ADOPTED

CAPITAL BUDGET

FISCAL YEAR

2016

CITY OF
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ALTO

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Fiscal Year 2016 Adopted Capital Budget

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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

TABLE OF CONTENTS

CITY OF
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ALTO

TABLE OF CONTENTS

I **Transmittal Letter** 11

II **Budget Acknowledgments** 27

III **CIP Organizational Chart** 28

IV **The Budget Process and Document** 29

V **Budget Awards** 39

VI **Summary of CIP Program Revenue** 41

VII **Debt Policy and Obligations** 47

VIII **Financial Summary** 53

IX **Summary Information** 55

X **Capital Funds Projects** 65

Capital Improvement Fund 67

Buildings and Facilities 95

Americans With Disabilities Act Compliance 96

Art Center Auditorium Audio, Visual, And Furnishings 98

Baylands Boardwalk Improvements 100

Baylands Nature Interpretive Center Exhibit Improvements 102

Baylands Nature Interpretive Center Facility Improvements 104

Building Systems Improvements 106

California Avenue Parking District Parking Improvements 108

City Facility Parking Lot Maintenance 110

City Hall Parking Garage LED Lighting 112

Civic Center Fire Life Safety and Electrical Upgrades 114

Civic Center Waterproofing Study and Repairs 116

Emergency Facilities Improvement 118

Facility Interior Finishes Replacement 120

Fire Ringdown System Replacement 122

Fire Station 1 Improvements 124

Fire Station 3 Replacement 126

Fire Station 4 Replacement 128

Foothills Fire Cameras 130

Internal Alarm System Replacement 132

Library & Community Center - Temporary Facilities 134

Lucie Stern Buildings Mechanical and Electrical Upgrades 136

TABLE OF CONTENTS

Mitchell Park Library and Community Center 138
Municipal Service Center Lighting, Mechanical, and Electrical Improvements 140
Municipal Services Center A, B, & C Roof Replacement 142
New California Avenue Area Parking Garage 144
New Downtown Parking Garage 146
New Public Safety Building 148
Park Maintenance Shop Remodel 150
Parking Lot Q Elevator Modernization 152
Rinconada Library New Construction and Improvements 154
Rinconada Pool Locker Room 156
Roofing Replacement 158
Roth Building Maintenance 160
Structural Assessment of City Bridges 162
University Avenue Parking Improvements 164
Ventura Buildings Improvements 166
Parks and Open Space 169
Art In Public Spaces 170
Baylands Comprehensive Conservation Plan 172
Baylands Emergency Access Levee Repair 174
Benches, Signage, Walkways, Perimeter Landscaping 176
Bol Park Improvements 178
Boulware Park Improvements 180
Bowden Park Improvements 182
Buckeye Creek Hydrology Study 184
Byxbee Park Completion 186
Cameron Park Improvements 188
El Camino Park Restoration 190
Golf Course Net and Artificial Turf Replacement 192
Golf Course Tree Maintenance 194
Golf Reconfiguration & Baylands Athletic Center Improvements 196
Hoover Park Improvements 198
Mitchell Park Improvements 200
Off-Road Pathway Resurfacing And Repair 202
Open Space Lakes And Pond Maintenance 204
Open Space Trails and Amenities 206
Palo Alto Community Gardens Irrigation System 208

Park and Open Space Emergency Repairs . . . 210
Parks, Trails, Open Space, & Recreation Master Plan . . . 212
Peers Park Improvements . . . 214
Ramos Park Improvements . . . 216
Rinconada Park Improvements . . . 218
Rinconada Park Master Plan and Design . . . 220
Robles Park Improvements . . . 222
Seale Park Improvements . . . 224
Stanford/Palo Alto Playing Fields Netting . . . 226
Stanford/Palo Alto Playing Fields Soccer Turf Replacement . . . 228
Tennis and Basketball Court Resurfacing . . . 230
Streets and Sidewalks . . . 233
Curb and Gutter Repairs . . . 234
Dinah Summerhill Pedestrian/Bicycle Path . . . 236
El Camino Median Landscape Improvements . . . 238
Newell Road/San Francisquito Creek Bridge Replacement . . . 240
Sidewalk Repairs . . . 242
Sign Reflectivity Upgrade . . . 244
Street Lights Improvements . . . 246
Street Maintenance . . . 248
Streetlights Condition Assessment . . . 250
Thermoplastic Lane Marking and Striping . . . 252
Traffic Circle Improvements . . . 254
Traffic and Transportation . . . 257
Bicycle and Pedestrian Plan-Implementation Project . . . 258
Charleston/Arastradero Corridor Project . . . 260
Highway 101 Pedestrian/Bicycle Overpass Project . . . 262
Midtown Connector . . . 264
Safe Routes To School . . . 266
Traffic Signal and Intelligent Transportation System Upgrades . . . 268
Transportation and Parking Improvements . . . 270
Unallocated Salaries and Benefits . . . 273
Salaries and Benefits - Capital Improvement Fund CIP Projects . . . 274
Cubberley Property Infrastructure Fund . . . 277
Buildings and Facilities . . . 283
Cubberley Roof Replacements . . . 285
Cubberley Community Center Master Plan . . . 287

TABLE OF CONTENTS

XI **Enterprise Fund Projects** **291**

Airport Fund **293**

Airport Facilities 299

Wildlife Hazard Plan 301

Airport Taxiways 303

Airfield Electrical Evaluation/Study 305

Airport Apron Reconstruction 307

Electric Fund **309**

Customer Connections 321

Electric Customer Connections 323

System Improvements 325

230 kV Electric Intertie 327

Capacitor Bank Installation 329

Coleridge/Cowper/Tennyson 4/12kV Conversion 331

Colorado/Hopkins System Improvement 333

Communications System Improvements 335

East Charleston 4/12kV Conversion 337

Edgewood/Wildwood 4 kV Tie 339

El Camino Underground Rebuild 341

Electric Substation Battery Replacement 343

Electric System Improvements 345

Electric Utility Geographic Information System 347

Maybell 1&2 4/12kV Conversion 349

Middlefield Underground Rebuild 351

Rebuild Greenhouse Condo Area 353

Rebuild Underground District 15 355

Rebuild Underground District 16 357

Rebuild Underground District 18 359

Rebuild Underground District 19 361

Rebuild Underground District 20 363

Rebuild Underground District 24 365

Rebuild Underground District 25 367

Rebuild Underground District 26 369

Reconfigure Quarry Feeders 371

Relocate Quarry/Hopkins Substation 60 kV Line (A & B) 373

Sand Hill / Quarry 12kV Tie 375

SCADA System Upgrades 377

Smart Grid Technology Installation 379
Street Light System Conversion Project 381
Substation Facility Improvements 383
Substation Protection Improvements 385
Substation Security 387
Underground System Rebuild 389
Upgrade Electric Estimating System 391
Utility Control Center Upgrades 393
Utility Site Security Improvements 395
Undergrounding Projects 397
Underground Distribution System Security 399
Underground District 42-Embarcadero Rd Emerson-Middlefield 401
Underground District 43 - Alma/Embarcadero 403
Underground District 46 - Charleston/El Camino Real 405
Underground District 47-Middlefield, Homer, Webster, Addison 407
Fiber Optics Fund 409
Capacity Improvements 417
Fiber Optics Network System Improvements 419
Customer Connections 421
Fiber Optics Customer Connections 423
System Improvements 425
Fiber Optic System Rebuild 427
Gas Fund 429
Customer Connections 437
Gas System, Customer Connections 439
System Extensions - Unreimbursed 441
Gas Main Replacements 443
Gas Main Replacement - Project 22 445
Gas Main Replacement - Project 23 447
Gas Main Replacement - Project 24 449
Gas Main Replacement - Project 25 451
Gas Main Replacement - Project 26 453
Gas Main Replacement - Project 27 455
System Improvements 457
Gas Distribution System Improvements 459
Gas Distribution System Model 461
Gas Equipment and Tools 463

TABLE OF CONTENTS

Gas Meters and Regulators. 465
Security at City Gas Receiving Stations 467
Refuse Fund. 469
Buildings and Facilities 475
Household Hazardous Waste Station Improvements 477
Landfill- Post Closure 479
Landfill Closure 481
Storm Drainage Fund. 483
Capacity Improvements 491
Channing Avenue/Lincoln Avenue Storm Drain Improvements 493
Matadero Creek Storm Water Pump Station and Trunk Line Improvements 495
System Rehabilitation 497
Storm Drain System Replacement And Rehabilitation 499
Wastewater Collection Fund 501
Customer Connections 511
Sewer System, Customer Connections 513
System Improvements 515
Sewer Lateral/Manhole Rehab/Replacement 517
Wastewater Collection System Rehabilitation/Augmentation Project 32 . . 519
Wastewater Collection System Rehabilitation/Augmentation Project 24 . . 521
Wastewater Collection System Rehabilitation/Augmentation Project 25 . .523
Wastewater Collection System Rehabilitation/Augmentation Project 26 . .525
Wastewater Collection System Rehabilitation/Augmentation Project 27 . .527
Wastewater Collection System Rehabilitation/Augmentation Project 28 . .529
Wastewater Collection System Rehabilitation/Augmentation Project 29 . . 531
Wastewater Collection System Rehabilitation/Augmentation Project 30 . .533
Wastewater Collection System Rehabilitation/Augmentation Project 31. . .535
Wastewater General Equipment and Tools 537
Wastewater System Improvements. 539
Wastewater Treatment Fund 541
Buildings and Facilities 549
Facility Condition Assessment and Retrofit 551
New Dewatering and Loadout Facility 553
New Laboratory And Environmental Services Building 555
Plant Master Plan. 557
System Improvements 559

Fixed Film Reactor Rehabilitation . . . 561
Headworks Facility Replacement . . . 563
New Anaerobic Digesters to Replace Incinerators . . . 565
Plant Equipment Replacement . . . 567
Primary Sedimentation Tank Rehabilitation . . . 569
System Flow Meters . . . 571
Water Fund . . . 573
Customer Connections . . . 583
Water System Customer Connections . . . 585
System Improvements . . . 587
Asset Management Mobile Deployment . . . 589
Emergency Water Supply Project . . . 591
Seismic Water System Upgrades . . . 593
Water Distribution System Improvements . . . 595
Water General Equipment/Tools . . . 597
Water Meters . . . 599
Water Recycling Facilities . . . 601
Water Service Hydrant Replacement . . . 603
Water System Master Plan . . . 605
Water System Supply Improvements . . . 607
Water, Gas, Wastewater Utility GIS Data . . . 609
Water Main Replacements . . . 611
Water Main Replacement - Project 25 . . . 613
Water Main Replacement - Project 26 . . . 615
Water Main Replacement - Project 27 . . . 617
Water Main Replacement - Project 28 . . . 619
Water Main Replacement - Project 29 . . . 621
Water Main Replacement - Project 30 . . . 623
Water Main Replacement - Project 31 . . . 625

XII **Internal Service Fund Projects . . . 629**
Technology Fund . . . 631
Citywide Technology Upgrades and Improvements . . . 639
Infrastructure Management System . . . 641
Interactive Voice Response . . . 643
IT Disaster Recovery Plan . . . 645
Radio Infrastructure Replacement . . . 647
Refuse Billing Improvements Study . . . 650

TABLE OF CONTENTS

Telephone System Replacement. 652
Department Technology Upgrades and Improvements 655
Development Center Blueprint Technology Enhancements 657
Fire Mobile Data Computer 659
Library Computer System Software. 661
Library RFID Implementation. 663
Permit Information Tracking System 665
Public Safety Computer-Aided Dispatch Replacement. 667
Utilities Customer Bill System Improvements 669
Virtual Library Branch 671
Vehicle Replacement & Maintenance Fund 673
Fleet Infrastructure Improvements 679
Citywide Fuel Transaction and Inventory Management System Replacement. 681
Municipal Services Center Fuel Station Demolition 683
Vehicle and Equipment Replacement 685
Emergency Repair and Replacement. 687
Scheduled Vehicle and Equipment Replacement - Fiscal Year 2013 689
Scheduled Vehicle and Equipment Replacement - Fiscal Year 2014 691
Scheduled Vehicle and Equipment Replacement - Fiscal Year 2015 693
Scheduled Vehicle and Equipment Replacement - Fiscal Year 2016 695
Scheduled Vehicle and Equipment Replacement - Fiscal Year 2017 697
Scheduled Vehicle and Equipment Replacement - Fiscal Year 2018 699
Scheduled Vehicle and Equipment Replacement - Fiscal Year 2019 701
Scheduled Vehicle and Equipment Replacement - Fiscal Year 2020 703

XIII **Supplemental Information. 707**

XIV **Index 713**

XV **Americans with Disabilities Act 719**

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Audrey

TRANSMITTAL LETTER

CITY OF
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TRANSMITTAL LETTER

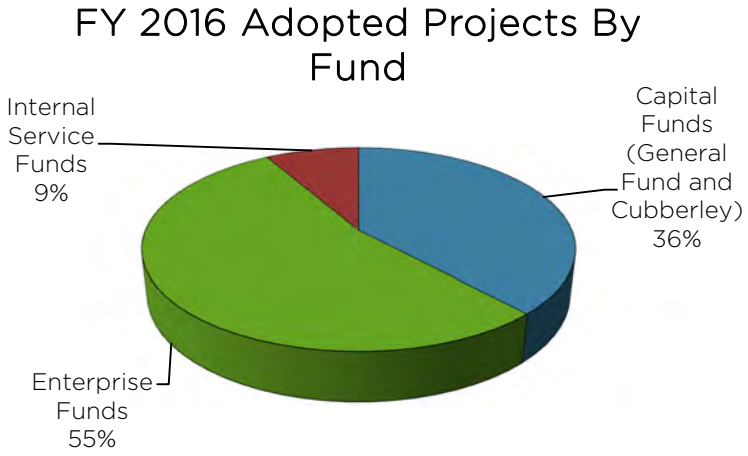
August 17, 2015

To the Honorable Mayor and City Council:

2016 Fiscal Year Capital Budget Transmittal

Dear Mayor and Council Members:

I am pleased to present the Fiscal Year 2016 Adopted Capital Budget along with the 2016-2020 Adopted Capital Improvement Program (CIP) Plan for the City of Palo Alto. This document guides the City in the planning and scheduling of infrastructure improvement projects over the next five years. The combined 2016 Adopted Capital Budget, which includes the General Fund, Enterprise Funds, and Internal Service Funds, is $124.7 million, a significant increase of $66.7 million, or 115%, compared to the 2015 Adopted Capital Budget of $58.0 million. The overall 2016-2020 CIP is $553.4 million, an increase of $222.2 million, or 67%, compared to the 2015-2019 Adopted CIP of $331.2 million. The 2016 Adopted Budget and overall 2016-2020 CIP increased significantly for two primary reasons: (1) the inclusion of the City Council approved $125.8 million Infrastructure Plan in the budget; and (2) a Council approved change in the annual reappropriation of unused funds, resulting in $51.1 million being carried forward from Fiscal Year 2015 to Fiscal Year 2016 to continue projects previously approved by the City Council. These primary reasons for the increased funding in the Capital Improvement Program are discussed in more detail below.



The 2016-2020 CIP was developed in coordination with all City departments responsible for capital projects. As required by the City Municipal Code, the Planning and Transportation Commission (PTC) reviewed the Proposed CIP on May 13, 2015 and found the capital program to be in compliance with the Comprehensive Plan.

Consistent with the approach of the past several years, the recommendations of the Infrastructure Blue Ribbon Commission (IBRC), as outlined in their December 2011 Final Report served as a guide in developing the 2016-2020 CIP. The IBRC report found that the City had not been allocating sufficient resources to maintain the City's infrastructure (referred to as "keep-up" in the report), and due to the low funding amount, a backlog of improvements had accumulated (referred to as "catch-up" needs in the report). To address the "keep-up" funding deficit identified by IBRC, the annual funding transfer from the General Fund to the Capital Improvement Fund has been increased in recent years. Between 2012 and 2016, this increase above the base line funding of $10 million has amounted to approximately $15 million. The City has also made strides in recent years to address the "catch-up" amounts identified by IBRC, by transferring annual General Fund budget surplus funds to the Infrastructure Reserve beginning in 2012. Between 2012 and 2014, $20.5 million was transferred. With the increased annual amount of $15 million and the additional one-time funding of $20.5 million, since approval of the IBRC report, the City invested more than $35 million in additional funds for infrastructure.

In addition to identifying the "catch-up" and "keep-up" needs within the City, the IBRC Final Report also found that $211 million in funding was required for "new and replacement" projects, which included a replacement of the public safety building, replacement of two fire stations, as well as various transportation, parks, and facility needs, including those that would be funded by the City's various enterprise funds.

Subsequent to the release of the IBRC Final Report, the City Council established the Council Infrastructure Committee, which was tasked with prioritizing the City's unfunded infrastructure needs and developing a plan to provide the necessary funding to complete the projects. The City Council approved a recommendation from the Infrastructure Committee in June 2014 that included a project list and a funding plan for addressing projects on the project list. The City Council-approved funding plan consists of multiple funding sources, including: projected increases in Transient Occupancy Tax (TOT) revenues resulting from the opening of new hotels; a two percentage point TOT rate increase, which was approved by the voters in November 2014; funds from the Stanford University Medical Center development agreement; and the Infrastructure Reserve. Specific information on the Infrastructure Plan, and the current progress on the "catch-up" backlog, as identified in the IBRC Report, is detailed later in this Transmittal Letter.

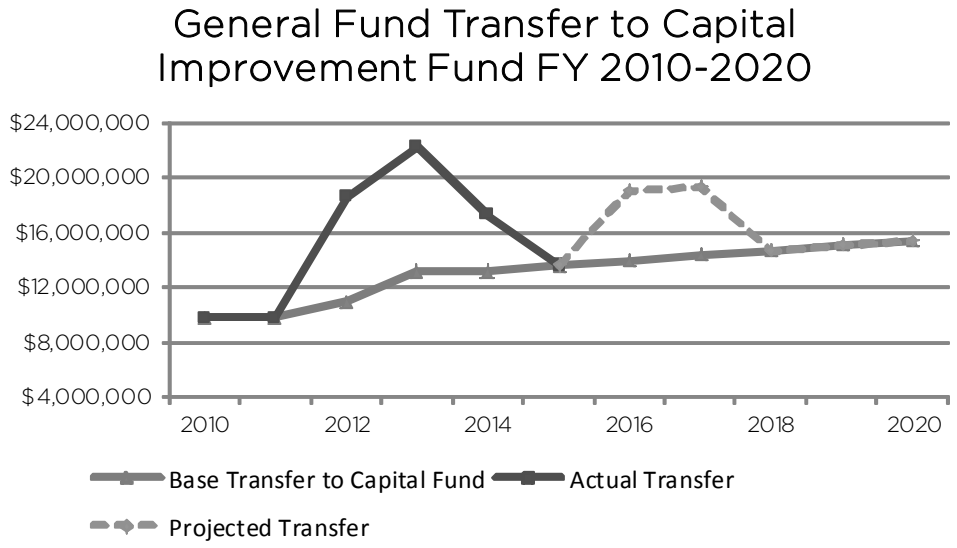
Capital Improvement Fund (General Fund)

Transfers from the General Fund

The Capital Improvement Fund traditionally has been supported primarily through a transfer from the General Fund. In Fiscal Years 2010 and 2011, the General Fund was contributing approximately $10.0 million towards the Capital Improvement Fund. As part of the 2012 budget, while the Infrastructure Blue Ribbon Commission was meeting and it was becoming apparent that additional resources for infrastructure were required, the base transfer amount of $10 million was increased by $1 million to approximately $11.0 million. The base transfer level was increased yet again as part of the Fiscal Year 2013 budget by $2.2 million to $13.2 million, in accordance with the amount indicated in the IBRC Final Report that was required to "keep up" with the City's infrastructure maintenance needs. The base transfer level has increased each

year since by an amount equal to the consumer price index, a trend expected to continue over the course of the 2016-2020 CIP.

While the base transfer amount was increased as part of the Fiscal Year 2013 Adopted Budget, this increase allowed only for the City to maintain the infrastructure at a level that would not add to the already sizable "catch-up" backlog, estimated at that time at $41.2 million. In order to address these needs, additional funding was required. In response, based on the City Manager's recommendation, the City Council authorized General Fund transfers to the Capital Improvement Fund at the end of Fiscal Years 2012 ($7.7 million), 2013 ($8.9 million), and 2014 ($4 million) adding up to $20.6 million. These additional funding transfers have helped in decreasing the "catch-up" backlog; however a portion of this additional funding has been required for new projects not included in the IBRC report such as the California Avenue Streetscape Improvement Project ($4.7 million) and the El Camino Park Playing Fields project ($1.0 million). An additional $5.3 million will be transferred annually from the General Fund to the Capital Improvement Fund in Fiscal Years 2016 and 2017, which is equal to the amount of additional Transient Occupancy Tax expected to be generated from the voter-approved two percentage point increase, as well as from new hotels.



City Council Infrastructure Plan

In 2013 the City Council established the 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 recommended projects and an associated funding plan, which was approved by the City Council in June 2014. Included in the $125.8 million plan are the following projects:

- A new Public Safety Building ($57.0 million)

- Bicycle Pedestrian Transportation Plan ($20.0 million)
- A new Downtown parking garage ($13.0 million)
- A new California Avenue area parking garage ($9.6 million)
- Replacement of Fire Station 4 ($7.5 million)
- Charleston/Arastradero Corridor Improvements ($7.5 million)
- Replacement of Fire Station 3 ($6.7 million)
- Byxbee Park Completion ($2.8 million)
- Highway 101 Bicycle/Pedestrian Bridge Gap Funding ($1.7 million)

The plan relied upon a variety of funding sources:

- Certificates of Participation (COPs) supported by a two percentage point TOT increase and the construction of new hotels within Palo Alto ($64.5 million)
- Transfers from the Stanford University Medical Center Development Agreement Fund ($34.5 million)
- Infrastructure Reserve ($12.5 million)
- Downtown Parking In-Lieu Fees ($4.0 million)
- Park Impact Fees ($2.8 million)
- Undetermined revenue sources ($7.5 million)

The plan, as approved by the Council in June 2014, was pending a tax increase in the City's Transient Occupancy Tax and, even if the tax was approved, had a funding gap of $7.5 million. In November 2014 the residents of Palo Alto approved a two percentage point increase to the Transient Occupancy Tax, which went into effect in January 2015. Additional funding ($10.7 million) will be transferred from the General Fund to the Capital Improvement Fund to support the Infrastructure Plan during the next two years. These additional transfers, which are possible due to additional TOT receipts, will close the funding gap ($7.5 million), provide funding for the public art program related to the Infrastructure Plan ($1.1 million), and begin to build a reserve for potential cost overruns ($2.1 million).

For the first time, the CIP includes the Infrastructure Plan projects. In 2016, funding for the design of the Public Safety Building ($1.4 million) and the downtown garage ($1.5 million) is included. It should be noted that funding for a potential $10 million land acquisition cost is programmed in the 2016-2020 CIP and can be advanced to Fiscal Year 2016 if current efforts to identify a site for the Public Safety Building result in the need to purchase land. Cumulatively, the 2016-2020 Adopted Capital Improvement Program includes funding totaling $123.6 million for Infrastructure Plan projects. The remaining infrastructure plan expenditures has been allocated for the Bicycle and Pedestrian Plan in Fiscal Years 2014 and 2015.

The June 2014 report on the Infrastructure Plan as approved by the City Council included a draft preliminary project schedule. In developing the 2016-2020 CIP, staff reviewed the preliminary schedule and has made some adjustments to the timing of these projects, as reflected throughout this budget. Adjustments to the schedule were based on a number of factors. The Infra-

structure Plan clearly prioritized the completion of a new Public Safety Building ahead of the other infrastructure projects, and the revised schedule is reflective of this priority. It is anticipated that once a site selection evaluation and study for the new Public Safety Building is completed, design will commence in Fiscal Years 2016 and 2017, leading to the construction of the facility beginning in Fiscal Year 2018.

Another factor driving changes to the schedule is the timing and availability of funding. For instance, the downtown parking garage is scheduled to be completed before the California Avenue parking garage due to the availability of parking in-lieu fees that are available to support the cost of this project. Generally, the infrastructure plan calls for available one-time sources, such as the in-lieu fees and transfers from the Stanford University Medical Center Development Agreement Fund to be utilized before debt (Certificates of Participation) is issued. Staff also reviewed staffing levels and the ability to deliver all of the projects included in the Adopted Capital Improvement Program. As part of the 2016 budget, an Engineer was added in the Public Works Department, which will contribute to the delivery of the Infrastructure Plan.

The Adopted Capital Improvement Program includes an annual allocation of $1.2 million for the implementation of bicycle boulevard projects. In addition, the CIP includes an $11.6 million reserve for the Bicycle and Pedestrian Transportation Plan. This reserve is available for projects anticipated to be completed during the 5-Year CIP period, but yet to be formally identified. Over the next year additional work needs to be completed to identify and prioritize additional projects within the Bicycle and Pedestrian Transportation Plan. Once completed, the $11.6 million reserve can be liquidated and allocated to specific projects.

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. In Fiscal Year 2015, staff worked with a consulting firm to evaluate the City's existing asset management practices and develop recommendations for implementation of an IMS. The resulting decision is to implement the IMS in phases utilizing two software applications, Maintenance Connection and Questica, both of which the City already uses. Maintenance Connection will be the repository for the infrastructure asset inventory information, while Questica, the City's budget system, will be used for long term capital planning. The combined use of both applications will allow the City to plan for and report on long term capital funding needs and deferred maintenance, or "catch-up" balances for both operating and capital maintenance.

In the period before finalization of the IMS, staff continues to maintain and update the infrastructure spreadsheet tools that were generated by the IBRC, and that will constitute the initial input to the IMS. Staff has used these spreadsheet tools to guide the CIP's designation of funds for "keep-up", and to continue to fund projects from the backlog of "catch-up".

The December 2011 IBRC Report identified a backlog of "catch-up" projects totaling $41.2 million. With the projects funded in prior years and included in the 2015-2019 Adopted Capital Budget, it was anticipated that the backlog would be reduced to $30.5 million. The 2016-2020

Adopted Budget increases the total funding of catch-up projects to $18.8 million, further reducing the total catch-up amount to $22.4 million as outlined in the table below.

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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 ADOPTED CIP	FISCAL YEAR 2016-2020 BACKLOG
Buildings	$5.0 million	$2.3 million	$2.7 million
Cubberley Community Center	$6.9 million	$0.7 million*	$6.2 million
Parks	$14.4 million	$3.9 million	$10.5 million
Surface	$14.9 million	$11.9 million	$3.0 million
TOTAL	**$41.2 million**	**$18.8 million**	**$22.4 million**

* It should be noted that additional funding is allocated for improvements at Cubberley Community Center during the Five-Year CIP period. Funding totaling $2.8 million is programmed and available due to the revised lease agreement with the Palo Alto Unified School District and the elimination of the "Covenant Not to Develop" provision. The new lease agreement requires that approximately $1.8 million is transferred annually from the General Fund to the Cubberley Capital Fund. Of the $2.8 million in programmed expenditures, only $0.7 million addresses projects on the IBRC "catch-up" list. It is anticipated that additional funding will be allocated to improvements at Cubberley once the Cubberley Master Plan is completed, which may further reduce the Cubberley "catch-up" figure.

Capital Improvement Fund Expenditures

New Projects

The 2016-2020 Adopted Capital Improvement Program includes a limited number of new projects. In the Capital Improvement Fund, seven new projects were approved, as they fall into the following categories:

"Catch-Up" Projects

Three projects that will reduce the "catch-up" backlog are included, including the Bol Park Improvements ($210,000), Buckeye Creek Hydrology Study ($105,000), and Baylands Comprehensive Conservation Plan ($250,000). These projects were approved as they will reduce the parks "catch-up" backlog, as identified in the IBRC Final Report. It should be noted that during the Infrastructure Plan prioritization process, the Infrastructure Committee considered including funding for parks "catch-up" projects, however it was determined that the backlog could be reduced over time by including these types of projects in the annual capital budget.

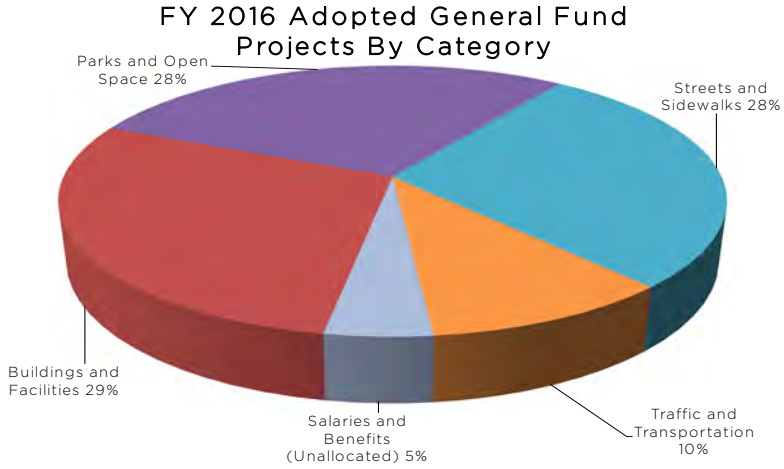
Aging and Failing Equipment

Two projects were approved to address equipment that is in need of immediate repair: Municipal Services Center (MSC) Lighting, Mechanical, and Electrical Upgrades (Fiscal Year 2016: $366,000, total project: $916,000), Traffic Circle Improvements ($100,000) and Parking Lot Elevator Q Modernization ($150,000). The MSC Lighting, Mechanical, and Electrical Upgrades project will address existing systems are outdated and inefficient. The Traffic Circle Improvements project will improve five existing traffic circles by adding new-rolled curbs and enhanced drought tolerant planting. The Parking Lot Elevator Q Modernization project will reduce maintenance costs and bring the elevator into conformance with ADA standards.

Sustainability/Energy Efficiency

A project to replace the fluorescent lighting with LED lighting in the City Hall Parking Garage is included in this budget, as the new LED lighting will save on energy costs and reduce maintenance and repair costs due to the longer life expectancy of LED lighting. This project is supported by a transfer from the University Avenue Parking Permit Fund.

Highlights by Category



The Capital Improvement Fund budget is divided into five categories: Buildings and Facilities, Parks and Open Space, Streets and Sidewalks, Traffic and Transportation, and Other (Unallocated Salaries and Benefits). Following is a brief summary of project highlights within each of the project categories. Additional detail on each of these categories can be found in the Capital Project Fund Overview section for each of the categories.

Buildings and Facilities

The 2016-2020 Adopted Capital Improvement Program includes projects totaling $116.8 million in this category, with $13.4 million allocated in Fiscal Year 2016. The majority of this funding is

dedicated towards Infrastructure Plan projects ($3.7 million in Fiscal Year 2016, $96.8 million in all five years of the CIP). Apart from the Infrastructure Plan projects, described in detail earlier in this letter, significant projects include roofing replacements for the MSC ($1.9 million) and other buildings throughout the City ($1.7 million), and the Facility Interior Finishes project ($1.2 million).

Parks and Open Space

The 2016-2020 Adopted Capital Improvement Program for this category includes projects totaling $29.9 million, of which $13.3 million is allocated in Fiscal Year 2016. The Byxbee Park Completion project ($2.8 million) is included in this category, consistent with the Infrastructure Plan. It should be noted that $10.9 million of the total funding for this category represents reappropriations from Fiscal Year 2015, including the Golf Course Reconfiguration and Baylands Improvement Project ($10.0 million). It is anticipated that this project, originally scheduled to begin construction in Fiscal Year 2014, will commence in January 2016. Other significant projects in this category, as described in the Capital Project Fund Overview section, include Rinconada Park Improvements ($3.3 million) and Mitchell Park Improvements.

Streets and Sidewalks

Projects funded in this category total $49.9 million during the Adopted CIP with $13.2 million allocated in Fiscal Year 2016. The majority of expenditures are directed towards the Street Maintenance program, which remains ahead of schedule towards meeting the City Council's goal of attaining an average citywide Pavement Condition Index score of 85 by Fiscal Year 2021. Current estimates call for this goal to be met as early as 2019. Other significant projects include the Sidewalk Repairs project ($8.9 million) and the Newell Road Bridge/San Francisquito Creek Bridge Replacement ($2.5 million: construction and design completely covered by grants).

Traffic and Transportation

The Traffic and Transportation category includes funding totaling $44.9 million during the Adopted CIP period, with $4.8 million allocated in Fiscal Year 2016. The $44.7 million in funding reflects a significant increase in funding as compared to the 2015-2019 CIP, which included $24.1 million in this category. The majority of this funding is dedicated towards three projects: Highway 101 Pedestrian/Bicycle Overpass Project ($8.4 million), Charleston/Arastradero Corridor Project ($9.5 million), and Bicycle and Pedestrian Transportation Plan Project ($19.1 million, $11.6 million of which is in a reserve).

Infrastructure Reserve

In addition to the annual transfers from the General Fund, grant reimbursements, bond funds for certain projects, and transfers from other funds are accounted for in the Capital Improvement Fund to support project costs. Additional funding sources for the Capital Improvement Fund in Fiscal Year 2016, as outlined in the subsequent table, include Interest Income ($1.0 million), Development Impact/In-Lieu Fees ($1.3 million), Contributions for Local Agencies ($0.3

million), Transfers from the Gas Tax Fund ($1.4 million), Transfers from the Parking Funds ($0.3 million), Transfers from Enterprise Funds ($0.6 million), Transfers from the Stanford University Medical Center Development Agreement Fund ($2.3 million), Bond proceeds ($6.1 million), and other revenues ($4.6 million).

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. In Fiscal Year 2015, for example, the IR was reduced by $1.0 million for the El Camino Park Restoration Project, due to an enhanced project scope for that project.

The IR is also a significant funding source for the Infrastructure Plan. The plan, as approved by the City Council in June 2014, assumed that funding for a portion of the plan ($12.5 million) would come from the IR. As can be seen in the chart below, based on the various funding sources and planned expenditures, the amount available in the IR is projected to decrease over the course of the CIP, as the Infrastructure Plan projects are budgeted and completed. Over the course of the next several years, as Infrastructure Plan projects move into the construction phase, the IR may need to be increased, as the preliminary cost estimates included in the Infrastructure Plan may increase due to cost escalation, scope increases, current prevailing wage requirements, and/or the bidding environment.

Projected Infastructure Reserve

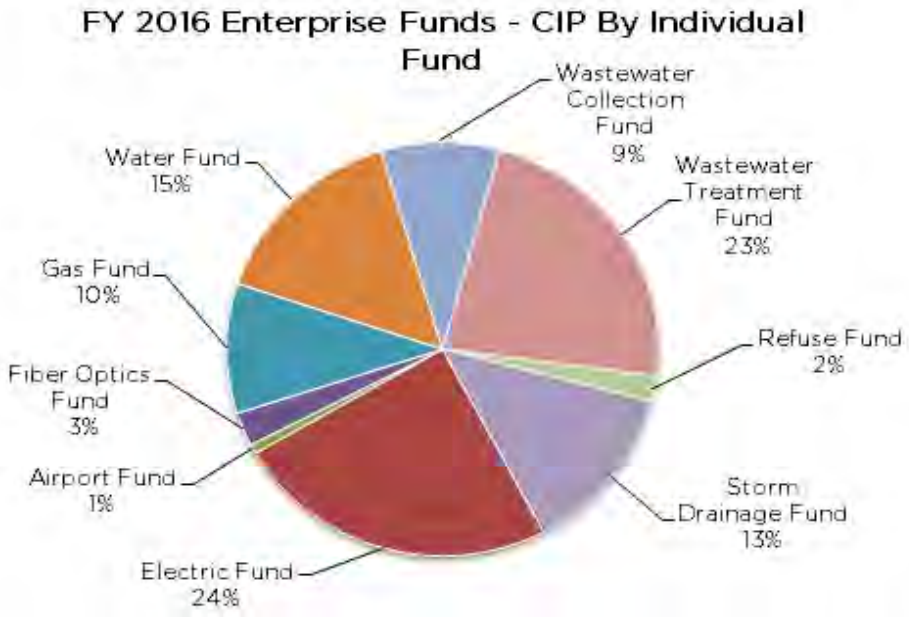
	FIVE-YEAR PLAN					
	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Total
SOURCES						
General Fund Annual Capital Transfer	19,013,157	19,350,846	14,672,321	15,027,801	15,392,524	83,456,649
Interest Income	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
Project Reimbursements	0	24,000	0	0	0	24,000
Development Impact/In-Lieu Fees	1,300,000	2,741,000	2,800,000	0	0	6,841,000
Local Agency	300,000	2,925,000	7,225,000	3,000,000	0	13,450,000
Gas Tax Fund	1,400,000	1,400,000	1,375,000	1,375,000	1,345,000	6,895,000
Parking Permit Funds	332,988	168,810	134,359	174,593	24,563	835,313
Enterprise Funds	588,996	890,883	0	0	0	1,479,879
Stanford U. Med. Center Agreement	2,300,000	20,622,000	5,950,000	1,200,000	1,200,000	31,272,000
Bond Proceeds	6,148,437	0	0	0	0	6,148,437
Certificates of Participation	0	0	53,137,000	10,179,000	0	63,316,000
Other	4,558,076	612,837	385,000	385,000	385,000	6,325,913
TOTAL SOURCES	**$36,941,654**	**$49,735,376**	**$86,678,680**	**$32,341,394**	**$19,347,087**	**$225,044,191**
USES						
Budgeted CIP Projects	46,818,483	60,397,056	71,147,121	33,338,370	29,387,899	241,088,929
Infrastructure Plan Reserves	0	796,000	11,560,000	0	0	12,356,000
TOTAL USES	**$46,818,483**	**$61,193,056**	**$82,707,121**	**$33,338,370**	**$29,387,899**	**$253,444,929**
SOURCE OVER (SHORT)	(9,876,829)	(11,457,680)	3,971,559	(996,976)	(10,040,812)	(28,400,738)
Infrastructure Reserve Balance, beginning	30,981,783	21,104,954	9,647,274	13,618,833	12,621,857	30,981,783
Infrastructure Reserve Balance, ending	**$21,104,954**	**$9,647,274**	**$13,618,833**	**$12,621,857**	**$2,581,045**	**$2,581,045**

Cubberley Community Center

The 2016-2020 Adopted Capital Improvement Program includes funding for infrastructure improvements at Cubberley Community Center. Funding for Cubberley was not included in the 2015-2019 Adopted Capital Improvement Program as the lease terms between the City and the Palo Alto Unified School District were still being negotiated. In November 2014, a change to the lease with the Palo Alto Unified School District was approved, 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. Based on the new amended lease, these funds are transferred into a separate fund for capital and maintenance needs at the facility. As part of this budget, funding is included ($327,000) to prepare a master plan for Cubberley Community Center in order to identify all of the required capital and maintenance needs at Cubberley. Additionally, funding is allocated for urgent roofing needs ($2.5 million). Roofing replacements are programmed in all five years of the CIP to prevent water damage.

Enterprise Funds CIP

Each year a significant investment is made from the City's nine Enterprise Funds (Airport, Electric, Fiber Optics, Gas, Refuse, Storm Drainage, Wastewater Collection, Wastewater Treatment, and Water). In Fiscal Year 2016, a total of $66.9 million will be allocated towards the capital program for the Enterprise Funds, with $289.3 million allocated over the five year period of the CIP representing 52% of CIP expenditures for all funds. Of the $66.9 million allocated in Fiscal Year 2016, $21.1 million is for projects previously approved by the City Council that will be carried over to next fiscal year through adoption of the budget. The Utilities Department manages the Electric, Water, Gas, Fiber Optics, and Wastewater Collection Funds, while the Public Works Department manages the Airport, Refuse, Storm Drainage, and Wastewater Treatment Funds. Following is a brief discussion of the City's largest Enterprise Fund capital improvement programs. Additional information on all of these funds can be found in the fund summary sections of this document.



The Electric Fund capital program funds improvements such as upgrades to substations, transmission lines, and underground districts. A total of $62.3 million is allocated towards capital infrastructure over the 2016-2020 Adopted CIP, with $16.3 million allocated in Fiscal Year 2016. Three projects comprise approximately 58% of the Electric Fund capital program: Electric Customer Connections ($16.9 million), Electric System Improvements ($11.0 million), Smart Grid Technology Installation ($8.3 million).

The majority of planned capital expenses within the Gas Fund ($20.0 million, 67% of all funding in the CIP) are for Gas Main Replacements. These projects are part of an ongoing effort to identify and replace aging gas mains in need of repair. Other significant capital investments within the Gas Fund include Customer Connections ($6.1 million) and Gas Meters and Regulators ($1.8 million).

Similar to the Gas Fund, the majority of planned capital investments in the Water Fund are for Water Main Replacements ($33.4 million, 74% of all funding in the CIP). These projects replace aging water mains in need of repair within the 214 mile water distribution system. Other significant investments include Customer Connections ($2.4 million) and Water Meters ($2.0 million).

The Wastewater Treatment Fund accounts for activities related to the replacement and rehabilitation of the City's wastewater treatment plant infrastructure. The 2016-2020 Capital Improvement Program includes expenditures of $105.3 million in this fund, with $15.2 million allocated in Fiscal Year 2016. While this is a significant investment, it's important to note that approximately 62% 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). Major projects included in the 2016-2020 CIP originated in the Long Range Facilities Plan and the Biosolids Facilities Plan.

Capital funding for the Storm Drainage Fund only extends to Fiscal Year 2017, as the storm drainage fee that provides funding for storm related capital improvements is set to sunset in June 2017. In Fiscal Year 2016, staff intends to bring forward to the City Council a recommendation asking voters to reauthorize the fee. Once the fee is re-authorized, future five-year Capital Improvement Programs will include the revenue and related project expenditures. The 2016-2020 Capital Improvement Program includes $11.7 million for storm drain infrastructure improvements. It is anticipated that the seven major projects outlined for the voters as part of the original storm drainage ballot measure will be complete by 2017, when the current fee expires.

Internal Service Funds

Two of the City's three Internal Service Funds (Vehicle Replacement Fund and the Technology Fund) have capital projects budgeted throughout the 2016-2020 Adopted Capital Improvement Program. The Vehicle Replacement Fund has a total Adopted CIP budget of $14.7 million ($5.2 million in Fiscal Year 2016), and the Technology Fund has a total Adopted CIP budget of $5.6 million ($5.2 million in Fiscal Year 2016).

The Vehicle Replacement Fund CIP budget for Fiscal Year 2016 includes funding for the replacement of 39 vehicles and pieces of equipment, including 5 sedans, 13 pickup trucks, one wildland pumper, two SUVs, one dump truck, and eight miscellaneous equipment units. Staff continues to work on ways to optimize the size and composition of the vehicle and equipment fleet as well

as increase the percentage of the fleet that is electric or runs on alternative fuels. The replacement plan has been reviewed by the internal staff Fleet Review Committee to ensure appropriateness of expenditures.

Technology Fund projects enhance service delivery to the community and to City staff through efficient and effective implementation of information technology solutions. All $5.2 million in funding in Fiscal Year 2016 is carryover funding from projects previously approved by the City Council. Significant projects with funds carrying over into Fiscal Year 2016 include Radio Infrastructure Replacement ($1.7 million), Development Center Blueprint Technology Enhancement ($953,000), and Public Safety Computer-Aided Dispatch Replacement ($788,000). Additional funding will be required for the Radio Infrastructure Replacement project as it relates an initiative organized by the Silicon Valley Regional Interoperability Authority (SVRIA) to move towards a county-wide 700 Mhz radio communication system. Further information on this project and a plan to address funding needs is included in the Technology Fund section of this document.

Changes to the Budget Document

Several changes to the budget document and process have been implemented effective with the 2016-2020 Adopted Capital Budget. First and foremost, the reappropriation of unused funds for existing projects has changed. Previously, funding for capital projects carried over automatically from one year to the next, as long as the project remained active. In October 2014, the City Council approved a change in the Municipal Code, which requires that the annual appropriation of unused funds requires Council approval. Effective with this budget, City Council authorization is required to carry unused funds over from one year to the next. As part of this budget, $51.1 million has been reappropriated to Fiscal Year 2016 to continue projects previously approved by the City Council.

A number of other changes are included in this budget document, continuing the improvements that have been made in recent years to the capital budget document. Changes to the document, as described in more detail in the "Capital Budget Process and Document" section of this budget, include:

Capital Projects Fund Overview

A multi-page 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.

Project Schedules

Enhanced information on the schedule for non-recurring projects is available on the project detail pages. In addition to showing the current schedule for the project, the original schedule for the project is available, and any deviations from the original schedule are described in the Significant Changes section of each project detail page.

Total Project Cost

For non-recurring projects, prior year actuals are included, as are any expenses anticipated to be incurred after the five year period of the CIP. This allows for the total cost of a project to be detailed. As with the project schedule, changes to the total project cost are described in the Significant Changes section of each project detail page.

Project Coordination

As in the past, the City has planned Utility capital projects, such as main replacements, to coincide with street rehabilitation projects.

Conclusion

The Adopted capital budget for Fiscal Year 2016 in the amount of $124.7 million allocates $46.8 million in the General Fund, $0.6 million in the Cubberley Property Infrastructure Fund, $66.9 million in the Enterprise Funds, and $10.4 million in Internal Service Funds. Projects funded in this CIP were selected after a thorough review of priorities, anticipated future needs, and available resources. Further, this CIP incorporates that City Council-approved Infrastructure Plan. Addressing the City's infrastructure backlog continues to be a major focus for the community, the City Council, and staff. At its annual retreat on January 31, 2015, the City Council again expressed its commitment to addressing the City's infrastructure needs by naming "Infrastructure Strategy and Implementation" as a top priority.

In the coming years, major strides will be made to improve the City's infrastructure through the construction of a new Public Safety Building, two new parking garages, two rebuilt fire stations, numerous bicycle and pedestrian transportation plan projects, the projected achievement of the City Council's goal of reaching an average Pavement Condition Index score of 85 for the City's roads, and significant investments at the Water Quality Control Plant. This comes on the heels of the successful completion of a program to revitalize the City's library and community center infrastructure, through the completion of the Mitchell Park Library and Community Center, Rinconada Library, and Downtown Library.

While these achievements should be celebrated, significant challenges remain ahead. In the Capital Improvement Fund, a backlog of $22.7 million exists for "catch-up" needs. It is anticipated that this backlog will be addressed over time through the annual capital budget process, however with each passing year the cost of addressing this backlog is expected to rise. Additionally, the budget allows little flexibility for cost escalation or scope changes for the Infrastructure Plan projects, nor does it allow for projects which may be identified in the Parks Master Plan, anticipated to be completed in winter 2016.

The cost of delivering capital improvement projects could also rise from the levels programmed within this budget due to the Governor's approval of a recent California state law (SB 7). The intent of SB7 is to provide a financial incentive for charter cities, such as Palo Alto, to require contractors on their municipal construction projects (costing over $25,000 for construction work and over $15,000 for improvement work – alteration, demolition, repair and maintenance work) with the City to comply with California's prevailing wage law in order to make these cities eligible to receive and use state funding on local construction projects. In response to this law

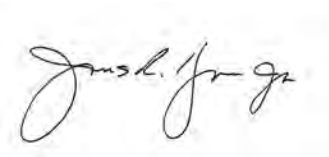
the City Council adopted Resolution No. 9472 in December 2014, providing that the City will advertise for bid and award contracts for public works projects in conformance with the Public Contract Code requirements regarding the payment of prevailing wage on locally funded construction contracts unless and until SB 7 is enjoined or invalidated. It is currently estimated that the cost of certain capital projects could increase by as much as 10% as it is estimated that prevailing wages are higher. As the impacts of SB 7 are realized, additional funding may be required to complete the projects programmed in this CIP.

The delivery of the ambitious capital program outlined in this report is also highly dependent upon staff capacity. This budget includes the addition of a new Engineer position in the Public Works Department to aid in the delivery of capital projects. As the projects outlined in the Infrastructure Plan move through the design process and into the construction phase, further staffing augmentations may be required to ensure projects are delivered timely. Timely delivery of the Infrastructure Plan projects is especially important given the dependency of borrowing strategies to complete the projects.

Finally, I hope that the Council is pleased with the addition of new reporting formats that increase the planning capacity, transparency, and clarity of the information in this document.

I would like to thank our dedicated City Council for its leadership and our Executive Leadership Team and the entire staff for providing outstanding services to our community. Special thanks to Walter C. Rossmann, Director of the Office of Management and Budget, Brad Eggleston, Assistant Director of Public Works, and their respective teams as well as Eric Bilimoria, Sr. Management Analyst, who have worked countless hours during evenings and on weekends to redesign and enhance the budget process and this budget document as well as department staff who contributed to this budget.

Respectfully Submitted,



James Keene
City Manager

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Capital Improvement Fund Review Process

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CIP ORGANIZATIONAL CHART

Public Works
Managed Projects

CUBBERLEY — 0.30
0.10-Manager Maintenance Operations
0.10-Project Manager
0.10-Senior Engineer

STREETS — 5.25
0.25-Admin Associate III
0.10-Assistant Director
1.14-Assoc Engineer
0.23-Engineer
0.67- Inspector, Field Svc
0.30-Management Analyst
0.99-Project Engineer
0.59-Senior Engineer
0.43-Supv Inspector/Surveyor PW
0.55-Surveyor

PARKS AND LANDSCAPE — 3.50
0.25-Admin Associate III
0.10-Assistant Director
0.90-Engineer
0.90-Architect/Park Planner
0.20-Management Analyst
0.45-Project Engineer
0.70-Senior Project Manager

SIDEWALK— 4.27
0.10-Assistant Director
0.74-Cement Finisher - Lead
0.50-Manager Maintenance Operations
0.20-Senior Engineer
0.20-Supv Inspector/Surveyor PW
0.65-Associate Engineer
0.25-Project Engineer
0.20-Project Manager
0.53-Inspector, Field Svc
0.90-Engineer

STRUCTURES AND GROUNDS — 11.11
0.39-Admin Assoc III
0.28-Assistant Director
0.90-Assoc Engineer
0.95-Engineer
0.89-Management Analyst
3.05-Project Engineer
1.10-Senior Engineer
0.50-Engineer Tech III
0.10 -Facilities Manager
0.90-Project Manager
1.05-Manager Maintenance Operations
0.80-Admin Associate I
0.20-Senior Project Manager

STORM DRAINAGE — 2.15
0.10-Admin Assoc I
0.10-Admin Assoc III
0.90-Engineer
0.10-Management Analyst
0.65-Project Engineer
0.30-Senior Engineer

VEHICLE FUND — 1.40
0.20-Admin Assoc III
0.15-Assistant Fleet Manager
0.25-Fleet Manager
0.05-Fleet Service Coord
0.10-Motor Equip Mech – Lead
0.60-Motor Equip Mech II
0.05-Project Manage

WASTEWATER TREATMENT— 0.30
0.10-Assistant Manager, WQCP
0.20-Senior Engineer

REFUSE— 0.65
0.35-Environmental Specialist
0.30-Manager, Environ. Control Program

Total: 26.60 FTE

Utilities
Managed Projects

0.45-Asst Director Util Engineering
0.10-Cathodic Protection Tech. Asst
0.10-Cathodic Technician
0.35-Contracts Administrator
0.25-Coordinator Utility Projects
1.60-Electric Assistant
1.50-Electric Underground Inspector
1.70-Electric Project Engineer
0.75-Elec Underground Inspector Lead
1.30-Electrician
3.50-Engineer
1.45-Engineering Technician III
1.00-Gas Systems Technician
0.40-Gas Systems Technician II
4.02-Heavy Equipment Operator
3.00-Inspector, Field Services
7.70-Lineperson/Cable Splicer
2.80-Lineperson/Cable Splicer – Lead
0.10-Metering Technician
0.05-Metering Technician Lead
0.10-Overhead UG Troubleman

1.80-Power Engineer
3.50-Project Engineer
0.40-SCADA Technologist
3.55-Senior Electrical Engineer
4.10-Senior Engineer
0.50-St Light/Traffic/Fiber Lead
0.30-St Light/Traffic/Fiber Tech
0.70-Substation Electrician
0.20-Substation Electrician Lead
0.80-Sup Electrician Project Engineer
1.0-Supervisor Inspection Services
5.0-Utility Engineer Estimator
8.30-Utility Install Rep
2.76-Utility Install Rep Lead
0.76-Utility Locator
1.19-Utility Supervisor
0.84-Utilty Install Repair Lead
0.94-Utility Install Repair Welding Cert
0.62-Water Systems Operator
0.92-Water Meters Tech

Total: 70.4

Planning & Community Environment
Managed Projects

TRANSPORTATION PROJECTS
0.50-Chief Transportation Official
0.15-Coordinator Transp Systems Mgmt
0.70-Parking Manager
0.25-Senior Project Engineer

Total: 1.60 FTE

Community Services
Managed Projects

CITY FACILITIES
0.28-Program Assistant

OPEN SPACE AND SCIENCE
0.20-Program Assistant

PARKS
1.00-Coordinator Public Works Prj

Total: 1.48 FTE

Administrative Services
Managed Projects

0.6-Sr Management Analyst
0.6-Contracts Administrator

Total: 1.20 FTE

FY 2016 POSITION TOTALS
Public Works - 28.93
Planning & Comm. Envmt - 1.60
Administrative Services - 1.20
Community Services - 1.48
Utilities - 70.40
Total Full-time - 103.61

THE BUDGET PROCESS AND DOCUMENT

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 Infrastructure Plan (June 2014).

The review of the capital budget and five-year capital improvement plan is structured around public hearings by the Planning and Transportation Commission (PTC) and the Finance Committee. The PTC is tasked with ensuring compliance of the capital budget and five-year capital improvement plan with the City Council approved Comprehensive Plan. The Finance Committee reviews all aspects of the capital budget to ensure compliance with previous City Council direction, and further incorporates community input into the process, before recommending approval to the City Council.

City Council Top 4 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 2015:

- The Built Environment: Multi-modal transportation, parking and livability
- Infrastructure Strategy and Implementation
- Healthy City, Healthy Community
- Completion of the Comprehensive Plan update with increased focus from Council

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:

- Community input (e.g.: Infrastructure Blue Ribbon Commission)
- City Council approved Infrastructure Plan
- City Council's Top Priorities and other City Council direction

- The City's annual General Fund Long Range Financial Forecast
- Service level and infrastructure needs prioritization
- Comprehensive Plan, which contains the City's official policies on land use and community design, transportation, housing, natural environment, business and economics, and community services

Capital Budget Calendar

SEPTEMBER

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

OCTOBER/NOVEMBER

Departments review the prior year five-year capital improvement program (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, Planning and Community Environment, 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.

DECEMBER/JANUARY

Departments submit capital infrastructure funding requests to the Office of Management and Budget. 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 Committee. The General Fund CIP Committee consists of senior managers in the Public Works, Community Services, Administrative Services, and Planning and Community Environment departments.

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.

The prioritization of Enterprise Fund CIP projects are established by the department that manages the enterprise fund. Often the prioritization of CIP projects is dictated either by the department's operational needs, funding availability, CIP strategic plan, oversight committee, and/or specific Council direction.

MARCH

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

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 PTC's comments are reported to the Finance Committee during the public budget hearing.

MAY/JUNE

The City Manager formally presents the proposed CIP to the City Council, and subsequently to the Finance Committee, which conducts a series of public hearings. The Finance Committee presents its recommendation to the City Council. Final adoption occurs at a public hearing in June. All changes made during the public process 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. Examples include 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 IBRC report and Infrastructure Plan;
- Health and safety implications;
- Historical spending levels; and
- Certainty over the feasibility, scope, and level of resources required.

Discussions on the prioritization of the Fiscal Year 2016-2020 Capital Improvement Fund projects are included in the Transmittal Letter of this document as well as in the Fund Narrative section for the Capital Improvement Fund.

The prioritization of Enterprise Fund CIP projects are established by the department that manages the enterprise fund. Often the prioritization of CIP projects is dictated either by the department's operational needs, funding availability, CIP strategic plan, oversight committee and/or specific Council direction.

Continuing Projects

A change to the way continuing projects approved in prior years are accounted for was approved during Fiscal Year 2015. Previously, unspent funding for capital projects carried forward automatically from one year to the next as long as some 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." Effective with the 2016-2020 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 Fiscal Year 2015 but still required for the completion of the project are reflected in 2016. The Adopted Capital Budget includes $51.1 million dollars in funds that have been reappropriated from Fiscal year 2015. 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 fall 2015, all projects will be reviewed to determine if 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 Ordinance (BAO) 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 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:

Fund Summary: This summary provides a brief narrative on the overall funding level included in the Capital Budget and associated revenues, describes specific programs, and highlights major projects programmed over the five years of the Capital Improvement Program. 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. The project pages include information regarding the project completion schedules (ini-

tial 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. The information in the project detail pages is discussed in more detail below.

Project Maps: For the 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. The final three numbers are system-generated. For example, with project PE-16006, the "PE" denotes Public Works Engineering, the "16" indicates Fiscal Year 2016 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 Information

The project description pages include the following information:

- Fund – the fund that the project is budgeted in.
- Category – describes the type of activity that the project aligns to. The inclusion of a category for non-General Fund projects is new for the 2016 Capital Budget. Below is a summary of the categories assigned to the various funds.

PROJECT CODE	MANAGING DEPARTMENT OR FUND
AC	Arts & Culture
AP	Airport Fund
AS	Administrative Services
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	Planning
PO	Public Works Operations
RF	Refuse Fund
SD	Storm Drain Fund
TE	Technology Fund
VR	Vehicle Fund
WC	Wastewater Collection Fund
WQ	Wastewater Treatment Fund
WS	Water Fund

CAPITAL FUNDS	
Capital Improvement Fund • Buildings and Facilities • Parks and Open Space • Streets and Sidewalks • Traffic and Transportation • Unallocated (Salaries and Benefits)	**Cubberley Property Infrastructure Fund** • Buildings and Facilities
ENTERPRISE FUNDS	
Airport Fund • Airport Facilities • Airport Taxiways **Electric Fund** • Capacity Improvements • Customer Connections • System Improvements • Undergrounding Projects **Fiber Optics Fund** • Capacity Improvements • Customer Connections **Wastewater Collection Fund** • Capacity Improvements • Customer Connections • System Improvements **Storm Drainage Fund** • Capacity Improvements • System Improvements • System Rehabilitation	**Gas Fund** • Capacity Improvements • Customer Connections • Gas Main Replacements • System Improvements **Refuse Fund** • Landfill Post-Closure • Buildings and Facilities **Water Fund** • Capacity Enhancements • Customer Connections • System Improvements • Water Main Replacements **Wastewater Treatment Fund** • Buildings and Facilities • System Improvements • System Rehabilitation
INTERNAL SERVICE FUNDS	
Vehicle Replacement Fund • Fleet Infrastructure Improvements • Vehicle and Equipment Replacement	**Technology Fund** • Citywide Technology Upgrades and Improvements • Department Technology Upgrades and Improvements

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

Managing Department – the department 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. The inclusion of the initial schedule is new for the 2016 Capital Budget.

Project Number – the seven digit project identification number, as described above.

Project Description - provide 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. Supplemental information, such as history of the project and descriptions of grant funding, is provided for select projects.

Significant Changes – provides an explanation of the changes to the initial schedule or budget for a project. This section is new for the 2016 Capital Budget.

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 in will contribute towards the project. New for the 2016 Capital Budget is the inclusion of prior year revenues, a current year estimate, anticipated funding beyond the five years of the CIP, and total funding 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. Effective with the 2016 Capital Budget, salary and benefit estimates will be 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. New for the 2016 Capital Budget is the inclusion of 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 estimates of the 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. Operating costs include new program salaries and benefits, program supplies/materials costs, and other costs.

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 due to differing scope of authority assigned by the City Council. This body (bodies) provides the City Council input as to the merits of a project.

Environmental Impact Analysis – Indicates the CEQA status of the project, and LEED status, if applicable.

CITY OF
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BUDGET AWARDS

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Municipal Finance Officers

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February 8, 2015

Pamela Arends-King
CSMFO President

Michael Gomez, Chair
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CITY OF
PALO
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SUMMARY OF CIP PROGRAM REVENUE

Revenue Source ($000's)	Fiscal Year 2016	Fiscal Year 2017	Fiscal Year 2018	Fiscal Year 2019	Fiscal Year 2020	Total 2016-2020 CIP Plan	Total 2015-2019 CIP Plan	Difference
Capital Funds								
Transfer from General Fund	$20,876	$21,215	$16,536	$16,892	$16,325	$91,844	$71,796	$20,048
Interest Income	1,000	1,000	1,000	1,000	1,000	$5,000	5,000	0
Gas Tax	1,400	1,400	1,375	1,375	1,345	$6,895	7,175	(280)
Debt Financing	6,148	0	53,137	10,179	0	$69,464	0	69,464
Impact/In-Lieu Fees	1,300	2,741	2,800	0	0	$6,841	1,884	4,957
Stanford U. Med. Center Agreement	2,300	20,622	5,950	1,200	1,200	$31,272	6,000	25,272
Other Agencies	3,685	3,310	7,610	3,385	385	$18,375	18,478	(103)
Other Revenue	1,142	24	0	0	0	$1,166	2,939	(1,773)
Transfer from Parking Funds	333	169	134	175	25	$836	2,617	(1,781)
Transfer from Enterprise Funds	589	891	0	0	0	$1,480	1,040	440
Transfer from Internal Service Funds	32	228	0	0	0	$260	1,040	(780)
Ending Fund Balance Reserve (Increase)/Decrease (Includes Infrastructure Reserve)	8,627	10,340	(5,234)	(439)	8,637	$21,931	(5,628)	27,559
Total	**$47,432**	**$61,940**	**$83,308**	**$33,767**	**$28,917**	**$255,364**	**$112,341**	**$143,023**
Enterprise Funds								
Utility Rate Charges*	$60,210	$48,900	$50,285	$49,529	$47,025	$255,949	$178,481	$77,468
Fees and Charges	3,576	3,569	3,627	3,733	3,782	18,287	17,740	547
Storm Drainage Fee	2,856	5,655	0	0	0	8,511	7,864	647
Transfers between Enterprise Funds	222	844	869	2,295	2,304	6,534	1,230	5,304
Total	**$66,864**	**$58,968**	**$54,781**	**$55,557**	**$53,111**	**$289,281**	**$205,314**	**$83,967**
Internal Service Funds								
Fund Balance	$10,113	$2,796	$2,328	$1,315	$3,019	$19,571	$12,215	$7,356
Transfer from General Fund	$64	$64	$64	$64	64	320	351	(31)
Transfer from Enterprise Funds	$163	$20	$20	$20	20	243	1,330	(1,087)
Stanford University	$16	$16	$16	$16	16	80	64	16
Total	**$10,356**	**$2,896**	**$2,428**	**$1,415**	**$3,119**	**$20,214**	**$13,960**	**$6,254**
Grand Total	**$124,652**	**$123,804**	**$140,517**	**$90,739**	**$85,147**	**$564,859**	**$331,615**	**$233,244**

* Utility Rate Charges include payments from parter agencies (Stanford, Los Altos, Los Altos Hills, Mountain View, and City of East Palo Alto Sanitary District) for Wastewater Treatment projects.

Transfer From General Fund

Capital projects that do not directly benefit the Enterprise Funds are funded in the Capital Improvement Fund. This fund is primarily supported by an annual transfer from the General Fund, and accounts for capital repairs to the City's roads, parks and open space, and General Fund facilities. In the 2016-2020 CIP, this transfer ranges between $15.4 million and $19.0 million, with the Fiscal Years 2016 and 2017 transfers increased by $5.3 million, which is equal to the amount of Transient Occupancy Tax (TOT) expected to be received in these years as a result of the two percentage point TOT increase and from new hotels. This additional transfer will support budgeted Infrastructure Plan projects in Fiscal Years 2016 and 2017.

Transfers From Enterprise Funds

The City of Palo Alto has nine Enterprise Funds (Airport Fund, Refuse Fund, Storm Drainage Fund, Wastewater Treatment Fund, Electric Fund, Fiber Optics Fund, Gas Fund, Water Fund, and Wastewater Collection Fund). The Airport Fund, Refuse Fund, Storm Drainage Fund, and Wastewater Treatment Fund are sometimes collectively referred to as the Public Works Enterprise Funds, while the Electric Fund, Fiber Optics Fund, Gas Fund, Water Fund, and Wastewater Collection Fund are sometimes collectively referred to as the "Utility Funds." In instances where the Enterprise Funds would benefit from a General Fund project, the Enterprise Funds are charged for their proportional share. Several examples are included in the Fiscal Year 2016-2020 CIP; including the Municipal Services Center Building A, B, and C Roofing Rehabilitation and the Municipal Services Center Building Lighting, Mechanical, and Electrical Improvements. This cost of these project, programmed for Fiscal Years 2017 and 2018, will be split with the various Enterprise Funds according to the current usage of the space.

Certificates of Participation

The Infrastructure Plan, as approved by the City Council in June 2014, relied upon a borrowing mechanism known as Certificates of Participation (COPs) to fund a portion of the improvements outlined in the plan. By pledging future City revenues (anticipated to be generated by a voter-approved two percentage point transient occupancy tax increase and additional transient occupancy tax proceeds resulting from new hotels within Palo Alto), the City can borrow funds to complete the construction of projects such as the new Public Safety Building, rebuilding Fire Station Number 4, and a new parking Garage in the California Avenue area.

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), Safe Routes to School (PL-00026), and Transportation and Parking Improvements (PL-12000). It should be noted that the level of Gas Tax receipts anticipated over the five years of the CIP is reduced as compared to the 2015-

2019 CIP, primarily as a result of reduced gas consumption resulting from increased fuel efficiency. Additionally, a reduction to the transfer for Street Maintenance is programmed beginning in Fiscal Year 2020. This reduction is scheduled to coincide with the anticipated completion of the City's goal of reaching a citywide average Pavement Condition Index (PCI) score of 85 by 2021. It is currently assumed that the City will achieve this score by 2019, two years earlier than the stated goal. The reduced transfer for this project will be offset by an increased transfer to the General Fund, where expenses related to the maintenance of the City's sidewalks are budgeted.

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. Several projects were supported by Impact Fees in Fiscal Year 2015, including Furniture, Fixtures, and Equipment for the Main Library (PE-09006), Traffic Signals and ITS Upgrades (PL-05030), and the Embarcadero Corridor Improvements Project (PL-15001). In the 2016-2020 CIP, one project is supported by Impact Fees: Byxbee Park Completion. This project, and the utilization of Park Impact Fees, was included in the City Council approved Infrastructure Plan. It is currently anticipated that $2.8 million transfer from the Parks Impact Fee Fund to the Capital Improvement Fund will occur in Fiscal Year 2018 to support the Byxbee Park Completion project.

Other Agencies

The City partners with local agencies to provide support to certain capital projects. In Fiscal Year 2016, it is anticipated that the City is expected to receive approximately $5.2 million from other agencies in support of CIP projects: $3.0 million from the San Francisquito Creek Joint Powers Authority for the Golf Course Project (PG-13003), $1.5 million from Santa Clara County for the Midtown Connector Project, $385,000 from the County of Santa Clara Vehicle Registration Fee, and $0.3 million from OBAG/County of Santa Clara for the Highway 101 Pedestrian/Bicycle Overpass Project. In the remaining years of the Capital Improvement Program (Fiscal Years 2017 through 2020) it is anticipated that the City will receive an additional $14.7 million in funds from other agencies for capital projects programmed in the Capital Improvement Fund.

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. Over the course of the 2016-2020 CIP, transfers to the Capital Improvement Fund totaling $31.2 million are anticipated. This funding will support a variety of projects including the Bicycle and Pedestrian Transportation Plan (PL-04010), the New Public Safety Building (PE-15011), the reconstruction of Fire Station 3 (PE-15003) and Fire Station 4 (PE-18004), the New Downtown

Garage (PE-15007), and the Charleston Arastradero Corridor Improvements Project (PE-13011). For additional information about the development agreement, please refer to the Special Revenue Funds section of the Fiscal Year 2016 operating budget document.

Parking Funds

In Fiscal Year 2015, transfers of $564,000 were programmed to be transferred from the University Avenue Parking Permit Fund to the Capital Improvement Fund, including $105,000 approved by the City Council in March 2014 to support the design of the Parking Wayfinding Project. Of that amount, $400,000 was transferred for the implementation of Parking Guidance System technology. As part of the Fiscal Year 2016 Mid-Year Report, a recommendation was included to transfer $300,000 back to the University Avenue Parking Permit Fund as additional work is required to determine the design and cost of this technology. $100,000 was retained in the Parking Fund for associated design costs. Additionally, transfers from the Downtown Parking In-Lieu Fund to the Capital Improvement Fund, totaling $3.6 million are anticipated in the 2016-2020 CIP. This transfer is consistent with the City Council approved Infrastructure Plan and will support a portion of the costs associated with the construction of a new parking garage in the downtown area.

Enterpriser 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 2016 Operating Budget document contains a detailed discussion regarding the Fiscal Year 2016 utility rate increases.

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. For the 2016-2020 CIP Plan, undergrounding projects are planned, and the estimated reimbursements from telecommunication and cable television companies during this period are.

The list of projects funded by user fees and the description of each user fee are summarized in the table on the next page.

Storm Drainage 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. The ballot measure allowed for modest Storm Drainage Fee increases, based on an annual local consumer price index (CPI) or 6 percent, whichever is less. In accordance with the ballot measure, the fee increase for Fiscal Year 2016 is 2.7% based on the CPI.

Storm drain capital improvement projects are only programmed through Fiscal Year 2017, as the monthly storm drainage fee providing revenue for the Storm Drainage Fund capital improve-

Enterprise Fund	Project Name	User Fee	2016-2020 CIP Plan Revenues	Description
Fiber Optics Fund	Fiber Optic Customer Connections (FO-10000)	Fiber Optic License Fees	$1,163,205	Fiber optic license fees cover installation of fiber optic infrastructure for new service connections. For a list of other services refer to Utility Rate Schedule EDF-1.
Electric Fund	Electric Customer Connections (EL-89028)	Connection Fees	$9,240,000	Connection fees cover services for installation, transformers, meters for new customer, upgrading of existing customers and temporary service connection. For a list of other services refer to Utility Rate Schedule E-15.
Gas Fund	Gas System, Customer Connections (GS-80017)	Connection Fees	$3,423,060	Connection fees 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.
Water Fund	Water System, Customer Connections (WS-80013)	Connection Fees	$2,434,000	Connection fees 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.
Wastewater Collection Fund	Sewer System, Customer Connections (WC-80020)	Connection Fees	$2,026,500	Connection fees 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.

ment plan is due to sunset in June 2017. The current storm drain rates were approved by a majority of property owners via a ballot-by-mail process in April 2005. At that time, a new base rate of $10.00 per month was established, 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 percent, whichever is less. The City Council appointed the Storm Drain Oversight Committee to ensure compliance with the provisions of the ballot measure. Under the provisions of the ballot measure, the higher base rate will sunset on June 1, 2017 and revert back to the pre-election rate of $4.25 per month, unless it is reauthorized through a new ballot measure. It is anticipated that a recommendation for storm drain funding beyond Fiscal Year 2017, including a potential ballot measure, will be brought forward for City Council consideration in fall 2015.

Transfers within Enterprise Funds

CIP projects that benefit multiple enterprise funds are funded by the beneficiary funds.

One project is the application of the Geographic Information System (GIS) (WS-02014) that benefit the Water, Gas and Wastewater Collection Funds. The Water Fund hosts the GIS project, and the Gas and Wastewater Collection Fund reimburse the Water Fund for their share of the project cost.

Cash Accumulated To Pay For the Landfill Closure and Post-Closure Care Liability

State and Federal laws and regulations require that the City place a final cover on the remaining open areas of the Palo Alto Refuse Disposal Site due to the discontinuation of accepting waste, and also require the City to perform certain maintenance and monitoring functions at the site. At the end of each year, the estimated cost for the landfill closure and post-closure care is recognized as a liability in the Refuse Fund's financial statements.

Partner Agencies

The Cities of Palo Alto, Mountain View and Los Altos, 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. The City of Palo Alto is the owner and the administrator of the Plant. The other partner agencies reimburse the City for their share in the cost of CIP projects.

Internal Service Funds

The Technology Fund has 14 CIP projects in Fiscal Year 2016 in the total amount of $5.6 million, and the Vehicle Replacement Fund has eleven CIP projects in Fiscal Year 2016 for $14.7 million.

The General Fund, Capital Projects Fund and Enterprise Funds provide funding for their share of CIP Projects in the Internal Service Funds (ISF) such as the Vehicle Replacement, Printing and Mailing, and Technology Funds.

DEBT POLICY AND OBLIGATIONS

	Original Issue Amount	Balance June 30, 2014	Additions	Retirements	Balance June 30, 2015	Current Portion
Governmental Activity Debt:						
General Long Term Obligations:						
2002B Downtown Parking Improvements Certificates of Participation						
4.55-6.00%, due 03/01/2022	$ 3,555	$ 1,430		$ 145	$ 1,285	$ 150
2010A General Obligation Bonds						
2.00-5.00%, due 08/01/2040	55,305	52,520		1,050	51,470	1,070
2013A General Obligation Bonds						
2.00-5.00%, due 08/01/2043	20,695	20,695		370	20,325	380
2011 Golf Course Master Lease-Purchase Agreement						
2.49%, due 09/01/2018	3,222	2,026		383	1,643	395
Add: unamortized premium		4,242		158	4,084	158
Total Governmental Activity Debt	**$82,777**	**$80,913**	**$0**	**$2,106**	**$78,807**	**$2,153**
Business-type Activity Debt:						
Enterprise Long Term Obligations:						
Utility Revenue Bonds,						
1995 Series A, 5.00-6.25%, due 06/01/2020	$ 8,640	$ 3,334		$ 475	$ 2,859	$ 505
1999 Refunding, 3.25-5.25%, due 06/01/2024	17,735	10,980		635	10,345	665
2011 Series A, 3.00-4.00%, due 06/01/2026	17,225	14,295		975	13,320	1,005
Add: Unamoratized Premiem		910		70	840	
Water Revenue Bonds						
2009 Series A, 1.80 - 4.65%, due 06/02/2035	35,015	31,615		915	30,700	955
Energy Tax Credit Bonds						
2007 Series A, 0%, due 12/15/2021	1,500	800		100	700	100
Less: Unamoratized Premiem		(43)		(5)	(49)	
State Water Resources Loan						
2007, 0%, due 6/30/2029	9,000	6,750		450	6,300	450
2009, 2.6%, due 11/30/2030	8,500	7,559		359	7,200	369
Total Business-type Activity Debt	**$97,615**	**$76,200**	**$0**	**$3,974**	**$72,215**	**$4,049**

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. There are, however, special or extraordinary capital improvement projects in which it is appropriate to consider debt financing. A set of guidelines is included below to support the decision-making process, and is not intended to be interpreted as a set of rigid rules for issuing debt.

Debt Policy Guidelines

It is appropriate to consider debt financing for capital improvements but not for operating budget items. It is the City's policy that annual debt service payments should not exceed 10 percent of the annual expenditure budget of the General Fund. The term of the debt issuance should not exceed the useful life expectancy of the asset acquired, constructed, or improved.

It is appropriate to consider debt financing under the following circumstances:

- The project financing can be paid for directly by the users of the facility. One example is capital improvements made to the City's golf course, where debt service payments can be made from the green fees paid by golfers. A second example is capital improvements paid for by assessments to property owners, such as a parking assessment for a downtown parking garage.
- For enterprise funds, a significant backlog of capital improvements may develop and that backlog cannot be addressed through the ongoing capital budget without having a significant immediate impact on utility rates.
- Funding for a large project (or grouping of similar projects) would have a significant negative impact on the availability of funding for other ongoing capital needs.
- Capital leases may be considered for purchases of large pieces of equipment.

