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May 15, 2026

The Honorable City Council, City of Los Angeles
% City Clerk,
City Hall Room 395
Attention: Councilmember Monica Rodriguez

COUNCIL FILE CF: 25-0125: REPORT FROM THE BUREAU OF STREET LIGHTING ON THE EXISTING PROCESS FOR REPAIRING DAMAGED STREET AND PEDESTRIAN LIGHTING INFRASTRUCTURE AND THE CURRENT TIMELINE FOR REPAIRS, POTENTIAL BOTTLENECKS AND INEFFICIENCIES IN THE REPAIR PROCESS.

OVERVIEW

In response to the Council Motion directing the Bureau of Street Lighting (BSL) to report on the existing process for repairing damaged street and pedestrian lighting infrastructure, this document outlines the Bureau's operational framework, typical repair timelines, and systemic challenges affecting service delivery across the City of Los Angeles.

BACKGROUND

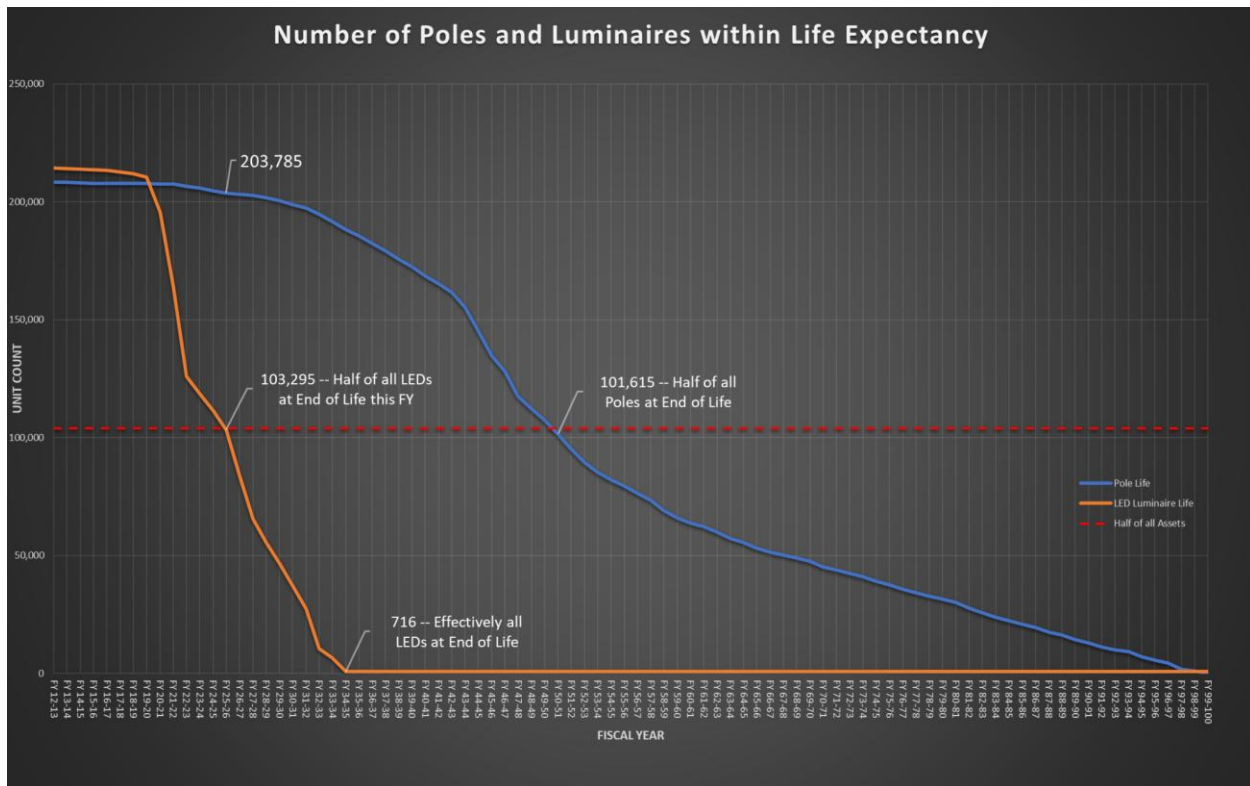
The Bureau of Street Lighting oversees the operation and maintenance of more than 223,000 streetlights across Los Angeles, illuminating nearly two-thirds of the city's 470 square miles. This vast network is powered through approximately 13,000 LADWP service points and interconnected by over 9,000 miles of conduit and 27,000 miles of copper wire.

The reliability of the City's Street Lighting infrastructure has been increasingly compromised by two major factors: 1) the accumulation of deferred maintenance and 2) a dramatic rise in copper wire theft and vandalism.

Of the two above factors, theft and vandalism is the most visible disruption to Streetlight services, often taking down entire neighborhood blocks or areas. Citywide vandalism incidents have surged by over 1,430%, rising from an annual average of 915 (FY03/04 - FY16/17) to more than 16,000 in FY25/26.

