




CITY OF LOS ANGELES
INTER-DEPARTMENTAL MEMORANDUM

Date: April 9, 2019

To: Honorable City Council c/o City Clerk, Room 395, City Hall
Attention: Honorable Bob Blumenfeld, Chair, Public Works and Gang Reduction Committee

From: Adei H. Hagekhalil, General Manager
Bureau of Street Services 

 Seleta J. Reynolds, General Manager
Department of Transportation 

Subject: BIKEWAYS PAVEMENT CONDITIONS (CF 17-1142-S1, 15-0719-S17)

SUMMARY

The Los Angeles Department of Transportation (LADOT) and the Bureau of Street Services (StreetsLA) present this joint report on the status of recent efforts to inspect the existing bicycle network and on a proposed plan to bring pavement on the network into a state of good repair, including the necessary resources and timeline.

RECOMMENDATION

That the City Council:

1. Consider providing dedicated crews for Large Asphalt Repairs of the on-street bikeway network in the Fiscal Year (FY) 2019-20 funding cycle; and
2. Instruct LADOT to develop a plan for the installation of "Rough Road" warning signs on street segments that are currently not in a state of good repair, and to identify the necessary resources and timeline for implementation.

BACKGROUND

Council Files 17-1142-S1 and 15-0719-S17 provide directions relative to bikeways pavement conditions, including:

- StreetsLA and LADOT to report regarding recent efforts to inspect the existing bicycle network and to bring pavement on the network into a state of good repair.
- LADOT, before new on-street bicycle infrastructure is installed, to obtain a certification from the StreetsLA that the pavement is in a state of good repair with respect to the new facility.
- StreetsLA and LADOT to report with a comprehensive plan to ensure that the pavement on the bicycle network is maintained in a state of good repair, including the resources necessary to regularly inspect the network, make small and large asphalt repairs, and restore striping and other pavement markings.
- LADOT, in coordination with the StreetsLA and the Bureau of Engineering to inspect the present condition of every lane mile of Class I and Class II bikeways within the city to produce a timeline

and cost estimate for bringing any deficient pavement up to appropriate safety standards and to report to Council on these matters.

DISCUSSION

The City currently operates four basic types of bicycle facilities or "bikeways":

- **Bike paths (Class I bikeway)** - A paved pathway separated from motorized vehicular traffic by an open space or barrier and either within the highway rights-of-way or within an independent alignment, for the exclusive use of bicycles and pedestrians with cross flow of motorists minimized, typically along waterways or rail, bus, and utility corridors
- **Bike lanes (Class II bikeway)** - A striped lane for bicycle travel within a roadway, which may also have a striped buffer to provide greater separation between motorists and bicyclists
- **Bike routes (Class III bikeway)** - A shared roadway in which motorists and bicyclists share the same travel lane designated by required signage and optional "sharrow" pavement markings, and which may be residential streets that have additional features to enhance safety and convenience for walking and bicycling, or arterial streets
- **Protected bike Lane (Class IV bikeway)** - A striped bike lane exclusively for bicyclists and physically separated from vehicular traffic with a vertical feature that may be a curb, flexible post, barrier, or parked vehicle.

The bikeway street network (excluding Class I bikeways) encompasses 5,502 street segments (city blocks,) in the following categories:

Type	No. of Street Segments	Share of Network
Bike Lanes (Class I)	3,907	71%
Bike Route with Sharrow Markings (Class III)	873	16%
Bike Route with signage only (Class III)	725	13%
Sub-Total	5,502	100%

Assessment and Repair of On-Street Bikeways

Work Program for FY 2017-18

The FY 2017-18 budget funded six resolution positions for StreetsLA to conduct bikeway inspection and motorized sweeping, to form two crews, one for the Metro Zone and one the Valley Zone. Each crew consists of one Street Services Supervisor I, one Motor Sweeper Operator, and one Truck Operator, and performs these functions: inspects the roadway being resurfaced on the on-street bikeway network, sweeps bike lanes, and coordinates pothole repair under the Bureau's small asphalt repair program. Utilizing these existing resources, StreetsLA conducts a citywide assessment on an annual basis and sweeps bike lanes as needed. Separately, Council File 17-1950 (Vision Zero/Complete Streets) included \$765,000 in one-time funds for large asphalt repairs (overtime and materials). Large asphalt repairs

involve milling and paving stretches of alligator cracking, rutting, or other pavement distress that cannot be ameliorated by a pothole truck performing small asphalt repairs.

The StreetsLA Street Maintenance Division conducted the first on-street bikeway network "windshield survey" in July of 2017. Following that assessment, StreetsLA completed the following repair work:

- Small Asphalt Repair: More than 200 pothole repairs completed.
- Large Asphalt Repair: 15 lane-miles of new bikeway asphalt was installed using the \$765,000 in one-time funding.

