



Public Works Commission

Regular Meeting
PUBLIC WORKS COMMISSION
Agenda
Thursday, May 4, 2017 at 7:00 p.m.
Corporation Yard, 1326 Allston Way, Berkeley, CA
Willow Room

7:00 pm CALL TO ORDER: Chair will call the meeting to order; Secretary will call roll.

7:05 pm PUBLIC COMMENT: Each speaker is limited to three (3) minutes.

7:15 pm APPROVAL OF MINUTES*: April 6, 2017

7:20 pm CHAIR REPORT

7:25 pm STAFF REPORT

7:30 pm PRESENTATION: None

7:40 pm ACTION ITEMS: (Matters for discussion and possible action)

1. Five year paving plan*
2. Recommendations for Measure T1 Implementation
 - a. Summary of recent meetings
 - b. PWC and PWFC Chair cover memo*
 - c. PWC Recommendations*

9:30 pm INFORMATION ITEMS: (Action may be taken on any information item at this meeting if a majority of Commissioners votes to move it to an action item. This vote may take place at or before the time the item is scheduled to come up).

3. Measure M Staff Report to Council
4. Standing Information Item: Subcommittee Reports
 - a. Utility undergrounding
 - b. Paving
 - c. T1**
 - d. Watershed master plan
 - e. Mission statement
 - f. Sidewalks

9:50 pm FUTURE AGENDAS:

MRP GI Plan, Budget and CIP, Sidewalks

10:00 pm ADJOURNMENT

- * Indicates written material included in packet.
- ** Indicates material to be delivered at meeting.

A complete agenda packet is available for public review at the Engineering Division front desk.

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SB 343 Disclaimer:

Any writings or documents provided to a majority of the Commission regarding any item on this agenda will be made available for public inspection at the Public Works Department located at the address below.

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Commission Secretary:

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Public Works Commission

Regular Meeting
PUBLIC WORKS COMMISSION
Action Minutes
Thursday, April 6, 2017
Corporation Yard, 1326 Allston Way, Berkeley, CA
Willow Room

CALL TO ORDER: 7:00 PM

Present: Schueler, Freiberg, Smith, Kelley, Hitchen, Henry, Yep, Dominguez

Absent:

Staff: Tracy J. Clay (PWC Secretary)

PUBLIC COMMENT: A member of the public, Mark Gilligan, recommended that the City improve the way that public buildings are managed, including considering to seismic safety of buildings especially during building remodels.

APPROVAL OF MINUTES: PWC made the following action:

Action by Commission: Recommend that the minutes of the Regular Meeting of March 2, 2017 be approved.

M/S/C (Yep /Smith /7-0-0).

CHAIR REPORT: None.

STAFF REPORT: Staff reported that there will be public meeting for the Panoramic Hill Street Rehabilitation project on 4/12/17, and also that storm water sampling on the Alston Way Paver Project was completed in February of 2016 and provided a brief summary of results. A table on restrictions on spending for paving program funding was also distributed.

PRESENTATION: None.

1. Bike East Bay Berkeley Bike Plan - David Campbell, Advocacy Director of Bike East Bay, gave a presentation on the Berkeley Bike Plan and made recommendations on how bike improvements could be better incorporated with street paving projects. He shared a copy of City of Berkeley Recommended (bike) Network Improvements with the PWC.

2. Paving Plan – Discussed under Action Item 1 below.

3. Measure M Staff Report to Council – The PWC discussed the Measure M Staff Report to Council and made the following motion:

Action by Commission: The Public Works Commission should send a letter to council expressing our displeasure with not having seen the report prior to submission to council and we request that we have 30 days to review this and subsequent Measure M Reports in keeping with the designated Measure M oversight role.

M/S/C (Kelly /Henry /7-0-0).

ACTION ITEMS:

1. **Five year paving plan** – Staff provided an updated 5 Year Paving Plan and Map for 2018-2022. The revised paving plan removed surface seal treatments from the proposed T1 projects and also listed green infrastructure expenditure by year. The following points were discussed by the commissioners:
 - Should conduct an analysis to determine the cost to maintain the City’s pavement for 40 years.
 - Keep residential streets in poor condition to control speed.
 - Should look at more aggressive surface seal program, similar to Contra Costa County.
 - Target Tuesday June 27, 2017 for City Council Paving Plan approval.
 - Emergency routes degrade faster than other residential streets due to heavier vehicles and higher traffic volume and should be a consideration in assigning paving priorities.
 - Staff was requested to send out the list of all streets and their PCI rating.
 - Staff was requested to put percent by bike miles in the paving plan table.
 - Should look at permeable pavers instead of cisterns and would like to see a cost comparison of cost per storage volume. Could compare Alston to Parker.
2. **Discuss status and recommendations for Measure T1 Implementation**
 - a. **Summary of recent meetings** – Commissioner Yep reported on the recent meetings as summarized in written summary provided.
 - b. **PWC Chair letter** - Commissioner Freiberg read verbatim the outline of the letter as attached to these minutes.
 - c. **PWC Recommendation criteria** – still developing.
 - d. **Recommendations received to date from other** – still collecting information.
 - e. **Upcoming Saturday May 8 public meeting** – Commissioners discussed a plan for the meeting.
3. **Workplan** - Work plan was handed out to the commissioners and assignments were discussed.
4. **Green Infrastructure Plan Framework** - Staff reported on the Green Infrastructure Framework content and actions to date and noted that the Framework will be going to City Council for approval on June 13, 2017. Commissioner Schueler noted that the Watershed Subcommittee reviewed the Green Infrastructure Plan Framework and looks forward to more details of plan development and public involvement as work progresses.

INFORMATION ITEMS:

Standing Information Item: Subcommittee Reports: Subcommittee chairs gave brief verbal reports from the following subcommittees:

- a. **Utility Undergrounding**
- b. **Paving**
- c. **T1**

FUTURE AGENDAS: Paving Plan, T1 Recommendations, MRP GI Plan, Budget and CIP

ADJOURN:

Action by Commission: Meeting Adjourned.

M/S/C (Kelley/Dominguez /7-0-0)

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
T1	ADELIN ST	DERBY ST	STUART ST	A	OVERLAY	666667		3	B	0.14	42	1994	O
T1	ADELIN ST	STUART ST	ASHBY AVE	A	RECONSTRUCT	1333333		3	B	0.28	5	1988	O
2018	CEDAR ST	EAST FRONTAGE RD (STATE P/L)	4TH ST	A	OVERLAY	292300		1	D	0.18	10	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	1994	O
2018	GRIZZLY PEAK BLVD	NORTH CITY LIMIT (SPRUCE)	EUCLID AVE	C	RECONSTRUCT	341367		6	B	0.18	3	1990	O
2018	GRIZZLY PEAK BLVD	EUCLID AVE	KEELER AVE	C	RECONSTRUCT	322812		6	B	0.21	3	1990	O
2018	GRIZZLY PEAK BLVD	KEELER AVE	MARIN AVE	C	RECONSTRUCT	442089		6	B	0.27	3	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	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	-	-
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	-	-
2018	CHANNING WAY	SACRAMENTO ST	ROOSEVELT AVE	R	OVERLAY	317520		4	A	0.31	7	1995	O
2018	CHANNING WAY	ROOSEVELT AVE	MARTIN LUTHER KING JR WAY	R	RECONSTRUCT	264000		4	A	0.19	7	1991	O
2018	CHANNING WAY	MARTIN LUTHER KING JR WAY	MILVIA ST	R	RECONSTRUCT	176880		4	A	0.13	7	1991	O
2018	CHANNING WAY	MILVIA ST	SHATTUCK AVE	R	OVERLAY	139160		4	A	0.13	7	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	-

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	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	-	-
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
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
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
T1	WARD ST	SAN PABLO AVE	ACTON ST	R	RECONSTRUCT	440000	*	2	B	0.31	24	1991	O

FISCAL YEAR 2018 TOTALS

Total Estimated Cost and Miles

\$12,598,409

8.64 miles

	MILEAGE	ESTIMATED COST	% COST	% MILEAGE		
ARTERIALS	1.29	\$4,237,854	34%	15%	1	1.39
COLLECTORS	0.97	\$1,547,185	12%	11%	2	1.28
RESIDENTIALS	6.38	\$6,813,370	54%	74%	3	0.65
					4	1.74
SURFACE SEALS	0.07	\$16,086			5	1.06
OVERLAYS	2.66	\$3,929,599			6	0.77
RECONSTRUCTS	5.94	\$8,652,724			7	0.23
					8	1.54
PCC STREETS	0.25	\$392,791				8.64
BIKEWAYS	3.98	\$6,563,523	52%			

Green Infrastructure

- Woolsey Street GI (Measure M)	\$1,959,543
- Parker Street (Measure M)	\$1,300,000
	<u>\$3,259,543</u>

