



# REPORT TO THE CITY COUNCIL BY THE CITY INTERNAL AUDITOR

## AUDIT OF THE CITY OF SHREVEPORT PUBLIC WORKS DEPARTMENT TRAFFIC ENGINEERING DIVISION

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### INTERNAL AUDIT REPORT (IAR) 900015-04

July 16, 2015



**Leanis L. Steward**  
City Internal Auditor

#### Report Highlights

#### Page

- Operation Manuals or Instruction Booklets are not available. 4
- Process for managing customer service requests should be improved. 4-5



The Council  
City of Shreveport

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July 16, 2015

Councilman Jeff Everson  
Chairman, Shreveport City Council

Dear Councilman Everson:

Subject: IAR 900015-04 - Audit of The City of Shreveport, Public Works Department,  
Traffic Engineering Division

Attached please find the report mentioned above. Management comments are included in the report.

Sincerely,

Leanis L. Steward, CPA, CIA  
City Internal Auditor

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**EXECUTIVE SUMMARY  
 AUDIT OF THE CITY OF SHREVEPORT  
 PUBLIC WORKS DEPARTMENT  
 TRAFFIC ENGINEERING DIVISION  
 INTERNAL AUDIT REPORT (IAR) 900015-04**

The purpose of the executive summary is to convey in capsule form the significant issues of the audit report. The executive summary is a vehicle for reviewing the report and should only be used in conjunction with the entire report.

**INTRODUCTION**

Traffic Engineering is responsible for the design, installation, and maintenance of traffic signs and signals throughout the city. It maintains the city's computerized traffic signal system and conducts traffic surveys where modifications are being proposed. It responds to requests for street lights, one-way streets, restricted parking; maintains downtown parking meters, speed limits; provides street striping; and handles barricade requests from other departments.

**RECOMMENDATION EVALUATION RISK CRITERIA**

The chart below summarizes recommendations outlined in the report and our evaluation of risk for the recommendations. We evaluated the importance of each audit recommendation by assigning each a level of risk. The risk levels, as defined in the chart below, were determined based on the possible results for the entity if the recommendation is not implemented. This report contains four findings and eight recommendations.

<i><b>Risk Levels</b></i>	<i><b>Recommendations</b></i>
<p style="text-align: center;"><b>High Risk</b></p> <p>Possibility of fraud, waste, and abuse of City assets; Interrupted and/or disrupted operations; Entity's mission not being met; Adverse publicity.</p>	None
<p style="text-align: center;"><b>Medium Risk</b></p> <p>Possibility of continuing, significant operating inefficiencies and high-level non-compliance issues.</p>	None
<p style="text-align: center;"><b>Low Risk</b></p> <p>Possibility of continuing operating inefficiencies and some low-level non-compliance issues.</p>	<ul style="list-style-type: none"> <li>• Make Operation Manuals available. (Finding 1, page 4)</li> <li>• Establish a standardized review process to ensure full completion of service requests. (Finding 2, page 4)</li> <li>• All service requests should be sent to one centralized location. (Finding 3, page 5)</li> <li>• Improve inventory accuracy. (Finding 4, page 6)</li> </ul>

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### FINDINGS

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2. Customer Service Request Program Updates and Completeness .....	Low.....	4
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**AUDIT OF THE CITY OF SHREVEPORT  
PUBLIC WORKS DEPARTMENT  
TRAFFIC ENGINEERING DIVISION  
INTERNAL AUDIT REPORT (IAR) 900015-04**

**OBJECTIVES**

We have completed an audit of the Public Works Department, Traffic Engineering Division of the City of Shreveport. The objective of this audit was to ascertain the effectiveness and efficiency of Traffic Engineering Division that manages the lights, signs, signals on city streets, and also handles the service requests for street signs and lights from citizens.

**SCOPE AND METHODOLOGY**

The scope of the study of internal control was limited to the general controls surrounding our objectives for the five year period from January 2010 to October 31, 2014. Audit procedures applied included the following: reviewing applicable records and documents, interviewing operating personnel and management, testing compliance with stated policies, practices and procedures as well as applicable ordinances, laws and regulations; and performing site visits.

