocated to other City departments based on historical maintenance and repair needs. There are no additional operating impacts anticipated from this project and maintenance will be absorbed within the available maintenance schedule and annual operating budget.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Air Quality

Goal: N-5

Policy: N-5.2

Environmental Impact Analysis:

Not Applicable

Potential Board/Commission Review:

Fleet Review Committee

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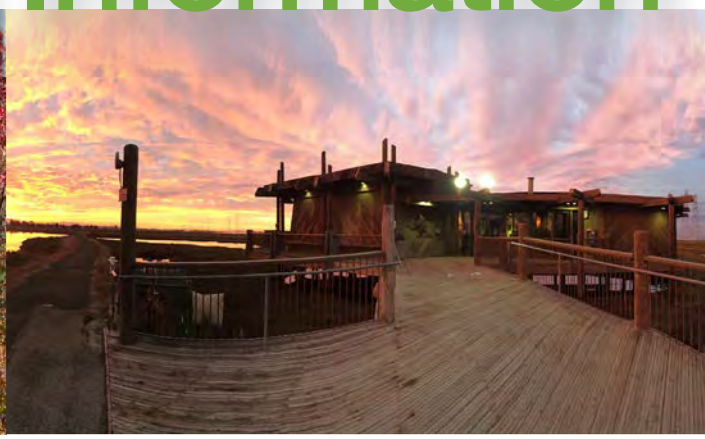
Supplemental Information



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GLOSSARY

Key Budget Terms

Accrual Accounting: A method of accounting that recognizes expenses when incurred and revenues when earned rather than when payment is made or received

Adopted Budget: The budget that is approved and enacted by the City Council annually on before June 30th.

Appropriation: The allocation of an expense budget for a particular project or program usually for a specific period of time.

Balanced Budget: A balanced budget exists when total revenues are equal to, or greater than, total expenses.

Bond: A debt investment in which an investor loans money to an entity (governmental or otherwise) that borrows the money for a defined period of time at a fixed interest rate to pay for a variety of projects.

Budget Stabilization Reserve (BSR): The BSR was established as a prudent measure to maintain the City's fiscal stability in the event that unanticipated events reduce revenue or create obligations that significantly impact the current-year budget. Examples of such events include a downturn in the economy, a natural disaster or actions that may be taken by another governmental agency that reduce revenues and/or increase expenses for the City.

Capital Budget: A plan of proposed capital outlays and the means of financing them for the current fiscal period. In a two-year budget, the second year of the Capital Improvement Program is adopted-in-concept.

Capital Improvement Program (CIP): The City's plan for current and future projects related to the acquisition, expansion, or rehabilitation of buildings, equipment, parks, streets, and other public infrastructure.

Capital Projects Fund: A fund created to account for all resources to be used for the construction or acquisition of designated fixed assets by a governmental unit except those financed by proprietary or fiduciary funds.

City Manager's Report (CMR): Staff reports for City Council meetings as well as boards and commissions that are prepared by City staff and submitted through the City Manager's Office.

Comprehensive Plan: The Palo Alto Comprehensive Plan contains the City's official policies on land use and community design; transportation; natural environment; safety; community services and facilities; and business and economics. Its focus is on the physical form of the City and is applicable to both public and private properties. The Budget integrates the 2030 Comprehensive Plan into the budget process.

Cost Accounting: The branch of accounting that provides for the assembling and recording of all the elements of cost incurred to accomplish a purpose, carry on an activity or operation, or complete a unit of work or a specific job.

Enterprise Funds: Funds used to account for services that are provided to the public on a user charge basis, similar to the operation of a commercial business. The City's enterprise funds include the gas, electric, water, fiber optics and wastewater collection and treatment funds.

Fiduciary Fund: A fund used to account for assets held by the City acting in a fiduciary capacity for other individuals or entities. These funds are operated to carry out the specific actions required by the trust agreements, ordinances and other governing regulations.

Fiscal Agent: A bank or other corporate fiduciary that performs the function of paying, on behalf of the governmental unit, or other debtor, interest on debt or principal of debt when due.

Fiscal Year: A 12-month period of time to which the annual budget applies and at the end of which a governmental unit determines its financial position and the results of operations. Palo Alto's fiscal year begins on July 1st and ends on June 30th.