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
T1	HOPKINS ST	SACRAMENTO ST	HOPKINS CT	A	OVERLAY	57934		5	B	0.04	36	2002	O
2019	SHATTUCK AVE	ROSE ST	VINE ST	A	OVERLAY	324427		5	C	0.13	10	1996	R
2019	SHATTUCK AVE	VINE ST	CEDAR ST	A	RECONSTRUCT	963014		4	C	0.13	8	1996	O
2019	SHATTUCK PL	HENRY ST & ROSE ST	SHATTUCK AVE	A	OVERLAY	697434		5	C	0.10	10	1996	R
2019	SHATTUCK AVE	CEDAR ST	HEARST AVE	A	RECONSTRUCT	2036658		4	C	0.32	8	1996	O
2019	SHATTUCK AVE	HEARST AVE	UNIVERSITY AVE	A	OVERLAY	756125	*	4	C	0.12	1	1996	R
T1	BANCROFT WAY	MILVIA WAY	SHATTUCK AVE	C	OVERLAY	184600		4	D	0.13	33	1989	O
T1	HOPKINS ST	HOPKINS CT	MONTEREY AVE	C	OVERLAY	53167		5	B	0.05	58	2002	O
T1	HOPKINS ST	MONTEREY AVE	MC GEE AVE	C	OVERLAY	61222		5	B	0.05	75	1989	R
T1	HOPKINS ST	MC GEE AVE	CARLOTTA AVE	C	OVERLAY	97067		5	B	0.06	53	1989	R
T1	HOPKINS ST	CARLOTTA AVE	JOSEPHINE ST	C	OVERLAY	506147	*	5	B	0.35	64	1989	O
T1	MONTEREY AVE	THE ALAMEDA	HOPKINS ST	C	OVERLAY	938827		5	B	0.57	57	1990	O
T1	2ND ST	DELAWARE ST	HEARST AVE	R	RECONSTRUCT	146300		1	D	0.09	11	-	-
T1	2ND ST	HEARST AVE	UNIVERSITY AVE	R	OVERLAY	106712		1	D	0.09	11	-	-
T1	2ND ST	UNIVERSITY AVE	ADDISON ST	R	RECONSTRUCT	105600		2	D	0.09	4	1997	O
T1	HOPKINS ST	GILMAN ST	SACRAMENTO ST	R	RECONSTRUCT	132147		5	B	0.10	7	2002	O

FISCAL YEAR 2019 TOTALS

Total Estimated Cost and Miles

\$7,167,381

2.41 miles

	MILEAGE	ESTIMATED COST	% COST	% MILEAGE		
ARTERIALS	0.82	\$4,835,592	67%	34%	1	0.18
COLLECTORS	1.22	\$1,841,030	26%	51%	2	0.09
RESIDENTIALS	0.37	\$490,759	7%	15%	3	0.00
					4	0.69
SURFACE SEALS	0.00	\$0			5	1.45
OVERLAYS	1.69	\$3,783,662			6	0.00
RECONSTRUCTS	0.72	\$3,383,719			7	0.00
					8	0.00
PCC STREETS	0.00	\$0				2.41
BIKEWAYS	1.22	\$1,846,511	26%			

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%			

Green Infrastructure

- Dwight and Sacramento Bus Stop Permeable Pavers (T1)	\$239,200
- Civic Center Park Bioswale (T1)	\$340,000
	<u>\$579,200</u>

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%			

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%			

Green Infrastructure

- San Pablo Park Bioswale with cistern* (T1)	\$110,400
- Willard Park Bioswale* (T1)	\$100,000
- North Brance Berkeley Library Bioswale* (T1)	\$100,000
- King School Park Bioswale with cistern* (T1)	\$110,400
	<u>\$420,800</u>

