

**City of Berkeley
Paving Subcommittee
of the
Public Works Commission**

MEETING AGENDA

Subject: Paving Recommendation 2017

Date: May 22, 2017, 7:30-9:00 am

Location: Dawn Redwood Room, 1947 Center Street, 4th Floor, Berkeley, CA

1. Call to Order and Roll Call
2. Comments from the Public (3 minutes each speaker)
3. Discuss/Action:
 - a. Review and edit Paving recommendation 2018-2022
 - b. Measure BB Projects Update- Annual Compliance Report to ACTC showing distribution of funds
4. Adjournment

ADA Disclaimer:

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SB 343 Disclaimer:

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Commission Secretary:

Tracy Clay, Supervising Civil Engineer
Public Works Department/Engineering Division, 1947 Center Street, 4th Floor,
Berkeley, CA, 94704, Telephone (510) 981-6406, Fax: (510) 981-6390
TDD: (510) 981-6903, Email: tclay@cityofberkeley.info.

Action Calendar

June 22, 2017

To: Honorable Mayor and Members of the City Council

From: Public Works Commission (PWC)

Submitted by: Margo Scheuler, Chair, Public Works Commission

Subject: Recommendation for the Five-Year Paving Plan

2017 Annual Review: This is the first Paving Plan Recommendation in two years, there was no PW Staff developed 5-Year Paving Plan for 2016,

Choose one of the three openings below!

- Improved street quality numbers among the very few non-divisive issues of our time; everyone agrees that better streets make for a better community.
- Improved street quality is a unifying goal supported by every member of the community.
- One of the few driving forces in local governance with universal support remains the desire for improved street quality, but as the road to PCI perdition is paved in good intentions so must the road to the future be paved in good actions.

RECOMMENDATION

Adopt a Resolution approving the Five-Year Paving Plan (2018-2022) as proposed by staff.

The Public Works Commission (PWC) also recommends the plan do following:

- Better incorporate potential changes due to on-going effects of climate change, with the wide variation from drought to heavy rains, that has taken a toll on our streets and infrastructure,
- Assure the City of Berkeley takes full advantage of lessons learned from prior test sites such as Allston Way Paver demonstration,
- Best optimize green infrastructure to provide multiple benefits and (e.g., street treatments which calms traffic, reduces pavement noise, recharges ground water, help reduce flooding and increases esthetic value)
- Better evaluate full life-cycle costs, especially of alternative treatments to asphalt paving, that will reduce future maintenance costs.

FISCAL IMPACTS OF RECOMMENDATION Creates path for fiscal and street sustainability.

CURRENT SITUATION AND ITS EFFECTS

In the 2015 Paving Plan Recommendation from PWC to the City Council it was stated that ...” When we step back and look at the whole City landscape, the infusion of Measure M funds has significantly improved the condition of our streets (as measured by an increase in streets paved and in the overall Pavement Condition Index”. The PWC relied upon the following presentation and report:

- Public Works staff report to City Council on November 15, 2015 “Draft Mid-Program Review Report for Measure M Integrated Streets Investment Plan and Update of the 5-Year Street Paving Plan, FY 2016 to FY 2020”
 - It stated that “The City’s goal is a PCI of 75. After the Measure M investments and other funding utilized during the 2014-2018 five-year plan, Berkeley streets are expected have a PCI rating of 65. When Measure M funding ends in 2018, it is estimated that the PCI will remain slightly stable or decline.
- The Measure M Information Report – Update 2017 on May 2, 2017 by the PW Works Director focused on ...” expenditures, projected expenses and plans” - 2018 is the final year of expenditures of the \$30 M Measure M funds.
 - No discussion of PCI attainment was addressed, nor was the PWC given a preview of the report as part of their oversight responsibilities.

Where are we as a City in achieving and maintaining our goal of a PCI of 75?

According to the projections, included below in this recommendation, the city must spend an average of \$14 million dollars per year just to attain and maintain a PCI of 70. These figures are a minimum estimate, since if costlier but longer lasting paving alternatives are implemented, short-term costs will be greater - but with better, multi-benefit streets that are longer lasting that will reduce future costs.

