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 Department of Public Works Capital Improvement Projects

SUMMARY
This report provides an update on current and planned improvements to the City’s public facilities and infrastructure Capital Improvement Plan (CIP) projects and programs from spring 2018 through the end of FY 2019. No specific action is required of the Council other than to provide comments to staff on the information presented.

CURRENT SITUATION AND ITS EFFECTS
The delivery of high quality capital projects to improve and maintain the City’s infrastructure is part of the Department of Public Works' (DPW) core mission. Currently, DPW is operating at full capacity to design and deliver a robust capital program including improvements to road surface conditions while focusing on the Department’s complete streets1 concept; adding green infrastructure; improving the City’s sewer system; making improvements to the City’s transportation network; and enhancing our City facilities and structures. This report and presentation will highlight recently completed projects and projects currently in the planning, design, and construction phases.

Engineering Division
The Engineering Division focuses on the preparation of project plans, specifications, and construction delivery of capital assets and infrastructure. In addition, the project preparation process commonly involves preparation of feasibility studies, environmental reviews, and public outreach. Most projects and programs fall under one of the following categories: facilities, streets and roads, sewers, storm drains, or sidewalks.

Facilities:
Facility capital projects involve construction of new facilities or improvements to existing facilities. Routine maintenance projects involving repairs to minor components of existing facilities are not included in this report.2

1 https://www.cityofberkeley.info/completestreetspolicy/
2 Including plumbing, electrical, HVAC, painting, etc.
The Facility Engineering group has been working on twenty active projects funded by the CIP budget, Federal Emergency Management Agency (FEMA), and the T1 Bond Measure. Besides the planned CIP and T1 projects, the facilities team takes on additional important projects, such as the Pathways Stair Navigation Center, improvements to the Fire Drill Tower, 1011 University for a temporary winter shelter, 1931 Center Street (Veterans Building), and the upgrade to the Landfill Gas Flare Station.

The Pathways Stair Navigation Center project was completed in July 2018, providing water, wastewater, and electrical infrastructure to the temporary trailers on 2nd Street for use as a homeless transitional shelter.

The North Berkeley Senior Center (T1, FEMA) project will provide seismic and building upgrades designating it a care and shelter site to be used as such in the event of an emergency. The project will be released for construction bids in the second quarter of FY 2019 with construction expected to start in January 2019.

The Mental Health Adult Services Clinic (T1, CIP, and Mental Health Funds) project will provide much needed building and safety improvements to the existing facility. The project is planned to advertise for construction bids by the second quarter of FY19. Construction is anticipated to start in the third quarter of 2019 and last for approximately 18 months.

The West Berkeley Service Center (T1) project will make general upgrades to address aging infrastructure and improvements required for the “Meals on Wheels” program. Design of the project is planned for the second quarter of FY 2019.

The Public Safety Building (PSB) Leak Repair project will fix the water leaks along the southern wall. It is currently in the bidding stage with construction planned to start in the second quarter of FY 2019.

The Old City Hall, Veterans Building, and Civic Center Park projects (T1) will together be part of a study to determine options for future use of the facilities. Currently, City staff are in the process of hiring an architect to assist with these efforts.

The Public Works Electrical Division, in coordination with Engineering, has begun replacing high priority poles identified in the 2017 Condition Assessment. This work will increase as the funding becomes available from the recent streetlight assessment.

**Streets & Roads:**
The Streets and Roads Engineering group manages 216 lane miles of streets citywide with an emphasis on rehabilitating City streets. In FY 2019, the City plans to resurface...
approximately 8.57 miles and make needed repairs to associated infrastructure including storm drains, curbs, gutters, and sidewalks.

Baseline funding for the streets program is derived from Measures M, F, B, and BB, the General Fund Capital Improvement Fund, and the State Gas Tax, including the new Road Maintenance & Rehabilitation Account (RMRA) funding, approved in 2017 by the passage of California Senate Bill No. 1 (SB1).