* planning and design only

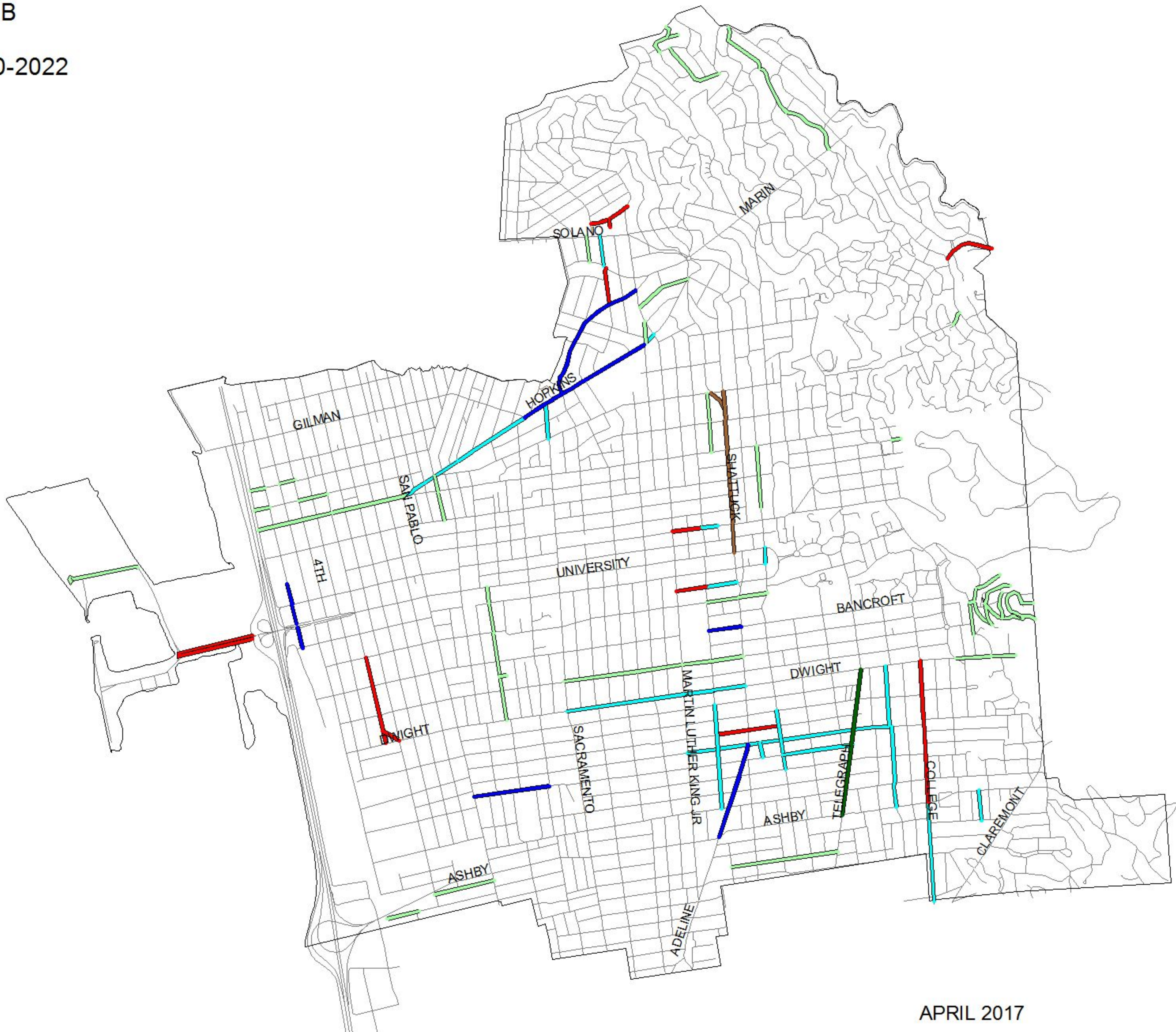
Fiscal Years 2018-2019

- 2018 REHAB
- 2019 REHAB

T1

Fiscal Years 2020-2022

- 2020
- 2021
- 2022



APRIL 2017

To: Honorable Mayor and Members of the City Council
From: Public Works Commission and Parks and Waterfront Commission
Submitted by: Margo Schueler, Chair, Public Works Commission
Susan McKay, Chair, Parks and Waterfront Commission
Subject: Recommendations for implementing Phase 1 of the Measure T1 program

BACKGROUND

In order to implement the T1 Bond program, the Bond language states the condition that:

- *There will be citizen oversight for use of the bonds. The affected commissions will hold public meetings and prepare recommendations to the Council as part of the budgetary process.*

To this end the Public Works Commission (PWC) and the Parks and Waterfront Commission (PWFC) were tasked with working with staff to participate in the public input, work with 10 other commissions to receive and synthesize additional input, digest all public comments received, and provide Commission recommendations to Council on the City Manager/Staff recommendations of December 22, 2106 for the implementation of Phase 1 of the T1 Infrastructure Bond.