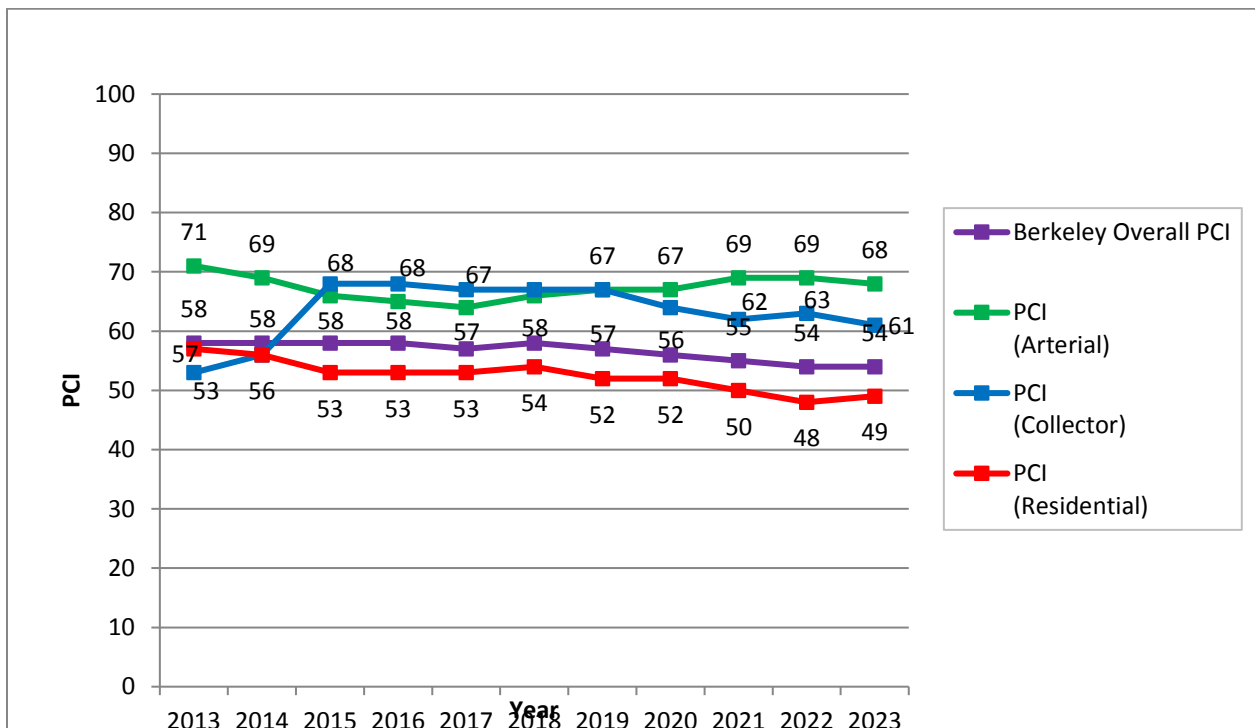
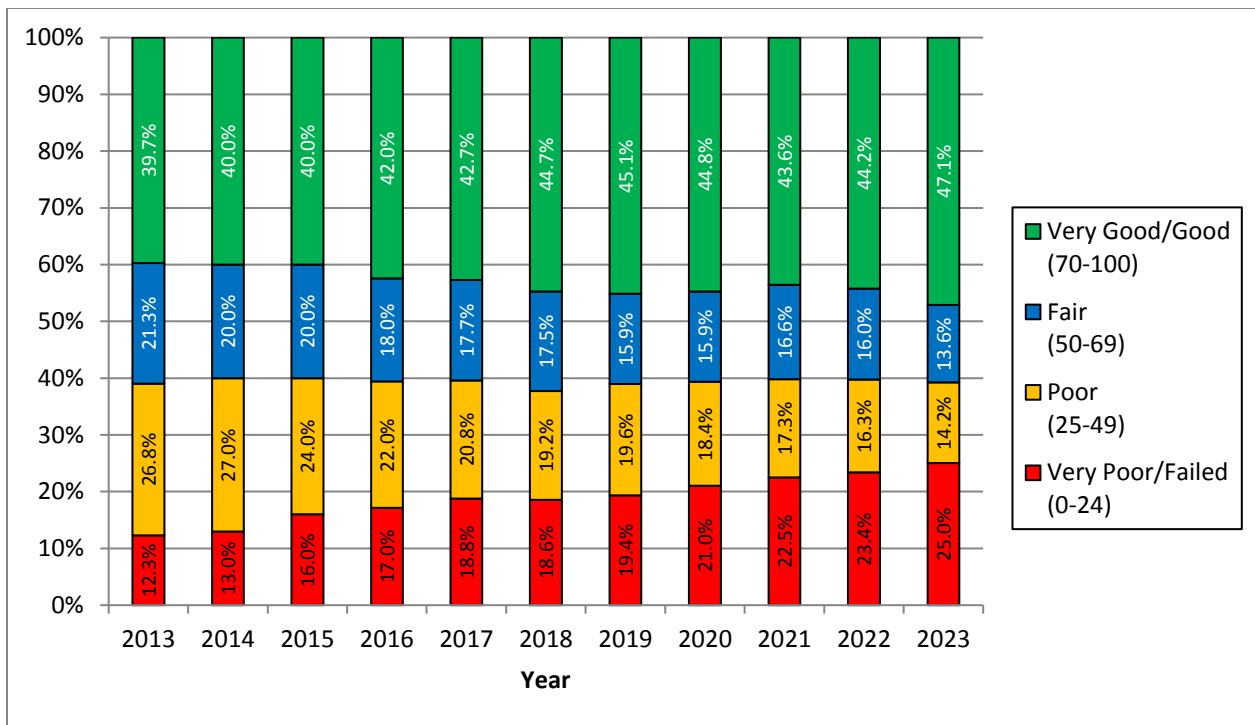
Street Improvements

The table below details the mean & median PCI by Council District from the start of Measure M funds expenditures in 2013, current PCI in 2017, 2018 and 2022 or the end of the current proposed 5-year plan. Currently we are at a city-wide PCI average of 57, far from our PCI goal of 75. No Council District is near that goal of 75, nor even in the Good/Very Good PCI category

Berkeley PCI by District:

Council District - March 2017	2013 PCI Mean	2013 PCI Median	2017 PCI Mean	2017 PCI Median	Measure M Mean 2018	Measure M Median 2018	Proposed PCI Mean 2022	Proposed PCI Median 2022	PCI Mean Change from 2013 to Proposed 2022	PCI Median Change from 2013 to Proposed 2022
#1	62	63	55	58	59	60	50	52	-12	-11
#2	52	48	54	57	51	60	47	59	-5	11
#3	62	63	64	60	58	61	55	63	-7	0
#4	53	52	61	61	57	67	52	67	-1	15
#5	63	61	58	60	62	65	58	62	-5	1
#6	49	51	55	56	58	62	51	56	2	5
#7	58	49	66	64	59	62	62	67	4	18
#8	61	62	61	65	63	75	62	72	1	10
Totals for Berkeley	58	58	57	60	58	65	54	62	-4	4

Berkeley PCI by Category: The above Very Good/Good PCI is incrementally increasing, while Very Poor /Failed is increasing too reflecting the conscious strategy of focusing paving activities on Poor and Fair streets before they fall into Fail category.

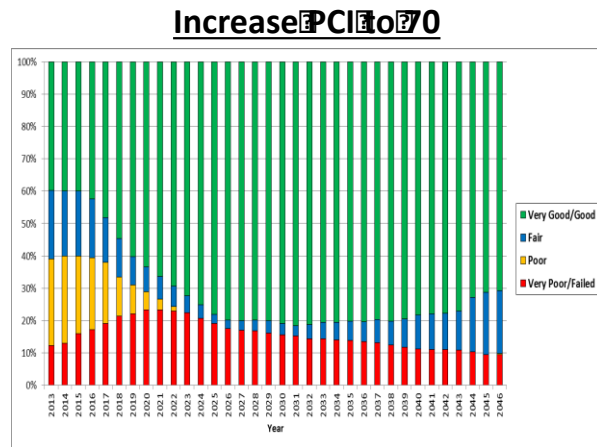
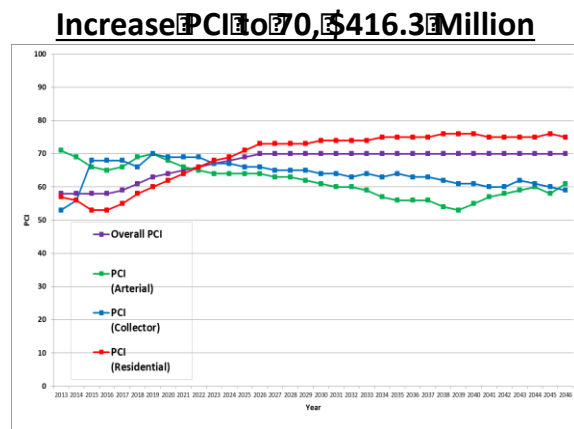
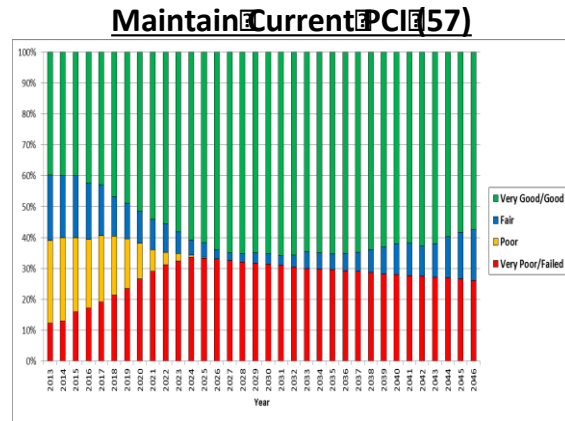
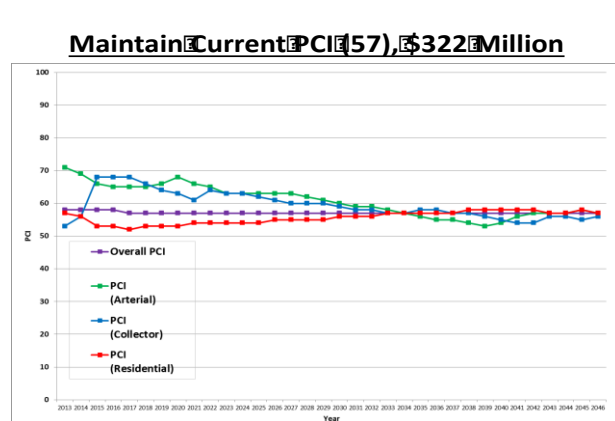


The 2017 PCI stands at 57 with the Collector streets seeing the largest increase in its PCI, with all the recent paving activity driven primarily by the infusion of funds from Measure M. The out-years see the beginning of a decline, which was a likely possibility addressed in the 2015 Mid-Program Review Report. That report forecasted a much higher average City wide PCI of 65, but by 2022 this new forecast PCI see a decline to 54 from our current 57.

30-Year Scenario Cost Analysis

To understanding the long-term capital and capital maintenance street network requirements two scenarios are run: 1) maintain the current average PCI of 57, and 2) attain and maintain a PCI goal of 70 or "useful life" for the next 30-years, PW Staff engaged an outside consultant that provided alternative scenarios.

