

**DEPARTMENT OF PUBLIC WORKS
BUILDING MAINTENANCE SECTION
AUDIT 05-18
OCTOBER 12, 2005**



CITY OF TAMPA

Pam Iorio, Mayor

Internal Audit Department

Wayne Boytim, Acting Internal Audit Director

January 4, 2006

Honorable Pam Iorio
Mayor, City of Tampa
1 City Hall Plaza
Tampa, Florida


RE: Building Maintenance, Audit 05-18

Dear Mayor Iorio:

Attached is the Internal Audit Department's report on Building Maintenance.

We thank the management and staff of Building Maintenance for their cooperation and assistance during this audit.

Sincerely,



Wayne Boytim
Acting Internal Audit Director

cc: Darrell Smith, Chief of Staff
Steve Daignault, Public Works and Utility Services Administrator
Mahdi Mansour, DPW, Deputy Director
Ray Herbert, Facilities Maintenance Coordinator

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INTRODUCTION

Building Maintenance is a section of the Public Works Department. It performs both routine maintenance and major renovation projects. The Section maintains more than 500 city facilities, ranging in size from the multi-story office buildings downtown to picnic shelters in city parks. This amounts to over 6 million square feet of city property. Among the services provided are climate control (heating and air-conditioning), electrical, plumbing, mechanical, carpentry, roofing and painting.

The Section utilizes "The Maintenance Authority" (TMA) software package to record and track its workflow. Some of the features of TMA include: initiating work orders via email, recording costs (labor and materials), scheduling preventative maintenance, tracking and productivity and other management reports. TMA is also used to provide fiscal year end cost allocation information for the Revenue and Finance Department.

In March 2005, a new Facilities Maintenance Coordinator was assigned to manage the Building Maintenance Section. The new Coordinator developed several initiatives to improve performance. The workorder process was revised, accountability improved and resources reorganized for a more efficient operation.

STATISTICS

	<u>FYTD05*</u>	<u>FY04</u>	<u>FY03</u>
Personnel Costs	\$ 1,586,973	\$ 2,015,896	\$ 1,655,711
Repair & Maintenance-Outside	326,800	555,937	438,128
Supplies & Materials	321,539	430,184	234,233
All Other Costs	<u>111,590</u>	<u>66,158</u>	<u>264,686</u>
Total	<u>\$ 2,346,902</u>	<u>\$ 3,068,175</u>	<u>\$ 2,592,758</u>

* Fiscal Year to Date as of July 31, 2005.

Source: Financial Management Information System (FAMIS).

STATEMENT OF OBJECTIVES

This audit was conducted in accordance with the Internal Audit Department's FY05 Audit Agenda. The objectives of this audit were to determine if:

1. The workorder process was adequate;
2. Preventative maintenance was adequate and functioning properly;
3. The basis for changes in staffing configuration was accurate; and
4. The basis for fiscal year end cost allocation was accurate.

STATEMENT OF SCOPE

The audit period covered Building Maintenance activity that occurred from October 1, 2003, to July 31, 2005. Source documentation was obtained from the Building Maintenance Section and the City's financial system. Original records as well as copies were used as evidence and verified through physical examination.

STATEMENT OF METHODOLOGY

Government Auditing Standards require auditors to determine if computer-processed data are sufficiently reliable for use in the audit process. Management uses TMA to initiate workorders, record and track costs, schedule preventative maintenance and produce management reports. We performed certain procedures to assess the reliability of the computer-processed data. Based on the results of these procedures, the computer-processed data appears to be sufficiently reliable in all material aspects.

The sample size and selection were statistically generated using a desired confidence level of 90%, expected error rate of 5% and a desired precision of +/- 5%. Statistical sampling was used in order to infer the conclusions of test work performed on a sample to the population from which it was drawn and to obtain estimates of sampling error involved. When appropriate, judgmental sampling was used to improve the overall efficiency of the audit.

