



Office of the City Manager

WORKSESSION

May 16, 2017

To: Honorable Mayor and Members of the City Council

From: Dee Williams-Ridley, City Manager

Submitted by: Phillip L. Harrington, Director, Department of Public Works

Subject: Update on Public Works Capital Improvement Projects: Recent and Planned Projects and Ongoing Need

SUMMARY

This report provides an update on current and planned improvements to the City's public facilities and infrastructure through the FY 2018 - 2022 Proposed Capital Improvement Plan (CIP), as well as CIP unfunded needs. No specific Council action is required, nonetheless staff are seeking comment on the information presented. Approval of the CIP will occur concurrent with the adoption of the City's biannual Operating and Capital Budgets in June.

CURRENT SITUATION AND ITS EFFECTS

The delivery of high quality capital projects that improve and maintain the City's infrastructure is a central part of the Department of Public Works' (Public Works) core mission. Public Works matches available funding with needed capital improvement and infrastructure maintenance projects, and also leverages one-time and outside sources of funding whenever possible. Currently, Public Works is operating at full capacity delivering a robust capital program that accelerates road pavement condition and improves complete streets; adds green infrastructure; repairs the sewer system; makes improvements to the City's transportation network; and improves City facilities and buildings.

In FY 2018, several new projects will be added to the current capital program and CIP funded by the T-1 Infrastructure Bond, the new state Gas Tax, and regional Transportation funding. Public Works is developing project and staffing plans to add those anticipated projects and funding sources into the capital program. This report and presentation will highlight recently completed projects, projects under construction, and the next five year capital plan. Attachment 1 provides updates on the full list of projects planned for FY 2018 through FY 2022.

Facilities

Facility capital projects involve construction of new or restored facilities, or improvements to existing facilities at a cost of \$50,000 or more. Routine maintenance

projects are defined as those involving repairs to minor components of existing facilities and are not included in this report.¹

Current estimated costs for City facility needs within the Five-Year Facility CIP is approximately \$16.6M based on a 2013 assessment. In comparison, the current annual facilities budget allocation is \$900,000 to support deferred maintenance, emergency maintenance, and ADA improvements. One-time supplements from the General Fund and other fund sources have been previously utilized when available. Although some projects have been completed since 2013, the true level of unfunded need still hovers near \$16M due largely to deferred maintenance that has accumulated since that time.

During the past twenty-five years, the City has identified many City-owned buildings impacted by deferred maintenance that has decreased their asset value and diminished their utility for City programs. To address this problem, bonds have previously been approved to rebuild a number of City buildings including the Civic Center, Berkeley Public Library (central branch and four branch libraries), Berkeley Animal Shelter, Center Street Garage and various fire stations. There are, however, many more outdated structures (e.g., recreation and senior centers) that require considerable maintenance and improvement, and which do not have access to those bond funds. Further, the General Fund budget allocations for emergency building maintenance and deferred maintenance remain at their FY 2013 levels of \$800,000. Presently, certain deferred maintenance projects are being addressed, including carpet replacement at the Public Safety Building and 2180 Milvia Street; paving repairs to the Allston Way Corporation Yard Parking Lot; and rehabilitation of city-owned upper sewer laterals. Projects are selected and prioritized each fiscal year based on facility condition assessments, life-safety deficiencies, facility maintenance staff recommendations, and department need.

Major facility capital improvement projects anticipated to be completed by the end of FY 2017 include renovation of Fire Station No.1 and of 1947 Center Street. Numerous deferred maintenance repair projects were completed in FY 2016 or will be completed in FY 2017 including Fire Station No.6 Drill Tower siding and painting; Public Safety Communications Center upgrades; preventive maintenance, repairs and replacement of various scales at the Berkeley Transfer Station; and South Berkeley Senior Center landscaping improvements. North Berkeley Senior Center, the Center Street Garage, the Adult Mental Health Clinic, and other upgrades to 2180 Milvia Street are scheduled to be completed in FY 2018.

Other Infrastructure

The projects listed in the "Other Infrastructure" category do not directly fit other capital program categories (such as Streets or Facilities). As such, there are varied fund sources for these projects, which include the Cesar Chavez Park former landfill, streetlights, and retaining walls. Previously, annual funding has been allocated for

¹ Including plumbing, electrical, HVAC, painting etc.

routine and non-routine maintenance and monitoring of the landfill. Annual funding of \$153,328 is proposed to continue for FY 2018 - 2022 and construction of the flare station will be completed in FY 2017. The next scheduled major capital landfill project is the repair of the rock armoring the east side of the park to prevent erosion. At this time, the City is seeking permits with various federal and state aquatic agencies who have jurisdiction for the project.

The streetlight program includes streetlight pole replacement; pole painting and rust removal; installation of additional streetlights on existing poles; streetlight pedestal upgrades; maintenance fixtures; and program related tree trimming. The streetlight program is funded by the Streetlight Assessment District that was adopted in 1982. The assessment is paid by property owners depending on if their property is located in a commercial, industrial or residential district.

Current Streetlight Assessment revenue of approximately \$1.4M is insufficient to fund capital or maintenance needs. The City owns 3,200 streetlight poles and many poles are likely at the end of their useful life and will need to be replaced in the short term at a total replacement cost of \$9.6M or \$3,000 each. A condition assessment will be conducted in summer 2017 to determine streetlight pole useful life, and annual capital funds needed to replace them. Staff is considering a Proposition 218 process to obtain the voter approval required to increase Streetlight Assessment rates, and pay for this program's capital needs.

Public Works is also responsible for maintaining approximately 325 retaining walls, bridges, tunnels, culverts and other miscellaneous non-building structures within the public right of way. Many of these structures are older and in need of repair. An annual \$250,000 funding allocation for maintenance of these structures is proposed in FY 2020 - 2022.

