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**Facility Maintenance Costs  
Audit**

March 25, 2022



**City of Fort Worth  
Department of Internal Audit**

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Fort Worth, Texas 76102

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**The Facility Maintenance Costs Audit was conducted as part of the Department of Internal Audit's Fiscal Year 2021 Annual Audit Plan.**

### **Audit Objectives**

The objectives of this audit were to:

- determine whether maintenance costs associated with recently built and/or renovated buildings are supported and reasonable; and,
- ensure that the City is not paying for maintenance costs that should have been covered under a warranty.

### **Audit Scope**

Our audit included a review for the period of October 1, 2019 through June 30, 2021.

### **Opportunities for Improvement**

Written workorder policies or procedures

Reconciliation between systems to identify errors

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## **Executive Summary**

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As part of the Fiscal Year 2021 Annual Audit Plan, the Department of Internal Audit conducted an audit of facilities maintenance costs. The Property Management Department includes the Facilities Management Division. The Facilities Management Division includes the Facilities Maintenance group and the Architectural Service group. The Facilities Maintenance group provides services that include emergency, urgent and routine repairs and maintenance. The Architectural Service group is responsible for overseeing projects such as renovations and construction of new facilities.

Internal Audit found that there were no written policies or procedures for maintenance or repair workorder processes. These processes would include documenting the work performed, recording the use of supplies, recording maintenance costs in the general ledger and initiating warranty claims. The lack of documented policies or procedures may have contributed to missing or inaccurate workorder data and the relatively small charge errors identified.

We could not determine whether warranty claims should have been made for a sample of 68 workorders reviewed due to the lack of supporting workorder detail. It should be noted that the Architectural Service group requested warranty repairs for four workorders reviewed that were not in the sample.

During Internal Audit's review of support for maintenance costs, we identified errors in the data entered into the VUEworks software that is used to record workorder costs. One data entry error overstated cost for a workorder by approximately \$39 million, although the amount recorded in the general ledger was correct. Other errors identified included incorrect labor charges for workorders charged in three sampled general ledger transactions.

These audit findings are discussed in further detail within the [Detailed Audit Findings](#) section of this report.