STATEMENT OF AUDITING STANDARDS

We conducted our audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to afford a reasonable basis for our judgments and conclusions regarding the organization, program, activity or function under audit. An audit also includes assessments of applicable internal controls and compliance with requirements of laws and regulations when necessary to satisfy the audit objectives. We believe that our audit provides a reasonable basis for our conclusions.

AUDIT CONCLUSIONS

Based upon the test work performed and the audit findings noted below, we conclude that:

1. The workorder process was adequate; however, it requires better monitoring of open workorders;
2. Management has developed a Preventative Maintenance program; however, it has not been fully implemented;
3. The basis for changes in staffing configuration was accurate; and
4. The basis for fiscal year end cost allocation was accurate; however, personnel costs were not updated.

NOTEWORTHY ACCOMPLISHMENTS

The new Facilities Maintenance Coordinator has developed initiatives to advance the level of customer service while promoting cost reduction. These initiatives, which began in March 2005, were the reorganization of the City into districts and the establishment of a second shift. In the seven months ended September 30, 2005, overtime costs declined by 42% over the same period last year. The number of workorders completed during that time-period increased by 36%

While the findings discussed below may not, individually or in the aggregate, significantly impair the operations of the Building Maintenance Section, they do present risks that can be more effectively controlled.

WORKORDERS

Workorders are the key to providing services to customers. They show what needs to be done, where it is needed, who is responsible to perform the service and when it is scheduled to be performed. TMA generates a workorder for one of three conditions: a customer request, a scheduled preventative maintenance (PM) task or an inspection. There were over thirty thousand workorders generated during the audit period.

We selected a statistical sample of fifty-two workorders for testing (PM Workorders were excluded). We found six exceptions (11.5% exception rate). All of the exceptions were workorders that remained open near to or over three months. Management did not monitor the status of open work orders.

We reviewed the section's policy and procedure manual to determine if management had established workorder completion standards or monitoring guidelines. The manual was outdated. Monitoring guidelines were not established. Written policies, procedures and an established monitoring process are important components of the internal control process.

The policy and procedure manual provides the guideline for carrying out management's objectives. The guidelines detail what is to be done and the responsibilities for achieving the goals. They provide the means to insure the most effective use of resources. The objectives and goals guide the enterprise toward its mission. To be effective the goals and objectives should be understandable, easily communicated, acceptable and attainable. Policies are the general guidelines for action. Procedures are the specific guides for how an activity is to be accomplished.

RECOMMENDATION 1

Management should develop and implement comprehensive policies and procedures for all essential transactions and operations. These should include workorder completion standards and a practical monitoring process to ensure timely workorder completion. When completed, they should be communicated to employees.

AUDITEE RESPONSE

Audit's recommendations are in line with our proposed administrative changes for FY06. In FY05 additional staff will be added to address the backlog of both service request and administrative responsibilities which include updating procedural manuals and providing supervisors with monthly work management reports. With these changes Audit's recommendations will be addressed.

PRODUCTIVITY

Productivity standards can be used as a means of defining management's expectations for the division. In addition, the standards can be used to evaluate individual and overall staff performance. These standards provide a basis for performance evaluation by measuring job performance. Evaluation of staff performance can be used as a means to identify the need for training in general or in specific areas, the need for equipment, the need for technology or the need for additional staff. The productivity standards can be developed in-house using historical performance data, or if available, use industry standards. Management related that the TMA system has a performance standards module that could be used to measure productivity.

RECOMMENDATION 2

Management should develop a program to measure productivity.

AUDITEE RESPONSE

Audit is correct in that production standards must be implemented to insure work productions meet or exceed industry standards. Currently the HVAC P/M program is the only work activity that has standards applied within the TMA Work Management system. Our goal for FY06 is to have all production standards in place for all work activities by June 2006.