Streets & Roads

Passage of the \$30M Measure M Streets and Watersheds Bond in 2012, enabled the City to accelerate implementation of the paving program and install green infrastructure where appropriate. In FY 2016 the City resurfaced 10.77 street miles and plans to rehabilitate an additional 9.6 street miles by the end of FY 2017. In FY 2018 and FY 2019, the City plans to resurface approximately 8.7 street miles and make needed repairs to associated infrastructure including storm drains, curbs, gutters and sidewalks. Major street rehabilitation projects planned for FY 2018 and FY 2019 include the entire portion of Panoramic Hill that lies within the city limits, and North Shattuck Avenue.

Baseline funding for the street program is derived from Measures F, B, and BB, the General Fund Capital Improvement Fund, and the State Gas Tax. In FY2018 – 2022, these funds will provide \$28.4M for street repair and improvements. The Road Repair and Accountability Act of 2017 recently passed by the California Legislature will add approximately \$3M in revenue from FY 2018 and FY 2019 State Gas Tax, and over \$2M annually through 2027. These additional funds dedicated for road repair and

rehabilitation will allow acceleration of the paving program to continue after Measure M funds are exhausted.

Storm Drains – Clean Stormwater Program

The City's engineered storm drain system consists of approximately 78 miles of underground pipes, manholes, catch basins and cross-drains. The stormwater infrastructure is over 80 years old and needs substantial rehabilitation. The backlog of projects include rehabilitation of piping reaches; elimination of rising groundwater flooding issues; replacement of deteriorated drain inlets and piping; major cleaning of the primary storm collectors in the lower Berkeley drainage watersheds; and replacement of street cross drains.

In 2012, Council adopted the City's Watershed Management Plan (WMP) that establishes an integrated and sustainable strategy for managing urban water resources to address water quality, flooding, and the preservation of local creek habitats. Through modeling and analysis, the WMP also identifies capital improvement projects and projected revenue needs for all City watersheds. According to the Watershed Management Plan, total storm water system unfunded need is now approximately \$208 million, and will increase \$37M over the next five years (\$5M unfunded maintenance needs plus \$32M for projected capital improvement projects). In addition, there are increasing requirements imposed by National Pollutant Discharge Elimination System (NPDES) Permits through the Federal Clean Water Act, which will ultimately result in increased costs.

Approximately \$2M in annual revenue is generated by City's Clean Stormwater Fund fees assessed to real property owners (residential, commercial, industrial) that contribute to storm water runoff into the City's storm drain system. Of that amount, \$200,000 annual capital funding is allocated to the storm drain system, and provides only for minor capital and maintenance work and some emergency storm drain response efforts. The remainder of that fee revenue funds regular storm drain maintenance and cleaning operations. This fee has not been increased since its 1991 enactment and, in accordance with the 1996 California Proposition 218 "Right to Vote on Taxes Act," voter approval is required for fee increases. Staff is presently considering undertaking a Proposition 218 process during FY 2018 to increase fees needed to cover unfunded capital program liabilities.

In FY 2016 and FY 2017, construction has been completed at Curtis and Francisco Streets, and Jones and Tenth Streets intersections. Construction work is currently underway at the intersection of Bancroft Way and Bolivar Drive, and at the Sixth Street and Hearst Avenue intersections. Due to a recent landslide and other hazardous conditions, construction at Cragmont Avenue between Regal and Bret Hart Roads will be deferred until the existing uphill land slide is stabilized. Measure M will fund Green Infrastructure projects to be completed in FY2018, including a bio-swale at the intersection of Rose Street and Hopkins Street and a permeable paver bus pad at the intersection of Shattuck and University Avenues.

Sewers

In FY 2014, the City (along with East Bay Municipal Utilities District (EBMUD) and all agencies conveying flows to EBMUD) concluded negotiations with the Environmental Protection Agency and the Department of Justice for violations of the Clean Water Act and agreed to a stipulated settlement (Consent Decree). To comply with the Consent Decree, the City is required to repair an average of 4.2 miles of sewer pipeline annually based upon a three-year rolling average, which requires a significant amount of additional maintenance and capital improvements costs. In FY 2015, a sewer rate study was completed and rate increases were adopted to meet the Consent Decree requirements.

Between FY 2015 and the end of FY 2017, the City will have repaired a total of 13.6 sewer miles. While the City is currently on track to meet rehabilitation mileage targets using revenues generated from sanitary sewer fees, FY 2017 per mile sewer construction costs have increased almost 27% since the rate study was completed.² These costs will be closely monitored for the remaining nineteen year duration of the Consent Decree in the event additional funding from other sources or future rate adjustments are needed.

Sidewalks

Of the approximately 300 miles of concrete sidewalk spanning the City, an estimated 20-25 miles are in need of replacement at a total cost of \$15M. The "Proactive Repair Program" is focused on commercial districts and other high pedestrian areas where pedestrian traffic and corresponding potential for trip and fall incidents are highest. The "Responsive Sidewalk Repair Program" targets residential neighborhoods where staff has received information about damaged sidewalks. The California Streets and Highway Code assigns full responsibility for sidewalk maintenance and repair to the abutting property owner. On June 7, 2011, Council amended the Berkeley Municipal Code Section 16.04.010 to split responsibility for repair costs 50%-50% with property owners. The goal of this amendment is to improve overall pedestrian safety and increase the annual volume of sidewalks repaired/replaced.

The Sidewalk Program also includes repairs to damaged curbs and driveway aprons located in the public right of way. City staff estimates there are approximately fifteen miles of damaged curbs and hundreds of driveway aprons in need of replacement at a total estimated cost of \$3M.