Details of the Commissions' work since January are provided in the Commission Report, attached. Specific project and program recommendations are summarized here. The additional Bond provisions listed below informed our work.

- *Evaluation criteria for allocation of the \$100 million bond revenues will include consideration of Berkeley's changing demographics, equity across the City and resilience needs, including water quality and green infrastructure mandates and other sustainability objectives. In making recommendations the committees shall consider finishing projects that are underway and have impact on the greatest number of Berkeley residents.*
- *The bond proceeds need to be used for long lasting capital projects and not for maintenance work. The projects should use durable, sustainable technologies so that these capital investments lower future maintenance costs.*
- *The Public Works Department, the Parks, Recreation and Waterfront Department, the Health, Housing and Community Services Department and the Office of Energy and Sustainable Development shall develop program plans to address aging infrastructure improvement needs beyond the \$100 million infrastructure bond. Those plans will identify the priority of improvements and funding sources. Development of the plans will involve the affected commissions and the public.*

SPECIFIC PROJECT RECOMMENDATIONS

1. **FACILITY PROJECTS:** The Commissions recommend proceeding with the Phase 1 specific facility projects recommended by staff. No specific changes are recommended in the facility work identified by staff, which represents 50% of the Phase 1 allocation.
2. **STREET PROJECTS:** Seven street projects recommended by staff are included in the Five Year Paving Plan currently under review by the PWC. The Commissions recommend pavement treatments with life expectancies longer than the 40 year bond funding period. We recommend that staff explore alternatives to asphalt pavement that may have longer life cycles including concrete or other permeable pavers for streets with significant traffic loads or identified as possible candidates for permeable paving in the band between Sacramento and Shattuck.

With the infusion of state funds from SB1 for street maintenance and reconstruction slated to impact Berkeley in 2018, the Commissions recommend completing asphalt-only street renovations with 15-30 year life expectancies be constructed with tax monies rather than bond funds.

3. **GREEN INFRASTRUCTURE (GI) PROJECTS:** In keeping with the existing Watershed Management Plan (WMP), the Commissions recommend that GI should be integrated into street restoration projects. GI projects identified in the WMP should be first priority for implementation. The bio-swale proposed at King School Park was identified and analyzed in the Potter watershed in the WMP and the Commissions recommend this project.
4. The remaining four GI projects do not meet these minimum criteria and are not affiliated with any street work or modification of hardscapes. The Commissions do not recommend proceeding with stand-alone bio-swales in parks not included in the WMP.
5. In concurrence with the WMP, GI street additions should be included in the streets that are funded by T1. If the street surface ultimately designed and constructed provides storm water quality improvement and management benefits, then that would be an appropriate allocation of the T1 funds. Alternatively, storm water projects concurrent with street projects included in the Five Year Paving Plan could be funded by T1.
6. **PARKS PROJECTS:** The Commissions agree with the staff recommendations on the Parks projects.
7. In addition, the Commissions recommend additional projects to address immediate, critical needs suggested and supported by the community in the public input process. The Commissions support additional funding for parks projects including:
 - Add replacement of five (5) existing deteriorating, door-less concrete block restrooms which that cannot be maintained at a suitable level with prefabricated toilets to improve safety and function;
 - Add restroom and storage building at Tom Bates Gilman Fields (north);
 - Add replacement of old and/or out of compliance play equipment;
 - Add planning and design for expansion and/or renovation of the Willard Park Clubhouse to meet current needs; and

- Direct staff to negotiate lease/ownership agreements between City and BUSD for shared resources.
8. Four projects recommended by staff are in areas subject to impacts from sea level rise. All work on the Berkeley Pier, lower University Ave renovation plan, the Aquatic Park Tide Tubes, and the Gilman Fields should address impacts and mitigations for sea level rise, at least through the life of the bond. If sea level rise can be addressed in the University Avenue project, add construction to Phase 1.
 9. Additional funding for the Aquatic Park Tide Tube project should be considered to address flooding and water quality improvement planning. The Commissions strongly encourage a robust stakeholder process for planning that involves permitting agencies, wildlife agencies, and local interested parties, and includes stakeholder involvement in the work program for the necessary studies.