# Table of Contents

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Background..... 1

Objectives ..... 3

Scope..... 3

Methodology..... 3

Audit Results..... 4

Overall Risk Evaluation..... 5

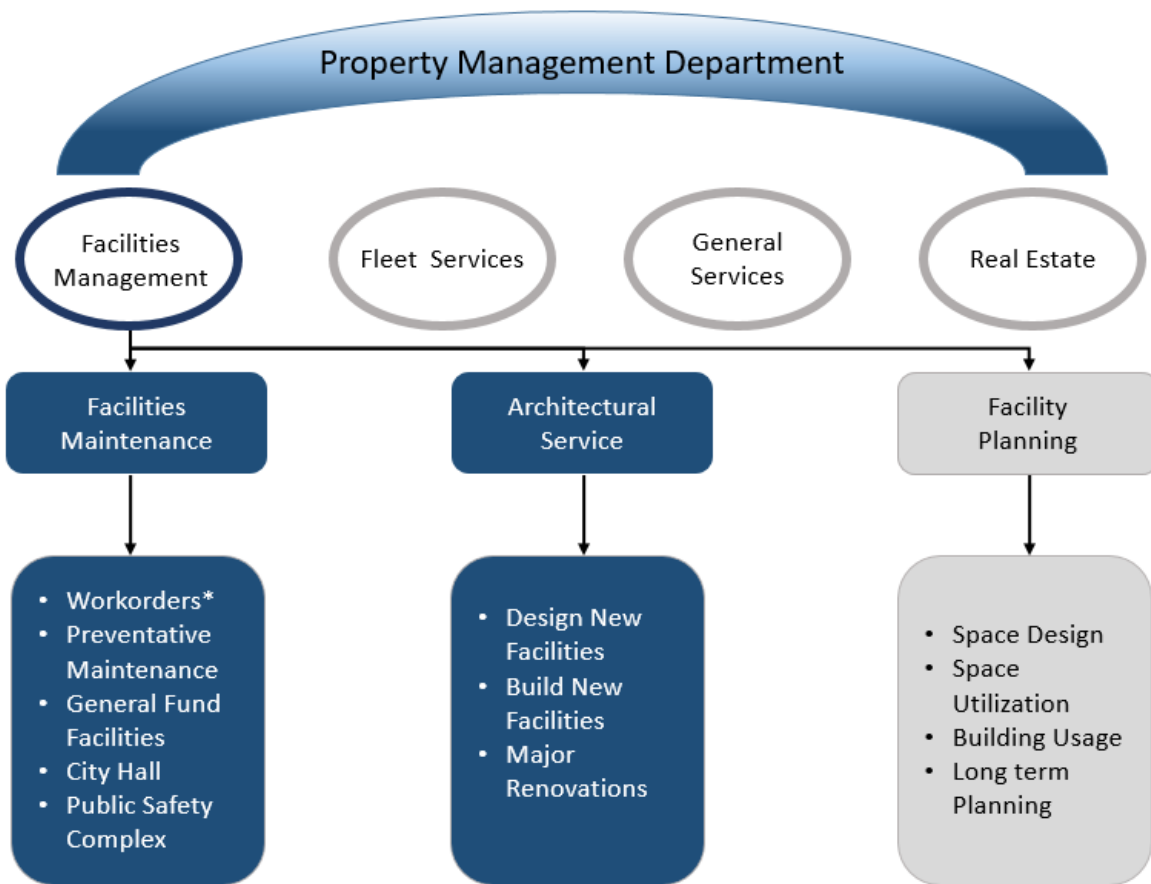
Detailed Audit Findings..... 6

Acknowledgements..... 9

## Background

The Facilities Management Division of the Property Management Department is responsible for the planning, development and maintenance of the majority of City facilities. The Facilities Maintenance group within the Division conducts preventative maintenance along with routine, urgent, and emergency repairs of City owned facilities. The day-to-day repair and upkeep of City owned facilities consists of a variety of work categories such as plumbing, HVAC, carpentry, electrical and painting.

The Architectural Service group within the Facilities Management Division manages consultants and contractors to design and build new facilities and conduct major renovations. Architectural Service also manages warranty repairs and the warranty process for these facilities.



\*Excludes Kitchen and Laundry Appliances

**Source:** Auditor generated based on Facilities Management Division website

The Facility Maintenance group began using VUEworks software in 2018 to manage their workorders from intake to completion. It allows maintenance staff to record the type of maintenance request, note the type of repair being completed, record materials/labor hours used and enter comments for each workorder.



According to Architectural Services staff, the warranties for buildings last one year, and the warranties for the roofs generally last two years for leaks and 20 years for materials. If one of these buildings requires maintenance, the vendor is contacted and they will make the repair. The contractor warranty for new trees planted is generally two years.

On a monthly basis, the Facilities Maintenance group charges costs associated with labor hours to various projects using manual general ledger entries that are based on hours entered in VUEworks. Financial Management Services reviews the support and approves these entries. Materials and contracted services are charged to projects based on PeopleSoft invoices or purchasing card charges. The Facilities Management leadership team conducts reviews of maintenance activity and budget performance using financial reports.

## Objectives

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The objectives of this audit were to:

- determine whether maintenance costs associated with recently built and/or renovated buildings were supported and reasonable; and,
- ensure the City is not paying for maintenance costs that should have been covered under a warranty.

## Scope

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Our audit included a review for the period from October 1, 2019 through June 30, 2021. Additional workorders were reviewed as deemed necessary.

## Methodology

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To achieve the audit objectives, the Department of Internal Audit performed the following:

- interviewed Facilities Maintenance and Architectural Service's staff;
- documented the maintenance and warranty processes and controls;
- reviewed workorders within VUEworks software;
- reviewed general ledger accounts related to repairs and maintenance;
- reviewed PeopleSoft time sheets for facilities staff;
- reviewed workorders for warranty-related issues;
- reviewed contracts for newly constructed and renovated buildings; and,
- evaluated internal controls related to facility maintenance costs and warranties

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

## Audit Results

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The Facilities Management Division provides vital services citywide and helps keep facilities functional and updated. However, we found that there were no documented policies or procedures for:

- documenting and recording workorder activities and transactions;
- charging repair costs to departments and recording corresponding revenues in the general ledger; and,
- managing assets under warranty.