Note that since asphalt on average has a "useful life" of 20 years, if the analysis below was extended to 40 years and not just 30 years, the capital and maintenance capital costs would increase even more, as those streets would be reconstructed twice not just once in that 40 years to attain and maintain the same PCI goal.



The table below summarize the City’s annual capital Street Rehabilitation budget based on two 30-year useful life scenario(s). These capital and maintenance budget needs are for street 'treatments' *using asphalt*. Berkeley’s *recurring* Capital Expenditures for streets are funded by 4 sources: Berkeley General Fund, Measure B & BB (sales taxes), State Gas tax current and new (SB1).

	Current Capital need to maintain the current PCI of 57 for 30-Years with asphalt*	Current Capital need to attain & then maintain PCI of 70 for 30-years with asphalt *
Current annual capital budget \$7 +/-	\$11-12M	\$14-15M
Shortfall from budget	(\$3-4M) annually	(\$6-7 M) annually

*Source: NCE to PWC Paving Subcommittee 4-25-2017 using a StreetSaver algorithm.

- The above table shows that to just to maintain the current PCI of 57, using asphalt, there is deficit of \$3-4M annually or \$89M for 30-years.
- When attempting to both attain and maintain a PCI goal of 70, the funding deficit doubles again from \$3M to \$6 annually, if we maintain the present method of operations of asphalt street treatments.
- We have more than doubled the annual street recurring capital available since 2012 from \$2.7M to \$6- 7M, this includes new gas taxes and increased vehicle licensing fees funds.
- Additionally, non-recurring bonded funds from Measure M of \$30M for Streets and GI are imbedded in the current PCI of 57.

Conclusion: Our street PCI will decline if we continue to use only asphalt paving for our streets, even with the doubling of available funds and one time bonded funds. Alternative paving materials last 2-3 times longer, but do cost more to construct. Developing a long-term plan (30 or 40 years) for streets, especially those that come up for a “full reconstruction”, with more durable and sustainable paving treatments is essential if Berkeley’s goal is to have smooth, durable and sustainable multiple benefit streets that are less costly to maintain into the future.

Recommendations:

Current Street Recommendations:

- We recommend that staff explore alternatives to asphalt.

- Staff recently presented to the PWC paving subcommittee an analysis that demonstrates that concrete streets are essentially at a breakeven cost at 30 years.
 - We know that streets like Marin Avenue east of Oxford Street are over 50 years old. These concrete streets provided a real-life example of durability that an asphalt street does and cannot attain and is more cost effective in the long run, as they have a 40%+ longer useful life.
 - Other street treatments like Alston Way permeable pavers, that have a useful life is 50-80+ years and have multiple other benefits, should always be considered where geographically optimal.
- The Commission recommends street pavement treatments, especially when a street requires full reconstruction, with useful life expectancies that reflect the current City policy for long term cost effectiveness.

Long Term Planning Recommendations:

A 30-year time horizon approaches the 2050 Visioning Plan recently proposed to Council by former Councilperson Gordon Wozniak for our City's infrastructure. When planning for long term cost effectiveness and long term street pavement durability, as stated in the Street Rehabilitation and Repair Policy adopted in 2009 policy, the inputs are capital and ongoing capital maintenance funds - not just the capital need to 'attain' a PCI goal but also to 'maintain' the street for the "useful life" of that PCI goal.

Long term cost effectiveness, as in a 40-year inter-generational bond, is an opportunity to effectively and efficiently manage capital investments so that useful life of that street investment is inter-generational. The PWC recommends that the Public Works Department prepare a plan that will do the following:

- Outline a 40-year capital street paving and maintenance plan to assess the true costs associated with the different paving technologies, e.g., asphalt, concrete, and permeable pavers (e.g. cost \$ per SY/useful life)
- Outline the capital projects that will use current and future funding sources that will reduce future maintenance costs and provide multiple benefits
- Outline a process and a schedule to attain and maintain Berkeley's streets to a Pavement Condition Index (PCI) of 70+.

Other Planning Recommendations:

- For the improvements to University Avenue, west of I80 to the Marina, the planning should consider the effects of sea level rise.
- Improvements to streets shall be coordinated with Berkeley's Strategic Transportation Plan (BeST) and Berkeley's Bicycle Plan.

The PWC would like to recognize the work of staff to update the 5-year paving plan and completing the implementation Measure M. Staff has been responsive to public comments, visited streets needing improvements, produced new maps and reports, and many other activities.

More will be improved in 2018-19 and more effects of Measure M funding will be seen in FY 2018-19; however, we are falling short of our goals for both PCI and in the efforts to change our streets to reflect the long-term cost effectiveness, long run durability and sustainability of our streets. Asphalt streets are

expensive in the long run and cannot be the sole solution for all the areas of Berkeley, if we are to efficiently and effectively serve all citizens of Berkeley.