In that same fiscal year, theft-related repairs accounted for over 40% of all service calls and consumed more than half of direct repair expenditures.

Less visible, but arguably a greater risk, is the aging condition of the Streetlighting system. Many poles, fixtures, and electrical components have exceeded their expected service life. Over 82,000 first-generation LED luminaires installed more than a decade ago are now at the end of their 10-year lifecycle and require replacement. Additionally, numerous poles, some over 75 years old, are in critical need of structural upgrades.



The Assessment and the Bureau’s Duty to Assessed Parcels

The Bureau’s main funding stream is the Assessment, averaging \$43.5 million annually. It is essentially a levy, or charge, to a property for the service of a lit street and is a power given to the

City through the State, which must also conform with Prop 218. The County collects the Assessment bi-annually on BSL's behalf on the County Roll.

Recently, a third party validation report of Bureau's Long Term Plan (CF 22-0600-S56) commissioned by the CAO highlights that the Assessment has not kept pace with inflation, as 90% of the revenue source has been frozen since 1996, or the rising costs of maintenance. Regardless of whether the funding is adequate, the Assessment requires that BSL provide the benefit of street lighting equally to those assessed, which is complicated by the rise of theft and vandalism – an issue never contemplated in the original assessment.

BSL therefore establishes average repair times to comply with its duty to the Assessment and generally handles all service requests in the order they are received. *Currently the official repair times for any service request is a year.* It should also be noted that the Bureau does not have an LED replacement program or a pole replacement program (eliminated during the Great Recession), which are some of the most cost effective repairs that the Bureau can do given purchasing power and avoidance of liabilities.

REPAIR OPERATIONS OVERVIEW

The Bureau's Field Operations Division (FOD) consists of roughly 185 employees, approximately 24% lower than the Bureau's all-time high of 244 field employees in FY23/24, predominantly deployed from its single yard on Santa Monica and Vermont Blvd near Downtown Los Angeles.

A portion of the employees are deployed across six geographic maintenance districts: Central, West, East, South, West Valley, and East Valley. Historically, the district crews are responsible for managing routine streetlight maintenance throughout the city, and now address theft and vandalism at a smaller scale or in support of larger vandalism repair assignments. District crews are usually two or three-person crews (an electrician and a helper) and typically use a bucket truck.

In parallel, three specialized vandalism crews focus on high-impact incidents that require advanced fortification measures. Vandalism crews are similar in size to maintenance crews, but are often accompanied by welders, concrete finishers, and other specialized equipment, materials and resources to secure infrastructure and mitigate recurring damage.

Additionally, BSL has two support districts – Welding and Cement – that are often deployed with the crews mentioned above to repair damaged infrastructure. Welding and Cement also support special capital projects, like the Street Transit Amenities Program. The support districts in recent years adopted new technologies to address material costs and efficiencies. BSL staff now uses plasma cutters and 3D printers/potters to manufacture materials required in the field, dramatically reducing material costs and lead times. For example, in 2024, BSL incurred costs of approximately \$52 per regular base door and \$123 per heavy-duty self-locking base door. By contrast, our field office now manufactures comparable doors for as little as \$5 per regular door and \$70 per self-locking base door, eliminating the need for welding support and yielding cost savings of up to \$47 to \$53 per unit, or roughly 90.4% to 43.1%, respectively.

Notably, the heavy-duty self-locking base door serves as a vandal-resistant solution in environments where welding is not feasible.

While the 3D printers/potters are a nascent addition, **Attachment A** provides the overview and expected cost savings compared to the purchase of the standard pullbox.

Service Request Intake, Assignment, and Deployment

Similar to most City Departments, the Bureau receives outage information and repair requests through MyLA311 and the Citywide CRM run by ITA. With the transition to the new CRM system, BSL has eliminated most legacy service request (SRs) types and has “streetlight(s) repair” as the simplified broad category for most issues with streetlights, with an additional sub-question asked to determine whether there is an outage. The underlying cause of the problem (e.g.: copper theft, burned out fixture, electrical system ground, etc.) is later determined by BSL crews once they are deployed.

The MyLA311 system hands off SRs to the Bureau’s internal Operational Management System (OMS), which does both Asset Management and Field Force Deployment. While a service request may inform the Bureau of an outage, as mentioned above, the cause of the problem remains “unknown” when handed off to the OMS.

Geographical data from the SR then determines the FOD maintenance district to which it is automatically assigned. Electrician Supervisors are in charge of the districts and reassign SRs to crews that are deployed to inspect BSL’s assets, assess the underlying cause of the problem,

and repair, if feasible. Note that, given the backlog of approximately 31,000 SRs to date and limited staffing resources, *it can take seven (7) months or more before a crew is assigned and deployed to the SR*. Once an SR is assigned and inspected, it is generally repaired within one month from that inspection.

