

City of Berkeley Street Maintenance and Rehabilitation Policy

~~Draft Submitted by Public Works on 4/20/21 proposing revisions to the 4/19/2021 version 3/30/2021~~

Section 1. General Policy

It is the policy of the City of Berkeley to maintain our streets in safe, good condition that protects our environment and to properly maintain the existing investment in City assets. Staff will implement a Citywide road resurfacing plan that will ensure street maintenance and repair in a timely manner, ~~to reduce the long term-replacement costs,~~ and provide for the safe and efficient use of our streets. The users of the street surface, in the public right-of-way, include powered vehicles, bicycles, transit, and pedestrians. The right-of-way also provides for storm water conveyance and is the location of many public utilities.

The policy requires that a 5-year Street Rehabilitation Plan for the entire City be prepared and adopted biannually by the City Council in line with the City's budget process. Streets and their surfacing treatment shall be prioritized using a multi-criteria adaptive planning framework to achieve sustainable, resilient, and integrated solutions for the City's right-of-way and the downstream environments. The criteria shall consider equity, quality of life, safety, opportunities for leadership, resource allocation, environmental impacts, and climate and resilience.

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Section 2. Assumptions

This section of the policy defines basic assumptions that inform the goals, objectives, and outcomes of the 5-year plan.

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1. This policy defines the priorities for managing the road surface infrastructure from curb to curb. This policy does not provide guidance on how to prioritize sidewalks or other infrastructure associated with complete streets planning.
2. Streets include arterial, collector, residential, and commercial/industrial streets as defined in Berkeley's General Plan.
3. Consistency with the City's General Plan policy of encouraging use of forms of transportation other than automobiles.
4. Conformance with the Regional Water Quality Control Board's stormwater permit requirements.
- ~~5.~~ Support of the City's plans and updates thereto, including the City's Climate Action Plan, including an 80% reduction of greenhouse gas emissions by the year 2050, and the Green Infrastructure Plan,
- ~~6.5.~~ Support of the City's Resilience Strategy, Vision Zero Policy and Action Plan, Undergrounding Plan, Complete Streets Policy, Vision 2050 framework, Pedestrian Plan, Transit First Policy, Strategic Transportation Plan, and Bicycle Plan.
- ~~7.6.~~ Poorly maintained streets have a disproportionate impact on certain members of the community:
 - a) Low-income residents are more seriously impacted by higher vehicle repair costs than higher income residents;

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- b) Those with mobility or visual impairments face greater challenges of unequal access and safety compared to those without such challenges;
- c) Bicyclists and pedestrians face greater danger than those driving; and
- d) Poorly maintained streets in dense, more populous neighborhoods are detrimental to more users than ~~a~~ poorly maintained streets in less dense neighborhoods.

~~8-7.~~ Utility trench and pothole repair work shall be done in accordance with permit conditions, standard details, and/or standard operating procedures in the adopted by the Public Works Department.

~~9-8.~~ Runoff from roadways carry pollutants that negatively impact public health, creeks and streams, and the Bay.

~~10-9.~~ Street trees are valuable part of the landscape, as they sequester carbon, soak up stormwater, improve land values, and add greenery.

~~11-10.~~ The Metropolitan Transportation Commission requires the use of a Pavement Management Tool (such as StreetSaver). Pavement Management Tools are used to optimize road surface conditions through the use of a Pavement Condition Index (PCI) performance metric.

Section 3. Funding

The Five-year Street Rehabilitation Plan shall identify all available funding and the sources used to deliver the proposed road improvement projects. This shall include Federal, State, County and City funding sources. In the event that the planned projects are not able to achieve the City's desired roadway condition level of service, the Five-year Plan should identify the level of funding and activities needed to expand roadway improvements to achieve the stated goals of this policy. To the extent practical, the City shall use life cycle cost analysis to evaluate different road surfacing options.

~~Funding our street rehabilitation work shall use the following principles:~~

~~1-~~ Bond funds shall strive to be used for long-lasting capital improvements (projects with a useful life that meets or exceeds the duration of the bond repayment schedule) or to accelerate road work that will result in long-term cost savings for ratepayers.