5-YEAR STREET PAVING PLAN

FISCAL YEAR	STREET NAME	FROM	TO	CLASS	TREATMENT	ESTIMATED COST (updated)	GREEN INFRA	DISTRICT	P	MILEAGE SCORECARD RANK	PCI	LAST PAVED	LAST TYPE	
2018	CEDAR ST	EAST FRONTAGE RD (STATE P/L)	4TH ST	A	OVERLAY	292300		1	D	0.18	10	29	1993	O
2018	CEDAR ST	4TH ST	6TH ST	A	OVERLAY	152909		1	D	0.13		51	1993	O
2018	OXFORD ST	CEDAR ST	161' N/O HEARST AVE	A	CONC REPAIR	392791		4	C	0.25		47	-	-
2018	SHATTUCK AVE (SB)	CENTER ST	UNIVERSITY AVE	A	RECONSTRUCT	689920		4	C	0.13		20	1994	O
2018	SHATTUCK SQUARE	UNIVERSITY AVE	ADDISON ST/BERKELEY SQ	A	OVERLAY	156245		4	C	0.07		34	1994	O
2018	BERKELEY SQUARE	ADDISON ST	CENTER ST	A	OVERLAY	139040		4	C	0.06		39	1994	O
2018	SHATTUCK AVE	CENTER ST	ALLSTON WAY	A	OVERLAY	414649		4	C	0.06		11	1994	O
2018	CEDAR ST	6TH ST	SAN PABLO AVE	C	OVERLAY	440917		1	D	0.31	8	32	1994	O
2018	GRIZZLY PEAK BLVD	NORTH CITY LIMIT (SPRUCE)	EUCLID AVE	C	RECONSTRUCT	341367		6	B	0.18	3	5	1990	O
2018	GRIZZLY PEAK BLVD	EUCLID AVE	KEELER AVE	C	RECONSTRUCT	322812		6	B	0.21	3	6	1990	O
2018	GRIZZLY PEAK BLVD	KEELER AVE	MARIN AVE	C	RECONSTRUCT	442089		6	B	0.27	3	9	1992	O
2018	ADDISON ST	SHATTUCK AVE	SHATTUCK AVE	R	OVERLAY	38220		4	D	0.03		48	1994	O
2018	ALLSTON WAY	MILVIA ST	SHATTUCK AVE	R	RECONSTRUCT	188760		4	B	0.14		24	1990	O
2018	ALLSTON WAY	SHATTUCK AVE	OXFORD ST	R	RECONSTRUCT	138454		4	D	0.11	11	14	1992	O
2018	ARCADE AVE	GRIZZLY PEAK BLVD	FAIRLAWN DR	R	RECONSTRUCT	52287		6	D	0.06		12	1995	O
2018	ARDEN RD	MOSSWOOD RD	PANORAMIC WAY	R	RECONSTRUCT	67100		8	D	0.12	8	6	-	-
2018	BANCROFT WAY	PROSPECT ST	PANORAMIC WAY	R	OVERLAY	22050		8	B	0.03		43	1993	R
2018	BONAR ST	UNIVERSITY AVE	ADDISON ST	R	RECONSTRUCT	82896		2	B	0.06		19	1992	O
2018	BONAR ST	ADDISON ST	ALLSTON WAY	R	RECONSTRUCT	176880		2	B	0.13		8	1992	O
2018	BONAR ST	ALLSTON WAY	DWIGHT WAY	R	RECONSTRUCT	388472		2	B	0.38		27	1991	O
2018	CANYON RD	PANORAMIC WAY	RIM RD (UC CAMPUS)	R	RECONSTRUCT	60500		8	B	0.05		23	1993	R
2018	CANYON RD	RIM RD (UC CAMPUS)	DEAD END	R	RECONSTRUCT	64130		8	D	0.11	12	0	-	-
2018	CHANNING WAY	SACRAMENTO ST	ROOSEVELT AVE	R	OVERLAY	317520		4	A	0.31	7	27	1995	O
2018	CHANNING WAY	ROOSEVELT AVE	MARTIN LUTHER KING JR WAY	R	RECONSTRUCT	264000		4	A	0.19	7	6	1991	O
2018	CHANNING WAY	MARTIN LUTHER KING JR WAY	MILVIA ST	R	RECONSTRUCT	176880		4	A	0.13	7	12	1991	O
2018	CHANNING WAY	MILVIA ST	SHATTUCK AVE	R	OVERLAY	139160		4	A	0.13	7	31	1991	O
2018	CORNELL AVE	HOPKINS ST	CEDAR ST	R	RECONSTRUCT	73370		1	B	0.07		0	1992	O
2018	CORNELL AVE	CEDAR ST	VIRGINIA ST	R	RECONSTRUCT	145200		1	B	0.13		1	1992	O
2018	DWIGHT WAY	PIEDMONT AVE	HILLSIDE AVE	R	RECONSTRUCT	201960		8	D	0.14		5	1993	O
2018	DWIGHT WAY	HILLSIDE AVE	DEAD END	R	RECONSTRUCT	155760		8	D	0.11		0	1993	O
2018	DWIGHT WAY	PANORAMIC WAY	EAST CITY LIMIT	R	SURFACE SEAL	3423		8	D	0.02		67	-	-
2018	EL DORADO AVE	THE ALAMEDA	SUTTER ST	R	RECONSTRUCT	307720		5	D	0.24		9	1996	O
2018	FOLGER	3RD ST	HOLLIS	R	RECONSTRUCT	197120		2	D	0.12	11	14	-	-
2018	HENRY ST	ROSE ST	VINE ST	R	RECONSTRUCT	174240		5	C	0.13		0	1995	O
2018	HENRY ST	VINE ST	CEDAR ST	R	RECONSTRUCT	172920		4	D	0.12		0	1992	O
2018	HILGARD AVE	LA VEREDA RD	DEAD END	R	RECONSTRUCT	59840		6	D	0.06		14	1999	R
2018	JONES ST	EASTSHORE HWY	2ND ST	R	SURFACE SEAL	12663		1	D	0.05		54	-	-
2018	JONES ST	4TH ST	6TH ST	R	RECONSTRUCT	180840		1	D	0.13		12	-	-
2018	JOSEPHINE ST	THE ALAMEDA	HOPKINS ST	R	RECONSTRUCT	151800		5	D	0.11		17	1997	O
2018	MICHIGAN AVE	MARYLAND AVE	SPRUCE ST	R	OVERLAY	193387		5	D	0.28		34	1988	O
2018	MODOC ST	SOLANO AVE	MARIN AVE	R	OVERLAY	109760		5	D	0.11		47	1995	R
2018	MOSSWOOD RD	PANORAMIC WAY	DEAD END	R	RECONSTRUCT	88000		8	D	0.15	8	0	-	-
2018	MURRAY	7TH ST	SAN PABLO AVE	R	RECONSTRUCT	252062		2	D	0.25	6	4	-	-
2018	PAGE ST	EAST FRONTAGE RD	2ND ST	R	RECONSTRUCT	71280		1	D	0.05		19	-	-