Legal Debt Limit

Based upon the assessed valuation of $25.5 billion for the fiscal year ending June 30, 2014, the City is limited to general obligation indebtedness of $1.0 billion. As of June 30, 2014, the amount of debt applicable to the debt limit is $73.2 million, which is well below its legal debt limit. The debt amount is related to the voter approved general obligation bonds to renovate and build out the City's libraries including the Mitchell Park Library and Community Center.

Debt Obligations

Summaries of City of Palo Alto debt activity for Fiscal Year 2015 are provided in the following section.

Debt Obligation Descriptions

2002B Downtown Parking Improvement Project Certificates of Participation (COPs)

On January 16, 2002, the City issued $3.6 million of COPs to finance the construction of certain improvements to the non-parking area contained in the City's Bryant/Florence Garage complex. Due to lower construction costs, $0.9 million in par bonds were paid off early in January 2005. Principal payments are due annually on March 1 and interest payments semi-annually on March 1 and September 1, and are payable from lease revenues received by the Corporation from the City's available funds.

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 $20.7 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 percent to 5 percent, and are payable from property tax revenues.

The pledge of future Net Revenues for the above 2010 and 2013 bonds ends upon repayment of the $51.5 million and $20.3 million principal and $40.6 million and $15.2 million interest as the remaining debt service on the bonds, which is scheduled to occur in FY 2041 and FY 2044, respectively.

2011 Golf Course Master Lease-Purchase Agreement

On August 2, 2011, the City entered into a master lease-purchase agreement with JP Morgan Chase Bank, N.A. to finance redemption of the 1998 Golf Course COPs. The lease is secured by a first priority security interest in eighteen Fire Department emergency vehicles. Lease proceeds were $3.2 million. Principal payments are due annually on September 1 and interest payments are due semi-annually on September 1 and March 1 at a rate of 2.49 percent, payable from General Fund revenues. As of June 30, 2015, there are $1.6 million in principal and $83,123 in interest outstanding.

1995 Utility Revenue Bonds, Series A

The City issued Utility Revenue Bonds on February 1, 1995 to finance certain extensions and improvements to the City's Storm Drainage and Surface Water System. 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 6.25 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 $2.8 million principal and $558,000 interest as the remaining debt service on the bonds, which is scheduled to occur in 2020.

1999 Utility Revenue and Refunding Bonds, Series A

The City issued Utility Revenue Bonds on June 1, 1999 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 "Storm Drain 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 Storm Drain (25.2 percent). Principal payments are payable annually on June 1, and interest payments semi-annually on June 1 and December 1. A $3.125 million 5.25 percent term bond, and a $5.12 million 5.25 percent term bond are due June 1, 2021 and 2024, respectively. 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 $10.3 million principal and $3.2 million interest as the remaining debt service on the bonds as of June 30, 2015, which is scheduled to occur in 2024.

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 $0.7 million remaining debt service on the bonds, which is scheduled to occur in 2022.

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 1.80 percent to 5.95 percent. The final debt service payment will be made in 2035. The 2009 were issued as bonds 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 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 were 32 percent of interest payable. 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 the subsidy payments amounting to $545,565, which represents 32.5 percent of the two interest payments due on June 1, 2014 and December 1, 2014.

The pledge of future Net Revenues of the above funds ends upon repayment of the $30.7 million principal and $20.6 million interest as the remaining debt service on the bonds as of June 30, 2015, which is scheduled to occur in June 2035.

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 commence 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, City of Mountain View agreed to finance a portion of the project with a $5 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 $5.2 million principal and $1.1 million in-substance interest as the remaining debt service on the bonds as of June 30, 2015, which is scheduled to occur in 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 $7.2 million principal and $1.7 million interest as the remaining debt service on the bonds as of June 30, 2015, which is scheduled to occur in November 2030.

2011 Utility Revenue Bonds, Series A

On September 22, 2011 the City issued Utility Revenue Bonds to refinance the 2002 Utility revenue bonds which was 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 percent to 4 percent. The Revenue Bonds are secured by net revenues generated by the Water Services and Gas Services Funds.

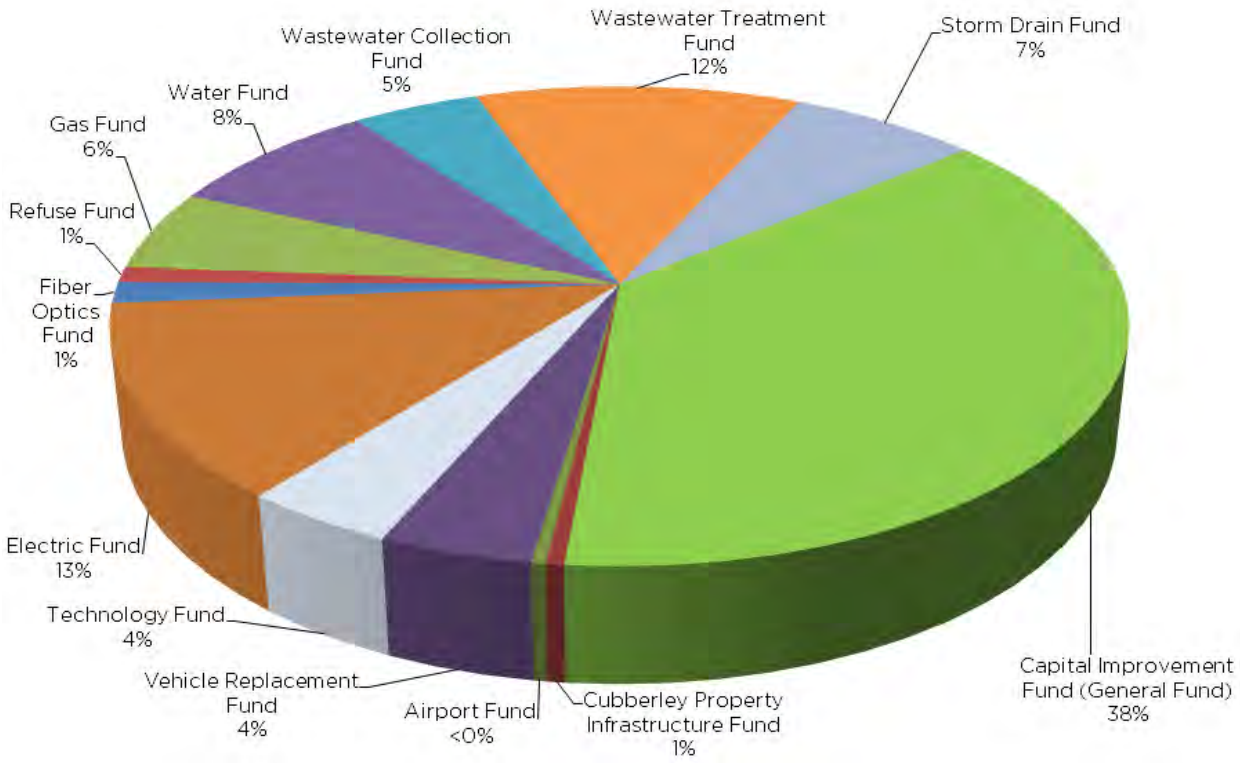
The pledge of future Net Revenues of the above funds ends upon repayment of the $13.3 million principal and $2.7 million interest as the remaining debt service on the bonds as of June 30, 2015, which is scheduled to occur in 2026.

FINANCIAL SUMMARY

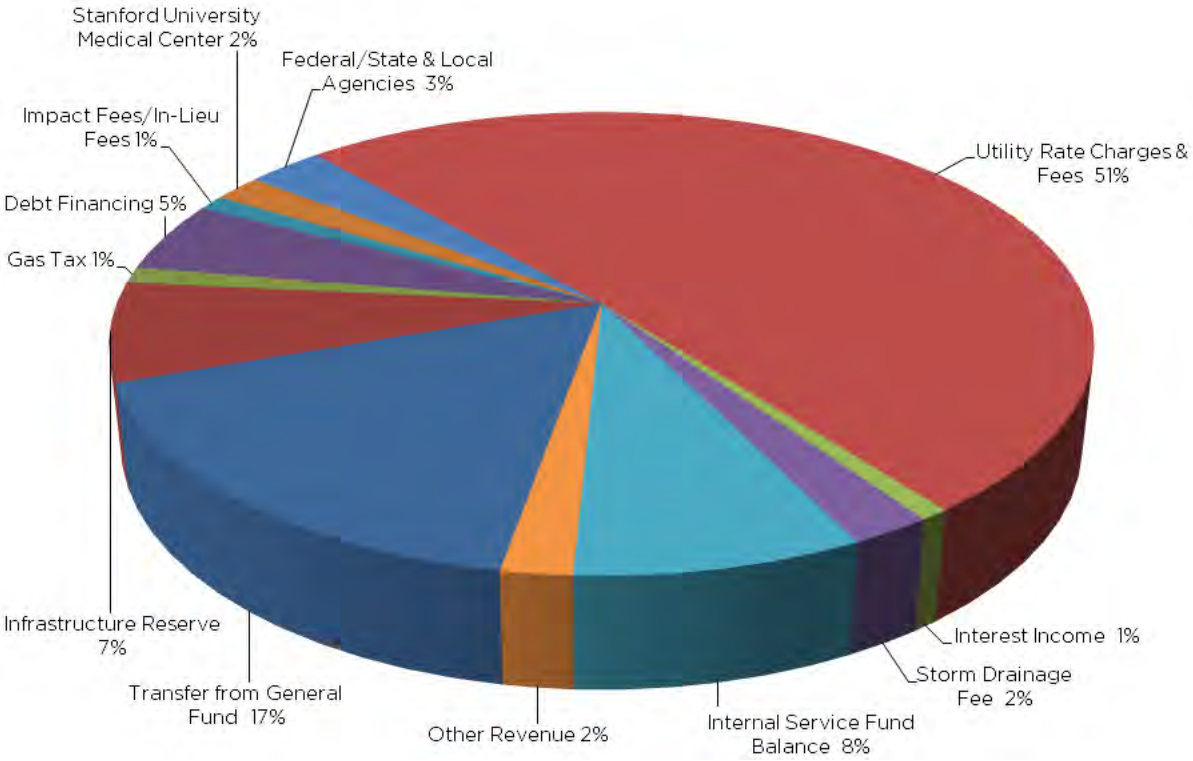
CITY OF
PALO
ALTO

SUMMARY INFORMATION

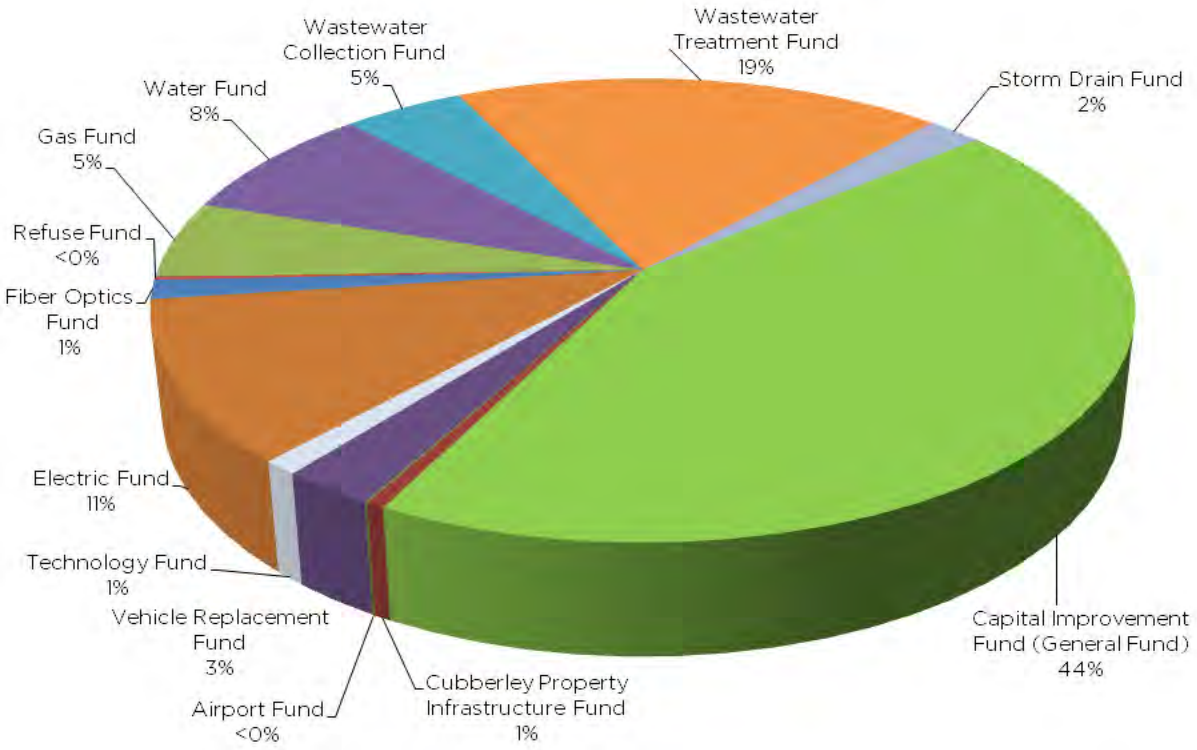
2016 Capital Budget Expenditures - $124.7 Million



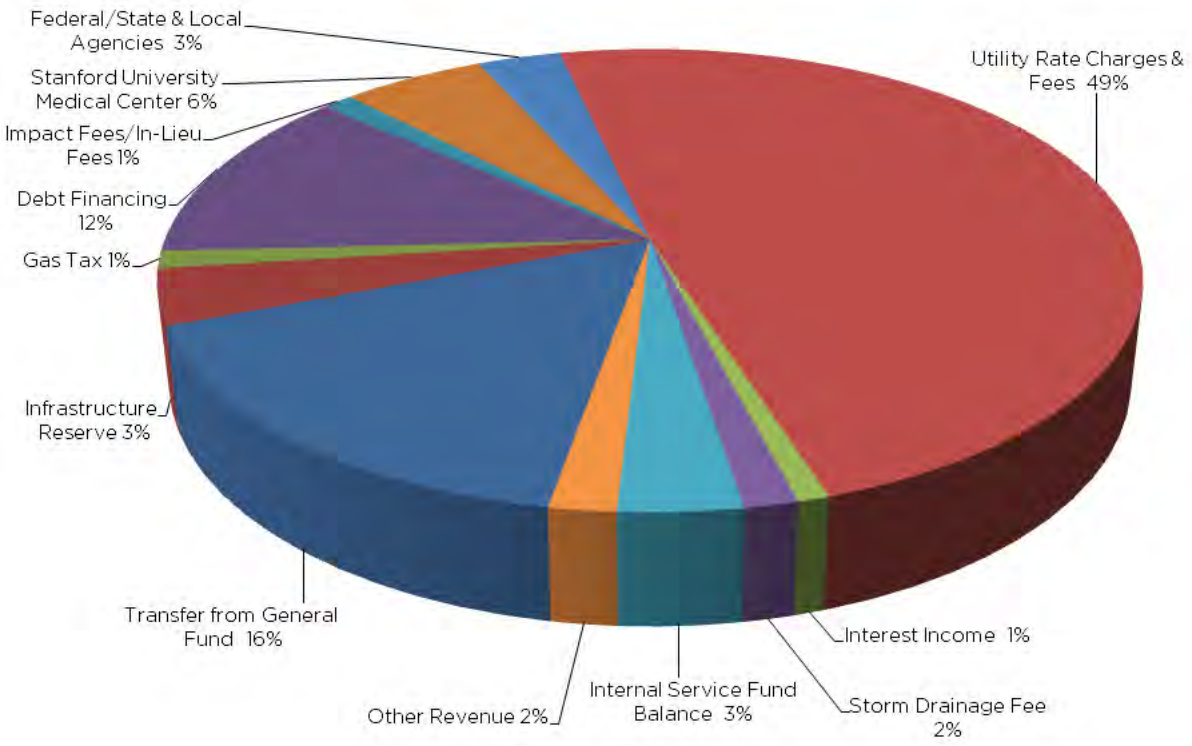
2016 Capital Budget Revenues - $124.7 Million



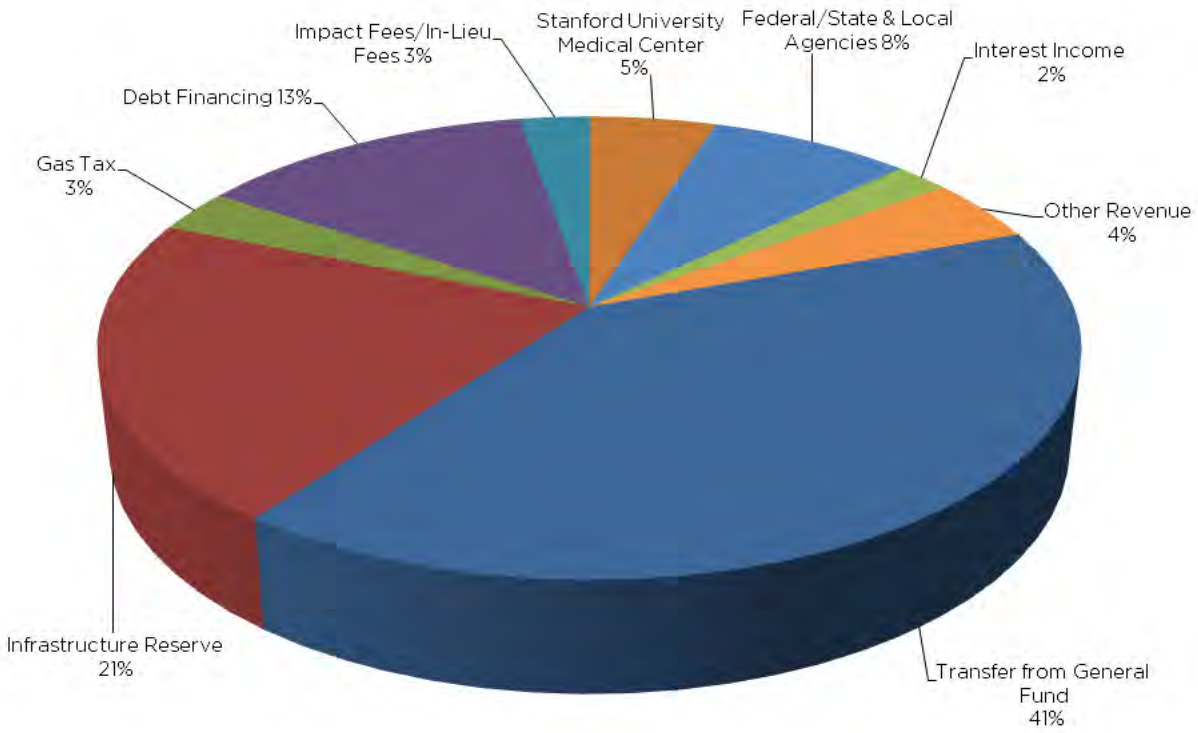
2016-2020 Capital Budget Expenditures - $553.4 Million



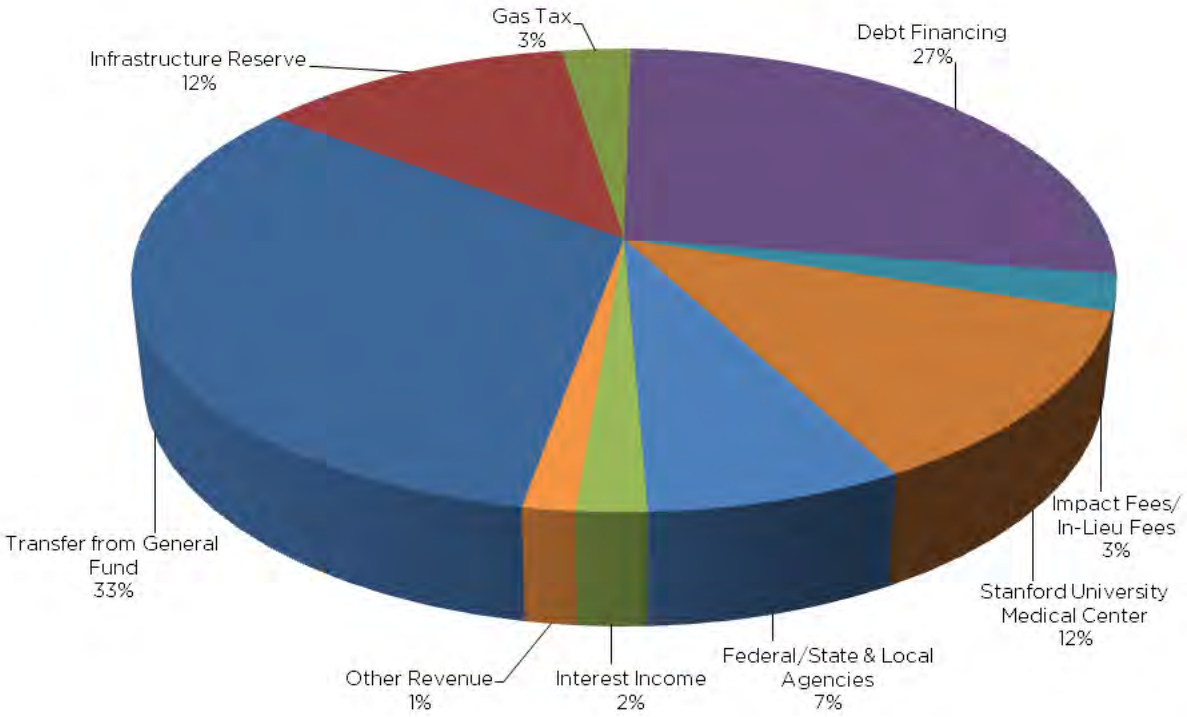
2016-2020 Capital Budget Revenues - $564.9 Million



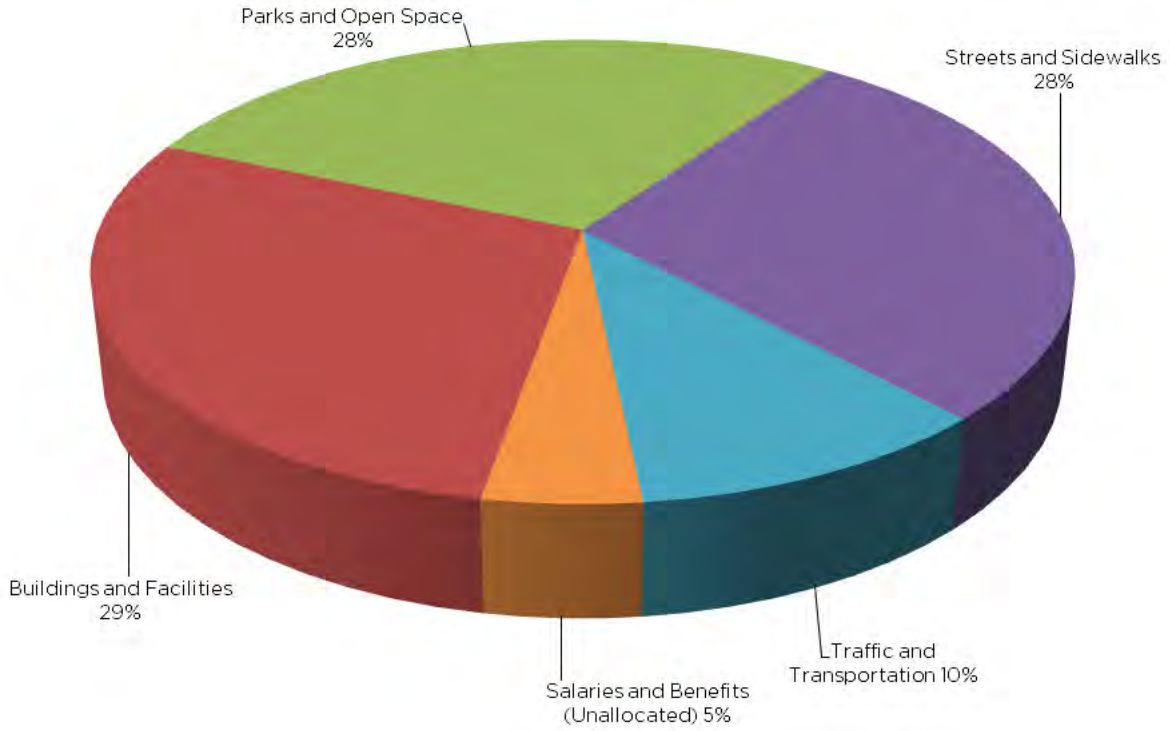
2016 Capital Improvement Fund Revenue - $46.8 Million



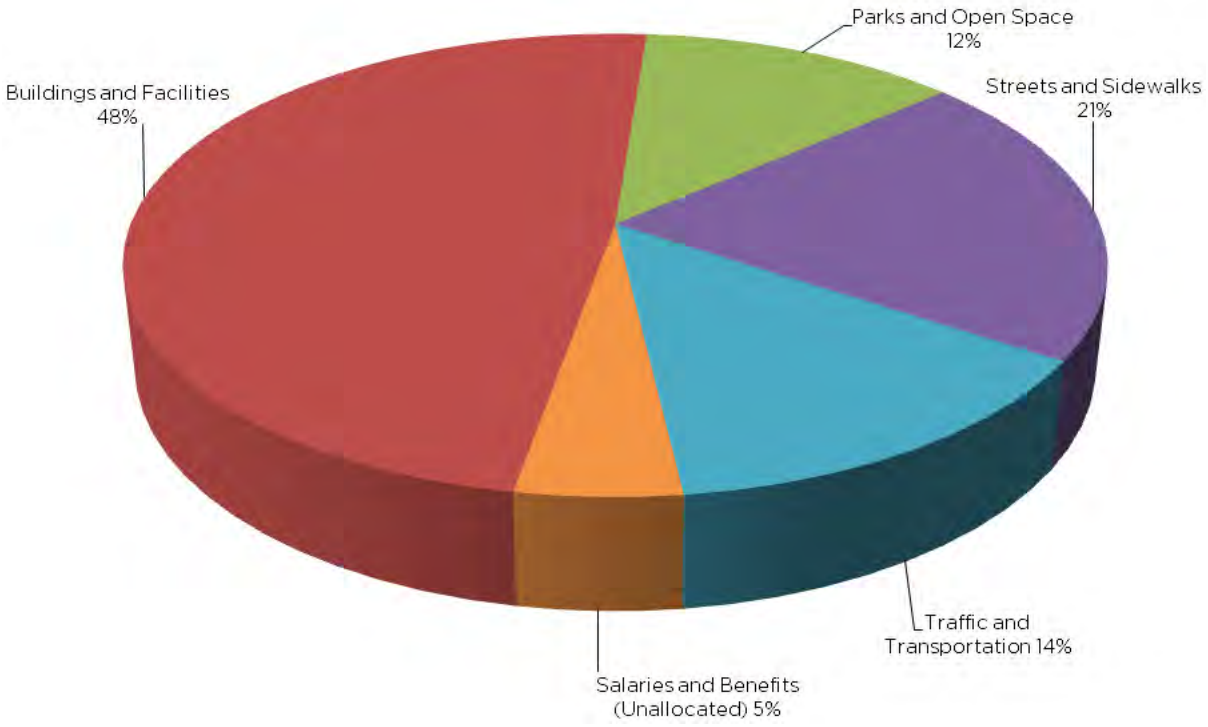
2016-2020 Capital Improvement Fund Revenue - $255.7 Million



2016 Capital Improvement Fund Expenditures - $46.8 Million



2016-2020 Capital Improvement Fund Expenditures- $241.1 Million



CITY OF
PALO
ALTO

CAPITAL FUNDS PROJECTS

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CAPITAL IMPROVEMENT FUND

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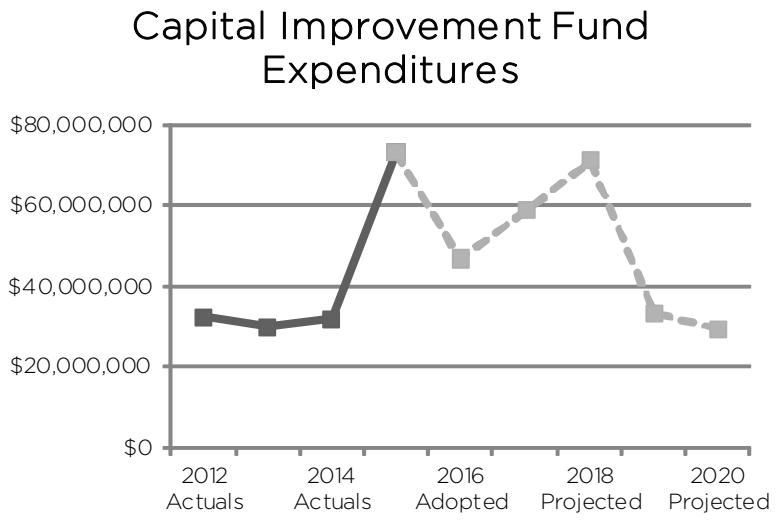
CAPITAL IMPROVEMENT FUND

Overview

Capital improvement projects that are not funded by the enterprise/internal service funds are supported by the General Fund and through grants and reimbursements from other agencies. Examples of these projects, which are accounted for within the Capital Improvement Fund, include street maintenance, park improvements, facility improvements to libraries, community centers, and public safety facilities, traffic signals, and sidewalk improvements. For the entire Capital Improvement Fund, a total of 85 projects are programmed over the 2016-2020 CIP, with a cumulative total cost of $255.7 million. Of this amount, $46.8 million is approved for Fiscal Year 2016, which includes $22.8 million for the continuation of projects approved by the City Council in prior fiscal years. This level of expense marks a significant increase as compared to the 2015-2019 CIP, which included total expenditures of $111.8 million. The budget for the Capital Improvement Fund is broken into four separate categories: Buildings and Facilities, Parks and Open Space, Streets and Sidewalks, and Traffic and Transportation.



Also accounted for within the Capital Improvement Fund, and programmed for the first time as part of the 2016-2020 CIP, is the $126 million Infrastructure Plan, which was approved by the City Council in June of 2014. The primary funding source for the Capital Improvement Fund is the annual transfer from the General Fund. In Fiscal Year 2016, this transfer will be $19.0 million, which includes the annual base transfer of $14.0 million (increased by an average of 2.4% in each year of the CIP), and $5.0 million to support the Infrastructure Plan.

The Infrastructure Plan includes the following projects:

- a new public safety building
- two fire station replacements
- a new parking garage in the downtown area

- a new garage in the California Avenue area
- the completion of Byxbee Park
- the Highway 1010 Pedestrian Bicycle Bridge
- the Bicycle and Pedestrian Transportation Plan

It is important to note that the cost estimates used to develop the $126 million Infrastructure Plan did not include salaries and benefits for City staff as existing staff will be assigned to infrastructure plan projects. Therefore, the costs programmed in this budget for infrastructure plan projects exceed the amounts approved by the City Council in June 2014. Further information on the Infrastructure Plan and the annual transfer from the General Fund to the Capital Improvement Fund is provided in the Transmittal Letter of this budget.

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, discussed elsewhere in this document. The 2016-2020 Capital Improvement Program includes projects totaling $116.8 million, with $13.4 million allocated in Fiscal Year 2016. Of the $13.4 million, $5.8 million is 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: New Public Safety Building, Fire Station #3 Replacement, Fire Station #4 Replacement, New Downtown Parking Garage, and New California Avenue Area Parking Garage. These projects account for $93.8 million of the $126 million Infrastructure Plan. The total funding amount of $116.8 million for Building and Facilities over the 2016-2020 CIP represents approximately 46 percent of the total Capital Improvement Fund CIP Plan.

Infrastructure Inventory - Summary of Buildings and Facilities

CLASSIFICATION	QUANTITY	SQUARE FOOTAGE
Civic Center and Municipal Service Center	2	157,593
Community Centers	2	68,135
Libraries	5	91,916
Fire Stations	6	25,847
Parking Garages	8	982,966

Recent Accomplishments

- Completion of the Mitchell Park Library and Community Center project, with the new facility open to the public in November 2014.
- Completion of the Rinconada Library Expansion and Renovation Project, the final project under the Measure N Library Bond program, with the grand opening of the public in February 2015.
- Completion of the City Hall Remodel Project, which created new, modern meeting spaces on the first floor of City Hall while renovating staff spaces on the mezzanine and second floor levels.
- Completion of the design and construction bid package for the Lucie Stern Mechanical and Electrical Upgrades Project, with construction planned for completion in Fiscal Year 2016.

2016-2020 Capital Improvement Program

Recurring Projects

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

- Americans With Disabilities Act Compliance (Fiscal Year 2016: $0.3 million, 2016-2020 CIP: $1.0 million)
- Building Systems Improvements (Fiscal Year 2016: $0.3 million, 2016-2020 CIP: $1.2 million)
- City Facility Parking Lot Maintenance (Fiscal Year 2016: $0.4 million, 2016-2020 CIP: $1.3 million)
- Facility Interior Finishes Replacement (Fiscal Year 2016: $0.8 million, 2016-2020 CIP: $1.6 million)
- Roofing Replacement (Fiscal Year 2016: $0.7 million, 2016-2020 CIP: $2.3 million)
- University Avenue Parking Improvements (Fiscal Year 2016: $0.4 million, 2016-2020 CIP: $0.7 million)

Activities planned for Fiscal Year 2016 under these projects include parking lot resurfacing at the Animal Shelter, Fire Station #5, Lot N (Emerson/Hamilton) and Lot T (Lytton/Kipling), replacement of the roof at Fire Station #2, installation of a new air conditioning unit for the City Hall second floor data center, and replacement of the domestic water control system at City Hall. The total funding for the Roofing Replacement project in the Fiscal Year 2016-2020 CIP Plan, at $2.3 million, is approximately double the funding level that was included in the 2015-2019 CIP. The increase in requested funding reflects updated estimates that incorporate recent pricing, a correction to roof square footage figures, and an enhanced effort to align each year's funding with the planned projects, rather than including a fixed amount each year. The Facility Interior Finishes Replacement project includes increased funding in Fiscal Year 2016 to provide updated office space furnishings and meeting spaces on the third floor of City Hall that will be commensurate with the updates already completed on the mezzanine, second, sixth and seventh floors. Finally, the Americans With Disabilities Act Compliance project will include an update to the City's 20-year old ADA Transition Plan, identifying and planning for upcoming accessibility improvement needs.

Non-Recurring Projects

Significant activities planned for Fiscal Year 2016 include projects at the Baylands Interpretive Center, the Lucie Stern Community Center, the Ventura Community Center, and the Rinconada Pool Locker Room. At the Baylands Interpretive Center, three separate projects (Baylands Boardwalk Improvements, Baylands Nature Interpretive Center Exhibit Improvements, and Baylands Nature Interpretive Center Improvements) are being conducted to assess potential repairs to the Boardwalk and new interpretive displays in coordination with the design of new siding, floors, decking, railings and cabinetry. Lucie Stern Center improvements include new mechanical systems that will include air conditioning and new electrical systems. While funding for the Lucie Stern Center improvements was provided in previous appropriations, an additional $300,000 was approved for Fiscal Year 2016 to fund fire and life safety improvements that were identified after design of the other improvements had commenced. Design of mechanical, electrical and accessibility improvements for the Ventura Community Center will occur in Fiscal Year 2016, with construction scheduled for Fiscal Year 2017. The 2015-2019 CIP included $1.17 million in funding in Fiscal Year 2016 for design and construction of improvements to the Junior Museum & Zoo, including new restrooms, a new customer service counter, and electrical systems. In consideration of the current efforts by the Friends of the Junior Museum & Zoo to secure funding for a complete rebuilding of the Junior Museum & Zoo, funding for the Junior Museum & Zoo Improvements project is not included in the 2016-2020 CIP.

New project funding in Fiscal Year 2016 allows for the design of electrical and mechanical improvements to the Municipal Service Center ($0.4 million), improvements to the Parking Lot Q elevator ($0.2 million), and City Hall Parking Garage LED Lighting ($0.2 million). The Municipal Services Center electrical and mechanical improvements had been included in previous CIP Plans, but were removed pending plans to study the potential use of the MSC site for revenue-generating activities. These long overdue improvements, as well as roofing replacements in Fiscal Year 2017, are now included in the Adopted CIP Plan. It should be noted that the departments and divisions housed at the Municipal Services Center are sharing in the cost of these improvements (Utilities Department, Fleet Maintenance, and Public Works Environmental Services). The Parking Lot Q Elevator project has been added in Fiscal Year 2016 to address control system and accessibility issues.

Requests for funding of new projects in Fiscal Years 2017-2020 consist of funding for the Council Infrastructure Plan projects that are referenced above. As currently scheduled, design of the New Public Safety Building, New Downtown Parking Garage, and Fire Station No. 3 Replacement projects will begin in early Fiscal Year 2016, while design of the New California Avenue Area Parking Garage and Fire Station No. 4 project will commence in Fiscal Year 2018.

Parks and Open Space

Maintenance, repair, and replacement of Open Space and Park amenities are managed jointly by the Community Services and Public Works Departments. Generally, Community Services oversees smaller projects as well as recurring projects with Public Works Engineering Services facilitating major one-time projects. The 2016-2020 CIP includes funding totaling $29.9 million in this category, with $13.3 million allocated in Fiscal Year 2016. Of this amount, $10.9 million is for the continuation of projects approved by the City Council in prior fiscal years ($10.0 million of

which is for the Golf Course Reconfiguration and Baylands Athletic Center Improvements project).

Infrastructure Inventory

Parks	33
City Open Space/Conservation Lands	4
Parks, Preserves, and Open Save Acreage	8,271
Picnic Areas	39
Athletic Fields	33

Recent Accomplishments

- Renovation of Hopkins Park
- Baylands picnic site improvements
- Initiation of construction of the El Camino Park Restoration project, with scheduled completion and reopening of the park in Fall 2016
- Successful completion of the Magical Bridge Playground project in coordination with the Friends of the Magical Bridge

2016-2020 Capital Improvement Program

Recurring Projects

There are seven recurring projects in the Parks and Open Spaces category:

- Art in Public Spaces (2016: $0.4 million, 2016-2020 CIP: $1.8 million)
- Benches, Signage, Fencing, Walkways, and Perimeter Landscaping (2016: $0.2 million, 2016-2020 CIP: $0.8 million)
- Off Road Pathway Resurfacing and Repair (2016: $0.2 million, 2016-2020 CIP: $0.7 million)
- Open Space Lakes and Ponds (2016: $0.05 million, 2016-2020 CIP: $0.2 million)
- Open Space Trails and Amenities (2016: $0.2 million, 2016-2020 CIP: $0.9 million)
- Parks and Open Space Emergency Repairs (2016: $0.1 million, 2016-2020 CIP: $0.4 million)
- Tennis and Basketball Court Resurfacing (2016: $0.2 million, 2016-2020 CIP: $1.1 million)

The funding allocated in the Arts in Public Spaces project is significantly increased as compared to prior years for two reasons. During Fiscal Year 2015, the City Council approved an ordinance amending the policy for allocating City funding to public art. Previously, one percent of construction funding for certain projects was allocated for public art, with numerous exemptions. The ordinance approved by the City Council effectively broadened the base to which projects were included in the public art calculation, by making the public art budget equal to one percent of all capital projects, with more specific exemptions. The second significant factor contributing to the increase in funding for this project is the inclusion of the Infrastructure Plan within the 2016-2020 CIP. Projects in the plan are included in the public art calculation, and cumulatively resulted in an additional $1.1 million being allocated towards public art. In continu-

ation with the prior year budget, public art is accounted for entirely within the Art in Public Spaces project to allow for administrative efficiencies and provide for more impactful artwork installations as funds are pooled together.

Funding for the other recurring projects within this category has not significantly changed from levels included in prior years.

Non-Recurring Projects

Significant projects included in this category during the 2016-2020 CIP include the Golf Course Restoration and Baylands Athletic Center Improvements Project and improvements at various parks (Bol, Boulware, Cameron, Hoover, Mitchell, Peers, Ramos, Rinconada, Robles, and Seale). Other investments in open space areas are also included in the CIP, such as the Buckeye Creek Hydrology Study, Golf Course Driving Range Net and Artificial Turf Replacement, a Baylands Conservation Plan, the Stanford/Palo Alto Playing Fields Soccer Turf Replacement, and the Byxbee Park Completion project. The Golf Course Restoration and Baylands Athletic Center Improvements Project is now scheduled to be completed in fall 2017. The timeline for this project, which will renovate the Municipal Golf Course in accordance with the City Council-approved conceptual plan, has been extended due to difficulties in securing the regulatory permits required for this project. The Buckeye Creek Hydrology Study, which is newly added as part of the 2016-2020 CIP, will analyze flooding conditions, recommend flood control structures, and provide drainage and erosion control solutions for the creek located within Foothills Park. The study will consider maintenance needs and land stewardship practices, with funding for the study in the amount of $190,000. The Baylands 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, anticipated to cost $270,000, will provide needed information on best areas to maintain as wildlife habitat and appropriate areas to develop trails or other recreation amenities. In Fiscal Year 2018, replacement of the netting and artificial turf of the driving range at the Palo Alto Golf Course is planned based on use expectancy and condition. The replacement cost is estimated at $770,000 with annual operating revenue anticipated to offset the expense. Finally, the 2016-2020 CIP includes $3.0 million for the Byxbee Park Completion project. This project, included in the Infrastructure Plan and mostly offset with park impact fees, provides funding for the remaining improvements to Byxbee Park, following the completion of the remaining landfill capping work.

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). A cumulative total of $49.9 million is included in this category within the 2016-2020 CIP, with $13.2 million allocated in Fiscal Year 2016. Of the Fiscal Year 2016 amount, $3.8 million is 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. The Fis-

cal Year 2016 Street Maintenance funding level of $6.0 million is more than triple the earlier base budget, and the citywide average PCI goal is expected to be reached in 2019, two years earlier than the initial goal. The funding level for Sidewalk Repairs has also increased, with additional funding of $1.0 million per year since Fiscal Year 2013 as recommended by the IBRC. The increased funding has allowed the Sidewalks program to eliminate its accumulation of deferred maintenance or "catch-up" work, and to return to the original 1986 schedule of completing work in all 23 sidewalk "districts" by 2016. The total funding amount of $49.9 million for streets and sidewalks represents approximately 20% of the total Capital Improvement Fund CIP.

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

Recent Accomplishments

- Increase of the citywide average Pavement Condition Index score to 79 at the end of Fiscal Year 2015
- Increase from 47% to 55% from 2013 to 2014 in the percentage of residents who rated Palo Alto streets in "excellent" or "good" condition in the annual National Citizen Survey
- Palo Alto's Street Maintenance Program was a Finalist in the 2015 Outstanding Local Streets and Roads Awards Program in the "Efficient and Sustainable Road and Bridge Preservation, Maintenance and Construction and Reconstruction Projects" category
- Completion of work in 20.5 of the 23 sidewalk districts with Fiscal Year 2015 funding, with the remaining district work scheduled using Fiscal Year 2016 funds. Increased sidewalk repairs funding recommended by the Infrastructure Blue Ribbon Commission has allowed the program to meet the 1986 goal of completing work in all districts within 30 years

2016-2020 Capital Improvement Program

Recurring Projects

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

- Curb and Gutter Repairs (2016: $0.4 million, 2016-2020 CIP: $1.1 million)
- Sidewalk Repairs (2016: $2.5 million, 2016-2020 CIP: $10.1 million)
- Sign Reflectivity Upgrade (2016: $0.2 million, 2016-2020 CIP: $0.4 million)
- Street Lights Improvements (2016: $0.4 million, 2016-2020 CIP: $1.0 million)
- Street Maintenance (2016: $9.1 million, 2016-2020 CIP: $33.0 million)
- Thermoplastic Lane Marking and Striping (2016: $0.1 million, 2016-2020 CIP: $0.4 million)

Activities for Fiscal Year 2016 under these projects consist of ongoing planned repair activities, as well as providing funding for unplanned needs that may arise. The Street Maintenance program will continue to implement its five-year plan in close coordination with Utilities and Transportation projects, and will use the additional funding provided for FY 2015 through 2017 to repave the remaining portions of Alma Street and Middlefield Road. An additional funding allocation of $260,000 in addition to the regular annual allocation of $100,000 to the Curb and Gutter Repairs project will provide funding for valley gutter installation in the Barron Park neighborhood that will accompany Street Maintenance work in that neighborhood. The Sidewalk Repairs project will complete the 30-year cycle of work in the last of the 23 sidewalk districts, and will also complete an assessment of the program that will examine potential improvements to the district-based program.

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 Fiscal Year 2016. Following a year-long delay to secure new funding from Caltrans and the Santa Clara Valley Water District, the Newell Road/ San Francisquito Creek Bridge Replacement project will complete an Environmental Impact Report process that will select a preferred option after considering a number of alternatives for addressing the flooding risk caused by the current outmoded bridge and enhancing multi-modal transportation opportunities. The El Camino Median Landscape Improvements project will replace failed landscaping and irrigation systems in El Camino Real medians from Cambridge Avenue to Grant Avenue, in coordination with the completion of the California Avenue Streetscape project. Lastly, the Streetlights Condition Assessment project will fulfill the IBRC recommendation that Palo Alto's streetlights be inventoried and assessed, including recommendations for a cost-effective maintenance and replacement program.

Traffic and Transportation

Projects in this category are for the design and implementation of traffic flow enhancements, improvement of transportation, bicycle, and pedestrian safety and mobility, and parking improvements. Planning, design, and construction of Traffic and Transportation projects are managed jointly by the Transportation Division of the Planning and Community Environment Department and the Public Works Department. Over the course of the 2016-2020 CIP, a cumulative total of $33.3 million is programmed, with $4.8 million allocated in Fiscal Year 2016. Of the Fiscal Year 2016 funding included within this category, $2.2 million is for the completion of projects approved by the City Council in prior fiscal years. The overall funding level of $33.3 million for programmed projects represents 13% of the total Capital Improvement Fund CIP. It's important to note that the 2016-2020 CIP includes a reserve in the amount of $11.6 million for the implementation of the yet to be scheduled projects within the Bicycle and Pedestrian Transportation Plan Implementation Project. Considering this reserve, total funding of $44.7 million for traffic and transportation represents 17.6% of the total Capital Improvement Fund CIP.

Recent Accomplishments

- Construction for the California Streetscape Project (completion in spring 2015)

- Replacement of traffic signal controller hardware at 100 intersections, improving the Traffic Signal Management System citywide
- Convened an Advisory Committee meetings on the Matadero Creek Trail Project and initiated preparation of a feasibility study
- Approval of Residential Preferential Parking program in December 2014 and award of contracts for signage and permitting to allow for implementation of Phase I beginning in September 2015
- Continued engagement related to bike boulevard projects to implement key sections of the 2012 Bicycle and Pedestrian Plan

2016-2020 Capital Improvement Program

Recurring Projects

There are four recurring projects within the Traffic and Transportation category:

- Bicycle and Pedestrian Transportation Plan (2016: $2.8 million, 2016-2020 CIP: $19.6 million)
- Safe Routes to School (2016: $0.1 million, 2016-2020 CIP: $0.7 million)
- Traffic Signal and ITS Upgrades (2016: $0.2 million, 2016-2020 CIP: $1.1 million)
- Transportation and Parking Improvements (2016: $0.2 million, 2016-2020 CIP: $1.2 million)

Together, these projects improve transportation and safety and implement the 2012 Bicycle and Pedestrian Plan. The Bicycle and Pedestrian Transportation Plan represents the majority of funding within this category. This project provides funding for the design and construction of bicycle boulevards, bicycle lanes, bicycle routes, bicycle parking projects, and trails routes. This project was included in the Infrastructure Plan, and funded through transfers from the Stanford University Medical Center Development Agreement Fund. As mentioned previously, a reserve of $11.6 million is included in the Capital Improvement Fund for this project. This reserve will be liquidated and funds moved to the Bicycle and Pedestrian Transportation project during the course of the 5-Year CIP as projects are scheduled and cost estimates developed. It is important to note that the 2015-2019 CIP included funding for parking guidance systems, access controls, and revenue collection equipment within the downtown garages. This funding was removed as part of the Fiscal Year 2015 Mid-Year report, as the amount of funding required for this project is currently unknown. Design work for these improvements is scheduled to commence shortly, and once costs are identified, recommendations for funding these improvements will be evaluated as part of the development of future CIPs.

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, or design or construction. There are two significant projects that fall within this category: Midtown Connector and Charleston/Arastradero Corridor Improvements. The Midtown Connector project provides funding for the construction of a new bicycle and pedestrian trail along the levees of the Matadero Creek. It is anticipated that a majority of this project's cost ($1.5 million of the total projected cost of $2.2 million) will be supported by a grant

from the County of Santa Clara. It should be noted that the location for this trail is still being studied, in coordination with a neighborhood advisory committee. Should it be determined that the location along the creek is not recommended, it is possible that the grant funding may not be available. The Charleston/Arastradero Corridor Improvements project provides funding for the reconfiguration of the Charleston/Arastradero corridor, including engineering design and construction of new landscaped median islands, enhanced bike lanes, new street trees, bulb outs, and lighting. This project, which was only partially funded in the 2015-2019 CIP, is now fully funded as part of the 2016-2020 CIP. The Council approved Infrastructure Plan addressed the funding gap of $7.3 million.

Source and Use Statement

Capital Improvement Fund

Project Number	Project Name	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
Source of Funds									
Beginning Fund Balance									
	Library Bond Proceeds	$33,899,000	$19,367,999	$ —	$ —	$ —	$ —	$ —	$ —
	Infrastructure Reserve- Beginning Fund Balance	15,173,000	3,383,180	30,981,783	21,104,954	9,647,274	13,618,833	12,621,857	30,981,783
	Fund Balance- Reserved for existing capital projects	30,616,000	54,883,056	—	—	—	—	—	—
	Total Beginning Fund Balance	**$79,688,000**	**$77,634,235**	**$30,981,783**	**$21,104,954**	**$ 9,647,274**	**$13,618,833**	**$12,621,857**	**$30,981,783**
General Fund Contributions									
	General Fund Annual Capital Transfer	$13,234,485	$13,659,000	$13,988,157	$14,325,846	$14,672,321	$15,027,801	$15,392,524	$73,406,649
	FY 2014 YE Surplus	4,000,000	—	—	—	—	—	—	—
	Interest Income (estimate)	1,057,410	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
	Transfer from General Fund - additional hotels and 2 percentage point TOT increase	—	—	5,025,000	5,025,000	—	—	—	10,050,000
PL-15003	Residential Preferential Parking	—	118,500	—	—	—	—	—	—
	Total General Fund Contributions	**$18,291,895**	**$14,777,500**	**$20,013,157**	**$20,350,846**	**$15,672,321**	**$16,027,801**	**$16,392,524**	**$88,456,649**
Project Reimbursements and Fund Transfers									
Transfers from Gas Tax Fund									
PE-86070	Street Maintenance	$ 1,300,000	$ 1,300,000	$ 1,300,000	$ 1,300,000	$ 1,300,000	$ 1,300,000	$ 1,270,000	$ 6,470,000
PL-00026	Safe Routes to School	210,224	100,000	100,000	100,000	75,000	75,000	75,000	425,000
PL-12000	Transportation and Parking Improvements	225,000	225,000	—	—	—	—	—	—
	Total Transfers from Gas Tax Fund	1,735,224	1,625,000	1,400,000	1,400,000	1,375,000	1,375,000	1,345,000	6,895,000
Transfers from University Avenue Parking Permit Fund									
PL-12000	Transportation and Parking Improvements	$ —	$ 400,000	$ —	$ —	$ —	$ —	$ —	$ —
PF-14003	University Avenue Parking Improvements	106,700	—	—	—	—	—	—	—
PF-14003	University Avenue Parking Improvements	340,900	59,800	87,380	66,576	134,359	23,917	24,563	336,795
PE-12017	City Hall First Floor Renovations: Wayfinding	—	156,400	—	—	—	—	—	—
PF-16004	City Hall Parking Garage LED Lighting	—	—	245,608	—	—	—	—	245,608

Source and Use Statement

Capital Improvement Fund

Project Number	Project Name	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
PL-15004	Parking Wayfinding Project	—	104,600	—	—	—	—	—	—
PL-15002	Parking Guidance Systems, Access Controls, and Revenue Collection Equipment	—	91,760	—	—	—	—	—	—
	Total University Avenue Parking Permit Fund	447,600	720,800	332,988	66,576	134,359	23,917	24,563	582,403
Transfers from Library Development Impact Fee Fund									
LB-11000	New Monument Sign	$ 40,000	$ —	$ —	$ —	$ —	$ —	$ —	$ —
	Total Library Development Impact Fee Fund	40,000	—	—	—	—	—	—	—
Transfers from Electric Fund									
PE-12017	City Hall First Floor Renovations	$ 133,687	$ —	$ —	$ —	$ —	$ —	$ —	$ —
	Total Electric Fund	133,687	—	—	—	—	—	—	—
Transfers from Water Fund									
PE-12017	City Hall First Floor Renovations	$ 133,687	$ —	$ —	$ —	$ —	$ —	$ —	$ —
PI-11002	California Avenue Streetscape Improvements	7,728	—	—	—	—	—	—	—
	Total Water Fund	141,415	—	—	—	—	—	—	—
Transfers from Wastewater Collection Fund									
PE-12017	City Hall First Floor Renovations	$ 133,687	$ —	$ —	$ —	$ —	$ —	$ —	$ —
	Total Wastewater Collection Fund	133,687	—	—	—	—	—	—	—
Transfer from Fiber Optics Fund									
PE-12017	City Hall First Floor Renovations	$ 133,687	$ —	$ —	$ —	$ —	$ —	$ —	$ —
	Total Fiber Optics Fund	133,687	—	—	—	—	—	—	—
Transfer from Gas Fund									
PE-12017	City Hall First Floor Renovations	$ 133,687	$ —	$ —	$ —	$ —	$ —	$ —	$ —
	Total Gas Fund	133,687	—	—	—	—	—	—	—
Transfers from California Avenue Parking Permit Fund									
PF-14004	California Avenue Parking District Parking Improvements	$ 186,400	$ —	$ —	$ —	$ —	$ —	$ —	$ —
PF-14004	California Avenue Parking District Parking Improvements	—	—	—	102,234	—	150,676	—	252,910
	Total California Avenue Parking Permit Fund	186,400	—	—	102,234	—	150,676	—	252,910
Transfers from Technology Fund									

Source and Use Statement

Capital Improvement Fund

Project Number	Project Name	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
PE-12017	City Hall First Floor Renovations	$ 499,335	$ —	$ —	$ —	$ —	$ —	$ —	$ —
	Total Technology Fund	499,335	—	—	—	—	—	—	—
Transfers from Community Center Development Impact Fund									
PE-09006	FF&E at Main Library Community Center	$ 16,000	$ —	$ —	$ —	$ —	$ —	$ —	$ —
LB-11000	New Monument Sign	40,000	—	—	—	—	—	—	—
	Total Community Center Development Impact Fund	56,000	—	—	—	—	—	—	—
Transfer from Charleston/Arastradero Development Impact Fee Fund									
PE-13011	Charleston/Arastradero Corridor Project	$ 335,000	$ —	$ —	$ —	$ —	$ —	$ —	$ —
	Total Charleston/ Arastradero Development Impact Fee Fund	335,000	—	—	—	—	—	—	—
Transfer from Stanford University Medical Center Development Agreement Fund									
PE-13011	Charleston/Arastradero Corridor Project	$ —	$ —	$ —	$ 1,550,000	$ —	$ —	$ —	$ 1,550,000
PE-15007	New Downtown Parking Garage	—	—	—	9,072,000	—	—	—	9,072,000
PE-15003	Fire Station 3 Replacement	—	—	700,000	6,000,000	—	—	—	6,700,000
PE-15001	New Public Safety Building	—	—	1,200,000	2,800,000	750,000	—	—	4,750,000
PL-04010	Bicycle and Pedestrian Plan - Implementation Project	1,200,000	1,200,000	1,200,000	1,200,000	5,200,000	1,200,000	1,200,000	10,000,000
	Total Stanford University Medical Center Fund	1,200,000	1,200,000	3,100,000	20,622,000	5,950,000	1,200,000	1,200,000	32,072,000
Transfer from Traffic Impact Fee Fund									
PL-05030	Traffic Signal and Intelligent Transportation System Upgrades	$ —	$ 840,822	$ —	$ —	$ —	$ —	$ —	$ —
PL-14000	El Camino Real & Churchill Avenue Intersection Improvements Design	—	307,608	—	—	—	—	—	—
PL-12000	Transportation and Parking Improvements	25,000	—	—	—	—	—	—	—
PL-15001	Embarcadero Corridor Improvments project	—	372,281	—	—	—	—	—	—
PL-11003	Palo Alto - Traffic Signal Central System Upgrade	—	364,472	—	—	—	—	—	—
	Total Traffic Impact Fee Fund	25,000	1,885,183	—	—	—	—	—	—
Transfers from Community Center Development Impact Fee Fund									
PE-12017	City Hall First Floor Renovations	$ 686,298	$ —	$ —	$ —	$ —	$ —	$ —	$ —
	Total Community Center Development Impact Fee Fund	686,298	—	—	—	—	—	—	—

Source and Use Statement

Capital Improvement Fund

Project Number	Project Name	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
Transfers from Cubberley Property Infrastructure Fund									
PF-14000	Cubberley Roof Replacements (FY 2015 expense, January 2015 forward)	$ —	$ 55,126	$ —	$ —	$ —	$ —	$ —	$ —
	Total Cubberley Property Infrastructure Fund	—	55,126	—	—	—	—	—	—
Transfers from Downtown Parking In-Lieu Fund									
PE-15007	New Downtown Parking Garage	$ —	$ —	$ 1,300,000	$ 2,741,000	$ —	$ —	$ —	$ 4,041,000
	Total Downtown Parking In-Lieu Fund	—	—	1,300,000	2,741,000	—	—	—	4,041,000
Transfer from Stanford Research Park/El Camino Traffic Impact Fee Fund									
PL-12000	Transportation and Parking Improvements	$ 75,000	$ —	$ —	$ —	$ —	$ —	$ —	$ —
	Total Stanford Research Park/El Camino Traffic Impact Fee Fund	75,000	—	—	—	—	—	—	—
Transfer from Parks Development Impact Fee Fund									
PE-13016	El Camino Park Restoration Project Phase II	$ —	$ 246,000	$ —	$ —	$ 2,800,000	$ —	$ —	$ 2,800,000
	Total Parks Development Impact Fee Fund	—	246,000	—	—	2,800,000	—	—	2,800,000
Transfer from Utilities Administration Fund									
PF-02022	Facility Interior Finishes	$ —	$ —	$ 440,000	$ —	$ —	$ —	$ —	$ 440,000
PF-16006	Municipal Services Center Lighting, Mechanical, and Electrical Improvements	—	—	120,926	195,042	—	—	—	315,968
PF-17000	Municipal Services Center A, B, & C Roof Replace	—	—	—	673,782	—	—	—	673,782
	Total Utilities Administration Fund	—	—	560,926	868,824	—	—	—	1,429,750
Transfer from Refuse Fund									
PF-16006	Municipal Services Center Lighting, Mechanical, and Electrical Improvements	$ —	$ —	$ 28,070	$ 4,952	$ —	$ —	$ —	$ 33,022
PF-17000	Municipal Services Center A, B, & C Roof Replace	—	—	—	17,107	—	—	—	17,107
	Total Refuse Fund	—	—	28,070	22,059	—	—	—	50,129
Transfer from Vehicle Replacement and Maintenance Fund									
PF-16006	Municipal Services Center Lighting, Mechanical, and Electrical Improvements	$ —	$ —	$ 31,711	$ 51,147	$ —	$ —	$ —	$ 82,858
PF-17000	Municipal Services Center A, B, & C Roof Replacement	—	—	—	176,690	—	—	—	176,690
	Total Vehicle Replacement and Maintenance Fund	—	—	31,711	227,837	—	—	—	259,548

Source and Use Statement

Capital Improvement Fund

Project Number	Project Name	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
Bond Proceeds									
PG-13003	Bond Proceeds from Golf Reconfiguration and Baylands Athletic Center	$ —	$ —	$ 6,148,437	$ —	$ —	$ —	$ —	$ 6,148,437
	Total Bond Proceeds	—	—	6,148,437	—	—	—	—	6,148,437
Grants/Other Revenues									
PE-12009	Alma Street/University Avenue Bridge Guardrail Repair	$ —	$ 40,485	$ —	$ —	$ —	$ —	$ —	$ —
PL-11002	California Avenue Transit Corridor Hub: VTA Grant	—	1,175,200	—	—	—	—	—	—
PE-13011	Charleston/Arastradero Corridor: VTA Grant	—	—	—	500,000	500,000	—	—	1,000,000
PE-13011	Charleston-Arastradero Corridor: Caltrans Grant	—	—	—	225,000	225,000	—	—	450,000
AC-09001	Children's Theatre Replacement and Expansion: Contribution from Friends of the Theatre	—	50,000	—	—	—	—	—	—
FD-14002	Fire Ringdown System Replacement: Reimbursement from Stanford University	—	—	—	24,000	—	—	—	24,000
PE-18004	Fire Station 4 Replacement: Certificates of Participation (COPs)	—	—	—	—	—	1,579,000	—	1,579,000
PE-12003	Friends of the JMZ	—	57,283	—	—	—	—	—	—
LB-11000	Furniture and Technology for Library Projects: Donation from the Friends of the Library	700,000	—	—	—	—	—	—	—
PG-13003	Golf Reconfiguration and Baylands Athletic Center: Soil Imports	184,226	—	1,115,774	—	—	—	—	1,115,774
PE-11011	Highway 101 Pedestrian/ Bicycle Overpass: Grants from OBAG and County for Pedestrian/Bicycle Overpass Project	—	—	300,000	700,000	4,000,000	3,000,000	—	8,000,000
PF-15005	Insurance Reimbursement-2257 Bryant Street	—	250,000	—	—	—	—	—	—
PE-12013	Magical Bridge Playground: Friends of the Magical Bridge	2,500,000	321,471	—	—	—	—	—	—
PE-12013	Magical Bridge Playground: MTC Grant	—	82,172	—	—	—	—	—	—
PE-12013	Magical Bridge Playground: Santa Clara County Park Charter Fund Grant	—	150,000	—	—	—	—	—	—
PL-14001	Matadero Creek Trail: Santa Clara County Grant	—	—	—	1,500,000	—	—	—	1,500,000
PE-18000	New California Avenue Parking Garage	—	—	—	—	887,000	8,600,000	—	9,487,000

Source and Use Statement

Capital Improvement Fund

Project Number	Project Name	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
PE-15001	New Public Safety Building: Certificates of Participation (COPs)	—	—	—	—	52,250,000	—	—	52,250,000
PE-12011	Newell Road Bridge/San Francisquito Creek Bridge Replacement: Caltrans	35,011	960,095	—	—	2,213,250	—	—	2,213,250
PE-12011	Newell Road Bridge/San Francisquito Creek Bridge Replacement: Silicon Valley Water District	4,536	124,391	—	—	286,750	—	—	286,750
PF-16003	Parking Lot Q Elevator Modernization: Homeowner Association Reimbursement	—	—	25,591	—	—	—	—	25,591
PL-15003	Residential Preferential Parking Permit Program: Neighborhood Parking Preservation Deposit	—	250,000	—	—	—	—	—	—
PG-13003	SF Creek Joint Powers Authority Funding for Golf Reconfiguration and Baylands Athletic Center	—	—	3,000,000	—	—	—	—	3,000,000
PE-86070	Street Maintenance : Caltrans Grant (Alma Street)	898,894	—	—	—	—	—	—	—
PE-86070	Street Maintenance Project: Association of Bay Area Governments: Water Trail Grant	—	40,000	—	—	—	—	—	—
PE-86070	Street Maintenance Project: OneBayArea Grant	—	477,353	—	—	—	—	—	—
PE-86070	Street Maintenance Project: Vehicle License Fee	383,378	385,000	385,000	385,000	385,000	385,000	385,000	1,925,000
PE-86070	Street Maintenance: Alma Guardrail Insurance Settlement	—	125,000	—	—	—	—	—	—
PE-86070	Street Maintenance: California DOT Grant (Lytton/Channing)	—	512,000	—	—	—	—	—	—
PE-86070	Street Maintenance: Other	857,651	—	—	—	—	—	—	—
FD-12000	Thermal Imaging Infrared Long Range CCTV Cameras: Reimbursement from Stanford University	129,479	—	—	—	—	—	—	—
PL-05030	Traffic Signal and ITS Upgrades: Other Revenue	19,721	—	—	—	—	—	—	—
PL-12000	Transportation and Parking Improvements: Other Revenue	22,379	—	—	—	—	—	—	—
PL-12000	Transportation and Parking Improvements: TDA Grant	55,597	—	—	—	—	—	—	—

Source and Use Statement

Capital Improvement Fund

Project Number	Project Name	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
PE-13022	University Avenue Pedestrian/Bicycle Underpass Rehabilitiation: Other Revenue	2,375	—	—	—	—	—	—	—
	Total Grants and Other Revenues	5,793,246	5,000,450	4,826,365	3,334,000	60,747,000	13,564,000	385,000	82,856,365
	Total Sources	$109,735,162	$103,144,294	$67,923,437	$70,840,330	$96,325,954	$45,960,227	$31,968,944	$256,025,974
Use of Funds									
Buildings and Facilities									
FD-12000	ALS EKG Monitor Replacement	$ 92,966	$ —	$ —	$ —	$ —	$ —	$ —	$ —
PF-93009	Americans With Disabilities Act Compliance	16,024	378,739	299,766	142,328	143,471	189,289	191,700	966,554
AC-14000	Art Center Auditorium Audio, Visual, And Furnishings	—	57,653	92,347	—	—	—	—	92,347
PF-07000	Art Center Electrical and Mechanical Upgrades	5,223	9,978	—	—	—	—	—	—
PE-14018	Baylands Boardwalk Improvements	—	50,000	46,468	—	—	—	—	46,468
AC-14001	Baylands Nature Interpretive Center Exhibit Improvements	—	—	56,000	—	—	—	—	56,000
PE-15029	Baylands Nature Interpretive Center Facilitiy Improvements	28,738	107,339	475,146	—	—	—	—	475,146
PF-01003	Building Systems Improvements	150,878	119,988	283,469	235,481	238,599	241,801	245,090	1,244,440
PF-14004	California Avenue Parking District Parking Improvements	—	—	204,933	102,234	19,548	150,676	20,618	498,009
PF-09000	Children's Theater Improvements	52,172	—	—	—	—	—	—	—
AC-09001	Children's Theatre Replacement And Expansion	4,581	98,000	—	—	—	—	—	—
PE-09003	City Facility Parking Lot Maintenance	12,446	678,306	370,321	246,478	67,652	487,845	111,056	1,283,352
PE-12017	City Hall First Floor Renovations	377,655	3,618,484	—	—	—	—	—	—
PF-16004	City Hall Parking Garage LED Lighting	—	—	245,608	—	—	—	—	245,608
PE-18016	Civic Center Fire Life Safety and Electrical Upgrades	—	—	—	—	142,884	1,113,439	161,823	1,418,146
PF-01002	Civic Center Infrastructure Improvements	344,298	41,895	—	—	—	—	—	—
PE-15020	Civic Center Waterproofing Study and Repairs	—	—	281,588	79,065	—	—	—	360,653

Source and Use Statement

Capital Improvement Fund

Project Number	Project Name	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
PF-11001	Council Chamber Carpet Replacement	—	80,000	—	—	—	—	—	—
PF-06004	Cubberley Restroom Upgrades	86	—	—	—	—	—	—	—
PF-14000	Cubberley Roof Replacements	1,489	342,931	—	—	—	—	—	—
CC-09001	Dimmer Replacement And Lighting System	149,191	11,565	—	—	—	—	—	—
PE-09005	Downtown Library Improvements	580	45,051	—	—	—	—	—	—
PE-12012	Eleanor Pardee Park Improvements	657,659	70,818	—	—	—	—	—	—
PF-15005	Emergency Facilities Improvement	—	51,230	198,770	—	—	—	—	198,770
PF-02022	Facility Interior Finishes Replacement	390,667	398,045	839,549	204,656	195,766	214,289	166,700	1,620,960
FD-14002	Fire Ringdown System Replacement	—	—	157,500	—	—	—	—	157,500
PF-14002	Fire Station 1 Improvements	820	39,746	281,026	—	—	—	—	281,026
PE-15003	Fire Station 3 Replacement	—	—	896,488	6,267,523	55,803	—	—	7,219,814
PE-18004	Fire Station 4 Replacement	—	—	—	—	901,437	6,984,489	238,799	8,124,725
FD-13000	Foothills Fire Cameras	—	—	65,000	—	—	—	—	65,000
PF-05003	Foothills Park Interpretive Center Improvements	36,063	67,491	—	—	—	—	—	—
LB-11000	Furniture & Technology For Library Projects	449,827	1,282,817	—	—	—	—	—	—
PD-14000	Internal Alarm System Replacement	—	—	78,000	—	—	—	—	78,000
PE-09010	Library & Community Center - Temporary Facilities	—	10,448	124,813	—	—	—	—	124,813
PE-14015	Lucie Stern Buildings Mechanical and Electrical Upgrades	219,686	132,330	2,868,491	—	—	—	—	2,868,491
PE-09006	Mitchell Park Library and Community Center	4,150,743	8,741,106	207,472	—	—	—	—	207,472
PF-16006	Municipal Service Center Lighting, Mechanical, and Electrical Improvements	—	—	407,215	592,328	—	—	—	999,543
PF-17000	Municipal Services Center A, B, & C Roof Replacement	—	—	—	1,942,328	—	—	—	1,942,328
PE-18000	New California Avenue Area Parking Garage	—	—	—	—	399,383	872,806	8,810,720	10,082,909
PE-15007	New Downtown Parking Garage	—	—	1,482,778	11,919,829	120,977	44,404	—	13,567,988
PE-15001	New Public Safety Building	—	—	1,364,108	2,968,539	50,173,089	3,177,763	160,324	57,843,823
AC-09002	New Sound System For Lucie Stern Community Theatre	86,389	106,767	—	—	—	—	—	—

Source and Use Statement

Capital Improvement Fund

Project Number	Project Name	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
PG-09003	Park Maintenance Shop Remodel	—	84,419	10,000	—	—	—	—	10,000
PE-06007	Park Restroom Installation	132,515	—	—	—	—	—	—	—
PF-16003	Parking Lot Q Elevator Modernization	—	—	170,608	—	—	—	—	170,608
PE-98020	Public Safety Building Project	17,143	33,467	—	—	—	—	—	—
PE-11000	Rinconada Library New Construction and Improvements	11,548,567	10,971,641	100,000	—	—	—	—	100,000
PF-15000	Rinconada Pool Locker Room	—	150	464,283	—	—	—	—	464,283
PF-00006	Roofing Replacement	119,682	9,281	726,654	202,328	706,942	249,289	451,700	2,336,913
PF-07011	Roth Building Maintenance	—	11,576	47,000	—	—	—	—	47,000
PF-04000	Security System Improvements	—	59,768	—	—	—	—	—	—
PE-13012	Structural Assessment of City Bridges	—	150,394	35,000	—	—	—	—	35,000
PE-11012	Temporary Main Library	29,997	109,169	—	—	—	—	—	—
PF-14003	University Avenue Parking Improvements	51,117	19,211	417,752	66,576	134,359	23,917	24,563	667,167
PE-15011	Ventura Buildings Improvements	—	—	148,483	689,330	40,600	—	—	878,413
PE-10002	Ventura Community Center And Park	140,475	—	—	—	—	—	—	—
	Total Buildings and Facilities	19,267,677	27,989,803	13,446,636	25,659,023	53,340,510	13,750,007	10,583,093	116,779,269
Miscellaneous									
AS-10000	Salaries and Benefits - General Fund CIP Projects	$ —	$ 2,457,612	$ 2,069,623	$ 2,031,708	$ 2,097,406	$ 2,232,012	$ 2,732,672	$ 11,163,421
	Transfer to University Avenue Parking Debt Service Fund	—	240,402	—	—	—	—	—	—
	Transfer to University Avenue Parking Fund for Parking Guidance System construction (less design contract)	—	300,000	—	—	—	—	—	—
	Total Miscellaneous	—	2,998,014	2,069,623	2,031,708	2,097,406	2,232,012	2,732,672	11,163,421
Parks and Open Space									
AC-86017	Art In Public Spaces	$ 80,497	$ 112,506	$ 359,716	$ 398,646	$ 613,249	$ 227,612	$ 199,400	$ 1,798,623
PG-17000	Baylands Comprehensive Conservation Plan	—	—	—	270,077	—	—	—	270,077
OS-09002	Baylands Emergency Access Levee Repair	—	902	265,000	—	—	—	—	265,000
PE-15028	Baylands Levee Improvements Feasibility	—	500,000	—	—	—	—	—	—

Source and Use Statement

Capital Improvement Fund

Project Number	Project Name	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
PG-06003	Benches, Signage, Walkways, Perimeter Landscaping	242,964	138,435	171,657	150,000	150,000	150,000	150,000	771,657
PE-16000	Bol Park Improvements	—	—	—	—	—	—	275,132	275,132
PE-17005	Boulware Park Improvements	—	—	—	45,000	400,000	—	50,666	495,666
PE-13008	Bowden Park Improvements	36,961	320,634	63,531	—	—	—	—	63,531
PG-15000	Buckeye Creek Hydrology Study	—	—	149,180	41,202	—	—	—	190,382
PE-18006	Byxbee Park Completion	—	—	—	—	354,015	2,636,252	—	2,990,267
PE-13020	Byxbee Park Trails	4,625	334,608	—	—	—	—	—	—
PG-14002	Cameron Park Improvements	—	—	—	—	124,000	35,994	—	159,994
PE-13005	City Hall/King Plaza Landscape	72,956	115,857	—	—	—	—	—	—
PE-13007	El Camino Dog Park	2,117	104	—	—	—	—	—	—
PG-13002	El Camino Park Playing Fields And Amenities	314,994	24,914	—	—	—	—	—	—
PE-13016	El Camino Park Restoration	33,976	5,409,604	158,657	—	—	—	—	158,657
PO-12003	Foothills Wildland Fire Mitigation Program	113,723	66,393	—	—	—	—	—	—
PG-18000	Golf Course Net and Artificial Turf Replacement	—	—	—	—	770,000	—	—	770,000
PG-12002	Golf Course Tree Maintenance	3,597	33,182	6,818	—	—	—	—	6,818
PG-13003	Golf Reconfiguration & Baylands Athletic Center Improvements	367,478	498,274	9,961,160	—	—	—	—	9,961,160
PE-13010	Greer Park Renovations	58,589	258,077	—	—	—	—	—	—
PE-18012	Hoover Park Improvements	—	—	—	90,139	490,000	—	—	580,139
PG-11000	Hopkins Park Improvements	8,400	82,500	—	—	—	—	—	—
PO-12002	LATP Site Development Prep And Security Improvements	61,147	—	—	—	—	—	—	—
PE-14010	LATP Site Development Preparation And Security Improvements	9,764	172,313	—	—	—	—	—	—
PE-08004	Lytton Plaza Renovation	3,542	—	—	—	—	—	—	—
PE-12013	Magical Bridge Playground	134,795	3,163,074	—	—	—	—	—	—
PE-18010	Mitchell Park Improvements	—	—	—	—	—	74,110	1,408,311	1,482,421
PG-11002	Monroe Park Improvements	794	246,006	—	—	—	—	—	—
OS-09001	Off-Road Pathway Resurfacing And Repair	52,060	279,049	202,045	120,587	121,143	121,713	122,300	687,788
OS-00002	Open Space Lakes And Pond Maintenance	35,000	14,920	45,000	45,000	45,000	45,000	45,000	225,000
OS-00001	Open Space Trails and Amenities	93,274	368,890	190,000	175,000	175,000	175,000	175,000	890,000

Source and Use Statement

Capital Improvement Fund

Project Number	Project Name	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
PE-15022	Palo Alto Community Gardens Irrigation System	—	5,610	275,816	—	—	—	—	275,816
PG-09002	Park and Open Space Emergency Repairs	100,044	100,325	75,000	75,000	75,000	75,000	75,000	375,000
PF-12001	Parks And Public Works Trees Work Space Improvements	371,406	250	—	—	—	—	—	—
PE-13003	Parks, Trails, Open Space, & Recreation Master Plan	120,719	378,035	99,110	—	—	—	—	99,110
PG-14001	Peers Park Improvements	—	—	—	—	229,019	—	—	229,019
PG-14000	Ramos Park Improvements	—	—	175,000	—	—	—	57,628	232,628
PE-08001	Rinconada Park Improvements	2,591	18,351	—	3,474,224	141,856	—	—	3,616,080
PE-12003	Rinconada Park Master Plan and Design	36,125	126,565	69,645	—	—	—	—	69,645
PE-18015	Robles Park Improvements	—	—	—	—	755,722	—	—	755,722
PG-12004	Sarah Wallis Park Improvements	—	65,000	—	—	—	—	—	—
PG-11003	Scott Park Improvements	618	99,383	—	—	—	—	—	—
PG-14003	Seale Park Improvements	—	—	—	—	354,019	—	—	354,019
PG-12001	Stanford/Palo Alto Playing Fields Netting	—	47,200	2,800	—	—	—	—	2,800
PG-13001	Stanford/Palo Alto Playing Fields Soccer Turf Replacement	—	725,000	770,000	—	—	—	—	770,000
PG-06001	Tennis and Basketball Court Resurfacing	—	447,062	233,050	215,000	215,000	215,000	215,000	1,093,050
PE-12002	Tree Wells - University Ave. Irrigation Alternates	37,553	—	—	—	—	—	—	—
	Total Parks and Open Space	2,400,309	14,153,023	13,273,185	5,099,875	5,013,023	3,755,681	2,773,437	29,915,201
Streets and Sidewalks									
PO-12001	Curb and Gutter Repairs	$ 368,699	$ 451,838	$ 426,288	$ 168,077	$ 172,364	$ 174,317	$ 176,324	$ 1,117,370
PL-11001	Dinah Summerhill Pedestrian/ Bicycle Path	6,853	—	116,052	—	—	—	—	116,052
PE-13017	El Camino Median Landscape Improvements	—	2,711	378,226	776,000	—	—	—	1,154,226
PL-15001	Embarcadero Road Corridor Improvements	—	498,957	—	—	—	—	—	—
PE-12011	Newell Road/San Francisquito Creek Bridge Replacement	163,774	941,081	—	2,500,000	—	—	—	2,500,000
PL-11003	Palo Alto - Traffic Signal Central System Upgrade	—	364,472	—	—	—	—	—	—

Source and Use Statement

Capital Improvement Fund

Project Number	Project Name	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
PL-15002	Parking Guidance Systems, Access Controls, and Revenue Collection Equipment	—	191,760	—	—	—	—	—	—
PL-15004	Parking Wayfinding	—	104,600	—	—	—	—	—	—
PE-00104	San Antonio Road Medians	58,823	—	—	—	—	—	—	—
PO-89003	Sidewalk Repairs	2,160,793	3,554,494	2,512,886	1,895,323	1,900,327	1,905,466	1,910,743	10,124,745
PO-11000	Sign Reflectivity Upgrade	2,029	25,000	174,953	50,000	50,000	50,000	50,000	374,953
PO-05054	Street Lights Improvements	74,636	57,917	377,286	164,103	164,484	164,875	165,276	1,036,024
PE-86070	Street Maintenance	5,072,597	7,276,455	9,075,227	6,584,983	5,762,280	5,779,638	5,797,464	32,999,592
PE-13014	Streetlights Condition Assessment	—	215,078	40,286	—	—	—	—	40,286
PO-11001	Thermoplastic Lane Marking and Striping	82,332	127,818	94,822	83,033	83,250	83,472	83,702	428,279
PO-12000	Wilkie Way Bridge Tile Deck Replacement	37,944	—	—	—	—	—	—	—
	Total Streets and Sidewalks	8,028,480	13,812,181	13,196,026	12,221,519	8,132,705	8,157,768	8,183,509	49,891,527
Traffic and Transportation									
PE-12009	Alma Street/University Avenue Bridge Guardrail Repair	$ 397	$ —	$ —	$ —	$ —	$ —	$ —	$ —
PL-04010	Bicycle and Pedestrian Plan-Implementation Project	135,827	990,988	2,594,429	1,308,594	1,312,628	1,316,861	1,321,253	7,853,765
PL-11002	California Avenue- Transit Hub Corridor Project	573,960	6,201,983	—	—	—	—	—	—
PE-13011	Charleston/Arastradero Corridor Project	106,656	804,664	710,232	3,128,332	160,476	3,164,809	3,169,259	10,333,108
PL-14000	El Camino Real & Churchill Intersection Improvements-Design	8,225	299,384	—	—	—	—	—	—
PE-11011	Highway 101 Pedestrian/ Bicycle Overpass Project	270,055	1,437,927	619,145	8,338,385	331,125	340,065	—	9,628,720
PL-14001	Midtown Connector	—	425,814	—	2,000,000	150,000	—	—	2,150,000
PL-15003	Residential Preferential Parking	—	368,500	—	—	—	—	—	—
PL-00026	Safe Routes To School	439,395	403,532	237,170	150,807	142,547	151,407	151,724	833,655
PE-16002	Traffic Circle Improvements	—	—	100,000	—	—	—	—	—
PL-05030	Traffic Signal and Intelligent Transportation System Upgrades	290,944	2,166,668	340,961	221,050	228,361	230,808	233,362	1,254,542
PL-12000	Transportation and Parking Improvements	579,002	910,030	231,076	237,763	238,340	238,952	239,590	1,185,721
	Total Traffic and Transportation	2,404,461	14,009,490	4,833,013	15,384,931	2,563,477	5,442,902	5,115,188	33,239,511
Reserves									

Source and Use Statement

Capital Improvement Fund

Project Number	Project Name	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
	Reserve for Library	$ 19,367,999	$ —	$ —	$ —	$ —	$ —	$ —	$ —
	Reserve for Non-Library project	54,883,056	—	—	—	—	—	—	—
	Reserve for Infrastructure Plan: Contingency	—	—	—	796,000	—	—	—	796,000
	Reserve for Infrastructure Plan: Bicylcle and Pedestrian Transportation Plan	—	—	—	—	11,560,000	—	—	11,560,000
	Total Reserves	74,251,055	—	—	796,000	11,560,000	—	—	12,356,000
	Total Expenses	**$106,351,982**	**$ 72,962,511**	**$ 46,818,483**	**$ 61,193,056**	**$ 82,707,121**	**$ 33,338,370**	**$ 29,387,899**	**$253,444,929**
	Total Ending Fund Balance (Infrastructure Reserve)	**$ 3,383,180**	**$ 30,181,783**	**$ 21,104,954**	**$ 9,647,274**	**$ 13,618,833**	**$ 12,621,857**	**$ 2,581,045**	**$ 2,581,045**
	Total Uses	$109,735,162	$ 103,144,294	$ 67,923,437	$ 70,840,330	$ 96,325,954	$ 45,960,227	$ 31,968,944	$256,025,974

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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 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

Projects identified for upcoming work include:

Fiscal Year 2016: Accessible ramps replacement at Airport Terminal (Note: costs for the Palo Alto Airport ramps may be recovered from the Airport Fund upon completion of the work); Restroom accessibility evaluation for Children's Theater, Ventura Community Center, Foothills Park, and Community Theater; Update ADA Transition Plan

Fiscal Year 2017: Restroom Upgrades at Children's Theatre

Fiscal Year 2018: Restroom Upgrades at Ventura Community Center

Fiscal Year 2019: Accessibility Upgrades at Foothills Park

Fiscal Year 2020: Restroom Upgrades at Community Theater

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	473,386	378,739	299,766	142,328	143,471	189,289	191,700	966,554	0	N/A
Total	**N/A**	**473,386**	**378,739**	**299,766**	**142,328**	**143,471**	**189,289**	**191,700**	**966,554**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	N/A	0	0	63,903	0	0	0	0	63,903	0	N/A
Construction	N/A	473,386	378,739	235,863	142,328	143,471	189,289	191,700	902,651	0	N/A
Total	**N/A**	**473,386**	**378,739**	**299,766**	**142,328**	**143,471**	**189,289**	**191,700**	**966,554**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Access

Goal: C-5

Policy: C-32

Program: C-27

Potential Board/Commission Review:

Architectural Review Board

Historic Resources Board

Environmental Impact Analysis:

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

Art Center Auditorium

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Art Center Auditorium

Managing Department: Community Services
IBRC Reference: New

Initial Project Start: Summer 2014
Initial Project Completion: Summer 2015

Revised Project Start: Spring 2015
Revised Project Completion: Fall 2015

Project Number: AC-14000

Art Center Auditorium Audio, Visual, And Furnishings

Description

This project provides funding for the audio and visual (A/V) equipment replacement and furnishings for the Art Center Auditorium now that the temporary library has vacated the facility. The existing audio system has been deemed non-salvageable due to its age and condition.