In FY 2016 the City replaced approximately 4,300 linear feet (LF) of sidewalk; 6,300 square feet (SF) of driveway aprons; 2,000 LF of curbs; and development of the Keeler Walk pathway. In FY 2017 Public Works plans to increase sidewalk, driveway aprons, and curb replacements 10% and 15% above FY 2016 totals. Currently, Proactive and

² FY 2015 rate \$1.3M. FY 2016 rate \$1.7M. FY 2017 rate \$1.6M. These are construction costs only and do not include staff time.

Responsive program projects are at 65% design phase with project construction expected to be completed in FY2018. In addition, in FY 2017, design began on the West Berkeley Sidewalk Gap Project, which will install more than 1,600 LF of sidewalk in five locations in west Berkeley which currently have no sidewalks. The Sidewalk Gap Project is at 95% design phase with project construction expected to be completed in FY 2018.

The City's annual Sidewalks CIP budget totals \$1.24M in FY 2018 & FY 2019 which includes the Proactive and Responsive Sidewalk Programs and construction of curb ramps, curbs, driveway aprons, and pathways.

Transportation

The City of Berkeley is committed to improving traffic safety, encouraging transit use, bicycling and walking, and addressing a variety of transportation issues. Capital projects include parking facilities; street improvements; traffic calming measures (signs, markings, striping, traffic circles); and bicycle and pedestrian infrastructure improvements (pathways, on-street facilities, bicycle parking).

Public Works currently maintains 140 signalized traffic intersections. Due to underfunding, a repair/replacement backlog has grown which has prevent the traffic signal program from being kept up to date. As a result there are deficiencies at many intersections throughout the city, including lack of vehicle detection devices, lack of pedestrian push buttons, and lack of battery backup for signal controllers that allow continued operation in the event of a power outage. The FY 2018 and FY 2019 CIP prioritizes traffic signal improvements and maintenance, budgeting over \$1.52 million in FY2018 and \$1.04 million in FY 2019. These amounts are buoyed by one-time funding from Caltrans for Ashby Corridor improvements, and mitigation funds for San Pablo & Ashby intersection signal improvements. Despite these additional funds, available baseline funding is insignificant when compared with the \$250,000 - \$300,000 cost of one new intersection traffic signal.

FY 2017 completed transportation projects include the Safe Route to Schools capital improvements at Emerson and Martin Luther King schools, and design for the Shattuck Reconfiguration project scheduled to start construction FY 2018. The Safe Routes program for LeConte has a FY 2017planned construction start. The Hearst Complete Streets and Downtown BART Plaza projects are both under construction, and scheduled to be completed FY2018. After completing FY 2017 updates to the Bicycle Master Plan, the Transportation Division will update the Pedestrian Master Plan in FY 2018 and FY 2019.

In April 2017, Transportation staff received a preliminary notice of award from the Alameda County Transportation Commission (ACTC) as part of its FY 2018-2022 Comprehensive Investment Plan. In October 2016 the City applied for funding for several projects from ACTC during this countywide capital planning cycle. This funding is project based, and includes Alameda County revenues from Measure F, B, and BB,

as well as Federal transportation program pass-through funding. City-managed projects tentatively awarded funding include Southside Complete Streets and Transit Improvements, Railroad quiet zones, and North Shattuck Avenue Rehabilitation. Additionally, funding is allocated for regional projects to be administered by transportation partners, including Gilman Street Interchange, San Pablo Multimodal Corridor, and Rapid Bus Corridor Upgrades along San Pablo and Telegraph. The final award and funding is expected to be finalized and approved by ACTC in June 2017. Staff intend to return to Council at a later date with an updated capital plan to include these projects.

BACKGROUND

Summary of infrastructure inventory and programs

Public Works manages the construction and maintenance of public buildings, streets, sewers, vehicles, sidewalks, storm drain system, and other structures in the public right of way. The City is responsible for maintenance of ninety-five facilities that include thirty-nine facilities in the Parks Recreation and Waterfront inventory and fifty-six facilities in the Public Works inventory. Within the city limits, there are 216 miles of streets, 3,200 City-owned streetlight poles, 78 miles of storm drain system, 254 miles of sewer, and 325 retaining walls, bridges, tunnels, and miscellaneous non-building structures.

Unfunded capital and major maintenance needs

Major unfunded capital needs includes \$200M of watershed system needs, including stormwater infrastructure; approximately \$9.6M of streetlight costs; \$124.5M for streets; \$15.0M for sidewalk repair/replacement; and \$16.6M of facility needs.

The City's infrastructure has many deficiencies due to deferred maintenance caused by delayed maintenance/repairs due to underfunded programs over the course of many years, which ultimately results in higher capital and maintenance costs. If these deficiencies continue to be deferred, and if preventive maintenance is not performed timely, operating and maintenance costs will continue to rise and rehabilitation and replacement costs will increase exponentially. Preventive maintenance helps to greatly reduce program costs and significantly extends the life of these public assets.

Proposition 218 Initiatives

The Stormwater and Streetlight programs are both significantly underfunded, and unless additional fund sources are identified, projections for the Streetlight fund show an expected negative fund balance for FY2019, and for the Clean Stormwater Fund in FY2020. In order to balance the budget in the next two years, staff may have to reduce or remove planned capital allocations from these funds as needed. The City must go through the Proposition 218 process for the required voter approval to increase rates. Staff is in the process of releasing Request for Proposals to hire consultants to conduct rate studies and administer the Proposition 218 process. If approved, rate increases will go into effect FY2019.

ENVIRONMENTAL SUSTAINABILITY

The City aims to provide its citizens, visitors and staff safe, green, accessible and efficient facilities and infrastructure. Staff considers environmental performance and seeks to integrate energy and water efficiency improvements in all capital and major maintenance projects.