NOTE: COLUMN P DENOTES PRESENCE OF (A) BICYCLE BOULEVARD, (B) BIKEWAY, (C) BUS ROUTE, OR (D) NONE

5-YEAR STREET PAVING PLAN

FISCAL YEAR	STREET NAME	FROM	TO	CLASS	TREATMENT	ESTIMATED COST (updated)	GREEN INFRA	DISTRICT	P	MILEAGE	SCORECARD RANK	PCI	LAST PAVED	LAST TYPE
2018	PAGE ST	3RD ST	4TH ST	R	OVERLAY	52648		1	D	0.06		46	1989	O
2018	PANORAMIC WAY	CANYON RD	1ST TURN	R	RECONSTRUCT	83527		8	D	0.13	8	11	1998	O
2018	PANORAMIC WAY	1ST TURN	ARDEN RD	R	RECONSTRUCT	133650		8	D	0.23	8	17	-	-
2018	PANORAMIC WAY	ARDEN RD	EAST CITY LIMIT	R	RECONSTRUCT	186450		8	D	0.32	8	12	-	-
2018	POE ST	BONAR ST	DEAD END (BONAR ST)	R	RECONSTRUCT	38500		2	D	0.03		4	1995	O
2018	PRINCE ST	TREMONT ST	TELEGRAPH AVE	R	OVERLAY	467460		37	B	0.45		49	2002	O
2018	PROSPECT ST	UC CAMPUS	HILLSIDE AVE	R	RECONSTRUCT	187440		8	B	0.13	9	12	1993	O
2018	RUGBY AVE	NORTH CITY LIMIT	VERMONT AVE	R	RECONSTRUCT	38500		5	D	0.04		0	1994	O
2018	SPINNAKER WAY	BREAKWATER DR	MARINA BLVD	R	OVERLAY	326667		1	B	0.28		28	1991	O
2018	VERMONT AVE	DEAD END	MARYLAND AVE	R	RECONSTRUCT	129874		5	D	0.15		8	1994	O

FISCAL YEAR 2018 TOTALS

Total Estimated Cost and Miles

\$10,158,409

7.91 miles

	MILEAGE	ESTIMATED COST	% COST	% MILEAGE		
ARTERIALS	0.87	\$2,237,854	22%	11%	1	1.39
COLLECTORS	0.97	\$1,547,185	15%	12%	2	0.96
RESIDENTIALS	6.07	\$6,373,370	63%	77%	3	0.23
					4	1.74
SURFACE SEALS	0.07	\$16,086			5	1.06
OVERLAYS	2.52	\$3,262,932			6	0.77
RECONSTRUCTS	5.34	\$6,879,391			7	0.23
					8	1.54
PCC STREETS	0.25	\$392,791				7.91
BIKEWAYS	3.25	\$4,123,523	41%	41%		
Green Infrastructure						
- Woolsey Street GI (Measure M)		\$1,959,543				
- Parker Street (Measure M)		\$1,300,000				
		\$3,259,543				

5-YEAR STREET PAVING PLAN

FISCAL YEAR	STREET NAME	FROM	TO	CLASS	TREATMENT	ESTIMATED COST (updated)	GREEN INFRA	DISTRICT	P	MILEAGE SCORECARD RANK	PCI	LAST PAVED	LAST TYPE
2019	SHATTUCK AVE	ROSE ST	VINE ST	A	OVERLAY	324427		5	C	0.13	10	43	1996 R
2019	SHATTUCK AVE	VINE ST	CEDAR ST	A	RECONSTRUCT	963014		4	C	0.13	8	23	1996 O
2019	SHATTUCK PL	HENRY ST & ROSE ST	SHATTUCK AVE	A	OVERLAY	697434		5	C	0.10	10	25	1996 R
2019	SHATTUCK AVE	CEDAR ST	HEARST AVE	A	RECONSTRUCT	2036658		4	C	0.32	8	22	1996 O
2019	SHATTUCK AVE	HEARST AVE	UNIVERSITY AVE	A	OVERLAY	756125	*	4	C	0.12	1	26	1996 R