Major street rehabilitation projects planned for FY 2018 include the Panoramic Hill Pavement Rehabilitation, which will rehabilitate the pavement of the entire portion of Panoramic Hill neighborhood within City limits, and the FY 2018 Street Rehabilitation (Measure M) which will rehabilitate various streets throughout the City as identified in the City’s 5-Year Street Rehabilitation Plan⁴. Due to the current construction climate when the projects were bid out in May 2018, one project received no bids and the other received one bid that was well over the anticipated cost. As a result, these projects are rebidding in the second quarter of FY 2019, well in advance of the upcoming construction season for the purpose of receiving more favorable bid prices. Construction is expected to start in the third quarter of FY 2019.

The street rehabilitation project of Adeline Street from Derby Street to Ashby Street and Hearst Street from Milvia Avenue to Shattuck Avenue (T1) is currently in design with construction expected in the third quarter of FY 2019. The FY 2019 Street Rehabilitation project includes the rehabilitation of various streets throughout the City as identified in the City’s 5-Year Street Rehabilitation Plan. This project is currently in the design stage with construction planned for the fourth quarter of FY 2019.

**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. This stormwater infrastructure is over 80 years old and in need of ongoing rehabilitation.

The construction of two Green Infrastructure (GI) Projects have been completed. The one at Rose Street and Hopkins Street provides a reconfigured traffic island at the intersection. At the intersection of University Avenue and Shattuck Avenue a permeable paver bus pad was installed.

The Measure M Low Impact Development (LID) Woolsey Street project will provide a cistern and bio-swale on Woolsey Street near Ed Robert’s Campus. Due to the construction climate when the project was bid out in May, the City only received one bid well over anticipated costs. The project will be re-bid in the second quarter of FY 2019 well in advance of the upcoming construction season for the purpose of receiving more favorable bid prices. Construction is scheduled to start in the third quarter of FY 2019.

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⁴ Resolution 68,279-N.S. adopted by Council on December 19, 2017
The Kains Trash Rack project will restore a section of lower Codornices Creek between Kains Avenue and San Pablo Avenue that includes replacement of a trash rack. The project is currently in the design and environmental permitting stages with construction planned for the fourth quarter of FY 2019.

The Hillview Road and Woodside Road Sink Hole Repair project will replace a failing storm drain at the intersection of Hillview and Woodside Road. The design is nearly complete and will advertise for bids in the second quarter of FY 2019. Construction is scheduled in the third quarter of FY 2019.

In addition, Engineering ensured that the property owner at the 1000 block of Cragmont Avenue has completed repair of the landslide on their property and stabilized the slope.

Sewers:
Within the City limits, there are approximately 254 miles of sanitary sewer mains, 7,200 sanitary sewer manholes, and 130 miles of public sewer laterals. The Portland Ave project and Bancroft Way project, will collectively rehabilitate approximately 15,250 linear feet (2.89 miles) of sewer main. The construction bids for the Portland project were opened in September 2018, and Council award of the contract is expected in November 2018. The Bancroft project will be advertised for construction bids in November 2018. Both of the projects are scheduled to start construction in the third quarter of FY 2019 with completion expected by the end of FY 2019. Three additional sewer projects (Hilldale Ave. et al, Euclid, Regal Backlines, and Marina Blvd. Lift Station No. 2 and Marina Blvd. Sewer Rehabilitation), will rehabilitate approximately 5,700 linear feet of sewer main and are expected to be advertised for construction bid in the third quarter of FY 2019. Construction of the projects will be completed by the end of FY 2019. Staff also undertakes an Urgent Sewer Repair Project and Manhole Rehabilitation Project each fiscal year to address those repairs identified through an annual condition assessment of the City’s sewer infrastructure.

On September 22, 2014, the City and East Bay Municipal Utility District (EBMUD) along with other area municipalities concluded negotiations with the Environmental Protection Agency (EPA) and agreed to a Consent Decree (CD) primarily intended to reduce the amount of wastewater the City conveys to EBMUD during wet weather. Under the CD, Berkeley agreed to submit an annual report to the EPA; replace an average of 4.2 miles of sewer pipeline annually over the next twelve years; replace noncompliant manholes; perform a regular condition assessment of sewer infrastructure, perform spot repairs, and increase required maintenance activities.