COST ALLOCATION

We obtained a copy of the fiscal year end cost allocation worksheet. The basis for the worksheet is workorders generated throughout the fiscal year. A workorder has two cost components: supplies/materials and billable technician hours. We judgmentally selected sixty-two workorders to test the accuracy of the recorded costs. We found no exception in the cost of supplies/materials. However, we noted that technician hourly rates were not current in all the workorders tested. In addition, the calculation of technician fringe benefits was incorrect. Accurate financial reporting is one objective of internal controls. A reliable monitoring program is an important management tool in achieving this objective.

RECOMMENDATION 3

A monitoring procedure should be developed for periodically reviewing the technician pay rates and fringe benefits. Changes in pay or benefits should be updated in TMA.

AUDITEE RESPONSE

During this past year Building Services has been through several operational changes starting with the merger of two sections Building Maintenance and Facility Maintenance. One of the biggest setbacks with these changes has been the loss of key supervisory personnel and having to absorb their duties within our existing administrative staff. Our staff has done an exceptional job with this undertaking, but there have been some short falls which impacted updates to our TMA work management system. We are in agreement with Audit on their recommendation and will address this issue with the new Management Methods Analyst position budgeted for FY06.

PREVENTATIVE MAINTENANCE

TMA contains a Preventative Maintenance (PM) module, which is used to schedule and track equipment PMs. The Section began utilizing the module in May 2002. After entering equipment information into TMA, the system automatically generates a workorder whenever the PM is due. To be effective the database must contain all equipment requiring PM.

Equipment Database

To determine if the PM module contained all the equipment that required periodic preventive maintenance we visited eight fire stations. (Each building has its own PM schedule). We compared the equipment PM list to the equipment located in each building. All of the equipment on the lists were found in the buildings. However, we noted that an air conditioner condenser installed at the end of 2004 was not listed. Since this piece of equipment was considered "critical," we performed additional work to determine why it was not listed on the PM list. We found that there was a backlog of approximately 250 pieces of equipment that were not entered in TMA by the administrative staff. The backlog goes back to December 2004. According to the Facilities Maintenance Coordinator, this was due to a staffing problem. An additional administrative staff position is budgeted for FY06.

PM Compliance

TMA has standard reports that allow management to monitor operational results. We obtained three PM reports to test compliance against scheduled PMs. In reviewing the reports, we found significant differences in the percentage of PMs completed (from a low of 22% to a high of 88%). According to management, they do not have a standard report to monitor PM compliance. The absence of established reporting standards weakens internal controls that help provide reasonable assurance of accomplishing management objectives. These objectives include reliable reporting and achieving effective and efficient operations.

Since a reliable PM compliance report was not available, we used information in TMA to determine the PM completion rate. We calculated a completion rate of approximately 30%. Management agreed with the estimate.

According to management, staff vacancies were the reason for the low rate. During the audit, seven positions were vacant, with an additional four positions approved for FY06. Management has subsequently filled two of them. It was also represented that until they fill the remaining vacancies, it will be difficult to determine if staffing levels are adequate to meet PM program objectives. Their intent is to continue assessing the program's effectiveness as they fill staff vacancies and make a determination if staffing levels are adequate.

RECOMMENDATION 4

Management should develop and implement PM standards and communicate them to staff. In addition, they should create a standard report that accurately reflects results of the PM program. They should use the report as a monitoring tool to assist in determining the programs effectiveness and assessing staffing needs.

AUDITEE RESPONSE

As stated in Recommendation No. 2 the HVAC P/M program is the only activity that has productivity standards. These standards were developed around both historical and manufactured data and entered into the P/M program directly after the 2002 Audit.

I agree with Audit that our equipment data based is not current and both production standards and equipment inventory should be updated. I also agree that our current version of our work management system is limited on the reports available to supervisors and that custom reports should be developed. The deficiency noted by audit directly relate to personnel shortages, the loss of key supervisory personnel, and a work management system that was outdated.

Our section has been proactive and recognized some of these shortfalls during the FY06 budget process. In the FY06 budget process we requested and received four new positions and funding to update our TMA work management system. With the new changes and filling of our current vacancies our section will have the tools to be one of the most efficient operating departments within the City of Tampa.