Internal Audit considered the absence of documented policies or procedures to be a contributing factor to errors identified in workorder charges. The absence of policies or procedures resulted in a lack of guidance related to the identification and use of warranties. During the course of this audit, Facilities Maintenance began documenting these procedures.

As part of Internal Audit's testing to determine whether maintenance costs were supported and reasonable, we sampled 68 closed workorders from the VUEworks system, then compared the workorder details to labor hours reported in PeopleSoft and materials purchased per the general ledger. Facility Maintenance journal entries were approved in accordance with City policy. However, we identified inaccurate labor hours in VUEworks, and in some cases, incomplete information related to use of materials on workorders. While the resulting errors were small, they resulted in incorrect charges to departments for maintenance activities. Of the 68 workorders and corresponding journal entries reviewed, we noted:

- differences in labor hours recorded in VUEworks as compared to PeopleSoft timesheets and the entries made in the general ledger for three workorder transactions. The largest error identified resulted in a \$680.00 overcharge to a department; and,
- one workorder issue identified by Internal Audit was an invoice for \$396,535.00 that was recorded in VUEworks as \$39,653,500.00 in error. However, this error was not recorded in the general ledger and the correct amount of \$396,535.00 was paid by the City.

Internal Audit noted that the Facilities Maintenance group did not keep a record of assets under warranty. Rather, staff reported that they relied on the year of manufacture information within the serial number (when available) for items, such as HVAC units along with vendor records to determine if equipment might be under warranty. In addition, workorder records tested did not include sufficient information to determine if the repair was completed using stock supplies or if a purchase was required. Internal Audit was unable to determine if costs were recovered by warranty due to the lack of an inventory of assets under warranty and incomplete warranty information in VUEworks.

The Architectural Service group obtained warranty repairs from contractors for four of the workorders reviewed.

## Overall Risk Evaluation

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High	Medium	Low
<a href="#"><u>Absence of written policies or procedures for workorder transactions</u></a>		
	<a href="#"><u>Lack of reconciliations to identify errors</u></a>	





## Detailed Audit Findings

### 1. There were no documented policies or procedures for workorders.

As a best practice, the Government Finance Officers Association (GFOA) recommends that management document policies and procedures in order to provide guidance, improve accountability and provide a training tool for employees. At the start of the audit, the Facilities Maintenance staff informed Internal Audit that they did not have documented policies or procedures for key processes; however, they were considering creating them.

We concluded that documentation and dissemination of procedures could have resulted in more accurate workorder charges and better warranty follow-up. We noted workorders lacked the information needed to determine if costs were recovered for defective items under warranty. As a result, we could not determine whether the City paid for parts or services that should have been covered by warranties.

Records that identify assets under warranty were not available. Technicians must either rely on the vendor to verify if an item is under warranty; or use the year in the serial number on the unit (when applicable) to determine whether an item might be under warranty. As a result, payments for work that would have been covered by warranty could occur and not be identified. It should be noted that we did not identify charges for repairs that should have been covered by a warranty.

Specifically, we noted the following during our review of warranty processes:

- There was no listing of all assets covered by warranties. A VUEworks listing of buildings potentially covered by warranties was limited to buildings and structures, and did not include major system replacements or other assets that could be under warranty.
- Data entered in VUEworks workorders did not include sufficient information to determine if a defective item was under warranty or whether a warranty was used for the repair.

**Recommendation 1A:** *The Property Management Department Director should ensure that policies or procedures for maintenance activities are documented, including, but not limited to: inputting key VUEworks data, warranty follow-up and documentation, and reconciling and entering manual journal entries.*

**Auditee's Response:** Concur. We are in the process of making a PMD Facilities Basic Rules and Performance Expectations Handbook that outlines how we document use of supplies.