CONTACT PERSONS

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Attachments

1: Department of Public Works FY 2018-2022 Capital Plan

Facilities

Program and Funding Summary

Program Summary						
Project Description	Proposed FY 2018	Proposed FY 2019	Proposed FY 2020	Proposed FY 2021	Proposed FY 2022	5 Year Total
One-Time Funding						
North Berkeley Senior Center Seismic Retrofit (FEMA only)	1,875,000	0	0	0	0	1,875,000
Center Street Garage Rebuild	23,328,745	0	0	0	0	23,328,745
Subtotal	25,203,745	0	0	0	0	25,203,745
Recurring Funding						
ADA Building Improvements	100,000	100,000	100,000	100,000	100,000	500,000
Emergency Building Repairs	500,000	500,000	500,000	500,000	500,000	2,500,000
Deferred Building Maintenance	300,000	300,000	300,000	300,000	300,000	1,500,000
Transfer Station Design & Rebuild Reserve	500,000	500,000	500,000	500,000	500,000	2,500,000
<i>Debt Service: Animal Shelter - 2010 COP</i>	402,963	402,913	402,613	401,800	402,431	2,012,720
<i>Debt Service: Animal Shelter - 2008 GO Bonds - Measure I</i>	445,776	448,176	445,276	445,276	445,276	2,229,780
<i>Debt Service: Theater & Ballpark - 2012 Lease Rev. Bond</i>	249,971	249,468	249,901	249,857	249,179	1,248,375
Subtotal	2,498,710	2,500,557	2,497,790	2,496,933	2,496,886	12,490,876
Total	27,702,455	2,500,557	2,500,860	2,500,860	2,500,860	37,694,621
Funding Summary						
Fund Source	Proposed FY 2018	Proposed FY 2019	Proposed FY 2020	Proposed FY 2021	Proposed FY 2022	5 Year Total
Capital Improvement Fund	1,552,934	1,552,381	1,552,514	1,551,657	1,551,610	7,761,096
FEMA - Mitigation Funds	1,875,000	0	0	0	0	1,875,000
Measure I - General Obligation Bonds	445,776	448,176	445,276	445,276	445,276	2,229,780
Zero Waste Fund	500,000	500,000	500,000	500,000	500,000	2,500,000
Off Street Parking Fund	23,328,745	0	0	0	0	23,328,745
Total	27,702,455	2,500,557	2,497,790	2,496,933	2,496,886	37,694,621

Program Detail by Project

One-Time Projects	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Location/Description
North Berkeley Senior Center Seismic Retrofit (FEMA only)	1,875,000	0	0	0	0	FEMA Mitigation Funding portion of larger project at North Berkeley Senior Center for Seismic Upgrades and Deferred Maintenance Repairs and Improvements. Funding for the remainder of the project is anticipated from T1 Infrastructure Bond funds.
Center Street Garage Rebuild	23,328,745	0	0	0	0	Funding for the completion of the Center Street Garage reconstruction project.
Subtotal	25,203,745	0	0	0	0	
Deferred Maintenance	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Location/Description
Carpet Replacement	210,000	0	0	0	0	Public Safety Building and portions of 2180 Milvia
Upper Sewer Lateral Rehabilitation	90,000	90,000	0	0	0	Replacement or repair of city-owned upper laterals to reach compliance with the consent decree with the EPA.
Corp Yard Parking Lot Paving	0	110,000	0	0	0	Capital Improvement Fund allocation for paving repairs to the Corp Yard Parking Lot
Fire Station No. 2	0	100,000	0	0	0	Kitchen repair and selective tenant improvements
Deferred Maintenance (TBD)	0	0	300,000	300,000	300,000	Annual allocation to Facilities Deferred Maintenance from the General Fund is \$300,000. Funding is allocated to projects as they arise.
Subtotal	300,000	300,000	300,000	300,000	300,000	
ADA Compliance	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Location/Description
ADA Transition Plan Development	100,000	100,000	0	0	0	Update of the City's ADA Transition Plan
ADA Capital (TBD)	0	0	100,000	100,000	100,000	Annual allocation to Facilities ADA Compliance from the General Fund is \$100,000. Funding is allocated to projects as needs arise.
Subtotal	100,000	100,000	100,000	100,000	100,000	
Emergency Maintenance	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Location/Description
Public Safety Building Leak Repair	250,000	0	0	0	0	Repairs to damage caused by water intrusion at the Public Safety Building and eliminating source of leak.
Roof/Water Leak Assessment and Repair	50,000	50,000	0	0	0	Evaluation of water intrusions at the animal shelter and other city facilities.
Animal Shelter Lift Station	200,000	0	0	0	0	Sewer pump lift station repairs at the Animal Shelter, will reduce maintenance service calls.
Emergency Maintenance (TBD)	0	450,000	500,000	500,000	500,000	Annual allocation to Facilities Emergency Maintenance from the General Fund is \$500,000. Funding is allocated to projects as needs arise.
Subtotal	500,000	500,000	500,000	500,000	500,000	
Debt Service/Reserve	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Location/Description
Transfer Station Design & Rebuild Reserve	500,000	500,000	500,000	500,000	500,000	Annual contribution from the Zero Waste Fund towards the eventual Rebuild of the City Transfer Station
Debt Service: Animal Shelter - 2010 COP	402,963	402,913	402,613	401,800	402,431	Annual Debt Service Payment
Debt Service: Animal Shelter - 2008 GO Bonds - Measure I	445,776	448,176	445,276	445,276	445,276	Annual Debt Service Payment
Debt Service: Theater & Ballpark - 2012 Lease Rev. Bond	249,971	249,468	249,901	249,857	249,179	Annual Debt Service Payment for Berkeley Rep. Theater portion
Subtotal	1,598,710	1,600,557	1,597,790	1,596,933	1,596,886	
Total	27,702,455	2,500,557	2,497,790	2,496,933	2,496,886	

