



**METROPOLITAN GOVERNMENT OF  
NASHVILLE AND DAVIDSON COUNTY  
OFFICE OF INTERNAL AUDIT**

Professional Audit and Advisory Service

FINAL REPORT

Audit of the Davidson County Register of Deeds

Date Issued: April 17, 2012

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*The Metropolitan Nashville Office of Internal Audit is an independent audit agency  
reporting directly to the Metropolitan Nashville Audit Committee*

# EXECUTIVE SUMMARY

April 17, 2012

The Metropolitan Nashville Office of Internal Audit performed an audit of the processes and controls in place at the Davidson County Register of Deeds. The audit focused on revenue, procurement, and payroll cycles. Additionally, the audit reviewed a significant information technology application, the Document Technology System, utilized by the Davidson County Register of Deeds.

## Results in Brief

- *Were revenue receipts received at the Register of Deeds for services provided complete and accurately captured in the Document Technology System and accounting records?*

### **Inconclusive - Scope Limitation**

Deficiencies in controls with the Document Technology System were significant enough that a scope limitation existed. Consequently, the Office of Internal Audit was unable to render an opinion whether stated revenue collections were complete and accurate.

- *Were payroll expenditures complete and accurately stated in the accounting records?*

**Yes.** Three separate payroll periods tested demonstrated employees were paid the correct amount for work actually performed and employee payroll deductions were accurate.

- *Were expenditures accurately recorded, reasonable, prudent and related to the operations of the office?*

**Yes.** Test work of 75 purchases showed that expenditures were reasonable, prudent and related to the operations of the Register of Deeds.

## Key Recommendations

- Incoming request for service should be logged and all work distributed be reconciled to work actually completed in the Document Technology System.
- Only those employees not involved in the handling of revenue should be granted administrative rights in the Document Technology System.
- The Register of Deeds should develop and implement a system whereby any modifications made to the Document Technology System which impact financial transactions are reviewed by management.
- The Register of Deeds should work with the Document Technology System database administrator to ensure financial transactions are sequentially numbered, reviewed and reconciled to the accounting records.
- Initiate additional controls for incoming mail.
- All revenue collections should be retained in a secure location.

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# INTRODUCTION

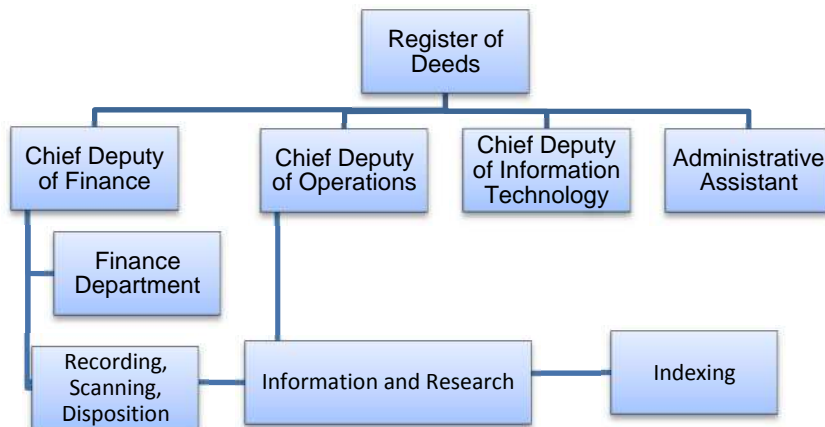
## AUDIT INITIATION

The Metropolitan Nashville Office of Internal Audit's approved annual audit work plan included an audit of the Davidson County Register of Deeds, hereinafter referred to as Register of Deeds. The audit was initiated due to the length of time (in excess of five years) that has elapsed since the last internal audit was performed of this function.

## BACKGROUND

The Register of Deeds Office is a constitutional office established by Tennessee Code Annotated § 8-13-108 through § 8-13-117. The mission of the Register of Deeds is to "Record all documents pertaining to real estate and documents relative to the Uniform Commercial Code. To maintain the integrity of all official records and offer courteous, friendly, and expeditious service to all who use the Register's office." From July 1, 2009, to June 30, 2011, the Register of Deeds recorded over 211,000 documents and collected \$36,603,029 in taxes and fees. The current Register of Deeds, Bill Garrett, has served in this position since September 1998. The Register of Deeds employs 26 full time staff members.

The organizational chart for the Register of Deeds, as presented in the Citizens Guide to the Nashville Metropolitan Budget, is presented below



## FINANCIAL HIGHLIGHTS

The Register of Deeds has a unique relationship with Metro Nashville. The Register of Deeds receives an annual appropriation amount from Metro Nashville to help cover operating expenses. The Register of Deeds, in turn, collects revenue and generates expenses throughout a given year. In December and June of each fiscal year, any net gains are forwarded back to Metro Nashville. A listing of the yearly appropriations received by the Register of Deeds and subsequent excess fees returned to Metro Nashville are listed below:

### Exhibit A – Net Fees for Register of Deeds by Fiscal Years

	2011	2010	2009	Totals
Appropriation from Metro to Register of Deeds	\$499,500	\$ 563,300	\$ 665,300	\$1,728,100
Excess Fees from Register of Deeds to Metro Nashville	900,000	1,000,000	1,225,000	3,125,000
Net Excess Fees from Register of Deeds to Metro Nashville	\$400,500	\$ 436,700	\$ 559,700	\$1,396,900

*Source: Metro Nashville's EnterpriseOne Financial System and Citizens Guide to the Metropolitan Budget*

Expenditures related to appropriations received by Metro Nashville and the excess fees returned are recorded in the EnterpriseOne financial system. All other financial transactions are recorded internally by the Register of Deeds utilizing QuickBooks financial software. The Office of Internal Audit obtained trial balances for transactions recorded in both QuickBooks and EnterpriseOne. A summary of revenue collected by the Register of Deeds as well as the cost of operations and net receipts are presented below.