PROCESS AND PLAN RECOMMENDATIONS

1. **CRITERIA:** Members of the public, community groups, and other Commissions expressed concern regarding process transparency and project accountability. We recommend that a clear set of quantifiable criteria be developed to facilitate prioritization, selection, and evaluation of the investment in infrastructure we are choosing to maintain and improve.
2. **PROGRAM PLAN:** The Commissions strongly recommend development of a T1 Program Plan to provide goals, metrics, and leadership transparency and accountability for the duration of the bond project. An Oversight Charter should be developed between staff and the Commissions to ensure transparency and accountability.
3. **STREETS MANAGEMENT PLAN:** Passage of Measure T1, a 40-year inter-generational bond, is an opportunity to effectively and efficiently manage capital investments whose useful life is also inter-generational. The Commissions recommend that the Public Works Department prepare a long term Street Management Plan that will:
 - Outline a baseline operations and maintenance funding level that will keep Berkeley's streets from deteriorating.
 - Outline a process to conduct life cycle cost analysis in the selection of street surface treatment technologies.
 - Outline the capital projects that will use bond funding.
 - Outline a process and a schedule to restore Berkeley's streets to a Pavement Condition Index (PCI) of 70+.
4. **WATERSHED MANAGEMENT PLAN (WMP):** The WMP should be updated to reflect changing climate knowledge, groundwater management rules, Green Infrastructure Framework, and storm water discharge permit conditions. The remaining seven city watersheds should be modeled and included in WMP recommendations prior to design work on additional bio-swales citywide.
5. **MARINA MASTER PLAN:** The 2003 Marina Master Plan (funded to some part by Marina Fund) which accounts for leasing options for H's Lordships, replacement or reconstruction of the pier,

and reconstruction of University Avenue should be updated to reflect changed conditions and a current vision for the future.

6. BUILDINGS: The PWC has historically focused on infrastructure in the right of way. Oversight and public input into the management of buildings encompasses multiple specialized disciplines. Given the number and complexity of building and facility related concerns, the PWC recommends that Council consider developing a commission whose core responsibility is public input to management of the physical buildings the City owns and operates.

Attachments: Implementing Phase 1 of the Measure T1 Program, Recommendations by the Public Works and Parks and Waterfront Commissions

To: Honorable Mayor and Members of the City Council

From: Public Works Commission

Submitted by: Margo Scheuler, Chair, Public Works Commission

Subject: Recommendation for the Five-Year Paving Plan

RECOMMENDATION

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

The Public Works Commission (PWC) recommends the plan to:

- Better incorporate potential changes due to on-going effects of climate change and 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,
- Best optimize green infrastructure to provide multiple benefits, and
- Better evaluate full life-cycle costs, especially of alternative treatments.

CURRENT SITUATION AND ITS EFFECTS

The mission of the PWC is to “*advise the Council on maintenance, repair and capital improvements of streets, sidewalks, sanitary sewers, storm drains, City buildings, communication systems, vehicles and equipment, and undergrounding of utilities*”.

The PWC annually reviews the 5-Year Paving Plan is based on the Council adopted Paving Policy first established in 1990, revised in 2009 and again in 2012. The annual review is driven by the specific policy elements:

Summary: The City shall strive to identify and implement integrated solutions that address the multiple demands on the street infrastructure that are *environmentally sustainable* and *economically efficient over the long run*.

Section 4. Specific Policy.

The Street Rehabilitation Program shall be based on the following criteria, listed in order of priority:

- 1) Street rehabilitation shall be coordinated with utility, sewer, water contamination runoff issues, and other underground activities to minimize the cost and maximize the effectiveness of rehabilitation and improve the environment.
- 2) Long term cost effectiveness, long term street pavement durability and aesthetics are important for priority setting and repair methodology selection.
- 3) To benefit the greatest number of residents, heavy street use (as indicated by traffic counts and bus routes designated in AC Transit's Comprehensive Service Plan) shall be given great consideration.
- 4) Demonstration and test projects for new technologies should be in high visibility and heavily used areas.
- 5) Rehabilitation of an entire street, rather than one block at a time, shall be scheduled as much as possible.

6) First hand assessment of streets, as well as computer based analysis, shall be a basis for street rehabilitation program development.