Other Infrastructure

Program and Funding Summary

Program Summary						
Project Description	Proposed FY 2018	Proposed FY 2019	Proposed FY 2020	Proposed FY 2021	Proposed FY 2022	5 Year Total
Recurring Funding						
City Streetlight Program	378,740	390,100	401,800	0	0	1,170,640
Landfill Postclosure Monitoring (routine)	167,000	167,000	167,000	167,000	167,000	835,000
Closed Landfill Maintenance and Monitoring (non routine)	153,328	153,328	153,328	153,328	153,328	766,640
Retaining Walls Condition Wall Repairs	0	0	250,000	250,000	250,000	750,000
Total	699,068	710,428	972,128	570,328	570,328	3,522,280
Funding Summary						
Fund Source	Proposed FY 2018	Proposed FY 2019	Proposed FY 2020	Proposed FY 2021	Proposed FY 2022	5 Year Total
Measure BB - Local Streets & Roads	0	0	250,000	250,000	250,000	1,250,000
Streetlight Assessment District Fee	378,740	390,100	401,800	0	0	1,170,640
Zero Waste Fund	320,328	320,328	320,328	320,328	320,328	1,601,640
Total	699,068	710,428	972,128	570,328	570,328	3,522,280

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Other Infrastructure

Program Detail by Project

Other/Misc. Infrastructure	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Location/Description
City Streetlight Program	378,740	390,100	401,800	0	0	Comprehensive city streetlight program: includes streetlight pole replacement, pole painting and rust removal, installation of additional streetlights on existing poles, streetlight pedestal upgrades, and program related tree trimming. Various locations throughout the City.
Landfill Postclosure Monitoring (routine)	167,000	167,000	167,000	167,000	167,000	Routine maintenance and monitoring to fulfill City of Berkeley federal environmental requirements at the City of Berkeley's closed landfill, Cesar Chavez Park.
Closed Landfill Maintenance and Monitoring (non routine)	153,328	153,328	153,328	153,328	153,328	Non-Routine maintenance and monitoring to fulfill the City of Berkeley's federal environmental requirements at the City of Berkeley's closed landfill, Cesar Chavez Park.
Retaining Walls Condition Wall Repairs	0	0	250,000	250,000	250,000	Repair of the City's 300 plus retaining walls, tunnels, culverts and other non-building structures. Various locations throughout the City.
Total	699,068	710,428	972,128	570,328	570,328	

Streets

Program and Funding Summary

Program Summary						
Project Description	Proposed FY 2018	Proposed FY 2019	Proposed FY 2020	Proposed FY 2021	Proposed FY 2022	5 Year Total
Recurring Funding						
Street Rehabilitation	8,460,253	4,544,303	4,620,303	4,620,303	4,620,303	26,865,465
Street Survey/Design	200,000	200,000	200,000	200,000	200,000	1,000,000
Complete Streets CIP	0	155,000	155,000	155,000	155,000	620,000
Total	8,660,253	4,899,303	4,975,303	4,975,303	4,975,303	28,485,465
Funding Summary						
Fund Source	Proposed FY 2018	Proposed FY 2019	Proposed FY 2020	Proposed FY 2021	Proposed FY 2022	5 Year Total
State Transportation Tax	495,303	495,303	495,303	495,303	495,303	2,476,515
Measure B - Local Streets & Roads	724,000	724,000	700,000	700,000	700,000	3,548,000
Measure BB - Local Streets & Roads	1,123,234	1,600,000	1,700,000	1,700,000	1,700,000	7,823,234
Measure F - Vehicle Registration Fee	0	155,000	155,000	155,000	155,000	620,000
Measure M - General Obligation Bond	4,392,716	0	0	0	0	4,392,716
Capital Improvement Fund	1,925,000	1,925,000	1,925,000	1,925,000	1,925,000	9,625,000
Total	8,660,253	4,899,303	4,975,303	4,975,303	4,975,303	28,485,465

Streets

Program Detail by Project

Street Rehabilitation	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Location/Description
FY 18 Street Rehabilitation Project for improving pavement conditions	8,460,343	0	0	0	0	Cedar Street from East Frontage to 4th Cedar Street from 4th to 6th Oxford Street from Cedar to North of Hearst Cedar Street from 6th to San Pablo Grizzly Peak Blvd from N. City Limit to Euclid Grizzly Peak Blvd from Euclid to Keeler Grizzly Peak Blvd from Keeler to Marin Allston Way from Milvia to Shattuck Allston Way from Shattuck to Oxford Arcade Ave from Grizzly Peak to Fairlawn Arden Rd from Mosswood to Panoramic Bancroft Way from Prospect to Panoramic Bonar Street from University to Dwight Canyon Rd from Panoramic to Dead End Channing Way from Sacramento to ML King Channing Way from ML King to Milvia Channing Way from Milvia to Shattuck Cornell Avenue from Hopkins to Virginia Dwight Way from Piedmont to Dead End Dwight Way from Panoramic to E. City Limit El Dorado Ave from The Alameda to Sutter Folger St from 3rd to Hollis Henry St from Rose to Cedar Hilgard Ave from La Vereda to Dead End Jones Street from Eastshore to 2nd Jones Street from 4th to 6th Josephine Street from The Alameda to Hopkins
FY 19 Street Rehabilitation Project for improving pavement conditions	0	4,544,303	0	0	0	Shattuck Avenue from Rose to University Shattuck Place from Rose to Shattuck Ave
FY 20-22 Street Rehabilitation Projects for improving pavement conditions	0	0	4,620,303	4,620,303	4,620,303	Locations TBD
Street Survey/Design	200,000	200,000	200,000	200,000	200,000	Annual allocation for survey and/or design consultant work for street projects
Complete Streets CIP	0	155,000	155,000	155,000	155,000	Funding for Streets division planning of Complete Streets elements
Total	8,660,343	4,899,303	4,975,303	4,975,303	4,975,303	