On September 30, 2018, the City submitted the FY 2018 Annual Report to the EPA enumerating its compliance with the CD. In FY 2018, the City completed four CIP projects that include rehabilitation of approximately 247 manholes and 5.6 miles of sewer mains and associated lower laterals. From FY 2016 through FY 2018, the City rehabilitated over 13 miles of sewer mains, exceeding the 12.6 miles required over a
three-year period. Finally, the City also met its sewer system condition assessment and maintenance goals as established by the CD.

Sidewalks:
The City has approximately 300 miles of concrete sidewalks and has a Responsive Sidewalk Repair Program, which splits responsibility for repair costs 50%-50% with property owners. This program is meant to improve overall pedestrian safety and increase the annual volume of sidewalks repaired or replaced. The program also includes repairs to damaged curbs and driveway aprons located in the public right of way.

The FY 2018 Sidewalk CIP Project is currently in construction with completion anticipated in fourth quarter of FY 2019. The project will install approximately 13,000 SF of new sidewalk, constructs 3 new curb ramps, reconstructs 9 existing non-compliant curb ramps, replaces approximately 17,000 SF of existing sidewalk, replaces 6,800 SF of existing driveway aprons, and 2,230 linear feet of existing curbs.

The FY 2019 Sidewalk CIP Project is currently in the preliminary scoping phase. As part of project scoping work, staff are evaluating inclusion of a concrete shaving program as an alternative to traditional concrete replacement. Concrete shaving is a precise and cost effective way of removing sidewalk trip hazards which leaves a smoother surface than grinding. The goal is for the shaving program to substantially reduce the 50/50 program list backlog.

Transportation Division
The Transportation Division makes effective use of available resources to provide services, projects, and policies that support safe and effective movement of people and goods throughout the City of Berkeley with a focus on safety, equitable mobility, and sustainability.

Traffic Engineering/Traffic Maintenance:
The Traffic Engineering/Traffic Maintenance group currently maintains 141 traffic signals, 25 speed feedback signs, and 17 Rectangular Rapid Flashing Beacons plus a continuously growing number of traffic and parking signs. Traffic Engineering staff is responsible for evaluating, and planning all traffic control devices on 216 lane miles of City roadways, including signage and striping.

Traffic Engineering projects for FY 2018, include the following:

Ashby Avenue/Tunnel Road Corridor improvements – Construction of this package of pedestrian and bike safety improvements is about 80% complete and will be 100% complete by second quarter of FY 2019.

San Pablo Avenue at Ashby Avenue Intersection Signal Improvements – Design is complete and Caltrans permits for the project are expected by second quarter of FY
2019. Construction is expected to occur in FY 2020. This project will add a protected left turn lane and signal phase for westbound Ashby traffic.

**Gilman Street/I-80 Interchange and Pedestrian Overcrossing** - Traffic Engineering serves as a key stakeholder and design partner to the Alameda County Transportation Commission in preparation of the Environmental Impact Report (EIR) for proposed double roundabouts to simplify and improve traffic flow through the interchange. Following selection of a preferred pedestrian overcrossing alignment and associated bike and pedestrian access routes in FY 2018, the EIR is expected to be certified in the fourth quarter of FY 2019, and will be followed by final design, with a planned construction start in FY 2021.

**John Muir Safe Routes to School** – Design of pedestrian crossing safety improvements on Claremont was completed in the first quarter of FY 2019. The project is being put to bid in second quarter of FY 2019 with construction to be complete in the first quarter of FY 2020.

**Parking Services:**
Parking services oversees the operation of parking garages, and parking meters located on-street and in off-street lots, and coordinates parking related programs among other Departments such as Police and Finance.

**Center Street Garage Reconstruction** – Working with Facilities Engineering who led the construction of the building, Parking Services guided the design and installation of the necessary parking and revenue control systems and other operational components for the new 720 parking space Center Street Garage, which will serve as the operations hub for all City-owned garages when it opens early in the second quarter of FY 2019.