Justification

The auditorium generates rental income for the City and serves as a facility for programs of the Art Center, music recitals, performances, film screenings, public meetings, and facility rentals.

Supplemental Information

Remaining funding in this project will be used for the purchase of automatic window shades, new chairs, chair dollies, loudspeakers, a projector, and related electrical work to connect these new systems to the building. It will also be used for a follow-up acoustical test of the restored auditorium.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	150,000	57,653	92,347	0	0	0	0	92,347	0	150,000
Total	**0**	**150,000**	**57,653**	**92,347**	**0**	**0**	**0**	**0**	**92,347**	**0**	**150,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	150,000	57,653	92,347	0	0	0	0	92,347	0	150,000

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Total	**0**	**150,000**	**57,653**	**92,347**	**0**	**0**	**0**	**0**	**92,347**	**0**	**150,000**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

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: 2775 Embarcadero Way

Managing Department: Public Works
IBRC Reference: Catch-up

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

Revised Project Start:
Revised Project Completion:

Project Number: PE-14018

Baylands Boardwalk Improvements

Description

This project provides funding for a feasibility study to assess the existing boardwalk and to determine the feasibility and estimated costs for the repair and/or replacement of pilings, decking, structural framing members and railings.

Justification

The Baylands sanctuary serves 80,000 visitors annually, approximately 2,900 of whom are elementary school students. The Baylands Interpretive Center Boardwalk provides a unique opportunity for visitors to view a pristine salt marsh habitat that is home to the endangered clapper rail and salt marsh harvest mouse. In 2014, the boardwalk was closed due to safety concerns. In order to reopen the boardwalk, safety issues and structural improvements need to be addressed.

Supplemental Information

A structural feasibility study is currently underway. The study will inform stability needs, slope and landing improvements, plank replacement and interpretive information nodes replacement. Based on the findings of the feasibility study, funding for design and construction of improvements may need to be added to the project .

Before construction can begin, various regulatory permits are expected to be needed for construction of improvements. The lead time for permit approval may be significant and is being evaluated during the feasibility study process. Agencies from whom permits are needed may include United Stated Fish and Wildlife Services, Army Corps of Engineers, and San Francisco Bay Conservation and Development Commission.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	70,000	50,000	46,468	0	0	0	0	46,468	0	96,468
Total	**0**	**70,000**	**50,000**	**46,468**	**0**	**0**	**0**	**0**	**46,468**	**0**	**96,468**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	20,000	20,000	0	0	0	0	0	0	0	0
Design	0	50,000	30,000	46,468	0	0	0	0	46,468	0	96,468
Total	**0**	**70,000**	**50,000**	**46,468**	**0**	**0**	**0**	**0**	**46,468**	**0**	**96,468**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Potential Board/Commission Review:

Architectural Review Board

Historic Resources Board

Parks and Recreation Commission

Environmental Impact Analysis:

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

Baylands Nature Interpretive Center, February 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Baylands Nature Interpretive Center

Managing Department: Community Services
IBRC Reference: New

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

Revised Project Start:
Revised Project Completion:

Project Number: AC-14001

Baylands Nature Interpretive Center Exhibit Improvements

Description

This project provides funding to replace worn out or non-functioning exhibits at the aging Baylands Nature Interpretive Center including signage and graphics to make the facility more visible and usable for science programs, public use, and facility rentals.

Justification

The Baylands Interpretive Center facility and adjacent Baylands serves approximately 129 classes and camps, 3,000 elementary students, and 80,000 visitors annually. The number of annual visitors increased with the opening of an adjacent Sea Scout building operated by the Environmental Volunteers. Exhibit improvements are needed to effectively serve these visitor levels.

Supplemental Information

Replacement of exhibits will be completed in coordination with the Baylands Nature Interpretive Center Facility Improvements project.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	56,000	0	0	0	0	56,000	0	56,000
Total	**0**	**0**	**0**	**56,000**	**0**	**0**	**0**	**0**	**56,000**	**0**	**56,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	56,000	0	0	0	0	56,000	0	56,000
Total	**0**	**0**	**0**	**56,000**	**0**	**0**	**0**	**0**	**56,000**	**0**	**56,000**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project is expected to be categorically exempt from CEQA under Section 15301.

Baylands Nature Interpretive Center, February 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: 2500 Embarcadero Road

Managing Department: Public Works
IBRC Reference: Keep-up

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

Revised Project Start: Winter 2015
Revised Project Completion: Fall 2016

Project Number: PE-15029

Baylands Nature Interpretive Center Facility Improvements

Description

This project provides funding for renovation improvements to the Baylands Nature Interpretive Center including replacement of decking, railing, structural framing members, exterior wood siding, flooring, cabinetry, and/or doors.

Justification

Due to its age and exposure to the elements, the Baylands Nature Interpretive Center is in need of structural and maintenance improvements. These improvements will enhance public use and afford opportunities for science programs and facility rentals.

Supplemental Information

The potential need for regulatory permits is being evaluated during the design phase.

Significant Changes

2016-2020 CIP: Project schedule revised to include design and construction phases and earlier start for the design phase.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	136,298	107,339	475,146	0	0	0	0	475,146	0	582,485
Total	**0**	**136,298**	**107,339**	**475,146**	**0**	**0**	**0**	**0**	**475,146**	**0**	**582,485**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	107,339	41,187	0	0	0	0	41,187	0	41,187
Construction	0	136,298	0	433,959	0	0	0	0	433,959	0	433,959
Total	**0**	**136,298**	**107,339**	**475,146**	**0**	**0**	**0**	**0**	**475,146**	**0**	**582,485**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

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.

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 allows upgrades to the electrical systems 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 are requiring the need for the installation of card access and camera systems. This project also provides funding for replacement of unforeseen equipment failures. As equipment is upgraded, 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 2016: Installation of a new air conditioning unit for City Hall 2nd floor Data Center; Installation of new electrical service for the Golf Course cart charging area; Replacement of the

domestic water control system at City Hall; Installation of six new card access doors for IT network rooms.

Fiscal Year 2017: Electrical panel replacement at Fire Station 5; Installation of six new card access doors at the MSC; Replacement of BMS controls for City Hall chiller.

Fiscal Year 2018: Installation of HVAC equipment in the Art Center basement*; Replacement of BMS controls at Lucie Stern Community Theater.

Fiscal Year 2019: Replacement of BMS controls at MSC-Bldg. B; Replacement of City Hall chiller's main system control panel; Boiler replacement at Utility Control Center.

Fiscal Year 2020: LED lighting upgrades in City parks; BMS controls for Utility Control Center.

* Note: The Art Center Renovation completed in 2012 did not address the HVAC equipment included in this project.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	261,619	119,988	283,469	235,481	238,599	241,801	245,090	1,244,440	0	N/A
Total	**N/A**	**261,619**	**119,988**	**283,469**	**235,481**	**238,599**	**241,801**	**245,090**	**1,244,440**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	261,619	119,988	283,469	235,481	238,599	241,801	245,090	1,244,440	0	N/A
Total	**N/A**	**261,619**	**119,988**	**283,469**	**235,481**	**238,599**	**241,801**	**245,090**	**1,244,440**	**0**	**N/A**

Operating Impact

This project may impact operating expenses in future years. As the scope of this project is better defined through the design process, operating impacts will be reviewed and adjustments may be brought forward as part of the annual budget process, as necessary.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Environmental Impact Analysis:

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

Ted Thompson Garage, January 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Various locations within the California Avenue Parking District area

Managing Department: Public Works
IBRC Reference: N/A

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PF-14004

California Avenue Parking District Parking Improvements

Description

This project provides funding for parking improvements in the California Avenue parking district such as parking lot resurfacing, striping and signing; parking structure painting or staining; electrical system upgrades needed to support improved lighting, security, parking, fountains and/or other systems; and replacement or rehabilitation of parking lot signs.

Justification

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

Supplemental Information

The project is dependent on the availability of funding in the California Avenue Parking Permit Fund. The current fund balance is not sufficient to repave all the parking lots that require maintenance in the district. Projects are planned for Fiscal Year 2017, for the resurfacing and restriping of Lots 1 (200 block of Cambridge) and 2 (300 block of Cambridge) and Fiscal Year 2019, for the resurfacings and restriping of Lots 4 (400 block of Cambridge) and 9 (Cambridge/Birch).

Significant Changes

2016-2020 CIP: Paving Work for Lot 7 has been postponed until Fiscal Year 2016, when the California Avenue Streetscape Project will be completed.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	186,400	0	204,933	0	19,548	0	20,618	245,099	0	N/A
Transfer from California Ave. Parking Permit Fund	N/A	0	0	0	102,234	0	150,676	0	252,910	0	N/A
Total	**N/A**	**186,400**	**0**	**204,933**	**102,234**	**19,548**	**150,676**	**20,618**	**498,009**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	186,400	0	204,933	102,234	19,548	150,676	20,618	498,009	0	N/A
Total	**N/A**	**186,400**	**0**	**204,933**	**102,234**	**19,548**	**150,676**	**20,618**	**498,009**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Parking

Goal: T-8

Policy: T-47

Program: T-52

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 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 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 their useful life.

Supplemental Information

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

Fiscal Year 2016: Animal Shelter, Palo Alto Airport, and Fire Station #5 (Note: before proceeding with Animal Shelter parking lot work, staff will await City Council direction regarding the next steps for Animal Services; costs for the Palo Alto Airport parking lot may be reimbursable from the Airport Fund upon completion of the work).

Fiscal Year 2017: Fire Station 2, Fire Station 8, Stanford/Palo Alto Soccer Fields, and Golf Course

Fiscal Year 2018: Fire Station 1

Fiscal Year 2019: Ventura Community Center, Lucie Stern Community Center & Junior Museum, Midtown Shopping Center and Arastradero Preserve Parking Lot

Fiscal Year 2020: Foothills Park Parking Lot

The 2011 Infrastructure Blue Ribbon Commission Final Report identified a catch-up amount for City facility parking lots of $2 million. The work for this CIP addresses the scheduled keep-up work while reducing the catch-up amount to $1.6 million.

Significant Changes

Golf Course parking lot work has been deferred to Fiscal Year 2017 to coordinate with the Golf Course project

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	899,306	678,306	370,321	246,478	67,652	487,845	111,056	1,283,352	0	N/A
Total	**N/A**	**899,306**	**678,306**	**370,321**	**246,478**	**67,652**	**487,845**	**111,056**	**1,283,352**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	N/A	0	0	10,111	10,384	10,664	10,952	11,248	53,359	0	N/A
Construction	N/A	899,306	678,306	360,210	236,094	56,988	476,893	99,808	1,229,993	0	N/A
Total	**N/A**	**899,306**	**678,306**	**370,321**	**246,478**	**67,652**	**487,845**	**111,056**	**1,283,352**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Environmental Impact Analysis:

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

Civic Center Level C, January 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: 250 Hamilton Avenue

Managing Department: Public Works
IBRC Reference: New

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

Revised Project Start:
Revised Project Completion:

Project Number: PF-16004

City Hall Parking Garage LED Lighting

Description

This project provides funding to replace the existing fluorescent lighting in City Hall Parking Garage Levels A, B, and C with new LED lighting. The Public Works Facilities division is coordinating with the Utilities Department on this project.

Justification

The replacement of fluorescent lighting with new LED lighting will reduce energy costs.

Supplemental Information

This project is supported via a funding transfer from the University Avenue Parking Permit Fund to the Capital Improvement Fund.

Significant Changes

2016-2020 CIP: Project Established

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Transfer from University Ave. Parking Permit Fund	0	0	0	245,608	0	0	0	0	245,608	0	245,608
Total	**0**	**0**	**0**	**245,608**	**0**	**0**	**0**	**0**	**245,608**	**0**	**245,608**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	245,608	0	0	0	0	245,608	0	245,608
Total	**0**	**0**	**0**	**245,608**	**0**	**0**	**0**	**0**	**245,608**	**0**	**245,608**

Anticipated Operating Budget Needs

Fund	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Capital Improvement Fund	0	(22,000)	(22,000)	(22,000)	(22,000)

Operating Impact

This project is anticipated to impact operating expenses in the future. The figures detailed in the table above represent current estimates for savings on electricity due to the greater efficiency of the LED lighting. On an annualized basis, savings on maintenance costs due to the longer lifespan of LED lighting is counterbalanced by the higher cost of the LED units. These costs will be reviewed throughout the construction of the project. Adjustments may be brought forward for City Council consideration upon completion of the project.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Environmental Impact Analysis:

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

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Civic Center Building

Managing Department: Public Works
IBRC Reference: Keep-up

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

Revised Project Start:
Revised Project Completion:

Project Number: PE-18016

Civic Center Fire Life Safety and Electrical Upgrades, February 2015

Civic Center Fire Life Safety and Electrical Upgrades

Description

This project provides funding for an assessment and upgrade of the fire life safety systems in City Hall and replacement of electrical switch gear for the Civic Center complex.

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. The main electric switch gear is the original equipment that will need to be replaced and upgraded to ensure reliable power continues to flow to the building. Other parts of the electrical system have been recently upgraded, leaving this to be one of the last remaining items and the weakest link currently in the electrical system.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	0	142,884	1,113,439	161,823	1,418,146	0	1,418,146
Total	**0**	**0**	**0**	**0**	**0**	**142,884**	**1,113,439**	**161,823**	**1,418,146**	**0**	**1,418,146**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	985,916	161,823	1,147,739	0	1,147,739
Design	0	0	0	0	0	142,884	127,523	0	270,407	0	270,407
Total	**0**	**0**	**0**	**0**	**0**	**142,884**	**1,113,439**	**161,823**	**1,418,146**	**0**	**1,418,146**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Environmental Impact Analysis:

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

Civic Center Parking Garage, February 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: 250 Hamilton Avenue

Managing Department: Public Works
IBRC Reference: New

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

Revised Project Start:
Revised Project Completion:

Project Number: PE-15020

Civic Center Waterproofing Study and Repairs

Description

This project provides funding for a condition assessment of the Civic Center plaza deck structural system and to perform non-destructive testing. The structural assessment will provide short, medium and long-term repair options to protect the structural system, and will include a cost/benefit analysis, conceptual drawings and recommendations for improvements. The structural assessment is anticipated to be complete in calendar year 2015, and short term repairs are anticipated to commence in Fiscal Year 2016.

Justification

Previous studies indicate the Civic Center Plaza deck needs extensive repair, however no timeline was identified. A timeframe for completing short, medium and long term repairs is necessary to prioritize the most critical needs. The goal is to assess the current structural conditions that may have changed since the last time a study was done, approximately ten years ago.

Supplemental Information

The Fiscal Year 2016 repairs are not yet budgeted pending the study results.

Significant Changes

2015-2019 CIP: Project deferred by six months due to workload of other projects in progress.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	258,492	0	281,588	79,065	0	0	0	360,653	0	360,653
Total	**0**	**258,492**	**0**	**281,588**	**79,065**	**0**	**0**	**0**	**360,653**	**0**	**360,653**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	258,492	0	281,588	79,065	0	0	0	360,653	0	360,653
Total	**0**	**258,492**	**0**	**281,588**	**79,065**	**0**	**0**	**0**	**360,653**	**0**	**360,653**

Operating Impact

This project may impact operating expenses in future years. As the scope of this project is better defined through the design process, operating impacts will be reviewed and adjustments may be brought forward as part of the annual budget process, as necessary.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Environmental Impact Analysis:

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

2257 Bryant Street, July 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: 2257 Bryant Street

Managing Department: Public Works
IBRC Reference: N/A

Initial Project Start: Recurring
Initial Project Completion: Recurring

Revised Project Start: N/A
Revised Project Completion: N/A

Project Number: PF-15005

Emergency Facilities Improvement

Description

This project provides funding for emergency facility improvements. Established in Fiscal Year 2015, funding was approved for improvements to 2257 Bryant Street, which is partially owned by the City.

Justification

Damage caused by a fire in May 2014 resulted in the property being uninhabitable. The expenses of reconstruction will be offset by the insurance payments, resulting in a zero cost impact to the City.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	250,000	51,230	198,770	0	0	0	0	198,770	0	250,000
Total	**0**	**250,000**	**51,230**	**198,770**	**0**	**0**	**0**	**0**	**198,770**	**0**	**250,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	250,000	51,230	198,770	0	0	0	0	198,770	0	250,000
Total	**0**	**250,000**	**51,230**	**198,770**	**0**	**0**	**0**	**0**	**198,770**	**0**	**250,000**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Environmental Impact Analysis:

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

Police Women's Locker Room, 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-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.

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. This project provides resources for facilities that will not be renovated for several years.

Supplemental Information

Planned carpet replacement and other interior finishes projects include:

Fiscal Year 2016: Police Department A-level restroom/shower/locker room remodel; City Hall 3rd floor conference room, office furnishings and carpet

Fiscal Year 2017: Police Department 1st floor

Fiscal Year 2018: Lucie Stern Community Center

Fiscal Year 2019: City Hall floors 4 and 5

Fiscal Year 2020: Municipal Services Center Building A, Parks Department and Stores

Significant Changes

2016-2020 CIP: The Police Department A-Level restroom/shower/locker room project has been moved from Fiscal Year 2015 to Fiscal Year 2016. A project to update the Civic Center 3rd

floor with new meeting spaces and office space furnishings, concurrent with the previously planned carpet replacement on the 3rd floor, has been added to Fiscal Year 2016. Funding for the estimated $440,000 cost of the Civic Center 3rd floor work is being provided by the Utilities Enterprise Funds. A review of project prioritization has resulted in moving the Lucie Stern Community Theater carpet replacement to Fiscal Year 2018 and removal of work at Fire Stations 3 and 4 due to their planned replacements through the Council Infrastructure Plan.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Transfer from Utilities Administration Fund	N/A	0	0	440,000	0	0	0	0	440,000	0	N/A
Capital Improvement Fund	N/A	546,379	398,045	399,549	204,656	195,766	214,289	166,700	1,180,960	0	N/A
Total	**N/A**	**546,379**	**398,045**	**839,549**	**204,656**	**195,766**	**214,289**	**166,700**	**1,620,960**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	546,379	398,045	839,549	204,656	195,766	214,289	166,700	1,620,960	0	N/A
Total	**N/A**	**546,379**	**398,045**	**839,549**	**204,656**	**195,766**	**214,289**	**166,700**	**1,620,960**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Environmental Impact Analysis:

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

Palo Alto Fire Engine

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

Managing Department: Fire
IBRC Reference: New

Initial Project Start: Winter 2013
Initial Project Completion: Summer 2015

Revised Project Start: Winter 2014
Revised Project Completion: Summer 2016

Project Number: FD-14002

Fire Ringdown System Replacement

Description

This project funds the replacement of the current Fire Department Ringdown System. Ringdown systems provide an audible alert of a call for service in the fire stations.

Justification

The existing ringdown system, which is used to dispatch emergency personnel, is over 10 years old. The new ringdown system would be purchased in partnership with Mountain View Fire and provide the capability for either dispatch center to ringdown all of the apparatus and stations in both cities. The advantages of such a system are twofold: The new Tri-Cities CAD system gives the cities the opportunity to view all the fire resources status in real time and dispatch auto-aid and joint responses more efficiently. Providing the cities with the ability to ringdown all apparatus is essential to leverage these enhanced capabilities and reduce response time.

Operating on a combined system provides redundancy for both Fire Agencies in the event one of the dispatch centers is inoperable.

Supplemental Information

A portion of this project is anticipated to be reimbursed by Stanford University.

Significant Changes

2016-2020 CIP: Schedule revised to reflect delays in this project resulting from staffing resource issues caused by other public safety technology projects.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Revenue from Other Agencies	0	0	0	0	24,000	0	0	0	24,000	0	24,000

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	157,000	0	157,500	(24,000)	0	0	0	133,500	0	133,500
Total	**0**	**157,500**	**0**	**157,500**	**0**	**0**	**0**	**0**	**157,500**	**0**	**157,500**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	157,500	0	157,500	0	0	0	0	157,500	0	157,500
Total	**0**	**157,500**	**0**	**157,500**	**0**	**0**	**0**	**0**	**157,500**	**0**	**157,500**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Natural Hazards

Goal: N-10

Policy: N-53

Potential Board/Commission Review:

Architectural Review Board

Environmental Impact Analysis:

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

Fire Station 1, January 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: 301 Alma Street

Managing Department: Public Works
IBRC Reference: New

Initial Project Start: Summer 2013
Initial Project Completion: Spring 2014

Revised Project Start: Winter 2015
Revised Project Completion: Summer 2016

Project Number: PF-14002

Fire Station 1 Improvements

Description

This project provides funding for individual sleeping quarters in the firehouse to address gender issues and privacy concerns.

Justification

Fire Station 1 is the only fire station in the City that does not have separate bedrooms to accommodate male and female firefighters. Shared sleeping quarters create a poor sleeping environment, gender issues, and privacy concerns. The living space in a firehouse should be comfortable and offer privacy since a firehouse is not only work place but a home as well for firefighters.

Significant Changes

2016-2020 CIP: Project schedule revised to reflect the delay due to staffing resources.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	820	279,557	39,746	281,026	0	0	0	0	281,026	0	321,592
Total	**820**	**279,557**	**39,746**	**281,026**	**0**	**0**	**0**	**0**	**281,026**	**0**	**321,592**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	820	279,557	39,746	281,026	0	0	0	0	281,026	0	321,592
Total	**820**	**279,557**	**39,746**	**281,026**	**0**	**0**	**0**	**0**	**281,026**	**0**	**321,592**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Efficient Service Delivery

Goal: C-1

Policy: C-2

Potential Board/Commission Review:

Architectural Review Board

Environmental Impact Analysis:

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

Fire Station 3

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: 799 Embarcadero Road

Managing Department: Public Works
IBRC Reference: New

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

Revised Project Start:
Revised Project Completion:

Project Number: PE-15003

Fire Station 3 Replacement

Description

This project provides funding to replace Fire Station 3 at the corner of Newell and Embarcadero Roads. The replacement facility will be based on the prior Replacement Study and Needs Assessment prepared in 2005.

Justification

The current Fire Station 3 facility is operationally and technologically deficient. This project will provide a new facility built to essential services standards, having a high likelihood of being fully operational after a major disaster such as a significant earthquake.

Supplemental Information

The Fire Station 3 Replacement project is included in the Council approved Infrastructure Plan.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Transfer from Stanford University Medical Ctr Fund	0	0	0	700,000	6,000,000	0	0	0	6,700,000	0	6,700,000
Capital Improvement Fund	0	0	0	196,488	267,523	55,803	0	0	519,814	0	519,814
Total	**0**	**0**	**0**	**896,488**	**6,267,523**	**55,803**	**0**	**0**	**7,219,814**	**0**	**7,219,814**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	843,580	0	0	0	0	843,580	0	843,580
Construction	0	0	0	52,908	6,267,523	55,803	0	0	6,376,234	0	6,376,234
Total	**0**	**0**	**0**	**896,488**	**6,267,523**	**55,803**	**0**	**0**	**7,219,814**	**0**	**7,219,814**

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: Parks and Public Facilities

Goal: C-4

Policy: C-24

Potential Board/Commission Review:

Architectural Review Board

Environmental Impact Analysis:

This project may require a CEQA environmental assessment.

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:
Revised Project Completion:

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. Design consultant services will be needed and will include development of preliminary plans and cost estimates. 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, having 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 approved Infrastructure Plan.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	0	901,437	5,405,489	238,799	6,545,725	0	6,545,725
Other	0	0	0	0	0	0	1,579,000	0	1,579,000	0	1,579,000
Total	**0**	**0**	**0**	**0**	**0**	**901,437**	**6,984,489**	**238,799**	**8,124,725**	**0**	**8,124,725**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	0	0	901,437	155,526	0	1,056,963	0	1,056,963
Construction	0	0	0	0	0	0	6,828,963	238,799	7,067,762	0	7,067,762
Total	**0**	**0**	**0**	**0**	**0**	**901,437**	**6,984,489**	**238,799**	**8,124,725**	**0**	**8,124,725**

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: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

This project may require a CEQA environmental assessment.

Foothills Park

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

Managing Department: Fire
IBRC Reference: New

Initial Project Start: Summer 2013
Initial Project Completion: Summer 2014

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

Project Number: FD-13000

Foothills Fire Cameras

Description

This project provides funding for the installation of Thermal Imaging Infrared Long Range Cameras for the detection of fires and heat signatures in the Palo Alto and Stanford foothills. The detection of any heat signature beyond a set point would send an alarm to the Palo Alto dispatch center triggering a response by the Fire Department to investigate.

Justification

The cameras will allow for early detection and quick response. The January 2011 Fire Services Utilization and Resources Study report noted that the Wildland region around Fire Station 8 should be monitored with infrared technology. This is life safety equipment that replaces aging, less effective equipment.

Significant Changes

2016-2020 CIP: Project schedule revised to reflect continuation of the project. The project had been delayed while the the Fire Department waited for more advanced camera technology to become more affordable prior to initiating this project.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	65,000	0	65,000	0	0	0	0	65,000	0	65,000
Total	**0**	**65,000**	**0**	**65,000**	**0**	**0**	**0**	**0**	**65,000**	**0**	**65,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	65,000	0	65,000	0	0	0	0	65,000	0	65,000

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Total	**0**	**65,000**	**0**	**65,000**	**0**	**0**	**0**	**0**	**65,000**	**0**	**65,000**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Natural Hazards

Goal: N-10

Policy: N-53

Potential Board/Commission Review:

Architectural Review Board

Environmental Impact Analysis:

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

Current Internal Alarm System Control Panel

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: Palo Alto City Hall

Managing Department: Police
IBRC Reference: New

Initial Project Start: Winter 2013
Initial Project Completion: Summer 2014

Revised Project Start: Spring 2015
Revised Project Completion: Winter 2015

Project Number: PD-14000

Internal Alarm System Replacement

Description

This project provides funding for the replacement of the citywide Internal Alarm System.

Justification

The City's current alarm system, which includes panic alarms from various departments and the City Council chambers is antiquated and replacement parts are no longer available. The system provides very limited information and is subject to failure at any time. This project would replace the outdated system with a modern, reliable alarm system.

Significant Changes

2016-2020 CIP: Project schedule revised to reflect delays resulting form resource allocation issues caused by other high priority public safety technology projects.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	78,000	0	78,000	0	0	0	0	78,000	0	78,000
Total	**0**	**78,000**	**0**	**78,000**	**0**	**0**	**0**	**0**	**78,000**	**0**	**78,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	78,000	0	78,000	0	0	0	0	78,000	0	78,000
Total	**0**	**78,000**	**0**	**78,000**	**0**	**0**	**0**	**0**	**78,000**	**0**	**78,000**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Environmental Impact Analysis:

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

Cubberley Auditorium, September 2009

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: 4000 Middlefield Road

Managing Department: Public Works
IBRC Reference: N/A

Initial Project Start: Winter 2009
Initial Project Completion: Winter 2013

Revised Project Start:
Revised Project Completion: Summer 2015

Project Number: PE-09010

Library & Community Center - Temporary Facilities

Description

This project provided funding for temporary facilities during improvements at Mitchell Park Library. After construction completion, the temporary facilities are to be restored to their previous use. For Mitchell Park Library, this entails restoring the Cubberley Auditorium back into a rentable space.

Justification

Temporary facilities will be needed during construction of the new Mitchell Park Library and Community Center.

Supplemental Information

Remaining work needed to restore Cubberley Auditorium includes the removal of temporary partitions, electrical connections, data wiring and equipment, floor and minor interior framing restorations.

Significant Changes

Fiscal Year 2015: Project was delayed to accommodate prerequisite repairs to roof and resulting water damage.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	135,261	10,448	124,813	0	0	0	0	124,813	0	135,261
Total	**0**	**135,261**	**10,448**	**124,813**	**0**	**0**	**0**	**0**	**124,813**	**0**	**135,261**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	135,261	10,448	124,813	0	0	0	0	124,813	0	135,261
Total	**0**	**135,261**	**10,448**	**124,813**	**0**	**0**	**0**	**0**	**124,813**	**0**	**135,261**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Environmental Impact Analysis:

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

Lucie Stern Community Center, February 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: 1305 Middlefield Road

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Summer 2012
Initial Project Completion: Summer 2016

Revised Project Start:
Revised Project Completion:

Project Number: PE-14015

Lucie Stern Buildings Mechanical and Electrical Upgrades

Description

This project provides funding to replace and upgrade mechanical and/or electrical systems, fire/life safety and finishes as necessary at Lucie Stern Children's Theater; Lucie Stern Theater and Scene Shop; and Lucie Stern Community Center. The systems will meet current code and user needs, and optimize operational and energy efficiency.

Justification

The existing elements are old and/or in poor condition. These improvements provide for rehabilitation of the structure and systems to meet the needs and safety of theatre staff and the public. The project will replace the existing system at Lucie Stern Community Center with a full heating, ventilation and air conditioning system.

Supplemental Information

Consultant services will be used to evaluate existing systems, provide conceptual and final design and produce construction documents. This CIP consolidates the funding of four former CIP projects: Children's Theater Fire/Life Safety Upgrade, Children's Theater Improvements, Lucie Stern Mechanical System Upgrade, and Lucie Stern Theater Electrical Systems Replacement. Management of the improvements as a single project allows for greater efficiency and coordination, minimizing disruption to community center activities.

Significant Changes

Fiscal Year 2014: The overall design contract was amended in late 2013 to include the design of fire/life safety system upgrades for Lucie Stern Community Theatre and Lucie Stern Community Center.

2016-2020 CIP: Additional funds in the amount of $300,000 to support the construction of the added fire/life safety system design scope are included.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	219,686	2,588,447	132,330	2,868,491	0	0	0	0	2,868,491	0	3,220,507
Total	**219,686**	**2,588,447**	**132,330**	**2,868,491**	**0**	**0**	**0**	**0**	**2,868,491**	**0**	**3,220,507**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	219,686	0	0	0	0	0	0	0	0	0	219,686
Construction	0	2,588,447	132,330	2,868,491	0	0	0	0	2,868,491	0	3,000,821
Total	**219,686**	**2,588,447**	**132,330**	**2,868,491**	**0**	**0**	**0**	**0**	**2,868,491**	**0**	**3,220,507**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Local Landuse and Growth Management

Goal: C-4

Policy: C-24

Program: C-19

Environmental Impact Analysis:

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

Mitchell Park Library October 2014

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: 3700 Middlefield Road

Managing Department: Public Works
IBRC Reference: N/A

Initial Project Start: Summer 2009
Initial Project Completion: Summer 2011

Revised Project Start:
Revised Project Completion: Fall 2014

Project Number: PE-09006

Mitchell Park Library and Community Center

Description

This project provided funding for a new adjoining two-story library of approximately 41,000 square feet and a single-story community center of approximately 15,000 square feet, which was completed and opened to the public in fall 2014. The new building is rated Leadership in Energy and Environmental Design (LEED) Platinum, saving money on operating costs while reducing the building's environmental impact.

Justification

Funding in Fiscal Year 2016 will provide for potential completion of remaining minor punch list items and additional minor work identified as necessary since the opening of the new facility.

Supplemental Information

In 2008, the community passed the Measure N bond measure that provided $76 million to fund major facility improvements to three libraries, including the Mitchell Park Library and Community Center. Construction on the Mitchell Park Library and Community Center began in Summer 2009. However, the project experienced severe construction delays and was not completed until fall 2014.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	41,224,410	8,941,106	8,741,106	207,472	0	0	0	0	207,472	0	50,172,988
Total	**41,224,410**	**8,941,106**	**8,741,106**	**207,472**	**0**	**0**	**0**	**0**	**207,472**	**0**	**50,172,988**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	4,758,071	0	0	0	0	0	0	0	0	0	4,758,071
Construction	36,171,570	8,941,106	8,741,106	207,472	0	0	0	0	207,472	0	45,120,148
Other	294,769	0	0	0	0	0	0	0	0	0	294,769
Total	**41,224,410**	**8,941,106**	**8,741,106**	**207,472**	**0**	**0**	**0**	**0**	**207,472**	**0**	**50,172,988**

Operating Impact

Relationship to Comprehensive Plan

Primary Connection

Policy: C-22

Program: C-20

Environmental Impact Analysis:

A Mitigated Negative Declaration was approved for the Mitchell Park and Community Center on July 21, 2008 (CMR:321:08)

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:

Project Number: PF-16006

Municipal Service Center Lighting, Mechanical, and Electrical Improvements

Description

This project provides for the replacement of original mechanical and electrical systems and lighting installed in 1966 at buildings A, B, and C of the Municipal Service Center.

Justification

Lighting, mechanical, and electrical equipment at the Municipal Service Center (MSC) is out-dated and inefficient. Various remodels have occurred in the administrative and shop areas with added 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 at this site.

Supplemental Information

This project had been scheduled in a previous CIP Plan, but was removed from the Plan due to the pending study of potential revenue-generating uses for the MSC at that time. The project is now returned to the CIP Plan given Council direction not to complete the MSC study. Additional funds for design have also been budgeted to reconfigure an area within Building C. Pending the results of the design, budget will be added in Fiscal Year 2017 for construction.

The Refuse Fund, Vehicle Maintenance and Operations Fund, and Utilities Administration Fund will reimburse the Capital Improvement Fund for a portion of the cost for this project, as the buildings being improved will benefit the operations funded from these sources.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Transfer from Refuse Fund	0	0	0	28,070	4,952	0	0	0	33,022	0	33,022
Transfer from Vehicle Replacement and Maintenance	0	0	0	31,711	51,147	0	0	0	82,858	0	82,858
Capital Improvement Fund	0	0	0	226,508	341,187	0	0	0	567,695	0	567,695
Transfer from Utilities Administration Fund	0	0	0	120,926	195,042	0	0	0	315,968	0	315,968
Total	**0**	**0**	**0**	**407,215**	**592,328**	**0**	**0**	**0**	**999,543**	**0**	**999,543**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	407,215	0	0	0	0	407,215	0	407,215
Construction	0	0	0	0	592,328	0	0	0	592,328	0	592,328
Total	**0**	**0**	**0**	**407,215**	**592,328**	**0**	**0**	**0**	**999,543**	**0**	**999,543**

Operating Impact

This project may impact operating expenses in future years. As the scope of this project is better defined through the design process, operating impacts will be reviewed and adjustments may be brought forward as part of the annual budget process, as necessary.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Environmental Impact Analysis:

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

Municipal Services 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:
Revised Project Completion:

Project Number: PF-17000

Municipal Services Center A, B, & C Roof Replacement

Description

This project provides funding for a fluid, reinforced water proofing 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 prior to the roofing system deteriorating further, failing, and causing structural damage to the building. Structural repairs and a full roof replacement would be much 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	1,074,749	0	0	0	1,074,749	0	1,074,749
Transfer from Utilities Administration Fund	0	0	0	0	673,782	0	0	0	673,782	0	673,782
Transfer from Refuse Fund	0	0	0	0	17,107	0	0	0	17,107	0	17,107

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Transfer from Vehicle Replacement and Maintenance	0	0	0	0	176,690	0	0	0	176,690	0	176,690
Total	**0**	**0**	**0**	**0**	**1,942,328**	**0**	**0**	**0**	**1,942,328**	**0**	**1,942,328**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	1,942,328	0	0	0	1,942,328	0	1,942,328
Total	**0**	**0**	**0**	**0**	**1,942,328**	**0**	**0**	**0**	**1,942,328**	**0**	**1,942,328**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Potential Board/Commission Review:

Architectural Review Board

Environmental Impact Analysis:

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

California Avenue, March 2015

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

Managing Department: Public Works
IBRC Reference: New

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

Revised Project Start:
Revised Project Completion:

Project Number: PE-18000

New California Avenue Area Parking Garage

Description

This project will provide funding for the preliminary design and Environmental Impact Report (EIR) for a new public parking garage in the California Avenue commercial area. Site selection will be included in the preliminary design phase. The feasibility of including retail and stacked parking will also be evaluated.

Justification

A new parking garage is needed in the California Avenue commercial area. A new garage will increase parking supply and reduce parking spillover into nearby residential neighborhoods.

Supplemental Information

The New California Avenue Area Parking Garage project is included in the Council approved Infrastructure Plan. It is anticipated that once a specific site is identified, the title of this project will be refined.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	0	0	0	0	887,000	8,600,000	0	9,487,000	0	9,487,000
Capital Improvement Fund	0	0	0	0	0	(487,617)	(7,727,194)	8,810,720	595,909	0	595,909
Total	**0**	**0**	**0**	**0**	**0**	**399,383**	**872,806**	**8,810,720**	**10,082,909**	**0**	**10,082,909**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	0	8,600,000	8,600,000	0	8,600,000
Design	0	0	0	0	0	399,383	872,806	210,720	1,482,909	0	1,482,909
Total	**0**	**0**	**0**	**0**	**0**	**399,383**	**872,806**	**8,810,720**	**10,082,909**	**0**	**10,082,909**

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: Transportation

Section: Parking

Goal: T-8

Policy: T-45

Program: T-52

Environmental Impact Analysis:

CEQA will be required.

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Hamilton Avenue/Waverley Street, March 2015

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

Managing Department: Public Works
IBRC Reference: New

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

Revised Project Start:
Revised Project Completion:

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. The preferred location has been identified as Lot D at the corner of Waverley Street and Hamilton Avenue. An alternate location, Lot G behind the Post Office is also investigated. The project will also 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 approved Infrastructure Plan. It is anticipated that once a specific site is identified, the title of this project will be refined.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	182,778	106,829	120,977	44,404	0	454,988	0	454,988
Transfer from Stanford University Medical Ctr Fund	0	0	0	0	9,072,000	0	0	0	9,072,000	0	9,072,000
Other	0	0	0	1,300,000	2,741,000	0	0	0	4,041,000	0	4,041,000
Total	**0**	**0**	**0**	**1,482,778**	**11,919,829**	**120,977**	**44,404**	**0**	**13,567,988**	**0**	**13,567,988**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	11,919,829	120,977	44,404	0	12,085,210	0	12,085,210
Design	0	0	0	1,482,778	0	0	0	0	1,482,778	0	1,482,778
Total	**0**	**0**	**0**	**1,482,778**	**11,919,829**	**120,977**	**44,404**	**0**	**13,567,988**	**0**	**13,567,988**

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: Parks and Public Facilities

Goal: C-4

Policy: C-24

Environmental Impact Analysis:

CEQA will be required.

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Palo Alto Police Department, April 2015

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

Managing Department: Public Works
IBRC Reference: New

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

Revised Project Start:
Revised Project Completion:

Project Number: PE-15001

New Public Safety Building

Description

This project provides funding for the design and construction of a new Public Safety Building, including potential land acquisition. 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 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 with adjustments for current and future projected program needs during the Infrastructure Blue Ribbon Commission process.

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, having a high likelihood of being fully operational after a major disaster such as a significant earthquake.

Supplemental Information

The new Public Safety Building is part of the Council Infrastructure Plan, and has been identified by the City Council as the top priority within the Plan.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	0	0	0	0	52,250,000	0	0	52,250,000	0	52,250,000
Capital Improvement Fund	0	0	0	164,108	168,539	(2,826,911)	3,177,763	160,324	843,823	0	843,823
Transfer from Stanford University Medical Ctr Fund	0	0	0	1,200,000	2,800,000	750,000	0	0	4,650,000	0	4,650,000

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Total	**0**	**0**	**0**	**1,364,108**	**2,968,539**	**50,173,089**	**3,177,763**	**160,324**	**57,843,823**	**0**	**57,843,823**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	1,364,108	2,968,539	0	0	0	4,332,647	0	4,332,647
Construction	0	0	0	0	0	40,173,089	3,177,763	160,324	43,511,176	0	43,511,176
Land Acquisition	0	0	0	0	0	10,000,000	0	0	10,000,000	0	10,000,000
Total	**0**	**0**	**0**	**1,364,108**	**2,968,539**	**50,173,089**	**3,177,763**	**160,324**	**57,843,823**	**0**	**57,843,823**

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: Parks and Public Facilities

Goal: C-4

Policy: C-24

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Environmental Impact Analysis:

CEQA will be required.

Parks Maintenance Shop

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: 3201 East Bayshore Road, Palo Alto, CA 94303

Managing Department: Community Services
IBRC Reference: N/A

Initial Project Start: Spring 2011
Initial Project Completion: Spring 2014

Revised Project Start: Fall 2015
Revised Project Completion: Fall 2015

Project Number: PG-09003

Park Maintenance Shop Remodel

Description

This project renovates and remodels the Park Maintenance Shop for safety, efficiency, and employee effectiveness. The remodel involves replacing chain-link fence separations with framed walls, the creation of organized work rooms for equipment repair, providing for the secure storage of tools and equipment, and provides for an area where employees can conduct safety meetings.

Justification

The Park Maintenance Shop is a poorly organized grouping of areas separated by chain-link walls. Inadequate task lighting makes it difficult to properly repair small engines and equipment. The current meeting area is inadequate for weekly safety presentations. There is inadequate room for storage of tools and supplies. Because there is no centralized work bench area, the efficiency of tool and equipment repair is hampered. The remaining project funding will be used to complete the equipment storage area, which will be completed by October 2015.

Supplemental Information

This project will also result in significant energy saving from improved insulation and control of space heating.

Significant Changes

This project was used for the design phase, and the project transitioned to PF-12001 (Parks and Public Works Tree Work Space Improvements), which covered the construction phase. PF-12001 was originally slated to start in Fiscal Year 2012 but actually started midway through Fiscal Year

2014. The project construction was completed right around January 2014. Additional funding in this project will be designated for an equipment storage area.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	94,419	84,419	10,000	0	0	0	0	10,000	0	94,419
Total	**0**	**94,419**	**84,419**	**10,000**	**0**	**0**	**0**	**0**	**10,000**	**0**	**94,419**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	94,419	84,419	10,000	0	0	0	0	10,000	0	94,419
Total	**0**	**94,419**	**84,419**	**10,000**	**0**	**0**	**0**	**0**	**10,000**	**0**	**94,419**

Operating Impact

This project will also result in significant energy saving from improved insulation and control of space heating. As these costs are quantified, adjustments may be brought forward in future budget cycles.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Potential Board/Commission Review:

Parks and Recreation Commission

Environmental Impact Analysis:

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

Lot Q elevator, January 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: High & Alma

Managing Department: Public Works
IBRC Reference: New

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

Revised Project Start:
Revised Project Completion:

Project Number: PF-16003

Parking Lot Q Elevator Modernization

Description

This project provides funding to modernize the existing elevator at Parking Lot Q. The modernization consists of upgrading the interior of the elevator, elevator control interface, and call buttons, and to meet current ADA standards.

Justification

The Parking Lot Q elevator is currently having many maintenance issues and does not conform to current ADA standards. The cost of modernizing and upgrading the elevator is expected to reduce ongoing maintenance expenses.

Supplemental Information

It is anticipated that 15% of the cost of this project will be reimbursed by the homeowners association that utilizes this elevator and is consistent with the agreement between the City and the homeowners association.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	0	0	25,591	0	0	0	0	25,591	0	25,591
Capital Improvement Fund	0	0	0	145,017	0	0	0	0	145,017	0	145,017
Total	**0**	**0**	**0**	**170,608**	**0**	**0**	**0**	**0**	**170,608**	**0**	**170,608**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	170,608	0	0	0	0	170,608	0	170,608
Total	**0**	**0**	**0**	**170,608**	**0**	**0**	**0**	**0**	**170,608**	**0**	**170,608**

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: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Environmental Impact Analysis:

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

Rinconada Library, February 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: 1213 Newell Road

Managing Department: Public Works
IBRC Reference: N/A

Initial Project Start: Summer 2010
Initial Project Completion: Spring 2014

Revised Project Start:
Revised Project Completion: Fall 2014

Project Number: PE-11000

Rinconada Library New Construction and Improvements

Description

This project provided funding for work as outlined in the Measure N bond in November 2008. This project constructed a detached program room and expanded group study rooms at the existing building for a total of approximately 4,000 additional square feet. Construction also included a building systems upgrade to mechanical, electrical and lighting systems to bring the building to current codes and standards. Carpet and other worn items were also replaced.

Justification

Funding in Fiscal Year 2016 will provide for potential additional minor work that may be identified as necessary following the opening of the facility in February 2015.

Significant Changes

2016-2020 CIP: Project was completed 6 months later than originally scheduled due to delays in finalizing the design.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	14,223,120	10,971,641	10,971,641	100,000	0	0	0	0	100,000	0	25,294,761
Total	**14,223,120**	**11,071,641**	**10,971,641**	**100,000**	**0**	**0**	**0**	**0**	**100,000**	**0**	**25,294,761**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	3,149,292	0	0	0	0	0	0	0	0	0	3,149,292

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	11,073,828	11,071,641	10,971,641	100,000	0	0	0	0	100,000	0	22,145,469
Total	**14,223,120**	**11,071,641**	**10,971,641**	**100,000**	**0**	**0**	**0**	**0**	**100,000**	**0**	**25,294,761**

Operating Impact

Not applicable as the facility was opened in February 2015.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-22

Potential Board/Commission Review:

Architectural Review Board

Library Advisory Commission

Planning and Transportation Commission

Environmental Impact Analysis:

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

Men's Locker Room Rinconada Pool, January 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: 777 Embarcadero Road

Managing Department: Public Works
IBRC Reference: Catch-up

Initial Project Start: Summer 2014
Initial Project Completion: Spring 2015

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

Project Number: PF-15000

Rinconada Pool Locker Room

Description

This project provides funding to renovate the Rinconada Pool changing room inclusive of changing area, restroom, showers, and the addition of lockers.

Justification

The changing room no longer meets the needs of pool users. The pool is used year round by adults, youth, children, and infants for fitness, recreation, aquatics safety, classes and camps. Due to its age, it is not ADA compliant. Without any lockers, swimmers and visitors are not able to secure personal belongings while swimming. The showers are inefficient and often in need of repair due to aged plumbing and clogged shower heads.

Supplemental Information

The pool facility was built in 1933, and the last renovation to the changing room was in 1957. This project will be coordinated with the Rinconada Park Master Plan. The cost of bringing the changing rooms up to ADA standards will be funded by the Americans with Disabilities Act Compliance project.

Significant Changes

2016-2020 CIP: Project schedule revised to reflect delays due to staffing resources and facility closure restrictions.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	423,218	150	464,283	0	0	0	0	464,283	0	464,433
Total	**0**	**423,218**	**150**	**464,283**	**0**	**0**	**0**	**0**	**464,283**	**0**	**464,433**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	423,218	150	464,283	0	0	0	0	464,283	0	464,433
Total	**0**	**423,218**	**150**	**464,283**	**0**	**0**	**0**	**0**	**464,283**	**0**	**464,433**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Relationship to Comprehensive Plan

Secondary Connection

Element: Community Services & Facilities

Section: Access

Goal: C-5

Policy: C-32

Program: C-27

Potential Board/Commission Review:

Parks and Recreation Commission

Environmental Impact Analysis:

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

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 2016: Fire Station 2

Fiscal Year 2017: Rinconada Pool and Rinconada Park Restroom/Snack Bar

Fiscal Year 2018: Ventura Units 1 and 2

Fiscal Year 2019: Animal Services and Baylands Athletic Center Restroom

Fiscal Year 2020: Lucie Stern Community Center

Significant Changes

2016-2020 CIP: Based on an annual evaluation of roof conditions, some facilities mentioned in the 2015-2019 CIP have been removed from the new 5-year schedule to allow the project to address roofs that were determined to be higher priorities. The 5-year construction funding in the 2016-2020 CIP has increased by $870,000 relative to the 2015-2019 CIP. The increase is due to the use of updated cost figures from recent roofing replacement projects, and adjustment for the square footage of roofs included in the new 5-year schedule.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	294,111	9,281	726,654	202,328	706,942	249,289	451,700	2,336,913	0	N/A
Total	**N/A**	**294,111**	**9,281**	**726,654**	**202,328**	**706,942**	**249,289**	**451,700**	**2,336,913**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	294,111	9,281	726,654	202,328	706,942	249,289	451,700	2,336,913	0	N/A
Total	**N/A**	**294,111**	**9,281**	**726,654**	**202,328**	**706,942**	**249,289**	**451,700**	**2,336,913**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Potential Board/Commission Review:

Architectural Review Board

Historic Resources Board

Parks and Recreation Commission

Environmental Impact Analysis:

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

Roth Building, January 2015

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

Managing Department: Public Works
IBRC Reference: N/A

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

Revised Project Start:
Revised Project Completion: TBD

Project Number: PF-07011

Roth Building Maintenance

Description

This project provides for window repair, waterproofing of the building foundation walls, installation of electrical service to the building and a new ventilation system. 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 of the building. 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	6,865	58,576	11,576	47,000	0	0	0	0	47,000	0	65,441
Total	**6,865**	**58,576**	**11,576**	**47,000**	**0**	**0**	**0**	**0**	**47,000**	**0**	**65,441**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	6,865	58,576	11,576	47,000	0	0	0	0	47,000	0	65,441
Total	**6,865**	**58,576**	**11,576**	**47,000**	**0**	**0**	**0**	**0**	**47,000**	**0**	**65,441**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

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.

Oregon Expressway Bike/Ped Overcrossing, March 2015

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

Managing Department: Public Works
IBRC Reference: N/A

Initial Project Start: Summer 2012
Initial Project Completion: Summer 2013

Revised Project Start: Spring 2015
Revised Project Completion: Fall 2015

Project Number: PE-13012

Structural Assessment of City Bridges

Description

This project provides funding for a condition assessment of all city-owned bridges by a structural engineering consultant. The assessment will identify bridges needing periodic inspection and the methodology and frequency for performing those structural evaluations. A condition assessment report will be prepared for each bridge, summarizing the current condition and any deficiency requiring corrective maintenance or repair to ensure bridge structure safety and reliability. Additionally, a 10-year program will be drafted, identifying estimated costs and potential funding sources for inclusion in the city's operating and Capital Improvement Program budget.

Justification

The 93 bridges in Palo Alto are essential to the City's overall transportation network and represent a significant infrastructure asset. Maintaining their safety and functionality is vital to the efficient movement of people, goods and services throughout the city and will reduce costly repairs and/or replacements needed in the future.

Supplemental Information

The Infrastructure Blue Ribbon Commission recommended that a condition assessment of bridges be conducted to determine existing bridge conditions, ongoing maintenance needs and future rehabilitation and replacement costs.

Significant Changes

2016-2020 CIP: The project schedule was extended to reflect a delay in its initiation due to limited staffing resources.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	185,394	150,394	35,000	0	0	0	0	35,000	0	185,394
Total	**0**	**185,394**	**150,394**	**35,000**	**0**	**0**	**0**	**0**	**35,000**	**0**	**185,394**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	185,394	150,394	35,000	0	0	0	0	35,000	0	185,394
Total	**0**	**185,394**	**150,394**	**35,000**	**0**	**0**	**0**	**0**	**35,000**	**0**	**185,394**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Local Landuse and Growth Management

Goal: L-9

Policy: L-79

Program: L-79

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.

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; 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 2016: Resurface and restripe Lots N (Emerson/Hamilton) and T (Lytton/Kipling)

Fiscal Year 2017: Resurface and restripe Lots O (Emerson/High) and F (Florence/Lytton)

Fiscal Year 2018: Resurface and restripe Lots K (Lytton/Waverley) and C (Ramona/Lytton)

Fiscal Year 2019: Projects have not yet been identified

Fiscal Year 2020: Projects have not yet been identified

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Transfer from University Ave. Parking Permit Fund	N/A	349,583	19,211	87,380	66,576	134,359	23,917	24,563	336,795	0	N/A
Capital Improvement Fund	N/A	0	0	330,372	0	0	0	0	330,372	0	N/A
Total	**N/A**	**349,583**	**19,211**	**417,752**	**66,576**	**134,359**	**23,917**	**24,563**	**667,167**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	349,583	19,211	417,752	66,576	134,359	23,917	24,563	667,167	0	N/A
Total	**N/A**	**349,583**	**19,211**	**417,752**	**66,576**	**134,359**	**23,917**	**24,563**	**667,167**	**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.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Parking

Goal: T-8

Policy: T-47

Program: T-52

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.

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:
Revised Project Completion:

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 facility. To comply with 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, 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	148,483	689,330	40,600	0	0	878,413	0	878,413
Total	**0**	**0**	**0**	**148,483**	**689,330**	**40,600**	**0**	**0**	**878,413**	**0**	**878,413**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	58,483	600,000	0	0	0	658,483	0	658,483
Construction	0	0	0	90,000	89,330	40,600	0	0	219,930	0	219,930
Total	**0**	**0**	**0**	**148,483**	**689,330**	**40,600**	**0**	**0**	**878,413**	**0**	**878,413**

Operating Impact

This project may impact operating expenses in future years. As the scope of this project is better defined through the design process, operating impacts will be reviewed and adjustments may be brought forward as part of the annual budget process, as necessary.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

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

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.

Significant Changes

Prior to Fiscal Year 2015, the one percent for public art was included in the budget for each applicable project. Beginning in Fiscal Year 2015, this funding is accounted for within this 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.

2016-2020 CIP: As a result of the new Art in City Capital Improvement Projects ordinance, and additional funding in the CIP attributable to the Infrastructure Plan, the City's investment in public art is increased significantly, as compared to the 2015-2019 CIP.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	262,506	112,506	359,716	398,646	613,249	227,612	199,400	1,798,623	0	N/A
Total	**N/A**	**262,506**	**112,506**	**359,716**	**398,646**	**613,249**	**227,612**	**199,400**	**1,798,623**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	262,506	112,506	359,716	398,646	613,249	227,612	199,400	1,798,623	0	N/A
Total	**N/A**	**262,506**	**112,506**	**359,716**	**398,646**	**613,249**	**227,612**	**199,400**	**1,798,623**	**0**	**N/A**

Operating Impact

Annual funding in the amount of $30,000 for public art maintenance is allocated to the Community Services Department in the General Fund. This level of funding may be reviewed in light of increased funding for public art resulting from the public art ordinance, and adjustments to the maintenance allocation may be brought forward for City Council consideration in future years, if appropriate.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Public Ways

Goal: L-9

Policy: L-72

Potential Board/Commission Review:

Architectural Review Board

Parks and Recreation Commission

Environmental Impact Analysis:

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

Baylands Sail Station, July 2014

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Baylands Nature Preserve

Managing Department: Community Services
IBRC Reference: Catch-up

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

Revised Project Start:
Revised Project Completion:

Project Number: PG-17000

Baylands Comprehensive Conservation Plan

Description

The Conservation Plan will examine the native vegetation, wildlife habitat resources, and wildlife-appropriate public access for the entire Baylands, including Byxbee Park. This study will provide needed information on best areas to maintain as wildlife habitat and appropriate areas to develop trails or other recreation amenities. 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, design of which is scheduled to begin in Fiscal Year 2018.

Justification

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

Supplemental Information

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

Significant Changes

2016-2020 CIP: Project Established

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	270,077	0	0	0	270,077	0	270,077
Total	**0**	**0**	**0**	**0**	**270,077**	**0**	**0**	**0**	**270,077**	**0**	**270,077**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	0	270,077	0	0	0	270,077	0	270,077
Total	**0**	**0**	**0**	**0**	**270,077**	**0**	**0**	**0**	**270,077**	**0**	**270,077**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Open Space

Goal: N-1

Policy: N-1

Program: N-2, N-3

Potential Board/Commission Review:

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 the Baylands Nature Center

Managing Department: Community Services
IBRC Reference: New

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

Revised Project Start:
Revised Project Completion: Winter 2017

Project Number: OS-09002

Baylands Emergency Access Levee Repair

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.

Significant Changes

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 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	54,098	120,902	902	265,000	0	0	0	0	265,000	0	320,000
Total	**54,098**	**120,902**	**902**	**265,000**	**0**	**0**	**0**	**0**	**265,000**	**0**	**320,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	54,098	120,902	902	265,000	0	0	0	0	265,000	0	320,000
Total	**54,098**	**120,902**	**902**	**265,000**	**0**	**0**	**0**	**0**	**265,000**	**0**	**320,000**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Open Space

Goal: N-1

Policy: N-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: Recurring
Initial Project Completion: Recurring

Project Number: PG-06003

Benches, Signage, Walkways, Perimeter Landscaping

Description

This recurring 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 or condition.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	160,092	138,435	171,657	150,000	150,000	150,000	150,000	771,657	0	N/A
Total	**N/A**	**160,092**	**138,435**	**171,657**	**150,000**	**150,000**	**150,000**	**150,000**	**771,657**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	160,092	138,435	171,657	150,000	150,000	150,000	150,000	771,657	0	N/A
Total	**N/A**	**160,092**	**138,435**	**171,657**	**150,000**	**150,000**	**150,000**	**150,000**	**771,657**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-26

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:
Revised Project Completion:

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 fencing. Irrigation renovations and turf restoration are also included in this project, as well as the replacement of two drinking fountains and other site amenities.

Justification

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

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	0	0	0	275,132	275,132	0	275,132
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**275,132**	**275,132**	**0**	**275,132**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	0	217,400	217,400	0	217,400
Design	0	0	0	0	0	0	0	57,732	57,732	0	57,732
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**275,132**	**275,132**	**0**	**275,132**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Parks and Recreation Commission
Element: Community Services & Facilities	Planning and Transportation Commission
Section: Parks and Public Facilities	
Goal: C-4	
Policy: C-24	
Program: C-19	

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 Ave.

Managing Department: Public Works
IBRC Reference: Catch-up

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

Revised Project Start:
Revised Project Completion:

Project Number: PE-17005

Boulware Park Improvements

Description

This project provides funding for improvements to the existing children's playground, lighting and site amenities, and accessibility upgrades. 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	45,000	400,000	0	50,666	495,666	0	495,666
Total	**0**	**0**	**0**	**0**	**45,000**	**400,000**	**0**	**50,666**	**495,666**	**0**	**495,666**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	0	45,000	0	0	25,333	70,333	0	70,333
Construction	0	0	0	0	0	400,000	0	25,333	425,333	0	425,333
Total	**0**	**0**	**0**	**0**	**45,000**	**400,000**	**0**	**50,666**	**495,666**	**0**	**495,666**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24,C-26, C-32

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.

Bowden Park, February 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 2380 High Street

Managing Department: Public Works
IBRC Reference: Keep-up

Initial Project Start: Summer 2012
Initial Project Completion: Spring 2013

Revised Project Start: Spring 2014
Revised Project Completion: Fall 2015

Project Number: PE-13008

Bowden Park Improvements

Description

This project provides funding for improvements to the children's playground and park amenities, including a new retaining wall, new play equipment and new play area surfacing. Planting restoration and irrigation renovations as well as replacement of the playground perimeter fence will be included in the project.

Justification

Heavy root damage and deterioration necessitate the replacement of the retaining wall in the south-west corner of the playground and the playground perimeter fence, respectively. Old playground equipment needs replacing as well as damaged wood benches and deteriorating concrete tables. Additionally, irrigation will be renovated and planting restored as part of the project.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	36,961	320,634	320,634	63,531	0	0	0	0	63,531	0	421,126
Total	**36,961**	**320,634**	**320,634**	**63,531**	**0**	**0**	**0**	**0**	**63,531**	**0**	**421,126**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	36,961	0	0	36,067	0	0	0	0	36,067	0	73,028
Construction	0	320,634	320,634	27,464	0	0	0	0	27,464	0	348,098
Total	**36,961**	**320,634**	**320,634**	**63,531**	**0**	**0**	**0**	**0**	**63,531**	**0**	**421,126**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Potential Board/Commission Review:

Architectural Review Board

Parks and Recreation Commission

Environmental Impact Analysis:

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

Buckeye Creek, December 2014

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Foothills Park

Managing Department: Community Services
IBRC Reference: Catch-up

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

Revised Project Start:
Revised Project Completion:

Project Number: PG-15000

Buckeye Creek Hydrology Study

Description

This project will fund a study to analyze flooding conditions and to recommend flood control structures that provide both drainage and erosion control solutions for Buckeye Creek. The project will consider maintenance needs and land stewardship practices, and will include outreach to stakeholders. Drainage system improvements may include new culverts, gabions and native plant riparian re-vegetation.

Justification

Buckeye Creek originates in Foothills Park and flows to Los Trancos Creek. During heavy storms, the creek overflows and undercuts banks causing erosion, heavy siltation and damage to adjacent roads, utilities and park facilities.

Original gabions and check dams installed after the 1983 El Nino floods are failing and causing additional erosion. Annual maintenance costs have increased to repair repeated flood damage.

Supplemental Information

The Infrastructure Blue Ribbon Commission recommended a hydrology study be conducted to determine the hydrologic conditions and recommendations to reduce creek sedimentation and erosion. Based on the findings of the study, future funding may be proposed for construction of improvements.

The hydrology study is a critical precursor to decisions regarding the future use of the 7.7 acres of park land at Foothills Park. On February 24, 2015, the Parks and Recreation Commission recommended to Council that the Buckeye Creek hydrology study should be completed before making any recommendations on how to use the 7.7 acre parcel. The recommendations on how to best address the hydrology challenges may alter the City's decision on use of the land.

Significant Changes

2016-2020 CIP: Project Established

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	149,180	41,202	0	0	0	190,382	0	190,382
Total	**0**	**0**	**0**	**149,180**	**41,202**	**0**	**0**	**0**	**190,382**	**0**	**190,382**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	0	0	105,000	0	0	0	0	105,000	0	105,000
Design	0	0	0	44,180	41,202	0	0	0	85,382	0	85,382
Total	**0**	**0**	**0**	**149,180**	**41,202**	**0**	**0**	**0**	**190,382**	**0**	**190,382**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Open Space

Goal: N-1

Policy: N-1

Program: N-2, N-3

Relationship to Comprehensive Plan

Secondary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-2

Policy: N-11

Environmental Impact Analysis:

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

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:
Revised Project Completion:

Project Number: PE-18006

Byxbee Park Completion

Description

This project provides funding for the remaining improvements to Byxbee Park following the completion of the remaining landfill capping work. As envisioned by the original artist and landscape architect, the completion of Byxbee Park would occur following capping of the remainder of the landfill and would consist of a network of white oyster shell-lined trails with wooden viewing platforms. The hilltops would also be accented with small soil mounds called "hillocks" to be used for planting wildflowers. Additionally, the parking lot for the park would be expanded.

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 develop 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 approved Infrastructure Plan. Funds for the project are provided by the Parks Development Impact Fee Fund.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	0	0	0	0	2,800,000	0	0	2,800,000	0	2,800,000
Capital Improvement Fund	0	0	0	0	0	(2,445,985)	2,636,252	0	190,267	0	190,267
Total	**0**	**0**	**0**	**0**	**0**	**354,015**	**2,636,252**	**0**	**2,990,267**	**0**	**2,990,267**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	2,520,000	0	2,520,000	0	2,520,000
Design	0	0	0	0	0	354,015	116,252	0	470,267	0	470,267
Total	**0**	**0**	**0**	**0**	**0**	**354,015**	**2,636,252**	**0**	**2,990,267**	**0**	**2,990,267**

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: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Potential Board/Commission Review:

Architectural Review Board

Parks and Recreation Commission

Environmental Impact Analysis:

This project may be subject to CEQA review.

Cameron Park, January 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Cameron Park

Managing Department: Community Services
IBRC Reference: Catch-up

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

Revised Project Start:
Revised Project Completion:

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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	0	124,000	35,994	0	159,994	0	159,994
Total	**0**	**0**	**0**	**0**	**0**	**124,000**	**35,994**	**0**	**159,994**	**0**	**159,994**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	0	0	0	17,997	0	17,997	0	17,997
Construction	0	0	0	0	0	124,000	17,997	0	141,997	0	141,997
Total	**0**	**0**	**0**	**0**	**0**	**124,000**	**35,994**	**0**	**159,994**	**0**	**159,994**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Parks and Recreation Commission
Element: Community Services & Facilities	
Section: Parks and Public Facilities	
Goal: C-4	
Policy: C-24	
Program: C-19	

Environmental Impact Analysis:

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

El Camino Park, February 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 103 El Camino Real

Managing Department: Public Works
IBRC Reference: N/A

Initial Project Start: Summer 2012
Initial Project Completion: Spring 2016

Revised Project Start: Winter 2014
Revised Project Completion: Fall 2015

Project Number: PE-13016

El Camino Park Restoration

Description

This project provides funding for the restoration of the athletic fields including synthetic turf and natural grass; expansion of the parking lot; a new scorekeeper's building and larger restroom facility; lighted pathways and site amenities. Also included in the project are irrigation renovations, planting restoration, and passive recreational areas at both ends of the park.

Justification

The existing parking lot is inadequate for current demand. The addition of a synthetic field and other improvements associated with the Utilities Department's El Camino Park Water Reservoir project will heighten demand. The 60-year-old restroom structure is beyond repair, relocation will make room for more parking. The loss of vegetation is attributed to poor irrigation.

Supplemental Information

The two renovated athletic fields, expanded parking lot, lighting, and new restroom are being constructed following the completion of the Utilities Department's El Camino Park Reservoir Project.

Significant Changes

2016-2020 CIP: Completion of project deferred by two years as alternate design options were developed and reviewed. The budget was increased by $1.34 million in Fiscal Year 2015 to account for additional design, new lighting for the north athletic field and other amenities.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	24,600	24,600	0	0	0	0	0	0	0	24,600
Capital Improvement Fund	42,861	5,477,238	5,385,004	158,657	0	0	0	0	158,657	0	5,586,522

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Total	**42,861**	**5,501,838**	**5,409,604**	**158,657**	**0**	**0**	**0**	**0**	**158,657**	**0**	**5,611,122**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	42,861	0	0	0	0	0	0	0	0	0	42,861
Construction	0	5,501,838	5,409,604	158,657	0	0	0	0	158,657	0	5,568,261
Total	**42,861**	**5,501,838**	**5,409,604**	**158,657**	**0**	**0**	**0**	**0**	**158,657**	**0**	**5,611,122**

Anticipated Operating Budget Needs

Fund	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Capital Improvement Fund	(4,000)	(8,000)	(8,000)	(8,000)	(8,000)

Operating Impact

This project is anticipated to impact operating expenses in the future. The costs detailed in the table above represent current estimates of the reduced operating expense for the park upon its reopening in comparison with the park prior to the reservoir project. Operating costs are increased for electricity used by the new field lighting, but are reduced by the water savings of the new artificial turf field, resulting in a net decrease.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Local Landuse and Growth Management

Goal: L-8

Policy: L-61

Relationship to Comprehensive Plan

Secondary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C4

Policy: C-24

Potential Board/Commission Review:

Architectural Review Board

Parks and Recreation Commission

Environmental Impact Analysis:

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

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Palo Alto Municipal Golf Course

Managing Department: Community Services
IBRC Reference: Keep-up

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

Revised Project Start:
Revised Project Completion:

Project Number: PG-18000

Golf Course Net and Artificial Turf

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 use expectancy of nine to ten years, replacement is projected to be needed in 2018. 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	0	770,000	0	0	770,000	0	770,000
Total	**0**	**0**	**0**	**0**	**0**	**770,000**	**0**	**0**	**770,000**	**0**	**770,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	0	0	25,000	0	0	25,000	0	25,000
Construction	0	0	0	0	0	745,000	0	0	745,000	0	745,000
Total	**0**	**0**	**0**	**0**	**0**	**770,000**	**0**	**0**	**770,000**	**0**	**770,000**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Parks and Recreation Commission
Element: Community Services & Facilities	
Section: Parks and Public Facilities	
Goal: C-4	
Policy: C-24	
Program: C-19	

Environmental Impact Analysis:

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

Golf Course, January 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 1875 Embarcadero Rd, Palo Alto, CA 94303

Managing Department: Community Services
IBRC Reference: N/A

Initial Project Start: Fall 2012
Initial Project Completion: Recurring

Revised Project Start: Fall 2012
Revised Project Completion: Summer 2016

Project Number: PG-12002

Golf Course Tree Maintenance

Description

This project establishes a tree plan at the Palo Alto Golf Course as recommended by City Arborist. The maintenance and care for these trees have been deferred since 2007. Many are in need of trimming, nutrition, and care for disease and pests. The trees of greatest concern are the large Eucalyptus, Caserinas, and Stone Pines. After an evaluation, an Agronomic Plan will be put in place along with a schedule that addresses the work needed to insure healthy conditions.