2018 Segment-Based Survey

StreetsLA conducted the second on-street bikeway network assessment in July of 2018, using a segment-based methodology. For each segment of the on-street bike lane network, StreetsLA inspectors assigned a pavement condition grade of "Good," "Fair," or "Poor." The grade refers to the observed pavement condition of the bikeway on that segment. The network inspection results are as follows: 45% of the network is in good condition, 35% in fair condition, and 20% is in poor condition. The segments in poor condition include both asphalt segments (16% of the network) and Portland Cement Concrete (PCC) segments (4% of the network). Below is a summary of the findings:

Pavement Condition Rating	Number of Segments	Share of Network Segments	Area of Major Repair Needed (lane-miles)
Good	2,466	45%	None
Fair	1,920	35%	470
Poor - Asphalt	909	16%	148
Poor - Portland Cement Concrete (PCC)	207	4%	33
Total	5,502	100%	

Comprehensive Maintenance Plan and Required Resources

Based on the July, 2018 assessment, StreetsLA conducted an analysis to determine the estimated cost and time for major repairs needed to achieve a "state of good repair" pavement condition for the entire on-street bikeway network. The approximate pavement repair cost to address all of the poor asphalt segments is estimated to be in the range of \$13 to \$18 million, fair asphalt segments \$39 to \$54 million, and poor concrete segments roughly \$40 million. The approximate costs to restore the associated striping and signage is \$6.1 million. StreetsLA proposes to establish one or more full-time repair crews, with each crew consisting of 1 Street Service Supervisor II, 1 Equipment Operator, 1 Motor Sweeper Operator, 2 Street Service Worker II, 2 Street Services Worker I, 2 Heavy Duty Truck Operators, 2 Cement Finishers, 2 Cement Finisher Workers, 1 Carpenter, and 1 Targeted Local Hire. Below is a summary of the cost and time necessary to address the poor and fair pavement, along with the associated striping cost:

Table 3. Required Resources for On-Street Bikeways Pavement Rehabilitation				
Work Scope to Achieve "State of Good Repair"	Area of Major Repair Needed (lane-miles)	Major Repair Cost Estimate (\$ million)	Striping Cost Estimate (\$ million)	Timeline
Address "Poor" Asphalt Segments	148	\$13 to \$18	\$1.4	1 to 2 years with 4 StreetsLA crews 3 to 4 years with 2 StreetsLA crews
Address "Fair" Asphalt Segments	470	\$39 to \$54	\$4.4	3 to 4 years with 4 StreetsLA crews 9 to 10 years with 2 StreetsLA crews
Address "Poor" PCC Segments	33	\$40	\$0.3	Timeline unknown- COLA has not previously implemented large scale replacement-in-kind of concrete streets
Total	651	\$13 to \$112	\$6.1	

Note: Cost estimates assume achieving "good" conditions for a zone of 11-foot-wide along the roadway.

LADOT and StreetsLA recommend a comprehensive maintenance plan that prioritizes rehabilitating the "poor" asphalt segments within a 1 to 2 year timeframe, and then rehabilitating the "fair" asphalt segments. Doing so would address the most serious safety needs and most effectively reduce the associated liability risks.

Alternative Solutions

- **Short Term Solutions:** Continue to monitor the network and perform small asphalt repairs as needed from those segments where it has been deemed to be in poor condition. Identify street segments in need of the most immediate attention and install "Rough Road" warning signs.
- **Incorporate more poor and fair condition street segments into the City's Resurfacing Program:** Historically, the street resurfacing program has not prioritized streets that contain a bike lane. If such streets were prioritized, a higher proportion of the on-street asphalt bikeway network could be resurfaced each fiscal year.
- **Removal of Bicycle Facilities:** The removal of bicycle facilities is counter to many City's goals and policies. These goals depend on the preservation and expansion of the bicycle infrastructure. In the 2016 adopted Mobility Plan, Policy 2.6, Bicycle Network, states that bicycle networks provide safe, convenient, and comfortable local and regional bicycling facilities for people of all types and abilities. Removal of any existing Class II or Class IV bicycle facility would require a Public Hearing Process, per Policy 4.15 of the Mobility Plan. The Sustainability Plan calls for, by 2025, increasing trips made by walking, biking, or transit to at least 35%; and reducing vehicle miles traveled per capita by 5%. Bike lanes are also available to people riding the rapidly growing number of shared electric scooters being deployed throughout the City.

Installation of New Bikeways

In compliance with Council instructions approved on February 20, 2018, LADOT has, since then, only installed new on-street bikeways following either (a) the roadway being resurfaced or (b) a finding by StreetsLA of "good" pavement conditions, after any necessary pavement repair work. LADOT and StreetsLA will continue to work together to address pavement in poor or fair condition before new on-street bikeways are installed.

Assessment and Repair of Bike Paths (Class I)

Generally, StreetsLA's maintenance jurisdiction is limited to city-owned public rights-of-way. By default, LADOT assumes responsibilities for operations, as well as maintenance, under use agreements with entities holding property rights. LADOT employs personnel for signage and striping, but contracts out for general maintenance purposes including routine sweeping, clearing trash, removing landscaping and graffiti that encroach into the bike path, and pavement repair. The FY 2016-17 budget funded one Management Analyst position in LADOT to oversee bike path maintenance. This position, in conjunction with the maintenance contractor, assesses bike path conditions on a regular basis and coordinates any necessary repairs.

FISCAL IMPACT

To achieve a state of good repair for the on-street bikeway network, funding in the range of \$13 million to \$112 million for pavement repair, along with \$6.1 million for re-striping, would be required over a span of 1 to 10 years or more. Possible funding sources include Gas Tax, SB1, Measure R Local Return, and Measure M Local Return.