### Exhibit B – Expenditure and Fee Highlights by Fiscal Years

	2011	2010
<u>Revenue</u>		
Request for Service	\$3,071,746	\$3,116,363
Fees for Collecting State Taxes	364,518	365,407
Metro Allocation	499,500	563,600
<b>Total Revenue</b>	<b>\$3,935,764</b>	<b>\$4,045,370</b>
<u>Expenses</u>		
Payroll	\$2,364,354	\$2,276,999
Non-Payroll, Net Internal Service Fees	403,570	435,735
Internal Service Fees	181,809	173,806
<b>Total Expenses</b>	<b>\$2,949,733</b>	<b>\$2,886,540</b>
Excess of Revenues Over Expenditures	\$ 986,000	\$ 1,158,829
Distribution to the Metropolitan Government	\$ 900,000	\$1,000,000
<b>Balance After Expenses and Distribution</b>	<b>\$ 86,030</b>	<b>\$ 158,829</b>

*Source: Metro Nashville's EnterpriseOne Financial System*

**Exhibit C –Top Vendors for Period July 1, 2009 to September 30, 2011**

EnterpriseOne Purchases <sup>1</sup>		Procurement Card Purchases	
Vendor Name	Amount	Vendor Name	Amount
Document Technology Systems	\$79,266	CDW Government	\$5,846
Laser One	19,213	Southwest Air	5,145
Novacopy	14,302	Marriott - Wardman Park	2,622
Pitney Bowes	12,330	Mid-South Business Furniture	2,543
A Z Office Resource	7,688	Allergy Buyers Green More	2,384

Source: Metro Nashville's EnterpriseOne Financial System

**Key Processes**

The engagement focused on processes related to the revenue, procurement and payroll cycles. A review of the primary information system application involved in the operational and revenue cycle was also conducted. A summary of key controls related to these processes is summarized below:

Knowledgeable and Competent Staff: The Register of Deeds had a veteran staff that was very knowledgeable and possessed the skill sets needed to perform their jobs. The current Register of Deeds has served in the position since 1998.

Segregation of Duties: Office policy dictates that cashiers were not allowed to modify revenue transactions. Modification of a transaction must be approved and executed by a supervisor. A separate, designated employee who does not have cashiering responsibilities reviewed and agreed amounts listed on the LP Reports to actual amounts collected by the cashiers and prepared deposit slips. The Chief Deputy of Finance reviewed deposit slips and agreed amounts to the LP Report. A separate party, the administrative assistant, as part of their monthly bank reconciliation process, ensured deposits that should have been made were actually recorded at the bank. Accounting entries were made by the Chief Deputy of Finance.

Expenditures were processed by the Register of Deeds Administrative Assistant and approved by the Register of Deeds.

Payroll was processed by the Chief Deputy of Finance and approved by the Register of Deeds.

**Note:** The design of controls pertaining to the revenue cycle, outside the Document Technology System, were well designed and, in good faith, implemented. The Register of Deeds relies on the Document Technology System to accurately capture and record all revenue collection activity. Significant control weaknesses were noted within this system (see Observation H). These weaknesses in effect, rendered the operational effectiveness of the controls outlined above inadequate. When these weaknesses in the Document Technology System can be eliminated, the

<sup>1</sup> Excludes building rent payments of \$208,303 to Powers Management, LLC

control procedures in the paragraph above should then become operationally effective.

Review/Approval/Reconciliation: The Register of Deeds had a series of review processes to help ensure office objectives were being met. Revenue transactions were reviewed by a designated employee to ensure amounts actually deposited agreed to what was collected as recorded in the Document Technology System. Amounts actually deposited in bank accounts were reviewed by the administrative assistant to ensure amounts deposited were actually recorded. The Register of Deeds performed monthly bank reconciliations. Additionally, the Chief Deputy of Finance was constantly monitoring bank account, escrow accounts, debit accounts, and accounting reports to identify potential anomalies.

Payroll and procurement transactions were reviewed and processed by the Register of Deeds.

Document Recording: From an operational perspective, all recordings were reviewed by the Indexing Unit. All rejections were approved and processed by a supervisor. The Document Technology System controls help ensure documents were recorded in accordance with department guidelines.

For example, all documents were given a sequentially numbered instrument number and a bar code upon initial recording; the bar code was used to track the document throughout the operating cycle. The document was transferred to various queues that were worked by various departments. Certain tasks must be performed before the document can be released from a respective queue. For example, the Recording Unit enters the number of pages to be recorded and this quantity should agree with the number of pages scanned into the system by the Scanning Unit. The number of pages drives the amount charged and serves as a control to ensure that the customer was billed correctly and that the number of pages that should be recorded was recorded. The Document Technology System also assigns the correct fee for the service provided which helps ensure the correct amount was charged to the customer.

### **Information Technology Systems**

- Document Technology Systems: used by Register of Deeds in recording all documents as well as capturing all fees for service received by the Office.
- QuickBooks: accounting software utilized by the Register of Deeds.
- Metro Nashville's Enterprise One: used to account for all expenditures related to Metro's appropriation to the Register of Deeds as well as excess fees returned to the Metropolitan Government.
- Softime: computer software used for requesting time. i.e. sick and vacation leave.
- Timekron: used to keep track of employees at a given time. Employees log in and out when reporting to work, going to lunch and departing using this system.