Section 4. Specific Policy

The Street Rehabilitation Program shall be based on the following objectives:

1. Planning

- a) The 5-year Street Rehabilitation Plan shall be supported by a 30-year road surfacing projection, where roadway improvement projects are forecast over a long-term planning period. The first five years of the projection will become the first draft of the 5-year Plan.
- b) To the extent financially practical, implementation of the paving plan shall advance the goals of the plans identified in section 2.5, City's Resilience Strategy, Local Hazard Mitigation Plan, Vision Zero Policy, Undergrounding Plan, Complete Streets Policy, Vision 2050 framework, Climate Action Plan, Pedestrian Plan, and Bicycle Plan.
- c) Rehabilitation of contiguous sections of roadway, rather than one block at a time, shall be scheduled-preferred, when feasible.

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- d) Tree removals shall only be permitted as a last resort consistent with BMC 12.44.020, with the approval of both the Director of Parks and Waterfront and Director of Public Works. If tree removal is necessary, replacement trees shall be planted where and when feasible in accordance with BMC 12.44.010.

2. Equity

- a) The benefits of good infrastructure shall be distributed equitably throughout the entire community regardless of the income, political influence, or demographic characteristics of the residents in each area. Equity means that disadvantaged residents with more pressing needs experience benefits sooner than others.
- b) A new Equity Zone shall be established according to Attachment 1. This Zone shall be prioritized to meet an average PCI of 70 sooner than the remainder of the City. This Zone contains historically underserved neighborhoods that have experienced decades of underinvestment, and the residents in this zone experience more pressing needs and receive benefits sooner.
- ~~b)c) Over the longer term, r~~ Road surfacing activities shall be planned within Pavement Analysis Zones. A Pavement Analysis Zone shall consist of a logical set of street segments, excluding the arterials, collectors, bus routes, bicycle boulevards and non-representative demonstration projects.

- a. The department may revise the pavement analysis zone boundaries from time to time, consistent with the other goals of this policy. Any changes to pavement planning analysis units~~areas~~ boundaries shall be proposed within the biannually updated 5-year Street Rehabilitation Plan submitted to ~~approved by~~ City Council.

- b. ~~The average road condition within each Pavement Analysis Zone shall be maintained at an equivalent standard.~~

- c) ~~It shall be the goal of the City to maintain seek equity parity of among street streets in the condition between pavement analysis zones, except in regards to the Equity Zone, and to direct the bulk of the local street resurfacing budget to the residential zone or zones with the worst current conditions.~~

- a. ~~For each of the categories and zones, the department must document the mean and median PCI values over time, and the age of the resurfacing, providing such reports as inputs to the planning processes.~~

- b. ~~It shall be the goal of the City to, over time, move to pavement analysis zones that result in cost efficient and contiguous paving projects, with zones small enough that several entire zones can be resurfaced during a single contracting season, optimizing for potential underground utility coordination completed prior to resurfacing.~~

- d) ~~When a street segment or analysis zone scores highly on technical grounds for resurfacing but is not included in a given 5-year plan, the reasons for such deferral must be clearly documented. Such reasons may include, but are not limited to funds availability, utility coordination and other valid practical concerns.~~

3. Performance Metrics

- a) The City will strive to maintain all roads within the primary transportation network at a standard no less than the following PCI targets for any stretch of roadway¹:
 - a. Arterial - 70,
 - b. Collector - 70,
 - c. Bus Routes - 70,

¹ PCI of 70 is the lower threshold of what is considered “Good.” Streets that fall below a “good” condition require much more expensive repair process.

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- d. Existing and proposed low-stress bikeway network - 70.
 - i. Bikeways shall be surfaced with a treatment that emphasizes smoothness of the road surface.

