

**BOARD OF PUBLIC WORKS  
MEMBERS**

**AURA GARCIA**  
PRESIDENT

**M. TERESA VILLEGAS**  
VICE PRESIDENT

**DR. MICHAEL R. DAVIS**  
PRESIDENT PRO TEMPORE

**VAHID KHORSAND**  
COMMISSIONER

VACANT  
COMMISSIONER

**DR. FERNANDO CAMPOS**  
EXECUTIVE OFFICER

# CITY OF LOS ANGELES

CALIFORNIA



**ERIC GARCETTI**  
MAYOR

**DEPARTMENT OF  
PUBLIC WORKS**

**BUREAU OF  
ENGINEERING**

**GARY LEE MOORE, PE, ENV SP**  
CITY ENGINEER

1149 S. BROADWAY, SUITE 700  
LOS ANGELES, CA 90015-2213

<http://eng.lacity.org>

April 19, 2022

The Honorable Bob Blumenfield, Chair  
Public Works Committee  
Los Angeles City Council

The Honorable Paul Koretz, Chair  
Personnel, Audits & Animal Welfare Committee  
Los Angeles City Council

c/o Michael Espinosa  
Office of the City Clerk  
City Hall, Room 350

c/o Adam Lid  
Office of the City Clerk  
City Hall, Room 350

Dear Councilmembers Blumenfield and Koretz:

## **COUNCIL FILE NO. 21-1469: REPORT BACK ON CITYWIDE SIDEWALK INVENTORY AND ASSESSMENT RECOMMENDATIONS / INTERIM SIDEWALK REPAIR RECOMMENDATIONS**

In response to the City Controller's audit of the City's Sidewalk Repair Program (SRP) released on November 17, 2021, a Council motion was introduced aiming to evaluate and improve upon various aspects of the City's sidewalk repair efforts C.F. 21-1469. A report back was requested on a recommended scope and budget for a citywide sidewalk inventory and assessment as well as an assessment of the thoroughfares. Recommendations regarding the resources needed to make more interim sidewalk repairs, to address tripping hazards and minor mobility barriers until more permanent repairs can be made, were further requested.

### **RECOMMENDATIONS**

1. CONSIDER including provisions for a pilot pedestrian facility (sidewalk, curb ramps, pedestrian buttons, etc.) assessment in the Fiscal Year 2022-23 (FY22-23) City budget as detailed in the summary below.
2. CONSIDER including provisions for a limited interim sidewalk repair program in the FY22-23 City budget as detailed in the summary below.

### **CITYWIDE PEDESTRIAN FACILITY ASSESSMENT AND ASSET MANAGEMENT**

#### Background

As part of the Sidewalk Repair Program, the Bureau of Engineering (BOE) developed a mapped "Sidewalks" layer on NavigateLA, which depicts existing locations of sidewalks and curb ramps. This Sidewalks layer is based on the Los Angeles Region Imagery Acquisition Consortium



(LARIAC) imagery, which is periodically updated. The “Sidewalks” layer on NavigateLA provides the basis for an approximate inventory of the City’s sidewalks and curb ramps, of approximately 307 million s.f. of existing sidewalk (~9,300 miles), 79,534 existing curb ramps, and 12,236 missing curb ramps. Although the LARIAC information is an excellent data source for the mapping of sidewalk and curb ramps, it does not provide information on the sidewalk condition assessment nor direct information on missing sidewalks.

### Asset Management Integration

The City has various on-going efforts to capture the location and condition of improvements in the Public Right of Way (PROW). A City sidewalk inventory and assessment program will need to ensure that inventory data and output can interface seamlessly with these on-going City asset management efforts in the PROW. Below are key existing programs that can be leveraged and/or augmented through this assessment effort.

#### StreetsLA’s Asset Management Program

This program aims to use a comprehensive and data-driven approach to prioritize maintenance activities and optimize community impact while balancing safety, public health risks and costs. Some of the benefits of the asset management program and associated governance include:

- Enable StreetsLA to make informed and defensible decisions on capital and operational investments to achieve the City’s goals
- Enable holistic planning and coordination across various StreetsLA programs and other agencies
- Increase proactive maintenance and reduce the need for unplanned reactive maintenance
- Optimize the lifecycle of street assets by strategically targeting maintenance activities based on available resources

A critical first step is implementing the Enterprise Asset Management System (EAMS) to store asset condition data and manage maintenance activities. When fully implemented, the EAMS will enable StreetsLA to manage the asset for the entire lifecycle to ensure that initial investments in new infrastructure are sustained for present and future generations.