## **OBJECTIVES AND CONCLUSIONS**

### **Revenue Cycle**

1. *Were revenue receipts received at the Register of Deeds for services provided complete and accurately captured in the Document Technology System and accounting records?*

**Scope Limitation - Inconclusive.** It was impossible to assure the completeness of reported revenues and transactions. The accuracy and completeness of reported revenue transactions at the Register of Deeds office was highly dependent on the integrity and reliability of the Document Technology System. All revenue related activity was captured by this system which subsequently generated reports used to record revenue collections in the accounting system. While the Document Technology System has strong controls pertaining to the operation cycle, deficiencies in controls related to financial transactions were significant enough that a scope limitation existed for revenue completeness (see Observation H).

Specific control weaknesses which increase the risk that transactions could be deleted, reversed, and/or modified without detection includes:

- An excessive number of employees had administrative rights to the Document Technology System. Several of these employees also had custodial duties of monetary assets and/or access to revenue collections.
- The difficult to understand and use audit table reports significantly hindered the ability to identify; track or monitor modifications, reversals, and/or deletions made that pertained to financial transactions.
- The Document Technology System created a sequentially numbered transaction ID for each request for service. The system then may “burn” or delete these transaction numbers when a request for service was rejected or not processed within a given time period. This results in gaps in the transaction ID number listing; thus, making it impossible to identify and research the missing transaction numbers.
- Logs were not maintained for incoming requests for service. Such a log of this type could be reconciled to the Document Technology System to ensure all requests for service were processed and recorded.

**Note:** Nothing specific came to the attention of the Office of Internal Audit that indicates that funds or other assets have been subverted or removed. However, the Office of Internal Audit was unable to render an opinion as to whether revenue collected by the Register of Deeds was complete and properly stated in the accounting records.

Controls outside of the Document Technology System were working as management intended. A random sample of daily receipts over 95 days showed the amounts reported as collected by the Document Management System agreed with amounts on the deposit slips, corresponding bank statements, and QuickBook accounting records.



2. *Were revenue receipts recorded at the Register of Deeds deposited in the bank account within two business days and for the correct amounts?*

**Yes.** Testing of 95 deposits made by the Register of Deeds demonstrated that all 95 deposits were made within two business days of receipt.

3. *Were revenue receipts properly secured?*

**Generally yes.** The Register of Deeds retains a safe where revenue receipts prepared for deposit were secured. Knowledge of the combination to the safe was restricted to a small number of staff. Spot checks to ensure the safe was properly locked during the day were conducted during the engagement.

However, staff at the Register of Deeds retained collected checks on top of their desks during the day as opposed to a secured area (see Observation D).

4. *Were bank reconciliations current and complete?*

**Yes.** Three monthly bank reconciliations were reviewed. It was noted that reconciliations were regularly and routinely performed within 30 days of receipt of the bank statement.

5. *Did the accounting records for the Register of Deeds reflect the financial transactions represented by Document Technology System records?*

**Scope Limitation - Inconclusive.** Testing of 95 deposits made by the Register of Deeds within the scope period was conducted. This testing revealed that the amounts deposited agreed to the reports and the applicable bank statement. A report generated by the Document Technology System stating the total amount collected by the Register of Deeds for the fiscal years during the scope period was agreed to the QuickBooks trial balance.

The information in the QuickBooks financial records mirrored that in the Document Technology System. However, information in the QuickBooks accounting records was dependent on information in the Document Technology System. Given the integrity of the information in the Document Technology System cannot be assured, a scope limitation existed concerning the accuracy of the information in the QuickBooks accounting records (see Observation H).

### **Payroll Cycle**

6. *Were employees paid the correct amount for time actually worked?*

**Yes.** Payroll amounts paid for each employee were reviewed for three separate payroll periods. The amounts paid to employees were agreed to human resource records showing that employees were paid the correct amount. The TimeKron system was also reviewed to gain assurance that each employee had logged in and worked during the payroll period.

7. *Were employee payroll deductions such as taxes, insurance, etc. accurately calculated and withheld?*

**Yes.** The Excel spreadsheets used by the Register of Deeds that details each employee, their gross pay, all applicable deductions, and the related net pay were obtained for three payroll periods. Each deduction was agreed to supporting documentation and/or recalculated to ensure the correct amount was deducted. Moreover, each spreadsheet was mathematically recalculated to ensure the employee's net pay amount was correct. Finally, the amount calculated as what should have been paid by the Register of Deeds for that payroll period was tied to the corresponding bank statement.

8. *Did employee payroll deductions match the amounts paid to related third parties?*

**Yes.** The Excel spreadsheet used by the Register of Deeds that details each employee, their gross pay, all applicable deductions, and the related net pay was obtained for three payroll periods. The amounts calculated for what should be paid to appropriate parties for applicable deductions was agreed to the amounts shown as paid on the bank statements. It was also noted that payments were made within two weeks of the payroll date.

9. *Were employee leave balances maintained accurately in the SoftTime system?*

**Yes.** The leave balances of six Register of Deed employees were reviewed. Specifically, the balances and applicable accruals and deductions were calculated for each employee. The ending balances were then agreed to the Register of Deeds SoftTime system.

10. *Were payroll expenditures accurately recorded in the QuickBooks accounting records and did bank statements agree with the QuickBooks accounting records?*

**Yes.** The Excel spreadsheet used by the Register of Deeds that details each employee, their gross pay, all applicable deductions, and the related net pay was obtained for three payroll periods. Each deduction was agreed to supporting documentation and/or recalculated to ensure the correct amount was being deducted. Moreover, each spreadsheet was mathematically recalculated to ensure the employee's net pay amount was correct. Finally, the amount calculated as what should have been paid by the Register of Deeds for that payroll period was tied to the corresponding bank statement.