Storm Water

Program and Funding Summary

Program Summary						
Project Description	Proposed FY 2018	Proposed FY 2019	Proposed FY 2020	Proposed FY 2021	Proposed FY 2022	5 Year Total
One-Time Funding (Measure M)						
2017 GI Project - Rose & Hopkins, University & Shattuck, Woolsey	1,959,543	0	0	0	0	1,959,543
2018 GI Project - Parker St. Cistern & Drainage Improvements	1,300,000	0	0	0	0	1,300,000
2019 GI Project - King School Park, N. Branch Library, Civic Center Park, Dwight/Sacto Bus Stop, Willard Park, San Pablo Park	0	1,169,052	0	0	0	1,169,052
Subtotal	3,259,543	1,169,052	0	0	0	4,428,595
Recurring Funding						
Storm Drain Project - Kains Trash Rack	164,000	12,000	12,000	12,000	0	200,000
Storm Drain Project - Storm Drain Rehab TBD	10,000	91,584	119,984	488,000	500,000	1,209,568
Storm Drain Project - Wildcat Canyon Rd. Drainage Improvements	0	0	368,016	0	0	368,016
Storm Planning - Stormwater Master Plan	326,000	396,416	0	0	0	722,416
Clean Storm Planning	30,000	30,000	30,000	30,000	30,000	150,000
Subtotal	530,000	530,000	530,000	530,000	530,000	2,650,000
Total	3,789,543	1,699,052	530,000	530,000	530,000	7,078,595
Funding Summary						
Fund Source	Proposed FY 2018	Proposed FY 2019	Proposed FY 2020	Proposed FY 2021	Proposed FY 2022	5 Year Total
State Transportation Tax	300,000	300,000	300,000	300,000	300,000	1,500,000
Measure M General Obligation Bond	3,259,543	1,169,052	0	0	0	4,428,595
Clean Stormwater Fund	230,000	230,000	230,000	230,000	230,000	1,150,000
Total	3,789,543	1,699,052	530,000	530,000	530,000	7,078,595

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Storm Water System

Program Detail by Project

Green Infrastructure	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Location/Description
2017 GI Project - Rose & Hopkins, University & Shattuck, Woolsey	1,959,543	0	0	0	0	Installing Low Impact Development within the right-of-way, using bio-swales replacing traffic islands, and installing high durability permeable pavers at a bus stop to control trash in a commercial area experiencing high trash generation levels. Install large underground stormwater storage for stormwater treatment and peak flow reduction to reduce downstream flooding potential, combined with reducing street width, improved street lighting and additional street trees. Design/planning for this project began in FY 2017.
2018 GI Project - Parker St. Cistern & Drainage Improvements	1,300,000	0	0	0	0	Install twin cisterns underground on Parker Street between 10th and 8th Streets
2019 GI Project - King School Park, N. Branch Library, Civic Center Park, Dwight/Sacto Bus Stop, Willard Park, San Pablo Park	0	1,169,052	0	0	0	Install bioswales on City property to treat runoff from City right-of-way
Subtotal	3,259,543	1,169,052	0	0	0	
Storm Projects						
Storm Projects	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Location/Description
Storm Drain Project - Kains Trash Rack	164,000	12,000	12,000	12,000		Remove concrete creek channel and partially restore creek meander within constraints of limited project site area.
Storm Drain Project - Storm Drain Rehab	10,000	91,584	119,984	488,000	500,000	General allocation that will be directed to specific projects, when identified
Storm Drain Project - Wildcat Canyon Rd. Drainage Improvements			368,016			Drainage from Wildcat Canyon Road contributes to erosion on East Bay Regional Park District (EBRPD) property and damage to EBRPD's Selby Trail. The project will improve drainage and reduce erosion.
Stormwater Master Plan	326,000	396,416				Stormwater Master Plan will be the overall document guiding the City's efforts to meet its responsibilities for drainage. The master plan will include the Green Infrastructure Plan (addressing GI to meet stormwater quality requirements imposed by NPDES permits), and Stormwater Resource Plan.
Clean Storm Planning	30,000	30,000	30,000	30,000	30,000	Allocation to planning Clean Storm projects
Subtotal	530,000	530,000	530,000	530,000	530,000	
Total	3,789,543	1,699,052	530,000	530,000	530,000	

Sanitary Sewer

Program and Funding Summary

Program Summary						
Project Description	Proposed FY 2018	Proposed FY 2019	Proposed FY 2020	Proposed FY 2021	Proposed FY 2022	5 Year Total
Recurring Funding						
Sewer Rehabilitation	11,754,420	8,851,179	10,106,832	11,442,411	11,081,987	53,236,829
Sewer Design & Planning	2,798,955	3,103,756	3,232,657	3,607,319	3,528,488	16,271,175
Total	14,553,375	11,954,935	13,339,489	15,049,730	14,610,475	69,508,004
Funding Summary						
Fund Source	Proposed FY 2018	Proposed FY 2019	Proposed FY 2020	Proposed FY 2021	Proposed FY 2022	5 Year Total
Sanitary Sewer Fund	14,553,375	11,954,935	13,339,489	15,049,730	14,610,475	69,508,004
Total	14,553,375	11,954,935	13,339,489	15,049,730	14,610,475	69,508,004

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Sanitary Sewer

Sewer Rehabilitation	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Location/Description
Rehabilitate sanitary sewer mains and the associated manholes, sewer laterals and related work	3,077,930	0	0	0	0	Construction of sewer rehab at Virginia Street. Design occurred in FY 2017.
	8,676,490	0	0	0	0	Carleton, Fairview, Mabel; Haste, Shattuck, Telegraph; 9th Street, Posen, Indian Rock
	0	8,851,179	0	0	0	San Pablo; Bancroft, Alston, Byron; Portland, Santa Fe, Kains, West Frontage
	0	0	10,106,832	0	0	Neilson, The Alameda, San Antonio; Milvia, Shattuck, MLK
	0	0	0	11,442,411	0	Marina, Seawall, University; Solana, Hearst, Capitstrano; Walnut, Cedar, Vine
	0	0	0	0	11,081,987	Euclide, Grizzly Peak; Parker, MLK; Alvarado, El Camino Real
Sewer Design & Planning	2,798,955	3,103,756	3,232,657	3,607,319	3,528,488	Conditions Assessment: perform inspections and produce inspection reports meeting standards; evaluate the condition of sewer mains, manholes and lateral connections inspected; identify critical structural and O&M defects
Totals	14,553,375	11,954,935	13,339,489	15,049,730	14,610,475	