~~e. Equity Zone- 70. It shall be acceptable for the City to designate specific pavement analysis zones as "equity zones", receiving a time defined ranking boost, allowing such zones to be prioritized slightly before a similarly situated zone elsewhere.~~

~~i.e. Initially, a new Equity Zone shall be established according to Attachment 1. This zone shall be prioritized to meet an average PCI of 70 sooner than the remainder of the City. This Equity Zone contains historically underserved neighborhoods that have experienced decades of underinvestment. The residents in this zone experience more pressing needs and should receive benefits sooner. Achieving equity means quality of infrastructure is equivalent, regardless of historical factors, race, ethnicity, class, income, age, ability, sexual orientation, and/or gender expression/identity.~~

- b) Funding should be prioritized towards maintenance activities to achieve the goals of item 4.2a.
- c) ~~The biannually updated 5-year plan City staff shall report on provide updates on these performance metrics and~~ PCI measurements for each street segment in the City ~~as the data changes.~~

4. Dig Once

- a. Street rehabilitation shall conform with a dig once approach. This includes coordinating with sewer, water, electrical, telecom, undergrounding and other activities to minimize the cost and maintain the quality of the street surface.
- b. In order to protect the City's investment on street improvements, the City shall place a moratorium on recently paved streets that prohibits digging through them for up to five years, excluding emergency work².

5. Demonstration Projects and Use of New Technologies

- a. To the extent practical, the City shall evaluate the use of permeable pavement, concrete pavement, and other street surface technologies using life cycle cost analysis.
- b. The use of new technologies that provide enhanced durability, lower cost, and more environmentally beneficial impacts shall be evaluated ~~annually~~ and reviewed ~~in the biannually adopted 5 Year Street Rehabilitation Plan~~ in a noticed public meeting.

Section 5. Plan and Policy Development and Update

The plan and policy development shall be as follows:

1. Every two years, in line with the City's ~~budgeting~~ process, ~~the 5-year Street Rehabilitation Plan adopted by City Council shall include conduct~~ a funding sufficiency analysis, based on the ~~existing deferred maintenance needs~~ at that point ~~in time~~, to determine what level of funding is required to maintain our streets in safe, good condition that protects ~~of our environment and to properly maintain~~ the existing investment in City assets. ~~Report findings to City Council.~~
2. Identify new funding sources such as:
 - a. Heavy ~~v~~ehicles, which have a disproportionate impact on the degradation of paved assets, ~~and~~
 - b. Transportation Network Company (TNC) vehicles.

² As cited in Berkeley Municipal Code 16.12.030 and documented on the City [website](#)

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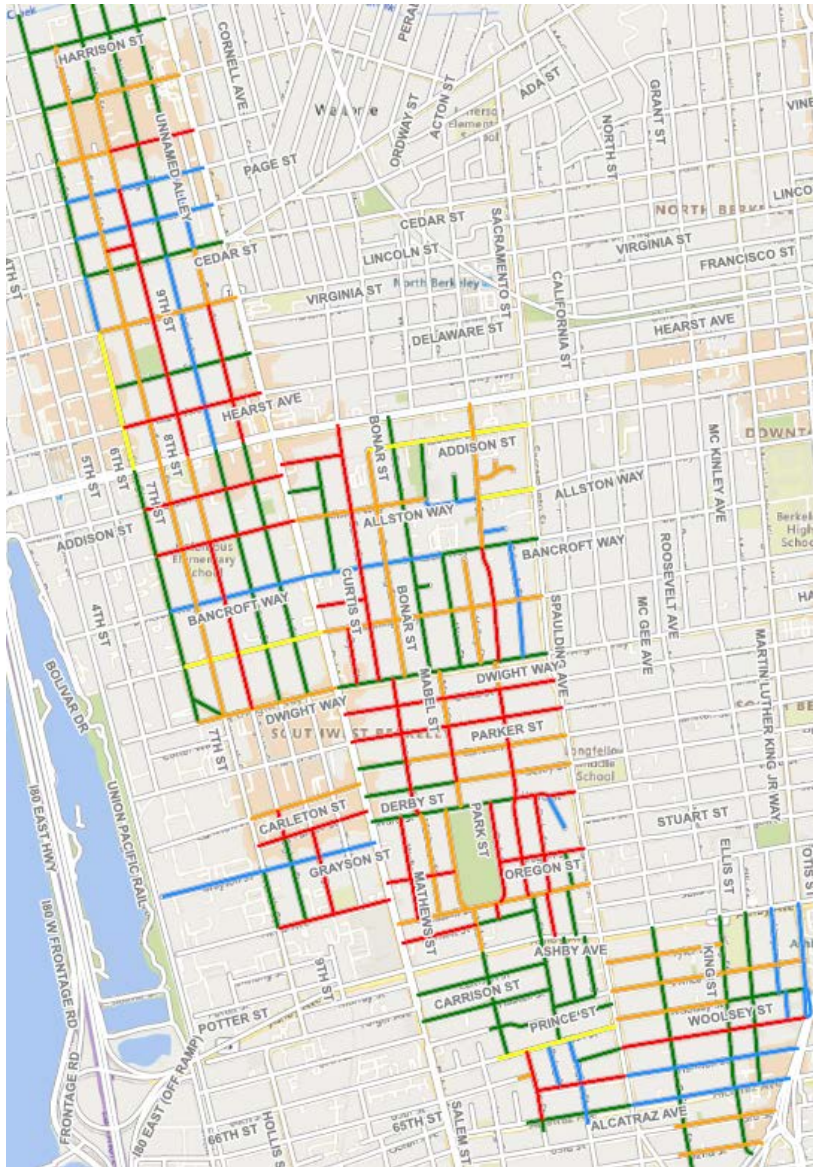
3.—At a minimum, ~~the~~ *this Street Maintenance and Rehabilitation Policy* shall be reviewed and adopted by the City Council every five years, with advice of the Public Works Commission.