### **Procurement Cycle**

11. *Were all expenditures made by the Register of Deeds accurately entered into the QuickBooks or EnterpriseOne accounting records?*

**Yes.** Seventy five expenditures were judgmentally selected for test work. For each sample item, supporting documentation was obtained to ascertain if each purchase was supported by a receipt/invoice, if the said receipt/invoice was mathematically correct, if the purchase appeared to be related to Register of

Deeds business and if the expenditure appeared reasonable and prudent. No exceptions were noted.

*12. Were significant vendors selected through a systematic, methodical process which fosters open competitions and facilitates obtaining the best service/product for the best value/price?*

**Yes.** The majority of purchases made by the Register of Deeds were related to vendors under contract with Metro Nashville.

## OBSERVATIONS AND RECOMMENDATIONS

### ***A – Incoming Mail/Work Reconciliation***

The Register of Deeds lacked a process whereby incoming mail and the related requests for service were logged and subsequently reconciled to actual work completed. The Register of Deeds had one designated employee who received the mail. This person forwarded the unopened mail to a supervisor. The supervisor counted all incoming mail and distributed requests for service proportionally to the number of recorders available on a given day. The mail was then distributed to the recorders unopened. The distribution was based on the number of pieces of mail received without taking into account that a single piece of mail may contain multiple requests for service. Once the requests for service were input into the Document Technology System, multiple controls were in place to ensure the request for services were completed properly.

Developing and executing a process to log all incoming requests for service and related payments and then reconciling to work processed in the Document Technology System could help provide assurance all requests for service received by the Register of Deeds are completed.

#### *Criteria:*

- *The COSO Internal Control - Integrated Framework* establishes a common definition of internal controls, standards, and criteria by which organizations can assess their internal control systems. Logging incoming receipts and reconciling the log to actual work completed enhances the control activities and monitoring component of a strong internal controls framework.
- Prudent Business Practice
- *Internal Control and Compliance Manual for Tennessee Municipalities, June 2010, Title 6 – Control Activities, Chapter 14 – Revenues/Receivables General Procedures. Section 4* states: “All mail is delivered intact (unopened) to two or more designated employees.”

#### *Risk:*

- Requests for service will not be entered into the Document Technology System.
- Incoming revenue will be intercepted and diverted.

#### *Recommendations:*

The management for the Register of Deeds should:

1. Implement a process whereby all incoming mail is collected by two designated employees.
2. Ensure mail is opened by both employees. A log listing all payments and request for services received should be maintained. Upon completion of

the log, each employee should sign the log and forward all mail received with the log to a supervisor.

3. Ensure that a supervisor distributes requests for service and applicable payments to staff. The number of request for service and amount of payments should be documented by a supervisor.
4. Ensure that a supervisor reconciles the number of request for service and payments with information recorded in the Document Technology System and/or the Customer Return Log.

## ***B – Segregation of Functions***

Incompatible functions of cash till operations and system administrator functions were not segregated. As an example, members of the management team have administrator rights to the Document Technology System and also operate cash tills. The Document Technology Systems showed members of management had recorded financial transactions. Inquiries with management revealed that, in some instance, members of management did indeed operate cash tills.

### *Criteria:*

- *COSO Internal Control - Integrated Framework* establishes a common definition of internal controls, standards and criteria by which organizations can assess their internal control systems. Having an adequate accounting software system enhances the control activities and monitoring component of a strong internal controls framework.
- Sound business practices

### *Risk:*

Cashiers who also have administrative rights could potentially accept payment, reverse the payment off the account, and retain the funds for personal use without detection.

### *Recommendation:*

The management for the Register of Deeds should ensure only those employees who are not involved in operating cash tills or accepting payments have administrative rights to the Document Technology System.

## ***C - Review of Modifications to the Document Technology Systems***

A formalized process for management to review financial modifications made to the Document Technology System did not exist.

### *Criteria:*

- *COSO Internal Control - Integrated Framework* establishes a common definition of internal controls, standards and criteria by which organizations can assess their internal control systems. Management review of such reports is critical in ensuring a strong internal control

framework. Such a review enhances the control activities and monitoring component of a strong internal controls framework.

- *Internal Control and Compliance Manual for Tennessee Municipalities – Title 5, Chapter 2, Section 6*: Municipal officials should ensure that a management level employee should periodically review “the reporting process and relevant computer programs to determine whether they need to be updated, upgraded, or modified”.
- Sound business practices

*Risks:*

The possibility of unauthorized account adjustments is increased without a review and monitoring of adjustment transactions

*Recommendation:*

The management for the Register of Deeds should develop and implement a process whereby financial modifications made to the Document Technology System are periodically monitored and reviewed. Documentation of such reviews should be retained.

## ***D – Safeguarding of Assets***

Payments received and processed were not adequately secured. Specifically, payments were retained on top of employee’s desks throughout the day until employees closed their respective tills and turned their proceeds over to management. Due to the large number of checks received, a check scanning service could be effectively utilized so that checks are instantly deposited upon acceptance at the Register of Deeds office. It has been shown this is working effectively in other locations.

*Criteria:*

- *COSO Internal Control - Integrated Framework* establishes a common definition of internal controls, standards, and criteria by which organizations can assess their internal control systems. Properly safeguarding assets enhances the control activities and monitoring component of a strong internal controls framework.
- *Internal Control and Compliance Manual for Tennessee Municipalities – Title 5, Chapter 3, Section 3* states “all cash maintained on hand and collections not yet deposited are kept in a secure location”
- Prudent Business Practice

*Risks:*

- Funds left on employee’s desks throughout the day are vulnerable to loss and theft.
- Hand delivering deposits to banks increases the risk of robbery and harm to employees.