Sidewalks

Program and Funding Summary

Program Summary						
Project Description	Proposed FY 2018	Proposed FY 2019	Proposed FY 2020	Proposed FY 2021	Proposed FY 2022	5 Year Total
Recurring Funding						
Responsive Sidewalk Repairs	260,000	260,000	260,000	260,000	260,000	1,300,000
Proactive Sidewalk Program	225,000	225,000	225,000	225,000	225,000	1,125,000
ADA Curb Ramp Program	200,000	200,000	200,000	200,000	200,000	1,000,000
Pathway Repairs	50,000	50,000	50,000	50,000	50,000	250,000
Private Party Sidewalks (50/50 Program)	100,000	100,000	100,000	100,000	100,000	500,000
Sidewalks Program Expansion	400,000	400,000	200,000	200,000	200,000	1,400,000
Total	1,235,000	1,235,000	1,035,000	1,035,000	1,035,000	5,575,000
Funding Summary						
Fund Source	Proposed FY 2018	Proposed FY 2019	Proposed FY 2020	Proposed FY 2021	Proposed FY 2022	5 Year Total
State Transportation Tax	300,000	300,000	100,000	100,000	100,000	900,000
Measure BB - Local Streets & Roads	100,000	100,000	100,000	100,000	100,000	500,000
Measure F - Vehicle Registration Fee	100,000	100,000	100,000	100,000	100,000	500,000
Capital Improvement Fund	635,000	635,000	635,000	635,000	635,000	3,175,000
Private Party Sidewalks Fund	100,000	100,000	100,000	100,000	100,000	500,000
Total	1,235,000	1,235,000	1,035,000	1,035,000	1,035,000	5,575,000

Sidewalk Projects

Program Detail by Project

Sidewalk Program	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Location/Description
Proactive and Responsive Sidewalk Repair Projects	485,000	485,000	485,000	485,000	485,000	Citywide sidewalk repair programs: Proactive program targets high pedestrian areas, Responsive program focuses in residential neighborhoods. Various locations throughout the City.
ADA Curb Ramps Program	200,000	200,000	200,000	200,000	200,000	Program to bring curb ramps into compliance with the American Disabilities Act, improving ADA access to City streets and sidewalks. Various locations throughout the City.
Pathway Repair	50,000	50,000	50,000	50,000	50,000	Improve and maintain Citywide network of pedestrian paths. Various locations throughout the City.
Private Party Sidewalks	100,000	100,000	100,000	100,000	100,000	Programmed funding for the 50/50 program, in which the City splits the cost of sidewalk repair 50%/50% with property owners. Various locations throughout the City.
Sidewalks Capital Program Expansion	400,000	400,000	200,000	200,000	200,000	Funding for Sidewalk capital projects as they arise. Various locations throughout the City.
Total	1,235,000	1,235,000	1,035,000	1,035,000	1,035,000	

Transportation

Program and Funding Summary

Program Summary						
Project Description	Proposed FY 2018	Proposed FY 2019	Proposed FY 2020	Proposed FY 2021	Proposed FY 2022	5 Year Total
One-Time Funding						
Shattuck Reconfiguration	3,551,481	0	0	0	0	3,551,481
Center Street Plaza	650,000	456,500	1,369,500	0	0	2,476,000
Ashby Corridor Safety Improvements	451,649	0	0	0	0	451,649
San Pablo/Ashby Traffic Signal Improvements	625,691	0	0	0	0	625,691
Ninth Street Pathway Phase II	90,000	90,000	0	0	0	180,000
Downtown Transit Center Study	150,000	0	0	0	0	150,000
Southside Mobility Improvements	247,630	183,935	162,800	0	0	594,365
Campus Bike Access	0	100,000	150,000	0	0	250,000
Subtotal	5,766,451	830,435	1,682,300	0	0	8,279,186
Recurring Funding						
Complete Streets Implementation Tools	100,000	100,000	0	0	0	200,000
Pedestrian Master Plan Update	100,000	100,000	0	0	0	200,000
Bike Plan Update	0	0	100,000	100,000	100,000	300,000
Bike Plan Improvements	119,278	119,278	119,278	119,278	119,278	596,390
Bike & Ped CIP Unprogrammed	90,549	90,549	190,549	190,549	190,549	752,745
Traffic Calming Devices Replacement & Maintenance	50,000	50,000	50,000	50,000	50,000	250,000
Traffic Calming Program (New Requests)	50,000	50,000	50,000	50,000	50,000	250,000
Traffic Signals Maintenance	250,000	250,000	300,000	300,000	300,000	1,400,000
Traffic Signals Improvement (Unallocated)	25,000	25,000	25,000	25,000	25,000	125,000
- 7th/Anthony Traffic Signals Improvements	170,465	0	0	0	0	170,465
- Sacramento/Hopkins & Sacramento/Allston Traffic Signals	0	764,000	0	0	0	764,000
Pavement Markings (incl. Roadway Thermo Marking)	250,000	250,000	250,000	250,000	250,000	1,250,000
Subtotal	1,205,292	1,798,827	1,084,827	1,084,827	1,084,827	6,258,600
Total	6,971,743	2,629,262	2,767,127	1,084,827	1,084,827	14,537,786
Funding Summary						
Fund Source	Proposed FY 2018	Proposed FY 2019	Proposed FY 2020	Proposed FY 2021	Proposed FY 2022	5 Year Total
State Transportation Tax	320,465	50,000	50,000	50,000	50,000	520,465
Measure B - Local Streets & Roads	1,016,389	200,000	200,000	200,000	200,000	1,816,389
Measure B - Bicycle & Pedestrian	190,549	190,549	190,549	190,549	190,549	952,745
Measure BB - Local Streets & Roads	1,626,766	1,114,000	400,000	400,000	400,000	3,940,766
Measure BB - Bicycle & Pedestrian	190,000	190,000	100,000	100,000	100,000	680,000
Measure F - Vehicle Registration Fee	308,611	25,000	25,000	25,000	25,000	408,611
Capital Improvement Fund	119,278	119,278	119,278	119,278	119,278	596,390
Capital Improvement Fund (Bayer Mitigation)	625,691	0	0	0	0	625,691
Shattuck Open Space Improvement Plan (SOSIP)	650,000	456,500	1,369,500	0	0	2,476,000
Development Parking in Lieu Fee	800,000	0	0	0	0	800,000
Caltrans	451,649	0	0	0	0	451,649
Streetlight Assessment District Fee	214,715	0	0	0	0	214,715
UC - LRDP	457,630	283,935	312,800	0	0	1,054,365
Total	6,971,743	2,629,262	2,767,127	1,084,827	1,084,827	14,537,786