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Attachment 1: Initial Equity Zone



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3. Consistency with the City's General Plan policy of encouraging use of forms of transportation other than automobiles.
4. Conformance with the Regional Water Quality Control Board's stormwater permit requirements.
5. Support of the City's plans and updates thereto, including the City's Climate Action Plan, Green Infrastructure Plan, Resilience Strategy, Vision Zero Policy and Action Plan, Undergrounding Plan, Complete Streets Policy, Vision 2050 framework, Pedestrian Plan, Transit First Policy, Strategic Transportation Plan, and Bicycle Plan.
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- 9. Street trees are valuable part of the landscape, as they sequester carbon, soak up stormwater, improve land values, and add greenery.
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 - c) Rehabilitation of contiguous sections of roadway, rather than one block at a time, shall be preferred, when feasible.
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 - a. The department may revise the pavement analysis zone boundaries from time to time, consistent with the other goals of this policy. Any changes to pavement analysis units shall be proposed within the biannually updated *5-year Street Rehabilitation Plan* submitted to City Council.
 - b. It shall be the goal of the City to seek parity of street condition between pavement analysis zones, except in regards to the *Equity Zone*.

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 - c. Bus Routes - 70,
 - d. Existing and proposed low-stress bikeway network - 70.
 - i. Bikeways shall be surfaced with a treatment that emphasizes smoothness of the road surface.
 - e. Equity Zone- 70.
- b) Funding should be prioritized towards maintenance activities to achieve the goals of item 4.2a.
- c) The biannually updated *5-year plan* shall report on these performance metrics and PCI measurements for each street segment in the City.

4. Dig Once

- a. Street rehabilitation shall conform with a dig once approach. This includes coordinating with sewer, water, electrical, telecom, undergrounding and other activities to minimize the cost and maintain the quality of the street surface.
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- b. The use of new technologies that provide enhanced durability, lower cost, and more environmentally beneficial impacts shall be evaluated and reviewed in the biannually adopted *5 Year Street Rehabilitation Plan*.

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2. Identify new funding sources such as:
 - a. Heavy vehicles, which have a disproportionate impact on the degradation of paved assets, and
 - b. Transportation Network Company (TNC) vehicles.
3. At a minimum, this *Street Maintenance and Rehabilitation Policy* shall be reviewed and adopted by the City Council every five years, with advice of the Public Works Commission.

Attachment 1: Equity Zone