Justification

Many trees have become very dangerous due to disease, pests, and lack of scheduled trimming. The top heavy trees need to be trimmed as they tend to fall over during winter wind storms. This project provides the means to plant and care for existing trees at the Palo Alto Golf Course.

Supplemental Information

The golf course reconfiguration project, which is tentatively scheduled to start early 2016 pending permit approval, involves removing some of the trees on the golf course. The funding from this CIP will only be used to address hazardous trees that pose a safety risk, and to maintain trees that will not be removed as part of the golf course reconfiguration project.

Significant Changes

This was previously a recurring capital project, however future funding for tree maintenance has been moved to the operating budget rather than the capital budget.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	24,611	40,000	33,182	6,818	0	0	0	0	6,818	0	64,611
Total	**24,611**	**40,000**	**33,182**	**6,818**	**0**	**0**	**0**	**0**	**6,818**	**0**	**64,611**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	24,611	40,000	33,182	6,818	0	0	0	0	6,818	0	64,611
Total	**24,611**	**40,000**	**33,182**	**6,818**	**0**	**0**	**0**	**0**	**6,818**	**0**	**64,611**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Potential Board/Commission Review:

Parks and Recreation Commission

Environmental Impact Analysis:

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

Palo Alto Golf Course, March 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 1875 Embarcadero Road

Managing Department: Public Works
IBRC Reference: New

Initial Project Start: Summer 2012
Initial Project Completion: Spring 2015

Revised Project Start: Summer 2012
Revised Project Completion: Fall 2017

Project Number: PG-13003

Golf Reconfiguration & Baylands Athletic Center Improvements

Description

This project provides funding for the renovation of the Municipal Golf Course in accordance with the Council-approved conceptual plan. The project includes less turf, raising the elevation of the course with imported soil, replacement of the irrigation and drainage systems and space for athletic fields.

Justification

The need for this project was triggered by the San Francisquito Creek flood control improvements being implemented by the Creek Joint Powers Authority, which will encroach on the existing golf course. This creates an opportunity to resolve existing issues with the golf course, including the deteriorated irrigation system, high water consumption, poor soil, and the shortage of playing fields in Palo Alto. The course design will accentuate the natural Baylands setting and is expected to attract new users, increasing revenue.

Supplemental Information

The project will be partially funded through the San Francisquito Creek JPA ($3.0 million) as mitigation for the impacts of its flood control project. The balance of the project cost will be financed through certificates of participation (COPs) issued by the city and repaid via golf course revenues over of the next 20 years. A financial analysis prepared by the National Golf Foundation projected revenues from the improved golf course will support repayment of the COPs.

Significant Changes

2016-2020 CIP: Timeline extended to reflect full delay in construction phase due to difficulties in securing regulatory permits for the project. Additionally, project was reduced by $24,450, which represents the amount that was previously budgeted for public art. In Fiscal Year 2015, the City Council approved a new Public Art policy, which dedicated an amount equal to one percent of capital projects, with certain exclusions, for public art. Public Art expenses are accounted for within the Art in Public Places capital project. The reduction of $24,450 represents the amount that was previously earmarked in this project for public art. Public Art funding of approximately $100,000 (representing one percent of the total anticipated cost for this project) was added to the Art in Public Places project as part of this budget.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	10,483,884	0	10,264,211	0	0	0	0	10,264,211	0	10,264,211
Capital Improvement Fund	774,428		498,274	(303,051)	0	0	0	0	(303,051)	0	969,651
Total	**774,428**	**10,483,884**	**498,274**	**9,961,160**	**0**	**0**	**0**	**0**	**9,961,160**	**0**	**11,233,862**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	6,038	10,483,884	498,274	9,961,160	0	0	0	0	9,961,160	0	10,465,472
Design	768,390	0	0	0	0	0	0	0	0	0	768,390
Total	**774,428**	**10,483,884**	**498,274**	**9,961,160**	**0**	**0**	**0**	**0**	**9,961,160**	**0**	**11,233,862**

Operating Impact

Maintenance of the golf course is budgeted in the Community Services Department. It is anticipated that the complete reconstruction of the golf course on a smaller footprint with less turf and a more efficient irrigation system will reduce maintenance costs (particularly water costs) and extend the useful life of this asset. There will be cost savings while the golf course is closed for construction and ongoing savings once the new upgraded course is opened for public play. The cost to operate and maintain the golf course will be reviewed annually, and any incremental savings will be proposed each year through the annual budget process.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Relationship to Comprehensive Plan

Secondary Connection

Element: Natural Environment

Section: Open Space

Goal: N-1

Policy: N-1

Program: N-8

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.

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: Spring 2017
Revised Project Completion: Fall 2017

Project Number: PE-18012

Hoover Park Improvements

Description

This project provides funding for the replacement of the existing concrete walkway, repairs to the existing decomposed granite walkway and replacement of site amenities, including playfield backstops, benches, 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 brick wall at the playground and other site amenities, including the playfield backstops, are old or damaged.

Significant Changes

2016-2020 CIP: Project moved from 2018 to 2017 based on review of staff work load.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	90,139	490,000	0	0	580,139	0	580,139
Total	**0**	**0**	**0**	**0**	**90,139**	**490,000**	**0**	**0**	**580,139**	**0**	**580,139**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	40,804	425,000	0	0	465,804	0	465,804
Design	0	0	0	0	49,335	65,000	0	0	114,335	0	114,335
Total	**0**	**0**	**0**	**0**	**90,139**	**490,000**	**0**	**0**	**580,139**	**0**	**580,139**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-1

Policy: C-4

Program: C-24

Potential Board/Commission Review:

Parks and Recreation Commission

Environmental Impact Analysis:

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

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 2019
Revised Project Completion: Summer 2021

Project Number: PE-18010

Mitchell Park Improvements

Description

This project provides funding for repair and replacement of equipment and amenities through 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.

Significant Changes

2016-2020 CIP: Based on the IBRC keep-up schedule for the park, irrigation renovations, turf restoration and park amenities replacement have been 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 has been adjusted accordingly.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	0	0	74,110	1,408,311	1,482,421	0	1,482,421

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Total	**0**	**0**	**0**	**0**	**0**	**0**	**74,110**	**1,408,311**	**1,482,421**	**0**	**1,482,421**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	0	0	0	74,110	276,111	350,221	0	350,221
Construction	0	0	0	0	0	0	0	1,132,200	1,132,200	0	1,132,200
Total	**0**	**0**	**0**	**0**	**0**	**0**	**74,110**	**1,408,311**	**1,482,421**	**0**	**1,482,421**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Potential Board/Commission Review:

Architectural Review Board

Parks and Recreation Commission

Environmental Impact Analysis:

This project may be subject to CEQA review.

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-mile off-road paved trail system that is 35 years old and requires on-going, phased repairs. This project removes 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. The project does not create new offroad trails. 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 life of pathway surfaces. This project will ensure safe, even, and handicapped accessible surfaces for pedestrians, cyclists, and skaters. Repair of uneven trail surfaces will greatly reduce accidents.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	361,049	279,049	202,045	120,587	121,143	121,713	122,300	687,788	0	N/A
Total	**N/A**	**361,049**	**279,049**	**202,045**	**120,587**	**121,143**	**121,713**	**122,300**	**687,788**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	361,049	0	20,045	20,587	21,143	21,713	22,300	105,788	0	N/A
Capital Improvement Fund	N/A	0	279,049	182,000	100,000	100,000	100,000	100,000	582,000	0	N/A
Total	**N/A**	**361,049**	**279,049**	**202,045**	**120,587**	**121,143**	**121,713**	**122,300**	**687,788**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-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.

Boronda Lake, January 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Foothills Park Boronda Lake

Managing Department: Community Services
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Revised Project Start:
Revised Project Completion:

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 and to meet State Division of Safety of Dams requirements. Work at Boronda Lake at Foothills Park consists of the annual harvesting of non-native pond weeds and cattails. Work at the Baylands Duck Pond maintains the aerator for 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 has been converted to annual recurring status, rather than past practice of receiving additional funding every other year. The change will address 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 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	227,884	14,920	14,920	45,000	45,000	45,000	45,000	45,000	225,000	0	467,804
Total	**227,884**	**14,920**	**14,920**	**45,000**	**45,000**	**45,000**	**45,000**	**45,000**	**225,000**	**0**	**467,804**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	227,884	14,920	14,920	45,000	45,000	45,000	45,000	45,000	225,000	0	467,804
Total	**227,884**	**14,920**	**14,920**	**45,000**	**45,000**	**45,000**	**45,000**	**45,000**	**225,000**	**0**	**467,804**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Open Space

Goal: N-1

Policy: N-1 and N-12

Potential Board/Commission Review:

Parks and Recreation 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 correct 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	383,890	368,890	190,000	175,000	175,000	175,000	175,000	890,000	0	N/A
Total	**N/A**	**383,890**	**368,890**	**190,000**	**175,000**	**175,000**	**175,000**	**175,000**	**890,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	383,890	368,890	190,000	175,000	175,000	175,000	175,000	890,000	0	N/A
Total	**N/A**	**383,890**	**368,890**	**190,000**	**175,000**	**175,000**	**175,000**	**175,000**	**890,000**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Open Space

Goal: N-1

Policy: N-1

Program: N-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 15301.

Community Gardens, February 2015

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

Managing Department: Public Works
IBRC Reference: New

Initial Project Start: Summer 2015
Initial Project Completion: Fall 2015

Revised Project Start:
Revised Project Completion:

Project Number: PE-15022

Palo Alto Community Gardens Irrigation System

Description

This project provides funding for new irrigation systems at all three Community Gardens. Each of the three gardens will receive a new irrigation main line and components, isolation valves and hose bibs/ faucets to improve water conservation efforts and reduce necessary repair work. These improvements will provide adequate water pressure and reliable irrigation. Gardeners will be able to utilize and customize watering levels based on need.

Justification

The existing galvanized metal pipe and components repeatedly fail, increasing maintenance costs due to loss of water, service interruptions and unplanned repairs. A new water main system will reduce water waste, downtime and repair costs.

Supplemental Information

Community garden locations are as follows:

Main Garden (1313 Newell Street)

Edith Johnson Garden (200 Waverley Street)

Eleanor Pardee Park (1201 Channing Avenue)

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	256,504	5,610	275,816	0	0	0	0	275,816	0	281,426
Total	**0**	**256,504**	**5,610**	**275,816**	**0**	**0**	**0**	**0**	**275,816**	**0**	**281,426**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	46,615	0	0	0	0	46,615	0	46,615
Construction	0	256,504	5,610	229,201	0	0	0	0	229,201	0	234,811
Total	**0**	**256,504**	**5,610**	**275,816**	**0**	**0**	**0**	**0**	**275,816**	**0**	**281,426**

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: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	N/A	100,325	100,325	75,000	75,000	75,000	75,000	75,000	375,000	0	N/A
Total	**N/A**	**100,325**	**100,325**	**75,000**	**75,000**	**75,000**	**75,000**	**75,000**	**375,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	100,325	100,325	75,000	75,000	75,000	75,000	75,000	375,000	0	N/A
Total	**N/A**	**100,325**	**100,325**	**75,000**	**75,000**	**75,000**	**75,000**	**75,000**	**375,000**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Potential Board/Commission Review:

Parks and Recreation Commission

Environmental Impact Analysis:

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

Parks Master Plan, February 2015

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

Managing Department: Public Works
IBRC Reference: New

Initial Project Start: Summer 2013
Initial Project Completion: Summer 2014

Revised Project Start:
Revised Project Completion: Winter 2016

Project Number: PE-13003

Parks, Trails, Open Space, & Recreation Master Plan

Description

This project provides funding for the development of a master plan for Palo Alto's parks, trails, open space and recreation. The process will include an inventory of parks, trails, open spaces and recreational facilities; an analysis of current and forecasted community recreation needs; a prioritization of needed renovations and improvements; and a strategy and timeline for funding the improvements.

Justification

Deemed a high priority by the Parks and Recreation Commission, a master plan would provide guidance regarding future renovations, improvements and funding needs, incorporating demands for projected recreational, programming and maintenance needs and establishing a prioritized schedule of future park renovations and facility improvements for the next 25 years.

Significant Changes

2016-2020 CIP: Project completion extended by 18 months due to the project's extensive public outreach process and collaboration with the Parks and Recreation Commission.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	149,912	417,035	378,035	99,110	0	0	0	0	99,110	0	627,057
Total	**149,912**	**417,035**	**378,035**	**99,110**	**0**	**0**	**0**	**0**	**99,110**	**0**	**627,057**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	149,912	0	0	60,110	0	0	0	0	60,110	0	210,022
Construction	0	417,035	378,035	39,000	0	0	0	0	39,000	0	417,035
Total	**149,912**	**417,035**	**378,035**	**99,110**	**0**	**0**	**0**	**0**	**99,110**	**0**	**627,057**

Operating Impact

This project is not anticipated to impact operating expenses, although implementation of projects included in the plan may result in operating expense impacts.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Local Landuse and Growth Management

Goal: L-8

Policy: L-61

Relationship to Comprehensive Plan

Secondary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C4

Policy: C-26

Potential Board/Commission Review:

Parks and Recreation Commission

Environmental Impact Analysis:

CEQA will be required.

Peers Park, January 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Peers Park

Managing Department: Community Services
IBRC Reference: Catch-up

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

Revised Project Start:
Revised Project Completion:

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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	0	229,019	0	0	229,019	0	229,019
Total	**0**	**0**	**0**	**0**	**0**	**229,019**	**0**	**0**	**229,019**	**0**	**229,019**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	220,257	0	0	220,257	0	220,257
Design	0	0	0	0	0	8,762	0	0	8,762	0	8,762
Total	**0**	**0**	**0**	**0**	**0**	**229,019**	**0**	**0**	**229,019**	**0**	**229,019**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Parks and Recreation Commission
Element: Community Services & Facilities	
Section: Parks and Public Facilities	
Goal: C-4	
Policy: C-24	
Program: C-19	

Environmental Impact Analysis:

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

Ramos Park, January 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: Ramos Park

Managing Department: Community Services
IBRC Reference: Catch-up

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

Revised Project Start:
Revised Project Completion: Summer 2016

Project Number: PG-14000

Ramos Park Improvements

Description

This project provides funding for safety and accessibility improvements at Ramos Park including replacing the existing park playground, benches, and drinking fountain, as well as resurfacing the basketball court playing surface.

Justification

The existing playground, benches, basketball court surfaces, and drinking fountains have exceeded their useful lives. 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

2016-2020 CIP: The project completion orginally referred only to the pre-design phase and has been modified to represent completion of the full project, including construction.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	175,000	0	175,000	0	0	0	57,628	232,628	0	232,628
Total	**0**	**175,000**	**0**	**175,000**	**0**	**0**	**0**	**57,628**	**232,628**	**0**	**232,628**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	0	0	0	0	28,814	28,814	0	28,814
Construction	0	175,000	0	175,000	0	0	0	28,814	203,814	0	203,814
Total	**0**	**175,000**	**0**	**175,000**	**0**	**0**	**0**	**57,628**	**232,628**	**0**	**232,628**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Potential Board/Commission Review:

Parks and Recreation 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: Spring 2017
Revised Project Completion: Fall 2017

Project Number: PE-08001

Rinconada Park Improvements

Description

This project provides funding for upgrades to safety, site amenities, pool and playground facilities, irrigation, drainage and accessibility at Rinconada Park. The funding is expected to provide for implementation of improvements outlined by the Rinconada Park Master Plan that relate to current deferred maintenance items at the park, such as installing wider pathways rather than repairing the existing pathways.

Justification

Funding is needed to implement the first, short-term phase of the Rinconada Park Master Plan that will focus on deferred maintenance items and related improvements. The Master Plan is currently under environmental review and will be brought to the City Council for approval upon completion of the environmental review process.

Supplemental Information

The funding provided for construction of improvements in Fiscal Year 2017 may be adjusted in future CIPs once the Rinconada Park Master Plan has been finalized and approved.

Significant Changes

2016-2020 CIP: Project was delayed to await the completion of the Rinconada Park Master Plan and environmental review, which is currently underway. 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 Master Plan and the Parks Master Plan are completed.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	2,591	1,353,722	18,351	0	3,474,224	141,856	0	0	3,616,080	0	3,637,022
Total	**2,591**	**1,353,722**	**18,351**	**0**	**3,474,224**	**141,856**	**0**	**0**	**3,616,080**	**0**	**3,637,022**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	2,591	0	18,351	0	392,450	39,181	0	0	431,631	0	452,573
Construction	0	1,353,722	0	0	3,081,774	102,675	0	0	3,184,449	0	3,184,449
Total	**2,591**	**1,353,722**	**18,351**	**0**	**3,474,224**	**141,856**	**0**	**0**	**3,616,080**	**0**	**3,637,022**

Operating Impact

This project may impact operating expenses in future years. As the scope of this project is better defined through the design process, operating impacts will be reviewed and adjustments may be brought forward as part of the annual budget process, as necessary.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-20

Potential Board/Commission Review:

Parks and Recreation Commission

Environmental Impact Analysis:

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

Rinconada Park Master Plan, February 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 777 Embarcadero Road

Managing Department: Public Works
IBRC Reference: N/A

Initial Project Start: Spring 2012
Initial Project Completion: Spring 2013

Revised Project Start:
Revised Project Completion: Spring 2016

Project Number: PE-12003

Rinconada Park Master Plan and Design

Description

This project provides funding for the development of a master plan for Rinconada Park. The process is two-fold and includes an Urban Planning or Landscape Architecture firm engaging stakeholders in addressing usage and facility needs and a study to assess existing and future transportation, parking and traffic needs as well as providing a conceptual plan, guidelines and design for landscaping, wayfinding systems and pedestrian roadway crossings.

Justification

Rinconada is a regional park, but due to its location adjacent to so many other highly frequented facilities, including Lucie Stern Community Center and Theatre, Childrens Theatre, Childrenís Library, Junior Museum & Zoo, Rinconada Pool, the tennis courts, Fire Station 3, Rinconada Library, Art Center and Walter Hayes Elementary School, the development of a master plan incorporating surrounding facilities is essential in ensuring the park continues to thrive and serve the community.

Significant Changes

2016-2020 CIP: In response to the recommendations made by the Rinconada Park Master Plan, an environmental assessment was requested by the Planning and Community Environment Department (PCE) to review the potential impacts of all improvements, including the proposed rebuilding of the Junior Museum & Zoo. Council approved a Budget Amendment Ordinance for $114,565 to fund the environmental assessment. One half of the funding for the environmental assessment is being provided by the Friends of the Junior Museum and Zoo. The project schedule has been extended to reflect the delay to the completion of the Master Plan.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	276,113	127,793	126,565	69,645	0	0	0	0	69,645	0	472,323
Total	**276,113**	**127,793**	**126,565**	**69,645**	**0**	**0**	**0**	**0**	**69,645**	**0**	**472,323**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	276,113	0	126,565	69,645	0	0	0	0	69,645	0	472,323
Construction	0	127,793	0	0	0	0	0	0	0	0	0
Total	**276,113**	**127,793**	**126,565**	**69,645**	**0**	**0**	**0**	**0**	**69,645**	**0**	**472,323**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Local Landuse and Growth Management

Goal: L-2

Policy: L-10

Environmental Impact Analysis:

CEQA will be required.

Potential Board/Commission Review:

Architectural Review Board

Parks and Recreation Commission

Robles Park, February 2015

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 4116 Park Blvd

Managing Department: Public Works
IBRC Reference: Keep-up

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

Revised Project Start: Summer 2017
Revised Project Completion: Winter 2018

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, concrete 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.

Significant Changes

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 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	0	755,722	0	0	755,722	0	755,722
Total	**0**	**0**	**0**	**0**	**0**	**755,722**	**0**	**0**	**755,722**	**0**	**755,722**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	0	0	136,704	0	0	136,704	0	136,704
Construction	0	0	0	0	0	619,018	0	0	619,018	0	619,018
Total	**0**	**0**	**0**	**0**	**0**	**755,722**	**0**	**0**	**755,722**	**0**	**755,722**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-1

Policy: C-24

Program: C-19

Potential Board/Commission Review:

Parks and Recreation 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 Pl

Managing Department: Community Services
IBRC Reference: Keep-up

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

Revised Project Start:
Revised Project Completion:

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

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 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	0	0	354,019	0	0	354,019	0	354,019
Total	**0**	**0**	**0**	**0**	**0**	**354,019**	**0**	**0**	**354,019**	**0**	**354,019**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	320,257	0	0	320,257	0	320,257
Design	0	0	0	0	0	33,762	0	0	33,762	0	33,762
Total	**0**	**0**	**0**	**0**	**0**	**354,019**	**0**	**0**	**354,019**	**0**	**354,019**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Potential Board/Commission Review:

Parks and Recreation Commission

Environmental Impact Analysis:

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

Stanford-Palo Alto Playing Fields

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 2700 El Camino Real

Managing Department: Community Services
IBRC Reference: Keep-up

Initial Project Start: Fall 2012
Initial Project Completion: Spring 2013

Revised Project Start: Spring 2015
Revised Project Completion: Summer 2015

Project Number: PG-12001

Stanford/Palo Alto Playing Fields Netting

Description

This project provides funding to add additional netting to prevent soccer balls from going over the fence into the parking lot of the adjacent property at 650 Page Mill Road. Although there is netting behind the soccer goal areas, there is still a gap of approximately 160 feet without netting in the area between the two soccer fields. This area serves as a warm up and practice area and is heavily used.

Justification

The adjacent property manager has complained of repeated issues with soccer balls coming over the existing fence and damaging vehicles. There are also safety concerns with children running through the parking lot searching for soccer balls kicked over the fence. Landscaping and irrigation have also been damaged as soccer players walk through landscaped areas of the parking lot to retrieve soccer balls.

Significant Changes

2016-2020 CIP: Project schedule delayed due to staff focusing on higher priority projects.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	50,000	47,200	2,800	0	0	0	0	2,800	0	50,000
Total	**0**	**50,000**	**47,200**	**2,800**	**0**	**0**	**0**	**0**	**2,800**	**0**	**50,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	50,000	47,200	2,800	0	0	0	0	2,800	0	50,000
Total	**0**	**50,000**	**47,200**	**2,800**	**0**	**0**	**0**	**0**	**2,800**	**0**	**50,000**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-26

Potential Board/Commission Review:

Architectural Review Board

Parks and Recreation Commission

Environmental Impact Analysis:

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

Stanford/Palo Alto Playing Fields

Fund: Capital Improvement Fund
Category: Parks and Open Space
Project Location: 2700 El Canino Real

Managing Department: Community Services
IBRC Reference: Keep-up

Initial Project Start: Summer 2013
Initial Project Completion: Summer 2015

Revised Project Start: Winter 2015
Revised Project Completion:

Project Number: PG-13001

Stanford/Palo Alto Playing Fields Soccer Turf Replacement

Description

This project provides funding for replacement of synthetic turf at the Stanford/Palo Alto Playing Fields.

Justification

The Stanford/Palo Alto Playing Fields accommodate year round play with lighting. Since the complex was built in 2006, it has been in high demand and is used by youth and adult leagues as well as walk-on play. In order to ensure safe playing conditions, the two soccer fields are scheduled for turf replacement in Fiscal Year 2015 and Fiscal Year 2016.

Supplemental Information

The turf has a typical lifespan of 8 years with fiber wear decrease in pile height of 8% per year. With higher than typical usage, there has been 8-10% annual wear.

Significant Changes

2016-2020 CIP: The project's initiation, orginally planned for Summer 2013, was delayed due to staffing resources. As a result, both of the playing fields will now be replaced in a single phase rather than two separate phases as previously scheduled. The project's completion season of Summer 2015 remains unchanged.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	725,000	725,000	770,000	0	0	0	0	770,000	0	1,495,000
Total	**0**	**725,000**	**725,000**	**770,000**	**0**	**0**	**0**	**0**	**770,000**	**0**	**1,495,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	725,000	725,000	770,000	0	0	0	0	770,000	0	1,495,000
Total	**0**	**725,000**	**725,000**	**770,000**	**0**	**0**	**0**	**0**	**770,000**	**0**	**1,495,000**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Potential Board/Commission Review:

Architectural Review Board

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

Tennis and Basketball Court Resurfacing

Description

This project provides funding for tennis and basketball court repair and resurfacing in various Palo Alto parks.

Justification

Tennis and basketball courts 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 2016: Mitchell Park tennis courts reconstruction (1-4)

Fiscal Year 2017: Mitchell Park tennis courts reconstruction (5-7)

Fiscal Year 2018: Mitchell Park handball resurfacing and Mitchell Park paddle tennis resurfacing

Fiscal Year 2019: Cubberley Community Center tennis courts reconstruction (Note: staff will review whether costs for the Cubberley tennis courts may be recovered from the Cubberley Infrastructure Fund.)

Fiscal Year 2020: Basketball court resurfacing: Briones Park, Greer Park, Johnson Park and Terman Park.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	465,112	447,062	233,50	215,000	215,000	215,000	215,000	1,093,050	0	N/A
Total	**N/A**	**465,112**	**447,062**	**233,050**	**215,000**	**215,000**	**215,000**	**215,000**	**1,093,050**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	465,112	447,062	233,050	215,000	215,000	215,000	215,000	1,093,050	0	N/A
Total	**N/A**	**465,112**	**447,062**	**233,050**	**215,000**	**215,000**	**215,000**	**215,000**	**1,093,050**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Environmental Impact Analysis:

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

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Streets and Sidewalks

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 (C & G) 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

Additional funding in the amount of $260,000 is requested for Fiscal Year 2016 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 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	451,838	451,838	426,288	168,077	172,364	174,317	176,324	1,117,370	0	N/A
Total	**N/A**	**451,838**	**451,838**	**426,288**	**168,077**	**172,364**	**174,317**	**176,324**	**1,117,370**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	N/A	0	0	7,439	7,639	7,846	8,057	8,275	39,256	0	N/A
Construction	N/A	451,838	451,838	418,849	160,438	164,518	166,260	168,049	1,078,114	0	N/A

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Total	**N/A**	**451,838**	**451,838**	**426,288**	**168,077**	**172,364**	**174,317**	**176,324**	**1,117,370**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: City Structure

Goal: L-3

Policy: L-17

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.

Fund: Capital Improvement Fund
Category: Streets and Sidewalks
Project Location: Wilkie Way to the Redwood Gate Development
Managing Department: Planning and Community Environment
IBRC Reference: N/A
Initial Project Start: Summer 2011
Initial Project Completion: Summer 2011
Revised Project Start: Summer 2015
Revised Project Completion: Winter 2015
Project Number: PL-11001

Dinah Summerhill Easement

Dinah Summerhill Pedestrian/Bicycle Path

Description

This project will construct a pedestrian/bicycle path on a public easement on the pan handle parcel of the Dinah's Hotel property. The path would provide access from Wilkie Way to the Redwood Gate development for connectivity to the public park. Improvements shall include an approximately 15′ wide by 130′ long path for bike and pedestrian access. Improvements also include fencing and landscaping. Landscaping shall include oak trees to be planted so as to prevent future vehicle access.

Justification

City Council directed staff to design and construct a pathway on the public easement on September 14, 2009 when the property was rezoned to allow use of the parcel for public access. The path would provide pedestrian and bicycle access from Wilkie Way to the public park that is located within the adjacent Redwood Gate residential development.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	116,052	0	116,052	0	0	0	0	116,052	0	116,052
Total	**0**	**116,052**	**0**	**116,052**	**0**	**0**	**0**	**0**	**116,052**	**0**	**116,052**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	116,052	0	116,052	0	0	0	0	116,052	0	116,052

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Total	**0**	**116,052**	**0**	**116,052**	**0**	**0**	**0**	**0**	**116,052**	**0**	**116,052**

Operating Impact

This project may impact operating expenses in future years. As the impacts are better defined, operating impacts will be reviewed and adjustments may be brought forward as part of the annual budget process, as necessary.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Bicycling and Walking

Goal: T-3

Policy: T-14

Program: T-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.

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:
Revised Project Completion:

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 plant and materials have exceeded their useful life. 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. In Fiscal Year 2016, improvements will address three medians from Cambridge Avenue to Grant Avenue that are being coordinated to follow the California Avenue Streetscape Project. The Fiscal Year 2017 improvements will address medians from City limits to University Avenue, and from Page Mill Road to Arastradero Road.

Because the medians are not currently irrigated, this project will result in increased water usage. Prior to commencing with the improvements, the project will be considered in the context of the City's actions to reduce water use in response to the drought, which may result in a project delay or cancellation of the project.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	296,729	2,711	378,226	776,000	0	0	0	1,154,226	0	1,156,937
Total	**0**	**296,729**	**2,711**	**378,226**	**776,000**	**0**	**0**	**0**	**1,154,226**	**0**	**1,156,937**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	296,729	0	378,226	776,000	0	0	0	1,154,226	0	1,154,226
Design	0	0	2,711	0	0	0	0	0	0	0	2,711
Total	**0**	**296,729**	**2,711**	**378,226**	**776,000**	**0**	**0**	**0**	**1,154,226**	**0**	**1,156,937**

Anticipated Operating Budget Needs

Fund	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Capital Improvement Fund	0	680	680	330	330

Operating Impact

This project is anticipated to impact operating expenses in the future. The costs detailed in the table above represent current estimates for annually increased water usage and maintenance of the median landscaping for the Cambridge Avenue to Grant Avenue medians; however these costs will be reviewed throughout the construction of the project. Adjustments may be brought forward for City Council consideration upon completion of the project.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Open Space

Goal: N-1

Policy: N-1

Program: N-1

Potential Board/Commission Review:

Architectural Review Board

Environmental Impact Analysis:

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

Newell Road Bridge, Febraury 2015

Fund: Capital Improvement Fund
Category: Streets and Sidewalks
Project Location: Newell Rd at SF Creek

Managing Department: Public Works
IBRC Reference: New

Initial Project Start: Spring 2012
Initial Project Completion: Spring 2015

Revised Project Start:
Revised Project Completion: Fall 2017

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 up to the estimated 1% (100-year) San Francisquito Creek flow rate; site and safety distances for vehicle traffic; 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, neither pedestrians nor bicyclists can safely cross the existing bridge.

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 process that will evaluate multiple project alternatives, addressing flood control aspects of the project.

Significant Changes

2015-2019 CIP: Construction funding moved to Fiscal Year 2016 to reflect the time needed to complete the additional CEQA work.

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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Revenue from the State of California	0	1,084,486	1,084,486	0	0	2,500,000	0	0	2,500,000	0	3,584,486
Capital Improvement Fund	548,422	2,439,595	(143,405)	0	2,500,000	(2,500,000)	0	0	0	0	405,017
Total	**548,422**	**3,524,081**	**941,081**	**0**	**2,500,000**	**0**	**0**	**0**	**2,500,000**	**0**	**3,989,503**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	941,081	0	179,474	0	0	0	179,474	0	1,120,555
Construction	548,422	3,524,081	0	0	2,320,526	0	0	0	2,320,526	0	2,868,948
Total	**548,422**	**3,524,081**	**941,081**	**0**	**2,500,000**	**0**	**0**	**0**	**2,500,000**	**0**	**3,989,503**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Bicycling and Walking

Goal: T-3

Policy: T-14

Program: T-19

Relationship to Comprehensive Plan

Secondary Connection

Element: Land Use and Community Design

Section: Public Ways

Goal: L-1

Policy: T-25

Program: L-72

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 and NEPA assessment.

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 will be completed in Fiscal Year 2016, and will offer 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. There are currently 3 districts remaining. Work for all 23 districts will be completed by the end of Fiscal Year 2016.

Fiscal Year 2016 sidewalk replacements include Districts 25, 32, and 36. District 25 is bound by El Camino Real, Pasteur Drive, Quarry and Sand Hill Roads. District 32 and 36 are bound by El Camino Real, Chimalus Avenue (Barron Park) and Arastradero Road, Page Mill Road and California Avenue. The district map can be viewed on the sidewalk webpage at:

http://www.cityofpaloalto.org/gov/depts/pwd/street_maintenance/sidewalk_program.asp

Significant Changes

This project originally included salary and benefits for all in-house crews that maintained sidewalks as part of the sidewalk program. Salary and benefit costs for 3.46 FTEs have been transferred to the General Fund operating budget in Fiscal Year 2016 to better differentiate between

maintenance and capital costs. This change is consistent with other programs such as the street maintenance program.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	4,176,929	3,554,494	2,512,886	1,895,323	1,900,326	1,905,466	1,910,743	10,124,744	0	N/A
Total	**N/A**	**4,176,929**	**3,554,494**	**2,512,886**	**1,895,323**	**1,900,326**	**1,905,466**	**1,910,743**	**10,124,744**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	N/A	0	0	17,001	17,459	17,931	18,415	18,912	89,718	0	N/A
Construction	N/A	4,176,929	3,554,494	2,495,885	1,877,864	1,882,395	1,887,051	1,891,831	10,035,026	0	N/A
Other	N/A	0	0	0	0	0	0	0	0	0	N/A
Total	**N/A**	**4,176,929**	**3,554,494**	**2,512,886**	**1,895,323**	**1,900,326**	**1,905,466**	**1,910,743**	**10,124,744**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-21

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) has 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 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	149,953	25,000	174,953	50,000	50,000	50,000	50,000	374,953	0	N/A
Total	**N/A**	**149,953**	**25,000**	**174,953**	**50,000**	**50,000**	**50,000**	**50,000**	**374,953**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	149,953	25,000	174,953	50,000	50,000	50,000	50,000	374,953	0	N/A
Total	**N/A**	**149,953**	**25,000**	**174,953**	**50,000**	**50,000**	**50,000**	**50,000**	**374,953**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	**Secondary Connection**	Planning and Transportation Commission
Element: Land Use and Community Design	Element: Land Use and Community Design	
Section: Design of Buildings Public Places	Section: Public Ways	
Goal: L-9	Goal: L-9	
Policy: L-50	Policy: L-79	

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 Public Works Department.

Supplemental Information

The Streetlight Condition Assessment project (PE-13014), is expected to result in recommendations for replacement of streetlights using the funding in this project that is reappropriated to Fiscal Year 2016.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	271,471	57,917	377,286	164,103	164,484	164,875	165,276	1,036,024	0	N/A
Total	**N/A**	**271,471**	**57,917**	**377,286**	**164,103**	**164,484**	**164,875**	**165,276**	**1,036,024**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	271,471	57,917	377,286	164,103	164,484	164,875	165,276	1,036,024	0	N/A
Total	**N/A**	**271,471**	**57,917**	**377,286**	**164,103**	**164,484**	**164,875**	**165,276**	**1,036,024**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Public Ways

Goal: L-9

Policy: L-66

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.

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 seal, crack seal, and reconstruction of various city streets.

Justification

The Pavement Maintenance Management System (PMMS) is used to identify streets requiring maintenance (based on the biannual 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. The approved funding level in this CIP is expected to result in reaching that goal by 2019. At the end of Fiscal Year 2016, the average PCI is expected to be 81.

Supplemental Information

The Fiscal Year 2015-2019 CIP budget for this project included new funding of $2.3 million that is being used between Fiscal Year 2015 and Fiscal Year 2017 for the design and accelerated repaving of Middlefield Road and Alma Street. The list of streets to be included in this project will be prioritized and coordinated with Utilities Department projects and the 2012 Bicycle and Pedestrian Transportation Plan. The current base funding level of $5.1 million per year (not inclusive of salary and benefit costs) for Street Maintenance is nearly triple the funding level prior to Councils establishment of the citywide PCI goal. Staff is currently working to supplement the citys PMMS with Metropolitan Transportation Agencys StreetSaver software, whose modeling capabilities will be used to determine future funding levels to maintain the citywide PCI average of 85 once it has been achieved. This project is partially funded by revenues from gas taxes.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	N/A	1,374,353	1,374,353	385,000	385,000	385,000	385,000	385,000	1,925,000	0	N/A

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	8,397,555	4,608,102	7,390,227	4,899,983	4,077,280	4,094,638	4,142,464	24,604,592	0	N/A
Transfer from Gas Tax Fund	N/A	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	1,270,000	6,470,000	0	N/A
Total	**N/A**	**9,697,555**	**7,276,455**	**9,075,227**	**6,584,983**	**5,762,280**	**5,779,638**	**5,797,464**	**32,999,592**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	N/A	0	50,000	160,003	178,857	182,337	185,910	189,579	896,686	0	N/A
Construction	N/A	9,697,555	7,226,455	8,915,224	6,406,126	5,579,943	5,593,728	5,607,885	32,102,906	0	N/A
Total	**N/A**	**9,697,555**	**7,276,455**	**9,075,227**	**6,584,983**	**5,762,280**	**5,779,638**	**5,797,464**	**32,999,592**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

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.

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: Spring 2015
Revised Project Completion: Fall 2015

Project Number: PE-13014

Streetlight, Guinda Street, November 2014

Streetlights 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 cityís streetlight infrastructure. The assessment will also consider appropriate recommendations for streetlights determined to be historic, or in neighborhoods with unique streetlights.

Significant Changes

Due to other high priority projects, this project has been delayed until Spring 2015.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	220,078	215,078	40,286	0	0	0	0	40,286	0	255,364

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Total	**0**	**220,078**	**215,078**	**40,286**	**0**	**0**	**0**	**0**	**40,286**	**0**	**255,364**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	220,078	215,078	40,286	0	0	0	0	40,286	0	255,364
Total	**0**	**220,078**	**215,078**	**40,286**	**0**	**0**	**0**	**0**	**40,286**	**0**	**255,364**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Local Landuse and Growth Management

Goal: L-9

Policy: L-79

Program: L-79

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.

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 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	139,818	127,818	94,822	83,033	83,250	83,472	83,702	428,279	0	N/A
Total	**N/A**	**139,818**	**127,818**	**94,822**	**83,033**	**83,250**	**83,472**	**83,702**	**428,279**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	139,818	127,818	94,822	83,033	83,250	83,472	83,702	428,279	0	N/A
Total	**N/A**	**139,818**	**127,818**	**94,822**	**83,033**	**83,250**	**83,472**	**83,702**	**428,279**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Public Ways

Goal: L-9

Policy: L-66

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.

Traffic Circle, July 2015

Fund: Capital Improvement Fund
Category: Streets and Sidewalks
Project Location: Various

Managing Department: Public Works
IBRC Reference: New

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

Revised Project Start:
Revised Project Completion:

Project Number: PE-16002

Traffic Circle Improvements

Description

This project provides funding for improvements to the five existing traffic circles in Palo Alto. Enhancements to the traffic circles will include raising existing utilities, adding rolled curbs and new drought tolerant plants.

In lieu of installing a potable water irrigation system, the enhanced planting will be fed via water truck, utilizing recycled water.

Justification

The existing traffic circles have split curbs and lack vegetation. The improvements will create more aesthetically pleasing and traffic friendly circles without compromising the cityís sustainability goals.

Supplemental Information

Traffic circles are located at the intersections of:

Everett Ave. & Emerson St.

Everett Ave. & Webster St.

Hawthorne Ave. & Cowper St.

Yale St. & College Ave.

Yale St. and Cambridge Ave.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	0	0	100,000	0	0	0	0	100,000	0	100,000
Total	**0**	**0**	**0**	**100,000**	**0**	**0**	**0**	**0**	**100,000**	**0**	**100,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	100,000	0	0	0	0	100,000	0	100,000
Total	**0**	**0**	**0**	**100,000**	**0**	**0**	**0**	**0**	**100,000**	**0**	**100,000**

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: Land Use and Community Design

Section: Public Ways

Goal: L-9

Policy: L-66

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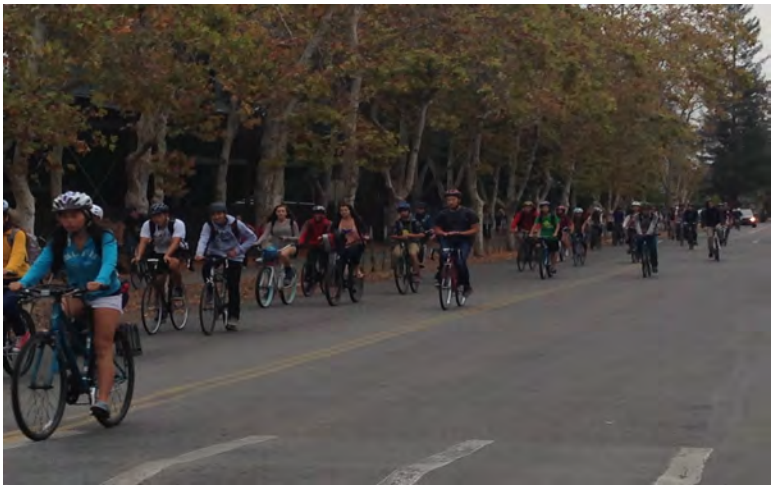
ALTO

Traffic and Transportation



Paly Walk and Roll Day Rear Driveway Bike Path

Fund: Capital Improvement Fund
Category: Traffic and Transportation
Project Location: Various

Managing Department: Planning and Community Environment
IBRC Reference: New

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PL-04010

Bicycle and Pedestrian Plan-Implementation Project

Description

This project provides funding for the design and construction of bicycle boulevards, bicycle lanes, bicycle routes, bicycle parking projects, and trails routes in accordance with the Bicycle & Pedestrian Transportation Plan 2012, approved by the City Council in 2012. The project also allows for expansion of bicycle parking facilities and bicycle/pedestrian project planning activities as prioritized in the Plan.

Justification

Projects as identified in the Bicycle & Pedestrian Transportation Plan 2012 as well as bicycle parking facilities and bicycle/pedestrian project planning activities will facilitate safer, traffic-calmed biking routes and provide better commute alternatives.

Supplemental Information

In addition to the funds already appropriated to this project in previous years and through the 5-year plan, funding in the amount of $11.6 million is allocated to the Bicycle & Pedestrian Transportation Plan and is available as project funding needs are realized. Funding for implementation of the Bicycle & Pedestrian Transportation Plan is provided through the Council approved Infrastructure Plan.

The following projects are currently in the planning or design phase:

Barron Park Neighborhoods Bicycle Routes

Bryant Street Bicycle Boulevard Update and Extension

Churchill Avenue Enhanced Bikeway

Fabian Way Enhanced Bikeway

Greer Road Bicycle Boulevard

Homer Avenue/Channing Avenue Enhanced Bikeway

Matadero Avenue/Margarita Avenue Bicycle Boulevard (under construction)

Maybell Bicycle Boulevard

Moreno Avenue/Amarillo Avenue Bicycle Boulevard

Park Boulevard Bicycle Boulevard

Ross Road Bicycle Boulevard

Stanford Avenue Bicycle Boulevard

Wilkie Way Bicycle Boulevard

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	0	0	1,394,429	108,594	(3,887,372)	116,861	121,253	(2,146,235)	0	N/A
Other	N/A	2,303,414	990,988	1,200,000	1,200,000	5,200,000	1,200,000	1,200,000	10,000,000	0	N/A
Total	**N/A**	**2,303,414**	**990,988**	**2,594,429**	**1,308,594**	**1,312,628**	**1,316,861**	**1,321,253**	**7,853,765**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	2,303,414	990,988	2,594,429	1,308,594	1,312,628	1,316,861	1,321,253	7,853,765	0	N/A
Total	**N/A**	**2,303,414**	**990,988**	**2,594,429**	**1,308,594**	**1,312,628**	**1,316,861**	**1,321,253**	**7,853,765**	**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.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Bicycling and Walking

Goal: T-3

Policy: T-14

Program: T-19

Relationship to Comprehensive Plan

Secondary Connection

Section: Local Landuse and Growth Management

Goal: L-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:
Revised Project Completion: Spring 2020

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 will be explored. The conceptual design and environmental review for the entire corridor from Fabian Way to Foothill Expressway are anticipated to be completed in Fiscal Year 2015.

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 segments starting with Arastradero (El Camino Real to Foothill Expressway) and Charleston (Fabian to Alma Street).

Supplemental Information

The Charleston/Arastradero Corridor Plan was adopted by City Council in January 2003. The Plan addresses pedestrian crossing safety, bicycle travel safety, motor vehicle speeding, more even and efficient motor vehicle traffic flow, and Corridor streetscape. Council approved the permanent retention of the new lane configurations on Charleston in 2008 and on Arastradero in 2012.

The Fiscal Year 2016 costs are offset by grant proceeds: a $450,000 Caltrans Safe Routes to School (SR2S) grant, awarded in 2012, and a $1 million Valley Transportation Authority - Vehicle Emissions Reductions Based at Schools (VERBS) grant, awarded in 2013.

Significant Changes

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 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	0	0	0	500,000	500,000	0	0	1,000,000	0	1,000,000
Transfer from Stanford University Medical Ctr Fund	0	0	0	0	1,550,000	0	0	0	1,550,000	0	1,550,000
Capital Improvement Fund	139,536	1,386,116	804,664	710,232	853,332	(564,524)	3,164,809	3,169,259	7,333,108	0	8,277,308
Revenue from the State of California	0	0	0	0	225,000	225,000	0	0	450,000	0	450,000
Total	**139,536**	**1,386,116**	**804,664**	**710,232**	**3,128,332**	**160,476**	**3,164,809**	**3,169,259**	**10,333,108**	**0**	**11,277,308**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	139,536	0	0	128,780	128,332	160,476	164,809	169,259	751,656	0	891,192
Construction	0	1,386,116	804,664	581,452	3,000,000	0	3,000,000	3,000,000	9,581,452	0	10,386,116
Total	**139,536**	**1,386,116**	**804,664**	**710,232**	**3,128,332**	**160,476**	**3,164,809**	**3,169,259**	**10,333,108**	**0**	**11,277,308**

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: Transportation

Section: Bicycling and Walking

Goal: T-4

Policy: T-25

Program: T-33

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.

Bike path along E. Bayshore, Feb. 2015

Fund: Capital Improvement Fund
Category: Traffic and Transportation
Project Location: Hwy 101 corridor north of the San Antonio Road interchange by Adobe Creek

Managing Department: Public Works
IBRC Reference: New

Initial Project Start: Summer 2012
Initial Project Completion: Summer 2018

Revised Project Start:
Revised Project Completion:

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. The City conducted a design competition that resulted in three innovative designs. Following the competition, the City Council selected a design team to continue with design and completion of the CEQA and NEPA documents. It is anticipated that construction on the bridge will start in spring 2017.

Justification

The bridge is a priority project in the Citys 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

A Santa Clara County - Recreation Trails Program grant, awarded to the City in November 2012, will provide $4 Million for the project. An additional $4.0 million will be provided by a grant from One Bay Area Grant (OBAG) Program. Construction is anticipated from Fiscal Years 2016 through 2018. The grant funds are expected in Fiscal Years 2016 through 2019.

Significant Changes

It is important to not that while the estimate for the project included in the budget document remains predicated upon on an $8,000,000 estimate for construction, as previously communicated to the City Council, the total project cost represented in the budget includes a feasibility study ($261,000), design costs ($2.8 million), and City staff time to support the construction of the project ($919,000).

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	0	0	300,000	700,000	4,000,000	3,000,000	0	8,000,000	0	8,000,000
Capital Improvement Fund	878,951	1,437,927	1,437,927	319,145	7,638,385	(3,668,875)	(2,659,935)	0	1,628,720	0	3,945,598
Total	**878,951**	**1,437,927**	**1,437,927**	**619,145**	**8,338,385**	**331,125**	**340,065**	**0**	**9,628,720**	**0**	**11,945,598**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	39,869	1,437,927	0	0	8,247,983	331,125	340,065	0	8,919,173	0	8,959,042
Design	839,082	0	1,437,927	619,145	90,402	0	0	0	709,547	0	2,986,556
Total	**878,951**	**1,437,927**	**1,437,927**	**619,145**	**8,338,385**	**331,125**	**340,065**	**0**	**9,628,720**	**0**	**11,945,598**

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: Transportation

Section: City Structure

Goal: T-3

Policy: T-14

Program: T-19

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 and NEPA environmental assessment.

Along Matadero Creek, April 2015

Fund: Capital Improvement Fund
Category: Traffic and Transportation
Project Location: Between Alma and 101

Managing Department: Planning and Community Environment
IBRC Reference: New

Initial Project Start: Summer 2013
Initial Project Completion: Summer 2017

Revised Project Start:
Revised Project Completion: Summer 2018

Project Number: PL-14001

Midtown Connector

Description

This project provides funding for the construction of a new bicycle and pedestrian trail along the levees of the Matadero Creek between Waverley Street and Greer Road as well as a study/ master plan of improvements between Alma Street and Hwy 101.

Justification

This project was identified as a priority within the Citys Bicycle & Pedestrian Transportation Plan 2012. The project focuses on providing off-road trail improvements to encourage safer bicycle commuting alternatives and expand the Citys bicycle program network.

Supplemental Information

If a path along the creek is chosen, a portion of this project ($1.5 million) will be reimbursed by a grant from the Stanford-Palo Alto Trail Program, funded by the County of Santa Clara, after completion of the project. If another location is selected, this project is not eligible for grant funds by the County and an alternative funding source would have to be identified as part of future budget cycles. An advisory committee was formed in 2015, informing the feasibility study that began early in the year and is expected to continue through the end of the year. The feasibility study will look at possible alternatives for path location and a preferred option will be selected. A reimbursement grant will be applicable if the trail location is along the creek.

Significant Changes

2016-2020 CIP: Construction originally was anticipated to occur in Fiscal Year 2016 but is now expected to start in Fiscal Year 2017. Additionally, this project has been retitled Midtown Connector, from its previous title of Matadero Creek Trail.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	0	425,814	425,814	0	500,000	150,000	0	0	650,000	0	1,075,814
Other	0	0	0	0	1,500,000	0	0	0	1,500,000	0	1,500,000
Total	**0**	**425,814**	**425,814**	**0**	**2,000,000**	**150,000**	**0**	**0**	**2,150,000**	**0**	**2,575,814**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	0	425,814	0	0	150,000	0	0	150,000	0	575,814
Construction	0	425,814	0	0	2,000,000	0	0	0	2,000,000	0	2,000,000
Total	**0**	**425,814**	**425,814**	**0**	**2,000,000**	**150,000**	**0**	**0**	**2,150,000**	**0**	**2,575,814**

Operating Impact

This project may impact operating expenses in future years. As the scope of this project is better defined through the design process, operating impacts will be reviewed and adjustments may be brought forward as part of the annual budget process, as necessary.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Bicycling and Walking

Goal: T-3

Policy: T-14

Program: T-19

Relationship to Comprehensive Plan

Secondary Connection

Element: Transportation

Section: Bicycling and Walking

Goal: T-3

Policy: T-20

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.

Safe Routes to School, Fairmeadow Elementary School

Fund: Capital Improvement Fund
Category: Traffic and Transportation
Project Location: Streets on Suggested Walk and Roll Routes for PAUSD schools
Managing Department: Planning and Community Environment
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 School programmatic elements, including school commute planning and encouragement activities that help plan capital improvements along local and neighborhood collector streets that may be impacted by school commute activities. Typical capital improvements include traffic calming devices along arterial streets, enhanced crosswalk facilities for pedestrians, and improved signage for suggested routes to school. In Fiscal Year 2016, traffic calming projects from prior years will continue and traffic counters will be pursued for locations in need of traffic calming and safe transport measures.

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.

Supplemental Information

This program is partially funded by revenues from gas taxes. As a result of anticipated reductions in the level of gas tax receipts, reductions to this project have been programmed beginning in Fiscal Year 2018.

Over the past few years, this program has made improvements along routes to all schools. A few of the recent accomplishments of this project include:

- Added pedestrian crossing beacons at three locations along school commute routes

- Installed pedestrian warning signage and parking restrictions near Barron Park Elementary School to enhance pedestrian and cyclist safety.

- Responded to community request to add stop signs to enhance pedestrian safety on school routes leading to El Carmelo Elementary School.

- Added community-requested pedestrian warning signage and sharrows on Colorado Ave to enhance pedestrian and cyclist safety near Ohlone Elementary.

- Added stop signs to enhance pedestrian safety on school routes leading to Ohlone Elementary School.

Further information can be found at www.cityofpaloalto.org/saferoutes.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Transfer from Gas Tax Fund	N/A	100,000	100,000	100,000	100,000	75,000	75,000	75,000	425,000	0	N/A
Capital Improvement Fund	N/A	423,920	303,532	137,170	50,807	67,547	76,407	76,724	408,655	0	N/A
Total	**N/A**	**523,920**	**403,532**	**237,170**	**150,807**	**142,547**	**151,407**	**151,724**	**833,655**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	523,920	403,532	202,170	115,807	107,547	116,407	116,724	658,655	0	N/A
Design	N/A	0	0	35,000	35,000	35,000	35,000	35,000	175,000	0	N/A
Total	**N/A**	**523,920**	**403,532**	**237,170**	**150,807**	**142,547**	**151,407**	**151,724**	**833,655**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Bicycling and Walking

Goal: T-3

Policy: T-14

Program: T-22

Relationship to Comprehensive Plan

Secondary Connection

Element: Transportation

Section: Bicycling and Walking

Goal: T-3

Policy: T-14

Program: T-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.

JLS Middle School students at Meadow & Middlefield

Fund: Capital Improvement Fund
Category: Traffic and Transportation
Project Location: Various

Managing Department: Planning and Community Environment
IBRC Reference: Keep-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: PL-05030

Traffic Signal and Intelligent Transportation System Upgrades

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. The project replaces the remaining 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Transfer from Traffic Impact Fee Fund	N/A	840,822	840,822	0	0	0	0	0	0	0	N/A
Capital Improvement Fund	N/A	1,477,504	1,325,846	340,961	221,050	228,361	230,808	233,362	1,102,884	0	N/A
Total	**N/A**	**2,318,326**	**2,166,668**	**340,961**	**221,050**	**228,361**	**230,808**	**233,362**	**1,254,542**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	N/A	0	0	30,000	30,000	30,000	30,000	30,000	150,000	0	N/A
Construction	N/A	2,318,326	2,166,668	310,961	191,050	198,361	200,808	203,362	1,104,542	0	N/A
Total	**N/A**	**2,318,326**	**2,166,668**	**340,961**	**221,050**	**228,361**	**230,808**	**233,362**	**1,254,542**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Traffic Safety

Goal: T-4

Policy: T-28

Program: T-38

Relationship to Comprehensive Plan

Secondary Connection

Element: Transportation

Section: Traffic Safety

Goal: T-6

Policy: T-39

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.

445 Bryant Garage

Fund: Capital Improvement Fund
Category: Traffic and Transportation
Project Location: Various

Managing Department: Planning and Community Environment
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 Strategic Plan. Traffic studies and miscellaneous traffic calming improvements help to improve the quality of life for residents and visitors.

Significant Changes

Fiscal Year 2015: Funding for parking guidance technology, access controls, and revenue collection equipment was added as part of the annual budget process. As part of the Fiscal Year 2015 Mid-Year report, funding for these projects was removed. As the required funding amount for these improvements is determined through the completion of the design process, a recommendation to add funding to the newly established Parking Guidance System Technology, Access Controls, and Revenue Collection Equipment project may be brought forward for City Council consideration.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Transfer from Gas Tax Fund	N/A	225,000	225,000	0	0	0	0	0	0	0	N/A

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	285,030	285,030	231,076	237,763	238,340	238,952	239,950	1,185,721	0	N/A
Transfer from University Ave. Parking Permit Fund	N/A	400,000	400,000	0	0	0	0	0	0	0	N/A
Total	**N/A**	**910,030**	**910,030**	**231,076**	**237,763**	**238,340**	**238,952**	**239,590**	**1,185,721**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	N/A	0	0	75,000	75,000	75,000	75,000	75,000	375,000	0	N/A
Construction	N/A	910,030	910,030	156,076	162,763	163,340	163,952	164,590	810,721	0	N/A
Total	**N/A**	**910,030**	**910,030**	**231,076**	**237,763**	**238,340**	**238,952**	**239,590**	**1,185,721**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Traffic Safety

Goal: T-4

Policy: T-28

Program: T-38

Relationship to Comprehensive Plan

Secondary Connection

Element: Transportation

Section: Traffic Safety

Goal: T-4

Policy: T-25

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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Unallocated Salaries and Benefits

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

Salaries and Benefits - Capital Improvement Fund CIP Projects

Description

This project provides funding for the estimated salaries and benefit costs of City staff assigned to manage the General Fund Capital Improvement program.

Justification

Salaries and benefits costs of City staff assigned to manage CIP projects are an associated costs in the completion of CIP projects. As such, these costs are capitalized and are added to the total costs of a project.

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. At the end of each fiscal year, any unused balance will be returned to the Infrastructure Reserve.

Significant Changes

2016-2020 Capital Improvement Program: 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 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Capital Improvement Fund	N/A	2,457,612	0	2,069,623	2,031,708	2,097,406	2,232,012	2,732,672	11,163,421	0	N/A
Total	**N/A**	**2,457,612**	**0**	**2,069,623**	**2,031,708**	**2,097,406**	**2,232,012**	**2,732,672**	**11,163,421**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	N/A	2,457,612	0	2,069,623	2,031,708	2,097,406	2,232,012	2,732,672	11,163,421	0	N/A
Total	**N/A**	**2,457,612**	**0**	**2,069,623**	**2,031,708**	**2,097,406**	**2,232,012**	**2,732,672**	**11,163,421**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Environmental Impact Analysis:

N/A

CUBBERLEY PROPERTY INFRASTRUCTURE FUND

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CUBBERLEY PROPERTY INFRASTRUCTURE

Overview

The Cubberley Property Infrastructure Fund accounts for expenditures related to the maintenance and renovation of the Cubberley property. In the 2014 lease agreement between the City of Palo Alto and the Palo Alto Unified School District, the parties agreed to dedicate approximately $1.86 million annually for repairing, renovating and/or improving the Cubberley site, which is jointly owned by the City and PAUSD.

Built in 1955, Cubberley High School was closed in 1979. Due to budget constraints resulting from the passage of Proposition 13 and declining enrollment, PAUSD was forced to close additional schools and sell school properties. One of those properties was the site of Terman Middle School, which the City of Palo Alto acquired, while PAUSD retained ownership of Cubberley. 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 dedicated towards the maintenance and renovation of the Cubberley site.

Fiscal Year 2016 represents the first time that the city has approved expenses in this fund through the budget process. It is important to note that new funding was not allocated for infrastructure improvements at Cubberley in the Fiscal Year 2015-2019 Capital Improvement Program, as the city and PAUSD were negotiating the terms of a new lease at the time. With the new lease agreement approved by the City Council in 2014, funding is now included for improvements on the site.

Buildings and Facilities

The budget for the Cubberley Property Infrastructure Fund Capital Improvement Program is currently accounted for in the Buildings and Facilities category, which includes projects that improve the facilities on the Cubberley Community Center campus. Additional categories may be established in future years, once needs are identified through the master plan process. For the 2016-2020 Capital Improvement Program, expenditures of $2.8 million are programmed, with $614,000 allocated in Fiscal Year 2016. Projects funded in the 2016-2020 CIP include the Cubberley Community Center Master Plan ($263,000) and the Cubberley Roofing Replace-

ments projects ($2.25 million). Over the course of Fiscal Year 2016, additional projects may be identified.

Infrastructure Inventory

City-owned acres	8
PAUSD-owned acres	27
Total square footage of buildings	175,540 (94,402 owned by the City)
Parking spaces	750 (130 owned by the City)
Artist studios	23
Dance studios	3
Schools	2
Childcare facilities	2
Nonprofit community organizations	4

Recent Accomplishments

- Completion of roof replacements for Building S and Building L
- Completion of improvements to 18 artist studios
- Restoration of the auditorium following the closure of the Temporary Mitchell Library

2016-2020 Capital Improvement Program

Recurring Projects

There are no recurring projects scheduled at this time.

Non-Recurring Projects

There are currently two projects budgeted in Fiscal Year 2016: Cubberley Roofing Replacements and the Cubberley Community Center Master Plan. The roof replacements are a critical maintenance requirement and will occur over multiple fiscal years, as keeping the buildings dry is vital for their overall integrity. The master plan will outline the long-term vision for the facility in conjunction with PAUSD as well as an evaluation of immediate and short-term projects to keep the buildings maintained and useful for the near future. These projects include, but are not limited to, wayfinding signage improvements, basketball gym equipment replacement, sidewalks and breeze way repairs, tree inventory and maintenance, lighting improvements, mechanical and electrical system replacements and upgrades, drainage improvements, tennis court resurfacing, additional restrooms near the soccer fields, parking area resurfacing and striping, restroom improvements, and hazardous material abatement. Recommendations to fund some of the short-term projects may be brought forward for City Council consideration during Fiscal Year 2016. Any projects recommended for funding before the completion of the Master Plan would likely address yet to be identified health and safety concerns or minor improvements to immediately improve the functionality of the facility.

Summary of Capital Activity

Cubberley Fund

Project Number	Project Name	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
Source of Funds									
Beginning Fund Balance									
	Beginning Fund Balance	$ —	$ —	$ 876,998	$ 2,127,253	$ 3,244,431	$ 4,507,639	$ 5,942,598	$ 876,998
	Total Beginning Fund Balance	**$ —**	**$ —**	**$ 876,998**	**$ 2,127,253**	**$ 3,244,431**	**$ 4,507,639**	**$ 5,942,598**	**$ 876,998**
Project Reimbursements and Fund Transfers									
Transfers from the General Fund									
	General Fund Annual Capital Transfer	$ —	$ 932,124	$ 1,864,248	$ 1,864,248	$ 1,864,248	$ 1,864,248	$ 932,124	$ 8,389,116
	Total Transfers from the General Fund	—	932,124	1,864,248	1,864,248	1,864,248	1,864,248	932,124	8,389,116
	Total Sources	$ —	$ 932,124	$ 2,741,246	$ 3,991,501	$ 5,108,679	$ 6,371,887	$ 6,874,722	$ 9,266,114
Use of Funds									
Buildings and Facilities									
CB-16001	Cubberley Community Center Master Plan	$ —	$ —	$ 200,778	$ 62,414	$ 64,099	$ —	$ —	$ 327,291
CB-16002	Cubberley Roof Replacements	—	—	413,215	684,656	536,941	429,289	461,700	2,525,801
	Buildings and Facilities Total	—	—	613,993	747,070	601,040	429,289	461,700	2,853,092
Other									
	Transfer to the Capital Improvement Fund	$ —	$ 55,126	$ —	$ —	$ —	$ —	$ —	$ —
	Total- Other Expenses	—	55,126	—	—	—	—	—	—
	Total Expenses	**$ —**	**$ 55,126**	**$ 613,993**	**$ 747,070**	**$ 601,040**	**$ 429,289**	**$ 461,700**	**$ 2,853,092**
	Total Ending Fund Balance	**$ —**	**$ 876,998**	**$ 2,127,253**	**$ 3,244,431**	**$ 4,507,639**	**$ 5,942,598**	**$ 6,413,022**	**$ 6,413,022**
	Total Uses	$ —	$ 932,124	$ 2,741,246	$ 3,991,501	$ 5,108,679	$ 6,371,887	$ 6,874,722	$ 9,266,114

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Buildings and Facilities

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Cubberley Wing P, January 2015

Fund: Capital Improvement Fund
Category: Buildings and Facilities
Project Location: 4000 Middlefield Road

Managing Department: Public Works
IBRC Reference: Catch-up

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: CB-16002

Cubberley Roof Replacements

Description

This project provides funding to replace or restore failing roofs at the Cubberley Community Center. In some instances, a full replacement is necessary. In lieu of replacing the entire roof, a more cost effective roof restoration process is planned where feasible. A fluid applied, reinforced waterproofing system will be applied over the existing roof. This roofing system also meets current cool roofing codes to optimize energy efficiency.

Justification

Most of the existing mineral cap roofs at Cubberley have exceeded their useful lives and are in poor condition. This project provides the means to rehabilitate existing roofs prior to significant failures that can cause structural damage to buildings.

Supplemental Information

Facilities scheduled for re roofing with a fluid applied system or for major repairs are:

Fiscal Year 2016: Cubberley Wings M and P

Fiscal Year 2017: Cubberley Multi-Purpose Wing

Fiscal Year 2018: Cubberley Pavilion Wing

Fiscal Year 2019: Cubberley Wing F

Fiscal Year 2020: Cubberley Wing T1 and T2

Significant Changes

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 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Cubberley Property Infrastructure Fund	N/A	0	0	413,215	684,656	536,941	429,289	461,700	2,525,801	0	N/A
Capital Improvement Fund	N/A	0	0	0	0	0	0	0	0	0	N/A
Total	**N/A**	**0**	**0**	**413,215**	**684,656**	**536,941**	**429,289**	**461,700**	**2,525,801**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	0	0	413,215	684,656	536,941	429,288	461,700	2,525,800	0	N/A
Total	**N/A**	**0**	**0**	**413,215**	**684,656**	**536,941**	**429,288**	**461,700**	**2,525,800**	**0**	**N/A**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Potential Board/Commission Review:

Architectural Review Board

Historic Resources Board

Environmental Impact Analysis:

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

Cubberley Community Center, February 2015

Fund: Cubberley Property Infrastructure Fund
Category: Buildings and Facilities
Project Location: 4000 Middlefield Road

Managing Department: Public Works

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

Revised Project Start:
Revised Project Completion:

Project Number: CB-16001

Cubberley Community Center Master Plan

Description

This project provides funding to review previous condition assessment reports for the Cubberley Community Center, evaluate current buildings against latest building codes, and develop a Master Plan for the complex. The plan will include a prioritization for future projects to replace failing systems, improve reliability for use as an emergency shelter, and support tenant needs. The Master Plan is a requirement of the new lease with Palo Alto Unified School District (PAUSD).

Justification

The City owns 8 acres of Cubberley Community Center and leases the remaining area from PAUSD. The renewed lease terms provide funding for additional capital investment in the facilities that are currently overdue for major improvements. This project is necessary to map out the future facility needs, determine the manner in which the improvements will be executed and prepare a long-term plan for the whole complex. Cubberley is a valuable community resource and rental income from tenant organizations is significant.

Supplemental Information

The Cubberley Community Advisory Committee (CCAC) Report recommended that a community needs assessment and site Master Plan be developed in the first five years of the new lease extension.

Significant Changes

2016-2020 CIP: Project established

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Cubberley Property Infrastructure Fund	0	0	0	200,778	62,414	64,099	0	0	327,291	0	327,291
Total	**0**	**0**	**0**	**200,778**	**62,414**	**64,099**	**0**	**0**	**327,291**	**0**	**327,291**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	200,778	62,414	64,099	0	0	327,291	0	327,291
Total	**0**	**0**	**0**	**200,778**	**62,414**	**64,099**	**0**	**0**	**327,291**	**0**	**327,291**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-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.

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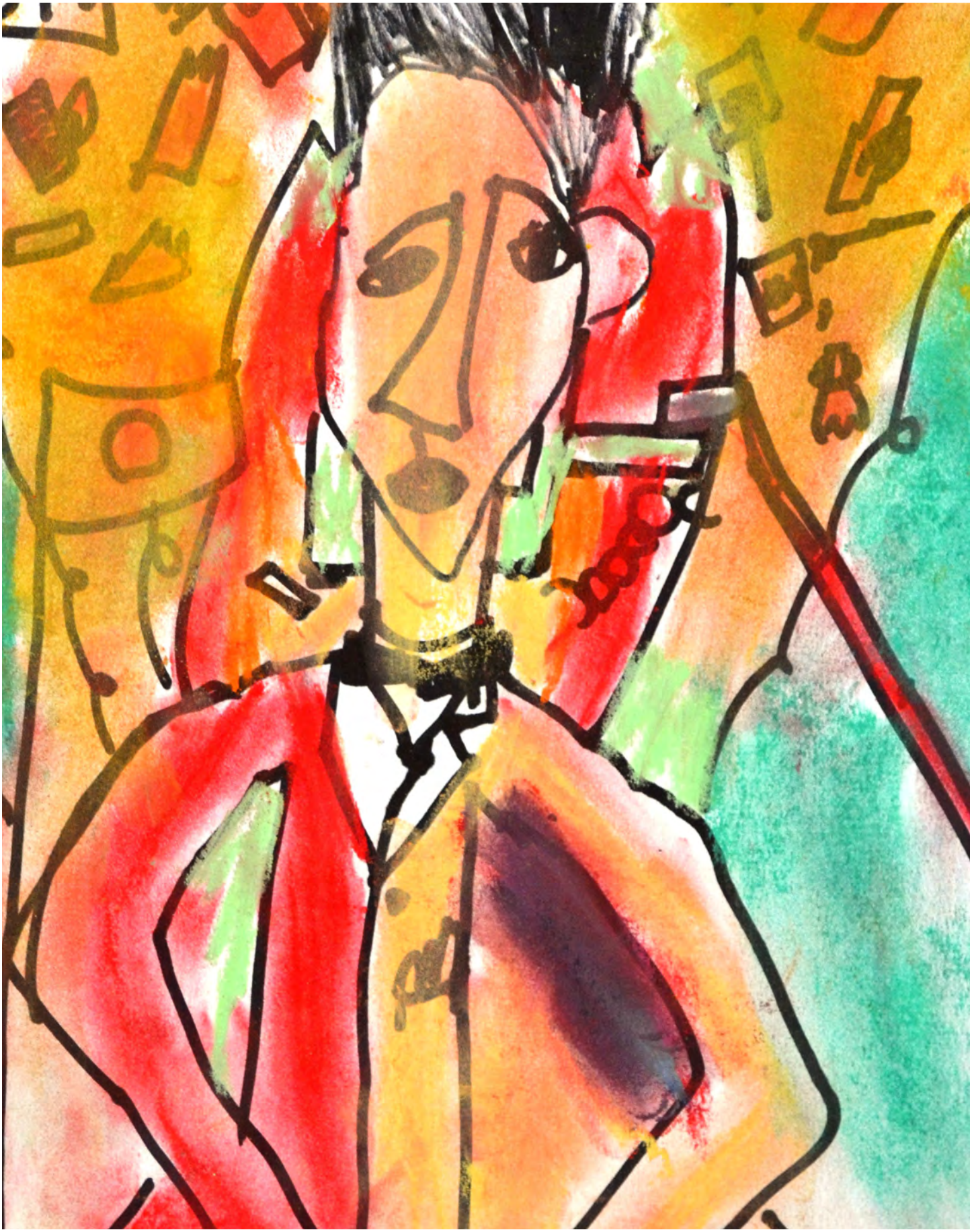

ENTERPRISE FUND PROJECTS

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AIRPORT FUND

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AIRPORT FUND

Overview

The City of Palo Alto took over operation of the Palo Alto Airport from the County of Santa Clara in August 2014. The Airport Fund Capital Improvement Program (CIP) accounts for activities related to the construction and replacement of the Airport's infrastructure necessary to operate and maintain the airport. The Palo Alto Airport is a federally obligated airport which receives federal funds for airport operations and capital improvement projects. The Federal Aviation Administration (FAA) established grant assurances to which airport operators must adhere in order to receive federal funds. For detailed information on the maintenance and operations of the airport, please refer to the Adopted Operating Budget.

For the Fiscal Year 2016-2020 CIP, expenditures of $496,000 are included, with $472,000 for Fiscal Year 2016. It is important to note that the FAA provides grants to public agencies for the planning and development of public-use airports and reimburses 90% of the cost of eligible projects. Staff intends to continue applying to the FAA for grant 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 CIP is broken into two separate categories: Airport Apron, Runway, and Taxiways, and Airport Facilities.

Airport Apron, Runway and Taxiways

This Airport Apron, Runway, and Taxiways category accounts for the design and construction of improvements and enhancements to the airport apron, runways, and taxiways including 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 pavements. Based on visual inspection, the average apron PCI value is 36, which indicates full pavement reconstruction.

Infrastructure Inventory - Summary of Airport Taxiways

CLASSIFICATION	QUANTITY	DESCRIPTION
Apron or Ramp	1	*468 tie-down spots
Runway	1	2443 x 70 feet
Taxiway	5	1 parallel taxiway and 4 connector taxiways

*City operates 362 of the tie-down spots. The remaining 106 tie-down spots and 62 hangars are operated by the two fixed base operators (FBOs) until their leases expire in 2017.

Recent Accomplishments

- A grant was awarded by the Federal Aviation Administration (FAA) for the Apron and Taxi Lane Reconstruction project. This project, completed in spring 2015, addressed the immediate safety concerns and worsening conditions (i.e. fixing the dips and potholes) in the runway, one parallel taxiway, and four connector taxiways used for entering and exiting the runway. The City will be fully reimbursed for the cost of this project by the FAA and the County of Santa Clara. As part of the agreement with the County for the takeover of the Palo Alto Airport, the County agreed to pay the City's required grant match.
- Submitted a Five Year Airport Capital Improvement Plan (ACIP) to the FAA and the California Department of Transportation's Division of Aeronautics. The ACIP addresses the needed pavement rehabilitation and safety enhancements of the airport and identifies the need to fund an Airport Master Plan for the future planning of the airport.

2016-2020 Capital Improvement Program

Recurring Projects

There are no recurring projects scheduled at this time.

Non-Recurring Projects

There are two projects funded during the 2016-2020 CIP in this category: the Apron Reconstruction Phase I project and the Airfield Electrical Evaluation/Study project. The Apron Reconstruction Phase I project will allow for the design of Phase I of the multi-year ACIP. In 2015, the FAA requested a Pavement Maintenance Management Plan (PMMP) to document conditions and prioritize future airport pavement projects because a PMMP did not previously exist. The PMMP was completed showing all areas in disrepair, with the apron being most critical. It is anticipated construction costs and associated grant reimbursements for Phase I will be budgeted in future years once more cost information is available upon completion of the design and the FAA will have committed grant funding. It should be noted that, as part of the 2016 Adopted Operating Budget, an annual allocation of $50,000 is recommended for pavement maintenance activities at the airport.

The Airfield Electrical Evaluation/Study project ($135,000) is designed to support future needs of the airport by identifying and integrating needed electrical improvement projects into the FAA ACIP. Technology has changed since the last known airfield electrical construction study in 1993, and the need to have up-to-date lighting and signage at the Palo Alto Airport is vital to the flying community and users. This project will evaluate and identify current equipment and make recommendations to improve airfield safety and efficiency including looking for self-sustainable opportunities.

Airport Facilities

The Airport Facilities category accounts for buildings, security systems, parking lot and all other infrastructure improvements. Currently all structures, with the exception of the terminal, are leased by the City to Fixed Base Operators and maintenance is the responsibility of the lessor.

In calendar year 2017 these leases will expire and dependent upon the agreements with future lessors the City may become responsible for maintenance of some or all of these buildings.

Infrastructure Inventory - Summary of Airport Facilities

CLASSIFICATION	QUANTITY	DESCRIPTION
Terminal Building	1	Trailer
Hangars	12	Large Conventional Box Hangar
Hangars	2	Small Conventional Box Hangar
Hangars	45	Small Nested T-Hangar
Hangars	3	Large Multi-Aircraft Conventional
*All of the 62 hangars are operated by the two fixed base operators (FBOs) until their lease expires in 2017.		