Program Detail by Project

Transportation Planning & Downtown & UC	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Location/Description
Shattuck Reconfiguration	3,551,481	0	0	0	0	The Project would reconfigure a three-block segment of Shattuck Avenue from Allston Way to University Avenue. The Project's main goals are to improve pedestrian and bicycle safety, improve northbound circulation for motorists and transit vehicles, and enhance the quality of public spaces in the Downtown core.
Center Street Plaza	650,000	456,500	1,369,500	0	0	Priority downtown project. Project will raise street surface to sidewalk level with enhanced paving, include stormwater infiltration features, bollards to separate pedestrians from vehicles, enhanced lighting, trees and other amenities.
Downtown Transit Center Study (UCLRPD)	150,000	0	0	0	0	Concept plan for development of an area-wide transit center in downtown that builds upon work began with the BART Plaza and Shattuck Reconfiguration.
Southside Mobility Improvements (UCLRP)	247,630	183,935	162,800	0	0	Development of an action plan and phasing and funding strategy, for projects to address: pedestrian safety; bicycle safety; pedestrian and bicycle connectivity between UC Berkeley residential facilities, campus and other destinations; and transit service/reliability between the Telegraph District and downtown.
Campus Bike Access (UCLRDP)	0	100,000	150,000	0	0	Develop preliminary engineering plans for high-impact campus bike access projects, and near term projects, including: bicycle crossing treatments at major arterial roadways, providing protected bicycle facilities where feasible, and connecting the City's bike network with bike facilities in adjacent jurisdictions
Subtotal	4,599,111	740,435	1,682,300	0	0	
Bicycle & Pedestrian	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Location/Description
Pedestrian Master Plan Update	100,000	100,000	0	0	0	Funding to update the City Pedestrian Master Plan. Elements of the plan will be implemented as part of other projects or as specific grant opportunities may arise.
Bike Plan Update	0	0	100,000	100,000	100,000	Programmed funding for the 5 year update to the City Bicycle Master Plan. Elements of the plan will be implemented as part of other projects or as specific grant opportunities may arise.
Complete Streets Implementation Tools	100,000	100,000	0	0	0	Development of tools and guidance documents for implementing the City's Complete Streets Policy.
Bicycle & Pedestrian Capital	209,827	209,827	309,827	309,827	309,827	For program planning and projects to be developed, potential local match for grants.
Ninth Street Pathway Phase II	90,000	90,000	0	0	0	Final design and construction of gap closure pathway project in Southwest Berkeley
Subtotal	499,827	499,827	409,827	409,827	409,827	
Traffic Engineering	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Location/Description
Ashby Corridor Safety Improvements	451,649	0	0	0	0	Implement safety and access improvements on Ashby/State Route 13 (Caltrans Caldecott 4th Bore Settlement Agreement)
San Pablo/Ashby Traffic Signal Improvements	625,691	0	0	0	0	Increase capacity of the intersection, using Mitigation fees from Bayer and in coordination with Caltrans approval of project scope.
7th/Anthony Traffic Signals Improvements	170,465	0	0	0	0	Remove the existing signal at 7th/Potter, and install new signal at 7th/Anthony, also relocate existing flashing beacons from 7th/Anthony to 7th/Potter.
Sacramento/Hopkins & Sacramento/Allston Traffic Signals	0	764,000	0	0	0	Traffic signal modification at intersections of Sacramento & Hopkins and Sacramento and Allston to improve safety and traffic operation.
Traffic Calming Devices Replacement & Maintenance	50,000	50,000	50,000	50,000	50,000	Ongoing funding of \$50,000 per year to support Neighborhood Traffic Calming Program equipment operations and maintenance
Traffic Calming Program (New Requests)	50,000	50,000	50,000	50,000	50,000	Ongoing funding of \$50,000 per year to review/implement new requests for the Neighborhood Traffic Calming Program
Traffic Signals Maintenance	250,000	250,000	300,000	300,000	300,000	Five year capital program
Traffic Signals Improvement (Unallocated)	25,000	25,000	25,000	25,000	25,000	Annual funding towards Traffic Signal Improvements from the Vehicle Registration Fee
Pavement Markings (Roadway Thermo Marking)	250,000	250,000	250,000	250,000	250,000	Provide pavement marking/stripping plans for 5-year Repaving Plan and other pavement marking needs
Subtotal	1,872,805	1,389,000	675,000	675,000	675,000	
Total	6,971,743	2,629,262	2,767,127	1,084,827	1,084,827	