



# AUDIT HIGHLIGHTS

## Preventative Maintenance and Repair

October 11, 2016

Audit Report No. 1608

### WHY WE DID THIS AUDIT

This audit was included on the Council-approved FY 2015/16 Audit Plan to evaluate the City's preventative maintenance and repairs program, including costs and controls. The audit scope included the Facilities Management department's citywide preventative maintenance and repairs program.

### BACKGROUND

The Facilities Management department, within the Public Works Division, provides on-demand and preventative maintenance services for the City's facilities and related equipment. During FY 2015/16, the department spent about \$8.9 million on maintenance and repair projects.

Skilled trade staffing includes building maintenance, construction services, electrical, HVAC, locksmith, painting and plumbing. Contract services are used for some tasks, such as elevator maintenance and filter replacement.

The department's management information system shows more than 5,000 preventative maintenance tasks scheduled and completed during FY 2015/16.

The City has about 69,800 square feet per Facilities maintenance worker, but only about 35,000 per total City maintenance worker. The department's FY 2015/16 maintenance and repair cost was about \$2.40 per square foot.

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### WHAT WE FOUND

**Data collection and quality controls are needed before reliable preventative maintenance analysis can be performed.**

While preventative maintenance and repair (PM) questions have arisen during the last several budget cycles, the department has not yet developed data or performance analyses to address them.

- The department purchased a comprehensive facilities management information system and hired technical support. However, these resources are not fully used to manage and evaluate the PM program.
- Controls are not in place to protect data integrity and reliability.
- The PM system module is also being used to track other recurring tasks.

**The Facilities Management department has not conducted performance analyses for its preventative maintenance activities.**

After establishing related performance objectives last fiscal year, the department did not conduct a cost analysis for its PM program. Industry best practices exist that can guide the department's efforts.

**A preventative maintenance strategic plan, policies and procedures can aid effective resource management.**

A strategic plan would help to focus the program's limited resources on the highest priorities. Further, current policies and procedures do not provide sufficient guidance to effectively manage the PM program.

- The department does not yet have a strategic plan or comprehensive, written policies and standard operating procedures for its PM program.
- While all PM work orders are currently prioritized as urgent, the department agreed that PM tasks are not all equally important.
- The department has not conducted a workload analysis to assess its skilled trade resource needs.
- The department excludes unassigned PM work orders before measuring its timely completion performance.

### WHAT WE RECOMMEND

We recommend the Public Works Division Director ensure the Facilities Management department:

- Effectively uses the information system to manage the PM program.
- Captures relevant, reliable data to evaluate the cost-effectiveness of the PM program and identify potential deferred maintenance needs.
- Develops a strategic plan, policies and procedures for the PM program.
- Prioritizes PM tasks based on a documented risk model.
- Conducts a staffing analysis and timely completes scheduled PM tasks.

### MANAGEMENT RESPONSE

The department agreed with the audit recommendations and plans to complete implementation between October 2017 and July 2018.