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April 2, 2024

The Honorable Tim McOsker
Councilmember, 15th District
City Hall, Room 410

c/o City Clerk

COUNCIL FILE 23-0278 - REPORT ON CREATIVE SOLUTIONS AND STAFFING PLAN TO COMBAT LIGHTING DEFICIENCIES FOR UNDERPASSES IN THE HARBOR GATEWAY AREA AND POTENTIAL PILOT ARTISTIC LIGHTING SOLUTIONS.

SUMMARY

The Bureau of Street Lighting maintains over 223,000 streetlights throughout the City of Los Angeles. Currently the City has 412 underpasses with a total of 5,035 lights. These lights were upgraded from 2015 to 2020 as part of the Tunnel & Underpass LED Lighting Improvement Program (TULLIP). Within Council District 15, the Bureau retrofitted 23 locations totaling 275 fixtures. At the time of installation, the illumination provided by the fixtures met the minimum recommended lighting requirements for underpass locations. Since then, there have been advances in LED technology that now offer soffit fixtures specifically designed for these types of tunnel and underpass configurations. Lighting fixtures are now more efficient and provide higher lumen output and even higher energy savings. In simple terms, the new technology can offer 20-30% more illumination for the same amount of energy as previous fixtures.

PRELIMINARY FINDINGS

Below is a breakdown on the number and type of fixtures at each of the underpasses referenced in the Motion:

182nd Street and the 110 Freeway: 10 soffit lights, 4 Wall mount fixtures (Caltrans Jurisdiction)

Gardena Boulevard and the 110 Freeway: 8 soffit lights

Alondra Boulevard and the 110 Freeway: 9 soffit lights

Main Street and the 105 Freeway: 20 soffit lights

San Pedro Street and the 105 Freeway: 16 soffit lights

Figueroa Boulevard and the 91 Freeway: 12 soffit lights

It is important to note that the Bureau of Street Lighting only operates and maintains the soffit streetlights within the Caltrans underpass freeway structure, and improvements would be limited to those lighting fixtures. The Bureau investigated these locations and determined that upgrading the underpasses from the above list will cost \$112,500. This estimate includes material, equipment, and labor costs for the Bureau's Field Operation Division to perform the work. The estimate to upgrade the soffit lighting of the remaining 17 underpasses in Council District 15 is \$300,000. Part of the work entails the fortification of pullboxes, access points, and any other electrical enclosures that feed power to the underpass lighting.

Any additional improvements beyond the soffit streetlights would have to be coordinated with Caltrans. Further structural engineering analysis by Caltrans and the Bureau of Street Lighting would be needed to determine the feasibility of installing additional fixtures, conduits, and other electrical equipment.

PILOT PROJECT

New LED technology presents an opportunity to enhance the City's underpasses by creating a more inviting pedestrian experience using colored or artistic lighting. The Bureau surveyed the Harbor Gateway area and identified an underpass that has a separate street lighting system with 8 pedestrian poles in addition to the regular soffit streetlights. The Stanford Avenue under the 105 Freeway is an optimal location to implement a pilot project that would introduce an artistic element by adding colored LED fixtures on the existing pedestrian poles. These lights will color wash the adjacent concrete freeway embankments and the ceiling of the underpass with different colors and patterns. Additionally, the lighting for vehicular and pedestrian traffic in the underpass will be upgraded by changing the existing soffit fixtures and pedestrian pole fixtures.

STAFFING PLAN

The Bureau of Street Lighting does not have any allocated resources nor funding to implement a tunnel and underpass lighting program. To initiate a program of this magnitude, there would be a need to put into action the following recommendations:

The Bureau of Street Lighting proposes the creation of an Engineering and Construction group that will focus on the City's tunnels and underpasses. A Street Lighting Engineering Associate II will design construction plans for roadway, sidewalks, and other public areas in coordination with the Tunnel and Underpass LED Lighting Improvement Program while applying Bureau of Street Lighting requirements and Public Works Design and Construction policies and practices. Dedicated construction crews to perform electrical work associated with these installations. The work is specialized and unique to each tunnel/underpass and will require the historical knowledge and specialized street lighting

work in order to efficiently work in these spaces. Having in-house crews allow for on-the-spot changes to the attachment method if field conditions are different than expected without the need for costly change orders.

Other factors to consider as part of this program include establishing methods to prioritize locations and requests from Council Offices, Neighborhood Councils, community organizations, and constituents; and a maintenance and replacement schedule.

The Bureau is currently working with the City Administrative Office to identify funding for these upgrades and has submitted a comprehensive Budget Program Request for FY 24/25 (TULLIP 2.0) to the Mayor and City Administrative Office for review and consideration.

FUNDING

TBD in collaboration with CAO

A handwritten signature in black ink, reading "Miguel Sangalang" with a stylized flourish at the end. The signature is written over a horizontal line.

Miguel Sangalang, Executive Director
Bureau of Street Lighting

cc: Ryan Jackson, Office of the Mayor
Anissa Raja, Council District 15
Andreu Neri, City Administrative Office
Fabian Cheng, Bureau of Street Lighting