Once the maintenance crew assesses the cause of the problem, there are generally two paths a repair can take:

1) Immediate Repair: Immediate repairs encompass conduit damage, ground fault repairs, fuse replacements, elimination of overhead hazards such as hanging equipment, installation and/or replacement of luminaires and Smart Nodes, and minor acts of vandalism or power theft affecting one or two lights that do not require welding or cement support and can be addressed with epoxy or security doors. While maintenance district crews are smaller, they historically completed the bulk of the Bureau's work prior to 2020.

2) If the maintenance crew determines that it exceeds their capacity to complete the SR, circuit information and field conditions are relayed to District Supervisors who then either assign the work to Maintenance Heavy Crews, or, in cases of extensive theft or damage, coordinate with the Copper wire / Power Theft (CWPT) Superintendent overseeing the Fortification Program.

A Maintenance Heavy Crew's work include Post Hits (cars hitting streetlights), conduit hits, repair or replacement of deteriorated assets, troubleshooting shorts and grounds of larger electrical systems, and excavation as needed. Maintenance crews also perform Restoration Lvl 1 and 2 on portions of circuits that do not require a full Fortification and may require support from the welders and cement crews. Any repairs that go above 5 spans or more are considered beyond the scope of maintenance and be reassigned to even larger CWPT crews.

If an SR is reassigned to CWPT, the CWPT Superintendent will coordinate the repairs with the various resources needed to complete the job. Depending on the circuit, fabrication of base wraps/doors will be completed prior to starting the job.

Types of Field Repair

The Bureau employs a suite of solutions to address a wide range of streetlight service issues.

Repair Type	Cost Range	Work Performed
Restoration, Lvl 1	Average \$500 / light	Quickest - Repair and restore lighting outages and can range from burned out fuses, burned out fixtures, some vandalism. Some hardening of the asset with the use of epoxy to seal vulnerabilities.
Restoration, Lvl 2	\$1500 min / light	Repair and restore lighting outages with more extensive damage. This level typically involves welding and cement that hardens vandalized streetlighting assets, but not entire electrical circuits.
Fortification (F22)	\$2500 / light	Initially created in 2022, this method of repair is the most extensive "castle building" the Bureau undertakes as all access points on a circuit are either welded shut, cemented closed, or barriers such as steel wraps are fabricated and erected around streetlights. Usually the only remaining vulnerability is the DWP service point where DOT, BSL, and DWP must all share access.

Repair Times

The table below summarizes FY 2024-2025 service repairs by issue (or the underlying problem) type, along with average response times:

Service Repairs <u>FY 24/25</u>			
Issue Type	Repairs	# of Lights Affected	Average Response Time (Days)
Single Light Out	3,813	2,705	203
Multiple Lights Out	2,851	10,785	239
Copper Wire Theft	17,763	32,046	146
Power Theft *	192	1,643	131
Post Hit **	931	841	351
Conduit Hit	158	473	145

CWPT resulted in **33,689** lights affected citywide in FY24/25.

These figures highlight the scale and complexity of BSL's repair workload, with copper wire theft alone accounting for over 15,000 repairs and an average repair time of 194 days. As mentioned before, one in seven requests is older than one year, and therefore, our analysis shows us that our official repair time is one year.

OPERATIONAL CHALLENGES

Despite strategic efforts, BSL continues to face significant constraints:

- CWPT now represents approximately 40% of all repair work
- Staffing shortages, vehicle availability issues, and drive times from field office strain routine operations
- Single yard - need a yard in the Valley and in Harbor / Gateway area thereby decreasing drive time

- No regular maintenance - LED replacement is critical in order to preserve the lighting services unaffected by theft and vandalism

CONCLUSION

The Bureau of Street Lighting is facing a critical and escalating challenge in maintaining the City of Los Angeles' street lighting infrastructure, a network of over 223,000 streetlights. The reliability of the system is compromised by the significant backlog of deferred maintenance of aging infrastructure, including over 82,000 end-of-life LED luminaires and poles over 75 years old, and a dramatic surge in copper wire theft and vandalism. These pressures, compounded by a staffing shortage and a funding assessment frozen since 1996, have severely impacted service delivery.

Consequently, the expected repair time for any service request has stretched to almost a year, with a current backlog of approximately 33,000 service requests. While BSL is actively mitigating these issues through strategic deployment of specialized crews, asset hardening techniques like Fortification (F22), and cost-effective innovations such as manufacturing base doors and other materials in-house, and the deployment of solar lighting fixtures, these measures are offset by systemic operational constraints, including a reliance on a single yard and the absence of crucial preventative maintenance programs like regular LED and pole replacement.

Addressing the structural funding deficit and expanding field capacity are necessary to reduce the service backlog and ensure BSL can fulfill its duty to provide equally lit streets to all assessed parcels.

Respectfully,

A handwritten signature in black ink, appearing to read "Miguel Sangalang" with a stylized flourish at the end.

Miguel Sangalang
Executive Director and General Manager
Bureau of Street Lighting

ATTACHMENT A

https://docs.google.com/presentation/d/154yZJf6_P6hXWoZ-bGYte_zIAFrhvNaj/edit?usp=sharing&ouid=107614188956932032399&rtpof=true&sd=true