**Target Implementation Date:** June 30, 2022

**Responsibility:** Administrative Staff/Superintendent (Brenda Midgett, Matt Monedero, Aaron Cutaia)

**Applicable Department Head:** Steve Cooke, Property Management Director

**Applicable Assistant City Manager:** Dana Burghdoff



**Recommendation 1B:** *The Property Management Department Director should ensure that maintenance staff include specific information in VUEworks workorders including the repair type, items purchased or on-hand materials used for the repair and whether any parts or labor are covered by a warranty.*

**Auditee's Response:** Concur. This will also be covered in the Handbook.

**Target Implementation Date:** June 30, 2022

**Responsibility:** Administrative Staff/Superintendent (Brenda Midgett, Matt Monedero, Aaron Cutaia)

**Applicable Department Head:** Steve Cooke, Property Management Director

**Applicable Assistant City Manager:** Dana Burghdoff

**Recommendation 1C:** *The Property Management Department Director should ensure that a listing of major assets tracked in VUEworks under warranty is maintained to ensure that warranty information is available and accessible to employees.*

**Auditee's Response:** Concur. We intend to add the warranty expiration date to the major assets in VUEworks to include an asset sheet the crafts will fill out when replacing a major component (Large HVAC Unit, Water Heater, Generators, Uninterrupted Power Supplies, etc.)

**Target Implementation Date:** October 31, 2022

**Responsibility:** Administrative Staff/Superintendent (Brenda Midgett, Matt Monedero, Aaron Cutaia)

**Applicable Department Head:** Steve Cooke, Property Management Director

**Applicable Assistant City Manager:** Dana Burghdoff

## 2. Reconciliations to identify errors were not performed.

The City of Fort Worth Financial Directive FD02, *Journal Entries and Reconciliations, Section III* states that reconciliations and journal entries must have appropriate and complete supporting documentation, must be independently approved by an authorized employee along with other requirements. Internal Audit noted that Facility Maintenance's journal entries were approved according to the directive, however, Internal Audit identified three entries that were supported with inaccurate labor hours documentation from VUEworks.

From a population of approximately 13,800 closed workorders between 10/01/2019 and 06/30/2021, Internal Audit tested a random sample of 68 workorders to determine if costs were supported and reasonable. We also tested ten general ledger transactions that included labor charges from 34 workorders and performed other tests. We noted the following inconsistencies:

- Facilities Maintenance created a journal entry that included 22 billable labor hours for one employee's charges to a workorder. However, the employee worked two (2) hours on the project on that date overstating hours by 20, resulting in a \$680.00 overcharge.



- One workorder included zero labor hours for an employee although subsequent review with Facilities Maintenance determined that labor was required for the work and should have been recorded in VUEworks and the general ledger.
- Three separate workorders had one hour or less of labor reported, however, the employees' timesheets did not reflect labor hours reported on the corresponding day.
- One workorder included a \$396,535.00 invoice for materials that was recorded in error as \$39,653,500.00 in VUEworks. While this incorrect amount was not recorded in the general ledger and did not reflect the amount charged, it incorrectly recorded the amount in VUEworks.

Facilities Maintenance staff indicated that errors were not corrected when discovered in some cases because re-opening the workorder to make a correction alters the workorder close date and impacts the department's Key Performance Indicator targets. While the inaccuracies noted in our sample have a small financial impact and correct amounts for materials were charged to departments, other errors could exist in the full population of workorders supporting general ledger entries.

**Recommendation 2A:** *Prior to making entries into the general ledger, the Property Management Department Director should ensure a reconciliation is conducted between PeopleSoft labor hours, materials purchases, and the VUEworks workorder information with signoff by a supervisor. Any discrepancies should be resolved prior to recording general ledger transactions.*

**Auditee's Response:** Concur. We created a report in VUEworks to track project/charge back hours, currently testing the report to ensure accuracy

**Target Implementation Date:** April 30, 2022

**Responsibility:** Administrative Staff/Assistant Superintendent (Brenda Midgett/Mike Pease)

**Applicable Department Head:** Steve Cooke, Property Management Director

**Applicable Assistant City Manager:** Dana Burghdoff

**Recommendation 2B:** *The Property Management Department Director should ensure that the \$680.00 in erroneous labor charges to the department identified during the audit is corrected.*

**Auditee's Response:** Concur. We completed this on 2/15/2022, Journal Identification number 315120

**Target Implementation Date:** Completed

**Responsibility:** Administrative Staff (Brenda Midgett)

**Applicable Department Head:** Steve Cooke, Property Management Director

**Applicable Assistant City Manager:** Dana Burghdoff



## Acknowledgements

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The Department of Internal Audit would like to thank the Property Management Department for their cooperation and assistance during this audit.