FISCAL YEAR 2019 TOTALS

Total Estimated Cost and Miles

\$4,777,658

0.78 miles

	MILEAGE	ESTIMATED COST	% COST	% MILEAGE		
ARTERIALS	0.78	\$4,777,658	100%	100%	1	0.00
COLLECTORS	0.00	\$0	0%	0%	2	0.00
RESIDENTIALS	0.00	\$0	0%	0%	3	0.00
					4	0.56
SURFACE SEALS	0.00	\$0			5	0.22
OVERLAYS	0.34	\$1,777,986			6	0.00
RECONSTRUCTS	0.44	\$2,999,672			7	0.00
					8	0.00
PCC STREETS	0.00	\$0				0.78
BIKEWAYS	0.00	\$0	0%	0%		

Green Infrastructure

- Additional Site(s) TBD pending funds (Measure M) \$1,169,052

5-YEAR STREET PLAN

FISCAL YEAR	STREET NAME	FROM	TO	CLASS	TREATMENT	ESTIMATED COST (updated)	GREEN INFRA	DISTRICT	P	MILEAGE SCORECARD RANK	PCI	LAST PAVED	LAST TYPE
2020	COLLEGE AVE	ASHBY AVE	SOUTH CITY LIMIT (ALCATRAZ)	A	SURFACE SEAL	112060		78	C	0.41	56	2000	R
2020	DWIGHT WAY	SACRAMENTO ST	MARTIN LUTHER KING JR WAY	A	RECONSTRUCT	1594569	*	34	C	0.50	10	1998	O
2020	DWIGHT WAY	MARTIN LUTHER KING JR WAY	MILVIA ST	A	OVERLAY	175560		34	C	0.13	64	1998	O
2020	DWIGHT WAY	MILVIA WAY	SHATTUCK AVE	A	OVERLAY	197854		34	C	0.13	63	1998	O
2020	HEARST AVE	MILVIA ST	HENRY ST	A	SURFACE SEAL	25000		4	B	0.06	63	1995	O
2020	OXFORD ST	UNIVERSITY AVE	ADDISON ST	A	SURFACE SEAL	28000		47	B	0.07	79	2002	R
2020	SACRAMENTO ST	HOPKINS ST	ROSE ST	A	SURFACE SEAL	41028		15	D	0.15	62	1989	R
2020	COLUSA AVE	SOLANO AVE	MARIN AVE	C	SURFACE SEAL	37669		5	B	0.13	87	1989	R
2020	HOPKINS ST	JOSEPHINE ST	THE ALAMEDA	C	SURFACE SEAL	22400		5	B	0.05	59	1991	R
2020	CENTER ST	MILVIA ST	SHATTUCK AVE	R	SURFACE SEAL	77550		4	B	0.14	4	1991	O
2020	DERBY ST	MARTIN LUTHER KING JR WAY	MILVIA ST	R	SURFACE SEAL	34137		3	D	0.13	87	1992	O
2020	DERBY ST	MILVIA ST	FULTON ST	R	RECONSTRUCT	448140		3	D	0.28	11	1992	O
2020	DERBY ST	FULTON ST	TELEGRAPH AVE	R	RECONSTRUCT	430320		37	B	0.31	7	1992	O
2020	DERBY ST	TELEGRAPH AVE	HILLEGASS AVE	R	RECONSTRUCT	227040	*	7	D	0.16	4	1997	O
2020	FULTON ST	PARKER ST	STUART ST	R	SURFACE SEAL	57992		3	B	0.25	63	1992	O
2020	HILLEGASS AVE	DWIGHT WAY	ASHBY AVE	R	SURFACE SEAL	140800		78	A	0.61	84	2000	R
2020	HOPKINS ST	SAN PABLO AVE	STANNAGE AVE	R	SURFACE SEAL	24445		1	D	0.09	75	2002	O
2020	HOPKINS ST	STANNAGE AVE	NORTHSIDE AVE	R	SURFACE SEAL	44734		1	D	0.17	82	2002	O
2020	HOPKINS ST	NORTHSIDE AVE	PERALTA AVE	R	SURFACE SEAL	21982		1	D	0.10	80	2002	O
2020	HOPKINS ST	PERALTA AVE	GILMAN ST	R	SURFACE SEAL	58161		15	B	0.27	67	2002	O
2020	MAGNOLIA ST	ASHBY AVE	WEBSTER ST	R	SURFACE SEAL	19360		8	D	0.13	63	1993	O
2020	MILVIA ST	BLAKE ST	RUSSELL ST	R	OVERLAY	458640		3	A	0.44	7	1993	O
2020	WALKER ST	DERBY ST	WARD ST	R	OVERLAY	32340		3	D	0.06	46	-	-
2020	WARD ST	FULTON ST	ELLSWORTH ST	R	RECONSTRUCT	174240		3	D	0.13	11	1992	O
2020	WARD ST	ELLSWORTH ST	TELEGRAPH AVE	R	RECONSTRUCT	232320		7	D	0.17	11	1992	O