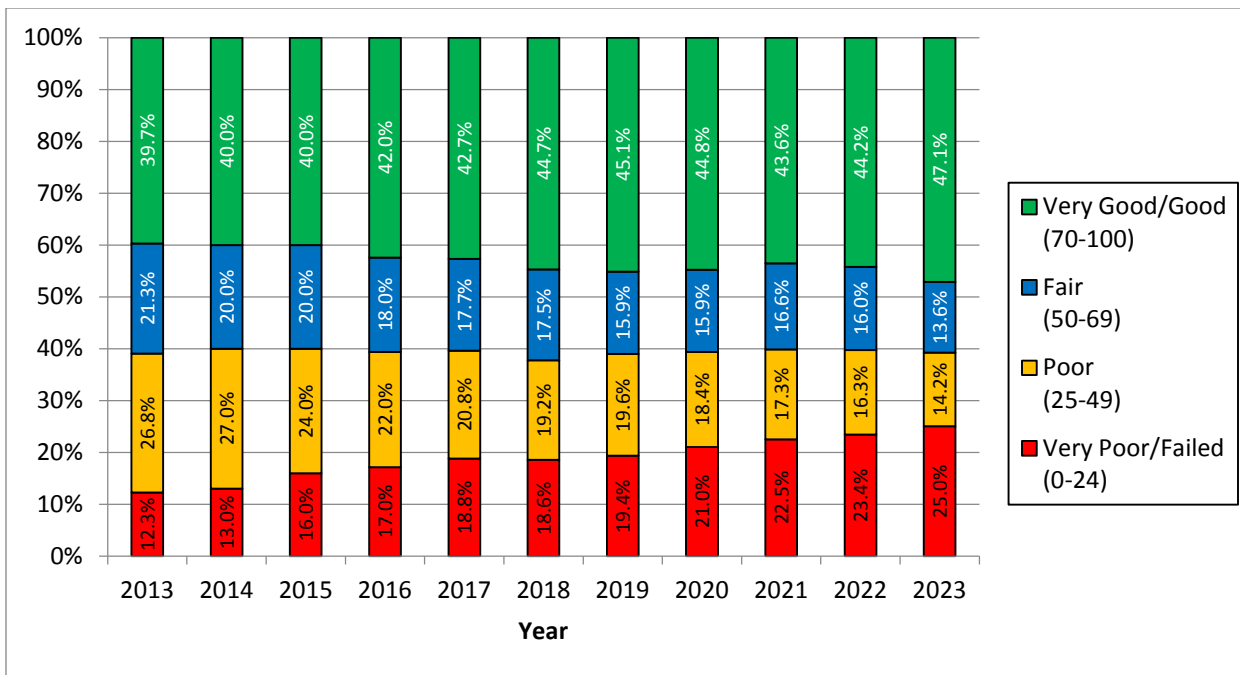
The 2017 annual review, the first in two years as there was no PW Staff developed 5-Year Paving Plan for 2016, is informed in the following summary information. The PWC agrees that the streets staff has identified streets that meet many of the requirements of the paving policy. Given the tremendous immediate need to address failing streets, the use of asphalt technology requiring minimal design effort and with ready contractors able to bid and perform the work, the streets identified for treatment in the Plan are appropriate. The PWC's concern is that the staff approach has not addressed alternative durable and sustainable treatment options or the inclusion of significant changes to the management of storm water within the streetscape.

Street Improvements

Berkeley PCI by District:

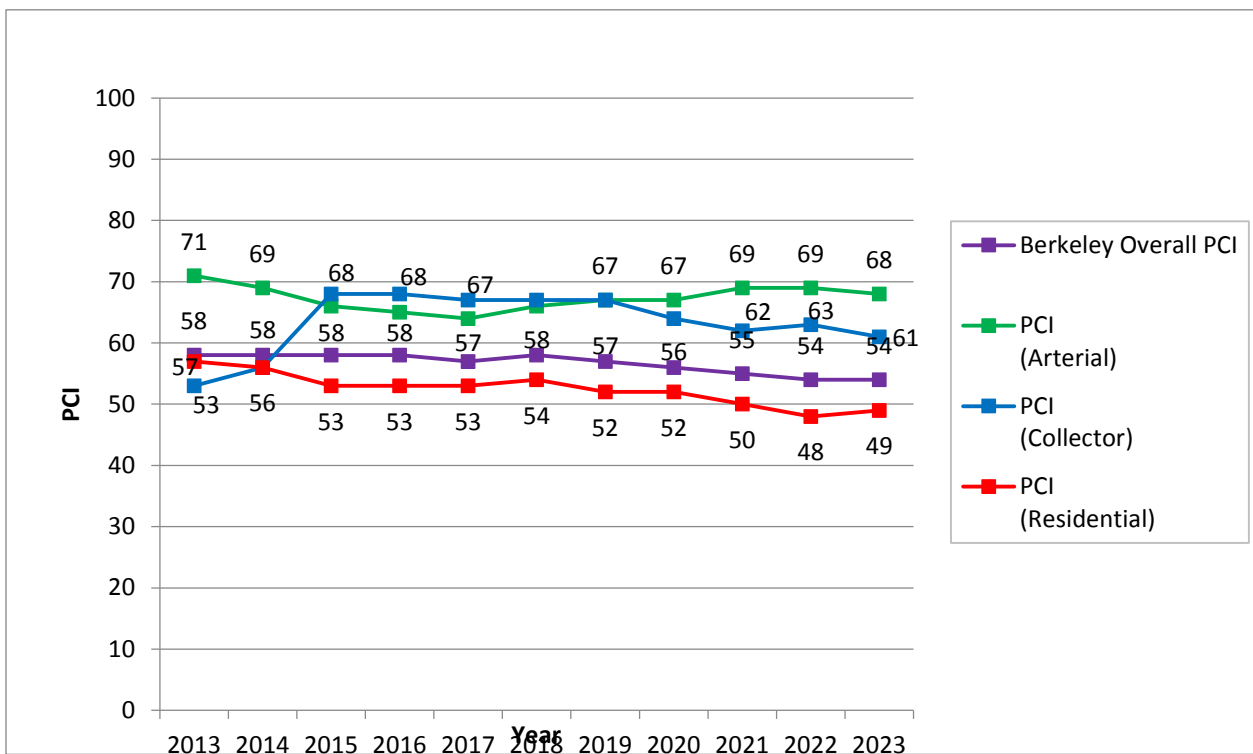
Council District - March 2017	2013 PCI Mean	2013 PCI Median	2017 PCI Mean	2017 PCI Median	Measure M Mean 2018	Measure M Median 2018	Proposed PCI Mean 2022	Proposed PCI Median 2022	PCI Mean Change from 2013 to Proposed 2022	PCI Median Change from 2013 to Proposed 2022
#1	62	63	55	58	59	60	50	52	-12	-11
#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 with all the recent paving activity driven primarily by the infusion of funds from Measure M. Note that out-years see the begin of a decline

The table below summarizes the City's annual available capital for street 'treatments' using asphalt. Berkeley's Capital Expenditures for streets are funded by 6 sources: Berkeley General Fund, Measure B & BB (sales taxes) State Gas tax current and new, Measures M and T1.

To understanding the long-term capital street network requirements to 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. This

time horizon approaches the 2050 Visioning Plan recently proposed to Council by former Councilperson Gordon Wozniak for our City's infrastructure.

	Current Capital need to maintain the current PCI of 57 for 30-Years*	Current Capital need to attain & then maintain PCI of 70 for 30-years*
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 over 30-years.
- When attempting to *attain and maintain* the 2012 Council 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.
- Non-recurring bonded funds from Measure M are \$30M for Streets and GI and proposed use of \$6M for the first phase of the T1 bond money
- Our street PCI will decline if we treat streets using the present method of operations, even with the doubling of available funds and one time bonded funds.

Recommendations:



Specific Street Recommendations:

- Seven street projects, recommended by Public Works staff, which uses T1 bond funded capital, is included in the proposed 5-Year Asphalt Paving Plan. That Plan is currently under review by the PWC.
 - With the infusion of new State Gas tax paving funds, slated to impact Berkeley starting in 2018, these seven streets are better funded with this new less expensive capital than 40-year bonded capital for the 3-years, if they are going to treated with asphalt - Note that an asphalt street on average has at best a 20-year 'useful life'.

The Commissions recommend street pavement treatments with useful life expectancies longer than the 40-years if bond funding is used.

- We recommend that staff explore alternatives to asphalt pavement for these seven streets that may have longer life cycles such as concrete or permeable pavers, if T1 bond monies are used.
 - Staff recently presented to the PWC paving subcommittee an analysis that demonstrates that concrete streets are essentially 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.
- 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 feasible.

Long Term Planning Recommendations:

Measure T1, a 40-year inter-generational bond, is an opportunity to effectively and efficiently manage capital investments whose useful life should also be inter-generational. The PWC recommends that the Public Works Department prepare a plan that will do the following:

- Outline a 40-year capital paving and maintenance plan to assess the true costs associated with the different paving technologies, e.g., asphalt, concrete, and permeable pavers.
- Outline the capital projects that will use bond funding that will outlast the bond repayment.
- 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 of 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 and long run durability of our streets.