Recent Accomplishments

- Using in-house maintenance staff the Airport Terminal underwent renovations resulting in an adequate and safe work area for staff and an inviting facility for airport users which is anticipated to last for a number of years until completion of the Airport Master Plan. With these renovations, only $40,000 of the funds appropriated for the Temporary Airport Terminal CIP ($180,000) was used and the remainder of $140,000 was returned to the General Fund.

2016-2020 Capital Improvement Program

Recurring Projects

There are no recurring projects scheduled at this time.

Non-Recurring Projects

There is one non-recurring projects programmed over the course of the 2016-2020 Capital Improvement Program: the Wildlife Hazard Management Plan.

The need for a Wildlife Hazard Assessment (WHA) was identified by the FAA based on the number of annual operations and based aircraft. The WHA study, conducted under the direction of the Caltrans Division of Aeronautics and funded by the FAA, was completed in February 2015. A wildlife strike is defined as a conflict between aircraft and wildlife and these types of incidents are increasing due in part to increased air traffic and increased wildlife populations in urban areas. In 2014, there were a total of three wildlife strikes at the Palo Alto Airport recorded by the FAA database which identified the species as an unknown small bird, gull, and Canada goose. The Wildlife Hazard Management Plan (WHMP) will identify the measures used in reducing the threat of aircraft wildlife interactions.

Summary of Capital Activity

Airport Fund

Project Number	Project Title	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
Source of Funds									
Revenue from Federal Government									
Federal Government									
AP-16001	Airfield Electrical Evaluation/Study	$ —	$ —	$ 90,000	$ —	$ —	$ —	$ —	$ 90,000
AP-16000	Airport Apron Reconstruction	—	—	—	225,000	—	—	—	225,000
AP-15003	Apron and Taxi Lane Repair	—	540,000	—	—	—	—	—	—
AP-16002	Wildlife Hazard Plan	—	—	36,000	—	—	—	—	36,000
	Federal Government Total	—	540,000	126,000	225,000	—	—	—	351,000
	Total Sources	$ —	$ 540,000	$ 126,000	$ 225,000	$ —	$ —	$ —	$ 351,000
Use of Funds									
Airport Apron, Runways, and Taxiways									
AP-16000	Airport Apron Reconstruction	$ —	$ —	$ 285,123	$ 24,118	$ —	$ —	$ —	$ 309,241
AP-15003	Apron and Taxi Lane Repair	—	540,000	—	—	—	—	—	—
	Airport Apron, Runways, and Taxiways Total	—	540,000	285,123	24,118	—	—	—	309,241
Airport Facilities									
AP-16001	Airfield Electrical Evaluation/Study	$ —	$ —	$ 123,415	$ —	$ —	$ —	$ —	$ 123,415
AP-16002	Wildlife Hazard Plan	—	—	63,415	—	—	—	—	63,415
	Airport Facilities Total	—	—	186,830	—	—	—	—	186,830
	Total Expenses	$ —	$ 540,000	$ 471,953	$ 24,118	$ —	$ —	$ —	$ 496,071

Airport Facilities

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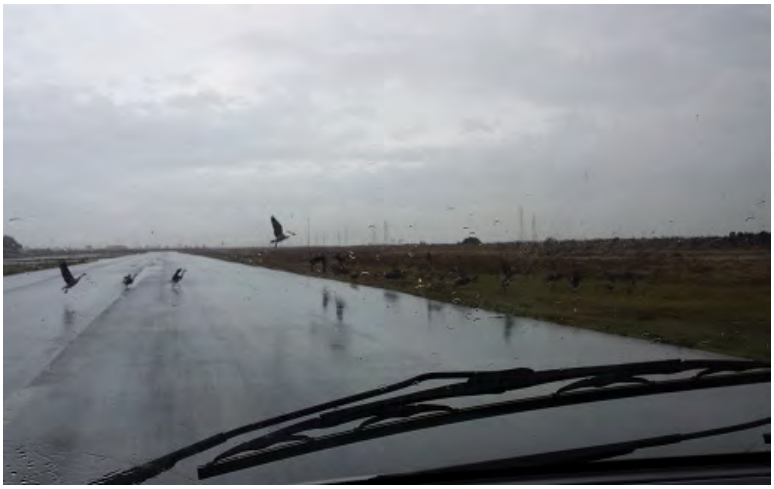

Geese on runway, January 2015

Fund: Airport Enterprise Fund
Category: Airport Facilities
Project Location: Palo Alto Airport

Managing Department: Public Works

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

Revised Project Start:
Revised Project Completion:

Project Number: AP-16002

Wildlife Hazard Plan

Description

This project funds the development of a Wildlife Hazard Management Plan (WHMP). The WHMP will identify the specific actions the airport will take to mitigate the risk of wildlife strikes on or near the airport. A wildlife strike is defined as a conflict between aircraft and wildlife.

Justification

The Federal Aviation Administration (FAA) maintains a comprehensive program to address wildlife hazards and requires airport sponsors to maintain a safe operating environment which includes conducting Wildlife Hazard Assessments (WHA) and preparing Wildlife Hazard Management Plans (WHMP). A Wildlife Hazard Assessment was completed in February 2015. The next step, a Wildlife Hazard Management Plan, is especially important given the airport's proximity to the bay and the large number of aircraft operations each year.

Supplemental Information

Approximately 90% of this project is anticipated to be reimbursed by the Federal Aviation Administration (FAA). A grant application has been submitted to the FAA for this project in Fiscal Year 2015. If accepted by the FAA, staff will bring a resolution to Council to accept the FAA's grant offer letter no later than September 2015.

Significant Changes

2016-2020 CIP: Project Established

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Revenue from the Federal Government	0	0	0	36,000	0	0	0	0	36,000	0	36,000
Airport Fund	0	0	0	27,415	0	0	0	0	27,415	0	27,415

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Total	**0**	**0**	**0**	**63,415**	**0**	**0**	**0**	**0**	**63,415**	**0**	**63,415**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	63,415	0	0	0	0	63,415	0	63,415
Total	**0**	**0**	**0**	**63,415**	**0**	**0**	**0**	**0**	**63,415**	**0**	**63,415**

Operating Impact

This project may impact operating expenses in future years. As the scope of this project is better defined through the design process, operating impacts will be reviewed and adjustments may be brought forward as part of the annual budget process, as necessary.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Potential Board/Commission Review:

Parks and Recreation Commission

Planning and Transportation Commission

Environmental Impact Analysis:

This project may be exempt from CEQA under Section 15301.

Airport Taxiways

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Taxiway guidance sign

Fund: Airport Enterprise Fund
Category: Airport Taxiways
Project Location: 1925 Embarcadero Road

Managing Department: Public Works

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

Revised Project Start:
Revised Project Completion:

Project Number: AP-16001

Airfield Electrical Evaluation/Study

Description

This project will evaluate the condition of all airfield electrical components, including lights, signage, possible vault modifications, and will identify opportunities to reduce power consumption. The last known airfield electrical construction was performed in 1993.

Justification

The 30 year old airfield electrical system that powers the runway visual for guidance equipment for the airport's runway and taxiways is deteriorating and reaching the end of its useful life. It needs to be updated to comply with new Federal airport design standards. The last airfield electrical construction study was conducted over 20 years ago, meaning that most, if not all, of the information is outdated.

Supplemental Information

Approximately 90% of this project is anticipated to be reimbursed by the Federal Aviation Administration (FAA). A grant application has been submitted to the FAA for this project in Fiscal Year 2015. If accepted by the FAA, staff will bring a resolution to Council to accept the FAA's grant offer letter no later than September 2015.

Significant Changes

2016-2020 CIP: Project Established

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Airport Fund	0	0	0	33,415	0	0	0	0	33,415	0	33,415
Revenue from the Federal Government	0	0	0	90,000	0	0	0	0	90,000	0	90,000
Total	**0**	**0**	**0**	**123,415**	**0**	**0**	**0**	**0**	**123,415**	**0**	**123,415**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	123,415	0	0	0	0	123,415	0	123,415
Total	**0**	**0**	**0**	**123,415**	**0**	**0**	**0**	**0**	**123,415**	**0**	**123,415**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Environmental Impact Analysis:

This project may be exempt from CEQA under Section 15301.

Airport Apron, July 2013

Fund: Airport Enterprise Fund
Category: Airport Taxiways
Project Location: Palo Alto Airport

Managing Department: Public Works

Initial Project Start: Summer 2015
Initial Project Completion: Spring 2021

Revised Project Start:
Revised Project Completion:

Project Number: AP-16000

Airport Apron Reconstruction

Description

This project will allow for the design and eventual reconstruction of the Palo Alto Airport apron within the existing footprint. Fiscal Year 2016 funding will provide for the initial four design tasks of this multi-year program and will include surveying, topographical, minor environmental review and 30% design for a cost of $250,000. The final design, anticipated to total $490,000, will be implemented based on available funding in the Airport Enterprise Fund. The design will develop a 3-5 phased approach to align future construction projects with available Federal Aviation Administration (FAA) grant funding.

Justification

The pavement surfaces at the airport are failing and uneven. The City conducted a Pavement Management Study in Fiscal Year 2015 to determine pavement condition index (PCI) and to assist in prioritization of pavement improvement projects. The need to reconstruct the aircraft parking apron is critical to airport safety. Based on visual inspection, using pavement condition index (PCI) criteria, the average apron PCI value is 36, which indicates a need for full pavement reconstruction.

Supplemental Information

It is anticipated that this project will be implemented in multiple phases. Staff is seeking FAA grants which will fund at a minimum 90% for both design and construction costs for this project, with a City obligation for the remaining 10%. Staff will pursue other funding opportunities to offset the City match, if available.

FAA funding cycles require submission of applications in the spring with grant approvals in late summer of each year. Priority is given to projects where design is complete and the project is ready for construction. Due to timing of the City's budget adoption staff recommends funding the initial design tasks, with funding for future tasks through 100% design being brought to

Council as the Airport Enterprise Fund allows, to position the City for the spring 2016 funding cycle which would be reimbursed in Fiscal Year 2017 and would include reimbursement of costs incurred for design prior to the grant approval. The total design is estimated at $490,000 with construction costs for Phase 1 estimated to be $1.7 million and the total project costs estimated at $12 million.

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 that the Palo Alto Airport will rank high in eligibility for grant funding of this project.

Significant Changes

2016-2020 CIP: Project Established

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Revenue from the Federal Government	0	0	0	0	225,000	0	0	0	464,420	0	464,420
Airport Fund	0	0	0	285,123	(200,882)	0	0	0	84,821	0	84,821
Total	**0**	**0**	**0**	**285,123**	**24,118**	**0**	**0**	**0**	**549,241**	**0**	**549,241**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	285,123	24,118	0	0	0	549,241	0	549,241
Total	**0**	**0**	**0**	**285,123**	**24,118**	**0**	**0**	**0**	**549,241**	**0**	**549,241**

Operating Impact

This project is not anticipated to impact operating expenses.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Environmental Impact Analysis:

This project may be exempt from CEQA under Section 15301.

ELECTRIC FUND

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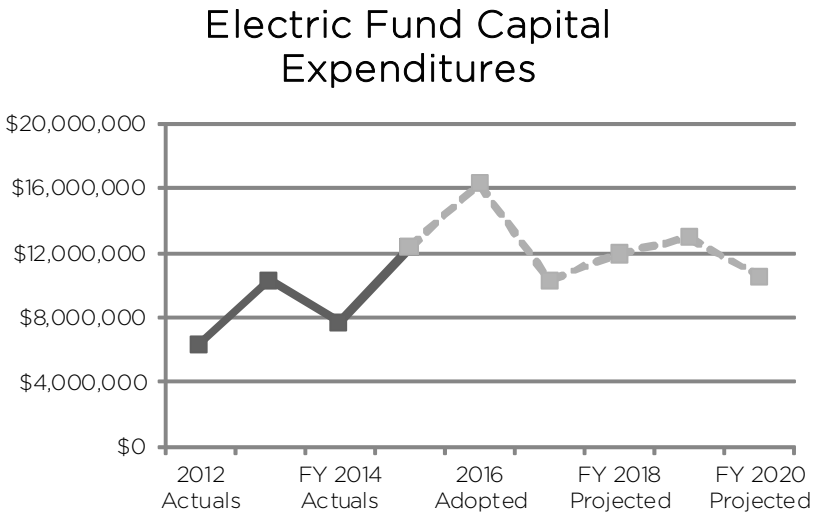
ELECTRIC FUND

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 residents and customers of Palo Alto safe, reliable, cost effective electric service to residents and customers of Palo Alto. For the 2016-2020 Capital Improvement Program (CIP), approximately $62.3 million is programmed, with $16.3 million budgeted in Fiscal Year 2016, of which $7.6 million is reappropriated funds from Fiscal Year 2015. Overall, a total of 41 projects are programmed over the 5 year CIP. Major projects funded in the 2016-2020 Adopted CIP include Electric Customer Connections ($16.9 million), Electric System Improvements ($11.0 million), and Smart Grid Technology Installation ($8.3 million). The budget for the Electric Fund CIP is broken into three separate categories: Customer Connections, System Improvements, and Undergrounding Projects.

Infrastructure Inventory

Miles of 60kV sub transmission lines	12 miles (not including 7 miles of underground transmission)
Substations (w/ 300 MVA total capacity)	9
Traffic Signals (intersections) maintained	101
Streetlights maintained	6,600
Overhead Primary Distribution	117 miles
Underground Primary Distribution	175.21 miles
Overhead Secondary Distribution	93.77 miles
Underground Secondary Distribution	74 miles

Customer Connections

As customers continually change their electric power needs 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 the largest project within the Electric Fund ($3.8 million in Fiscal Year 2016, $16.9 million over the 2016-2020 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 electric service, need temporary power for construction, or require other services. 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.

Recent Accomplishments

- In Fiscal Year 2014 the Utilities Electric Division completed over 280 customer service projects with a total cost of $2.8 million and revenue of $2.4 million.

2016-2020 Capital Improvement Program

Recurring Projects

The Electric Customer Connections project, described above, is the only recurring project in this category.

Non-Recurring Projects

There are no non-recurring projects under this category.

System Improvements

Necessary elements in ensuring reliable electric service to City of Palo Alto residents and customers include the replacement of electric system components before they reach their end of life and the installation of 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 standard, 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 2016-2020 CIP includes total funding of $37.9 million in this category, with $10.6 million allocated in Fiscal Year 2016. Significant projects in this category include Electric Distribution System Improvements ($11.0 million), Smart Grid Technology Installation ($8.3 million), and various projects to rebuild underground districts ($4.6 million).

Recent Accomplishments

- Rebuilt the electric underground system in several locations along Middlefield Road between Oregon Expressway and San Antonio Road

- Converted the 4kV system to 12kV in the areas near Middlefield Road & E. Charleston Road; El Camino Real between W. Charleston Road & El Camino Way; and along Wilkie Way/El Camino Real south to the Palo Alto city limits
- Upgraded the servers and software dedicated to the Supervisory Control and Data Acquisition System (SCADA) used to monitor the electric, water, and gas utility distribution systems
- Added security cameras at several electric and natural gas stations
- Installed line breakers and replaced the protective relays at Adobe Creek Substation
- Replaced the protective relays at Quarry Substation
- Completed Phase III of the LED streetlight conversion project that replaced the high pressure sodium streetlight fixtures with LED fixtures

2016-2020 Capital Improvement Program

Recurring Projects

A total of $25.9 million is programmed for System Improvements recurring projects in the 2016-2020 CIP, with $5.0 million allocated in Fiscal Year 2016. One new project is included (Underground System Rebuild). This project will address replacing underground equipment that was installed underground originally and not part of an Underground District. Recurring projects in this category include the following:

- Communication System Improvements (Fiscal Year 2016: $0.1 million; 5-Year CIP: $0.5 million)
- Electric Distribution System Improvements (Fiscal Year 2016: $2.9 million; 5-Year CIP: $11.0 million)
- Electric Utility GIS (Fiscal Year 2016: $0.4 million; 5-Year CIP: $1.0 million)
- SCADA System Upgrades (Fiscal Year 2016: $0.2 million; 5-Year CIP: $0.6 million)
- Smart Grid Technology Installation (Fiscal Year 2016: $0.3 million; 5-Year CIP: $8.3 million)
- Substation Facility Improvements (Fiscal Year 2016: $0.2 million; 5-Year CIP: $1.0 million)
- Substation Protection Improvements (Fiscal Year 2016: $0.5 million; 5-Year CIP: $1.9 million)
- Underground System Rebuild (Fiscal Year 2016: $0.3 million; 5-Year CIP: $1.6 million)

Non-Recurring Projects

A total of $11.9 million is allocated in the 2016-2020 CIP for non-recurring System Improvement projects. Approximately $4.0 million is for the continuation of projects approved by the City Council in prior years. Three new projects are recommended as within this category, including the following:

- Capacitor Bank Installation (Fiscal Year 2016: $0.1 million; 5-Year CIP: $0.4 million)
- Rebuild Underground District 25 (5-Year CIP: $0.6 million)
- Substation Security (Fiscal Year 2016: $0.1 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 43 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 Utilities 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. During the 2016-2020 Capital Improvement Program period, $7.5 million is allocated for Undergrounding Projects, with $1.9 million allocated in Fiscal Year 2016.

Recent Accomplishments

- Underground District 47 - Started installation of underground substructures (conduits and boxes) in the area bounded by Middlefield Road/Addison Avenue/Cowper Street/Homer Avenue.
- Underground District 46 - Ordinance passed by Council establishing Underground District 46 and requiring that all utility facilities be placed underground in the area near El Camino Real/Arastradero Road/West Charleston Road.

2016-2020 Capital Improvement Program

Recurring Projects

- There are no recurring projects under this category.

Non-Recurring Projects

A total of $7.5 million is allocated in the 2016-2020 CIP for non-recurring Undergrounding projects, with $1.9 million allocated in Fiscal Year 2016. Of that amount approximately, $1.4 million is for projects approved by the City Council in prior years. Significant projects in this category include the following:

- Underground District 42 ($2.3 million), which will underground overhead utility facilities in the area near Embarcadero Road/Emerson Street/Middlefield Road
- Underground District 46 ($0.7 million), which will underground overhead utility facilities in the area near El Camino Real/Arastradero Road/West Charleston Road
- Underground District 47 ($0.9 million), which will underground overhead utility facilities in the area bounded by Middlefield Road/Addison Avenue/Cowper Street/Homer Avenue

Summary of Capital Activity

Electric Fund

Project Number	Project Name	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
Source of Funds									
Transfers from Other Funds									
Gas Fund									
EL-11014	Smart Grid Technology	$ 333,334	$ —	$ —	$ 300,000	$ 300,000	$ 1,000,000	$ 1,000,000	$ 2,600,000
	Total Gas Tax Fund Transfers	333,334	—	—	300,000	300,000	1,000,000	1,000,000	2,600,000
Water Fund									
EL-11014	Smart Grid Technology	$ 333,334	$ —	$ —	$ 300,000	$ 300,000	$ 1,000,000	$ 1,000,000	$ 2,600,000
	Total Water Fund Transfers	333,334	—	—	300,000	300,000	1,000,000	1,000,000	2,600,000
	Total Transfers from Other Funds	**$ 666,668**	**$ —**	**$ —**	**$ 600,000**	**$ 600,000**	**$ 2,000,000**	**$ 2,000,000**	**$ 5,200,000**
Other Revenues									
Reimbursement from Customers, Telephone, and Cable Television Companies									
EL-98003	Electric System Improvements	$ 160,000	$ —	$ 180,000	$ 190,000	$ 200,000	$ 210,000	$ 210,000	$ 990,000
EL-89028	Electric Customer Connections	1,000,000	—	1,550,000	1,650,000	1,650,000	1,700,000	1,700,000	8,250,000
	Reimbursement from Customers, Telephone, and Cable Television Companies Total	1,160,000	—	1,730,000	1,840,000	1,850,000	1,910,000	1,910,000	9,240,000
	Total Other Revenues	**$ 1,160,000**	**$ —**	**$ 1,730,000**	**$ 1,840,000**	**$ 1,850,000**	**$ 1,910,000**	**$ 1,910,000**	**$ 9,240,000**
	Total Sources	$ 1,826,668	$ —	$ 1,730,000	$ 2,440,000	$ 2,450,000	$ 3,910,000	$ 3,910,000	$ 14,440,000
Use of Funds									
Customer Connections									
EL-89028	Electric Customer Connections	$ 2,922,100	$ 2,700,000	$ 3,800,000	$ 3,108,000	$ 3,219,888	$ 3,335,804	$ 3,455,893	$ 16,919,585
	Customer Connections Total	2,922,100	2,700,000	3,800,000	3,108,000	3,219,888	3,335,804	3,455,893	16,919,585
System Improvements									
EL-06001	230 Kv Electric Intertie	$ 86,008	$ 98,947	$ 27,568	$ —	$ —	$ —	$ —	$ 27,568
EL-10008	Advanced Metering Infrastructure (AMI) System	18,409	13,190	—	—	—	—	—	—
EL-16002	Capacitor Bank Installation	—	—	75,000	275,000	—	—	—	350,000
EL-14000	Coleridge/Cowper/Tennyson 4/12Kv Conversion	—	—	—	120,000	400,000	—	—	520,000
EL-15000	Colorado/Hopkins System Improvement	—	—	75,000	750,000	750,000	—	—	1,575,000
EL-89031	Communications System Improvements	13,935	8,130	268,006	100,000	100,000	100,000	100,000	668,006
EL-08000	East Charleston 4/12Kv Conversion	530	322,725	60,861	—	—	—	—	60,861

Summary of Capital Activity

Electric Fund

Project Number	Project Name	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
EL-13000	Edgewood/Wildwood 4Kv Tie	—	—	—	—	50,000	400,000	—	450,000
EL-05000	El Camino Underground Rebuild	188,774	57,389	225,124	—	—	—	—	225,124
EL-15001	Electric Substation Battery Replacement	—	180,000	220,000	—	—	—	—	220,000
EL-98003	Electric System Improvements	1,319,059	3,769,088	2,983,288	2,000,000	2,000,000	2,000,000	2,000,000	10,983,288
EL-02011	Electric Utility Geographic Information System	65,294	163,664	365,639	165,000	165,000	165,000	165,000	1,025,639
EL-04010	Foothills System Rebuild	28,458	—	—	—	—	—	—	—
EL-12002	Hanover 22 - Transformer Replacement	87,329	—	—	—	—	—	—	—
EL-11004	Hewlett Subdivision Rebuild Los Trancos Road	12,772	—	—	—	—	—	—	—
EL-14004	Maybell 1&2 4/12Kv Conversion	5,873	134,449	309,678	—	—	—	—	309,678
EL-09000	Middlefield Underground Rebuild	62,895	—	407,927	—	—	—	—	407,927
EL-11007	Rebuild Greenhouse Condo Area	13,794	307,473	26,118	—	—	—	—	26,118
EL-12000	Rebuild Underground District 12	27,806	433,379	—	—	—	—	—	—
EL-11003	Rebuild Underground District 15	12,783	3,679	452,748	—	—	—	—	452,748
EL-13003	Rebuild Underground District 16	—	—	—	300,000	—	—	—	300,000
EL-09003	Rebuild Underground District 17 (Downtown)	1,844	—	—	—	—	—	—	—
EL-11006	Rebuild Underground District 18	—	475,000	42,955	—	—	—	—	42,955
EL-11008	Rebuild Underground District 19	3,407	85,263	16,210	—	—	—	—	16,210
EL-14002	Rebuild Underground District 20	—	—	—	500,000	500,000	—	—	1,000,000
EL-10006	Rebuild Underground District 24	163,982	579,375	1,483,524	—	—	—	—	1,483,524
EL-19000	Rebuild Underground District 25	—	—	—	—	—	50,000	500,000	550,000
EL-16000	Rebuild Underground District 26	—	—	750,000	—	—	—	—	750,000
EL-11015	Reconductor 60Kv Overhead Transmission System	1,031,210	—	—	—	—	—	—	—
EL-14005	Reconfigure Quarry Feeders	49	8,050	441,901	500,000	—	—	—	941,901
EL-13002	Relocate Quarry/Hopkins Substation 60Kv Line (A & B)	—	—	—	—	100,000	750,000	—	850,000
EL-13006	Sand Hill/Quarry Road 12Kv Tie	12,391	4,346	183,154	—	—	—	—	183,154
EL-02010	SCADA System Upgrades	52,782	75,191	176,525	270,000	60,000	65,000	65,000	636,525
EL-11014	Smart Grid Technology Installation	129,059	140,230	303,056	1,000,000	1,000,000	3,000,000	3,000,000	8,303,056
EL-10009	Street Light System Conversion Project	409,507	459,149	89,727	—	—	—	—	89,727
EL-89044	Substation Facility Improvements	243,564	216,000	245,640	195,000	195,000	195,000	200,000	1,030,640
EL-89038	Substation Protection Improvements	158,683	362,361	489,508	450,000	300,000	300,000	300,000	1,839,508
EL-16003	Substation Security	—	—	50,000	—	—	—	—	50,000
EL-11001	Torreya Court Rebuild	8,029	—	—	—	—	—	—	—

Summary of Capital Activity

Electric Fund

Project Number	Project Name	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
EL-16001	Underground System Rebuild	—	—	300,000	300,000	300,000	350,000	350,000	1,600,000
EL-13008	Upgrade Electric Estimating System	1,350	—	148,650	—	—	—	—	148,650
EL-06003	Utility Control Center Upgrades	—	—	—	—	400,000	—	—	400,000
EL-04012	Utility Site Security Improvements	440,722	140,497	414,777	—	—	—	—	414,777
EL-09004	West Charleston/Wilkie to South City Limit 4/12 Kv Conversion	49,517	701	—	—	—	—	—	—
	System Improvements Total	4,649,815	8,038,276	10,632,584	6,925,000	6,320,000	7,375,000	6,680,000	37,932,584
Undergrounding Projects									
EL-13007	Underground Distribution System Security	$ 828	$ 8,638	$ 290,534	$ 300,000	$ 300,000	$ —	$ —	$ 890,534
EL-08001	Underground District 42 - Embarcadero Road, Emerson, Middlefield	—	—	—	50,000	2,000,000	250,000	—	2,300,000
EL-11009	Underground District 43 - Alma/ Embarcadero	—	—	—	—	150,000	2,000,000	500,000	2,650,000
EL-06002	Underground District 45 - Downtown	10,585	59,271	—	—	—	—	—	—
EL-12001	Underground District 46 - Charleston/El Camino Real	11,537	2,559	685,788	—	—	—	—	685,788
EL-11010	Underground District 47 - Middlefield, Homer, Webster, Addison	100,453	1,461,568	932,240	—	—	—	—	932,240
	Undergrounding Projects Total	123,403	1,532,036	1,908,562	350,000	2,450,000	2,250,000	500,000	7,458,562
	Total Expenses	$ 7,695,318	$ 12,270,312	$16,341,146	$10,383,000	$11,989,888	$12,960,804	$10,635,893	$ 62,310,731

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Customer Connections

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Fund: Electric Fund - Operating
Category: Customer Connections
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: EL-89028

Electric Troubleman installing an electric meter to provide service to a customer

Electric Customer Connections

Description

This project allows for the installation of services, transformers, and meters for new customers; upgrading of existing services; temporary service connections; and overhead and underground extensions for new or existing customers.

Justification

The project provides funding for the connection of new customers and the upgrading of 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 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	N/A	0	0	1,550,000	1,650,000	1,650,000	1,700,000	1,700,000	8,250,000	0	N/A
Electric Fund	N/A	3,621,744	2,700,000	2,250,000	1,458,000	1,569,888	1,635,804	1,755,893	8,669,585	0	N/A
Total	**N/A**	**3,621,744**	**2,700,000**	**3,800,000**	**3,108,000**	**3,219,888**	**3,335,804**	**3,455,893**	**16,919,585**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	3,621,744	2,700,000	3,800,000	3,108,000	3,219,888	3,335,804	3,455,893	16,919,585	0	N/A
Total	**N/A**	**3,621,744**	**2,700,000**	**3,800,000**	**3,108,000**	**3,219,888**	**3,335,804**	**3,455,893**	**16,919,585**	**0**	**N/A**

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	**Secondary Connection**	Utilities Advisory Commission
Element: Natural Environment	Element: Land Use and Community Design	
Section: Energy	Section: Public Ways	
Goal: N-9	Goal: L-9	
Policy: N-44	Policy: L-79	
	Program: L-81	

Environmental Impact Analysis:

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

System Improvements

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Possible electric substation connection point to existing 60 kV system

Fund: Electric Fund - Operating
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: Spring 2017

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 a 230 kV electric intertie line and construct a 230/60 kV substation to connect the City's electric system directly to the 230kV transmission line. The City is in discussions with Stanford and Stanford National Accelerator Laboratory (SLAC), one of ten Department of Energy (DOE) Office of Science laboratories, on the shared interest and benefits in the new intertie. Cooperation of these two entities is necessary for this project to move forward. If this project comes to fruition, the estimated total project cost for a secondary transmission line is $40 - $50 million and could be shared with both Stanford and SLAC/DOE. If this project is cancelled, staff will seek funding for an alternative solution to provide a second transmission source to Palo Alto.

Justification

This new electric line will allow the City to bypass the local transmission fees charged by PG&E. This transmission line will provide the City with an alternate source of power that can serve it during emergencies, such as the plane crash in 2010 that impacted electric power to the entire city.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	214,150	126,515	98,947	27,568	0	0	0	0	27,568	0	340,665
Total	**214,150**	**126,515**	**98,947**	**27,568**	**0**	**0**	**0**	**0**	**27,568**	**0**	**340,665**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	171,320	126,515	98,947	27,568	0	0	0	0	27,568	0	297,835
Design	42,830	0	0	0	0	0	0	0	0	0	42,830
Total	**214,150**	**126,515**	**98,947**	**27,568**	**0**	**0**	**0**	**0**	**27,568**	**0**	**340,665**

Operating Impact

Projected net annual savings resulting from the interconnection fee reduction will be approximately $2,000,000 based on projected energy purchases and the price difference between 115 kV and 230 kV service. Lower voltage services are more expensive than higher voltage services.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-9

Policy: N-44

Relationship to Comprehensive Plan

Secondary Connection

Element: Land Use and Community Design

Section: Public Ways

Goal: L-9

Policy: L-79

Program: L-80,L-81

Potential Board/Commission Review:

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 - Operating
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: Spring 2017

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 the power that it draws from the mains 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. In order to raise the power factor 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. This project will increase the Power Factor to meet the current requirements and it is anticipated that the installation of the Capacitor Bank will allow for the Power Factor to be sufficient for the next 7 years.

Significant Changes

2016-2020 CIP: Project Established

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	0	0	0	75,000	275,000	0	0	0	350,000	0	350,000
Total	**0**	**0**	**0**	**75,000**	**275,000**	**0**	**0**	**0**	**350,000**	**0**	**350,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	75,000	0	0	0	0	75,000	0	75,000

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	275,000	0	0	0	275,000	0	275,000
Total	**0**	**0**	**0**	**75,000**	**275,000**	**0**	**0**	**0**	**350,000**	**0**	**350,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-9

Policy: N-44

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 - Operating
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:
Revised Project Completion: Spring 2018

Project Number: EL-14000

Coleridge/Cowper/Tennyson 4/12kV Conversion

Description

The project will convert the primary electric distribution system in the Coleridge/Cowper/Tennyson area from 4 kV to 12 kV.

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 4kV to 12 kV conversions in adjacent areas, this area, now at 4kV, needs to be converted to 12kV so that adequate circuit connections can be restored to allow customers to be switched from one circuit to another during normal or emergency conditions. This will improve operating flexibility of the system and service reliability to customers in this area. In addition, there is equipment in the area that has reached the end of its useful life and needs to be replaced. Converting to 12 kV will eliminate the need to replace this equipment as it is not needed at that voltage level.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	0	0	0	0	120,000	400,000	0	0	520,000	0	520,000
Total	**0**	**0**	**0**	**0**	**120,000**	**400,000**	**0**	**0**	**520,000**	**0**	**520,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	400,000	0	0	400,000	0	400,000
Design	0	0	0	0	120,000	0	0	0	120,000	0	120,000
Total	**0**	**0**	**0**	**0**	**120,000**	**400,000**	**0**	**0**	**520,000**	**0**	**520,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-9

Policy: N-44

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Electric Substation obscured by trees

Fund: Electric Fund - Operating
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:
Revised Project Completion: Spring 2019

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 Hopkins and Colorado substations and adjacent substations.

Justification

Transformers at both 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 ties to other substations, so there is no backup to serve customers should there be a catastrophic problem at Hopkins.

Supplemental Information

To accommodate the replacement of this equipment, the ability to serve projected future electrical load projections, and provide back up service to Hopkins, this project will evaluate solutions to best solve the multitude of issues. Funding for Fiscal Year 2016 is for engineering only. Budget requests for future years is an estimate based currently available information.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	0	50,000	0	75,000	750,000	750,000	0	0	1,575,000	0	1,575,000
Total	**0**	**50,000**	**0**	**75,000**	**750,000**	**750,000**	**0**	**0**	**1,575,000**	**0**	**1,575,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	75,000	0	0	0	0	75,000	0	75,000
Construction	0	50,000	0	0	750,000	750,000	0	0	1,500,000	0	1,500,000
Total	**0**	**50,000**	**0**	**75,000**	**750,000**	**750,000**	**0**	**0**	**1,575,000**	**0**	**1,575,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-9

Policy: N-44

Potential Board/Commission Review:

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 - Operating
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 is the network connecting the major Local Area Networks (LAN) at the Municipal Service Center, Water Quality Control Plant, and City Hall into a Wide Area Network (WAN). The broadband system also provides communication between the various SCADA systems and their field components. This annual project funds, as necessary, expansion of the system and replacement of deteriorating facilities.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	N/A	176,136	8,130	268,006	100,000	100,000	100,000	100,000	668,006	0	N/A
Total	**N/A**	**176,136**	**8,130**	**268,006**	**100,000**	**100,000**	**100,000**	**100,000**	**668,006**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	176,136	8,130	268,006	100,000	100,000	100,000	100,000	668,006	0	N/A
Total	**N/A**	**176,136**	**8,130**	**268,006**	**100,000**	**100,000**	**100,000**	**100,000**	**668,006**	**0**	**N/A**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Utilities Advisory Commission
Element: Land Use and Community Design	
Section: Public Ways	
Goal: L-9	
Policy: L-79	
Program: L-81	

Environmental Impact Analysis:

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

Middlefield Road south of East Charleston

Fund: Electric Fund - Operating
Category: System Improvements
Project Location: East Charleston & Middlefield

Managing Department: Utilities

Initial Project Start: Fall 2009
Initial Project Completion: Summer 2011

Revised Project Start: Fall 2013
Revised Project Completion: Fall 2017

Project Number: EL-08000

East Charleston 4/12kV Conversion

Description

This project will rebuild the underground main electric feeders and convert the primary electric distribution system in the East Charleston/Middlefield Road area from 4 kV to 12 kV.

Justification

The existing 4 kV distribution system serves 150 customers and utilizes a primary neutral conductor for proper operation. Conversion to 12 kV will allow removal of this conductor and associated equipment and will reduce the amount of equipment and connectors to maintain, improving service reliability. The associated substation equipment serving this area is approximately 50 years old. This project will allow removal of old equipment nearing the end of its design life.

Significant Changes

The cost estimate was higher than originally anticipated due to unforeseen field conditions identified during project development. The project construction timeline was delayed while Staff redesigned the project and requested additional funding.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	354,539	413,586	322,725	60,861	0	0	0	0	60,861	0	738,125
Total	**354,539**	**413,586**	**322,725**	**60,861**	**0**	**0**	**0**	**0**	**60,861**	**0**	**738,125**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	283,631	413,586	322,725	60,861	0	0	0	0	60,861	0	667,217
Design	70,907	0	0	0	0	0	0	0	0	0	70,907
Total	**354,538**	**413,586**	**322,725**	**60,861**	**0**	**0**	**0**	**0**	**60,861**	**0**	**738,124**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-9

Policy: N-44

Potential Board/Commission Review:

Architectural Review Board

Utilities Advisory Commission

Environmental Impact Analysis:

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

Electric linemen working on overhead electric connection

Fund: Electric Fund - Operating
Category: System Improvements
Project Location: Edgewood/Wildwood area

Managing Department: Utilities

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

Revised Project Start:
Revised Project Completion: Spring 2019

Project Number: EL-13000

Edgewood/Wildwood 4 kV Tie

Description

This project will install new overhead wire to connect the HO-3 and HO-7 electric feeders 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 4 kV feeders are converted to 12 kV, the 4 kV 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 Hopkins substation, this project will construct a tie between the HO-3 and HO-7 feeders.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	0	0	0	0	0	50,000	400,000	0	450,000	0	450,000
Total	**0**	**0**	**0**	**0**	**0**	**50,000**	**400,000**	**0**	**450,000**	**0**	**450,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	0	0	50,000	0	0	50,000	0	50,000
Construction	0	0	0	0	0	0	400,000	0	400,000	0	400,000
Total	**0**	**0**	**0**	**0**	**0**	**50,000**	**400,000**	**0**	**450,000**	**0**	**450,000**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Utilities Advisory Commission
Element: Natural Environment	
Section: Energy	
Goal: N-9	
Policy: N-44	

Environmental Impact Analysis:

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

El Camino Real north towards Arastradero Road

Fund: Electric Fund - Operating
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Winter 2006
Initial Project Completion:

Revised Project Start:
Revised Project Completion: Spring 2016

Project Number: EL-05000

El Camino Underground Rebuild

Description

This project includes rebuilding the underground electric distribution system on El Camino Real from Fernando Avenue to Cesano Court and converting the system from 4kV to 12kV.

Justification

The underground electric distribution system on El Camino Real was installed in 1970. The underground cable and connectors are 34 years old and have reached the end of their useful life. In addition, the substation transformers and switchgear for the MB-1 and MB-2 feeders are 42 years old and are approaching the end of their useful life. This area needs to be converted to 12kV so that adequate circuit ties are maintained to ensure high levels of service reliability to customers.

Significant Changes

The scope of work for this project has been increased since this project was originally budgeted as new customers and construction on El Camino Real have required additional work to facilitate provision of service. These funds should allow for the completion of this work in South Palo Alto and facilitate the removal of obsolete facilities at the Maybell Substation.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	1,348,368	282,513	57,389	225,124	0	0	0	0	225,124	0	1,630,881
Total	**1,348,368**	**282,513**	**57,389**	**225,124**	**0**	**0**	**0**	**0**	**225,124**	**0**	**1,630,881**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	269,673	0	0	0	0	0	0	0	0	0	269,673
Construction	1,078,694	282,513	57,389	225,124	0	0	0	0	225,124	0	1,361,207
Total	**1,348,367**	**282,513**	**57,389**	**225,124**	**0**	**0**	**0**	**0**	**225,124**	**0**	**1,630,880**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-9

Policy: N-44

Relationship to Comprehensive Plan

Secondary Connection

Element: Land Use and Community Design

Section: Public Ways

Goal: L-9

Policy: L-79

Program: L-80, L-81

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Fund: Electric Fund - Operating
Category: System Improvements
Project Location: Electric Substation

Managing Department: Utilities

Initial Project Start: Fall 2015
Initial Project Completion: Summer 2015

Revised Project Start:
Revised Project Completion: Summer 2016

Project Number: EL-15001

Band of batteries used in electric substations for electric system protective relays

Electric Substation Battery Replacement

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 replace the batteries in all 9 of the City's electric substations. The batteries are used to provide uninterruptible power to protective relays, breakers, metering, and SCADA equipment.

Justification

The electric substations are the link between the transmission and distribution systems. At the substations, voltage levels are converted and distribution feeders branch out to provide power throughout the city. In the substations are racks of batteries used to power substation equipment. These batteries have a typical useful life of 20 years and the existing batteries were installed between 1992-1997 and have reached, or are reaching, the end of their useful life.

Supplemental Information

The batteries are a key element to keeping the equipment in the substations operating as designed. Over the past year there have been 9 (out of 360) failures of individual battery units. This is an increase from the prior year and may indicate that battery failures may increase as they age. Failure of the batteries would cause equipment to not operate when required and affect the operation and monitoring of the electric system and electric system reliability, impacting public and worker safety and extending the duration of outages.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	0	400,000	180,000	220,000	0	0	0	0	220,000	0	400,000
Total	**0**	**400,000**	**180,000**	**220,000**	**0**	**0**	**0**	**0**	**220,000**	**0**	**400,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	400,000	180,000	220,000	0	0	0	0	220,000	0	400,000
Total	**0**	**400,000**	**180,000**	**220,000**	**0**	**0**	**0**	**0**	**220,000**	**0**	**400,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-9

Policy: N-44

Potential Board/Commission Review:

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 - Operating
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 Revenues includes reimbursements from the telephone company for work performed on their behalf by City.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	N/A	0	0	180,000	190,000	200,000	210,000	210,000	990,000	0	N/A
Electric Fund	N/A	5,102,376	3,769,088	2,803,288	1,810,000	1,800,000	1,790,000	1,790,000	9,993,288	0	N/A
Total	**N/A**	**5,102,376**	**3,769,088**	**2,983,288**	**2,000,000**	**2,000,000**	**2,000,000**	**2,000,000**	**10,983,288**	**0**	**N/A**

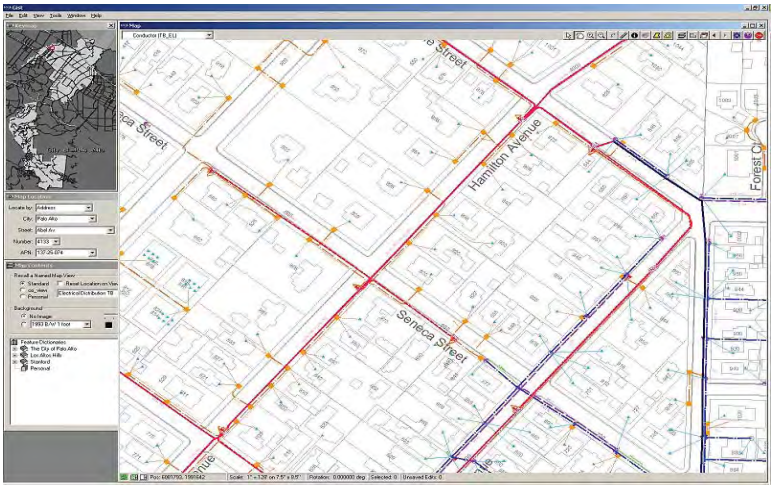
Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	5,102,376	3,769,088	2,983,288	2,000,000	2,000,000	2,000,000	2,000,000	10,983,288	0	N/A
Total	**N/A**	**5,102,376**	**3,769,088**	**2,983,288**	**2,000,000**	**2,000,000**	**2,000,000**	**2,000,000**	**10,983,288**	**0**	**N/A**

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	**Secondary Connection**	Architectural Review Board
Element: Natural Environment	Element: Land Use and Community Design	Utilities Advisory Commission
Section: Energy	Section: Public Ways	
Goal: N-9	Goal: L-9	
Policy: N-44	Policy: L-79	
	Program: L-81	

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 - Operating
Category: System Improvements
Project Location: Software maintenance & update

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 which 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, and anticipated system upgrades.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	N/A	364,303	163,664	365,639	165,000	165,000	165,000	165,000	1,025,639	0	N/A
Total	**N/A**	**364,303**	**163,664**	**365,639**	**165,000**	**165,000**	**165,000**	**165,000**	**1,025,639**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	364,303	163,664	365,639	165,000	165,000	165,000	165,000	1,025,639	0	N/A
Total	**N/A**	**364,303**	**163,664**	**365,639**	**165,000**	**165,000**	**165,000**	**165,000**	**1,025,639**	**0**	**N/A**

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	**Secondary Connection**	Utilities Advisory Commission
Element: Governance	Element: Transportation	
Section: Public Participation	Section: Reducing Auto Use	
Goal: G-1	Goal: T-1	
Policy: G-3	Policy: T-3	
	Program: T-10	

Environmental Impact Analysis:

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

El Camino Way at James

Fund: Electric Fund - Operating
Category: System Improvements
Project Location: Maybell Avenue and El Camino Real between El Camino Way and Arastradero

Managing Department: Utilities

Initial Project Start: Spring 2014
Initial Project Completion:

Revised Project Start:
Revised Project Completion: Fall 2016

Project Number: EL-14004

Maybell 1&2 4/12kV Conversion

Description

This project will convert the Maybell substation circuit 1 & 2 from 4kV to 12kV and remove the remaining 4kV equipment at Maybell. This covers the remaining area to be converted at Maybell Substation including the areas around Maybell Avenue and El Camino Real between El Camino Way and Arastradero.

Justification

The existing 4kV distribution system at Maybell has been converted to 12kV as the distribution facilities in areas have been rebuilt. This remaining area needs to be converted to 12kV so that adequate circuit ties are maintained to ensure high levels of service reliability to customers. This will also allow for the removal of deteriorating facilities at Maybell Substation reducing maintenance and operating requirements.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	5,873	444,127	134,449	309,678	0	0	0	0	309,678	0	450,000
Total	**5,873**	**444,127**	**134,449**	**309,678**	**0**	**0**	**0**	**0**	**309,678**	**0**	**450,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	1,175	0	0	0	0	0	0	0	0	0	1,175
Construction	4,698	444,127	134,449	309,678	0	0	0	0	309,678	0	448,825
Total	**5,873**	**444,127**	**134,449**	**309,678**	**0**	**0**	**0**	**0**	**309,678**	**0**	**450,000**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Utilities Advisory Commission
Element: Natural Environment	
Section: Energy	
Goal: N-9	
Policy: N-44	

Electric crews installing terminations on underground cables

Fund: Electric Fund - Operating
Category: System Improvements
Project Location: Middlefield/Loma Verde area

Managing Department: Utilities

Initial Project Start: Spring 2009
Initial Project Completion: Spring 2016

Revised Project Start:
Revised Project Completion:

Project Number: EL-09000

Middlefield Underground Rebuild

Description

This project rebuilds the underground main feeders and converts the primary electric distribution system in the Middlefield/Loma Verde area from 4 kV to 12 kV, and removes the substation transformers and 4 kV switchgear at East Meadow Substation.

Justification

The underground electric system in this area was installled in the early 1970's and needs to be replaced before it starts to experience failures resulting in outages to customers. The system will also be converted from 4kV to 12kV to improve operating flexibility and remove the associated substation equipment which is over 50 years old and at the end of its design life.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	691,562	407,927	0	407,927	0	0	0	0	407,927	0	1,099,489
Total	**691,562**	**407,927**	**0**	**407,927**	**0**	**0**	**0**	**0**	**407,927**	**0**	**1,099,489**

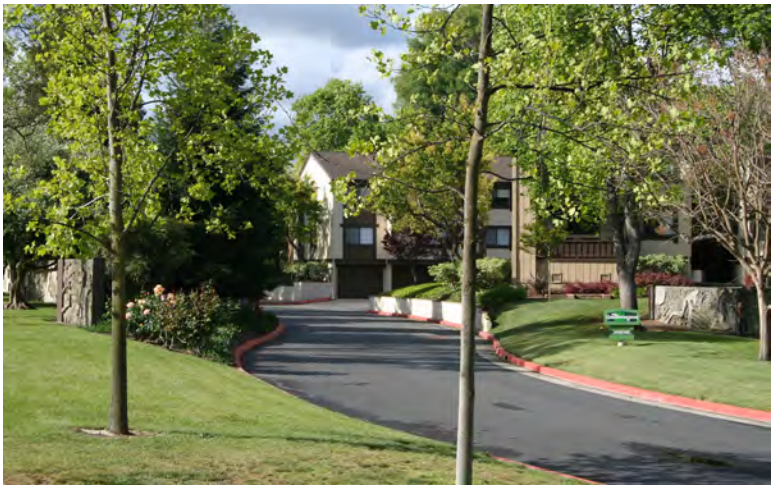
Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	553,249	407,927	0	407,927	0	0	0	0	407,927	0	961,176
Design	138,312	0	0	0	0	0	0	0	0	0	138,312
Total	**691,561**	**407,927**	**0**	**407,927**	**0**	**0**	**0**	**0**	**407,927**	**0**	**1,099,488**

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	**Secondary Connection**	Architectural Review Board
Element: Natural Environment	Element: Land Use and Community Design	Utilities Advisory Commission
Section: Energy	Section: Public Ways	
Goal: N-9	Goal: L-9	
Policy: N-44	Policy: L-79	
	Program: L-80,L-81	

Environmental Impact Analysis:

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



Fund: Electric Fund - Operating
Category: System Improvements
Project Location:

Managing Department: Utilities

Initial Project Start: Fall 2010
Initial Project Completion: Fall 2011

Revised Project Start:
Revised Project Completion: Spring 2017

Project Number: EL-11007

Rebuild Greenhouse Condo Area

Description

This project will rebuild and replace the underground electric system in the Greenhouse Condo area on San Antonio Road. Work will include the replacement of deteriorated electrical cable, transformers, switches, and enclosures.

Justification

Installation of new equipment will bring the electrical system up to current construction standards.

The underground electric distribution system in the Greenhouse Condo area was installed in 1976. Although typical cable and equipment expected life is 30 years when conditions are ideal, due to most of the equipment and cables operating in standing water during winter, its useful service life has been compromised and failures could begin to occur prematurely. The water reduces the life of the equipment and connections and requires that the system be rebuilt.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	175,252	333,951	307,473	26,118	0	0	0	0	26,118	0	508,843
Total	**175,252**	**333,591**	**307,473**	**26,118**	**0**	**0**	**0**	**0**	**26,118**	**0**	**508,843**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	140,201	333,591	307,473	26,118	0	0	0	0	26,118	0	473,792
Design	35,050	0	0	0	0	0	0	0	0	0	35,050
Total	**175,251**	**333,591**	**307,473**	**26,118**	**0**	**0**	**0**	**0**	**26,118**	**0**	**508,842**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Utilities Advisory Commission
Element: Natural Environment	
Section: Energy	
Goal: N-9	
Policy: N-44	

Environmental Impact Analysis:

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

Underground transformer and cable after years of service

Fund: Electric Fund - Operating
Category: System Improvements
Project Location:

Managing Department: Utilities

Initial Project Start: Spring 2010
Initial Project Completion: Summer 2012

Revised Project Start:
Revised Project Completion: Summer 2017

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 cable, 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 that rebuilding be performed on the facilities.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	24,652	456,427	3,679	452,748	0	0	0	0	452,748	0	481,079
Total	**24,652**	**456,427**	**3,679**	**452,748**	**0**	**0**	**0**	**0**	**452,748**	**0**	**481,079**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	4,930	0	0	0	0	0	0	0	0	0	4,930
Construction	19,721	456,427	3,679	452,748	0	0	0	0	452,748	0	476,148
Total	**24,651**	**456,427**	**3,679**	**452,748**	**0**	**0**	**0**	**0**	**452,748**	**0**	**481,078**

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	**Secondary Connection**	Utilities Advisory Commission
Element: Natural Environment	Element: Land Use and Community Design	
Section: Energy	Section: Public Ways	
Goal: N-9	Goal: L-9	
Policy: N-44	Policy: L-79	
	Program: L-80,L-81	

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 - Operating
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:
Revised Project Completion:

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 cable, 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 that rebuilding be performed on the facilities.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	0	0	0	0	300,000	0	0	0	300,000	0	300,000
Total	**0**	**0**	**0**	**0**	**300,000**	**0**	**0**	**0**	**300,000**	**0**	**300,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	300,000	0	0	0	300,000	0	300,000
Total	**0**	**0**	**0**	**0**	**300,000**	**0**	**0**	**0**	**300,000**	**0**	**300,000**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Utilities Advisory Commission
Element: Natural Environment	
Section: Energy	
Goal: N-9	
Policy: N-44	

Environmental Impact Analysis:

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

Electric crews entering underground vaults to inspect equipment

Fund: Electric Fund - Operating
Category: System Improvements
Project Location: San Antonio Road between Middlefield, and E. Charleston

Managing Department: Utilities

Initial Project Start: Spring 2013
Initial Project Completion: Spring 2015

Revised Project Start: Spring 2016
Revised Project Completion: Spring 2016

Project Number: EL-11006

Rebuild Underground District 18

Description

This project will rebuild and replace the underground electric system in Underground District 18. Work will include the replacement of deteriorated electrical cable, transformers, switches, and enclosures. Installation of new equipment will bring the electrical system up to current construction standards.

Justification

The underground electric distribution system in Underground District 18 was installed in 1974. The cables and equipment in the area have exceeded their useful 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 that rebuilding be performed on the facilities. Underground District 18 includes San Antonio Road between Middlefield, and E. Charleston.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	111,343	517,955	475,000	42,955	0	0	0	0	42,955	0	629,298
Total	**111,343**	**517,955**	**475,000**	**42,955**	**0**	**0**	**0**	**0**	**42,955**	**0**	**629,298**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	22,268	0	0	0	0	0	0	0	0	0	22,268
Construction	89,074	517,955	475,000	42,955	0	0	0	0	42,955	0	607,029
Total	**111,342**	**517,955**	**475,000**	**42,955**	**0**	**0**	**0**	**0**	**42,955**	**0**	**629,297**

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	**Secondary Connection**	Utilities Advisory Commission
Element: Natural Environment	Element: Land Use and Community Design	
Section: Energy	Section: Public Ways	
Goal: N-9	Goal: L-9	
Policy: N-44	Policy: L-79	
	Program: L-81	

Environmental Impact Analysis:

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

Electric crews installing new underground cables

Fund: Electric Fund - Operating
Category: System Improvements
Project Location: Forest, Waverley, Addison, and Alma in downtown Palo Alto

Managing Department: Utilities

Initial Project Start: Fall 2009
Initial Project Completion: Summer 2010

Revised Project Start: Spring 2014
Revised Project Completion: Winter 2016

Project Number: EL-11008

Rebuild Underground District 19

Description

This project will rebuild and replace the underground electric system in Underground District 19. Work will include the replacement of deteriorated electrical cable, transformers, switches and enclosures. Installation of new equipment will bring the electrical system up to current construction standards.

Justification

The underground electric distribution system in Underground District 19 was installed in 1979. Although typical cable and equipment expected life is 30 years when conditions are ideal, due to most of the equipment and cables operating in standing water during winter, its useful service life is compromised and failures could begin to occur prematurely. The water reduces the life of the equipment and connections and requires that the system be rebuilt. The Underground District 19 is bounded by Forest, Waverley, Addison, and Alma in downtown Palo Alto.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	59,813	101,473	85,263	16,210	0	0	0	0	16,210	0	161,286
Total	**59,813**	**101,473**	**85,263**	**16,210**	**0**	**0**	**0**	**0**	**16,210**	**0**	**161,286**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	11,963	0	0	0	0	0	0	0	0	0	11,963
Construction	47,850	101,473	85,263	16,210	0	0	0	0	16,210	0	149,323
Total	**59,813**	**101,473**	**85,263**	**16,210**	**0**	**0**	**0**	**0**	**16,210**	**0**	**161,286**

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	**Secondary Connection**	Utilities Advisory Commission
Element: Natural Environment	Element: Land Use and Community Design	
Section: Energy	Section: Public Ways	
Goal: N-9	Goal: L-9	
Policy: N-44	Policy: L-79	
	Program: L-80,L-81	

Environmental Impact Analysis:

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

Utility Engineer planning out the next underground rebuild project

Fund: Electric Fund - Operating
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:
Revised Project Completion:

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 cable, 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 in winter. The water reduces the life of the equipment and electrical connections and requires that rebuilding be performed on the facilities.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	0	0	0	0	500,000	500,000	0	0	1,000,000	0	1,000,000
Total	**0**	**0**	**0**	**0**	**500,000**	**500,000**	**0**	**0**	**1,000,000**	**0**	**1,000,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	500,000	500,000	0	0	1,000,000	0	1,000,000
Total	**0**	**0**	**0**	**0**	**500,000**	**500,000**	**0**	**0**	**1,000,000**	**0**	**1,000,000**

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	**Secondary Connection**	Utilities Advisory Commission
Element: Natural Environment	Element: Land Use and Community Design	
Section: Energy	Section: Public Ways	
Goal: N-9	Goal: L-9	
Policy: N-44	Policy: L-79	
	Program: L-81	

Environmental Impact Analysis:

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

Fund: Electric Fund - Operating
Category: System Improvements
Project Location: Lytton Avenue; Bryant Street; Forest Avenue; and Alma Street

Managing Department: Utilities

Initial Project Start: Spring 2009
Initial Project Completion: Spring 2016

Revised Project Start:
Revised Project Completion:

Project Number: EL-10006

University Avenue (part of Underground District 24 where underground electric facilities will be replaced)

Rebuild Underground District 24

Description

This project will rebuild and replace the underground electric system in Underground District 24. Work will include the replacement of deteriorated electrical cable, transformers, switches, and enclosures. Installation of new equipment will bring the electrical system up to current construction standards.

Justification

The underground electric distribution system in the Underground District 24 was installed in 1983 and cables and equipment in the area have exceeded their useful 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 that rebuilding be performed on the facilities. Underground District 24 covers a major portion of the University Avenue downtown area and reliable electric power is critical to the businesses in the area.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	587,581	1,612,899	579,375	1,483,524	0	0	0	0	1,483,524	0	2,650,480
Total	**587,581**	**1,612,899**	**579,375**	**1,483,524**	**0**	**0**	**0**	**0**	**1,483,524**	**0**	**2,650,480**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	117,516	0	0	0	0	0	0	0	0	0	117,516
Construction	470,065	1,612,899	579,375	1,483,524	0	0	0	0	1,483,524	0	2,532,964
Total	**587,581**	**1,612,899**	**579,375**	**1,483,524**	**0**	**0**	**0**	**0**	**1,483,524**	**0**	**2,650,480**

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	**Secondary Connection**	Architectural Review Board
Element: Natural Environment	Element: Land Use and Community Design	Utilities Advisory Commission
Section: Energy	Section: Public Ways	
Goal: N-9	Goal: L-9	
Policy: N-44	Policy: L-79	
	Program: L-80,L-81	

Environmental Impact Analysis:

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

Orme Street (part of Underground District 25)

Fund: Electric Fund - Operating
Category: System Improvements
Project Location: Orme Street between Los Robles Avenue and Juana Briones School

Managing Department: Utilities

Initial Project Start: Winter 2018
Initial Project Completion: Spring 2020

Revised Project Start:
Revised Project Completion: Spring 2020

Project Number: EL-19000

Rebuild Underground District 25

Description

This project will rebuild and replace the underground electric system in Underground District 25. 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 25 was installed in 1983. Underground District 25 includes Orme Street between Los Robles Avenue and Juana Briones School. The cables are at the end of their expected life of 30 years and need to be replaced. In addition, most of the other equipment (transformers, junctions, etc.) were installed in subsurface enclosures that have standing water, garden chemicals, oil, or other corrosive materials that impact equipment life.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	0	0	0	0	0	0	50,000	500,000	550,000	0	550,000
Total	**0**	**0**	**0**	**0**	**0**	**0**	**50,000**	**500,000**	**550,000**	**0**	**550,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	0	0	0	50,000	0	50,000	0	50,000
Construction	0	0	0	0	0	0	0	500,000	500,000	0	500,000
Total	**0**	**0**	**0**	**0**	**0**	**0**	**50,000**	**500,000**	**550,000**	**0**	**550,000**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Utilities Advisory Commission
Element: Natural Environment	
Section: Energy	
Goal: N-9	
Policy: N-44	

Environmental Impact Analysis:

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

Arastradero Road (part of Underground District 26)

Fund: Electric Fund - Operating
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:
Revised Project Completion: Spring 2017

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 issues with operation and need to be replaced. In addition, most of the other equipment (transfomers, junctions, ect.) were installed in subsurface enclosures that have standing water, garden chemicals, oil, or other corrosive materials that impact equipment life.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric 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 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	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**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Utilities Advisory Commission
Element: Natural Environment	
Section: Energy	
Goal: N-9	
Policy: N-44	

Environmental Impact Analysis:

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

Substation crews installing underground facilities

Fund: Electric Fund - Operating
Category: System Improvements
Project Location: Quarry Substation

Managing Department: Utilities

Initial Project Start: Spring 2013
Initial Project Completion: Spring 2015

Revised Project Start:
Revised Project Completion: Spring 2017

Project Number: EL-14005

Reconfigure Quarry Feeders

Description

This project includes the reconfiguration of how distribution circuits are connected to each substation transformer at Quarry Substation. The circuits will be more evenly divided between the 4 transformers at this substation to provide greater operating flexibility during outages.

Justification

Quarry Substation serves the Stanford Mall/Hospital area along with a majority of the University Avenue downtown area. It has four substation transformers and ten circuits emanate from the substation to serve different areas. Two transformers have four circuits each while two (formerly at Alma Substation) have one circuit each. Load growth in the area requires the transfer of some of the circuits to the newly installed transformers to maintain operating flexibility and balance the load. If this work is not performed, outages that affect two of the transformers could be longer in duration, leading to customer dissatisfaction, business impact, and financial losses.

Significant Changes

The start of this project was dependent on the new transformers being installed at the Quarry Substation. The new transformers were recently installed in February 2015 and the reconfiguration of the Quarry distribution circuits have started and should be complete before April 2016.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	49	8,050	8,050	441,901	500,000	0	0	0	941,901	0	950,000
Total	**49**	**8,050**	**8,050**	**441,901**	**500,000**	**0**	**0**	**0**	**941,901**	**0**	**950,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	39	449,951	8,050	441,901	500,000	0	0	0	941,901	0	949,990
Design	10	0	0	0	0	0	0	0	0	0	10
Total	**49**	**449,951**	**8,050**	**441,901**	**500,000**	**0**	**0**	**0**	**941,901**	**0**	**950,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-9

Policy: N-44

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Electric linement working on 60 kV overhead lines

Fund: Electric Fund - Operating
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Spring 2018
Initial Project Completion: Spring 2020

Revised Project Start:
Revised Project Completion:

Project Number: EL-13002

Relocate Quarry/Hopkins Substation 60 kV 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 60 kV 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	0	0	0	0	0	100,000	750,000	0	850,000	0	850,000
Total	**0**	**0**	**0**	**0**	**0**	**100,000**	**750,000**	**0**	**850,000**	**0**	**850,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	750,000	0	750,000	0	750,000
Design	0	0	0	0	0	100,000	0	0	100,000	0	100,000
Total	**0**	**0**	**0**	**0**	**0**	**100,000**	**750,000**	**0**	**850,000**	**0**	**850,000**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Utilities Advisory Commission
Element: Land Use and Community Design	
Section: Public Ways	
Goal: L-9	
Policy: L-79	
Program: L-81	

Environmental Impact Analysis:

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

Cable installation at Quarry Substation

Fund: Electric Fund - Operating
Category: System Improvements
Project Location: Along Welch Road and Sand Hill Road

Managing Department: Utilities

Initial Project Start: Spring 2013
Initial Project Completion: Winter 2014

Revised Project Start:
Revised Project Completion: Fall 2016

Project Number: EL-13006

Sand Hill / Quarry 12kV Tie

Description

This project will install new wire to connect circuits QR-24 and QR-27 in the Sand Hill/Quarry area.

Justification

One of the principles of distribution system design is to connect electric distribution circuits so that they have the ability to transfer load (i.e. customers) from one circuit to the other during normal or emergency conditions. There are limited ties for these two circuits to other circuits from the Quarry Substation, limiting the capability to transfer loads during normal or emergency conditions.

Supplemental Information

The project will increase system operating flexibility and improve system reliability in the event of a feeder outage by installing new wire and reconfiguring/reconstructing the electric distribution system on Welch Road/Sand Hill Road.

Significant Changes

The installation of the new wires were delayed as they are dependent upon the updates to the Quarry Substation were completed.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	12,511	237,500	4,346	183,154	0	0	0	0	183,154	0	200,011
Total	**12,511**	**237,500**	**4,346**	**183,154**	**0**	**0**	**0**	**0**	**183,154**	**0**	**200,011**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	2,502	0	0	0	0	0	0	0	0	0	2,502
Construction	10,009	237,500	4,346	183,154	0	0	0	0	183,154	0	197,509
Total	**12,511**	**237,500**	**4,346**	**183,154**	**0**	**0**	**0**	**0**	**183,154**	**0**	**200,011**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-9

Policy: N-44

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

SCADA Technologist configuring SCADA software

Fund: Electric Fund - Operating
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 in fiscal year 2017 will be necessary to keep the hardware and software current, to handle the ever increasing demands on the system and maintain manufacturer/industry support. In addition, the Water-Gas-Wastewater SCADA that was newly integrated into the Electric SCADA system has placed additional burden on the system.

Supplemental Information

Annual budget amounts are for minor system upgrades/replacements. Full system upgrades are on a 3 to 4 year cycle.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	N/A	186,716	75,191	176,525	270,000	60,000	65,000	65,000	636,525	0	N/A
Total	**N/A**	**186,716**	**75,191**	**176,525**	**270,000**	**60,000**	**65,000**	**65,000**	**636,525**	**0**	**N/A**

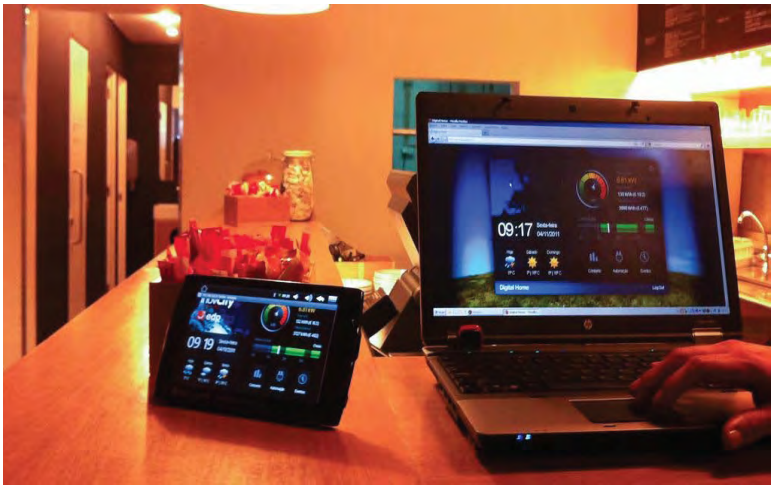
Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	186,716	75,191	176,525	270,000	60,000	65,000	65,000	636,525	0	N/A
Total	**N/A**	**186,716**	**75,191**	**176,525**	**270,000**	**60,000**	**65,000**	**65,000**	**636,525**	**0**	**N/A**

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	**Secondary Connection**	Utilities Advisory Commission
Element: Community Services & Facilities	Element: Transportation	
Section: Parks and Public Facilities	Section: Reducing Auto Use	
Goal: C-4	Goal: T-1	
Policy: C-24	Policy: T-3	
Program: C-19	Program: T-10	

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 - Operating
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

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 dealing with: 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Transfer from Gas Fund	N/A	0	0	0	300,000	300,000	1,000,000	1,000,000	2,600,000	0	N/A
Electric Fund	N/A	743,286	140,230	303,056	400,000	400,000	1,000,000	1,000,000	3,103,056	0	N/A
Transfer from Water Fund	N/A	0	0	0	300,000	300,000	1,000,000	1,000,000	2,600,000	0	N/A
Total	**N/A**	**743,286**	**140,230**	**303,056**	**1,000,000**	**1,000,000**	**3,000,000**	**3,000,000**	**8,303,056**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	743,286	140,230	303,056	1,000,000	1,000,000	3,000,000	3,000,000	8,303,056	0	N/A
Total	**N/A**	**743,286**	**140,230**	**303,056**	**1,000,000**	**1,000,000**	**3,000,000**	**3,000,000**	**8,303,056**	**0**	**N/A**

Relationship to Comprehensive Plan

Primary Connection

Element: Transportation

Section: Reducing Auto Use

Goal: T-1

Policy: T-3

Program: T-10

Relationship to Comprehensive Plan

Secondary Connection

Element: Natural Environment

Section: Energy

Goal: N-9

Policy: N-44

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Electrician working on a streetlight

Fund: Electric Fund - Operating
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Fall 2010
Initial Project Completion: Spring 2012

Revised Project Start: Fall 2011
Revised Project Completion: Spring 2017

Project Number: EL-10009

Street Light System Conversion Project

Description

In October of 2008 Staff worked with citizen groups, such as the Community Environmental Action Partnership and others, to locate a residential neighborhood in which to test and compare LED street light technologies in Fiscal Year 2010. After installation and evaluation of the pilot installation Council approved moving forward with the replacement of the remaining streetlight fixtures with LED light technology.

The city completed replacement of all "Cobrahead" type fixtures in 2014. This left approximately 1,200 decorative lights to be replaced in phase IV. Staff will work with vendors, the Planning Department, and residents to determine if there are feasible LED replacements for these remaining lights and based on these findings may replace additional fixtures in 2016.

Justification

The advancement of LED lighting technology has resulted in the capability to provide lighting comparable to the existing lights while achieving a 40-50% energy savings with a three times longer replacement cycle. Over time the cost of LED fixtures has also decreased improving the economic justification for replacement.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	0	548,876	459,149	89,727	0	0	0	0	89,727	0	548,876
Total	**0**	**548,876**	**459,149**	**89,727**	**0**	**0**	**0**	**0**	**89,727**	**0**	**548,876**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	548,876	459,149	89,727	0	0	0	0	89,727	0	548,876
Total	**0**	**548,876**	**459,149**	**89,727**	**0**	**0**	**0**	**0**	**89,727**	**0**	**548,876**

Operating Impact

Expected energy savings of 40-50% and extends the product life expectancy by 3 times the incandescent lights.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-9

Policy: N-44

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Electric Substation transformer and bus structure

Fund: Electric Fund - Operating
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 9 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	N/A	271,640	216,000	245,640	195,000	195,000	195,000	200,000	1,030,640	0	N/A
Total	**N/A**	**271,640**	**216,000**	**245,640**	**195,000**	**195,000**	**195,000**	**200,000**	**1,030,640**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	271,640	216,000	245,640	195,000	195,000	195,000	200,000	1,030,640	0	N/A
Total	**N/A**	**271,640**	**216,000**	**245,640**	**195,000**	**195,000**	**195,000**	**200,000**	**1,030,640**	**0**	**N/A**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Architectural Review Board
Element: Natural Environment	Utilities Advisory Commission
Section: Energy	
Goal: N-9	
Policy: N-44	

Environmental Impact Analysis:

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

Fund: Electric Fund - Operating
Category: System Improvements
Project Location: Electric Substations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: EL-89038

Electric Substation used to distribute power to City of Palo Alto customers

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 substation 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 the 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 (reduction in outage durations).

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	N/A	401,869	362,361	489,508	450,000	300,000	300,000	300,000	1,839,508	0	N/A
Total	**N/A**	**401,869**	**362,361**	**489,508**	**450,000**	**300,000**	**300,000**	**300,000**	**1,839,508**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	401,869	362,361	489,508	450,000	300,000	300,000	300,000	1,839,508	0	N/A
Total	**N/A**	**401,869**	**362,361**	**489,508**	**450,000**	**300,000**	**300,000**	**300,000**	**1,839,508**	**0**	**N/A**

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Public Ways

Goal: L-9

Policy: L-79

Program: L-81

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Substation perimeter wall providing security for the enclosed equipment

Fund: Electric Fund - Operating
Category: System Improvements
Project Location: Colorado Substation

Managing Department: Utilities

Initial Project Start: Fall 2015
Initial Project Completion: Spring 2017

Revised Project Start:
Revised Project Completion:

Project Number: EL-16003

Substation 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.

Justification

The recent incident involving PG&E's Metcalf Substation in South San Jose has brought about 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) is addressing the aspects of visual security such as digital cameras, while this project will address the need for physical protection.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	0	0	0	50,000	0	0	0	0	50,000	0	50,000
Total	**0**	**0**	**0**	**50,000**	**0**	**0**	**0**	**0**	**50,000**	**0**	**50,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Planning and Engineering	0	0	0	50,000	0	0	0	0	50,000	0	50,000
Total	**0**	**0**	**0**	**50,000**	**0**	**0**	**0**	**0**	**50,000**	**0**	**50,000**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Utilities Advisory Commission
Element: Natural Environment	
Section: Energy	
Goal: N-9	
Policy: N-44	

Environmental Impact Analysis:

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

Fund: Electric Fund - Operating
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, i.e. not part of an Underground District. Work will include the replacement of deteriorated electrical cable, 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. 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 that rebuilding be performed on 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	N/A	0	0	300,000	300,000	300,000	350,000	350,000	1,600,000	0	N/A
Total	**N/A**	**0**	**0**	**300,000**	**300,000**	**300,000**	**350,000**	**350,000**	**1,600,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	0	0	300,000	300,000	300,000	350,000	350,000	1,600,000	0	N/A
Total	**N/A**	**0**	**0**	**300,000**	**300,000**	**300,000**	**350,000**	**350,000**	**1,600,000**	**0**	**N/A**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-9

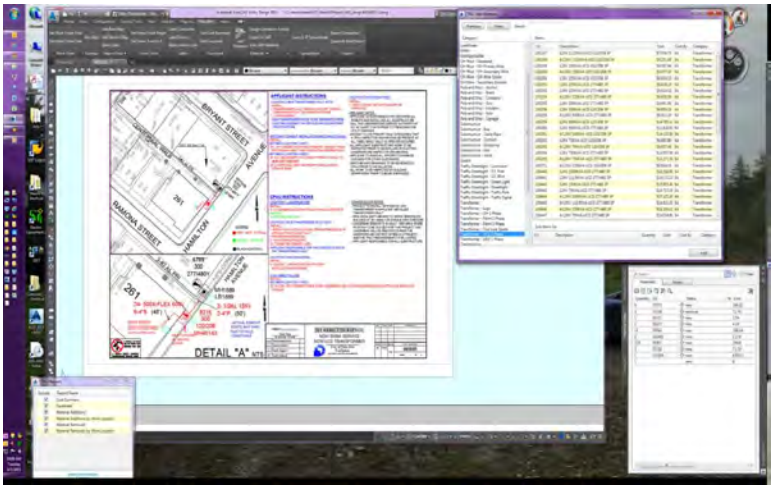
Policy: N-44

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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



Fund: Electric Fund - Operating
Category: System Improvements
Project Location: Software maintenance & update

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: EL-13008

Screenshot of software used to prepare project estimates

Upgrade Electric Estimating System

Description

This project will upgrade the existing Electric estimating software used for preparing job estimates by integrating engineering analysis, adding predefined standards and templates, and by integrating documentation, materials ordering, and work management functions.

Justification

The existing Electric estimating software does not integrate the materials requisition, engineering calculation, labor requirements, and drawing functions necessary to produce an estimate. The integration of these functions will reduce the time needed to prepare estimates and improve the accuracy and consistency of the engineering drawings, material lists, and map updates.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	N/A	148,650	0	148,650	0	0	0	0	148,650	0	N/A
Total	**N/A**	**148,650**	**0**	**148,650**	**0**	**0**	**0**	**0**	**148,650**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Planning and Engineering	N/A	148,650	0	148,650	0	0	0	0	148,650	0	N/A
Total	**N/A**	**148,650**	**0**	**148,650**	**0**	**0**	**0**	**0**	**148,650**	**0**	**N/A**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Utilities Advisory Commission
Element: Natural Environment	
Section: Energy	
Goal: N-9	
Policy: N-44	

Environmental Impact Analysis:

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

System Operator overseeing electric distribution system operations

Fund: Electric Fund - Operating
Category: System Improvements
Project Location: Utility Control Center

Managing Department: Utilities

Initial Project Start: Winter 2009
Initial Project Completion: Fall 2010

Revised Project Start:
Revised Project Completion: Spring 2018

Project Number: EL-06003

Utility Control Center Upgrades

Description

This project will make improvements to the Utility Control Center including: upgrade to the existing lighting system, improvement to the operation map display by installing large video display panels, and improvement to the system-wide security monitoring facilities.