Total Estimated Cost and Miles

\$4,716,341

5.06 miles

	MILEAGE	ESTIMATED COST	% COST	% MILEAGE		
ARTERIALS	1.45	\$2,174,071	46%	29%	1	0.58
COLLECTORS	0.18	\$60,069	1%	4%	2	0.00
RESIDENTIALS	3.43	\$2,482,201	53%	68%	3	1.81
					4	0.61
SURFACE SEALS	2.76	\$745,318			5	0.39
OVERLAYS	0.76	\$864,394			6	0.00
RECONSTRUCTS	1.54	\$3,106,629			7	1.02
					8	0.63
PCC STREETS	0.00	\$0				5.06
BIKEWAYS	2.33	\$1,336,532	28%	46%		

5-YEAR STREET PLAN

FISCAL YEAR	STREET NAME	FROM	TO	CLASS	TREATMENT	ESTIMATED COST (updated)	GREEN INFRA	DISTRICT	P	MILEAGE	SCORECARD RANK	PCI	LAST PAVED	LAST TYPE
2021	TELEGRAPH AVE	DWIGHT WAY	WARD ST	A	RECONSTRUCT	2554534		7	B	0.33	2	7	2002	O
2021	TELEGRAPH AVE	WARD ST	ASHBY AVE	A	RECONSTRUCT	2339805		7	B	0.30	2	5	2002	O

FISCAL YEAR 2021 TOTALS

Total Estimated Cost and Miles

\$4,894,339

0.63 miles

	MILEAGE	ESTIMATED COST	% COST	% MILEAGE		
ARTERIALS	0.63	\$4,894,339	100%	100%	1	0.00
COLLECTORS	0.00	\$0	0%	0%	2	0.00
RESIDENTIALS	0.00	\$0	0%	0%	3	0.00
					4	0.00
SURFACE SEALS	0.00	\$0			5	0.00
OVERLAYS	0.00	\$0			6	0.00
RECONSTRUCTS	0.63	\$4,894,339			7	0.63
					8	0.00
PCC STREETS	0.00	\$0				0.63
BIKEWAYS	0.63	\$4,894,339	100%	100%		

5-YEAR STREET PLAN

FISCAL YEAR	STREET NAME	FROM	TO	CLASS	TREATMENT	ESTIMATED COST (updated)	GREEN INFRA	DISTRICT	P	MILEAGE SCORECARD RANK	PCI	LAST PAVED	LAST TYPE
2022	COLLEGE AVE	DWIGHT WAY	DERBY ST	A	OVERLAY	875320		78	C	0.52	48	2000	R
2022	COLLEGE AVE	DERBY ST	ASHBY AVE	A	OVERLAY	488400		8	C	0.35	54	2000	R
2022	HEARST AVE	MARTIN LUTHER KING JR WAY	MILVIA ST	A	OVERLAY	199958		4	B	0.13	44	1997	R
2022	6TH ST	ALLSTON WAY	DWIGHT WAY	C	OVERLAY	677734		2	C	0.37	49	1994	O
2022	COLUSA AVE	MARIN AVE	MONTEREY AVE	C	OVERLAY	257907		5	B	0.16	69	1986	O
2022	DWIGHT CRESCENT	6TH ST	7TH ST	C	OVERLAY	136500		2	C	0.08	50	1988	O
2022	SHASTA RD	GRIZZLY PEAK BLVD	PARK GATE	C	RECONSTRUCT	70778		6	B	0.05	22	1988	R
2022	SHASTA RD	PARK GATE	EAST CITY LIMIT	C	RECONSTRUCT	123045		6	B	0.11	19	1988	R
2022	UNIVERSITY AVE	MARINA BLVD	WEST FRONTAGE RD	C	RECONSTRUCT	1254400		12	B	0.30	8	1989	O
2022	CARLETON ST	MILVIA ST	FULTON ST	R	OVERLAY	281260		3	D	0.27	45	1989	O
2022	CATALINA AVE	COLUSA AVE	THE ALAMEDA	R	OVERLAY	144060		5	D	0.19	14	1993	O
2022	CENTER ST	MARTIN LUTHER KING JR WAY	MILVIA ST	R	OVERLAY	193333	*	4	C	0.13	62	1991	O
2022	STATION PL	CATALINA AVE	DEAD END	R	RECONSTRUCT	52360		5	D	0.04	5	-	-

FISCAL YEAR 2022 TOTALS

Total Estimated Cost and Miles

\$4,755,055

2.69 miles

	MILEAGE	ESTIMATED COST	% COST	% MILEAGE		
ARTERIALS	1.00	\$1,563,678	33%	37%	1	0.15
COLLECTORS	1.07	\$2,520,364	53%	40%	2	0.60
RESIDENTIALS	0.62	\$671,013	14%	23%	3	0.27
					4	0.25
SURFACE SEALS	0.00	\$0.00			5	0.39
OVERLAYS	2.20	\$3,254,472.00			6	0.15
RECONSTRUCTS	0.50	\$1,500,583.00			7	0.26
					8	0.61
PCC STREETS	0.00	\$0				2.69
BIKEWAYS	0.74	\$1,906,088	40%	28%		