Fixed Assets: Assets such as land, structures and improvements, furniture and/or equipment that are expected to last and/or be used for more than one year.

Full-Time Equivalent (FTE): Used to quantify staffing hours for permanent and temporary employees. A 1.00 FTE employee works full time; a 0.50 FTE employee works half-time.

Fund Balance: An excess of the assets of a fund over its liabilities.

General Fund: The primary fund used to account for the City's general purpose revenues such as sales, property, utility users and transient occupancy taxes. General Fund revenues typically pay for citywide services such as public safety, community development, recreation, libraries and parks. The General Fund is distinguished from Special Funds in that the latter are used to account for revenues that have restricted uses (e.g. gas tax funds that must be used for street maintenance or repair).

Governmental Funds: A generic classification used to refer to all funds other than proprietary and fiduciary funds. Governmental funds include the general fund, capital fund, special revenue funds and debt service funds.

Infrastructure Assets: Roads, bridges, curbs and gutters, streets, sidewalks, drainage systems, and lighting systems installed for the common good.

Infrastructure Management Plan (IMP): A portion of the General Fund capital improvement program which focuses on rehabilitating the City's infrastructure. In 1998-99, an outside consultant on the City's infrastructure prepared a report known as the Adamson report. Within this report the City's infrastructure was cataloged and ranked based on when the infrastructure needed to be upgraded or replaced and the cost for each item. At that time, the City Council decided to establish a plan using the Adamson report as a guide for both timeline and cost.

Internal Service Funds: These funds provide services to City departments and recover their costs through user charges. For example the Vehicle Replacement Fund is an Internal Service Fund managing the replacement and maintenance of the City fleet.

Method of Accounting: The City's General Fund budget is developed using a modified accrual basis of accounting, with revenues being recorded when measurable and available, and expenditures recorded when the liability is incurred. Enterprise Funds and Internal Service Funds are budgeted on a generally accepted accounting principles (GAAP) basis, which for Proprietary Funds is on a full accrual accounting basis.

Operating Transfer: Amounts transferred between funds, not considered a revenue or expense. For example, legally authorized transfers from a fund receiving revenue to the fund through which the resources are to be expended.

Pay-As-You-Go-Basis: A term used to describe the financial policy of a governmental unit that finances all of its capital outlays from current revenues rather than by borrowing.

Proposed Budget: The proposed budget is the preliminary version of the budget that is sent to the Finance Committee and City Council by the City Manager. The proposed budget is reviewed by the Finance Committee and the City Council, updated with any changes, and then adopted by the City Council prior to the beginning of the next fiscal year.

Proprietary Funds: A generic classification used to refer to all funds other than governmental funds or fiduciary funds. Proprietary funds include internal service funds and enterprise funds.

Reimbursements: Inter-fund transactions that constitute reimbursements to a fund for expenditures or expenses initially made from it but that properly apply to another fund. For example, the Enterprise Funds reimburse the Technology Fund for CIP projects from which the Enterprise Funds benefit.

Reserve: Represents the portion of fund balance set aside for financing future financing needs and addressing one-time emergency or unanticipated events.

Revenues: Revenues include compensation received by the project for specific services to the public (external revenues), as well as revenues received from other funds (internal revenues).

Special Revenue Funds: These funds account for the proceeds derived from specific revenue sources that are legally restricted to expenditures for specified purposes. The Street Improvement Fund (SIF) is a Special Revenue Fund that derives its funding from state gas tax revenues. Capital appropriations from the SIF must be spent on the construction and maintenance of the road network system of the City.

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CITY OF
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AMERICANS WITH DISABILITIES ACT

IN COMPLIANCE WITH

AMERICANS WITH DISABILITIES ACT (ADA) OF 1990,

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For information contact:
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CITY OF
PALO
ALTO

PALO ALTO

Spanish explorers named the area for the tall, twin-trunked redwood tree they camped beneath in 1769. Palo Alto incorporated in 1894 and the State of California granted its first charter in 1909. The City has long been known for its innovative people and its exploration of ideas that have changed the world. In Palo Alto, our history has always been about the future.

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