*Recommendations:*

The management for the Register of Deeds should:

- 1) Ensure revenue receipts are retained in a secure location in which only the respective cashier has access.
- 2) Evaluate utilizing an industry standard check scanning service so that checks are instantly deposited upon acceptance at the Register of Deeds.

## ***E – Public Announcement of Job Postings***

Position vacancies at the Register of Deeds have not been widely advertised. This diminishes the ability to recruit from a large pool of applicants and hampers the ability of the Register of Deeds to hire the most qualified candidates. Because the Register of Deeds was not required to adhere to Metro Civil Service Rules, the office was not mandated to advertise open positions through the Metropolitan Human Resources Office. Currently, the Register of Deeds retains a file of all resumes received by the office. When a position becomes open, the Register of Deeds utilizes this file, or recommendations from staff, as its pool of applicants. A larger advertisement of these positions would enhance the ability of the Register of Deeds to hire the best possible applicant for a position.

*Criteria:*

- *COSO Internal Control - Integrated Framework* establishes a common definition of internal controls, standards, and criteria by which organizations can assess their internal control systems. Adequately communicating job announcements enhances the Information and Communication component of a strong internal controls framework. Moreover, maintaining appropriate employee candidate identification, screening and hiring practices is an integral part of the human resource function.
- *Internal Control and Compliance Manual for Tennessee Municipalities – Title 5, Chapter 1, and Section 2* states “Municipal officials should ensure that qualified individuals are hired and that appropriate training is provided”.
- Prudent Business Practice

*Risk:*

This process limits the number of potential applicants. Consequently, the ability to find the most suitable and qualified applicants is diminished.

*Recommendation:*

The management for the Register of Deeds should announce all hiring opportunities to the public. This could be accomplished by utilizing the services of the Metropolitan Nashville Human Resources Office to place “courtesy postings” on their vacancy announcement board.

## ***F – Formalized Compensation Analysis***

Salaries of employees at the Register of Deeds were based on management's professional judgment with no formalized external analysis performed. This increases the risk that employees were either not paid a rate comparable to or competitive with market rates or that excess resources were expended by paying above market compensation. Payroll represented over 75% of this office's yearly expenditure. A formal compensation analysis (similar to the one conducted by the Metropolitan Human Resources Office) would provide assurance that pay rates and salaries are set using the latest industry data and compensatory with the skill sets and experience required of particular positions.

### *Criteria:*

- *COSO Internal Control - Integrated Framework* establishes a common definition of internal controls, standards, and criteria by which organizations can assess their internal control systems. Having a proper compensation system is critical in ensuring a strong internal control framework. Such a system enhances the Control Environment component of a strong internal controls framework.
- Prudent Business Practice

### *Risk:*

Without performing a formalized compensation analysis, employee salaries and pay rates may not conform to those paid in the local labor market. Compensation that does not mirror the local labor market can diminish the ability of an entity to adequately recruit and retain the most talented and qualified employees.

### *Recommendation:*

The management for the Register of Deeds should obtain an independent, formal compensation study in order to ensure pay rates and salaries are commensurate with job functions.

## ***G – Formal Travel Policy***

The Register of Deed's Office did not have a written travel policy to provide guidance related to acceptable and unacceptable travel expenditure practices for staff. Past practices of acceptable and unacceptable travel expense policy has been based on oral instructions provided to staff. Detailed written procedures will formalize travel expense policy for future office staff.

### *Criteria:*

*The COSO Internal Control - Integrated Framework* establishes a common definition of internal controls, standards, and criteria by which organizations can assess their internal control systems. Having a formal, written travel policy enhances the Information and Communication component of a strong internal controls framework.



*Risk:*

Without a formal travel policy there is no criteria to ensure that travel expenditures are reasonable and conform to management requirements.

*Recommendation:*

The management for the Register of Deeds should develop, communicate and implement a formal, written set of travel procedures pertaining to travel. As an alternative, the Metro Nashville travel policies could be adopted.

## ***H – Document Technology System Control Weaknesses***

Numerous control weaknesses related to the Document Technology System and its associated revenue collection processes were observed as follows:

- *Excessive Number of Employees with Administrative Rights* - The Register of Deeds had an excessive number of employees with administrative rights to the Document Technology System. Fourteen of the 26 Register of Deeds employees, or 53%, had administrative rights. Several of these employees also operate a cash collection till. Administrative rights allow employees to make modifications within the Document Technology System. Cashiers with these rights have the ability to modify and/or delete payment information. The number of employees with administrative rights should be restricted to a very limited number.
- *Authentication information not encrypted* - A table existed within the Document Technology System which contained each employee's user ID and password in plain, unmasked text. Any user with rights to the SQL connection could view this information.
- *Erasable Audit Trail* - The Document Technology System audit trail of transactions that were modified or deleted can be removed and purged from the system via an SQL connection. Once they were purged, there would be no subsequent indicator that a modification or reversal of transactions had been made.
- *Gaps in Transaction Numbers and the Inability to Ensure the Completeness of Transactions* - An excessive number of gaps existed among total available transaction ID's. The Register of Deeds utilizes four major *Sequel* tables within the Document Technology System to capture and record financial transactions.