#### Los Angeles Department of Transportation (LADOT) Code the Curb initiative

This initiative aims to build and maintain a digital inventory of LADOT’s physical curbside assets and regulations. Three pilot projects have been launched that include Curb Data Collection (nearing completion), Multimodal Curb Monitoring (underway), and Zero Emission Delivery Zones (underway). The piloted Curb Data Collection methods included walking streets with an open source tool called CurbWheel to capture images and coordinates of transportation signs and driving a vehicle with a high-resolution camera to collect and identify curbside imagery with geospatial data on city streets. Once completed, the pilot will offer insights on the potential return on investment on each data production method and will inform future decisions related to scaling solutions. LADOT also recently secured a grant from the Southern California Association of Governments to fund the Curb Space Data Collection and Inventory Study. LADOT continues to collaborate with StreetsLA on their EAMS having previously worked with

StreetsLA to prepare its asset management scope of work and select the contractor to deliver the program.

#### City-wide Americans with Disabilities Act (ADA) Self-Evaluation and Transition Plan

The City's ADA Self-Evaluation and Transition Plan, managed by the Department on Disability (DOD), is currently being updated. An inventory and assessment of the policies and pedestrian facilities (sidewalks, curb ramps, etc) that comprise the City's pedestrian right of way program and identification of barriers that limit access to individuals with disabilities would contribute, as a discrete part, of DOD'S current update and fulfillment of the City's overall obligations under the ADA. DOD will collaborate with the Department of Public Works regarding potential incorporation of pedestrian facility asset management information as part of the City's overall Self-Evaluation and Transition Plan.

#### Technologies Potentially Available for Use in a Pedestrian Facility Assessment

Initial investigation into available technologies which may be applicable to a City-wide inventory and assessment are provided below. It is recommended that further investigation into acceptable methods be performed during the pilot phase.

Data collection methods include both automated and manual approaches. In the automated approach, the process involves mobile and/or aerial imagery capture, mobile Light Detection and Ranging (LiDAR), Artificial Intelligent data extraction, and processing. The automated approach has a higher risk of data error due to visual obstruction of the measuring device by parked cars, traffic, tree canopy, etc. and may have limitations on the specificity and type of data capable of being captured, but typically has a lower cost. With the data gap, an alternative manual approach is required. In the manual approach, the process involves walking and field data collection using mobile devices and Geographic Information System (GIS) software to locate, measure, and photograph each defect, damage, or obstruction. This approach has a lower risk but has a higher cost.

In an initial review of delivery robots technology also known as Personal Delivery Devices (PDD)s, PDDs operate on the sidewalk to complete last-mile deliveries for retail purchases and meal deliveries. As such, the PDDs may not be obstructed by parked cars or traffic like other collection technologies. However, at this time, the technology requires additional development to collect the type and quality of data required for a pedestrian facility assessment.

The inventory and assessment of the pedestrian thoroughfares proposed in the pilot phase may include use of both the technology-based information collection process and the walking assessment. Other technology options for sidewalk condition collection may also be investigated for incorporation into the pilot evaluation.

#### Comparable Municipalities Pedestrian Facility Assessments

Other municipalities have undertaken pedestrian and sidewalk policy and assessment efforts which have varied in scope, size and cost. It is recommended that their overarching goals, asset management integration, use of innovative technologies, and lessons learned be reviewed as one of the first tasks for the consultant that will be tasked with developing recommendations for the City's pilot assessment. The recommendations will include pilot scope/focus area, use of technology, and duration.

### Assessment Pilot Program

The pilot sidewalk inventory and assessment program will focus on representative sample areas including pedestrian thoroughfares. The program will identify and inform the resources required for a comprehensive Citywide pedestrian facility (sidewalk, curb ramps, pedestrian buttons, etc.) assessment and that will integrate with existing asset management tools.

Establishment of the pilot program in Fiscal Year 2022-23 would require the City Administrative Officer (CAO) to identify and the Council to allocate \$400,000 in pilot funding and would further require the Council to authorize nine month funding for two resolution authority positions:

- One (1) Civil Engineer (7237)
- One (1) GIS Supervisor II (7214-2)

### **INTERIM SIDEWALK REPAIR**

#### Background

In 2020, StreetsLA provided an update per CF 19-0600-S82 on various options for interim sidewalk repairs. Though the goal is to provide the most permanent repair at each site, which generally is to remove and replace with concrete, interim sidewalk repairs can be implemented.