Justification

The Utilities Control Center is used to coordinate the activities of the City's Electric Utility. Within the facility there are large maps for monitoring the control of the system, video surveillance feeds from other utility facilities and the Supervisory Control and Data Acquisition (SCADA) system. The project will improve efficiency and operation of the room by improving the lighting. In later years map displays and the surveillance facilities will be upgraded.

Supplemental Information

This project reflects expenditures in prior years for unrelated improvements in the Utility Control Center. Funding is added to this project on an as-needed basis.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	383,275	0	0	0	0	400,000	0	0	400,000	0	783,275
Total	**383,275**	**0**	**0**	**0**	**0**	**400,000**	**0**	**0**	**400,000**	**0**	**783,275**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	76,655	0	0	0	0	0	0	0	0	0	76,655

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	306,620	0	0	0	0	400,000	0	0	400,000	0	706,620
Total	**383,275**	**0**	**0**	**0**	**0**	**400,000**	**0**	**0**	**400,000**	**0**	**783,275**

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-3

Policy: C-24

Program: C-19

Environmental Impact Analysis:

Possible exemption.

Potential Board/Commission Review:

Architectural Review Board

Utilities Advisory Commission

Fund: Electric Fund - Operating
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Spring 2004
Initial Project Completion: Spring 2016

Revised Project Start:
Revised Project Completion:

Project Number: EL-04012

Security cameras for system security and monitoring

Utility Site Security Improvements

Description

Utilities' 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

The project is to address a utility site assessment that was completed in 2003 identifying security risks and methods of mitigation for City utility facilities. Recent incidents have increased security concerns regarding utility sites and systems. This CIP is implementing the recommendations in the site assessment report. Equipment is installed at two to three facilities per year. Through December 2014, 9 of 21 Utility sites were completed.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	983,010	305,274	140,497	414,777	0	0	0	0	414,777	0	1,538,284
Total	**983,010**	**305,274**	**140,497**	**414,777**	**0**	**0**	**0**	**0**	**414,777**	**0**	**1,538,284**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	786,408	305,274	140,497	414,777	0	0	0	0	414,777	0	1,341,682
Design	196,602	0	0	0	0	0	0	0	0	0	196,602
Total	**983,010**	**305,274**	**140,497**	**414,777**	**0**	**0**	**0**	**0**	**414,777**	**0**	**1,538,284**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Utilities Advisory Commission
Element: Natural Environment	
Section: Air Quality	
Goal: N-5	
Policy: N-26	
Program: N-40	

Environmental Impact Analysis:

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

Undergrounding Projects

CITY OF
PALO
ALTO

Fund: Electric Fund - Operating
Category: Undergrounding Projects
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Spring 2015
Initial Project Completion: Spring 2017

Revised Project Start:
Revised Project Completion: Spring 2018

Project Number: EL-13007

The damage done by copper/metal thieves can far exceed the value to the theif and cost of protection

Underground Distribution System Security

Description

This project funds the purchase and installation of equipment to secure underground electric distribution facilities used to provide electricity to utility customers in the City of Palo Alto, from vandalism, tampering, and theft to facilitate a safe, secure, and reliable electric system.

Justification

In recent years, the theft of metals for scrap has escalated due to increased demand overseas and shortages of raw materials. This has included the theft of electrical wire and cast iron manhole covers. The electric system, and to a lesser extent the dark fiber system, fuels the economy of the City as technology has become more reliant on electricity and communications systems.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	828	299,172	8,638	290,534	300,000	300,000	0	0	890,534	0	900,000
Total	**828**	**299,172**	**8,638**	**290,534**	**300,000**	**300,000**	**0**	**0**	**890,534**	**0**	**900,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	662	299,172	8,638	290,534	300,000	300,000	0	0	890,534	0	899,834
Design	166	0	0	0	0	0	0	0	0	0	166
Total	**828**	**299,172**	**8,638**	**290,534**	**300,000**	**300,000**	**0**	**0**	**890,534**	**0**	**900,000**

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	**Secondary Connection**	Utilities Advisory Commission
Element: Natural Environment	Element: Community Services & Facilities	
Section: Energy	Section: Parks and Public Facilities	
Goal: N-9	Goal: C-4	
Policy: N-44	Policy: C-24	

Environmental Impact Analysis:

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

Fund: Electric Fund - Operating
Category: Undergrounding Projects
Project Location: Along Embarcadero between Emerson and Middlefield

Managing Department: Utilities

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

Revised Project Start:
Revised Project Completion:

Project Number: EL-08001

Intersection of Embarcadero Road and Waverley Street (part of Underground District 42)

Underground District 42-Embarcadero Rd Emerson-Middlefield

Description

This project will replace the existing overhead 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. This rule 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	0	0	0	0	50,000	2,000,000	250,000	0	2,300,000	0	2,300,000
Total	**0**	**0**	**0**	**0**	**50,000**	**2,000,000**	**250,000**	**0**	**2,300,000**	**0**	**2,300,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Planning and Engineering	0	0	0	0	50,000	0	250,000	0	300,000	0	300,000
Construction	0	0	0	0	0	2,000,000	0	0	2,000,000	0	2,000,000
Total	**0**	**0**	**0**	**0**	**50,000**	**2,000,000**	**250,000**	**0**	**2,300,000**	**0**	**2,300,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-9

Policy: N-44

Environmental Impact Analysis:

This project is categorically exempt from CEQA under Section 15302.

Alma Street at Embarcadero Road (part of Underground District 43)

Fund: Electric Fund - Operating
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:
Revised Project Completion: Spring 2020

Project Number: EL-11009

Underground District 43 - Alma/ Embarcadero

Description

This project will replace the existing overhead 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. This rule requires the Utility to bear the cost of the distribution system and the property owners to bear the cost of undergrounding their services. The undergrounding project will start in Fiscal Year 2018.

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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	0	0	0	0	0	150,000	2,000,000	500,000	2,650,000	0	2,650,000
Total	**0**	**0**	**0**	**0**	**0**	**150,000**	**2,000,000**	**500,000**	**2,650,000**	**0**	**2,650,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	2,000,000	500,000	2,500,000	0	2,500,000
Planning and Engineering	0	0	0	0	0	150,000	0	0	150,000	0	150,000
Total	**0**	**0**	**0**	**0**	**0**	**150,000**	**2,000,000**	**500,000**	**2,650,000**	**0**	**2,650,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-10

Policy: N-44

Relationship to Comprehensive Plan

Secondary Connection

Element: Land Use and Community Design

Section: Public Ways

Goal: L-9

Policy: L-79

Program: L-80,L-81

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Fund: Electric Fund - Operating
Category: Undergrounding Projects
Project Location: 400 block of West Charleston and El Camino Real

Managing Department: Utilities

Initial Project Start: Spring 2015
Initial Project Completion: Spring 2017

Revised Project Start:
Revised Project Completion: Spring 2016

Project Number: EL-12001

Overhead facilities at the intersection of Arastradero Road and El Camino Real (part of Underground District 46)

Underground District 46 - Charleston/ El Camino Real

Description

This project includes the costs to underground the existing overhead distribution system in the area along the 400 block of West Charleston and El Camino Real. Undergrounding will be completed by Fiscal Year 2017, and the overhead system will be removed.

Justification

Benefits of undergounding include system improvement, higher reliability, reduced tree trimming, and improved aesthetics of this busy intersection. Undergounding 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	65,607	488,347	2,559	685,788	0	0	0	0	685,788	0	753,954
Total	**65,607**	**488,347**	**2,559**	**685,788**	**0**	**0**	**0**	**0**	**685,788**	**0**	**753,954**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	13,121	0	0	0	0	0	0	0	0	0	13,121
Construction	52,485	488,347	2,559	685,788	0	0	0	0	685,788	0	740,832
Total	**65,606**	**488,347**	**2,559**	**685,788**	**0**	**0**	**0**	**0**	**685,788**	**0**	**753,953**

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	**Secondary Connection**	Utilities Advisory Commission
Element: Natural Environment	Element: Land Use and Community Design	
Section: Energy	Section: Public Ways	
Goal: N-9	Goal: L-9	
Policy: N-44	Policy: L-79	
	Program: L-80,L-81	

Environmental Impact Analysis:

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

Fund: Electric Fund - Operating
Category: Undergrounding Projects
Project Location: Middlefield, Homer Avenue, Webster Street, and Addion Avenue

Managing Department: Utilities

Initial Project Start: Spring 2013
Initial Project Completion: Spring 2016

Revised Project Start:
Revised Project Completion:

Project Number: EL-11010

Overhead facilities that will be undergrounded as part of Underground District 47

Underground District 47-Middlefield, Homer, Webster, Addison

Description

This project includes the design costs to underground the existing overhead distribution system. Undergrounding will be completed in Fiscal Year 2016 and the overhead system will be removed.

Justification

Benefits of undergounding include system improvement, higher reliability, reduced tree trimming, and improved aesthetics. Undergounding 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. Underground District 47 is bounded by Middlefield, Homer Avenue, Webster Street, and Addison Avenue.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Electric Fund	161,766	2,093,808	1,461,568	932,240	0	0	0	0	932,240	0	2,555,574
Total	**161,766**	**2,093,808**	**1,461,568**	**932,240**	**0**	**0**	**0**	**0**	**932,240**	**0**	**2,555,574**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	32,353	0	0	0	0	0	0	0	0	0	32,353
Construction	129,413	2,093,808	1,461,568	932,240	0	0	0	0	932,240	0	2,523,221
Total	**161,766**	**2,093,808**	**1,461,568**	**932,240**	**0**	**0**	**0**	**0**	**932,240**	**0**	**2,555,574**

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	**Secondary Connection**	Utilities Advisory Commission
Element: Natural Environment	Element: Land Use and Community Design	
Section: Energy	Section: Public Ways	
Goal: N-9	Goal: L-9	
Policy: N-44	Policy: L-79	
	Program: L-80,L-81	

Environmental Impact Analysis:

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

FIBER OPTICS FUND

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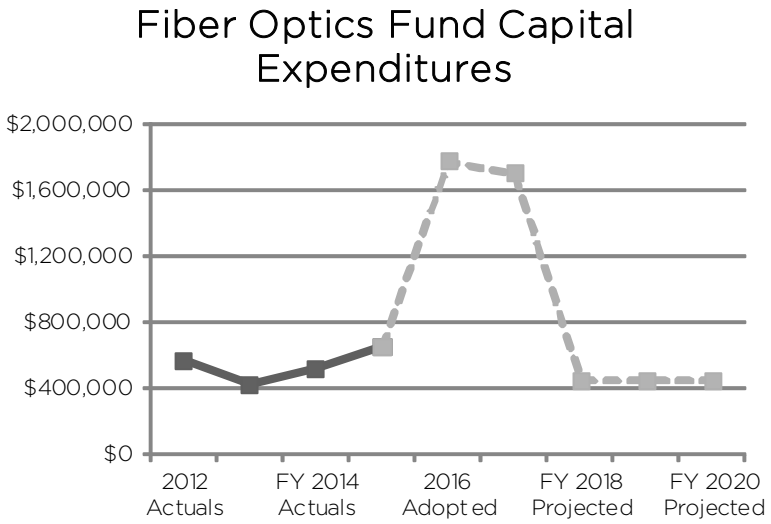
FIBER OPTICS FUND

Overview



The City of Palo Alto is the only municipality in 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 customers is the leasing of "dark" fiber on a fiber optic loop, built by the City in 1996. For the 2016-2020 Capital Improvement Program, expenditures of $4.8 million are programmed, with $1.8 million allocated in Fiscal Year 2016. Major projects funded in the 2016-2020 CIP include the Fiber Optic System Rebuild Project ($2.4 million), Fiber Optics Customer Connections ($1.4 million), and Fiber Optics Network System Improvements ($1.0 million). The budget for the Fiber Optics Capital Improvement Program is broken into two separate categories: Capacity Improvements and Customer Connections.

Capacity Improvements

With the advance in technology; increase in online services, and increase in data transmission needs to meet consumer demand, the capability afforded by fiber optic cables is increasingly in demand. To ensure reliable fiber optic service to City of Palo Alto residents and customers, fiber optic system components (fiber optic cable 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.

Infrastructure Inventory

Route Miles of Backbone Fiber Cable	42
Miles of Overhead Fiber Optic Cable	25
Miles of Underground Fiber Optic Cable	60

Recent Accomplishments

- Completed installation of overhead conduit (aerial duct) and fibers along Alma Avenue to expand system capacity from Stanford Research Park to University Avenue Downtown
- Completed installation of overhead conduit along Waverley Avenue to protect cables from squirrel damage
- Completed replacement of a below ground splice closure on College Avenue to relieve data congestion and free up unused fibers

2016-2020 Capital Improvement Program

Recurring Projects

There is one recurring project in the Capacity Improvements Category: the Fiber Optics Network System Improvements. This project extends the "dark" fiber optic network around Palo Alto through the development of fiber sub-rings and completion of general improvements to the fiber system. The annual funding for this project remains at $200,000 throughout the CIP.

Non-Recurring Projects

As part of the 2016-2020 Capital Improvement Program, a new project is included within this category: Fiber Optic System Rebuild (FY 2016: $1.2 million, total cost $2.4 million). This new project is expected to extend through Fiscal Year 2017 and will rebuild portions of the "dark" fiber optics network. Certain sections of the system have reached capacity limiting the City's ability to provide fiber optics service to all potential customers. Rebuilding portions of the "dark" fiber optic network includes installation of additional fiber optic cables in the Stanford Research Park area and replacement of several below ground splice closures with padmounted pedestals.

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 optics system 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 fiber optic service. The connection costs associated with new or upgraded connections are offset by charges to the customer.

Recent Accomplishments

- Installation of fiber optic service to all Palo Alto Unified School District schools and the District Office
- Several services installed for Stanford University offsite facilities

2016-2020 Capital Improvement Program

Recurring Projects

In the Customer Connections category there is one recurring project: Fiber Optics Customer Connections. In the 2016-2020 Capital Improvement Program, recurring funding in this project remains at $250,000. 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 Name	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
Source of Funds									
Other Revenues									
FO-10000	Fiber Optics Customer Connections: Connection Charges	$ 128,531	$ —	$ 363,205	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 1,163,205
	Total Other Revenues	128,531	—	363,205	200,000	200,000	200,000	200,000	1,163,205
	Total Other Revenues	**$ 128,531**	**$ —**	**$ 363,205**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 200,000**	**$ 1,163,205**
	Total Sources	$ 128,531	$ —	$ 363,205	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 1,163,205
Use of Funds									
Capacity Enhancements									
FO-10001	Fiber Optics Network System Improvements	$ 154,906	$ 487,071	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 200,000	$ 1,000,000
FO-16000	Fiber Optic System Rebuild	—	—	1,150,000	1,250,000	—	—	—	2,400,000
	Capacity Enhancements Total	154,906	487,071	1,350,000	1,450,000	200,000	200,000	200,000	3,400,000
Customer Connections									
FO-10000	Fiber Optics Customer Connections	$ 360,428	$ 169,663	$ 413,205	$ 250,000	$ 250,000	$ 250,000	$ 250,000	$ 1,413,205
	Customer Connections Total	360,428	169,663	413,205	250,000	250,000	250,000	250,000	1,413,205
	Total Expenses	$ 515,334	$ 656,734	$ 1,763,205	$ 1,700,000	$ 450,000	$ 450,000	$ 450,000	$ 4,813,205

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Capacity Improvements

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Fiber optic crew installing new fiber optic cables

Fund: Fiber Optics
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 will improve reliability within the fiber optic network system. Included in the project is the installation of aerial duct and new fiber cable to replace cable and cable insulation damaged by wildlife. A section of damaged overhead cable in the downtown ring will be moved underground.

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 the residents and businesses of Palo Alto. It does so while limiting the negative impacts on Palo Alto's environment by using pre-existing conduit and poles. Finally, it enables the Fiber Optics Fund to generate additional revenues through the enhanced use of its conduit and poles.

Supplemental Information

The Fiber Optics Utility continues to add capital improvements in the form of additional fiber in congested areas as well as areas of predicted growth.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Fiber Optics Fund	N/A	673,990	487,071	200,000	200,000	200,000	200,000	200,000	1,000,000	0	N/A
Total	**N/A**	**673,990**	**487,071**	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**1,000,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	673,990	487,071	200,000	200,000	200,000	200,000	200,000	1,000,000	0	N/A
Total	**N/A**	**673,990**	**487,071**	**200,000**	**200,000**	**200,000**	**200,000**	**200,000**	**1,000,000**	**0**	**N/A**

Relationship to Comprehensive Plan

Primary Connection

Element: Business & Economics

Section: Growth

Goal: B-3

Policy: B-13

Program: B-4

Potential Board/Commission Review:

Architectural Review Board

Utilities Advisory Commission

Environmental Impact Analysis:

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

Customer Connections

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Technician installing new fiber optic cables

Fund: Fiber Optics
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.

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 poles rather than adding additional infrastructure to the sytem. Finally, it enables the Fibers Optic 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 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Fiber Optics Fund	N/A	332,868	169,663	50,000	50,000	50,000	50,000	50,000	250,000	0	N/A
Other	N/A	0	0	363,205	200,000	200,000	200,000	200,000	1,163,205	0	N/A
Total	**N/A**	**332,868**	**169,663**	**413,205**	**250,000**	**250,000**	**250,000**	**250,000**	**1,413,205**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	332,868	169,663	413,205	250,000	250,000	250,000	250,000	1,413,205	0	N/A
Total	**N/A**	**332,868**	**169,663**	**413,205**	**250,000**	**250,000**	**250,000**	**250,000**	**1,413,205**	**0**	**N/A**

Relationship to Comprehensive Plan

Primary Connection

Element: Business & Economics

Section: Growth

Goal: B-3

Policy: B-13

Program: B-4

Potential Board/Commission Review:

Architectural Review Board

Utilities Advisory Commission

Environmental Impact Analysis:

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

System Improvements

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Fiber optic splice closer ready for inspection and work

Fund: Fiber Optics
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

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

Revised Project Start:
Revised Project Completion:

Project Number: FO-16000

Fiber Optic System Rebuild

Description

This system capacity improvement project rebuilds portions of the "dark" fiber optic network around Palo Alto which, in turn, is leased to parties providing telecommunication services to citizens and businesses in Palo Alto. The rebuild projects will install new aerial duct or substructures (conduit and boxes), and additional fiber backbone cable to increase capacity for sections of the dark fiber ring that are at or near capacity, and allow the Utilities Department to meet customer requests for service. The rebuild project areas are mainly comprised of the Stanford Research Park, Palo Alto Internet Exchange, and Downtown Areas.

Justification

The Dark Fiber system was constructed in the early 1990s and started leasing fibers to customers in 1996. Since that time several sections of the dark fiber system have reached capacity and limited the City's ability to serve its customers. This project improves the ability to maintain a competitive market for telecommunications in Palo Alto, accelerating the pace at which high quality, low cost, advanced telecommunications services are delivered to the residents and businesses of Palo Alto. Work included in the project is intended to increase system capacity and improve system reliability.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Fiber Optics Fund	0	0	0	1,150,000	1,250,000	1,250,000	1,250,000	0	4,900,000	0	4,900,000
Total	**0**	**0**	**0**	**1,150,000**	**1,250,000**	**1,250,000**	**1,250,000**	**0**	**4,900,000**	**0**	**4,900,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	1,150,000	1,250,000	1,250,000	1,250,000	0	4,900,000	0	4,900,000
Total	**0**	**0**	**0**	**1,150,000**	**1,250,000**	**1,250,000**	**1,250,000**	**0**	**4,900,000**	**0**	**4,900,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Business & Economics

Section: Growth

Goal: B-3

Policy: B-13

Program: B-4

Potential Board/Commission Review:

Architectural Review Board

Utilities Advisory Commission

Environmental Impact Analysis:

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

GAS FUND

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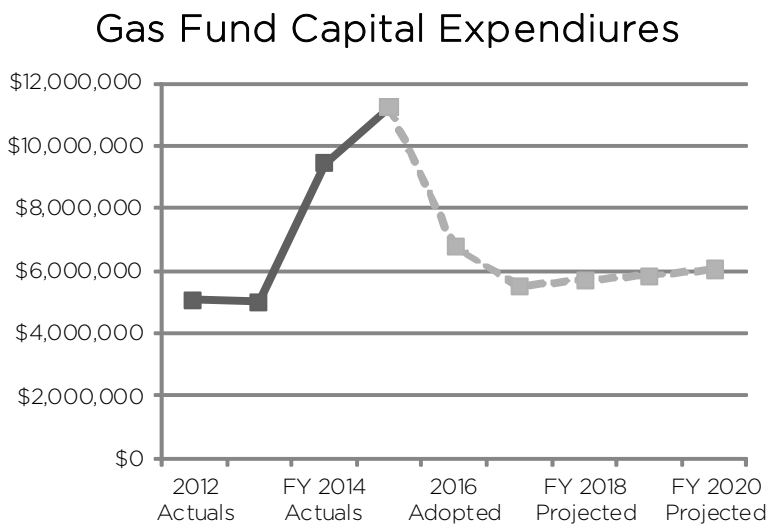
GAS FUND

Overview



The City of Palo Alto is the only municipality in California that operates a full suite of City-owned utility services. The municipal gas distribution system began operation in 1917. It provides safe, reliable, and cost effective gas service to residents and customers of Palo Alto. For the 2016-2020 Capital Improvement Program (CIP), approximately $29.9 million is programmed, with $6.8 million allocated in Fiscal Year 2016. Overall, a total of thirteen projects are programmed for the 5-year CIP. Major projects funded in the 2016-2020 CIP include Gas Main Replacements (cumulative total of $20.0 million), Gas System Customer Connections ($5.0 million), and Gas Meters and Regulators ($1.8 million). The budget for the Gas Fund CIP is broken into three separate categories: Customer Connections, Gas Main Replacements, and System Improvements.

Infrastructure Inventory

Total miles of gas main distribution system	209.48
Total miles of gas service extensions to residents and businesses	207
Number of gas receiving stations	4

Customer Connections

As customers continually change their gas needs due to equipment additions, new construction, building expansions, building remodels, teardowns and rebuilds, and new building occupancy types, the gas system must evolve to meet these needs. The Gas System Customer Connections project, which is the largest project within the Gas Fund ($1.0 million in Fiscal Year 2016, $5.0 million over the 2016-2020 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 project work performed by the City.

Recent Accomplishments

- In Fiscal Year 2014 the Utilities Gas Division completed approximately 140 customer service projects, at a cost of $0.9 million (partially offset by revenues of $0.6 million)

2016-2020 Capital Improvement Program

Recurring Projects

A total of $6.1 million is programmed for Customer Connection recurring projects in the 2016-2020 CIP, with $1.1 million allocated in Fiscal Year 2016. Recurring projects in this category include the following:

- Gas System Customer Connections (Fiscal Year 2016: $1.0 million; 5-Year CIP: $5.1 million)
- System Extensions - Unreimbursed (Fiscal Year 2016: $0.2 million; 5-Year CIP: $1.0 million)

Non-Recurring Projects

There are no non-recurring projects under this category.

Gas Main Replacements

The Gas Main Replacements category accounts for the replacement of inadequately-sized and structurally deficient gas mains. 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. In the next five years, it is anticipated that 99,500 linear feet of gas mains, or 9 percent of the entire system, will be replaced. The 2016-2020 Adopted CIP includes $20.0 million in funding for projects within this category, with $4.7 million allocated in Fiscal Year 2016.

Recent Accomplishments

- Completed the design and construction of 45,700 linear feet of gas mains and 768 gas service extensions from the City's main distribution system

2016-2020 Capital Improvement Program

Recurring Projects

There are no recurring projects under this category.

Non-Recurring Projects

- Six Gas Main Replacement projects are included in the 2016-2020 CIP (Fiscal Year 2016: $4.7 million; 5-Year CIP: $20.0 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 five projects during the 2016-2020 CIP at a total cost of $3.8 million, with $1.0 million allocated in Fiscal Year 2016.

Recent Accomplishments

- Completed the replacement of three gas receiving stations.

2016-2020 Capital Improvement Program

Recurring Projects

There are three funded recurring projects in the System Improvements category in the 2016-2020 CIP: Gas Distribution System Improvements (Fiscal Year 2016: $0.3 million, 5-Year CIP: $1.3 million), Gas Equipment and Tools (Fiscal Year 2016: $0.1 million, 5-Year CIP: $0.5 million), and Gas Meters and Regulators (Fiscal Year 2016: $0.3 million, 5-Year CIP: $1.8 million).

Non-Recurring Projects

The 2016-2020 Capital Improvement Program includes funding for two projects during the 2016 2020 CIP: Gas Distribution System Model ($0.1 million in Fiscal Year 2016) and Security at City Gas Receiving Stations ($0.2 million in Fiscal Year 2016). The Security at City Gas Receiving Stations will provide constant video monitoring of the City's four gas receiving stations and alert against intrusion.

Summary of Capital Activity

Gas Fund

Project Number	Project Title	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
Source of Funds									
Other Revenues									
GS-80017	Gas System, Customer Connections	$ 643,754	$ 507,032	$ 639,600	$ 662,000	$ 686,360	$ 706,950	$ 728,150	$ 3,423,060
	Other Revenue Total	643,754	—	639,600	662,000	686,360	706,950	728,150	3,423,060
	Total Other Revenue	**$ 643,754**	**$ —**	**$ 639,600**	**$ 662,000**	**$ 686,360**	**$ 706,950**	**$ 728,150**	**$ 3,423,060**
	Total Sources	$ 643,754	$ —	$ 639,600	$ 662,000	$ 686,360	$ 706,950	$ 728,150	$ 3,423,060
Use of Funds									
Customer Connections									
GS-80017	Gas System, Customer Connections	$ 904,684	$ 753,097	$ 950,000	$ 978,500	$ 1,007,855	$ 1,038,091	$ 1,069,233	$ 5,043,679

Summary of Capital Activity

Gas Fund

Project Number	Project Title	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
GS-03009	System Extensions - Unreimbursed	92,466	50,000	192,675	198,500	204,455	210,590	216,908	1,023,128
	Customer Connections Total	997,150	803,097	1,142,675	1,177,000	1,212,310	1,248,681	1,286,141	6,066,807
Gas Main Replacements									
GS-08011	Gas Main Replacement - Project 18	$ 456,162	$ —	$ —	$ —	$ —	$ —	$ —	$ —
GS-09002	Gas Main Replacement - Project 19	2,170,756	2,527,397	—	—	—	—	—	—
GS-10001	Gas Main Replacement - Project 20	1,764,261	4,832,082	—	—	—	—	—	—
GS-11000	Gas Main Replacement - Project 21	3,563,876	2,320,657	—	—	—	—	—	—
GS-12001	Gas Main Replacement - Project 22	1,938	109,574	4,033,001	—	—	—	—	4,033,001
GS-13001	Gas Main Replacement - Project 23	—	—	620,650	3,010,000	—	—	—	3,630,650
GS-14003	Gas Main Replacement - Project 24	—	—	—	640,000	3,100,000	—	—	3,740,000
GS-15000	Gas Main Replacement - Project 25	—	—	—	—	685,000	3,200,000	—	3,885,000
GS-16000	Gas Main Replacement - Project 26	—	—	—	—	—	678,200	3,300,000	3,978,200
GS-20000	Gas Main Replacement - Project 27	—	—	—	—	—	—	700,000	700,000
	Gas Main Replacements Total	7,956,993	9,789,710	4,653,651	3,650,000	3,785,000	3,878,200	4,000,000	19,966,851
System Improvements									
GS-03007	Directional Boring Equipment	$ 45,844	$ —	$ —	$ —	$ —	$ —	$ —	$ —
GS-02013	Directional Boring Machine	243,351	—	—	—	—	—	—	—
GS-14004	Gas Distribution System Model	1,392	60,918	87,690	—	—	—	—	87,690
GS-13002	Gas Equipment and Tools	—	35,000	100,000	100,000	100,000	100,000	100,000	500,000
GS-80019	Gas Meters and Regulators	2,178	40,000	344,690	355,030	365,681	376,652	387,952	1,830,005
GS-10000	Gas Station 3 Rebuild	—	30,125	—	—	—	—	—	—
GS-11002	Gas Distribution System Improvements	171,311	417,859	292,669	231,913	238,870	246,036	253,417	1,262,905
GS-01019	GPS Global Positioning	2,142	15,000	—	—	—	—	—	—
GS-03008	Polythylene Fusion Equipment	26,718	—	—	—	—	—	—	—
GS-15001	Security at City Gas Receiving Stations	—	—	150,000	—	—	—	—	150,000
	System Improvements Total	492,936	598,902	975,049	686,943	704,551	722,688	741,369	3,830,600
	Total Expenses	$ 9,447,079	$ 11,191,709	$ 6,771,375	$ 5,513,943	$ 5,701,861	$ 5,849,569	$ 6,027,510	$29,864,258

INSERT MAP HERE

Customer Connections

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Gas System Customer Connections

Fund: Gas Fund - Operating
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 augments 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

FY 2015: Project was retitled from "Gas Systems Extensions".

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	N/A	0	0	639,600	662,000	686,360	706,950	728,150	3,423,060	0	N/A
Gas Fund	N/A	753,097	753,097	310,400	316,500	321,495	331,141	341,083	1,620,619	0	N/A
Total	**N/A**	**753,097**	**753,097**	**950,000**	**978,500**	**1,007,855**	**1,038,091**	**1,069,233**	**5,043,679**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	753,097	753,097	950,000	978,500	1,007,855	1,038,091	1,069,233	5,043,679	0	N/A
Total	**N/A**	**753,097**	**753,097**	**950,000**	**978,500**	**1,007,855**	**1,038,091**	**1,069,233**	**5,043,679**	**0**	**N/A**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Utilities Advisory Commission
Element: Natural Environment	
Section: Energy	
Goal: N-9	
Policy: N-44	

Environmental Impact Analysis:

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

New gas main being installed by horizontal direction drill (HDD) method

Fund: Gas Fund - Operating
Category: Customer Connections
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: GS-03009

System Extensions - Unreimbursed

Description

This funding allows for the replacement of existing sections of the Gas Distribution System. This project will ensure continuous gas service to existing customers. Improvements include replacement of existing main sections, services, valves, regulators, meters, and accessories.

Justification

This project replaces gas distribution and existing customer service infrastructure. Existing gas service connections are replaced by the Gas Utility to maintain customer service. This project will capture non-reimbursed capital assets installed by staff.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Gas Fund	N/A	334,095	50,000	192,675	198,500	204,455	210,590	216,908	1,023,128	0	N/A
Total	**N/A**	**334,095**	**50,000**	**192,675**	**198,500**	**204,455**	**210,590**	**216,908**	**1,023,128**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	334,095	50,000	192,675	198,500	204,455	210,590	216,908	1,023,128	0	N/A
Total	**N/A**	**334,095**	**50,000**	**192,675**	**198,500**	**204,455**	**210,590**	**216,908**	**1,023,128**	**0**	**N/A**

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Gas Main Replacements

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New gas main being installed by horizontal direction drill (HDD) method

Fund: Gas Fund - Operating
Category: Gas Main Replacements
Project Location: Various locations

Managing Department: Utilities

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

Revised Project Start:
Revised Project Completion:

Project Number: GS-12001

Gas Main Replacement - Project 22

Description

This project replaces approximately 23,960 linear feet (which represents 2.1% of the City's Gas distribution system) of leaking, inadequately-sized, and structurally deficient gas mains and services located on various streets, including the Stanford Shopping, Midtown, and El Camino Real 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 in the industry 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 facilities, located within business districts, assigned the highest probability and consequences 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 to confirm project details.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Gas Fund	93	602,575	109,574	4,033,001	0	0	0	0	4,033,001	0	4,142,668
Total	**93**	**602,575**	**109,574**	**4,033,001**	**0**	**0**	**0**	**0**	**4,033,001**	**0**	**4,142,668**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	18	0	0	0	0	0	0	0	0	0	18
Construction	75	602,575	109,574	4,033,001	0	0	0	0	4,033,001	0	4,142,650
Total	**93**	**602,575**	**109,574**	**4,033,001**	**0**	**0**	**0**	**0**	**4,033,001**	**0**	**4,142,668**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-9

Policy: N-44

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Installation of new HDP gas service main

Fund: Gas Fund - Operating
Category: Gas Main Replacements
Project Location: Various locations

Managing Department: Utilities

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

Revised Project Start:
Revised Project Completion:

Project Number: GS-13001

Gas Main Replacement - Project 23

Description

This project replaces approximately 15,612 linear feet (which represents 1.4% of the City's Gas distribution system) of leaking, inadequately-sized, and structurally deficient gas mains and services located on various streets, including the Stanford Shopping, Midtown, and El Camino Real 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 in the industry 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 facilities, located within business districts, assigned the highest probability and consequences 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 to confirm project details.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Gas Fund	0	0	0	620,650	3,010,000	0	0	0	3,630,650	0	3,630,650

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Total	**0**	**0**	**0**	**620,650**	**3,010,000**	**0**	**0**	**0**	**3,630,650**	**0**	**3,630,650**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	620,650	3,010,000	0	0	0	3,630,650	0	3,630,650
Total	**0**	**0**	**0**	**620,650**	**3,010,000**	**0**	**0**	**0**	**3,630,650**	**0**	**3,630,650**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-9

Policy: N-44

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Fund: Gas Fund - Operating
Category: Gas Main Replacements
Project Location: Various locations

Managing Department: Utilities

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

Revised Project Start:
Revised Project Completion:

Project Number: GS-14003

Gas Main Replacement - Project 24

Description

This project replaces approximately 24,030 linear feet (which represents 2.1% of the City's Gas distribution system) of leaking, inadequately-sized, and structurally deficient gas mains and services located on various streets, including San Antonio, El Camino Real, and 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 know in the industry 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 facilities, located within business districts, assigned the highest probability and consequences 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 to confirm project details.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Gas Fund	0	0	0	0	640,000	3,100,000	0	0	3,740,000	0	3,740,000
Total	**0**	**0**	**0**	**0**	**640,000**	**3,100,000**	**0**	**0**	**3,740,000**	**0**	**3,740,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	3,100,000	0	0	3,100,000	0	3,100,000
Design	0	0	0	0	640,000	0	0	0	640,000	0	640,000
Total	**0**	**0**	**0**	**0**	**640,000**	**3,100,000**	**0**	**0**	**3,740,000**	**0**	**3,740,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-9

Policy: N-44

Potential Board/Commission Review:

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 - Operating
Category: Gas Main Replacements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Summer 2018
Initial Project Completion: Winter 2020

Revised Project Start:
Revised Project Completion:

Project Number: GS-15000

Gas Main Replacement - Project 25

Description

This project replaces approximately 21,623 linear feet (which represents 1.9% of the City's Gas distribution system) of leaking, inadequately-sized, and structurally deficient gas mains and services located on various streets, including El Camino Real, Stanford Industrial, Bayshore, and Golf Course 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 in the industry 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 facilities, located within business districts, assigned the highest probability and consequences 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 to confirm project details.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Gas Fund	0	0	0	0	0	685,000	3,200,000	0	3,885,000	0	3,885,000
Total	**0**	**0**	**0**	**0**	**0**	**685,000**	**3,200,000**	**0**	**3,885,000**	**0**	**3,885,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	0	0	685,000	0	0	685,000	0	685,000
Construction	0	0	0	0	0	0	3,200,000	0	3,200,000	0	3,200,000
Total	**0**	**0**	**0**	**0**	**0**	**685,000**	**3,200,000**	**0**	**3,885,000**	**0**	**3,885,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-9

Policy: N-44

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Fund: Gas Fund - Operating
Category: Gas Main Replacements
Project Location: Various locations

Managing Department: Utilities

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

Revised Project Start:
Revised Project Completion:

Project Number: GS-16000

Gas Main Replacement - Project 26

Gas Main Replacement - Project 26

Description

This project replaces approximately 13,471 linear feet (which represents 1.2% of the City's Gas distribution system) of leaking, inadequately-sized, and structurally deficient gas mains and services located on various streets in the University Park and Crescent Park 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 in the industry 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 facilities, located within business districts, assigned the highest probability and consequences 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 to confirm project details.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Gas Fund	0	0	0	0	0	0	678,200	3,300,000	3,978,200	0	3,978,200
Total	**0**	**0**	**0**	**0**	**0**	**0**	**678,200**	**3,300,000**	**3,978,200**	**0**	**3,978,200**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	0	0	0	678,200	3,300,000	3,978,200	0	3,978,200
Total	**0**	**0**	**0**	**0**	**0**	**0**	**678,200**	**3,300,000**	**3,978,200**	**0**	**3,978,200**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-9

Policy: N-44

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

New gas service meter and regulating equipment

Fund: Gas Fund - Operating
Category: Gas Main Replacements
Project Location: Various locations

Managing Department: Utilities

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

Revised Project Start:
Revised Project Completion:

Project Number: GS-20000

Gas Main Replacement - Project 27

Description

This project replaces approximately 15,655 linear feet of leaking, inadequately-sized, and structurally deficient gas mains and services located on various streets in the University South 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 in the industry 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 facilities, located within business districts, assigned the highest probability and consequences 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 to confirm project details.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Gas Fund	0	0	0	0	0	0	0	700,000	700,000	3,399,000	4,099,000
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**700,000**	**700,000**	**3,399,000**	**4,099,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	0	0	0	0	700,000	700,000	0	700,000
Construction	0	0	0	0	0	0	0	0	0	3,399,000	3,399,000
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**700,000**	**700,000**	**3,399,000**	**4,099,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Energy

Goal: N-9

Policy: N-44

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

System Improvements

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Gas System Improvements

Fund: Gas Fund - Operating
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, reconfiguring/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 improvement 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Gas Fund	N/A	485,370	417,859	292,669	231,913	238,870	246,036	253,417	1,262,905	0	N/A
Total	**N/A**	**485,370**	**417,859**	**292,669**	**231,913**	**238,870**	**246,036**	**253,417**	**1,262,905**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	485,370	417,859	292,669	231,913	238,870	246,036	253,417	1,262,905	0	N/A
Total	**N/A**	**485,370**	**417,859**	**292,669**	**231,913**	**238,870**	**246,036**	**253,417**	**1,262,905**	**0**	**N/A**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Utilities Advisory Commission
Element: Natural Environment	
Section: Energy	
Goal: N-9	
Policy: N-44	

Environmental Impact Analysis:

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

GASWorks model snapshot example, showing a flow element type valve

Fund: Gas Fund - Operating
Category: System Improvements
Project Location: N/A

Managing Department: Utilities

Initial Project Start: Fall 2014
Initial Project Completion: Fall 2016

Revised Project Start: Fall 2015
Revised Project Completion: Summer 2016

Project Number: GS-14004

Gas Distribution System Model

Description

This project funds development of a computerized geographic information system (GIS) based natural gas distribution system model, installation, testing of the model, and staff training.

Justification

A GIS based computerized natural gas distribution system model will significantly improve engineering staff's ability to analyze the performance of the distribution system, predict gas flow and pressures at any location within the system, foresee possible affects of additional loads, and provide a scientific basis for sizing new gas mains.

Supplemental Information

The model will also facilitate managing the distribution systems' risks determined by the City of Palo Alto Distribution Integrity Management Plan (DIMP).

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Gas Fund	1,391	148,608	60,918	87,690	0	0	0	0	87,690	0	149,999
Total	**1,391**	**148,608**	**60,918**	**87,690**	**0**	**0**	**0**	**0**	**87,690**	**0**	**149,999**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	278	0	0	0	0	0	0	0	0	0	278
Construction	1,113	148,608	0	0	0	0	0	0	0	0	1,113
Gas Fund	0	0	60,918	87,690	0	0	0	0	87,690	0	148,608
Total	**1,391**	**148,608**	**60,918**	**87,690**	**0**	**0**	**0**	**0**	**87,690**	**0**	**149,999**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Utilities Advisory Commission
Element: Natural Environment	
Section: Energy	
Goal: N-9	
Policy: N-44	

Environmental Impact Analysis:

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

New HDPE gas pipe being fused prior to installation

Fund: Gas Fund - Operating
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, directional boring/locating and fusion equipment and tools need to be upgraded on annual basis.

Significant Changes

Fiscal Year 2015: Project was retitled from "General Shop Equipment and Tools".

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Gas Fund	N/A	148,062	35,000	100,000	100,000	100,000	100,000	100,000	500,000	0	N/A
Total	**N/A**	**148,062**	**35,000**	**100,000**	**100,000**	**100,000**	**100,000**	**100,000**	**500,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	N/A	0	35,000	100,000	100,000	100,000	100,000	100,000	500,000	0	N/A
Construction	N/A	148,062	0	0	0	0	0	0	0	0	N/A
Total	**N/A**	**148,062**	**35,000**	**100,000**	**100,000**	**100,000**	**100,000**	**100,000**	**500,000**	**0**	**N/A**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Utilities Advisory Commission
Element: Natural Environment	
Section: Energy	
Goal: N-9	
Policy: N-44	

Environmental Impact Analysis:

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

Gas Meters and Regulators

Fund: Gas Fund - Operating
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 for approximately 2,000 meter sets per year.

Justification

The meter replacement program ensures accuracy of gas consumption measurement, reducing 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Gas Fund	N/A	773,487	40,000	344,690	355,030	365,681	376,652	387,952	1,830,005	0	N/A
Total	**N/A**	**773,487**	**40,000**	**344,690**	**355,030**	**365,681**	**376,652**	**387,952**	**1,830,005**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	773,487	40,000	344,690	355,030	365,681	376,652	387,952	1,830,005	0	N/A
Total	**N/A**	**773,487**	**40,000**	**344,690**	**355,030**	**365,681**	**376,652**	**387,952**	**1,830,005**	**0**	**N/A**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Utilities Advisory Commission
Element: Natural Environment	
Section: Energy	
Goal: N-9	
Policy: N-44	

Environmental Impact Analysis:

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

Fund: Gas Fund - Operating
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

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

Revised Project Start:
Revised Project Completion:

Project Number: GS-15001

Security at City Gas Receiving Stations

Security at City Gas Receiving Stations

Description

This project equips the City's four Gas Receiving Stations with video surveillance systems.

Justification

Video surveillance systems will enhance security at the City's four gas receiving stations providing constant video monitoring of the stations' premises and alert against intrusion.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Gas Fund	0	150,000	0	150,000	0	0	0	0	150,000	0	150,000
Total	**0**	**150,000**	**0**	**150,000**	**0**	**0**	**0**	**0**	**150,000**	**0**	**150,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	150,000	0	150,000	0	0	0	0	150,000	0	150,000
Total	**0**	**150,000**	**0**	**150,000**	**0**	**0**	**0**	**0**	**150,000**	**0**	**150,000**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Utilities Advisory Commission
Element: Natural Environment	
Section: Energy	
Goal: N-9	
Policy: N-44	

Environmental Impact Analysis:

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

REFUSE FUND

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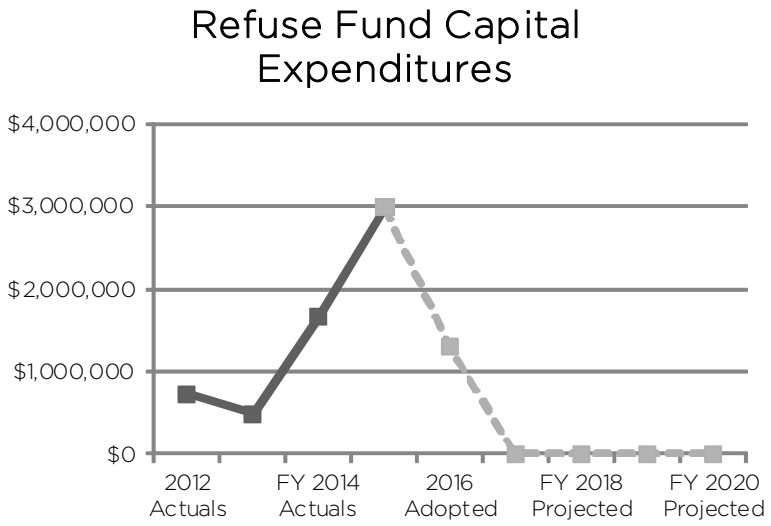
REFUSE FUND

Overview

The Refuse Capital Improvement Program accounts for activities related to the City of Palo Alto Landfill's closure and post-closure maintenance and to buildings and facilities, mainly related to the operation of the Household Hazardous Waste (HHW) Collection Program.



For the Fiscal Year 2016-2020 Capital Improvement Program expenditures of $1.3 million are programmed for two projects. Both non-recurring projects are funded in Fiscal Year 2016 with no other capital projects programmed for the out-years of the CIP. The Refuse Fund's Capital Improvement Program is broken into two separate categories: Landfill Post-Closure and Buildings and Facilities.

Landfill Post-Closure

The Landfill Post Closure category accounts for the construction of the landfill's cap and the repair or replacement of the landfill gas and leachate collection systems at the landfill. For the most part, these projects are required by State and Federal regulations.

Recent Accomplishments

- The final cap construction has been completed over 103 acres of the landfill's 126 acre area. Capping the remaining 23 acres is expected to be completed by December 2015.

2016-2020 Capital Improvement Program

Recurring Projects

There are no recurring projects.

Non-Recurring Projects

It is anticipated that all landfill post-closure CIP work will be finished in Fiscal Year 2016, when construction of the last phase of the landfill cap is completed. The total cumulative cost of this CIP is forecasted to be approximately $5.5 million. For Fiscal Year 2016, the cost of this work is expected to be $907,000; however a portion of the cost ($150,000) is expected to be offset by revenue associated with the collection of imported soil used for capping the former landfill.

Buildings and Facilities

The Buildings and Facilities category mainly accounts for improvements to the household hazardous waste station located at the Regional Water Quality Control Plant.

Recent Accomplishments

- Improvements to the City's household hazardous waste collection station were recently completed as part of the Relocation of Landfill Facilities project in Fiscal Year 2013.

2016-2020 Capital Improvement Program

Recurring Projects

There are no recurring projects.

Non-Recurring Projects

For Fiscal Year 2016, a new project titled Household Hazardous Waste (HHW) Station Improvements is included. This project will complete the hazardous waste collection station construction by adding a new canopy structure. The new canopy structure will keep rainwater off of the household hazardous waste that is being unloaded, sorted, and packaged at the HHW Station, reducing the potential for contaminated runoff into the storm drains. The canopy structure was designed at the time that the station was constructed and the foundation footings were installed, however the canopy was not installed due to funding constraints in the Refuse Fund.

Summary of Capital Activity

Refuse Fund

Project Number	Project Title	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
Source of Funds									
Other Revenue									
RF-11014	Landfill Closure	$ —	$ 565,000	$ —	$ —	$ —	$ —	$ —	$ —
	Other Revenue Total	—	565,000	—	—	—	—	—	—
	Total Other Revenue	**$ —**	**$ 565,000**	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**
	Total Sources	$ —	$ 565,000	$ —	$ —	$ —	$ —	$ —	$ —
Use of Funds									
Landfill Post Closure									
RF-10002	Flare Relocation	$ 698,646	$ 318	$ —	$ —	$ —	$ —	$ —	$ —
RF-11001	Landfill Closure	789,925	2,978,662	906,702	—	—	—	—	—
RF-07001	Relocation of Landfill Facilities	187,494	—	—	—	—	—	—	—
	Landfill Post Closure Total	1,676,065	2,978,980	906,702	—	—	—	—	—
Buildings and Facilities									
RF-16001	Household Hazardous Waste Station Collection Facility Improvements	$ —	$ —	$ 410,048	$ —	$ —	$ —	$ —	$ —
	Building and Facilities Total	—	—	410,048	—	—	—	—	—
	Total Expenses	$ 1,676,065	$ 2,978,980	$ 1,316,750	$ —	$ —	$ —	$ —	$ —

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Buildings and Facilities

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Fund: Refuse Fund - Operating
Category: Buildings and Facilities
Project Location: 2501 Embarcadero Way

Managing Department: Public Works

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

Revised Project Start:
Revised Project Completion:

Project Number: RF-16001

Household Hazardous Waste Station Improvements

Description

This project will provide for a new canopy structure at the City's Household Hazardous Waste (HHW) Station, located at the Regional Water Quality Control Plant. The canopy will be constructed out of metal purlin roofing material and will provide for separation of the collected household hazardous waste from the rain. The new canopy structure will tie into four existing footings that were installed in 2013 as part of a previous capital project. A new fire sprinkler system, lights, and gutters will also be installed on the canopy.

Justification

The new canopy will act as a primary best management practice (BMP) for separating rainwater from household hazardous waste that is being unloaded, sorted, and packaged at the HHW Station, reducing the potential for contaminated runoff into the storm drains.

Supplemental Information

The canopy was designed as part of the Relocation of Landfill Facilities project, which provided for improvements to the Household Hazardous Waste Station. That project was reduced in 2013 to achieve budget savings and the canopy construction was therefore not completed.

Staff will seek a grant from the Department of California Department of Resources Recycling and Recovery (CalRecycle) to potentially offset a portion of the cost of this project. Grant revenue for this project is not currently reflected within the CIP as the grant has not yet been approved.

Significant Changes

2016-2020 Capital Improvement Program: Project Established

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Refuse Fund	0	0	0	410,048	0	0	0	0	410,048	0	410,048
Total	**0**	**0**	**0**	**410,048**	**0**	**0**	**0**	**0**	**410,048**	**0**	**410,048**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	410,048	0	0	0	0	410,048	0	410,048
Total	**0**	**0**	**0**	**410,048**	**0**	**0**	**0**	**0**	**410,048**	**0**	**410,048**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Hazardous Waste

Goal: N-6

Policy: N-23

Program: N-28

Relationship to Comprehensive Plan

Secondary Connection

Element: Natural Environment

Policy: N-48

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Landfill- Post Closure

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Landfill Closure

Fund: Refuse Fund - Operating
Category: Landfill- Post Closure
Project Location: 2380 Embarcadero Road

Managing Department: Public Works

Initial Project Start: Summer 2012
Initial Project Completion: Fall 2012

Revised Project Start: Summer 2014
Revised Project Completion: Fall 2015

Project Number: RF-11001

Landfill Closure

Description

This project provides for the final closure of the Palo Alto Landfill. An engineer's cost estimate was developed in March 2009, indicating that $6.7 million (2012 dollars) would be needed to cap the remaining 51 acres of the landfill. The project was delayed until 2014 after Measure E passed, an initiative that conditionally designated part of the landfill for an energy/compost facility. The cap was then redesigned to include a new environmentally friendly soil cap in 2013 that is expected to save $1.1 million and generate $715,000 in revenue.

Justification

The Palo Alto Landfill was filled to capacity and closed in 2011. State and federal law requires the capping and postclosure maintenance and monitoring of closed landfills.

Supplemental Information

Cap construction over the last 51 acre phase of the landfill began in 2014 and is expected to be completed by December 2015. Once State certification of the closure is received (expected in late 2015 or early 2016) the area will be opened to the Public as part of Byxbee Park Hills.

Significant Changes

Construction was initially anticipated in 2012. The schedule was delayed until 2014 when a voter initiative "Measure E" passed requiring an evaluation of part of the landfill for an energy/compost facility. Construction began in 2014 with a new cap design that consists of a thickened engineered soil cap. The new design is expected to save $1.1 million and construction is expected to be completed by December 2015. The original budget for this project was $6.7 million. The final cumulative budget is now forecasted at $5.6 million. In addition, revenue from the import of soil needed for the cap from outside entities is expected to generate approximately $715,000 to the City by the end of the project (December 2015), with $150,000 expected in Fiscal Year 2016.

The additional budget will fund the construction of the cap, drainage features, postclosure maintenance pathways and the hydro-seeding of the cap with native grasses. The area will then be opened to the public as Byxbee Park Hills.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Refuse Fund	1,739,742	2,413,662	2,413,662	756,702	0	0	0	0	756,702	0	4,909,106
Other	0	565,000	565,000	150,000	0	0	0	0	150,000	0	715,000
Total	**1,739,742**	**2,978,662**	**2,978,662**	**906,702**	**0**	**0**	**0**	**0**	**906,702**	**0**	**5,625,106**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	424,614	0	0	0	0	0	0	0	0	0	424,614
Construction	1,315,128	2,978,662	2,978,662	906,702	0	0	0	0	906,702	0	5,200,492
Total	**1,739,742**	**2,978,662**	**2,978,662**	**906,702**	**0**	**0**	**0**	**0**	**906,702**	**0**	**5,625,106**

Operating Impact

Upon completion and once the area is open to the public the project is anticipated to impact operating expenses in the General Fund.

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Solid Waste

Goal: N-7

Policy: N-37

Relationship to Comprehensive Plan

Secondary Connection

Element: Natural Environment

Goal: N-5

Policy: N-8, N-25

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.

STORM DRAINAGE FUND

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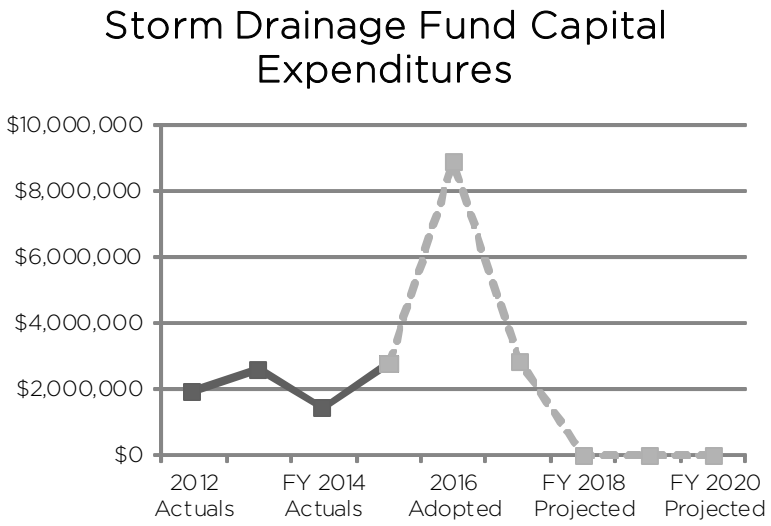
STORM DRAINAGE FUND

Overview

The Storm Drainage Capital Improvement Fund accounts for activities related to the improvement of the City's storm drain system (including pipelines, manholes, catch basins, and pump stations). Storm drain capital improvement projects are only programmed through Fiscal Year 2017, as the monthly storm drainage fee providing the revenue for the Storm Drainage Fund capital improvement plan is due to sunset in June 2017. The current storm drain rates were approved by a majority of property owners via a ballot-by-mail process in April 2005. At that time, a new base rate of $10.00 per month was established 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 higher base rate will sunset on June 1, 2017 and revert back to the pre-election rate of $4.25 per month unless it is reauthorized through a new ballot measure. Future funding for storm drainage capital improvements will require the reauthorization of the storm drainage fee by property owners. It is anticipated that a recommendation for storm drain funding beyond Fiscal Year 2017, including a potential ballot measure, will be brought forward for City Council consideration in fall 2015.



For the Fiscal Year 2016-2020 CIP, expenditures of $11.7 million are programmed in the Channing Avenue/Lincoln Avenue Storm Drain Improvements Project ($3.3 million), Storm Drain System Replacement and Rehabilitation ($2.5 million) and Matadero Creek Storm Water Pump Station Improvement ($5.9 million) projects, with $8.8 million allocated in Fiscal Year 2016. The budget for the Storm Drainage Capital Improvement Program (CIP) is broken into two separate 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).

Capacity Improvements

The Capacity Improvements category accounts for new or enhanced infrastructure added to the storm drain system increasing its capacity to convey storm water runoff to local creeks and San Francisco Bay. Recommended capacity upgrades are identified in the Storm Drain Master Plan, which was prepared in 1993 and updated in 2015. Since passage of the storm drainage fee ballot measure in 2005, staff has been implementing a set of seven high-priority capital improvement projects that augment storm drain system capacity. Five of the seven high-priority projects have been completed to-date, and two of three phases of the sixth project have also been constructed. The remaining projects will be implemented during Fiscal Years 2016 and 2017. In Fiscal Year 2015, an update to the Storm Water Master Plan was conducted to identify recommended drainage system capacity upgrades in preparation for the sunset of the Storm Drainage Fee in June 2017. The update resulted in the identification of $130 million in recommended storm drainage improvements, with $40 million identified as high-priority projects.

Recent Accomplishments

- Completed the first two phases of the Channing Avenue/Lincoln Avenue Storm Drain Improvements, including new storm drain infrastructure along Channing Avenue (Heather Lane to Lincoln Avenue) and Lincoln Avenue (Channing Avenue to Middlefield Road)
- Completed a set of innovative storm drain improvements in the Southgate neighborhood, including permeable crosswalks and walkway and vegetated bioretention planters
- Completed storm drain improvements to connect Clara Drive storm drains to the Matadero Creek Storm Water Pump Station

2016-2020 Capital Improvement Program

Recurring Projects

There are no recurring Capacity Improvement projects.

Non-Recurring Projects

The 2016-2020 CIP includes funding for storm drain system capacity improvements in Fiscal Years 2016 and 2017 only. Projects include the completion of the Channing Avenue/Lincoln Avenue Storm Drain Improvements and the Matadero Creek Storm Water Pump Station Improvements. The completion of the Channing Avenue/Lincoln Avenue project includes the construction of new storm drain pipelines along Lincoln Avenue between Middlefield Road and Alma Street. This project will augment the capacity of the storm drain infrastructure serving the Professorville neighborhood and will alleviate chronic street flooding along Embarcadero Road. The Matadero Creek Storm Water Pump Station will be modified to increase its pumping capacity. This pump station is one of the critical elements of the City's drainage infrastructure, serving a watershed area of 1,250-acres including the Midtown and Palo Verde neighborhoods. Recommendations for capacity improvements for the years beyond Fiscal Year 2017 will be developed as part of the storm drainage fee reauthorization process.

System Rehabilitation

The System Rehabilitation category accounts for the replacement or rehabilitation of deteriorated components of the storm drain system. Funds are budgeted annually to replace or rehabilitate storm drain pipelines, manholes, catch basins, and pump station equipment nearing the end of their useful life. System components to be rehabilitated each year were identified through a comprehensive storm drain condition assessment conducted in 1993 and through visual observations by maintenance crews. Projects in this category also include storm drain system modifications needed to accommodate new operational requirements, such as the mandate in the regional storm water 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. Funding for system rehabilitation has been relatively constant for the past ten years, with annual funding levels increasing each year based on increases in the local Consumer Price Index.

Recent Accomplishments

- Installation of two large-scale trash capture devices in the storm drain system to comply with the requirements of the Municipal Regional Storm Water Discharge Permit
- Relocation of a 96-inch-diameter storm drain pipeline to accommodate the widening of the East Bayshore Road bridge over San Francisquito Creek

Infrastructure Inventory

Storm drain pipelines	107 miles
Catch basins	2,750
Manholes	800
Storm water pump stations	8

2016-2020 Capital Improvement Program

Recurring Projects

The Fiscal Year 2016-2020 CIP includes funding for one project in this category: Storm Drain System Replacement and Rehabilitation (Fiscal Year 2016: $1.7 million; total 5-Year CIP: $2.5 million). Projects will focus on the installation of additional trash capture devices and the replacement of corrugated metal storm drain pipelines. Installation of additional trash capture devices in the storm drain system will prevent trash from entering local water bodies and enable the city to remain in compliance with the regional storm water discharge permit. Replacement or lining of corrugated metal storm drain pipelines is a top priority because these pipelines have a relatively short lifespan and are subject to collapse due to metal deterioration. Funding is not programmed beyond Fiscal Year 2017. Recommendations for system rehabilitation for the years beyond Fiscal Year 2017 will be developed as part of the storm drainage fee reauthorization process.

Non-Recurring Projects

There are no non-recurring System Rehabilitation projects.

Summary of Capital Activity

Storm Drainage Fund

Project Number	Project Name	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
Use of Funds									
Capacity Improvements									
SD-11101	Channing Avenue/Lincoln Avenue Storm Drain Improvements	$ 378,494	$ 136,629	$ 3,306,151	$ —	$ —	$ —	$ —	$ 3,306,151
SD-06104	Clara Drive to Matadero Pump Station	736,558	35,030	—	—	—	—	—	—
SD-13003	Matadero Creek Storm Water Pump Station and Trunk Line Improvements	—	504,202	3,766,378	2,098,242	—	—	—	5,864,620
SD-06102	San Francisquito Creek Storm Water Pump Station	1,088	—	—	—	—	—	—	—
SD-10101	Southgate Neighborhood Storm Drain Improvements	222,965	1,689,904	—	—	—	—	—	—
SD-15008	Storm Drain Master Plan Update	—	319,320	—	—	—	—	—	—
	Capacity Improvements Total	1,339,105	2,685,085	7,072,529	2,098,242	—	—	—	9,170,771
System Rehabilitation									
SD-06101	Storm Drain System Replacement and Rehabilitation	$ 98,479	$ 95,932	$ 1,747,217	$ 741,664	$ —	$ —	$ —	$ 2,488,881
	System Rehabilitation Total	98,479	95,932	1,747,217	741,664	—	—	—	2,488,881
	Total Uses	$ 1,437,584	$ 2,781,017	$ 8,819,746	$ 2,839,906	$ —	$ —	$ —	$ 11,659,652

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Capacity Improvements

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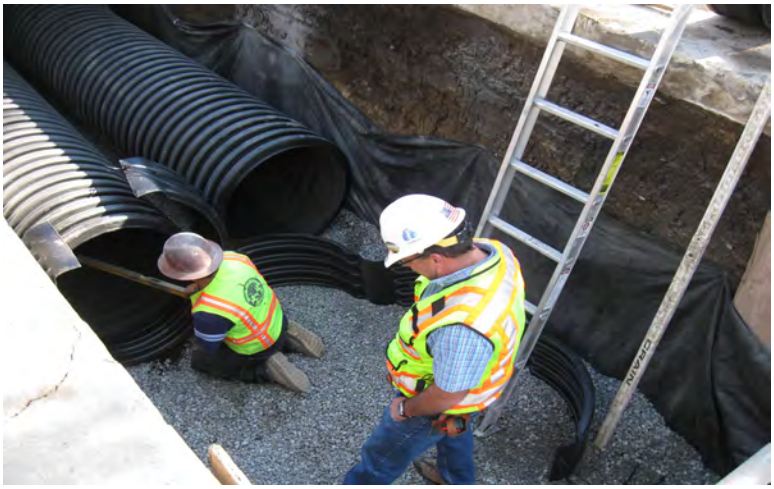

Channing-Lincoln SD Improvements, February 2015

Fund: Storm Drainage - Operating
Category: Capacity Improvements
Project Location: Channing Ave. (Heather Lane to Lincoln Ave.); Lincoln Ave. (Channing Ave. to Alma St.)

Managing Department: Public Works

Initial Project Start: Spring 2011
Initial Project Completion: Fall 2014

Revised Project Start:
Revised Project Completion: Fall 2015

Project Number: SD-11101

Channing Avenue/Lincoln Avenue Storm Drain Improvements

Description

This project will provide funding for the installation of 5,800 linear feet of 36-inch to 60-inch diameter storm drain along Channing and Lincoln Avenues over three project phases.

Justification

This new storm drain trunk will improve drainage system performance in the Green Gables, Walnut Grove, Community Center, SOFA and Professorville neighborhoods by conveying storm runoff more efficiently to the San Francisquito Creek pump station. The project will also reduce street flooding along Embarcadero Road by intercepting storm runoff from several storm drain feeder lines that currently flow to Embarcadero Road.

Supplemental Information

This improvement is consistent with the priorities established with the property owner approved storm drain rate increase and input from the Storm Drain Oversight Committee.

Significant Changes

2016-2020 CIP: Timeline extended due to staffing resource constraints.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Storm Drainage Fund	4,125,808	3,316,971	136,629	3,306,151	0	0	0	0	3,306,151	0	7,568,588
Total	**4,125,808**	**3,316,971**	**136,629**	**3,306,151**	**0**	**0**	**0**	**0**	**3,306,151**	**0**	**7,568,588**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	208,315	0	0	0	0	0	0	0	0	0	208,315
Construction	3,917,493	3,316,971	136,629	3,306,151	0	0	0	0	3,306,151	0	7,360,273
Total	**4,125,808**	**3,316,971**	**136,629**	**3,306,151**	**0**	**0**	**0**	**0**	**3,306,1511**	**0**	**7,568,588**

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: Water Resources

Goal: N-4

Policy: N-24

Program: N-36

Potential Board/Commission Review:

Storm Drain Oversight Committee

Environmental Impact Analysis:

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

Matadero Creek Storm Water Pump Station

Fund: Storm Drainage - Operating
Category: Capacity Improvements
Project Location: Various locations in Midtown neighborhood

Managing Department: Public Works

Initial Project Start: Winter 2015
Initial Project Completion: Fall 2017

Revised Project Start:
Revised Project Completion:

Project Number: SD-13003

Matadero Creek Storm Water Pump Station and Trunk Line Improvements

Description

This project will provide funding for construction upgrades to the Matadero Creek Storm Water Pump Station and the trunk storm drain pipelines that flow to the pump station. The Matadero Creek Storm Water Pump Station serves a low-lying 1200-acre area of southeastern Palo Alto.

Justification

The streets in this area are lower than the creek water level during storm events. Upgrades to the pump station and the storm drain pipelines leading to it will allow storm runoff to be pumped into Matadero Creek regardless of the creek level, improving drainage system performance in the Midtown and Palo Verde neighborhoods.

Supplemental Information

Construction of the pump station improvements and pipelines will begin in Fiscal Year 2017. This improvement is consistent with the priorities established with the property owner-approved storm drain rate increase in 2005.

Significant Changes

2016-2020 CIP: This project was previously accounted for in SD-13002. As part of the 2016-2020 CIP, a new project identification number was created for internal tracking purposes.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Storm Drainage Fund	0	2,252,333	504,202	3,766,378	2,098,242	0	0	0	5,864,620	0	6,368,822
Total	**0**	**2,252,333**	**504,202**	**3,766,378**	**2,098,242**	**0**	**0**	**0**	**5,864,620**	**0**	**6,368,822**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	2,252,333	504,202	3,663,131	2,044,121	0	0	0	5,707,252	0	6,211,454
Design	0	0	0	103,247	54,121	0	0	0	157,368	0	157,368
Total	**0**	**2,252,333**	**504,202**	**3,766,378**	**2,098,242**	**0**	**0**	**0**	**5,864,620**	**0**	**6,368,822**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-24

Program: N-36

Potential Board/Commission Review:

Storm Drain Oversight Committee

Environmental Impact Analysis:

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

System Rehabilitation

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Fund: Storm Drainage - Operating
Category: System Rehabilitation
Project Location: Various

Managing Department: Public Works

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: SD-06101

Storm Drain Repair & Rehabilitation

Storm Drain System Replacement And Rehabilitation

Description

This project will provide funding for annual replacement and rehabilitation projects that maintain the integrity of the storm drain system, including the replacement or rehabilitation of deteriorated storm drain pipes, manholes and storm drain inlets. The scope for Fiscal Year 2016 will include the installation of additional trash capture devices in the storm drain system to prevent trash from entering local water bodies.

Justification

Recommendations established by the 1993 Storm Drain Condition Assessment Report are being implemented through this project. The specific pipes and drainage structures selected for replacement and/or rehabilitation are determined based on their 1993 condition score and the recommendations of field maintenance staff. To remain in compliance with the regional storm water discharge permit, additional trash capture devices need to be installed.

Supplemental Information

This improvement is consistent with the priorities established with the property owner-approved storm drain rate increase. The approved enhanced Storm Drainage Fee will sunset on June 30, 2017 unless the City Council asks property owners to reauthorize the current Storm Drainage Fee through a future ballot measure, and the owners approve the continuation of the current fee level. CIP funding for Fiscal Year 2018 and beyond will be developed once property owners authorize a continuation of the fee increase.

Significant Changes

2015-2019 CIP: Funding allocated for implementation of upgrades to the communications network, linking the storm water pump stations to the central monitoring facility.

2016-2020 CIP: Funding allocated for installation of additional trash capture devices in the storm drain system to prevent trash from entering local water bodies.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Storm Drainage Fund	N/A	1,131,169	105,806	1,737,343	741,664	0	0	0	2,479,007	0	N/A
Total	**N/A**	**1,131,169**	**105,806**	**1,737,343**	**741,664**	**0**	**0**	**0**	**2,479,007**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	N/A	0	0	35,990	41,332	0	0	0	77,322	0	N/A
Construction	N/A	1,131,169	105,806	1,701,353	700,332	0	0	0	2,401,685	0	N/A
Total	**N/A**	**1,131,169**	**105,806**	**1,737,343**	**741,664**	**0**	**0**	**0**	**2,479,007**	**0**	**N/A**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-24

Program: N-36

Potential Board/Commission Review:

Storm Drain Oversight Committee

Environmental Impact Analysis:

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

ENTERPRISE FUND PROJECTS

WASTEWATER COLLECTION FUND

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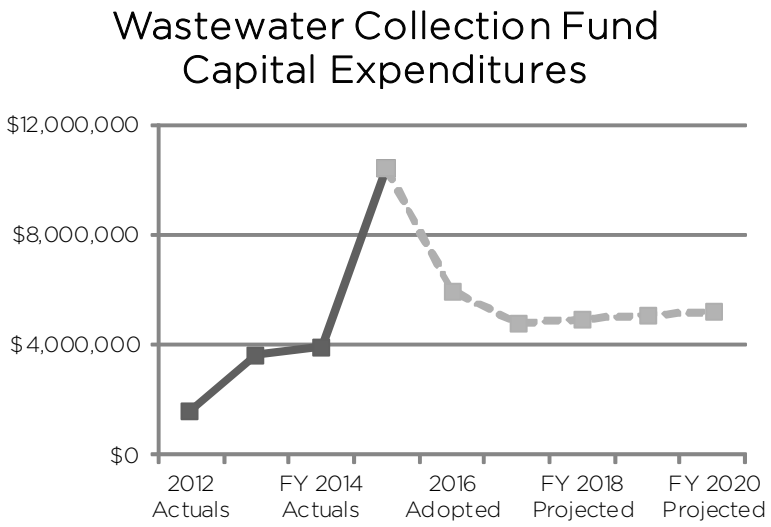
WASTEWATER COLLECTION FUND

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 wastewater service to residents and customers of Palo Alto. For the 2016-2020 Capital Improvement Program (CIP), approximately $26.1 million is programmed, with $6.0 million allocated in Fiscal Year 2016. Overall, a total of thirteen projects are programmed for the 5-year CIP. Major projects funded in the 2016-2020 CIP include Wastewater Collection System Rehabilitation/Augmentation Projects (cumulative total of $19.4 million), Sewer Lateral/Manhole Rehabilitation and Replacement ($3.2 million), and Sewer System Customer Connections ($2.0 million). The budget for the Wastewater Collection Fund CIP is broken into two separate categories: Customer Connections and System Improvements.

Infrastructure Inventory

Total miles of sanitary sewer lines	217
Total number of sanitary laterals	18,041

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 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

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 2014 the Utilities Wastewater Division completed over 95 customer service projects with a total cost of $0.3 million.

2016-2020 Capital Improvement Program

Recurring Projects

The Sewer System Customer Connections project funds customer connections and is the only project within this category.

Non-Recurring Projects

There are no non-recurring projects in this category.

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 93,750 linear feet of wastewater mains will be replaced.

Recent Accomplishments

- Completed the design and construction of 46,050 linear feet of wastewater mains and 881 wastewater services.

2016-2020 Capital Improvement Program

Recurring Projects

A total of $4.7 million is programmed for System Improvement recurring projects in the 2016-2020 CIP, with $0.9 million allocated in Fiscal Year 2016. Recurring projects in this category include the following:

- Wastewater Collection System Improvements (Fiscal Year 2016: $0.2 million; 5-Year CIP: $1.2 million)
- Wastewater Fusion and General Equipment/Tools (Fiscal Year 2016: $0.1 million; 5-Year CIP: $0.3 million)
- Sewer Lateral and Manhole Rehabilitation/Replacement (Fiscal Year 2016: $0.6 million; 5-Year CIP: $3.2 million)

Non-Recurring Projects

The majority of funding within this category is allocated towards Wastewater Collection System Rehabilitation/Augmentation Projects (cumulative total of $19.4 million). These projects implement high priority rehabilitation, augmentation, and lateral replacement work which reduces inflow of rainfall and ground water into the collection system. The Utilities Department coordi-

nates these projects with the Department of Public Works' Street Maintenance Program to minimize damage to the City's pavement and maximize cost efficiencies.