The four major tables are presented below:

1. *tblCashRegisterTrans* – records all transactions that occurred, including mandatory transaction fees;
2. *tblTransDetail* – provides a more detailed recording of the information for each transaction in the *tblCashRegisterTrans* table (for example, instruments associated to the transaction, transaction fees, taxes, disposition status etc.);

3. tblTransPayment – records all payments for each transaction with details such as payment type, payment amount, check number, and/or escrow account etc.;
  4. tblEscrowTrans – records all transactions from escrow accounts including payments and deposits. When payments for transactions from tblCashRegisterTrans table were made using an escrow account, the same transaction ID was used in this table. When deposits were made to escrow accounts, this table recorded a new transaction ID.
- Lack of Written Procedures for Significant Changes made to the Document Technology System - The Register of Deeds does not have a written procedure or policy in place regarding how to handle significant changes made to the Document Technology System; specifically changes made to the system configuration and/or user rights. The current process entails a Register of Deeds IT staff member making the request via email to the Register of Deeds. Once approved, the IT staff member executes the change.
  - User Rights not Tied to Employee Responsibilities - The Register of Deeds does not have established user right definitions tied to specific job functions. User rights assigned to an employee should be a function of the employee's job responsibilities. Employees should only have rights to functions necessary for the performance of their position. Currently, a significant number of employees have rights in the system unrelated to, and in excess of, their specific job responsibilities.
  - Excess Number of Employees Have Direct Access to "the Vault" - Documents recorded by the Register of Deeds are stored in a file server referred to as "the Vault". An excessive number of employees have direct access to this vault. Employees who have access to this file server have the ability to delete the documents without detection. All access to stored documents should be through TracRecord application interfaces, instead of file server interfaces.

The audit included multiple analytical procedures on various aspects of the Document Technology System. Three of these analytical procedures presented below increased concerns regarding the completeness of transactions reported by the Document Technology System.

Analysis One: Sequential transaction ID numbers were generated by the Document Technology System each time a request for service was processed. However, these numbers were not system generated and an end of year process started a new sequence of transaction ID for each new year. Additionally, there was transaction IDs that were out of sequence. Significant gaps existed in the resident transaction ID numbers for each calendar year. A gap analysis of transaction ID numbers for calendar years 2010, 2011 and 2012 revealed there were 16,980 transaction numbers missing, including 107 escrow transactions that used discrete sequence ID numbers. Thus, the completeness of reported transactions including the completeness of escrow transactions was not assured.

Gap Analysis	2010	2011	2012
Total Transactions	74,596	74,972	8,155
Number of Gap Transactions	7,773	7,976	1,245
Gap Transaction Percentage	10%	11%	14%

The Document Technology System database administrator described how some transaction numbers are “burned” when the systems remains idle for a period of time. The *burned* transaction number is then lost from the system. In order to ascertain the completeness of reported transactions it is important to be able to account for every transaction number related to financial transactions.

Analysis Two: A second analysis conducted on the tblTransPayment table revealed that two transactions could not be found in the other three primary revenue tables (listed above). The Document Technology System database was still researching the reasons for these two transactions at the moment of this writing. Fourteen transactions that failed going through the transaction table were replaced by new transactions and payments were recorded again in the payment table. There was no identifiable flag to identify the double recording of payments. Although the monetary amount of this particular issue was insignificant, it adds to the lack of control over transaction completeness.

Analysis Three: the third analysis noted two credit transactions in the tblEscrowTrans table that could not be tied back to their corresponding transactions. These two transactions were identified in the missing transactions found in Analysis Two but with zero deposit amounts.

The Register of Deeds currently lacks the ability to reconcile transaction ID numbers to corresponding Document Technology System revenue reports. Consequently, the ability of the Register of Deeds to ensure that all financial transactions that should be reported are actually reported in the corresponding Document Technology System reports and accounting records is materially diminished. The Office of Internal Audit analytical procedures could also not account for and reconcile financial transactions in order to provide assurance of completeness of reported transactions.

*Criteria:*

- IT Governance Institute’s Control Objectives for Information Technology (COBIT 4.1)
  - *AI2.3 Application Control and Auditability* states: “Implement business controls, where appropriate, into automated application controls such that processing is accurate, complete, timely, authorized and auditable.”
  - *AI2.4 Application Security and Availability* states: “Address application security and availability requirements in response to identified risks and in line with the organization’s data classification, information architecture, information security architecture and risk tolerance.”

- *The COSO Internal Control - Integrated Framework* establishes a common definition of internal controls, standards, and criteria by which organizations can assess their internal control systems. Limiting the number of employees with administrative rights enhances the Control Activities and Monitoring components of a strong internal controls framework.
- Prudent Business Practice

*Risks:*

- The risk of theft and fraud is increased due to these control weaknesses.
- TracRecord users currently have the ability to reverse, delete and/or modify financial transactions and subvert revenue receipts for personal use.

*Recommendations:*

The management of the Register of Deeds should:

1. Study carefully functional needs of the Document Technology System and design user rights based on business functions before implementation of these rights into the system. The design should ensure segregation of duty exists in the system and business processes. Only those rights necessary for specific jobs should be granted within the system.
2. Restrict Administrative rights to very few individuals and segregate these between business administrative rights and IT administrative rights. (i.e.: business administrator should not change user rights and IT administrator should not delete transactions.) Staff with administrative rights should not have access to revenue receipts and/or accounting records.
3. Work with the vendor database administrator (Document Technology Systems) to enhance the audit feature in the system so that all modifications and reversals can be easily identified and reviewed. Each modification/reversal should, at a minimum allow management to see the original entry, the employee making the adjustment, the reason for each, the time and date the original and adjusting entries were made, and the final entry. Audit trails should be locked from alteration and this information should be accessed only through a reporting feature.
4. Work with the database administrator (Document Technology Systems) to ensure that all financial transactions are given a sequential number generated by the system as a control for completeness. No transaction number gaps should be created.
5. Identify critical activities pertaining to its business operations so that the vendor can utilize SQL Traces or Profiler to monitor these critical activities in the database system. The Register of Deeds management should periodically review these tracing results.
6. Create and implement written procedures and policies for handling significant changes to the Document Technology System. Such changes

should be first approved by management and supporting documentation of this approval retained for a reasonable period of time.