We conducted this audit in accordance with generally accepted government auditing standards, except that a peer review has not been performed, and included such tests of procedures and controls as considered appropriate. We believe that the evidence obtained provides a reasonable basis for our findings, conclusions, and recommendations based on our audit objectives.

**BACKGROUND**

Traffic Engineering is responsible for the design, installation, and maintenance of traffic signs and signals throughout the city. It maintains the city's computerized traffic signal system and conducts traffic surveys where modifications are being proposed. It responds to requests for street lights, one-way streets, restricted parking; maintains downtown parking meters, speed limits; provides street striping; and handles barricade requests for all departments.

Traffic Engineering provides these services:

- Analyst - Provides data for traffic analysis, conducts traffic studies, and provides vehicle volumes at signalized intersections.
- Signals - The signal crew installs and maintains traffic signals and street lights.
- Sign Maintenance - The sign crews perform street striping, provide barricades, and maintain downtown parking meters. The sign shop is also included in this section.
- Computerized Traffic Signal System - The computerized traffic signal system allows traffic signals that are connected inside the city limits to be monitored from the office.

**CONCLUSIONS/FINDINGS/RECOMMENDATIONS**

The Internal Audit Office expresses appreciation to the management and personnel of Traffic Engineering for their cooperation and assistance provided during our audit. Based on our review, we believe management could enhance the efficiency and control



environment by addressing the following concerns:

- Make Operation Manuals or Instruction Booklets available.
- Establish a standardized review process.
- All Service Requests should be sent to one centralized location.
- Have a formal operation and procedure inventory book.

## 1. Operation Manuals or Instruction Booklets

**Criteria:** Operation Manuals or Instruction Booklets should be the foundation to run operations and business processes at Traffic Engineering. Standardized operational manuals ensure stability, create uniform levels of service, and ensure quality. Operation manuals could be the primary tools for training new and current employees.

**Condition:** We observed that personnel at Traffic Engineering know what to do and how to accomplish their daily tasks. However, when we requested a copy of Operation Manuals or Instruction Booklets, none were available. There were manuals and operation books from LaDOTD (Louisiana Department of Transportation and Development) and transportation industry.

**Effect:** Operation Manuals or Instruction Booklets are not in place to ensure the proper transfer of knowledge and standardize all processes to run business at the Traffic Engineering.

**Cause:** There were not any plans to have Operation Manuals because most employees at Traffic Engineering are long-tenured employees; they know what to do and how to accomplish their daily tasks and requirements.

**Recommendation:** We recommend that Traffic Engineering management revise its policy to include Operation Manuals or Instruction Booklets as requirements for its business operations. Standardized Operational Manuals with details in cross training and day-to-day operations such as money deposit, inventory in and out, and customer service processing requests could serve as invaluable tools in training new employees and decreasing mistakes and errors.

**Management Plan of Action:** Revise existing, out-of-date Operations Manual and Standard Operating Procedures.

**Time frame:** 8-12 Months

## 2. Customer Service Request Program Updates and Completeness

**Criteria:** The current Customer Service Request Program (WebQA) is a web based program used to track and manage work order requests for service from the citizens of the City of Shreveport.



**Condition:** We observed the Customer Request Program is a very useful tool to track and manage numerous service requests. However, some of the “closed out” or “completed” requests were not fully and completely closed out or completed. We reviewed the Traffic Engineering requests listed in that program and there were 348 requests that were marked as closed out or completed. Out of those 348 closed out requests, we randomly picked 25 of them and observed 6 were not fully completed as stated. Some requests were changed or modified later even with closed/completed notifications in the program. For example, the picture at right shows a Service Request was closed as completed for a green arrow traffic signal request at the intersection, but that intersection still does not have a green arrow signal.