Summary of Capital Activity

Wastewater Collection Fund

Project Number	Project Title	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
Source of Funds									
Other Revenues									
WC-80020	Sewer System, Customer Connections	$ —	$ 225,000	$ 383,000	$ 394,000	$ 405,000	$ 416,000	$ 428,500	$ 2,026,500
	Other Revenue Total	—	225,000	383,000	394,000	405,000	416,000	428,500	2,026,500
	Total Other Revenue	**$ —**	**$ 225,000**	**$ 383,000**	**$ 394,000**	**$ 405,000**	**$ 416,000**	**$ 428,500**	**$ 2,026,500**
	Total Sources	$ —	$ 225,000	$ 383,000	$ 394,000	$ 405,000	$ 416,000	$ 428,500	$ 2,026,500
Use of Funds									
Customer Connections									
WC-80020	Sewer System, Customer Connections	$ 279,411	$ 225,000	$ 383,000	$ 394,000	$ 405,000	$ 416,000	$ 428,500	$ 2,026,500
	Customer Connections Total	279,411	225,000	383,000	394,000	405,000	416,000	428,500	2,026,500
System Improvements									
WC-99013	Sewer Lateral/Manhole Rehabilitation and Replacement	$ 516,840	$ 979,124	$ 600,000	$ 618,000	$ 636,000	$ 655,000	$ 675,000	$ 3,184,000
WC-07004	Wastewater Collection System Rehabilitation/Augmentation Project 20	56,751	—	—	—	—	—	—	—
WC-08012	Wastewater Collection System Rehabilitation/Augmentation Project 21	—	32,207	—	—	—	—	—	—
WC-09001	Wastewater Collection System Rehabilitation/Augmentation Project 22	1,191,678	—	—	—	—	—	—	—
WC-10002	Wastewater Collection System Rehabilitation/Augmentation Project 23	1,045,257	1,278,068	—	—	—	—	—	—
WC-11000	Wastewater Collection System Rehabilitation/Augmentation Project 24	454,592	2,306,351	206,084	—	—	—	—	206,084
WC-12001	Wastewater Collection System Rehabilitation/Augmentation Project 25	303,525	2,326,731	528,246	—	—	—	—	528,246
WC-13001	Wastewater Collection System Rehabilitation/Augmentation Project 26	37,450	3,004,536	268,014	—	—	—	—	268,014
WC-14001	Wastewater Collection System Rehabilitation/Augmentation Project 27	—	51,867	3,358,133	—	—	—	—	3,358,133
WC-15001	Wastewater Collection System Rehabilitation/Augmentation Project 28	—	—	330,000	3,183,000	—	—	—	3,513,000
WC-16001	Wastewater Collection System Rehabilitation/Augmentation Project 29	—	—	—	340,000	3,270,000	—	—	3,610,000

Summary of Capital Activity

Wastewater Collection Fund

Project Number	Project Title	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
WC-17001	Wastewater Collection System Rehabilitation/Augmentation Project 30	—	—	—	—	350,000	3,361,500	—	3,711,500
WC-19001	Wastewater Collection System Rehabilitation/Augmentation Project 31	—	—	—	—	—	360,000	3,462,500	3,822,500
WC-20000	Wastewater Collection System Rehabilitation/Augmentation Project 32	—	—	—	—	—	—	370,000	370,000
WC-13002	Wastewater Fusion and General Equipment/Tools	—	25,000	50,000	50,000	50,000	50,000	50,000	250,000
WC-15002	Wastewater System Improvements	33,878	192,000	232,000	239,000	246,000	253,000	260,000	1,230,000
	System Improvements Total	3,639,971	10,195,884	5,572,477	4,430,000	4,552,000	4,679,500	4,817,500	24,051,477
	Total Expenses	$ 3,919,382	$ 10,420,884	$ 5,955,477	$ 4,824,000	$ 4,957,000	$ 5,095,500	$ 5,246,000	$26,077,977

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Customer Connections

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Fund: Wastewater Collection - Operating
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 Revenues includes 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

This project was previously titled "Sewer System Extension". As part of the Fiscal Year 2015 budget it has been retitled "Sewer System, Customer Connections" to more accurately reflect the work done with this funding.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Collection Fund	N/A	0	0	0	0	0	0	0	0	0	N/A
Other	N/A	530,227	225,000	383,000	394,000	405,000	416,000	428,500	2,026,500	0	N/A
Total	**N/A**	**530,227**	**225,000**	**383,000**	**394,000**	**405,000**	**416,000**	**428,500**	**2,026,500**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	530,227	225,000	383,000	394,000	405,000	416,000	428,500	2,026,500	0	N/A
Total	**N/A**	**530,227**	**225,000**	**383,000**	**394,000**	**405,000**	**416,000**	**428,500**	**2,026,500**	**0**	**N/A**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-18

Relationship to Comprehensive Plan

Secondary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-25

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

System Improvements

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Sewer manhole base

Fund: Wastewater Collection - Operating
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 Rehab/ Replacement

Description

This project will replace defective sewer laterals, cleanouts, 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 videotapes sewer collection mains and laterals as necessary.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Collection Fund	N/A	979,124	979,124	600,000	618,000	636,000	655,000	675,000	3,184,000	0	N/A
Total	**N/A**	**979,124**	**979,124**	**600,000**	**618,000**	**636,000**	**655,000**	**675,000**	**3,184,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	979,124	979,124	600,000	618,000	636,000	655,000	675,000	3,184,000	0	N/A
Total	**N/A**	**979,124**	**979,124**	**600,000**	**618,000**	**636,000**	**655,000**	**675,000**	**3,184,000**	**0**	**N/A**

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	**Secondary Connection**	Utilities Advisory Commission
Element: Natural Environment	Element: Natural Environment	
Section: Water Resources	Section: Water Resources	
Goal: N-4	Goal: L-1	
Policy: N-18	Policy: N-25	

Environmental Impact Analysis:

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

Fund: Wastewater Collection - Operating
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

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

Revised Project Start:
Revised Project Completion:

Project Number: WC-20000

A bursing head attached with 8′ HDPE, for a sewer main replacement project by pipe bursting method

Wastewater Collection System Rehabilitation/Augmentation Project 32

Description

For fiscal years 2020 and 2021, this project funds the design and construction of high priority main and lateral replacement work, which reduces inflow of rainfall and ground water into the collection system. The project scope is as yet undetermined but may include approximately 15,000 - 25,000 linear feet for various streets within the City's limits. 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 update indicated certain facilities are in need of enlargement to handle growth and peak flows. The mains selected for replacement and/or rehabilitation are determined by the recommendations for 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

The mains selected for replacement and/or rehabilitation are determined by the recommendations of 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Collection Fund	0	0	0	0	0	0	0	370,000	370,000	3,700,000	4,070,000
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**370,000**	**370,000**	**3,700,000**	**4,070,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	0	0	0	0	370,000	370,000	0	370,000
Construction	0	0	0	0	0	0	0	0	0	3,700,000	3,700,000
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**370,000**	**370,000**	**3,700,000**	**4,070,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-18

Relationship to Comprehensive Plan

Secondary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-25

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

New HDPE sewer main

Fund: Wastewater Collection - Operating
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Summer 2010
Initial Project Completion: Winter 2013

Revised Project Start: Summer 2014
Revised Project Completion: Summer 2015

Project Number: WC-11000

Wastewater Collection System Rehabilitation/Augmentation Project 24

Description

The funding for this project is for replacement and/or rehabilitation of approximately 42,398 linear feet (which represents 4.0% of the City's Wastewater Collection system) of sanitary sewer mains of various sizes and installation of 121 sewer manholes. The project will include various streets in the University South, Professorville and Old Palo Alto neighborhoods. In addition, 779 existing sewer service laterals and cleanouts will be replaced with new 4" High Density Polyethylene (HDPE) service laterals and cleanouts. All new service laterals will be installed from the new sewer main (usually located in the street) to the new sewer cleanouts (located in the City's right-of-way, usually in a planting strip or behind the sidewalk).

Justification

This project is part of the Utilities Department plan to address areas that were identified in Wastewater Capital Improvement Project 17 (Cleaning and Video Inspection of the Collection System) as needing rehabilitation. The planned areas were prioritized based on system maintenance needs, the 2004 Wastewater Master Plan, the Public Works street paving program, and the goals of the Sanitary Sewer Management Plan. Staff also coordinated this project with other underground work to minimize interference with other contractors and their schedules.

Significant Changes

Project funding and timeline were revised due to significantly high bids. Bids were originally solicited for Wastewater Collection System Rehabilitation/Augmentation Projects 24/25 in August 2014. At that time the City received five (5) bids, all of which were at least 20 percent

above the engineerís estimate. In September 2014, the City rejected all bids because the bids exceeded the project budget. Following the rejection of the bids, the work scope was reduced in order to stay within the project budget. Wastewater Collection System Rehabilitation/Augmentation Projects 24/25/26 were combined and rebid in December 2014 and five (5) bids were received.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Collection Fund	607,373	2,512,435	2,306,351	206,084	0	0	0	0	206,084	0	3,119,808
Total	**607,373**	**2,512,435**	**2,306,351**	**206,084**	**0**	**0**	**0**	**0**	**206,084**	**0**	**3,119,808**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	121,474	0	0	0	0	0	0	0	0	0	121,474
Construction	485,899	2,512,435	2,306,351	206,084	0	0	0	0	206,084	0	2,998,334
Total	**607,373**	**2,512,435**	**2,306,351**	**206,084**	**0**	**0**	**0**	**0**	**206,084**	**0**	**3,119,808**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-18

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Fund: Wastewater Collection - Operating
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Summer 2011
Initial Project Completion: Winter 2013

Revised Project Start: Spring 2015
Revised Project Completion: Winter 2017

Project Number: WC-12001

Wastewater Collection System Rehabilitation/Augmentation Project 25

Description

The funding for this project is for replacement and/or rehabilitation of approximately 42,398 linear feet (which represents 4.0% of the City's Wastewater Collection system) of sanitary sewer mains of various sizes and installation of 121 sewer manholes. The project will include various streets in the University South, Professorville and Old Palo Alto neighborhoods. In addition, 779 existing sewer service laterals and cleanouts will be replaced with new 4" High Density Polyethylene (HDPE) service laterals and cleanouts. All new service laterals will be installed from the new sewer main (usually located in the street) to the new sewer cleanouts (located in the City's right-of-way, usually in a planting strip or behind the sidewalk).

Justification

This project is part of the Utilities Department plan to address areas that were identified in Wastewater Capital Improvement Project 17 (Cleaning and Video Inspection of the Collection System) as needing rehabilitation. The planned areas were prioritized based on system maintenance needs, the 2004 Wastewater Master Plan, the Public Works street paving program, and the goals of the Sanitary Sewer Management Plan. Staff also coordinated this project with other underground work to minimize interference with other contractors and their schedules.

Significant Changes

Project funding and timeline were revised due to significantly high bids. Bids were originally solicited for Wastewater Collection System Rehabilitation/Augmentation Projects 24/25 in August 2014. At that time the City received five (5) bids, all of which were at least 20 percent

above the engineer's estimate. In September 2014, the City rejected all bids because the bids exceeded the project budget. Following the rejection of the bids, the work scope was reduced in order to stay within the project budget. Wastewater Collection System Rehabilitation/Augmentation Projects 24/25/26 were combined and rebid in December 2014 and five (5) bids were received.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Collection Fund	357,022	2,854,977	2,326,731	528,246	0	0	0	0	528,246	0	3,212,999
Total	**357,022**	**2,854,977**	**2,326,731**	**528,246**	**0**	**0**	**0**	**0**	**528,246**	**0**	**3,212,999**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	285,618	2,854,977	2,326,731	528,246	0	0	0	0	528,246	0	3,140,595
Design	71,404	0	0	0	0	0	0	0	0	0	71,404
Total	**357,022**	**2,854,977**	**2,326,731**	**528,246**	**0**	**0**	**0**	**0**	**528,246**	**0**	**3,211,999**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-18

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Installation of HDPE sewer main by directional drilling method

Fund: Wastewater Collection - Operating
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

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

Revised Project Start: Summer 2015
Revised Project Completion: Winter 2017

Project Number: WC-13001

Wastewater Collection System Rehabilitation/Augmentation Project 26

Description

The funding for this project is for replacement and/or rehabilitation of approximately 42,398 linear feet (which represents 4.0% of the City's Wastewater Collection system) of sanitary sewer mains of various sizes and installation of 121 sewer manholes. The project will include various streets in the University South, Professorville and Old Palo Alto neighborhoods. In addition, 779 existing sewer service laterals and cleanouts will be replaced with new 4" High Density Polyethylene (HDPE) service laterals and cleanouts. All new service laterals will be installed from the new sewer main (usually located in the street) to the new sewer cleanouts (located in the City's right-of-way, usually in a planting strip or behind the sidewalk).

Justification

This project is part of the Utilities Department plan to address areas that were identified in Wastewater Capital Improvement Project 17 (Cleaning and Video Inspection of the Collection System) as needing rehabilitation. The planned areas were prioritized based on system maintenance needs, the 2004 Wastewater Master Plan, the Public Works street paving program, and the goals of the Sanitary Sewer Management Plan. Staff also coordinated this project with other underground work to minimize interference with other contractors and their schedules.

Significant Changes

Project funding and timeline were revised due to significantly high bids. Bids were originally solicited for Wastewater Collection System Rehabilitation/Augmentation Projects 24/25 in August 2014. At that time the City received five (5) bids, all of which were at least 20 percent

above the engineerís estimate. In September 2014, the City rejected all bids because the bids exceeded the project budget. Following the rejection of the bids, the work scope was reduced in order to stay within the project budget. Wastewater Collection System Rehabilitation/Augmentation Projects 24/25/26 were combined and rebid in December 2014 and five (5) bids were received.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Collection Fund	37,450	3,272,550	3,004,536	268,014	0	0	0	0	268,014	0	3,310,000
Total	**37,450**	**3,272,550**	**3,004,536**	**268,014**	**0**	**0**	**0**	**0**	**268,014**	**0**	**3,310,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	7,490	0	0	0	0	0	0	0	0	0	7,490
Construction	29,960	3,272,550	3,004,536	268,014	0	0	0	0	268,014	0	3,302,510
Total	**37,450**	**3,272,550**	**3,004,536**	**268,014**	**0**	**0**	**0**	**0**	**268,014**	**0**	**3,310,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-18

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Installation of HDPE sewer main by directional drilling method

Fund: Wastewater Collection - Operating
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

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

Revised Project Start:
Revised Project Completion:

Project Number: WC-14001

Wastewater Collection System Rehabilitation/Augmentation Project 27

Description

The funding programmed for fiscal year 2016 will fund the design and construction of high priority wastewater collection main and lateral replacement work, which reduces inflow of rainfall and ground water into the collection system. The project replaces 16,859 linear feet (which represents 1.5% of the City's Wastewater Collection system) for various streets including areas in North Palo Alto and Embarcadero Road. 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 update indicated certain facilities are in need of enlargement to handle growth and peak flows. The mains selected for replacement and/or rehabilitation are determined by the recommendations for 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Collection Fund	0	320,000	51,867	3,358,133	0	0	0	0	3,358,133	0	3,410,000
Total	**0**	**320,000**	**51,867**	**3,358,133**	**0**	**0**	**0**	**0**	**3,358,133**	**0**	**3,410,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	320,000	51,867	3,358,133	0	0	0	0	3,358,133	0	3,410,000
Total	**0**	**320,000**	**51,867**	**3,358,133**	**0**	**0**	**0**	**0**	**3,358,133**	**0**	**3,410,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-18

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Trenching for installation of HDPE sewer main by open trench method

Fund: Wastewater Collection - Operating
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

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

Revised Project Start:
Revised Project Completion:

Project Number: WC-15001

Wastewater Collection System Rehabilitation/Augmentation Project 28

Description

The project will fund the design and construction of high priority main and lateral replacement work, which reduces inflow of rainfall and ground water into the collection system. The project replaces 21,889 linear feet (which represents 1.5% of the City's Wastewater Collection system) for various streets in the City, including large sections in the Charleston Meadows 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 infrastructure coordination among different City departments.

Justification

The 2004 Collection System Master Plan update indicated certain facilities are in need of enlargement to handle growth and peak flows. The mains selected for replacement and/or rehabilitation are determined by the recommendations for 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Collection Fund	0	0	0	330,000	3,183,000	0	0	0	3,513,000	0	3,513,000
Total	**0**	**0**	**0**	**330,000**	**3,183,000**	**0**	**0**	**0**	**3,513,000**	**0**	**3,513,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	330,000	0	0	0	0	330,000	0	330,000
Construction	0	0	0	0	3,183,000	0	0	0	3,183,000	0	3,183,000
Total	**0**	**0**	**0**	**330,000**	**3,183,000**	**0**	**0**	**0**	**3,513,000**	**0**	**3,513,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-18

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Fund: Wastewater Collection - Operating
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

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

Revised Project Start:
Revised Project Completion:

Project Number: WC-16001

Wastewater Collection System Rehabilitation/Augmentation Project 29

Description

For fiscal years 2017 and 2018, this project funds the design and construction of high priority main and lateral replacement work, which reduces inflow of rainfall and ground water into the collection system. The project replaces 14,352 linear feet (which represents 1.3% of the City's Wastewater Collection system) for large sections in the Ventura 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 update indicated certain facilities are in need of enlargement to handle growth and peak flows. The mains selected for replacement and/or rehabilitation are determined by the recommendations for 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Collection Fund	0	0	0	0	340,000	3,270,000	0	0	3,610,000	0	3,610,000
Total	**0**	**0**	**0**	**0**	**340,000**	**3,270,000**	**0**	**0**	**3,610,000**	**0**	**3,610,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	0	340,000	0	0	0	340,000	0	340,000
Construction	0	0	0	0	0	3,270,000	0	0	3,270,000	0	3,270,000
Total	**0**	**0**	**0**	**0**	**340,000**	**3,270,000**	**0**	**0**	**3,610,000**	**0**	**3,610,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-18

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Trenching for installation of HDPE sewer main by open trench method

Fund: Wastewater Collection - Operating
Category: System Improvements
Project Location:

Managing Department: Utilities

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

Revised Project Start:
Revised Project Completion:

Project Number: WC-17001

Wastewater Collection System Rehabilitation/Augmentation Project 30

Description

For fiscal years 2018 and 2019, this project funds the design and construction of high priority main and lateral replacement work, which reduces inflow of rainfall and ground water into the collection system. The project replaces 15,680 linear feet (which represents 1.4% of the City's Wastewater Collection system) for various streets in the City, including large sections in the Green Acres and Barron 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 infrastructure coordination among different City departments.

Justification

The 2004 Collection System Master Plan update indicated certain facilities are in need of enlargement to handle growth and peak flows. The mains selected for replacement and/or rehabilitation are determined by the recommendations for 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Collection Fund	0	0	0	0	0	350,000	3,361,500	0	3,711,500	0	3,711,500
Total	**0**	**0**	**0**	**0**	**0**	**350,000**	**3,361,500**	**0**	**3,711,500**	**0**	**3,711,500**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	3,361,500	0	3,361,500	0	3,361,500
Design	0	0	0	0	0	350,000	0	0	350,000	0	350,000
Total	**0**	**0**	**0**	**0**	**0**	**350,000**	**3,361,500**	**0**	**3,711,500**	**0**	**3,711,500**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-18

Relationship to Comprehensive Plan

Secondary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-25

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Fund: Wastewater Collection - Operating
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

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

Revised Project Start:
Revised Project Completion:

Project Number: WC-19001

Wastewater Collection System Rehabilitation/Augmentation Project 31

Description

For fiscal years 2019 and 2020, this project funds the design and construction of high priority lateral replacement work, which reduces inflow of rainfall and ground water into the collection system. The project replaces 24,983 linear feet (which represents 2.2% of the City's Wastewater Collection system) for various streets in the City, including large sections in the Southgate and University 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 infrastructure coordination among different City departments.

Justification

The 2004 Collection System Master Plan update indicated certain facilities are in need of enlargement to handle growth and peak flows. The mains selected for replacement and/or rehabilitation are determined by the recommendations for 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Collection Fund	0	0	0	0	0	0	360,000	3,462,500	3,822,500	0	3,822,500
Total	**0**	**0**	**0**	**0**	**0**	**0**	**360,000**	**3,462,500**	**3,822,500**	**0**	**3,822,500**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	360,000	3,462,500	3,822,500	0	3,822,500
Total	**0**	**0**	**0**	**0**	**0**	**0**	**360,000**	**3,462,500**	**3,822,500**	**0**	**3,822,500**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-18

Relationship to Comprehensive Plan

Secondary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-25

Potential Board/Commission Review:

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 HDPE pipe

Fund: Wastewater Collection - Operating
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 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 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

Fiscal Year 2015: Project was retitled from "Wastewater Fusion and General Equipment/Tools".

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Collection Fund	N/A	78,132	25,000	50,000	50,000	50,000	50,000	50,000	250,000	0	N/A
Total	**N/A**	**78,132**	**25,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**250,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	78,132	25,000	50,000	50,000	50,000	50,000	50,000	250,000	0	N/A
Total	**N/A**	**78,132**	**25,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**250,000**	**0**	**N/A**

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	**Secondary Connection**	Utilities Advisory Commission
Element: Natural Environment	Element: Natural Environment	
Section: Water Resources	Section: Water Resources	
Goal: N-4	Goal: N-4	
Policy: N-14	Policy: N-20	
Program: N-18	Program: N-25	

Environmental Impact Analysis:

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

Fund: Wastewater Collection - Operating
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 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Collection Fund	N/A	506,701	192,000	232,000	239,000	246,000	253,000	260,000	1,230,000	0	N/A
Total	**N/A**	**506,701**	**192,000**	**232,000**	**239,000**	**246,000**	**253,000**	**260,000**	**1,230,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	506,701	192,000	232,000	239,000	246,000	253,000	260,000	1,230,000	0	N/A
Total	**N/A**	**506,701**	**192,000**	**232,000**	**239,000**	**246,000**	**253,000**	**260,000**	**1,230,000**	**0**	**N/A**

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	**Secondary Connection**	Utilities Advisory Commission
Element: Natural Environment	Element: Natural Environment	
Section: Water Resources	Section: Water Resources	
Goal: N-4	Goal: N-4	
Policy: N-14	Policy: N-20	
Program: N-18	Program: N-25	

Environmental Impact Analysis:

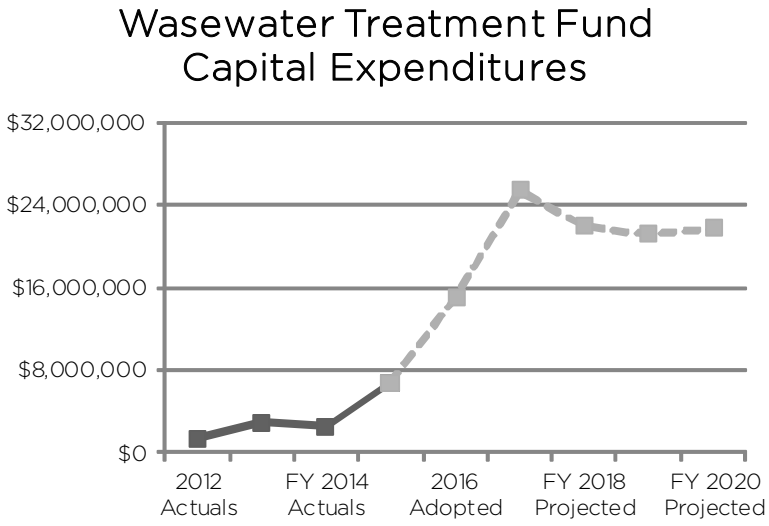
This project is expected to have a possible exemption from CEQA under Section 15302.

WASTEWATER TREATMENT FUND

CITY OF
PALO
ALTO

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 (WWT) Fund. For detailed information on the maintenance and operation of the wastewater treatment plant, please refer to the Adopted Operating Budget. As part of the 2016-2020 Capital Improvement Program (CIP) expenditures of $105.3 million are programmed, with $15.2 million allocated in Fiscal Year 2016. It is important to note that about 62% of expenditures in the WWT Fund are reimbursed by five contributing partner agencies outside of the City of Palo Alto, based on each agencies expected capacity share. Overall, a total of ten capital projects are programmed over the five-year CIP. The budget for the WWT Fund is broken into two separate categories: Buildings and Facilities and System Improvements.

The Long Range Facilities Plan, which evaluated the infrastructure needs of the wastewater treatment plant, was completed in July 2012. The Plan analyzed and made recommendations on future regulations, needed replacement and rehabilitation, site planning, and flow and load projections. A key component of the Plan was an analysis of biosolids handling options. After community and partner agency coordination on the Long Range Facilities Plan, further stakeholder outreach and engineering analysis was completed as part of the Biosolids Facilities Plan, which was completed in October 2014. The Biosolids Facilities Plan, which was completed in October 2014, further detailed a solution for a new solids handling system for the Plant. The major projects in the 5-year CIP originated from the Long Range Facilities Plan and Biosolids Facilities Plan.

Biosolids generated at the Regional Water Quality Control Plant (RWQCP) are currently incinerated, with the City being one of only two wastewater plants in California operating sewage sludge incinerators. Palo Alto is planning to retire the incinerators in 2019, after 47 years of ser-

vice. In May 2014 the City Council approved an Organic Facilities Plan (OFP), which includes four components:

- Biosolids Dewatering and Truck Haul-Out Facility
- Wet Anaerobic Digestion Facility
- Food Preprocessing Facility
- The pursuit of technologies to harness the energy and resource potential of yard trimmings

The Organics Facilities Plan laid out a strategy to deliver four components of organics processing facilities. Given space constraints at the wastewater treatment plant, the project was broken down into individual phases. The truck off-haul facility is needed to both retire the incinerators and open up the site for later wet anaerobic digesters. Once sludge is hauled away successfully, demolition of the incinerators can commence with installation of the wet anaerobic digesters in approximately 2019. The digesters would be built by 2022, allowing for creation of onsite energy to run the Plant or be sold on the grid. Surplus or upsized capacity in the wet anaerobic digester system could accommodate preprocessed food scraps, further increasing electrical energy production; however, preprocessing of food scraps is complicated and additional work needs to be done to ascertain regional interest in treating food scraps in a digester as well as to find ways to reduce contamination levels.

The Wastewater Treatment Fund recovers costs from the Palo Alto Wastewater Collection Fund and from the City's five partner agencies (Stanford University, East Palo Alto Sanitary District, Mountain View, Los Altos, and Los Altos Hills). Each agency bills their respective sewer ratepayers for associated sewer and treatment costs as well as the wastewater treatment fund's capital projects. Approximately 230,000 residents are served by the six agencies contributing sewage to the Regional Water Quality Control Plant (RWQCP).

Funding for the major projects included in the 2016-2020 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 , explaining major 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 2016-2020 CIP. Staff is in the process of applying for state revolving fund (SRF) loans for projects that are ready for planning/design/CEQA or construction. Major projects planned include Anaerobic Digesters (2016-2020 Adopted CIP: $33.7 million; total cost: $75.0 million), Fixed Film Reactors (2016-2020 Adopted CIP: $19.7 million; total cost: $19.8 million), Sludge Dewatering and Haul Facility (2016-2020 Adopted CIP: $17.9 million; total cost: $18.2 million), Laboratory and Environmental Services Building (2016-2020 Adopted CIP: $6.3 million; total cost $17.9 mil-lion), and Primary Sedimentation Tank Replacement (2016-2020 Adopted CIP: $7.5 million; total cost $7.5 million).

Minor CIP projects are funded through recurring repayments 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 in the five-year CIP include:

- System Flowmeter Rehabilitation: $0.2 million

- Plant equipment replacement: $9.7 million
- Facility Condition Assessment and Retrofit: $5.5 million

Infrastructure Inventory

Liquid Treatment Systems	Preliminary Treatment 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 2016-2020 CIP, five projects are programmed in this category at a total cost of $33.1 million, of which $8.7 million is allocated in Fiscal Year 2016.

Recent Accomplishments

- Completed landscaping upgrade of plant exterior and interior
- Completed installation of structural repairs to extend facility life and enhance facility safety

Recurring Projects

There is one recurring project in this category: Facility Conditional Assessment ($5.5 million over the 2016-2020 CIP). This project funds the construction of repair and retrofits identified through an assessment process of the structural condition of existing plant facilities.

Non-Recurring Projects

There are three non-recurring projects in this category during the 2016-2020 CIP: Dewatering and Loadout Facility (2016: $5.1 million; 5-Year CIP: $17.9 million), Laboratory and Environmental Services Building (2016: $0.4 million; 5-Year CIP: $6.2 million) and Plant Master Plan (2016: $1.8 million; 5-Year CIP: $3.5 million). The Dewatering and Loadout Facility, which was identified in the Long Range Facilities Plan, will replace the current sewage sludge incinerators with a new solids handling system. With the construction of the Laboratory and Environmental Services Building, staff that is currently located in four separate facilities will be consolidated and a larger and updated lab will be built. This project, which was also identified in the Long Range Facilities Plan, is expected to be completed by spring 2021 and funded by SRF loans. The Plant Master Plan project includes the planning and program management functions for the Long Range Facilities Plan

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 Fiscal Year 2016-2020 Capital Improvement Program, approximately $72 million is allocated towards System Improvements projects, with $6.5 million included in Fiscal Year 2016. Significant projects programmed in this category include the Anaerobic Digesters, Fixed Film Reactors, and Plant Equipment Replacement. Completion of projects within this category will ensure that the Plant stays on top of meeting regulatory requirements with modern and reliable equipment.

Recent Accomplishments

- Commenced design of the sludge dewatering and haul-off facility to replace the sewage sludge incinerators
- Replaced four of seven emergency standby diesel generators
- Completed installation of secondary clarifier improvements
- Completed installation of dual media filter airwash improvements

Recurring Projects

The System Improvements category includes one recurring project: Plant Equipment Replacement, with funding of approximately $2.0 million allocated in each year of the CIP (cumulative funding of $9.8 million over the 5-Year CIP). This project provides funding for the replacement of equipment at the RWQCP that is necessary to maintain treatment reliability. The United States Environmental Protection Agency mandates that funding is allocated for equipment replacement so as to ensure adequate wastewater treatment reliability.

Non-Recurring Projects

The System Improvements category includes five non-recurring projects, totaling $62.4 million over the 2016-2020 Capital Improvement Program ($4.7 million allocated in Fiscal Year 2016). Significant projects programmed in this category include Anaerobic Digesters (Fiscal Year 2016: $3.0 million; 5-Year CIP: $33.7 million), Fixed Film Reactors (Fiscal Year 2016: $0.6 million; 5-Year CIP: $19.8 million), Primary Sedimentation Tank Replacement (Fiscal Year 2016: $7.5 million; 5-Year CIP: $7.5 million), and Headworks Facility Replacement ($1.3 million in Fiscal Year 2020).

Summary of Capital Activity

Wastewater Treatment Fund

Project Number	Project Title	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
Use of Funds									
Buildings and Facilities									
WQ-04011	Facility Condition Assessment and Retrofit	$ 2,196	$ 1,110,000	$ 1,428,442	$ 1,015,695	$ 1,018,828	$ 1,020,115	$ 1,020,205	$ 5,503,285
WQ-14001	New Dewatering and Loadout Facility	—	216,534	5,081,856	5,144,497	5,160,362	2,561,508	—	17,948,223
WQ-14002	New Laboratory and Environmental Services Building	—	—	423,342	624,653	730,499	313,175	4,113,466	6,205,135
WQ-10001	Plant Master Plan	215,963	80,435	1,801,702	1,678,944	—	—	—	3,480,646
	Buildings and Facilities Total	218,159	1,406,969	8,735,342	8,463,789	6,909,689	3,894,798	5,133,671	33,137,289
System Improvements									
WQ-14004	Fixed Film Reactor Rehabilitation	$ —	$ —	$ 600,302	$ 9,862,401	$ 9,310,047	$ —	$ —	$ 19,772,750
WQ-16002	Headworks Facility Replacement	—	—	—	—	—	—	1,307,903	1,307,903
WQ-16001	New Anaerobic Digesters to Replace Incenerators	—	—	2,968,557	2,920,124	1,465,074	13,172,742	13,173,905	33,700,402
WQ-80021	Plant Equipment Replacement	2,449,616	5,434,376	1,827,599	1,868,879	1,956,149	2,035,129	2,040,410	9,728,166
WQ-14003	Primary Sedimentation Tank Replacement	—	—	930,313	2,284,299	2,235,308	2,014,727	—	7,464,647
WQ-80022	System Flow Meters	9,770	—	162,683	—	—	—	—	162,683
	System Improvements Total	2,459,386	5,434,376	6,489,454	16,935,703	14,966,578	17,222,598	16,522,218	72,136,551
	Total Uses	$ 2,677,545	$ 6,841,345	$15,224,796	$25,399,492	$21,876,267	$21,117,396	$21,655,889	$105,273,840

Building and Facilities Total									
	Total Expenses	**$ 2,459,386**	**$ —**	**$ —**	**$16,935,703**	**$14,966,578**	**$17,222,598**	**$ 16,522,218**	**$ 72,136,551**

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Buildings and Facilities

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UV Control Building

Fund: Wastewater Treatment - Operating
Category: Buildings and Facilities
Project Location: 2501 Embarcadero Way

Managing Department: Public Works

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: WQ-04011

Facility Condition Assessment and Retrofit

Description

This project provides for the structural condition assessment of existing plant facilities and, once issues are identified, the construction of repair and retrofits. Concrete and metal structures are evaluated for evidence of damage caused by corrosion, weathering, age, and ground movement.

Justification

Plant facilities are subject to many adverse conditions, including a highly corrosive environment and potential ground movements. Facilities with repair and retrofit deficiencies need to be returned to good structural condition to ensure that the plant continues to provide safe and reliable plant operations through the year 2035 and beyond.

Supplemental Information

Two retrofit projects have been completed, installation of safety handrails around aerators and installation of safety handrails and platforms at the clarifiers, and one project is in construction, structural concrete repairs. These projects have improved the safety and integrity of plant structures.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Treatment Fund	N/A	1,505,901	1,110,000	1,428,442	1,015,695	1,018,828	1,020,115	1,020,205	5,503,285	0	N/A
Total	**N/A**	**1,505,901**	**1,110,000**	**1,428,442**	**1,015,695**	**1,018,828**	**1,020,115**	**1,020,205**	**5,503,285**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	1,505,901	1,110,000	1,428,442	1,015,695	1,018,828	1,020,115	1,020,205	5,503,285	0	N/A
Total	**N/A**	**1,505,901**	**1,110,000**	**1,428,442**	**1,015,695**	**1,018,828**	**1,020,115**	**1,020,205**	**5,503,285**	**0**	**N/A**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-25

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Biosolids Facility

Fund: Wastewater Treatment - Operating
Category: Buildings and Facilities
Project Location: 2501 Embarcadero Way

Managing Department: Public Works

Initial Project Start: Summer 2013
Initial Project Completion: Fall 2019

Revised Project Start: Winter 2015
Revised Project Completion: Summer 2019

Project Number: WQ-14001

New Dewatering and Loadout Facility

Description

The sludge dewatering and truck loadout facility will replace the current sewage sludge incinerators with a new solids handling system.

Justification

Current sewage sludge incinerators were constructed in 1972 and are at the end of their useful life. A new facility is required to improve the wastewater plant's operational reliability. On July 2, 2012, Council voted to retire the incinerators as soon as possible when accepting the Long Range Facilities Plan. Council approved a $2.3 million contract out of funds already approved by the partners for the new sludge and dewatering facility on January 12, 2015 for engineering design, CEQA, and engineering services during construction, in project WQ-80021 Plant Equipment Replacement.

Supplemental Information

This project was identified in the Long Range Facilities Plan accepted by Council in July 2012. A biosolids facility plan was completed in October 2014. CEQA and design of the contract are underway and scheduled for completion in late Fiscal Year 2016. Construction will be in progress in 2017 to 2019. The budget estimate represents the capital cost of a sludge dewatering and truckload facility as Phase I of a biosolids handling solution based on a 10% preliminary design effort.

Construction of an anaerobic digester facilitiy is Component 2 of the organics facilities plan endorsed by Council in May 2014. The digesters succeed this project and their project budget is reflected in new CIP project WQ-16001 Anaerobic Digesters. Low interest state loan i.e., State Revolving Fund (SRF) funding will be pursued. The SRF can also reimburse the planning, program management, design, CEQA, and construction costs. Approval by the partner agencies (Stanford, the Cities of Mountain View and Los Altos, and the Board of the East Palo Alto Sani-

tary District) is required for project approval and to guarantee repayment of any state loans. It is anticipated that partner approval will be obtained in December 2015.

Significant Changes

Title has been changed from Biosolids Facility to better define the project. This component's project construction costs have been updated from the Fiscal Year 2015 estimate of $13.6 million to Fiscal Year 2015 $15.3 million (an increase of approximately $1.7 million) based on the more recent preliminary design cost estimate that was higher than the earlier master planning level cost estimate.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Treatment Fund	0	575,104	216,534	5,081,856	5,144,497	5,160,362	2,561,508	0	17,948,223	0	18,164,757
Total	**0**	**575,104**	**216,534**	**5,081,856**	**5,144,497**	**5,160,362**	**2,561,508**	**0**	**17,948,223**	**0**	**18,164,757**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	575,104	216,534	4,792,744	4,901,746	4,916,862	2,461,537	0	17,072,889	0	17,289,423
Design	0	0	0	289,112	242,751	243,500	99,971	0	875,334	0	875,334
Total	**0**	**575,104**	**216,534**	**5,081,856**	**5,144,497**	**5,160,362**	**2,561,508**	**0**	**17,948,223**	**0**	**18,164,757**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-25

Environmental Impact Analysis:

CEQA will be required

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Utilities Advisory Commission

Water Quality Control Plant Laboratory

Fund: Wastewater Treatment - Operating
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 2016
Revised Project Completion: Spring 2021

Project Number: WQ-14002

New Laboratory And Environmental Services Building

Description

This project funds the design of a new building that will consolidate staff and provide a larger and updated lab.

Justification

Currently staff is located in four separate facilities. Buildings are aging, shared with industrial pumps, and limited in size for the number of staff housed in them.

Supplemental Information

Low interest state loan funding will be pursued for this project, which is subject to approval from the partner agencies (Stanford, Mountain View, Los Altos, and the East Palo Alto Sanitary District). This project was identified in the Long Range Facilities Plan accepted by the City Council in July 2012.

Significant Changes

Project budget in Fiscal Year 2016 now captures an additional $4.0M more in Fiscal Year 2020 for final design and start of construction. Fiscal Year 2020 budget was not included in the 5-year CIP in Fiscal Year 2015.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Treatment Fund	0	0	0	423,342	624,653	730,499	313,175	4,113,466	6,205,135	11,698,628	17,903,763
Total	**0**	**0**	**0**	**423,342**	**624,653**	**730,499**	**313,175**	**4,113,466**	**6,205,135**	**11,698,628**	**17,903,763**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	423,342	624,653	730,499	313,175	1,562,954	3,654,623	0	3,654,623
Construction	0	0	0	0	0	0	0	2,550,512	2,550,512	11,698,628	14,249,140
Total	**0**	**0**	**0**	**423,342**	**624,653**	**730,499**	**313,175**	**4,113,466**	**6,205,135**	**11,698,628**	**17,903,763**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-25

Environmental Impact Analysis:

CEQA will be required.

Potential Board/Commission Review:

Architectural Review Board

Planning and Transportation Commission

Utilities Advisory Commission

Looking West from Fixed Film Reactors

Fund: Wastewater Treatment - Operating
Category: Buildings and Facilities
Project Location: 2501 Embarcadero Way

Managing Department: Public Works

Initial Project Start: Summer 2009
Initial Project Completion: Summer 2012

Revised Project Start:
Revised Project Completion:

Project Number: WQ-10001

Plant Master Plan

Description

This project includes the planning and program management functions for the long range facilities plan (i.e., master plan) completed in July 2012. Program management includes the project definition stage of long range capital projects, acquisition of funding for new large capital projects, preparation of design consultant RFP packages for city issuance, and ancillary services related to the implementation of the plan.

Justification

The long range facilities needed for a wastewater treatment plant primarily consist of replacing aging industrial facilities, but also include plant process optimizations, new support infrastructure, and responsiveness to changing situations and regulations.

Significant Changes

After completion of the Long Range Facilities Plan in 2012, a program manager was brought on board to support implementation of the master plan. About $0.6 million of the consultant's work was approved during Fiscal Year 2015, and the remainder was subject to approval of an additional $3.3 million in capital funding authorization in the Fiscal Year 2016 capital budget.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Treatment Fund	1,448,262	146,435	0	1,801,702	1,678,944	0	0	0	3,480,646	0	4,928,908
Total	**1,448,262**	**146,435**	**0**	**1,801,702**	**1,678,944**	**0**	**0**	**0**	**3,480,646**	**0**	**4,928,908**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	289,652	146,435	80,435	1,801,702	1,678,944	0	0	0	3,480,646	0	3,850,733
Construction	1,158,609	0	0	0	0	0	0	0	0	0	1,158,609
Total	**1,448,261**	**146,435**	**80,435**	**1,801,701**	**1,678,944**	**0**	**0**	**0**	**3,480,646**	**0**	**5,009,342**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-25

Environmental Impact Analysis:

CEQA will be required.

Potential Board/Commission Review:

Utilities Advisory Commission

System Improvements

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Fixed Film Reactor Distribution Arms

Fund: Wastewater Treatment - Operating
Category: System Improvements
Project Location: 2501 Embarcadero Way

Managing Department: Public Works

Initial Project Start: Spring 2015
Initial Project Completion: Winter 2019

Revised Project Start: Winter 2015
Revised Project Completion: Spring 2020

Project Number: WQ-14004

Fixed Film Reactor Rehabilitation

Description

This project provides for rehabilitation of Fixed Film Reactors which provide biological treatment, helping the City to comply with discharge permit limits. The two reactors, which came online in 1980, need replacement of core structural components including fiberglass barriers, steel supports, and concrete underdrains. Process components need replacement including biofilter media, 20-foot deep plastic media, rotating distributor mechanisms, electrical motor control centers, and process piping and pumping.

Justification

The Fixed Film Reactors are 35 years old. Concrete shows signs of stress and reinforcing steel bars are exposed. Plastic media needs replacement due to embrittlement and clogging with rags/plastic. Piping and distributors need replacement due to steel corrosion. The biofilter media needs replacement to ensure adequate airflow through reactors. Electrical controls are at the end of their life. This project was identified in the Long Range Facilities Plan report accepted by Council in July 2012.

Supplemental Information

Low interest state loans (i.e., State Revolving Fund) funding will be pursued. Approval by the partner agencies (Stanford, the Cities of Mountain View and Los Altos, and the Board of the East Palo Alto Sanitary District) is required for project approval to guarantee repayment of any state loans or revenue bond indebtedness. It is anticipated that partner approval will be obtained in December 2015.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Treatment Fund	0	127,398	0	600,302	9,862,401	9,310,047	0	0	19,772,750	0	19,772,750
Total	**0**	**127,398**	**0**	**600,302**	**9,862,401**	**9,310,047**	**0**	**0**	**19,772,750**	**0**	**19,772,750**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	600,302	1,162,971	583,788	0	0	2,347,061	0	2,347,061
Construction	0	127,398	0	0	8,699,430	8,726,259	0	0	17,425,689	0	17,425,689
Total	**0**	**127,398**	**0**	**600,302**	**9,862,401**	**9,310,047**	**0**	**0**	**19,772,750**	**0**	**19,772,750**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-25

Environmental Impact Analysis:

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

Headworks Facility

Fund: Wastewater Treatment - Operating
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:
Revised Project Completion:

Project Number: WQ-16002

Headworks Facility Replacement

Description

This project consists of replacing influent pumping which includes 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, yard piping etc. at the Water Quality Control Plant.

Justification

The project was identified in the Long Range Facilities Plan which was accepted by the Council in July 2012. The existing headworks are at the end of its useful life. This project is required for operational reliability of the raw sewage pumping from the influent sewers into the treatment plant.

Supplemental Information

This CIP request is to commence the planning and preliminary design only to replace the headworks facility. The total project costs are estimated at $38,867,000. The project duration is from 2020 through 2023.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Treatment Fund	0	0	0	0	0	0	0	1,307,903	1,307,903	37,559,097	38,867,000
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,307,903**	**1,307,903**	**37,559,097**	**38,867,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	0	0	0	0	1,307,903	1,307,903	931,001	2,238,904
Construction	0	0	0	0	0	0	0	0	0	36,628,096	36.628.006
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,307,903**	**1,307,903**	**37,559,096**	**38,867,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-25

Environmental Impact Analysis:

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

Thermal Hydrolysis and Digester

Fund: Wastewater Treatment - Operating
Category: System Improvements
Project Location: 2501 Embarcadero Way

Managing Department: Public Works

Initial Project Start: Winter 2016
Initial Project Completion: Winter 2022

Revised Project Start:
Revised Project Completion:

Project Number: WQ-16001

New Anaerobic Digesters to Replace Incinerators

Description

This project consists of design and construction of the anaerobic digesters, biogas utilization, electric co-generation, and a thermal hydrolysis process which precedes the anaerobic digestion. The digesters are the final stage in the biosolids treatment, producing biosolids for beneficial use.

Justification

The project was identified in the Long Range Facilities Plan which was accepted by the Council in July 2012. This project implements the energy generating and sludge stabilization components of the Organics Facilities Plan. The digesters are key sludge stabilization units that make the final biosolids safe for truck offhaul and Class A beneficial reuse in land application. This project is Component 2 of the organics facilities plan endorsed by Council in May 2014. The digester system would have some surplus capacity for future high strength waste such as food scraps, giving the city opportunities for additional control of its organics waste stream.

Supplemental Information

Total project cost is approximately $75 million and not all construction years are captured in this 5-year CIP. The project was presented to Council in May 2014 as part of an Organics Facilities Plan and completed in October 2014. A preliminary design was completed in April 2015. Con-struction of the anaerobic digesters will commence after startup of the Sludge Dewatering and Loadout Facility (WQ-14001) and be completed by 2022. The first stage of the digester con-struction project will be to demolish the sewage sludge incinerator facilities. After demolition, construction of the large digester tanks below and above ground would take place along with the ancillary support systems to thermally convert the sludge as well as convert biogas and landfill gas into energy.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Treatment Fund	0	0	0	2,968,557	2,920,124	1,465,074	13,172,742	13,173,905	33,700,402	41,299,598	75,000,000
Total	**0**	**0**	**0**	**2,968,557**	**2,920,124**	**1,465,074**	**13,172,742**	**13,173,905**	**33,700,402**	**41,299,598**	**75,000,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	11,705,817	11,706,850	23,412,667	36,587,333	60,000,000
Design	0	0	0	2,968,557	2,920,124	1,465,074	1,466,925	1,467,055	10,287,735	4,712,265	15,000,000
Total	**0**	**0**	**0**	**2,968,557**	**2,920,124**	**1,465,074**	**13,172,742**	**13,173,905**	**33,700,402**	**41,299,598**	**75,000,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-25

Environmental Impact Analysis:

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

Belt Filter Press

Fund: Wastewater Treatment - Operating
Category: System Improvements
Project Location: 2501 Embarcadero Way

Managing Department: Public Works

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: WQ-80021

Plant Equipment Replacement

Description

This project replaces, as necessary, plant equipment in order to maintain treatment reliability. In addition, the project replaces various ancillary facilities as necessary to maintain existing Plant infrastructure.

Justification

Plant equipment requires periodic replacement in order to maintain reliability. US Environmental Protection Agency regulations require equipment replacement funds to ensure adequate treatment reliability and equipment maintenance. In renovating and replacing ancillary facilities such as building structures and landscaping, the City ensures its commitment to maintaining sound infrastructure, energy efficiency, and sound facility sites.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Treatment Fund	N/A	7,377,027	5,434,376	1,827,599	1,868,879	1,956,149	2,035,129	2,040,410	9,728,166	0	N/A
Total	**N/A**	**7,377,027**	**5,434,376**	**1,827,599**	**1,868,879**	**1,956,149**	**2,035,129**	**2,040,410**	**9,728,166**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	N/A	0	0	182,760	186,888	195,615	203,513	0	768,776	0	N/A
Construction	N/A	7,377,027	5,434,376	1,644,839	1,681,991	1,760,534	1,831,616	2,040,410	8,959,390	0	N/A
Total	**N/A**	**7,377,027**	**5,434,376**	**1,827,599**	**1,868,879**	**1,956,149**	**2,035,129**	**2,040,410**	**9,728,166**	**0**	**N/A**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-25

Environmental Impact Analysis:

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

Primary Sedimentation Tank

Fund: Wastewater Treatment - Operating
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 2015
Revised Project Completion: Spring 2020

Project Number: WQ-14003

Primary Sedimentation Tank Rehabilitation

Description

Four primary sedimentation tanks were installed in 1972. Each tank is 220 feet long by 41 feet wide. These tanks remove settleable solids and grease. The four tanks need their structural concrete recoated to ensure the reinforcing steel bars within the concrete are not attacked by penetrating corrosive sewer gases. An industrial coating contractor would install a new protective coating on the concrete to extend concrete life another 30 years. Rotating parts also need replacement due to wear.

Justification

Rehabilitation of concrete slabs extends the life of the tanks, avoids the higher capital cost of replacement tanks, and preserves Plant land for other facilities, including biosolids options. Without recoating the concrete, the top slabs would gradually spall and crumble as the concrete loses its structural capacity. With weakening, the top slabs could collapse in a mild seismic event, endangering staff and the treatment system. Spalling concrete harms pumps, pipes, and treatment systems.

Supplemental Information

This project was identified in the Long Range Facilities Plan accepted by Council in July 2012. Low interest state loan (i.e., State Revolving Fund) funding will be pursued. Approval by the partner agencies (Stanford, the cities of Mountain View and Los Altos, and the Board of the East Palo Alto Sanitary District) is required for project approval and to guarantee repayment of any state loans or revenue bond indebtedness. It is anticipated that partner approval will be obtained in November 2015.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Treatment Fund	0	80,532	0	930,313	2,284,299	2,235,308	2,014,727	0	7,464,647	0	7,464,647
Total	**0**	**80,532**	**0**	**930,313**	**2,284,299**	**2,235,308**	**2,014,727**	**0**	**7,464,647**	**0**	**7,464,647**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	80,532	0	679,412	2,005,998	2,012,185	2,014,727	0	6,712,322	0	6,712,322
Design	0	0	0	250,901	278,301	223,123	0	0	752,325	0	752,325
Total	**0**	**80,532**	**0**	**930,313**	**2,284,299**	**2,235,308**	**2,014,727**	**0**	**7,464,647**	**0**	**7,464,647**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-25

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

System Flow Meter

Fund: Wastewater Treatment - Operating
Category: System Improvements
Project Location: 2501 Embarcadero Way

Managing Department: Public Works

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: WQ-80022

System Flow Meters

Description

This project replaces large diameter flow meters built into the wastewater treatment system on sewers, pipes, and water lines.

Justification

Generally, magnetic flow meters, used to measure the flow of wastewater by magnetic field, have a life of over ten years. When the reliability of the meter's electronics fail, the meter needs expeditious replacement to continue accurate partner billing, process control, and regulatory reporting.

Supplemental Information

There are 13 key meters that require replacement through an ongoing capital project.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Wastewater Treatment Fund	N/A	162,683	0	162,683	0	0	0	0	162,683	0	N/A
Total	**N/A**	**162,683**	**0**	**162,683**	**0**	**0**	**0**	**0**	**162,683**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	N/A	0	0	0	0	0	0	0	0	0	N/A
Construction	N/A	162,683	0	162,683	0	0	0	0	162,683	0	N/A
Total	**N/A**	**162,683**	**0**	**162,683**	**0**	**0**	**0**	**0**	**162,683**	**0**	**N/A**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-25

Environmental Impact Analysis:

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

WATER FUND

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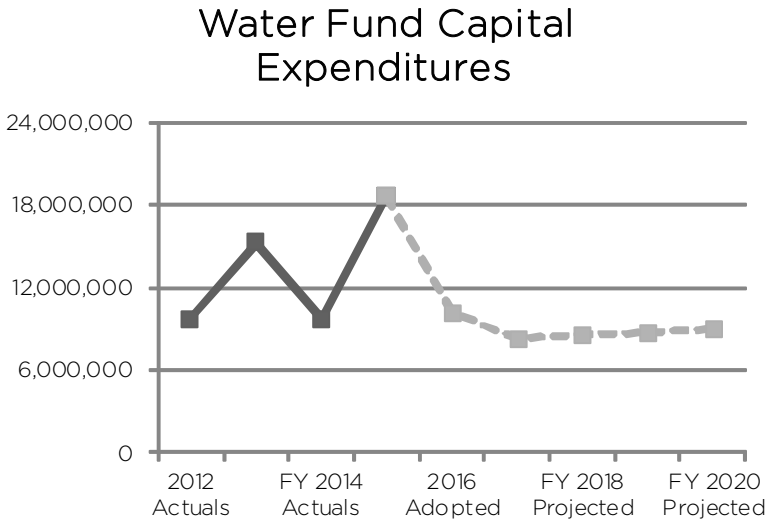
WATER FUND

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 2016-2020 Adopted Capital Improvement Program (CIP), approximately $45.0 million is programmed, with $10.2 million allocated in Fiscal Year 2016. Overall, a total of nineteen projects are programmed for the 5-year CIP. Major projects funded in the 2016-2020 CIP include Water Main Replacements (cumulative total of $33.4 million), Water System Customer Connections ($2.4 million), Water Meters ($2.0 million) and Water, Gas, and Wastewater Utility GIS Data ($2.0 million). The Budget for the Water Fund is broken into three separate categories: Customer Connections, System Improvements, and Water Main Replacements.

Infrastructure Inventory

Miles of water main	23.6 miles
Number of wells	1 active standby and 7 emergency standby
Number of reservoirs	4 steel and 3 reinforced concrete

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. Projects in this category include 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 2014 the Utilities Water Utility completed over 120 customer service projects with a total cost of $0.5 million

2016-2020 Capital Improvement Program

Recurring Projects

The Water System Customer Connections project is the only project within this category. Over the course of the 2016-2020 CIP, $2.4 million is programmed, with $0.5 million allocated in Fiscal Year 2016.

Non-Recurring Projects

There are no non-recurring projects in this category.

System Improvements

To ensure reliable water services for the City of Palo Alto residents and customers, infrastructure must be replaced upon reaching the end of its expected life. The System Improvements category includes eleven projects during the 2016-2020 CIP at a total cost of $9.1 million, with $2.5 million allocated in Fiscal Year 2016.

Recent Accomplishments

- Completed the design and construction of 1,820 linear feet of water mains on California Avenue in the business district
- Completed the construction of a new 2.5 million gallon underground reservoir, pump station, and well at El Camino Park
- Completed the seismic rehabilitation of the 4 million gallon reservoir and construction of a new pump station at Mayfield
- Completed the rehabilitation of five emergency standby wells (Rinconada, Hale, Peers, Matadero, and Fernando)

2016-2020 Capital Improvement Program

Recurring Projects

A total of $8.1 million is programmed for System Improvement recurring projects during the 2016-2020 CIP, with $1.5 million allocated in Fiscal Year 2016. Recurring projects in this category include the following:

- Water distribution system improvements (Fiscal Year 2016: $0.2 million; 5-Year CIP: $1.2 million)
- Water Fusion and General Equipment/Tools (Fiscal Year 2016: $0.1 million; 5-Year CIP: $0.3 million)

- Water Meters (Fiscal Year 2016: $0.4 million; 5-Year CIP: $2.0 million)
- Water Service Hydrant Replacement (Fiscal Year 2016: $0.2 million; 5-Year CIP: $1.3 million)
- Water System Supply Improvements (Fiscal Year 2016: $0.2 million; 5-Year CIP: $1.2 million)
- Water, Gas, Wastewater Utility GIS Data (Fiscal Year 2016: $0.3 million; 5-Year CIP: $2.0 million)

Non-Recurring Projects

A total of $1.0 million is allocated in Fiscal Year 2016 for five non-recurring projects. All funding for non-recurring projects represents funding approved by the City Council in prior fiscal years and are recommended to be carried over to Fiscal Year 2016 to complete projects. These projects include the Water System Master Plan ($0.2 million), Seismic Water System Upgrades ($0.2 million), and Emergency Water Supply Project ($0.3 million). There is no funding for non-recurring projects beyond Fiscal Year 2016.

Water Main Replacements

The Water Main Replacements category accounts for the replacement of inadequately-sized and structurally deficient water mains. Approximately 6 miles of the total 234 miles in the City's water distribution system are still in need of replacement or rehabilitation. 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. The 2016-2020 Adopted CIP includes $33.4 million in funding for seven non-recurring projects within this category, with $7.2 million approved for Fiscal Year 2016.

Recent Accomplishments

- Completed the design and construction of 33,850 linear feet of water mains (WMR 22/23).

2016-2020 Capital Improvement Program

Recurring Projects

There are no recurring projects in this category.

Summary of Capital Activity

Water Fund

Project Number	Project Title	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
Source of Funds									
Other Revenues									
WS-02014	Water Gas Wastewater GIS Data	$ —	$ —	$ 221,833	$ 244,017	$ 268,418	$ 295,260	$ 304,118	$ —
WS-80013	Customer Connections	—	392,964	460,000	473,000	486,000	500,000	515,000	2,434,000

Summary of Capital Activity

Water Fund

Project Number	Project Title	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
	Other Revenue Total	—	392,964	681,833	717,017	754,418	795,260	819,118	2,434,000
	Total Other Revenue	**$ —**	**$ 392,964**	**$ 681,833**	**$ 717,017**	**$ 754,418**	**$ 795,260**	**$ 819,118**	**$ 2,434,000**
	Total Sources	$ —	$ 392,964	$ 681,833	$ 717,017	$ 754,418	$ 795,260	$ 819,118	$ 2,434,000
Use of Funds									
Customer Connections									
WS-80013	Water System, Customer Connections	$ 528,260	$ 392,964	$ 460,000	$ 473,000	$ 486,000	$ 500,000	$ 515,000	$ 2,434,000
	Customer Connections Total	528,260	392,964	460,000	473,000	486,000	500,000	515,000	2,434,000
System Improvements									
WS-13004	Asset Management Mobile Deployment	$ 1,529	$ 4,656	$ 93,815	$ —	$ —	$ —	$ —	$ 93,815
WS-08002	Emergency Water Supply Project	6,076,130	940,407	270,083	—	—	—	—	270,083
WS-09000	Seismic Water System Upgrades	129,754	6,272,799	241,621	—	—	—	—	241,621
WS-11003	Water Distribution System Improvements	1,164,420	712,242	232,000	239,000	247,000	254,000	261,620	1,233,620
WS-13002	Water Fusion and General Equipment/Tools	—	6,675	50,000	50,000	50,000	50,000	50,000	250,000
WS-13006	Water Meter Shop Renovations	230,255	10,001	—	—	—	—	—	—
WS-80015	Water Meters	346,743	450,000	393,080	400,372	407,000	415,000	427,450	2,042,902
WS-07001	Water Recycling Facilities	6,098	195,063	193,358	—	—	—	—	193,358
WS-07000	Water Regulation System Improvements	30,112	877,611	—	—	—	—	—	—
WS-08001	Water Reservior Coating Improvements	57,574	3,335,183	—	—	—	—	—	—
WS-80014	Water Service Hydrant Replacement	67,570	135,000	243,080	250,400	263,000	270,000	278,100	1,304,580
WS-15004	Water System Master Plan	—	268,400	231,600	—	—	—	—	231,600
WS-11004	Water System Supply Improvements	426,987	215,570	232,000	239,000	247,000	254,000	261,620	1,233,620
WS-02014	Water, Gas, Wastewater Utility GIS Data	195,881	265,993	332,750	366,025	402,628	442,890	456,177	2,000,470
	System Improvements Total	8,733,053	13,689,600	2,513,387	1,544,797	1,616,628	1,685,890	1,734,967	9,095,669

Summary of Capital Activity

Water Fund

Project Number	Project Title	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
Water Main Replacements									
WS-09001	Water Main Replacement - Project 23	$ 12,667	$ —	$ —	$ —	$ —	$ —	$ —	$ —
WS-10001	Water Main Replacement - Project 24	253,827	—	—	—	—	—	—	—
WS-11000	Water Main Replacement - Project 25	194,924	4,506,574	731,786	—	—	—	—	731,786
WS-12001	Water Main Replacement - Project 26	43,935	50,000	5,926,260	—	—	—	—	5,926,260
WS-13001	Water Main Replacement - Project 27	—	—	568,065	5,680,651	—	—	—	6,248,716
WS-14001	Water Main Replacement - Project 28	—	—	—	585,107	5,851,070	—	—	6,436,177
WS-15002	Water Main Replacement - Project 29	—	—	—	—	602,660	6,026,602	—	6,629,262
WS-16001	Water Main Replacement - Project 30	—	—	—	—	—	620,740	6,207,400	6,828,140
WS-19001	Water Main Replacement - Project 31	—	—	—	—	—	—	639,362	639,362
	Water Main Replacements Total	505,353	4,556,574	7,226,111	6,265,758	6,453,730	6,647,342	6,846,762	33,439,703
	Total Expenses	$ 9,766,666	$ 18,639,138	$10,199,498	$ 8,283,555	$ 8,556,358	$ 8,833,232	$ 9,096,729	$44,969,372

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Customer Connections

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Installation of 8" HDPE pipe by directional drilling method

Fund: Water Fund - Operating
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.

Significant Changes

This project was previously titled "Water System Extensions". As part of the Fiscal Year 2015 budget, this project was been re-titled to "Water System, Customer Connections" to more accurately reflect the work done with this funding.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	N/A	0	0	0	0	0	0	0	0	0	N/A
Other	N/A	452,553	392,964	460,000	473,000	486,000	500,000	515,000	2,434,000	0	N/A
Total	**N/A**	**452,553**	**392,964**	**460,000**	**473,000**	**486,000**	**500,000**	**515,000**	**2,434,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	452,553	392,964	460,000	473,000	486,000	500,000	515,000	2,434,000	0	N/A
Total	**N/A**	**452,553**	**392,964**	**460,000**	**473,000**	**486,000**	**500,000**	**515,000**	**2,434,000**	**0**	**N/A**

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System Improvements

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Handheld mobile device to access GIS information in the field

Fund: Water Fund - Operating
Category: System Improvements
Project Location:

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: WS-13004

Asset Management Mobile Deployment

Description

This project will fund the field deployment of tools required for staff access and updating of the Asset Management System. Costs include the purchase of hardware and software systems required to access available records and to monitor maintenance activities. This project will increase productivity by allowing field editing of the Asset Management System.

Justification

Field accessible Asset Management System will reduce duplicate efforts for updating maintenance and construction activities. This project will minimize paper records keeping activities and provide staff with record data in the field. It will also allow for editing of inaccurate data on a real-time basis and further enhance both maintenance and job assignment activities. This system will be used to improve emergency/disaster field response activities.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	N/A	98,471	4,656	93,815	0	0	0	0	93,815	0	N/A
Total	**N/A**	**98,471**	**4,656**	**93,815**	**0**	**0**	**0**	**0**	**93,815**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	98,471	4,656	93,815	0	0	0	0	93,815	0	N/A
Total	**N/A**	**98,471**	**4,656**	**93,815**	**0**	**0**	**0**	**0**	**93,815**	**0**	**N/A**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Utilities Advisory Commission
Element: Natural Environment	
Section: Water Resources	
Goal: N-4	
Policy: N-19	

Environmental Impact Analysis:

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

Construction of El Camino Park Reservoir

Fund: Water Fund - Operating
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Spring 2008
Initial Project Completion: Summer 2012

Revised Project Start: Spring 2010
Revised Project Completion: Summer 2017

Project Number: WS-08002

Emergency Water Supply Project

Description

The Emergency Water Supply and Storage Project includes the installation of three new wells, rehabilitation of five existing wells, rehabilitation of the Mayfield Pump Station and construction of a new water storage reservoir and pump station at El Camino Park. The work to be performed under this project includes the demolition of the existing mechanical and electrical equipment, well buildings and hardscape and construction of new mechanical and electrical equipment, utility piping, and hardscape at each well site. New water, storm and electrical utilities will be installed and connected to the City's existing distribution systems. Once completed, the five rehabilitated wells will supply water to the City's distribution system during emergencies that disrupt the normal water supplies.

Justification

This project is needed to meet minimum emergency water demand, as recommended by the California Department of Health Services (DHS). As defined by DHS, an emergency is the shutdown of the City of Palo Alto's water source, the San Francisco Public Utility Commission (SFPUC) aqueduct system. The recommended three new wells, in conjunction with the rehabilitated existing wells, new and existing reservoirs and pump stations will be capable of delivering a stable emergency water supply to Palo Alto residents and utility customers.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	34,050,942	1,210,490	940,407	270,083	0	0	0	0	270,083	0	35,261,432
Total	**34,050,942**	**1,210,490**	**940,407**	**270,083**	**0**	**0**	**0**	**0**	**270,083**	**0**	**35,261,432**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	6,810,188	0	0	0	0	0	0	0	0	0	6,810,188
Construction	27,240,753	1,210,490	940,407	270,083	0	0	0	0	270,083	0	28,451,243
Total	**34,050,941**	**1,210,490**	**940,407**	**270,083**	**0**	**0**	**0**	**0**	**270,083**	**0**	**35,261,431**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-20

Program: N-25

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 - Operating
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:

Project Number: WS-09000

Seismic Water System Upgrades

Description

This project will provide structural reinforcement for the Monte Bello, Corte Madera, Park, Boronda, and Dahl reservoirs 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: seismic shut off valves, flexible joints at the inlet/outlet piping connections, backup power supplies, the relocation of overflow pipes, and reinforcement of interior pipe columns.

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, environmental damages, and possible mudslides causing significant property damage could occur. The seismic protection systems will preserve potable water after a seismic event.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	0	6,514,420	6,272,799	241,621	0	0	0	0	241,621	0	6,514,420
Total	**0**	**6,514,420**	**6,272,799**	**241,621**	**0**	**0**	**0**	**0**	**241,621**	**0**	**6,514,420**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	6,514,420	6,272,799	241,621	0	0	0	0	241,621	0	6,514,420
Total	**0**	**6,514,420**	**6,272,799**	**241,621**	**0**	**0**	**0**	**0**	**241,621**	**0**	**6,514,420**

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	**Secondary Connection**	Planning and Transportation Commission
Element: Natural Environment	Section: Local Landuse and Growth Management	Utilities Advisory Commission
Section: Water Resources	Goal: L-1	
Goal: N-4		
Policy: N-19		

Environmental Impact Analysis:

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

Fund: Water Fund - Operating
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: WS-11003

Installation of a new fire hydrant with FlowGuard fire hydrant check valve

Water Distribution System Improvements

Description

This project provides funds as needed 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 is necessary to maintain adequate quantities of quality water, meeting local, state, and federal safe drinking water standards.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	N/A	916,693	712,242	232,000	239,000	247,000	254,000	261,620	1,233,620	0	N/A
Total	**N/A**	**916,693**	**712,242**	**232,000**	**239,000**	**247,000**	**254,000**	**261,620**	**1,233,620**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	916,693	712,242	232,000	239,000	247,000	254,000	261,620	1,233,620	0	N/A
Total	**N/A**	**916,693**	**712,242**	**232,000**	**239,000**	**247,000**	**254,000**	**261,620**	**1,233,620**	**0**	**N/A**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Utilities Advisory Commission
Element: Natural Environment	
Section: Water Resources	
Goal: N-4	
Policy: N-19	

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 - Operating
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, the replacement of existing fusion equipment, and other associated tools, annually. The fusion equipment is used to fuse together pipe joints in the City's water distribution system.

Justification

As the 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

Fiscal Year 2015: Project was retitled from "Water Fusion and General Equipment/Tools".

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	N/A	78,132	6,675	50,000	50,000	50,000	50,000	50,000	250,000	0	N/A
Total	**N/A**	**78,132**	**6,675**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**250,000**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	N/A	0	6,675	50,000	50,000	50,000	50,000	50,000	250,000	0	N/A
Construction	N/A	78,132	0	0	0	0	0	0	0	0	N/A
Total	**N/A**	**78,132**	**6,675**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**	**250,000**	**0**	**N/A**

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	**Secondary Connection**	Utilities Advisory Commission
Element: Natural Environment	Element: Natural Environment	
Section: Water Resources	Section: Water Resources	
Goal: N-4	Goal: N-4	
Policy: N-18	Policy: N-25	

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 - Operating
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 each year.

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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	N/A	651,899	450,000	393,080	400,372	407,000	415,000	427,450	2,042,902	0	N/A
Total	**N/A**	**651,899**	**450,000**	**393,080**	**400,372**	**407,000**	**415,000**	**427,450**	**2,042,902**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	651,899	450,000	393,080	400,372	407,000	415,000	427,450	2,042,902	0	N/A
Total	**N/A**	**651,899**	**450,000**	**393,080**	**400,372**	**407,000**	**415,000**	**427,450**	**2,042,902**	**0**	**N/A**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Utilities Advisory Commission
Element: Natural Environment	
Section: Water Resources	
Goal: N-4	
Policy: N-19	

Environmental Impact Analysis:

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

Recycled water piping

Fund: Water Fund - Operating
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: Summer 2016

Project Number: WS-07001

Water Recycling Facilities

Description

This funding allows the City of Palo Alto to fund a consultant to prepare the environmental impact report for an expansion of the existing recycled water delivery system to serve customers in the City. The pipeline will primarily access the Stanford Research Park and provide an alternative supply source of 1,000 AFY (acre feet per year). The environmental impact report should be complete by May 2015. The next phase of the project is to draft a business plan.

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.

Supplemental Information

The recycled water project has experienced significant delays since completion of the Facility Plan in June 2008. While staff has addressed many issues regarding a future recycled water project, the replacement of high quality potable water with recycled water remains a concern for the landscape community and has required staff and consultants to complete additional work in preparation of the project's environmental impact report (EIR). Due to the additional activities and unforeseen delays related to completion of the project's EIR, the environmental study and business plan completion date has been extended to the summer of 2016. Completion of the environmental document is essential for securing Federal or State grant or loan funding for the construction of the project.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	264,277	388,421	195,063	193,358	0	0	0	0	193,358	0	652,698
Total	**264,277**	**388,421**	**195,063**	**193,358**	**0**	**0**	**0**	**0**	**193,358**	**0**	**652,698**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	52,855	0	0	0	0	0	0	0	0	0	52,855
Construction	211,422	388,421	195,063	193,358	0	0	0	0	193,358	0	599,843
Total	**264,277**	**388,421**	**195,063**	**193,358**	**0**	**0**	**0**	**0**	**193,358**	**0**	**652,698**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-20

Program: N-26

Environmental Impact Analysis:

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

Fund: Water Fund - Operating
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: WS-80014

Newly installed fire hydrant service line and assembly on Greenwood Avenue

Water Service Hydrant Replacement

Description

This project replaces system control valves, deteriorated galvanized service lines, lead goose-necks, and fire hydrant valves and assemblies as a result of 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 when found.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	N/A	412,770	135,000	243,080	250,400	263,000	270,000	278,100	1,304,580	0	N/A
Total	**N/A**	**412,770**	**135,000**	**243,080**	**250,400**	**263,000**	**270,000**	**278,100**	**1,304,580**	**0**	**N/A**

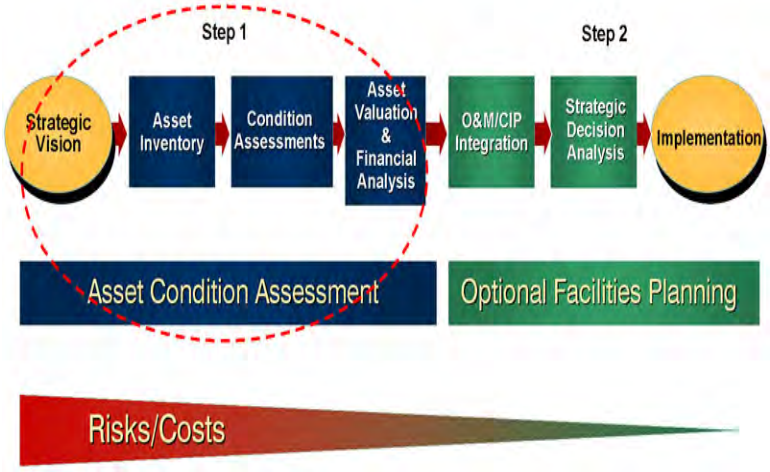
Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	412,770	135,000	243,080	250,400	263,000	270,000	278,100	1,304,580	0	N/A
Total	**N/A**	**412,770**	**135,000**	**243,080**	**250,400**	**263,000**	**270,000**	**278,100**	**1,304,580**	**0**	**N/A**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Utilities Advisory Commission
Element: Natural Environment	
Section: Water Resources	
Goal: N-4	
Policy: N-19	

Environmental Impact Analysis:

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



Asset management and utility replacement planning flow chart

Fund: Water Fund - Operating
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Summer 2015
Initial Project Completion: Fall 2015

Revised Project Start:
Revised Project Completion:

Project Number: WS-15004

Water System Master Plan

Description

The primary objective of the City of Palo Alto 2015 Water System Master Plan is to identify and present capital improvements and replacement rates required to ensure optimal reliability levels of service to the existing distribution and transmission conveyance system. Further, the Plan serves as a guide for long-range capital improvement planning for improvements to ensure the community has a reliable water delivery system for years to come. The scope of work for this project entails seismic evaluation of the water transmission system, condition assessment of both the transmission and distribution system, optimal replacement and/or rehabilitation rates, and construction methods based on pipe material coupled with a master operations and maintenance plan. The Master Plan will integrate with the City's existing asset management GIS/ Topobase platform in order to establish a strategic capital improvement plan which stabilizes water rates.

Justification

Water conveyance system reliability and adequate capacity are critical to providing a high level of service to customers in Palo Alto. Rate stabilization through strategic capital improvements to the water conveyance system is essential. Continuous evaluation of system needs through condition assessment and seismic vulnerability improvements must be conducted to maintain high level of service reliability factoring lifecycle costing, meeting local, state, and federal safe drinking water standards

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	0	500,000	268,400	231,600	0	0	0	0	231,600	0	500,000
Total	**0**	**500,000**	**268,400**	**231,600**	**0**	**0**	**0**	**0**	**231,600**	**0**	**500,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	500,000	0	0	0	0	0	0	0	0	0
Construction	0	0	268,400	231,600	0	0	0	0	231,600	0	500,000
Total	**0**	**500,000**	**268,400**	**231,600**	**0**	**0**	**0**	**0**	**231,600**	**0**	**500,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-19

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Fund: Water Fund - Operating
Category: System Improvements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Recurring
Initial Project Completion: Recurring

Project Number: WS-11004

Installation of 8" HDPE pipe and valve between two main connection points on El Camino Real at El Camino Way

Water System Supply Improvements

Description

This project provides funding, as needed, to improve the City's water distribution system. This system includes: connection facilities between the City's and the San Francisco Public Utility Commission's pipelines, emergency water wells within the City, pumping stations, water reservoirs, and pipelines.

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 when they are required.

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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	N/A	382,622	215,570	232,000	239,000	247,000	254,000	261,620	1,233,620	0	N/A
Total	**N/A**	**382,622**	**215,570**	**232,000**	**239,000**	**247,000**	**254,000**	**261,620**	**1,233,620**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	382,622	215,570	232,000	239,000	247,000	254,000	261,620	1,233,620	0	N/A
Total	**N/A**	**382,622**	**215,570**	**232,000**	**239,000**	**247,000**	**254,000**	**261,620**	**1,233,620**	**0**	**N/A**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-19

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Fund: Water Fund - Operating
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 funding 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 that 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; developing and prioritizing cost-effective capital improvement designs; and asset management of the City's utility enterprise system; thereby enhancing the level of service to utility customers.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Transfer from Wastewater Treatment Fund	N/A	100,833	0	110,917	122,009	134,209	147,630	152,059	666,824	0	N/A
Transfer from Gas Fund	N/A	100,833	0	110,917	122,009	134,209	147,630	152,059	666,824	0	N/A
Water Fund	N/A	249,028	265,993	110,916	122,007	134,210	147,630	152,059	666,822	0	N/A
Total	**N/A**	**450,694**	**265,993**	**332,750**	**366,025**	**402,628**	**442,890**	**456,177**	**2,000,470**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	450,694	265,993	332,750	366,025	402,628	442,890	456,177	2,000,470	0	N/A
Total	**N/A**	**450,694**	**265,993**	**332,750**	**366,025**	**402,628**	**442,890**	**456,177**	**2,000,470**	**0**	**N/A**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-19

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Water Main Replacements

CITY OF
PALO
ALTO

16" HDPE pipe ready to be installed

Fund: Water Fund - Operating
Category: Water Main Replacements
Project Location: Various locations

Managing Department: Utilities

Initial Project Start: Spring 2011
Initial Project Completion: Spring 2012

Revised Project Start: Summer 2015
Revised Project Completion: Winter 2017

Project Number: WS-11000

Water Main Replacement - Project 25

Description

Funding for this project will provide for the installation of approximately 11,872 linear feet of new High Density Polyethylene (HDPE) water mains, 225 new HDPE water services, 19 new fire hydrants and reconnection of 1 existing fire service within the City limits of Palo Alto. The project will replace mains and services on various streets, including streets in University South and the Leland Manor/Garland subdivisions.

Justification

Replacing the water distribution system mains with HDPE pipe will eliminate leaks in the project area, increase the reliability of the water distribution system, improve the quality of supplied water, and increase the required flow and pressure for fire protection.

Significant Changes

Two prior solicitations signaled changes in cost and availability in the current bidding environment due to large demand of construction work in the Bay Area. Therefore, staff had to reduce the work scope during each bid solicitation in an effort to solicit bids that would stay within the project budget, without compromising safety. The construction contract has been awarded and projected project duration is 180 days.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	206,711	5,238,360	4,506,574	731,786	0	0	0	0	731,786	0	5,445,071
Total	**206,711**	**5,238,360**	**4,506,574**	**731,786**	**0**	**0**	**0**	**0**	**731,786**	**0**	**5,445,071**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	41,342	0	0	0	0	0	0	0	0	0	41,342
Construction	165,368	5,238,360	4,506,574	731,786	0	0	0	0	731,786	0	5,403,728
Total	**206,710**	**5,238,360**	**4,506,574**	**731,786**	**0**	**0**	**0**	**0**	**731,786**	**0**	**5,445,070**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-20

Potential Board/Commission Review:

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

Fund: Water Fund - Operating
Category: Water Main Replacements
Project Location: Various locations

Managing Department: Utilities

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

Revised Project Start:
Revised Project Completion:

Project Number: WS-12001

Water Main Replacement - Project 26

Description

This project will fund the design and replacement of structurally deficient water mains and appurtenances in Fiscal Year 2016. 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 9,708 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 University Park and Downtown North.