**Transportation Capital Projects (Complete Streets):**
The Transportation Capital Projects group formed in 2015 to support the design, construction and coordination of major transportation projects in the downtown area has evolved to take the lead for design and bidding of capital projects throughout the City, which have originated in the Transportation Division.

The most significant Transportation Capital Project completed in FY 2018 was the Hearst Complete Street bike, pedestrian, and transit improvements. Also projected for completion in the second quarter of FY 2019 is the Downtown Berkeley BART and Intermodal Transit Plaza.

Transportation Capital Improvement projects underway in FY 2019, include:

**Shattuck Avenue Reconfiguration** – Design of this high priority pedestrian safety and streetscape enhancement project was completed in the first quarter of FY 2019, construction bids were opened in September 2018, and the contract was scheduled to
be awarded in October 2018. Construction is anticipated to begin in early 2019, with completion in FY2020.

*LeConte Elementary*\(^5\) *Safe Routes to School* - Design of improved pedestrian crossings of Shattuck was completed in FY 2018. Construction began in August 2018 and is anticipated to finish by early October 2018.

*Gilman Street Railroad Crossing and Sidewalk Safety Improvements* – This grant funded project in partnership with Caltrans and Union Pacific will be advertised for construction bids in October 2018 and is anticipated to begin construction in FY 2019, in order to provide accessible and safe pedestrian crossings of the railroad.

*9th Street Pathway and Crossing of Ashby* – Design was completed in the first quarter of FY 2019. The next phase consists of securing an encroachment permit from Caltrans for intersection improvements in the State right-of-way. Construction is planned to commence in early FY 2020, and will complete the last segment of bike path between Berkeley and Emeryville.

*Transportation Planning:* Responsibilities include establishing and updating (every five years) the Bicycle Master Plan (last adopted by Council in FY 2017), the Pedestrian Master Plan (seeking Council approval in FY 2019), and the Berkeley Strategic Transportation Plan (with an update being adopted by Council in September 2018), which captures all Transportation Capital needs established or approved by Council and prioritizes projects for which to seek grant funding.

*Citywide Bike Share System* - Deployment of 37 stations and 400 bikes was completed in summer 2018. Discussions have begun with MTC and Motivate for a potential second phase with a goal of deploying electric assist bikes citywide with the option of a hybrid docked or dockless operation.

*Southside Complete Streets* - The City has been awarded approximately $7.1 million in federal grant funding for design and construction of bike, pedestrian, and transit improvements in FY 2019 through FY 2021 of pedestrian, bicycle, and transit improvements on Bancroft Way, Telegraph Avenue, Dana Street, and Fulton Street in the area south of the UC Berkeley campus. When are projects beginning? When do we actually receive funding?

*Pedestrian Master Plan Update* – Outreach began in the first quarter of FY 2019 and the plan update will be complete by the end of June 2019. The Plan will focus on safety improvements to high-injury corridors, consistent with the City’s Vision Zero Policy.

\(^5\) Now known as Sylvia Mendez Elementary
Milvia Bikeway Project – This project to provide protected bikeways on the downtown portions of the City’s busiest bikeway was the highest priority project in the Council adopted Bike Plan. Outreach began in the first quarter of FY 2019 and conceptual design will continue through the second quarter of FY 2020.

Grant funding has been obtained and work will begin in FY 2019 on Railroad Crossing Safety Improvements and Quiet Zone project and Sacramento Street and North Berkeley BART Pedestrian Crossing Improvements.

BACKGROUND
Public Works manages the construction and maintenance of public buildings, streets, sewers, vehicles, sidewalks, the storm drain system, and other structures in the public right of way. The City is responsible for maintenance of ninety-five facilities, not including Library facilities and facilities leased to other entities. These ninety-five facilities include: thirty-nine facilities in the Parks Recreation and Waterfront inventory and fifty-six facilities in the Public Works inventory. There are 216 miles of streets, 300 miles of concrete sidewalk, 3200 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.

ENVIRONMENTAL SUSTAINABILITY
The City aims to provide safe, green, accessible, and efficient facilities and infrastructure to its residents and business owners. Staff considers the environmental performance of all capital and major maintenance projects, and seeks to integrate energy and water efficiency improvements into those endeavors.

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