7. Work with vendor to find a solution to encrypt user passwords in the system.
8. Work with the database administrator to reconcile the two transaction variances that exist between the tblTransPayment table and the other three tables.

# GENERAL AUDIT INFORMATION

## STATEMENT OF COMPLIANCE WITH GAGAS

The Office of Internal Audit conducted this compliance audit between October 2011 and February 2012 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 observations and conclusions based on our audit objectives. The Office of Internal Audit believes that the evidence obtained provides a reasonable basis for our observations and conclusions based on our audit objectives.

## SCOPE AND METHODOLOGY

The audit period focused primarily on the period July 1, 2009, through September 30, 2011, financial balances, transactions, and compliance of the processes in place during the time of the audit. The methodology employed throughout this audit was one of objectively reviewing various forms of documentation, including written policies and procedures, financial information and various forms of data, reports and information maintained by the Register of Deeds.

## CRITERIA

In conducting this audit, the existing Register of Deeds operations and processes were evaluated using the following criteria:

- State of Tennessee, *Division of Municipal Audit Internal Control and Compliance Manual*, June 20, 2010
- COSO *Internal Control Integrated Framework*
- IT Governance Institute's Control Objectives for Information Technology (COBIT 4.1)
- Prudent government service delivery practices

## STAFF ACKNOWLEDGEMENT

Carlos Holt, CPA, CFF, CIA, CFE, CGAP, Audit Manager  
Bill Walker, CPA, In Charge Auditor  
Qian Yuan, CISA, Staff Auditor

## **APPENDIX A. MANAGEMENT RESPONSE**

- Management's Responses Starts on Next Page -



**BILL GARRETT  
REGISTER OF DEEDS**

P.O. Box 196398 Nashville, TN 37219-6398 615-862-6790 [www.nashville.gov/rod](http://www.nashville.gov/rod)

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April 16, 2012

Mr. Mark Swann  
Metropolitan Auditor  
Office of Internal Audit  
222 Third Avenue North  
Suite 401  
Nashville, TN 37201

Dear Mr. Swann,

This letter will confirm that the Davidson County Register of Deeds Office has received the audit report issued by the Office of Internal Audit. My staff and I were pleased with the many positive comments contained in the report in regards to the operation of the Register of Deeds Office. We acknowledge and agree with the majority of the recommendations contained in the report and have begun the process of putting those recommendations into practice.

It has been a pleasure working with you and your staff. The manner in which the audit was conducted certainly made this a positive exercise for the Register of Deeds Office.

Please let me know if you need further assistance.

Best regards,

A handwritten signature in blue ink that reads "Bill Garrett". The signature is written in a cursive style with a large, sweeping "B" and "G".

Bill Garrett  
Davidson County Register of Deeds



**Audit of the Davidson County Register of Deeds  
Management Response to Audit Recommendations**

Audit Recommendation	Response to Recommendation / Action Plan	Assigned Responsibility	Estimated Completion
<p>A. Management of the Metropolitan Register of Deeds should:</p> <ol style="list-style-type: none"> <li>1) Implement a process whereby all incoming mail is collected by two designated employees.</li> <li>2) Ensure mail is opened by both employees. A log listing all payments and request for services received should be maintained. Upon completion of the log, each employee should sign the log and forward all mail received with the log to a supervisor.</li> <li>3) Ensure that a supervisor distributes requests for service and applicable payments to staff. The number of request for service and amount of payments should be documented by a supervisor.</li> <li>4) Ensure that a supervisor reconciles the number of request for service and payments with information recorded in the Document Technology System and/or the Customer Return Log.</li> </ol>	<p><b>Reject.</b> This process would require additional staff members to open and log mail pieces. The process is also too time consuming and redundant. Currently, we are able to process and record mail on the same day it is received.</p>	<p>None</p>	
<p>B. The management for the Register of Deeds should ensure only those employees who are not involved in operating cash tills or accepting payments have administrative rights to the Document Technology System.</p>	<p><b>Partially Accept.</b> The number of employees with full admin rights has been reduced.</p> <p>Currently working with vendor to separate tasks within administration module to allow for more flexibility and levels of admin rights.</p>	<p>Steve Moore, Chief Deputy of Information Technology</p>	<p>Complete</p> <p>In process. Will be included in software update</p>
<p>C. The management for the Register of Deeds should develop and implement a process whereby financial modifications made to the Document Technology System are periodically monitored and reviewed. Documentation of such reviews should be retained.</p>	<p><b>Accept.</b> We are currently working with vendor to modify audit reports so they are more user friendly.</p> <p>In the meantime, modifications will be tracked on a spreadsheet and checked on a regular basis.</p>	<p>Steve Moore, Chief Deputy of Information Technology</p> <p>Kim LeGate, Chief Deputy of Operations</p>	<p>In process</p> <p>Complete</p>