Although intended to mitigate some of the barriers experienced by those with disabilities and other pedestrians, these interim repairs are not constructed to bring existing improvements into full compliance with disabled access standards and therefore the resulting facility may still be a barrier to some. Additionally, communications from members of the Sidewalk Repair Program's Advisory Committee, the Department of Transportation's Pedestrian Advisory Committee, and others in the general community have voiced general dissatisfaction with the resulting condition of sidewalk locations treated with these interim repair methods.

In estimating resources required for interim sidewalk repairs, StreetsLA has assumed estimated goals on a monthly basis:

- Interim sidewalk repair: 150 locations
- Tree inspections: 215 sites
- Tree trimming: 145 trees
- Tree removal: 145 trees
- Stump removal: 145 stumps
- Root pruning: 110 sites
- Tree replacements per City policy

StreetsLA will require the following additional resources:

- New 75 positions at \$6.5M annually
- New equipment costs estimated at \$8M
- Annual equipment maintenance costs estimated at \$800,000

### Interim Sidewalk Repair Program

The limited interim sidewalk repair program will make interim sidewalk repairs to address tripping hazards and other conditions that can be effectively reduced until more permanent and fully accessible repairs can be made.

Establishment and implementation of the first year of the repair program in Fiscal Year 2022-23 would require the CAO to identify and the Council to allocate \$8M in equipment funding and \$800K in equipment maintenance funding and would further require the Council to authorize one year of funding for 75 resolution authority positions:

- One (1) Street Services Superintendent I (4158-1)
- Four (4) Street Services Supervisor II (4152-2)
- Eight (8) Equipment Operator (3525)
- Four (4) Motor Sweeper Operator (3585)
- Eight (8) Street Services Worker II (4150-2)
- Eight (8) Maintenance Laborer (TLH) (3112-0)
- Eight (8) Heavy Duty Truck Operators (3584)
- Four (4) Truck Operator (3583)
- One (1) Street Tree Superintendent I(3160-1)
- One (1) Tree Surgeon Supervisor II (3117-2)
- Four (4) Tree Surgeon Supervisor I / Inspector (3117-1)
- Six (6) Tree Surgeon (3114)
- Four (4) Tree Surgeon Assistant (3151)
- One (1) Senior Management Analyst II (9171-2)
- Two (2) Management Analyst (9184-0)
- One (1) Geographic Info Systems Supervisor II (7214-2)
- One (1) Geographic Info Systems Supervisor I (7214-1)
- Two (2) Geographic Information Systems Specialist (7213-0)
- One (1) Senior Administrative Clerk (1368-0)
- Two (2) Administrative Clerk (1358)
- One (1) Systems Programmer II (1455-2)
- One (1) Systems Analyst (1596-0)
- Two (2) Project Coordinator (1537)

### Settlement Eligibility


The Willits' Settlement does not contain provisions relating to the eligibility nor to the ineligibility of funding a pedestrian facility assessment. Subsequent to the adoption of this motion, legal counsel for the Willits' Plaintiffs have opined that the Settlement Agreement funds can not be used for a City-wide sidewalk inventory and conditions assessment.

Interim repairs, as proposed, are not in compliance with the prioritization, scoping, and technical requirements for remediation of pedestrian facilities per the Willits Settlement Agreement. Therefore they are ineligible for Sidewalk Repair Program funding. In accordance with article 12.9 of the Willits' Settlement, "...all Program Access Improvements...shall comply with the standards set forth in the 2010 ADA standards for Accessible Design or the then-current iteration of Title 24 of the California Building Code, whichever provides greater protection or access to persons with Mobility Disabilities."

If you have any questions, please contact BOE Deputy City Engineer Julie Sauter at 213-847-2330 and/or StreetsLA Assistant General Manager Shirley Lau at 213-847-3333.

Respectfully submitted,

  
Gary Lee Moore, PE, ENV SP  
City Engineer

 for  
Keith Mozee  
Executive Director & General Manager  
StreetsLA

GLM:KM/JS:SL:jsdlv:sr:jgr:mt

Q:\GLM\City Engineer\GLM Signed Documents\2022 Documents\21-1469 30-Day Report Back.pdf

cc: Jennifer McDowell, Office of the Mayor  
Aura Garcia, Board of Public Works  
Teresa Villegas, Board of Public Works  
Shirley Lau, StreetsLA  
Sunil Rajpal, StreetsLA  
Julie Sauter, Bureau of Engineering  
Julia Sanchez de la Vega, Bureau of Engineering