Picture of incomplete customer request

**Effect:**

- Inaccuracy of the true number of open and closed out Service Requests
- Possibly not fulfilling all requests as needed and in a timely manner

**Cause:** Possible management oversight.

**Recommendation:** We recommend that Traffic Engineering:

- Close service requests when all possible work is done and/or no further work is needed or feasible.
- Furthermore, Traffic Engineering management should establish a standardized review process and follow up on all service requests to ensure full completion and timely response to citizens' requests.

**Management Plan of Action:** Issue revolved around an employee who mistakenly closed a number of complaints completely instead of just employee's part. The items inappropriately closed were reopened and properly responded to. The employee in question received remedial training and is now addressing them properly.

**Time frame:** Completed

### 3. Process for Documenting and Responding to Service Requests

**Criteria:** A standardized process for all service requests is necessary to keep track of all the requests from numerous sources such as the citizens and City Council members.

**Condition:** Service requests from numerous sources were requested through different methods – by phone calls, emails, or verbal requests from City Council members via the



Public Works Director. There was no formal protocol or policy of how to handle different requests from different sources. We were made aware of some instances where requests had come in for service, but Traffic Engineering management was not aware of those requests.

**Effect:**

- Possibility that some service requests would not be included in the list of requests on the Customer Request Program (WebQA) system.
- Not able to fulfill all service requests from all sources in a timely manner.

**Cause:** Management oversight. No formal policy or protocol of how to handle service requests from different sources.

**Recommendation:** We recommend that Traffic Engineering management and Public Works management work in conjunction to develop:

- A standardized process to handle service requests.
- A centralized location for further processing and response where all service requests should be sent.

**Management Plan of Action:** Present issues result from multiple points of contact within the Department. Solution involves creating a Department Directive outlining the process for receiving and responding to requests so that requests are handled in the same manner and responded to in the same manner.

**Time frame:** 4 Weeks for creation of Department Directive Approval of Director-This will be problematic as there is no director at this time. Finalization will require waiting for new director to be hired.

#### 4. Inventory Accuracy

**Criteria:** An accurate count of inventory is necessary to run the operation of any warehouse or inventory entity. Proper monitoring of the effectiveness of the annual inventory count and the inventory procedures would enable management to ensure items are in stock and ready for the next material requirement. When warehouse personnel know exactly what inventory they have and where it is stored, they could retrieve it promptly and fill requests of materials efficiently.



Inventory area of warehouse

**Condition:** We visited the Traffic Engineering warehouse on several occasions. While most of the items we audited were correct, some were not correct (on hand quantity versus quantity from inventory record). For one inspection count, we randomly selected



15 items to check for inventory accuracy and 2 of them were not correct. During the yearly City wide inventory count, the Traffic Engineering Warehouse did a physical count of 570 different parts in its stock, and had a total of 107 discrepancies from the inventory record book.

**Effect:**

- Inaccurate inventory count in the system.
- An inaccurate inventory could result in out-of-stock items, which could result in late delivery of production or service requirements.

**Cause:** Management oversight. Employees did not fully follow protocols and procedures of the Warehouse completely.

**Recommendation:** Traffic Engineering management:

- Could improve the accuracy of the inventory system by developing a warehouse manual and monitoring employees to ensure full compliance.
- Should have a formal operation and procedure inventory book to ensure proper protocols are followed. The procedure manual book should detail the steps employees should take to bring materials in and out the Warehouse from production service requirements.
- Should ensure employees follow proper steps to record inventory in and out of the system. Warehouse personnel should use current computer program to track and update all inventory in a timely manner.

**Management Plan of Action:** Obtain a new automated, software based inventory system. Estimated cost for this system is \$30,000 to \$40,000.

**Time frame:** This will require budget support. The division will seek funding in the upcoming budget.

Prepared by:

Brian Nguyen  
Staff Auditor



IAR 900015-04  
April 13, 2015

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Approved by:

A handwritten signature in cursive script that reads "Leanis L. Steward".

Leanis L. Steward, CPA, CIA  
City Internal Auditor

bn:nd

c: Mayor  
CAO  
City Council  
Clerk of Council  
City Attorney  
External Auditor  
Public Works