Justification

Some mains are inadequate in size to supply required flows and pressures for fire protection, 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

Water Main Replacement Project 26 was delayed due to recent increases in construction cost which has required the department to reduce the scope of the project.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	43,935	461,065	50,000	5,926,260	0	0	0	0	5,926,260	0	6,020,195
Total	**43,935**	**461,065**	**50,000**	**5,926,260**	**0**	**0**	**0**	**0**	**5,926,260**	**0**	**6,020,195**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	8,787	0	0	0	0	0	0	0	0	0	8,787
Construction	35,148	461,065	50,000	5,926,260	0	0	0	0	5,926,260	0	6,011,408
Total	**43,935**	**461,065**	**50,000**	**5,926,260**	**0**	**0**	**0**	**0**	**5,926,260**	**0**	**6,020,195**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-20

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Installed 16" HDPE pipe waiting to be backfilled

Fund: Water Fund - Operating
Category: Water Main Replacements
Project Location:

Managing Department: Utilities

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

Revised Project Start:
Revised Project Completion:

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 in Fiscal Years 2016 and 2017. 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 29,340 linear feet (which represents 2.3% of the City's Water distribution system) of mains and services on various streets within the City, including areas in Downtown North, University South and Professorville neighborhoods.

Justification

Some mains are inadequate in size to supply required flows and pressures for fire protection, 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	0	0	0	568,065	5,680,651	0	0	0	6,248,716	0	6,248,716
Total	**0**	**0**	**0**	**568,065**	**5,680,651**	**0**	**0**	**0**	**6,248,716**	**0**	**6,248,716**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	5,680,651	0	0	0	5,680,651	0	5,680,651
Design	0	0	0	568,065	0	0	0	0	568,065	0	568,065
Total	**0**	**0**	**0**	**568,065**	**5,680,651**	**0**	**0**	**0**	**6,248,716**	**0**	**6,248,716**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-20

Potential Board/Commission Review:

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 - Operating
Category: Water Main Replacements
Project Location:

Managing Department: Utilities

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

Revised Project Start:
Revised Project Completion:

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 2017 and 2018. 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 14,754 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 Old Palo Alto.

Justification

Some mains are inadequate in size to supply required flows and pressures for fire protection, 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	0	0	0	0	585,107	5,851,070	0	0	6,436,177	0	6,436,177
Total	**0**	**0**	**0**	**0**	**585,107**	**5,851,070**	**0**	**0**	**6,436,177**	**0**	**6,436,177**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	0	585,107	0	0	0	585,107	0	585,107
Construction	0	0	0	0	0	5,851,070	0	0	5,851,070	0	5,851,070

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Total	**0**	**0**	**0**	**0**	**585,107**	**5,851,070**	**0**	**0**	**6,436,177**	**0**	**6,436,177**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-20

Potential Board/Commission Review:

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 - Operating
Category: Water Main Replacements
Project Location:

Managing Department: Utilities

Initial Project Start: Summer 2018
Initial Project Completion: Winter 2020

Revised Project Start:
Revised Project Completion:

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 2018 and 2019. 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 12,523 linear feet (which represents 1.0% of the City's Water distribution system) of mains and services on various streets within the City, including areas in Leland Manor neighborhood.

Justification

Some mains are inadequate in size to supply required flows and pressures for fire protection, 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	0	0	0	0	0	602,660	6,026,602	0	6,629,262	0	6,629,262
Total	**0**	**0**	**0**	**0**	**0**	**602,660**	**6,026,602**	**0**	**6,629,262**	**0**	**6,629,262**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	6,026,602	0	6,026,602	0	6,026,602
Design	0	0	0	0	0	602,660	0	0	602,660	0	602,660
Total	**0**	**0**	**0**	**0**	**0**	**602,660**	**6,026,602**	**0**	**6,629,262**	**0**	**6,629,262**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-18

Relationship to Comprehensive Plan

Secondary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-25

Potential Board/Commission Review:

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 - Operating
Category: Water Main Replacements
Project Location:

Managing Department: Utilities

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

Revised Project Start:
Revised Project Completion:

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 2019 and 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 16,943 linear feet (which represents 1.4% of the City's Water distribution system) of mains and services on various streets within the City, including areas in Midtown West and Palo Verde.

Justification

Some mains are inadequate in size to supply required flows and pressures for fire protection, 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	0	0	0	0	0	0	620,740	6,207,400	6,828,140	0	6,828,140
Total	**0**	**0**	**0**	**0**	**0**	**0**	**620,740**	**6,207,400**	**6,828,140**	**0**	**6,828,140**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	0	0	0	0	0	0	6,207,400	6,207,400	0	6,207,400
Design	0	0	0	0	0	0	620,740	0	620,740	0	620,740
Total	**0**	**0**	**0**	**0**	**0**	**0**	**620,740**	**6,207,400**	**6,828,140**	**0**	**6,828,140**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-20

Potential Board/Commission Review:

Utilities Advisory Commission

Environmental Impact Analysis:

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

Installed 16" HDPE pipe waiting to be backfilled

Fund: Water Fund - Operating
Category: Water Main Replacements
Project Location:

Managing Department: Utilities

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

Revised Project Start:
Revised Project Completion:

Project Number: WS-19001

Water Main Replacement - Project 31

Description

Funding for this project is a placeholder that will allow for the design and replacement of structurally deficient water mains and appurtenances in Fiscal Years 2020 and 2021. 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 is as yet undetermined but may include 15,000 - 25,000 linear feet of mains and services on various streets within the City.

Justification

Some mains are inadequate in size to supply required flows and pressures for fire protection, 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.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Water Fund	0	0	0	0	0	0	0	639,362	639,362	6,396,320	7,035,682
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**639,362**	**639,362**	**6,396,320**	**7,035,682**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	0	0	0	0	0	0	0	639,362	639,362	0	639,362
Construction	0	0	0	0	0	0	0	0	0	6,396,320	6,396,320
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**639,362**	**639,362**	**6,396,320**	**7,035,682**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Water Resources

Goal: N-4

Policy: N-20

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

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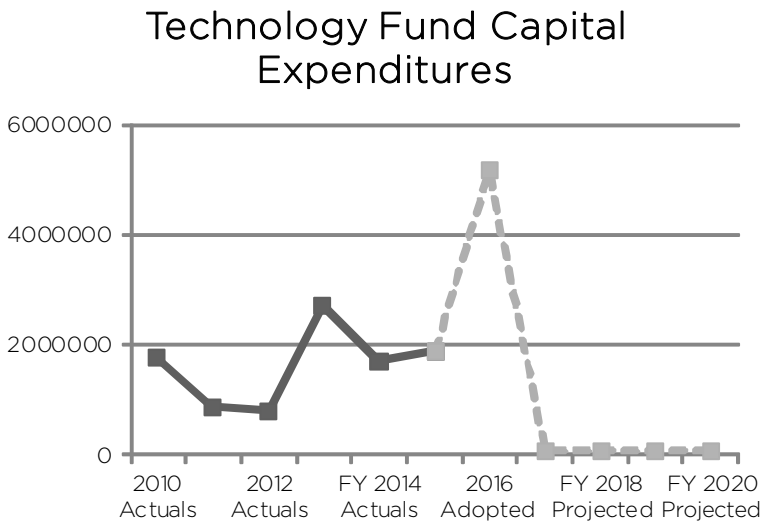
TECHNOLOGY FUND

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 funds benefiting from the services and purchases incurred in the fund. Overall, a total of fourteen capital projects are programmed over the 5 year Capital Improvement Program (CIP), with nearly all funding included in Fiscal Year 2016 ($5.2 million out of a total $5.6 million in the 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 Adopted Operating budget for additional information on Information Technology operating projects. 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

This Citywide Technology Upgrades category includes projects that benefit multiple City departments. They tend to have a larger scope and thus entail more coordination and complexity. For the 2016-2020 Capital Improvement Program, $817,000 is allocated within this category, all of which represents funding approved by the City Council in prior years.

Recent Accomplishments

- e911 Implementation completed

2016-2020 Capital Improvement Program

Recurring Projects

There are no recurring Citywide Technology Upgrade projects.

Non-Recurring Projects

- Telephone System Upgrade: This project addresses the telephone needs of the entire City, including pre-requisite needs for upgraded network switching equipment, non-compatible cable replacements, and builds of wiring closets. The Adopted CIP includes $0.4 million for the completion of this project.
- IT Disaster Recovery Plan: This initiative identifies and addresses gaps in business continuity that when completed, will benefit the entire City. The Adopted CIP includes $0.1 million for the completion of this project.
- Interactive Voice Response: This system addresses a customer support need and improved automation for Utilities Customer Service. The Adopted CIP includes $0.2 million for the completion of this project.
- Infrastructure Management System (IMS): As a result of a recommendation from the Infrastructure Blue Ribbon Commission (IBRC), the Public Works department is implementing an IMS solution. The Adopted CIP includes $0.1 million for the completion of this project.

Department Technology Upgrades and Improvements

The Department Technology Upgrades category includes projects that benefit one or a limited number of City departments. For the 2016-2020 Capital Improvement Program, $4.7 million is programmed within this category, the majority of which ($4.3 million) represents funding approved by the City Council in prior years.

Recent Accomplishments

- Selected and procured the new Integrated Library System (ILS). The implementation of the new ILS will be managed by the Library Department, with the Information Technology Department serving in a consultative capacity.
- All mobile computing devices on all Fire Department vehicles were upgraded and replaced with the latest tablets. Research and testing was extensively completed to select a rugged, light-weight, and powerful tablet for the department's vehicles.

2016-2020 Capital Improvement Program

Recurring Projects

The 2016-2020 Adopted CIP includes one recurring project within this category: Radio Infrastructure Replacement. This project, which is funded by annual transfers from the General Fund and various enterprise funds, allows for the replacement of various items in the City's telecommunications infrastructure inventory. Most recently, the City has participated with 14 other local

agencies in an effort organized by the Silicon Valley Regional Interoperability Authority (SVRIA) to move towards a county-wide 700 Mhz radio communication system. It is anticipated that the City's share for this project will be $4.2 million (General Fund: $2.8 million; Utility Funds: $1.4 million). A recommendation to carry over existing funding ($1.3 million; $0.8 million from the General Fund and $0.5 million from the Utility Funds) to Fiscal Year 2016 is recommended as part of this budget. This funding , when combined with an anticipated $1.0 million transfer from the General Fund as part of the Fiscal Year 2015 year-end closing process, will result in $1.8 million of the General Fund's $2.8 million projected share being funded. The remaining $1 million General Fund share will be funded in future years as the costs associated with this project are refined. The $0.5 million recommended to be carried over from the Utility Funds will result in an unfunded amount of $0.9 million. As with the General Fund, the remaining share will be funded in future years as the costs associated with this project are refined.

Non-Recurring Projects

- Virtual Library Branch: The Library Department will explore options to procure an off-the-shelf or custom developed virtual branch of the library. The Adopted CIP includes $0.2 million for the completion of this project.
- Public Safety Computer-Aided Dispatch Replacement: The old Public Safety CAD system, PSSI, was replaced by the Intergraph CAD system. This replacement was a Tri-City coordinated effort between Mountain View, Los Altos, and Palo Alto. The Adopted CIP includes $0.8 million for the completion of this project.
- Library Computer System Software: The ILS performs and manages most of the library transactions and operations, including circulation of books and other materials, customer accounts and collections databases; the public library catalog; processes associated with acquiring and cataloging items for the collection; and statistical reporting. The procurement of a new Library ILS was completed, with implementation taking part in the latter part of Fiscal Year 2016 The Adopted CIP includes $0.3 million for the completion of this project.
- Development Center Blueprint Technology Enhancements: This project allows for the introduction of new technologies to support business processes, in an exercise to optimize and greatly improve customer service, at the Development Center. Major enhancements to the existing Accela permitting system are included in this initiative. The Adopted CIP includes $1.0 million for the completion of this project.
- Library RFID Implementation: This project will implement radio frequency identification (RFID) technology for use in circulating and managing library collections. The Adopted CIP includes $0.3 million for the completion of this project.
- Utilities Customer Bill System Continuous Improvements: This project allows for enhancements to the Utilities billing modules in SAP, including the ability to respond to new legislation and legal requirements. This project had previously been a recurring project, however with the City undergoing an evaluation of its ERP system, system enhancement have been placed on hold unless absolutely necessary. The 2016-2020 Adopted CIP includes a recommendation to carry forward $0.2 million to Fiscal Year 2016 from funds approved in prior years to address any emergency fixes or enhancements. Once the ERP evaluation is complete, the project will be reevaluated to determine if recurring funding is required.

Summary of Capital Activity

Technology Fund

Project Number	Project Title	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
Source of Funds									
Transfers from Other Funds									
Transfers from Electric Fund									
TE-10001	Utilities Customer Billing System Continuous Support	$ 122,855	$ 122,855	$ —	$ —	$ —	$ —	$ —	$ —
TE-05000	Radio Infrastructure Replacement	5,000	5,000	—	5,000	5,000	5,000	5,000	20,000
	Transfers from Electric Fund Total	127,855	127,855	—	5,000	5,000	5,000	5,000	20,000
Transfers from Gas Fund									
TE-10001	Utilities Customer Billing System Continuous Support	$ 47,317	$ 47,317	$ —	$ —	$ —	$ —	$ —	$ —
TE-05000	Radio Infrastructure Replacement	5,000	5,000	—	5,000	5,000	5,000	5,000	20,000
	Transfers from Gas Fund Total	52,317	52,317	—	5,000	5,000	5,000	5,000	20,000
Transfers from General Fund									
TE-14002	Library Virtual Branch	$ —	$ 95,000	$ —	$ —	$ —	$ —	$ —	$ —
TE-05000	Radio Infrastructure Replacement	—	64,000	—	64,000	64,000	64,000	64,000	256,000
	Transfers from General Fund Total	—	159,000	—	64,000	64,000	64,000	64,000	256,000
Transfers from Wastewater Collection Fund									
TE-10001	Utilities Customer Billing System Continuous Support	$ 15,856	$ 15,856	$ —	$ —	$ —	$ —	$ —	$ —
TE-05000	Radio Infrastructure Replacement	5,000	5,000	—	5,000	5,000	5,000	5,000	20,000
	Transfers from Wastewater Collection Fund Total	20,856	20,856	—	5,000	5,000	5,000	5,000	20,000
Transfers from Water Fund									
TE-10001	Utilities Customer Billing System Continuous Support	$ 28,170	$ 28,170	$ —	$ —	$ —	$ —	$ —	$ —
TE-05000	Radio Infrastructure Replacement	5,000	5,000	—	5,000	5,000	5,000	5,000	20,000
	Transfers from Water Fund Total	33,170	33,170	—	5,000	5,000	5,000	5,000	20,000
Transfers from Fiber Optics Fund									
TE-10001	Utilities Customer Billing System Continuous Support	$ 941	$ 941	$ —	$ —	$ —	$ —	$ —	$ —
	Transfers from Fiber Optics Fund Total	941	941	—	—	—	—	—	—
Transfers from Refuse Fund									
TE-10001	Utilities Customer Billing System Continuous Support	$ 28,719	$ 28,719	$ —	$ —	$ —	$ —	$ —	$ —
	Transfers from Fiber Optics Fund Total	28,719	28,719	—	—	—	—	—	—

Summary of Capital Activity

Technology Fund

Project Number	Project Title	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
Transfers from Storm Drainage Fund									
TE-10001	Utilities Customer Billing System Continuous Support	$ 6,142	$ 6,142	$ —	$ —	$ —	$ —	$ —	$ —
	Transfers from Fiber Optics Fund Total	6,142	6,142	—	—	—	—	—	—
	Total Transfers from Other Funds	**$ 270,000**	**$ 429,000**	**$ —**	**$ 84,000**	**$ 84,000**	**$ 84,000**	**$ 84,000**	**$ 336,000**
Other Revenue									
TE-05000	Radio Infrastructure Replacement: Stanford	$ —	$ —	$ —	$ 16,000	$ 16,000	$ 16,000	$ 16,000	$ 64,000
	Other Revenue Total	—	—	—	16,000	16,000	16,000	16,000	64,000
	Total Other Revenue	**$ —**	**$ —**	**$ —**	**$ 16,000**	**$ 16,000**	**$ 16,000**	**$ 16,000**	**$ 64,000**
	Total Sources	$ 270,000	$ 429,000	$ —	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 400,000
Use of Funds									
Citywide Technology Upgrades and Improvements									
TE-13004	Infrastructure Management System	$ 48,808	$ 125,596	$ 125,596	$ —	$ —	$ —	$ —	$ 125,596
TE-13001	Interactive Voice Response	—	—	200,000	—	—	—	—	200,000
TE-01012	IT Disaster Recovery Plan	58,485	340,449	125,860	—	—	—	—	125,860
TE-07006	SAP Continuous Improvement Project	65,428	—	—	—	—	—	—	—
TE-00010	Telephone System Replacement	244,207	240,157	365,088	—	—	—	—	365,088
	Total Citywide Technology Upgrades and Improvements	416,928	706,202	816,544	—	—	—	—	816,544
Department Technology Upgrades and Improvements									
TE-12001	Development Center Blueprint Technology Enhancement	$ 344,431	$ 325,836	$ 952,738	$ —	$ —	$ —	$ —	$ 952,738
TE-08004	Fire Mobile Data Computer	—	34,041	27,042	—	—	—	—	27,042
TE-11001	Library Computer System Software	58,612	181,195	260,118	—	—	—	—	260,118
TE-06001	Library RFID Implementation	75,379	198,695	290,753	—	—	—	—	290,753
TE-11002	Mobile In-Car Video System Replacement	271,342	34,070	—	—	—	—	—	—
TE-95016	Permit Information Tracking System	—	120,000	56,648	—	—	—	—	56,648
TE-09000	Public Safety Computer-Aided Dispatch Replacement	145,645	131,388	787,592	—	—	—	—	787,592
TE-05000	Radio Infrastructure Replacement	405,020	121,708	1,296,151	100,000	100,000	100,000	100,000	1,696,151
TE-13003	SAP Refuse Billing Improvements	—	—	250,000	—	—	—	—	250,000
TE-10001	Utilities Customer Bill System Improvements	—	23,000	243,000	—	—	—	—	243,000

Summary of Capital Activity

Technology Fund

Project Number	Project Title	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
TE-14002	Virtual Library Branch	2,029	13,100	179,871	—	—	—	—	179,871
	Total Department Technology Upgrades and Improvements	1,302,458	1,183,033	4,343,913	100,000	100,000	100,000	100,000	4,743,913
	Total Expenses	$ 1,719,386	$ 1,889,235	$ 5,160,457	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 5,560,457

Citywide Technology Upgrades and Improvements

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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: Summer 2013
Revised Project Completion: Fall 2015

Project Number: TE-13004

Infrastructure Management System

Description

This project establishes an Infrastructure Management System (IMS) 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 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

2016-2020 CIP: Project completion revised to reflect phased approach for project, in which a needs assessment study provided recommendations for establishing the IMS, and an implementation phase is following.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Technology Fund	48,808	251,192	125,596	125,596	0	0	0	0	125,596	0	300,000
Total	**48,808**	**251,192**	**125,596**	**125,596**	**0**	**0**	**0**	**0**	**125,596**	**0**	**300,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	48,808	251,192	125,596	125,596	0	0	0	0	125,596	0	300,000
Total	**48,808**	**251,192**	**125,596**	**125,596**	**0**	**0**	**0**	**0**	**125,596**	**0**	**300,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Land Use and Community Design

Section: Public Ways

Goal: L-9

Policy: L-79

Environmental Impact Analysis:

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

Interactive Voice Response 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 2013
Revised Project Start: Summer 2013
Revised Project Completion: Winter 2015
Project Number: TE-13001

Interactive Voice Response

Description

This project will purchase and implement an Interactive Voice Response (IVR) system for the Utilities Department. The IVR system will supplement and work in conjunction with the Utilities customer service call center Automated Call Distribution (ACD) system in order to enhance the Utilities department customer service call center operations.

Justification

The purpose of the IVR system is to 1) Improve customer satisfaction levels by providing callers with a choice on how to interact with the call center; 2) Improve Customer Service Representative (CSR) productivity and reduce caller wait times by allowing customers to automatically access information or pay their utility bill without the need to speak to a CSR; 3) Extend hours of operation without increasing Customer Service staff or work hours without increasing operating cost; and 4) Allow for productivity and efficiency of the call center to be measured and benchmarked.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Technology Fund	0	200,000	0	200,000	0	0	0	0	200,000	0	200,000
Total	**0**	**200,000**	**0**	**200,000**	**0**	**0**	**0**	**0**	**200,000**	**0**	**200,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	200,000	0	200,000	0	0	0	0	200,000	0	200,000
Total	**0**	**200,000**	**0**	**200,000**	**0**	**0**	**0**	**0**	**200,000**	**0**	**200,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Customer Service

Goal: C-2

Policy: C-10

Program: Supports Program C10 and C12

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 2007
Initial Project Completion: Summer 2011

Revised Project Start: Summer 2007
Revised Project Completion: Spring 2016

Project Number: TE-01012

IT Disaster Recovery Plan

Description

This project will provide the City with the means to promptly resume mission critical and business operations should a natural disaster occur that renders the City's primary computer system infrastructure inoperable. The funding within this project allows for the hiring of a consultant who specializes in analyzing information infrastructure to develop a Request for Proposal (RFP) for third party companies to provide disaster recovery services.

Justification

Currently, there is no disaster recovery plan for City data or mission critical application servers. This project was recommended in the Information Technology Strategic Plan, as well as by the external auditor.

Significant Changes

2016-2020 CIP: Timeline revised due to staffing issues in the Utilities Department, and the City's ERP evaluation, as there is a large ERP interface component to this project.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Technology Fund	112,314	466,309	340,449	125,860	0	0	0	0	125,860	0	578,623
Total	**112,314**	**466,309**	**340,449**	**125,860**	**0**	**0**	**0**	**0**	**125,860**	**0**	**578,623**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	112,314	466,309	340,449	125,860	0	0	0	0	125,860	0	578,623
Total	**112,314**	**466,309**	**340,449**	**125,860**	**0**	**0**	**0**	**0**	**125,860**	**0**	**578,623**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Natural Hazards

Goal: N-10

Policy: No policies/program related to this project

Potential Board/Commission Review:

Utilities Advisory 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: Spring 2008
Initial Project Completion: Spring 2018

Revised Project Start: Spring 2008
Revised Project Completion: Spring 2018

Project Number: TE-05000

Radio Infrastructure Replacement

Description

This project funds the annual replacement of various items in the City's telecommunications infrastructure inventory in accordance with a life-cycle replacement schedule. The City operates two radio systems (UHF frequency band and VHF frequency band) with five radio sites for each system.

Most recently, the City has participated with 14 other local agencies in an effort organized by the Silicon Valley Regional Interoperability Authority (SVRIA) to move towards a county-wide 700 Mhz radio communication system. This project provides funding for the City's share of establishing an interoperable radio communication system within the region.

Upon completion of the project, the law enforcement, fire and rescue service, emergency medial response, and disaster recovery units within the participating agencies will be able to communicate via an integrated voice and data communications system.

Justification

The Communications systems requires continues replacement as infrastructure and equipment ages. Further, within the region, the communications system is fragmented and through the SVRIA it is intended to use the same system for all Santa Clara County agencies.

Supplemental Information

It is estimated that beginning with Fiscal Year 2016, approximately $1.3 million in funding is available for the SVRIA project from annual transfers from the General Fund and various Utility Enterprise Funds. Of the $1.3 million, approximately $0.8 million was contributed by the General Fund and $0.5 million from various utility funds. According to most recent estimates, the City's costs over the next three years, as the system is implemented, will be $4.2 million. Of that

amount, approximately $2.8 million is the responsibility of the General Fund, with the Utilities Funds responsible for the remaining amounts.

It is anticipated that an additional $1.0 million from the General Fund will be allocated for this project as part of the Fiscal Year 2015 year-end closing process, leaving a General Fund funding need of approximately $1.0 million. This funding General Fund will be addressed as part of the FY 2017 and FY 2018 budget processes.

For the Utilities Funds, Fiscal Year 2016 costs are anticipated to be approximately $370,000. These costs will be supported by the Utilities Funds' share of the $1.3 million currently in this project (approximately $500,000). As with the General Fund portion, remaining implementation costs will be addressed as part of the Fiscal Year 2017 budget process, as costs are more fully developed.

Expenses planned for Fiscal Year 2016 include radio infrastructure ($750,000), radios ($570,000), and consoles ($350,000).

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Technology Fund	919,278	1,417,859	121,708	1,296,151	0	0	0	0	1,296,151	0	2,337,137
Transfer from Gas Fund	0	0	0	0	5,000	5,000	5,000	5,000	20,000	0	20,000
Transfer from Wastewater Collection Fund	0	0	0	0	5,000	5,000	5,000	5,000	20,000	0	20,000
Other	0	0	0	0	16,000	16,000	16,000	16,000	64,000	0	64,000
Transfer from Electric Fund	0	0	0	0	5,000	5,000	5,000	5,000	20,000	0	20,000
Transfer from General Fund	0	0	0	0	64,000	64,000	64,000	64,000	256,000	0	256,000
Transfer from Water Fund	0	0	0	0	5,000	5,000	5,000	5,000	20,000	0	20,000
Total	**919,278**	**1,417,859**	**121,708**	**1,296,151**	**100,000**	**100,000**	**100,000**	**100,000**	**1,696,151**	**0**	**2,737,137**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	919,278	1,417,859	121,708	1,296,151	100,000	100,000	100,000	100,000	1,696,151	0	2,737,137
Total	**919,278**	**1,417,859**	**121,708**	**1,296,151**	**100,000**	**100,000**	**100,000**	**100,000**	**1,696,151**	**0**	**2,737,137**

Relationship to Comprehensive Plan	Potential Board/Commission Review:
Primary Connection	Architectural Review Board
Element: Community Services & Facilities	Utilities Advisory Commission
Section: Customer Service	
Goal: C-2	
Policy: C-9	

Environmental Impact Analysis:

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

Zero Waste logo

Fund: Technology Fund
Category: Citywide Technology Upgrades and Improvements
Project Location: Various
Managing Department: Information Technology
Initial Project Start: Summer 2013
Initial Project Completion: Winter 2013
Revised Project Start: Summer 2013
Revised Project Completion: Spring 2016
Project Number: TE-13003

Refuse Billing Improvements Study

Description

The goals of the project are to identify a simplified billing schema to allow multiple refuse services on commercial installations, increase reliability of outgoing files to City's refuse contractor, implement pro-rated billing for certain services that end mid-month, eliminate the printing of inactive refuse services on customer invoices, reduce the number of daily billing "outsorts" that must be manually checked, and to set up a framework for refuse billing recommendations from the cost of service study.

Justification

Currently the refuse billing system requires extensive daily maintenance. It is subject to failures and errors that result in the need for manual service level corrections and billing adjustments. Utilities customer service must review and process numerous billing outsorts daily due to limitations between the City SAP system and the GreenWaste system. The refuse cost of service study will have recommendations for refuse billing that require extensive changes to the SAP system.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Technology Fund	0	250,000	0	250,000	0	0	0	0	250,000	0	250,000
Total	**0**	**250,000**	**0**	**250,000**	**0**	**0**	**0**	**0**	**250,000**	**0**	**250,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	0	250,000	0	250,000	0	0	0	0	250,000	0	250,000
Total	**0**	**250,000**	**0**	**250,000**	**0**	**0**	**0**	**0**	**250,000**	**0**	**250,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Customer Service

Goal: C-2

Policy: C-10

Program: C-10,C-12

Environmental Impact Analysis:

This project is categorically exempt from CEQA under section 15301.

New Telephone System Replacement

Fund: Technology Fund
Category: Citywide Technology Upgrades and Improvements
Project Location: Various

Managing Department: Information Technology

Initial Project Start: Summer 2007
Initial Project Completion: Summer 2011

Revised Project Start: Summer 2007
Revised Project Completion: Spring 2016

Project Number: TE-00010

Telephone System Replacement

Description

This project allows for an analysis and assessment of current and future requirements for voice-related communications within the City, and for the acquisition of the new system. Requirements will be determined for all City departments, and include telecommunications, the telephone switch network (PBX), connectivity to the data communications network, implementation strategies for voice over the fiber backbone, and voice mail requirements and applications. The new telephone system, Avaya, was implemented at the end of 2012. This project also funded the e911 telephone implementation, wihich allowed the Police Department staff to pinpoint the location from which emergency calls are received from within City owned or leased facilities.

The fire stations throughout the City were initially excluded from this project due to cost and the low number of telephones needing to be replaced. It has since been determined that an upgrade to the telephones at the fire stations is required due to the antiquated state of these telephones. Also, a separate police network is now required to meet the Department of Justice regulations.

Justification

The reliability of the City's telephone and telecommunications services is critical to city operations. Telecommunications technology has developed significantly in recent years. Newer switches will offer more compatibility, provide greater functionality, and require less space and power than the current equipment. As resources are distributed throughout the City, the PBX system will be required to provide greater flexibility to in-house staff and to remote locations.

Supplemental Information

The Enterprise Funds share proportionately in the costs of this project.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Technology Fund	2,040,412	605,245	240,157	365,088	0	0	0	0	365,088	0	2,645,657
Total	**2,040,412**	**605,245**	**240,157**	**365,088**	**0**	**0**	**0**	**0**	**365,088**	**0**	**2,645,657**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	2,040,412	605,245	240,157	365,088	0	0	0	0	365,088	0	2,645,657
Total	**2,040,412**	**605,245**	**240,157**	**365,088**	**0**	**0**	**0**	**0**	**365,088**	**0**	**2,645,657**

Operating Impact

The maintenance costs associated with the telephone system is accounted for in the operating budget within the Technology Fund. Maintenance costs are shared by all city departments.

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Customer Service

Goal: C-2

Policy: C-9

Relationship to Comprehensive Plan

Secondary Connection

Element: Business & Economics

Potential Board/Commission Review:

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

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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: Summer 2011
Revised Project Completion: Summer 2017

Project Number: TE-12001

Development Center Blueprint Technology Enhancements

Description

This project will allow for the provision of technology enhancements to the Development Services Department. Some areas of enhancement include: installation of a walk-in queuing system; conversion of current Accela reports to Crystal Reports; configuration and implementation of Accela Citizen Access; creation of web self service and publications sites; creation of a functioning Geographic Information System and Accela interface; permit centric mobile applications; electronic plan review system, automated permit tracking system and U&O process; development of expired permit notification; and creation of performance reports/metrics.

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 Development Services Department.

Significant Changes

The department anticipates the need to extend the original completion date to allow time to finish projects that are in progress, not yet started, and to accomplish new initiatives.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Technology Fund	459,427	1,278,574	325,836	952,738	0	0	0	0	952,738	0	1,738,001
Total	**459,427**	**1,278,574**	**325,836**	**952,738**	**0**	**0**	**0**	**0**	**952,738**	**0**	**1,738,001**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	459,427	1,278,574	325,836	952,738	0	0	0	0	952,738	0	1,738,001
Total	**459,427**	**1,278,574**	**325,836**	**952,738**	**0**	**0**	**0**	**0**	**952,738**	**0**	**1,738,001**

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Customer Service

Goal: C-2

Policy: C-9

Environmental Impact Analysis:

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

Palo Alto Fire Engine

Fund: Technology Fund
Category: Department Technology Upgrades and Improvements
Project Location: Various
Managing Department: Information Technology
Initial Project Start: Summer 2007
Initial Project Completion: Summer 2008
Revised Project Start: Summer 2007
Revised Project Completion: Summer 2015
Project Number: TE-08004

Fire Mobile Data Computer

Description

This project will install mobile data computer technology in the fire apparatuses. This will allow for the access of fire hazardous materials and other information, mapping capabilities, uploading of reports, and the exchange of information between the Dispatch Center, Emergency Operations Center, and the field. This project will include hardware for broadband wireless access, as well as creating wireless access points at six fire stations to allow upload of reports by Fire personnel.

Justification

This project will improve the capabilities of information-sharing between the 9-1-1 Dispatch Center, the Emergency Operations Center, and field personnel, and provide field access to critical internet-based fire hazardous information and the City's Geographic Information System (GIS) mapping database. Installation of a global positioning system (GPS) will be available to track Fire resources to ensure fast and accurate deployment of resources during an emergency.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Technology Fund	188,917	61,083	34,041	27,042	0	0	0	0	27,042	0	250,000
Total	**188,917**	**61,083**	**34,041**	**27,042**	**0**	**0**	**0**	**0**	**27,042**	**0**	**250,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	188,917	61,083	34,041	27,042	0	0	0	0	27,042	0	250,000
Total	**188,917**	**61,083**	**34,041**	**27,042**	**0**	**0**	**0**	**0**	**27,042**	**0**	**250,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Customer Service

Goal: C-2

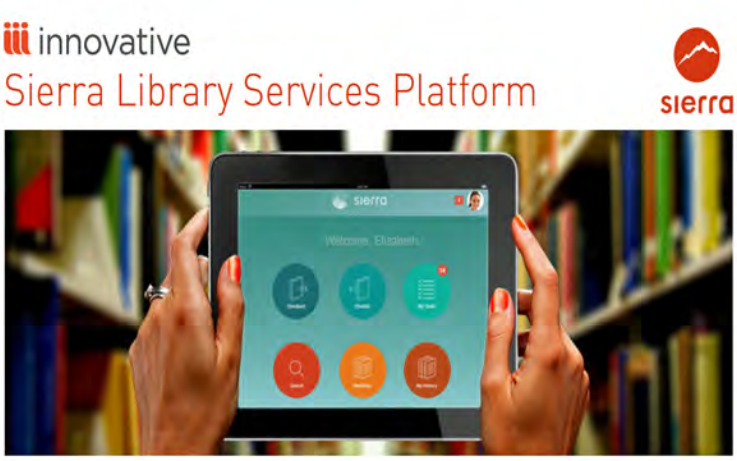
Policy: C-9

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

Managing Department: Information Technology

Initial Project Start: Summer 2012
Initial Project Completion: Summer 2013

Revised Project Start: Summer 2012
Revised Project Completion: Winter 2016

Project Number: TE-11001

Library Computer System Software

Description

This project will purchase and implement state of the art software or software services to provide the functionality of the Library's current integrated library system (ILS) and upgrade it. The ILS performs and manages most of the library transactions and operations, including circulation of books and other materials, customer accounts and collections databases; the public library catalog; processes associated with acquiring and cataloging items for the collection; and statistical reporting. The average life expectancy of an ILS is about seven years. The Library's most recent ILS was installed in 2005. The project and associated costs are detailed in the Library's Technology Plan completed in 2009 and reviewed by the Library Advisory Commission.

Justification

This project will allow for a more secure, reliable, online system for public and staff transactions.

Significant Changes

This project has experienced delays due to delays in the completion of bond-funded library projects. It is now anticipated that this project will be completed in winter 2016, as a vendor was selected and the contract was awarded in winter 2014.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Technology Fund	58,687	441,313	181,195	260,118	0	0	0	0	260,118	0	500,000
Total	**58,687**	**441,313**	**181,195**	**260,118**	**0**	**0**	**0**	**0**	**260,118**	**0**	**500,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	58,687	441,313	181,195	260,118	0	0	0	0	260,118	0	500,000
Total	**58,687**	**441,313**	**181,195**	**260,118**	**0**	**0**	**0**	**0**	**260,118**	**0**	**500,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Customer Service

Goal: C-2

Policy: C-9

Program: T-10

Relationship to Comprehensive Plan

Secondary Connection

Element: Business & Economics

Potential Board/Commission Review:

Library Advisory Commission

Environmental Impact Analysis:

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

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

Managing Department: Information Technology

Initial Project Start: Summer 2009
Initial Project Completion: Summer 2014

Revised Project Start: Summer 2009
Revised Project Completion: Summer 2016

Project Number: TE-06001

Library RFID Implementation

Description

This project will implement radio frequency identification (RFID) technology for use in circulating and managing library collections. The first year of the project, consisting of a feasibility study and market research to cost out library-wide implementation, was completed in 2006. Collections at the three renovated libraries have had RFID installed.

Justification

Implementation of RFID technology and automated materials handling (AMH) equipment will facilitate the use of self-service options and will help staff cope with increasing workloads. It will improve staff efficiency by enabling faster handling of check-out and check-in of books and other library materials. RFID and AMH will enable staff to return materials to the shelves more quickly, reduce repetitive motions and resulting injuries for staff, and free staff to provide direct customer service.

Significant Changes

This project has experienced delays due to delays in the bond-funded library construction projects. It is expected that this project will be completed in Fiscal Year 2016 as equipment is fully tested in public service.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Technology Fund	303,152	489,448	198,695	290,753	0	0	0	0	290,753	0	792,600
Total	**303,152**	**489,448**	**198,695**	**290,753**	**0**	**0**	**0**	**0**	**290,753**	**0**	**792,600**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	303,152	489,448	198,695	290,753	0	0	0	0	290,753	0	792,600
Total	**303,152**	**489,448**	**198,695**	**290,753**	**0**	**0**	**0**	**0**	**290,753**	**0**	**792,600**

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Social Services

Goal: C-2

Policy: C-10

Program: C-12

Potential Board/Commission Review:

Library Advisory Commission

Environmental Impact Analysis:

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

Development Center

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

Managing Department: Information Technology

Initial Project Start: Summer 2004
Initial Project Completion: Summer 2005

Revised Project Start: Summer 2005
Revised Project Completion: Fall 2016

Project Number: TE-95016

Permit Information Tracking System

Description

This project is to implement and update a multi-module automated Permit Tracking system. The system is used to track and monitor many types of permits and other activities such as applications, planning entitlements, building and public works permits, licenses, inspections, and code enforcement cases. One of the most advantageous uses of the system is to monitor the complete development project from planning to occupancy.

Justification

The Interdepartmental Cooperation Subcommittee of the Customer Service Committee has identified over 50 different types of permit procedures that require interdepartmental approval and coordination, and a need for improved tracking systems. Most of these permit procedures can be significantly improved through the use of an automated permit tracking system.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Technology Fund	86,304	176,648	120,000	56,648	0	0	0	0	56,648	0	262,952
Total	**86,304**	**176,648**	**120,000**	**56,648**	**0**	**0**	**0**	**0**	**56,648**	**0**	**262,952**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	86,304	176,648	120,000	56,648	0	0	0	0	56,648	0	262,952
Total	**86,304**	**176,648**	**120,000**	**56,648**	**0**	**0**	**0**	**0**	**56,648**	**0**	**262,952**

Relationship to Comprehensive Plan	Relationship to Comprehensive Plan
Primary Connection	**Secondary Connection**
Element: Community Services & Facilities	Element: Governance
Section: Customer Service	
Goal: C-2	
Policy: C-10	

Environmental Impact Analysis:

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

New CAD Console

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

Managing Department: Information Technology

Initial Project Start: Summer 2008
Initial Project Completion: Summer 2011

Revised Project Start: Spring 2012
Revised Project Completion: Winter 2015

Project Number: TE-09000

Public Safety Computer-Aided Dispatch Replacement

Description

This project replaces the existing 1999 public safety Computer Aided Dispatch (CAD) and Records Management System (RMS) that is beyond the reliable life-cycle for this type of technology. As a result, maintenance costs are higher and features and functionality available with more current technology cannot be fully realized. This project will jointly acquire new CAD and RMS systems with the cities of Mountain View and Los Altos, as well as integrate this technology with the current Fire Records Management System.

Justification

The project will improve information-sharing between the 911 centers in Palo Alto, Mountain View, and Los Altos. This project is in the final phase of a project that began in 2007-08 with a joint Request for Proposal. The purchase and/or sharing of a joint CAD and RMS system will provide some level of consolidation of services, but does not require the significant capital investment that a physical consolidation would require. A joint purchase should reduce the fiscal impact to any one city.

Supplemental Information

This replacement project will take advantage of the foundation of hardware, software and knowledge in the North County, as well as provide integration across our jurisdictions which will help to improve communication, provide enhanced connectivity, and allow for better coordination of public safety operations in the field. The Computer Aided Dispatch (CAD) system went live on March 17, 2014 and has passed acceptance. The implementation of the Records Management System (RMS) in in process, with completion estimated for winter 2015.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Technology Fund	481,020	918,980	131,388	787,592	0	0	0	0	787,592	0	1,400,000
Total	**481,020**	**918,980**	**131,388**	**787,592**	**0**	**0**	**0**	**0**	**787,592**	**0**	**1,400,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	189,776	0	0	0	0	0	0	0	0	0	189,776
Construction	291,244	918,980	131,388	787,592	0	0	0	0	787,592	0	1,210,224
Total	**481,020**	**918,980**	**131,388**	**787,592**	**0**	**0**	**0**	**0**	**787,592**	**0**	**1,400,000**

Relationship to Comprehensive Plan

Primary Connection

Policy: C-9

Program: C-12

Environmental Impact Analysis:

N/A

Utilities Customer Billing 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 ìMeter-to-Cashî business processes, the ìMy Utilities Accountî online customer portal, Utilities reporting tools, and the Customer Relationship Management (CRM) solution for the Utilities Billing System. The Enterprise Funds share proportionately in the costs of this project.

Significant Changes

This project has traditionally been a recurring project, with new funding being transferred to the Technology Fund from the various enterprise funds each year. Funding is not allocated beyond Fiscal Year 2016, as this project is anticipated to be used only for emergency fixes and enhancements in the short term, until completion of the ERP evaluation.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Transfer from Fiber Optics Fund	N/A	2,865	86	915	0	0	0	0	915	0	N/A

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Transfer from Refuse Fund	N/A	88,012	2,642	27,914	0	0	0	0	27,914	0	N/A
Transfer from Wastewater Collection Fund	N/A	48,570	1,458	15,412	0	0	0	0	15,412	0	N/A
Transfer from Electric Fund	N/A	376,498	11,302	119,415	0	0	0	0	119,415	0	N/A
Transfer from Gas Fund	N/A	145,009	4,353	45,992	0	0	0	0	45,992	0	N/A
Transfer From Storm Drainage Fund	N/A	18,822	565	5,970	0	0	0	0	5,970	0	N/A
Transfer from Water Fund	N/A	86,313	2,591	27,381	0	0	0	0	27,381	0	N/A
Total	**N/A**	**766,088**	**22,997**	**242,999**	**0**	**0**	**0**	**0**	**242,999**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	N/A	766,088	23,000	243,000	0	0	0	0	243,000	0	N/A
Total	**N/A**	**766,088**	**23,000**	**243,000**	**0**	**0**	**0**	**0**	**243,000**	**0**	**N/A**

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Customer Service

Goal: C-2

Policy: C-10

Program: C-12

Environmental Impact Analysis:

This project is categorically exempt from CEQA under section 15301.

Fund: Technology Fund
Category: Department Technology Upgrades and Improvements
Project Location: Various
Managing Department: Information Technology
Initial Project Start: Summer 2013
Initial Project Completion: Summer 2015
Revised Project Start: Summer 2013
Revised Project Completion: Summer 2016
Project Number: TE-14002

Virtual Library Branch

Description

This project funds the creation of a library virtual branch that will allow all library activities that take place in physical buildings to be accessible in an online environment. It will provide collections, customer service, programs, and community engagement using current web and mobile technology.

Justification

The Library Service Model Analysis and Recommendations (LSMAR), published in 2006, stated the library should "boldly address community needs through the provision of collection and services that meet leading edge standards for content, access and connectivity" to "efficiently and effectively serve all ages and support life-long learning." The Library Technology Plan 2009-2013 added the idea for a "full-service online library branch," noting that "mobile-friendly services" would be common by 2015. The project will result in improved customer service interactions and increased use of available Library resources.

Supplemental Information

In 2011 the Library Advisory Commission proposed building a virtual branch, integrating the library catalog with online resources and delivery that is web-based and mobile. The library has constructed prototypes to be used with a content management system to become actual interactive tools for staff.

Significant Changes

This project has experienced delays due to delays with the bond-funded library construction projects.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Technology Fund	2,029	192,971	13,100	179,871	0	0	0	0	179,871	0	195,000
Total	**2,029**	**192,971**	**13,100**	**179,871**	**0**	**0**	**0**	**0**	**179,871**	**0**	**195,000**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	2,029	192,971	13,100	179,871	0	0	0	0	179,871	0	195,000
Total	**2,029**	**192,971**	**13,100**	**179,871**	**0**	**0**	**0**	**0**	**179,871**	**0**	**195,000**

Relationship to Comprehensive Plan

Primary Connection

Element: Governance

Section: Public Participation

Goal: G-1

Policy: G-3

Program: G-6

Potential Board/Commission Review:

Library Advisory Commission

Environmental Impact Analysis:

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

VEHICLE REPLACEMENT & MAINTENANCE FUND

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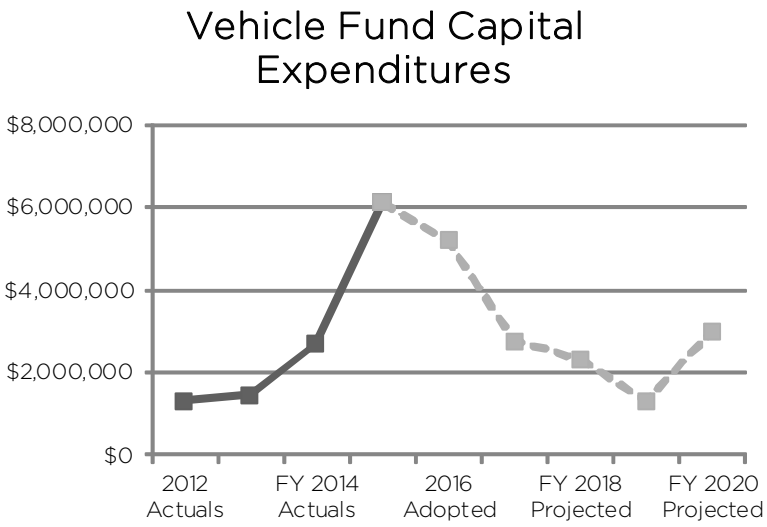
VEHICLE REPLACEMENT AND MAINTENANCE

Overview



Activities related to the replacement, maintenance, and operations of the City's fleet and equipment are accounted for within the Vehicle Replacement Fund. The Vehicle Capital Improvement Program 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 Adopted Operating Budget. For the Fiscal Year 2016-2020 Capital Improvement Program (CIP), expenditures of $14.7 million are programmed, with $5.2 million allocated in Fiscal Year 2016. It is important to note that all expenditures in the Vehicle Fund are reimbursed by transfers from the funds benefiting from the services and purchases incurred in the fund. Overall, a total of 12 capital projects are programmed over the 5 year CIP. Major projects funded in the 2016-2020 CIP include Vehicle and Equipment Replacements ($14.0 million) and Emergency Repairs and Replacements ($0.6 million) The budget for the Vehicle Fund Capital Improvement Program is broken into two separate 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 within the Equipment Management Area. This could mean an update in software, new diesel particulate filters for diesel vehicles required by Bay Area Air Quality Management District, new fuel tanks, reorganization of parts room, etc.

Recent Accomplishments

- Completed Emergency generator connection at Municipal Services Center Fuel Station

2016-2020 Capital Improvement Program

Recurring Projects

There are no recurring projects in this category.

Non-Recurring Projects

The 2016-2020 CIP includes $0.1 million for projects in this category: Municipal Services Center Fuel Station Demolition ($34,000) and Replacement of Citywide Fuel Transaction and Inventory Management System ($48,000). Funding for both of these projects was previously approved by the City Council, and was approved to be carried forward to Fiscal Year 2016 to support the completion of the projects in Fiscal Year 2016.

Vehicle and Equipment Replacement

The Vehicle and Equipment Replacement category accounts for the purchase of vehicles and equipment. Funds are collected from the department/fund that will utilize the equipment over the projected useful life of the vehicle/equipment, so when the useful life of the vehicle or equipment has been reached, funds will be in place to support the cost of replacement. Over the course of the Fiscal Year 2016-2020 Capital Improvement Program approximately 32% of the Vehicle and Equipment Fleet are anticipated to be replaced at a total cost of $14.0 million, of which $5.0 million is allocated in Fiscal Year 2016.

Infrastructure Inventory

TYPE/GROSS VEHICLE WEIGHT (GVW)	UNLEADED	DIESEL	CNG	HYBRID	ELECTRIC	NO ENGINE TRAILERS	TOTAL
Sedans/Suv's*	41	-	26	2	-	-	**69**
Police marked units	26	-	-	-	-	-	**26**
Motorcycles	6	-	-	-	-	-	**6**
Scooters**	5	-	-	-	2	-	**7**
Truck/Van <6K GVW	54	-	-	-	-	-	**54**
Truck/Van 6K-11K GVW	60	2	26	-	-	-	**88**
Trucks 11K-15K GVW	11	3	-	-	-	-	**14**
Trucks 15K-26K GVW	6	13	-	-	-	-	**19**
Dump truck <11K GVW	20	17	-	-	-	-	**37**
Large Equipment: Boom truck, aerials, crane truck	3	13	-	-	-	-	**16**
Wildland patrol vehicles	3	-	-	-	-	-	**3**
Water truck	-	1	-	-	-	-	**1**
Fire safety	2	18	-	-	-	-	**20**
Sweepers	-	4	-	-	-	-	**4**

Infrastructure Inventory

TYPE/GROSS VEHICLE WEIGHT (GVW)	UNLEADED	DIESEL	CNG	HYBRID	ELECTRIC	NO ENGINE TRAILERS	TOTAL
Backhoe, mowers, tractors, forklifts, rollers, air compressors, chippers, trailers	2	44	-	-	8	-	**54**
Asphalt rollers, water pumps, light towers, spray rigs	2	7	-	-	-	-	**9**
Generators, ditch witches, cable reelers	18	31	4	-	5	68	**126**
TOTAL	**259**	**153**	**56**	**2**	**15**	**68**	**553**

* Will be exploring Electric vehicles for future replacement

** Scooters and no engine trailers were not included in previous years

Recent Accomplishments

- Delivered 12 CNG vans; 6 marked police vehicles; one 100-ft ladder truck; two skid steer loaders; two pickups; three backhoes, two bobcats; one SUV; two chippers; one paint truck; and one paver.

2016-2020 Capital Improvement Program

Recurring Projects

The 2016-2020 CIP includes one recurring project: Emergency Repair and Replacement. This project, with annual funding of approximately $0.1 million, allows for the repair/replacement of vehicles/equipment that sustain damage primarily due to accidents or unpreventable major equipment failures. Whenever possible, expenses are reimbursed by insurance companies, such as when a non-City vehicle crashes into a City vehicle. Since this project was first established, the Public Works Department has replaced two vehicles and one piece of equipment.

Non-Recurring Projects

Over the course of the 2016-2020 CIP, $14.0 million is allocated for vehicle and equipment replacements. All vehicles scheduled for replacement are at, or are expected to reach, the end of their expected useful life. For replacements programmed in future fiscal years, replacements are not made unless the vehicle has reached the end of its useful life, even if funding has already been approved. Criteria for replacing a vehicle include but are not limited to the mileage or hours of operations, the age, the repair record and the utilization of the vehicle as well as funding availability. Further, based on an internal policy that is currently being developed, a determination is made at the time of replacement whether to replace an existing vehicle with an electric or alternative fuel vehicle. As part of the policy, electric vehicles will be pursued before alternative fuel vehicles, such as CNG, in order to minimize Green House Gas emissions, if available at a reasonable price.

Summary of Capital Activity

Vehicle Fund

Project Number	Project Name	FY 2014 Actuals	FY 2015 Estimated	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5-Year Total
Use of Funds									
Fleet Infrastructure Improvements									
VR-07001	Automated Motor Pool Reservation and Vehicle Key Management System	$ —	$ 10,979	$ —	$ —	$ —	$ —	$ —	$ —
VR-06801	Citywide Fuel Transaction and Inventory Management System Replacement	883	69,484	48,452	—	—	—	—	48,452
VR-92006	Fuel Storage Tanks Upgrade	465	—	—	—	—	—	—	—
VR-12001	In-Ground Vehicle Lift	—	83,525	—	—	—	—	—	—
VR-14002	Municipal Services Center Fuel Station Demolition	23,656	216,344	34,512	—	—	—	—	34,512
VR-01001	Municipal Services Center Fuel Storage Tank/Service Island Replacement	4,520	63,083	—	—	—	—	—	—
VR-04010	Vehicle Maintenance	—	262,860	—	—	—	—	—	—
	Fleet Infrastructure Improvements Total	29,524	706,275	82,964	—	—	—	—	82,964
Vehicle and Equipment Replacement									
VR-14001	Emergency Repair and Replacement	$ 73,538	$ 5,418	$ —	$ —	$ —	$ —	$ —	$ —
VR-15001	Emergency Repair and Replacement	—	100,000	108,050	110,181	110,486	110,801	111,125	550,643
VR-11000	Scheduled Vehicle and Equipment Replacement - Fiscal Year 2011	—	325,177	—	—	—	—	—	—
VR-13000	Scheduled Vehicle and Equipment Replacement - Fiscal Year 2013	1,413,300	1,463,905	27,691	—	—	—	—	27,691
VR-14000	Schedule Vehicle and Equipment Replacement - Fiscal Year 2014	1,217,538	1,737,744	61,633	—	—	—	—	61,633
VR-15000	Scheduled Vehicle and Equipment Replacement - Fiscal Year 2015	—	1,777,989	2,074,453	—	—	—	—	2,074,453
VR-16000	Scheduled Vehicle and Equipment Replacement - Fiscal Year 2016	—	—	2,840,442	78,189	42,845	—	—	2,961,476
VR-17000	Scheduled Vehicle and Equipment Replacement - Fiscal Year 2017	—	—	—	2,607,693	82,747	—	—	2,690,440
VR-18000	Scheduled Vehicle and Equipment Replacement - Fiscal Year 2018	—	—	—	—	2,091,465	86,927	—	2,178,392
VR-19000	Scheduled Vehicle and Equipment Replacement - Fiscal Year 2019	—	—	—	—	—	1,117,097	89,535	1,206,632
VR-20000	Scheduled Vehicle and Equipment Replacement - Fiscal Year 2020	—	—	—	—	—	—	2,818,140	2,818,140
	Vehicle and Equipment Replacement Total	2,704,376	5,410,233	5,112,269	2,796,063	2,327,543	1,314,825	3,018,800	14,569,500
	Total Expenses	$ 2,733,900	$ 6,116,508	$ 5,195,233	$ 2,796,063	$ 2,327,543	$ 1,314,825	$ 3,018,800	$14,652,464

Fleet Infrastructure Improvements

CITY OF
PALO
ALTO

FDS controller, March 2015

Fund: Vehicle Replacement & Maintenance Fund
Category: Fleet Infrastructure Improvements
Project Location: 3201 E. Bayshore Road

Managing Department: Public Works

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

Revised Project Start: Fall 2009
Revised Project Completion: Spring 2016

Project Number: VR-06801

Citywide Fuel Transaction and Inventory Management System Replacement

Description

This project provides funding for the replacement of the existing Citywide vehicle fuel transaction and fuel inventory management system. Equipment Management provides fueling stations at the Municipal Service Center, Fire stations 1, 2, ,and 4 and at the Golf Course.

Justification

All City fuel dispensing facilities are equipped with a vehicle fuel transaction and inventory management system, which uploads transaction data to a server located at the Municipal Service Center (MSC). The original system was installed in 1995 when the MSC Station was built and was later upgraded in 1999. Since the PC-based hardware was at the end of its useful life, research was conducted on available systems.

Supplemental Information

Staff found that Equipment Management's existing fleet management software vendor, AssetWorks, also had a fuel management system application that could be installed as an upgrade to the existing systems and could provide better integration than the original stand-alone system. The installations were to coincide with the completion of the new MSC Fueling Facility completed in 2008.

Significant Changes

This project was originally budgeted for installation in Fiscal Year 2007 and the installations were to coincide with the completion of the new MSC Fueling Facility relocated to the east side of the MSC. The AssetWorks software system at the new MSC Station was implemented in

2009 providing additional capabilities. It was anticipated that staff would roll this software system out to all fueling stations however problems were encountered with the hardware of the new system at the MSC and it was determined that changing over the remaining stations with the AssetWorks software would prove to be problematic. The original vendor for the stand alone system has made the necessary changes to their software to now provide a fully automated system and provide integration with the existing AssetWorks fleet management software. Fire Stations 1, 2, 4 and the Golf Course will be completed by the end of Fiscal Year 2016. Additionally, as part of the Fiscal Year 2016 Budget, this project has been retitled from "Replace Citywide Fuel Transaction and Inventory Management System".

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Vehicle Replacement Fund	176,045	108,955	69,484	48,452	0	0	0	0	48,452	0	293,981
Total	**176,045**	**108,955**	**69,484**	**48,452**	**0**	**0**	**0**	**0**	**48,452**	**0**	**293,981**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Construction	176,045	108,955	69,484	48,452	0	0	0	0	48,452	0	293,981
Total	**176,045**	**108,955**	**69,484**	**48,452**	**0**	**0**	**0**	**0**	**48,452**	**0**	**293,981**

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Potential Board/Commission Review:

Fleet Review Committee

Environmental Impact Analysis:

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

Old Fuel Station, March 2015

Fund: Vehicle Replacement & Maintenance Fund
Category: Fleet Infrastructure Improvements
Project Location: 3201 East Bayshore Road

Managing Department: Public Works

Initial Project Start: Summer 2013
Initial Project Completion: Winter 2015

Revised Project Start: Spring 2014
Revised Project Completion: Summer 2015

Project Number: VR-14002

Municipal Services Center Fuel Station Demolition

Description

This project will demolish and remove the former fueling station and above ground storage tanks at the Municipal Service Center. The area will then be restored with asphalt pavement for additional storage, parking, and operational area.

Justification

The primary fueling facility for City vehicles is located at the Municipal Service Center and a new fuel station was constructed in 2008, located at the eastern side of the Municipal Service Center. The old station located on the north side of the Municipal Service Center is obsolete, no longer used, and is occupying space that could be utilized for parking for Public Works, Community Services, and Utility vehicles or used for additional storage.

Significant Changes

This project was reassigned to another Project Manager due to workload and priority constraints which caused a delay in the start of this project.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Vehicle Replacement Fund	23,656	216,344	216,344	34,512	0	0	0	0	34,512	0	274,512
Total	**23,656**	**216,344**	**216,344**	**34,512**	**0**	**0**	**0**	**0**	**34,512**	**0**	**274,512**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Design	23,656	0	0	0	0	0	0	0	0	0	23,656
Construction	0	216,344	216,344	34,512	0	0	0	0	34,512	0	250,856
Total	**23,656**	**216,344**	**216,344**	**34,512**	**0**	**0**	**0**	**0**	**34,512**	**0**	**274,512**

Relationship to Comprehensive Plan

Primary Connection

Element: Community Services & Facilities

Section: Parks and Public Facilities

Goal: C-4

Policy: C-24

Program: C-19

Potential Board/Commission Review:

Fleet Review Committee

Environmental Impact Analysis:

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

Vehicle and Equipment Replacement

CITY OF
PALO
ALTO

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 primarily due to accidents or incur unpreventable major equipment failure. During any given year there are a number of vehicles or large City equipment that are involved in traffic accidents and while the Public Works Department budgets for preventative maintenance, large unforseen mechanical failures also occur.

Justification

Vehicles/equipment spend the majority of the day on the roads and are exposed to the normal risks of driving and equipment ownership. This project will ensure that funding is in place to repair or replace vehicles or pieces of equipment that are critical to operations in a timely manner. Vehicles/equipment that are in continual use such as: utility trucks and police vehicles need to be replaced/repaired quickly if an accident or major repair occurs to ensure uninterrupted service.

Supplemental Information

Critical pieces of equipment such as utility vehicles and police sedans cannot experience lengthy down times without impacting services to residents. In some cases the City owns reserve vehicles/equipment, especially in public safety, however it is unrealistic to supply a back up for each piece of equipment or type of vehicle. Additionally, this project will assist Public Works to identify and track these events which will assist in both analyzing any patterns but also with collection from insurance companies from those responsible.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Vehicle Replacement Fund	N/A	100,000	100,000	108,050	110,181	110,486	110,801	111,125	550,643	0	N/A
Total	**N/A**	**100,000**	**100,000**	**108,050**	**110,181**	**110,486**	**110,801**	**111,125**	**550,643**	**0**	**N/A**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	N/A	100,000	100,000	108,050	110,181	110,486	110,801	111,125	550,643	0	N/A
Total	**N/A**	**100,000**	**100,000**	**108,050**	**110,181**	**110,486**	**110,801**	**111,125**	**550,643**	**0**	**N/A**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Air Quality

Goal: N-5

Policy: N-26

Program: N-41

Potential Board/Commission Review:

Fleet Review Committee

Environmental Impact Analysis:

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

Vacuum Flush Truck, March 2015

Fund: Vehicle Replacement & Maintenance Fund
Category: Vehicle and Equipment Replacement
Project Location: 3201 East Bayshore Road

Managing Department: Public Works

Initial Project Start: Summer 2012
Initial Project Completion: Summer 2013

Revised Project Start: Winter 2013
Revised Project Completion: Fall 2015

Project Number: VR-13000

Scheduled Vehicle and Equipment Replacement - Fiscal Year 2013

Description

This project provides funding for the scheduled replacement of existing City fleet vehicles and equipment for Fiscal Year 2013. A total of four vehicles were scheduled to be replaced under this project: two street sweepers and two ambulances for a total of $875,000.

Justification

The ongoing replacement of City fleet vehicles and equipment is prescribed by City's policy for vehicle replacement. The policy includes guidelines for these replacements 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.

Supplemental Information

In June 2010 the City Auditor released the Audit of Fleet Utilization and Replacement. The capital program for fleet replacements was primarily deferred for three years with only critical vehicle replacements being programmed in the five year capital plan. Other vehicles and equipment that were essential for operations were first reviewed and approved by the Fleet Review Committee and ultimately brought before City Council with a budget amendment ordinance.

Significant Changes

Due to staffing shortages, including the vacancy for the Fleet Manager, and long lead times not all vehicles under this CIP have been put in service. Originally 2 street sweepers and 2 ambulances were adopted in this project. Through the annual budget process the purchase of the following vehicles was also approved: 6 CNG sedans, 3 pickup trucks, 1 van, 2 mowers, 1 patch

truck, 1 tractor, 1 SUV and 1 ATV. All of the above have been received and are in service. In addition, 2 vacuum trucks and 1 hydro excavator were approved, ordered but not received yet. Once received, outfitting will take place and this project will be complete in Fiscal Year 2016.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Vehicle Replacement Fund	1,941,086	1,474,682	1,463,905	27,691	0	0	0	0	27,691	0	3,432,682
Total	**1,941,086**	**1,474,682**	**1,463,905**	**27,691**	**0**	**0**	**0**	**0**	**27,691**	**0**	**3,432,682**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	1,941,086	1,474,682	1,463,905	27,691	0	0	0	0	27,691	0	3,432,682
Total	**1,941,086**	**1,474,682**	**1,463,905**	**27,691**	**0**	**0**	**0**	**0**	**27,691**	**0**	**3,432,682**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Air Quality

Goal: N-5

Policy: N-26

Program: N-41

Environmental Impact Analysis:

Categorically exempt from CEQA, section 15301.

Paver, March 2015

Fund: Vehicle Replacement & Maintenance Fund
Category: Vehicle and Equipment Replacement
Project Location: 3201 East Bayshore Road

Managing Department: Public Works

Initial Project Start: Summer 2013
Initial Project Completion: Spring 2014

Revised Project Start: Fall 2013
Revised Project Completion: Fall 2015

Project Number: VR-14000

Scheduled Vehicle and Equipment Replacement - Fiscal Year 2014

Description

This project includes the scheduled replacement of existing City fleet vehicles and equipment for Fiscal Year 2014. A total of 20 vehicles and pieces of equipment were scheduled to be replaced under this project. Significant purchases included a Fire aerial truck ($1.2M), paint truck ($200,000), lift truck ($267,000), and fork lift ($150,900). All vehicle replacements were reviewed by the Fleet Review Committee prior to the acquisition process.

Justification

The ongoing replacement of City fleet vehicles and equipment is prescribed by City's policy for vehicle replacement. The policy includes guidelines for these replacements 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.

Supplemental Information

20 vehicles and pieces of equipment were scheduled for replacement in Fiscal Year 2014, this included six patrol vehicles, fire department aerial truck, five trucks, an asphalt paver, two backhoes, a turf mower, and a van, as well as the significant purchases mentioned above.

Significant Changes

Due to staffing shortages, including the vacancy for the Fleet Manager, and long lead times not all vehicles under this CIP have been put in service. Since the approval of this project five trucks were moved to the following fiscal year and in exchange one SUV, eleven CNG vans, one F-150, and two bobcat tractors were added with approval from the Fleet Review Committee. All vehi-

cles have been received except one forklift for Utilities, as well as outfitting for one SUV for the Fire Department. This project will be complete in Fiscal Year 2016.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Vehicle Replacement Fund	1,217,538	1,782,462	1,737,744	61,633	0	0	0	0	61,633	0	3,016,915
Total	**1,217,538**	**1,782,462**	**1,737,744**	**61,633**	**0**	**0**	**0**	**0**	**61,633**	**0**	**3,016,915**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	1,217,538	1,782,462	1,737,744	61,633	0	0	0	0	61,633	0	3,016,915
Total	**1,217,538**	**1,782,462**	**1,737,744**	**61,633**	**0**	**0**	**0**	**0**	**61,633**	**0**	**3,016,915**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Air Quality

Goal: N-5

Policy: N-26

Program: N-41

Environmental Impact Analysis:

Categorically exempt from CEQA, section 15301.

Brush Chipper, March 2015

Fund: Vehicle Replacement & Maintenance Fund
Category: Vehicle and Equipment Replacement
Project Location: 3201 East Bayshore Road, Palo Alto, CA

Managing Department: Public Works

Initial Project Start: Summer 2014
Initial Project Completion: Spring 2015

Revised Project Start:
Revised Project Completion: Spring 2016

Project Number: VR-15000

Scheduled Vehicle and Equipment Replacement - Fiscal Year 2015

Description

This project involves the scheduled replacement of existing City fleet vehicles and equipment for Fiscal Year 2015.

Justification

The ongoing replacement of City fleet vehicles and equipment is prescribed by City's policy for vehicle replacement. The policy includes guidelines for these replacements 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 a new policy being developed staff will first consider electric vehicles and then other alternative fuel vehicles when replacing existing vehicles.

Supplemental Information

This funding allowed for the following replacements: 7 sedans; 12 pickup trucks; 17 vans; 3 fire apparatus; 5 police vehicles and 5 misc. equipment units. Of the 49 vehicles and pieces of equipment scheduled for replacement in Fiscal Year 2015, twenty-seven support General Fund operations ($2,144,000), and twenty-two support the operations of various Enterprise Funds ($1,642,000).

Significant Changes

Due to staffing shortages, including the vacancy for the Fleet Manager, and long lead times not all vehicles under this CIP have been put in service. Since the approval of this project 31 vehicles have been ordered, 26 have been received, five are being assembled. In addition, 18 remain to be

ordered, which includes 11 pickups; three vans; two sedans; one police vehicle; and one misc. equipment unit.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Vehicle Replacement Fund	0	3,786,000	1,777,989	2,074,453	0	0	0	0	2,074,453	0	3,852,442
Total	**0**	**3,786,000**	**1,777,989**	**2,074,453**	**0**	**0**	**0**	**0**	**2,074,453**	**0**	**3,852,442**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	3,786,000	1,777,989	2,074,453	0	0	0	0	2,074,453	0	3,852,442
Total	**0**	**3,786,000**	**1,777,989**	**2,074,453**	**0**	**0**	**0**	**0**	**2,074,453**	**0**	**3,852,442**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Air Quality

Goal: N-5

Policy: N-26

Program: N-41

Potential Board/Commission Review:

Fleet Review Committee

Environmental Impact Analysis:

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

GMC 3500 with crane, February 2015

Fund: Vehicle Replacement & Maintenance Fund
Category: Vehicle and Equipment Replacement
Project Location: 3201 East Bayshore Road, Palo Alto, CA

Managing Department: Public Works

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

Revised Project Start:
Revised Project Completion:

Project Number: VR-16000

Scheduled Vehicle and Equipment Replacement - Fiscal Year 2016

Description

This project will involve the scheduled replacement of existing City fleet vehicles and equipment for Fiscal Year 2016.

Justification

The ongoing replacement of City fleet vehicles and equipment is prescribed by City's policy for vehicle replacement. The policy includes guidelines for these replacements 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 a new policy being developed staff will first consider electric vehicles and then other alternative fuel vehicles when replacing existing vehicles.

Supplemental Information

This funding will allow for the following replacements: 5 sedans; 13 pickup trucks; 6 vans; three police vehicles; one wildland pumper; two SUVs; one dump truck and 8 miscellaneous equipment units. Of the 39 vehicles and pieces of equipment scheduled for replacement in Fiscal Year 2016, twenty-one support operations in the General Fund ($1,469,000), and eleven support the operations in various Enterprise Funds ($1,305,000).

Significant Changes

The Fiscal Year 2015 Adopted Capital Budget request has increased by $468,000 due to the addition of a pickup truck, step van, green machine, two trailers, wash trailer for substation transformers, and a F-550 utility aerial truck.

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Vehicle Replacement Fund	0	0	0	2,840,442	78,189	42,845	0	0	2,961,476	0	2,961,476
Total	**0**	**0**	**0**	**2,840,442**	**78,189**	**42,845**	**0**	**0**	**2,961,476**	**0**	**2,961,476**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	0	0	2,840,442	78,189	42,845	0	0	2,961,476	0	2,961,476
Total	**0**	**0**	**0**	**2,840,442**	**78,189**	**42,845**	**0**	**0**	**2,961,476**	**0**	**2,961,476**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Air Quality

Goal: N-5

Policy: N-26

Program: N-41

Potential Board/Commission Review:

Fleet Review Committee

Environmental Impact Analysis:

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

DMT generator, March 2015

Fund: Vehicle Replacement & Maintenance Fund
Category: Vehicle and Equipment Replacement
Project Location: 3201 East Bayshore Road, Palo Alto, CA

Managing Department: Public Works

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

Revised Project Start:
Revised Project Completion:

Project Number: VR-17000

Scheduled Vehicle and Equipment Replacement - Fiscal Year 2017

Description

This project will involve the scheduled replacement of existing City fleet vehicles and equipment for Fiscal Year 2017.

Justification

The ongoing replacement of City fleet vehicles and equipment is prescribed by City's policy for vehicle replacement. The policy includes guidelines for these replacements 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 a new policy being developed staff will first consider electric vehicles and then other alternative fuel vehicles when replacing existing vehicles.

Supplemental Information

This funding will allow for the following replacements: two sedans; 16 pickup trucks; 15 vans; two dump trucks; one SUV; eleven miscellaneous equipment units and five trailers. Of the 52 vehicles and pieces of equipment scheduled for replacement in Fiscal Year 2017, 36 support the operations of the General Fund ($1,551,000), and sixteen support the operations of various Enterprise Funds ($996,000).

Significant Changes

2016-2020 CIP: Project Established

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Vehicle Replacement Fund	0	0	0	0	2,607,693	82,747	0	0	2,690,440	0	2,690,440
Total	**0**	**0**	**0**	**0**	**2,607,693**	**82,747**	**0**	**0**	**2,690,440**	**0**	**2,690,440**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	0	0	0	2,607,693	82,747	0	0	2,690,440	0	2,690,440
Total	**0**	**0**	**0**	**0**	**2,607,693**	**82,747**	**0**	**0**	**2,690,440**	**0**	**2,690,440**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Air Quality

Goal: N-5

Policy: N-26

Program: N-41

Potential Board/Commission Review:

Fleet Review Committee

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, Palo Alto, CA

Managing Department: Public Works

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

Revised Project Start:
Revised Project Completion:

Project Number: VR-18000

Scheduled Vehicle and Equipment Replacement - Fiscal Year 2018

Description

This project will involve the scheduled replacement of existing City fleet vehicles and equipment for Fiscal Year 2018.

Justification

The ongoing replacement of City fleet vehicles and equipment is prescribed by City's policy for vehicle replacement. The policy includes guidelines for these replacements 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 a new policy being developed staff will first consider electric vehicles and then other alternative fuel vehicles when replacing existing vehicles.

Supplemental Information

This funding will allow for the following replacements: 7 pickup trucks; two patrol vehicles; two SUVs; 6 vans; one aerial truck; and 6 miscellaneous equipment units. Of the 24 vehicles and pieces of equipment scheduled for replacement in Fiscal Year 2018, 11 support the operations in the General Fund ($645,000), and 13 support the operations of various Enterprise Funds ($1,382,000).

Significant Changes

2016-2020 CIP: Project Established

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Vehicle Replacement Fund	0	0	0	0	0	2,091,465	86,927	0	2,178,392	0	2,178,392
Total	**0**	**0**	**0**	**0**	**0**	**2,091,465**	**86,927**	**0**	**2,178,392**	**0**	**2,178,392**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	0	0	0	0	2,091,465	86,927	0	2,178,392	0	2,178,392
Total	**0**	**0**	**0**	**0**	**0**	**2,091,465**	**86,927**	**0**	**2,178,392**	**0**	**2,178,392**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Air Quality

Goal: N-5

Policy: N-26

Program: N-41

Potential Board/Commission Review:

Fleet Review Committee

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, Palo Alto, CA

Managing Department: Public Works

Initial Project Start: Summer 2018
Initial Project Completion: Spring 2020

Revised Project Start:
Revised Project Completion:

Project Number: VR-19000

Scheduled Vehicle and Equipment Replacement - Fiscal Year 2019

Description

This project will involve the scheduled replacement of existing City fleet vehicles and equipment for Fiscal Year 2019.

Justification

The ongoing replacement of City fleet vehicles and equipment is prescribed by City's policy for vehicle replacement. The policy includes guidelines for these replacements 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 a new policy being developed staff will first consider electric vehicles and then other alternative fuel vehicles when replacing existing vehicles.

Supplemental Information

This funding will allow for the following replacements: two CNG sedans; seven CNG pickup trucks; five trailers; and two ambulances. Of the 16 vehicles and pieces of equipment scheduled for replacement in Fiscal Year 2019, seven support General Fund operations ($616,000), and nine support the operations of various Enterprise Funds ($433,000).

Significant Changes

2016-2020 CIP: Project Established

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Vehicle Replacement Fund	0	0	0	0	0	0	1,117,097	89,535	1,206,632	0	1,206,632
Total	**0**	**0**	**0**	**0**	**0**	**0**	**1,117,097**	**89,535**	**1,206,632**	**0**	**1,206,632**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	0	0	0	0	0	1,117,097	89,535	1,206,632	0	1,206,632
Total	**0**	**0**	**0**	**0**	**0**	**0**	**1,117,097**	**89,535**	**1,206,632**	**0**	**1,206,632**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Air Quality

Goal: N-5

Policy: N-26

Program: N-41

Potential Board/Commission Review:

Fleet Review Committee

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 will involve the scheduled replacement of existing City fleet vehicles and equipment for Fiscal Year 2020.

Justification

The ongoing replacement of City fleet vehicles and equipment is prescribed by City's policy for vehicle replacement. The policy includes guidelines for these replacements 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 a new policy being developed staff will first consider electric vehicles and then other alternative fuel vehicles when replacing existing vehicles.

Supplemental Information

This funding will allow for the following replacements: 5 sedans; 24 pickup trucks; 4 vans; 4 trailers; one SUV; and 8 miscellaneous equipment units. Of the 46 vehicles and pieces of equipment scheduled for replacement in Fiscal Year 2020, 35 support General Fund operations ($2,119,000) and 11 support the operations of various Enterprise Funds/Internal Services ($629,000).

Significant Changes

2016-2020 CIP: Project Established

Funding Sources Schedule

Funding Source	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Vehicle Replacement Fund	0	0	0	0	0	0	0	2,818,140	2,818,140	0	2,818,140
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,818,140**	**2,818,140**	**0**	**2,818,140**

Expenditure Schedule

Project Phase	Prior Years	FY 2015 Budget	FY2015 Est.	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	5 Year CIP Total	Beyond 5 Year CIP	Total
Other	0	0	0	0	0	0	0	2,818,140	2,818,140	0	2,818,140
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,818,140**	**2,818,140**	**0**	**2,818,140**

Relationship to Comprehensive Plan

Primary Connection

Element: Natural Environment

Section: Air Quality

Goal: N-5

Policy: N-26

Program: N-41

Potential Board/Commission Review:

Fleet Review Committee

Environmental Impact Analysis:

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

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