**Audit of the Davidson County Register of Deeds  
Management Response to Audit Recommendations**

Audit Recommendation	Response to Recommendation / Action Plan	Assigned Responsibility	Estimated Completion
<p>D. The management for the Register of Deeds should:</p> <p>1) Ensure revenue receipts are retained in a secure location in which only the respective cashier has access.</p> <p>2) Evaluate utilizing an industry standard check scanning service so that checks are instantly deposited upon acceptance at the Register of Deeds</p>	<p><b>Accept.</b> Lockable tills have been installed in recording stations.</p> <p><b>Partially Accept.</b> Check scanning has been tried and rejected due to many problems with check scanning machine and increased time to process the deposit.</p>	<p>Steve Moore, Chief Deputy of Information Technology</p> <p>None</p>	<p>Complete</p>
<p>E. The management for the Register of Deeds should announce all hiring opportunities to the public. This could be accomplished by utilizing the services of the Metropolitan Nashville Human Resources Office to place "courtesy postings" on their vacancy announcement board</p>	<p><b>Partially Accept.</b> Since 1998 the Register of Deeds protocol on hiring employees has been to rely on trusted references, review submitted resumes, and also get recommendations from Metro Human Resources. This protocol will continue, however, the Register of Deeds may consider requesting courtesy job postings by Human Resources.</p>	<p>Bill Garrett, Register of Deeds</p>	<p>Upon the hiring of any new employees as positions become available.</p>
<p>F. The management for the Register of Deeds should obtain an independent, formal compensation study in order to ensure pay rates and salaries are commensurate with job functions.</p>	<p><b>Reject.</b> A formal independent compensation study is cost prohibitive.</p>	<p>None</p>	
<p>G. The management for the Register of Deeds should develop, communicate and implement a formal set of travel procedures pertaining to travel. As an alternative, the Metro Nashville or the US GSA travel policies could be adopted.</p>	<p><b>Partially Accept.</b> We will develop our own travel policy by using the Metro policy as a guideline and basing our travel rates on the CONUS Per-diem rate from the US Department of General Services.</p>	<p>Connie Brookshire, Deputy Register</p>	<p>July 1, 2012</p>

**Audit of the Davidson County Register of Deeds  
Management Response to Audit Recommendations**

Audit Recommendation	Response to Recommendation / Action Plan	Assigned Responsibility	Estimated Completion
<p>H. The Management of the Register of Deeds should:</p> <p>1) Study carefully functional needs of the Document Technology System and design user rights based on business functions before implementation of these rights into the system. The design should ensure segregation of duty exists in the system and business processes. Only those rights necessary for specific jobs should be granted within the Document Technology System.</p> <p>2) Restrict Administrative rights to very few individuals and segregate these between business administrative rights and IT administrative rights. (i.e.: business administrator should not change user rights and IT administrator should not delete transactions.) Staff with administrative rights should not have access to revenue receipts and/or accounting records.</p> <p>3) Work with the vendor database administrator (Document Technology Systems) to enhance the audit feature in the system so that all modifications and reversals can be easily identified and reviewed. Each modification/reversal should, at a minimum allow management to see the original entry, the employee making the adjustment, the reason for each, the time and date the original and adjusting entries were made, and the final entry. Audit trails should be locked from alteration and this information should be accessed only through a reporting feature.</p> <p>4) Work with the database administrator (Document Technology Systems) to ensure that all financial transactions are given a sequential number generated by the system as a control for completeness. No transaction number gaps</p>	<p><b>Accept.</b> We are working with the vendor to create categories within Admin to only give access to functions necessary to complete job duties.</p> <p><b>Accept.</b> We have reviewed everyone with Admin rights and removed rights from those who did not require Admin rights to perform their jobs. Additional changes in admin rights will be made when the new software version is released.</p> <p><b>Accept.</b> The vendor is currently making modifications to the reports to show the information required.</p> <p><b>Accept.</b> This change will be included in the new version of the software. It is not cost effective to make the modifications to the current system.</p>	<p>Steve Moore, Chief Deputy of Information Technology</p> <p>Steve Moore, Chief Deputy of Information Technology</p> <p>Steve Moore, Chief Deputy of Information Technology</p> <p>Steve Moore, Chief Deputy of Information Technology</p>	<p>In process. Will be included in software update.</p> <p>In process. Will be included in software update.</p> <p>In process. Will be included in software update.</p> <p>In process. Will be included in software update.</p>

**Audit of the Davidson County Register of Deeds  
Management Response to Audit Recommendations**

Audit Recommendation	Response to Recommendation / Action Plan	Assigned Responsibility	Estimated Completion
should be created.			
5) Identify critical activities pertaining to its business operations so that the vendor can utilize SQL Traces or Profiler to monitor these critical activities in the database system. The Register of Deeds management should periodically review these tracing results.	<b>Partially Accept.</b> SQL Traces and Profiler products are designed to run on a short term basis when there is a sign of a problem. They consume a large amount of storage and slow down the processing time. We will run the program with certain parameters if we suspect a problem.	Steve Moore, Chief Deputy of Information Technology	Complete
6) Create and implement written procedures and policies for handling significant changes to the Document Technology System. Such changes should be first approved by management and supporting documentation of this approval retained for a reasonable period of time.	<b>Accept.</b> We have testing and approval procedures in place and this information is kept in a spread sheet. We will formalize this process in writing.	Steve Moore, Chief Deputy of Information Technology	July 1, 2012
7) Work with vendor to find a solution to encrypt user passwords in the system.	<b>Partially Accept.</b> The vendor is looking into password encryption. However, passwords are currently visible only to individuals with server admin rights and are never accessible thru the software.	Steve Moore, Chief Deputy of Information Technology	In process.
8) Work with the database administrator to reconcile the two transaction variances that exist between the tblTransPayment table and the other three tables.	<b>Accept.</b> There are only two transactions variances in the system and an explanation can be shown for both. This error will not occur in the new version of the software.	Steve Moore, Chief Deputy of Information Technology	In process.