

## **AUDIT COMMITTEE - (JUNE 19, 2007)**

### **INTERNAL AUDIT REPORT OF ROADS MAINTENANCE(PUBLIC WORKS)**

#### **Recommendation**

The City Auditor recommends :

That the Internal Audit Report of Roads Maintenance(Public Works) be received.

#### **Economic Impact**

Internal Auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes.

The implementation of corrective actions in the audit report will have a positive impact on the operation; some impact will be economic and measurable while others may not be measurable. Other benefits will be improvement in risk management, control and governance. Internal Audit adds value to all areas of City activity which are audited.

#### **Communications Plan**

Not Applicable

#### **Purpose**

To present to the Audit Committee, the Internal Audit Report of Roads Maintenance(Public Works).

#### **Background - Analysis and Options**

The audit was part of the Internal Audit Plan for 2006.

The internal audit report is provided as an attachment. The report explains the definition and objective of internal auditing as well as the scope of internal audit work. The report includes the observations of the auditor, the implications, the auditor's recommendations, the commissioner's response for corrective actions and the auditor's response to the corrective actions.

#### **Relationship to Vaughan Vision 2007**

This report is consistent with the priorities previously set by Council and the necessary resources have been allocated and approved.

#### **Regional Implications**

Not applicable

**Conclusion**

1. The commissioner and director of the department/operation audited, have responded favourably to all observations and recommendations in the Internal Audit Report.
2. When all corrective actions are implemented, internal controls will be improved, the quality of performance in carrying out assigned responsibilities will be enhanced, the department/operation will operate more effectively and efficiently and the Internal Audit department will have added value to the organization and assisted members of the organization in the effective discharge of their responsibilities.

**Attachments**

1. Internal Audit Report of Roads Maintenance ( Public Works).

**Report prepared by:**

Michael Tupchong, CA, CIA, CPA, CFE  
City Auditor

Respectfully submitted,

Michael Tupchong, CA, CIA, CPA, CFE  
City Auditor

**Attachment No. 1**

January 16, 2007

Michael DeAngelis  
City Manager  
City Of Vaughan  
2141 Major Mackenzie Drive  
Vaughan, Ontario  
Canada L6A 1T1

Dear Michael De Angelis,

**Re: Internal Audit of ROADS MAINTENANCE (PUBLIC WORKS)**

I have completed the internal audit of ROADS MAINTENANCE (PUBLIC WORKS) as of September 13, 2006. This audit was conducted in accordance with the 2006 Audit plan.

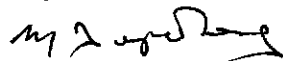
A follow-up letter will be sent to the auditee, 30 days from the date of this Internal Audit Report, requesting the status of corrective actions on deficiency items noted in this report. Subsequent follow-up letters may be sent until all corrective actions have been satisfactorily implemented.

I would like to thank Commissioner Bill Robinson, Director Brian Anthony and their staff for accommodating and providing me with unrestricted access to all staff and information during the audit.

I have exercised independence, objectivity and due professional care in accordance with the Standards for the Professional Practice of Internal Auditing.

The Internal Audit Department is committed to adding value, providing continuous improvement recommendations and professional service to the whole organization.

Sincerely,



Michael Tupchong CA, CIA, CPA, CFE  
City Auditor

cc: B. Robinson C. Harris B. Anthony A. Siracusa

**INTERNAL AUDIT REPORT**  
**ROADS MAINTENANCE (PUBLIC WORKS)**

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**INTERNAL AUDIT REPORT**  
**ROADS MAINTENANCE (PUBLIC WORKS)**

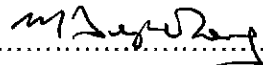
**DEFINITION, OBJECTIVE AND SCOPE**

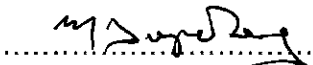
1. Internal Auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.
2. The objective of Internal Auditing is to assist members of the organization in the effective discharge of their responsibilities. To this end, Internal Auditing furnishes them with analyses, recommendations, counsel, and information concerning the activities reviewed. The audit objective includes promoting effective control at reasonable cost. In the end, Internal Audit is focussed on continuous improvement of the organization.
3. The scope of Internal Auditing encompasses the examination and evaluation of the adequacy and effectiveness of the organization's system of control and the quality of performance in carrying out assigned responsibilities. The Internal Auditors are concerned with any phase of City activity. The scope of Internal Auditing includes:
  - Reviewing the reliability and integrity of financial and operating information and the means used to identify, measure, classify, and report such information.
  - Reviewing the systems established to ensure compliance with those policies, plans, procedures, laws, and regulations, which could have a significant impact on operations and reports, and should determine whether the organization is in compliance.
  - Reviewing the means of safeguarding assets and, as appropriate, verifying the existence of such assets.
  - Appraising the economy and efficiency with which resources are employed.
  - Reviewing operations or programs to ascertain whether results are consistent with established objectives and goals and whether the operations or programs are being carried out as planned.
  - Reviewing the identification of risk exposures and use of effective strategies to control them.
  - Reviewing specific operations at the request of the Audit Committee or City Manager, as appropriate.

**INTERNAL AUDIT REPORT**  
**ROADS MAINTENANCE (PUBLIC WORKS)**  
**FOLLOW-UP ON CORRECTIVE ACTIONS**

1. It is extremely important that all corrective actions as stated in this Internal Audit Report are implemented as soon as possible.
2. The Internal Audit Department will perform regular follow-ups, the first being 30 days after the date of the letter to the City Manager, followed by subsequent 30 days until all corrective actions have been satisfactorily implemented. Follow-up audits may be done to verify that corrective actions have been implemented.
3. The corrective actions will ensure that the deficiencies as raised by the Auditor will be addressed. After all corrective actions have been implemented, there will be improvement in the effectiveness of risk management, control, and governance processes. The department will operate more efficiently and effectively. Members of the organization will also have discharged their responsibilities.
4. At the discretion of the commissioner and director(s), this report may be distributed to the appropriate staff members under their jurisdiction. Deficient items which could be common across the organization should be globally addressed. Further consideration should be given to revise/update current policies and procedures, as deemed necessary.

**End of Field Work:** September 13, 2006

**Auditor(s):** Michael Tupchong.....**Signature:**.....

**Approved:**.....

**INTERNAL AUDIT REPORT**  
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**Work Orders**

**Observations**

1. A "Patrol Log Sheet" is manually filled out by a patrol City employee who patrols the City streets each day. The employee records any perceived issues/problems with streets, lights and catch basins. Work Orders are originated by the patrol employee and recorded on the "Patrol Log Sheet".
2. A review of the work orders revealed that as of August 24, 2006, there were 958 "open" work orders for 2006 and 1,120 "open" work orders for 2005. There appears to be insufficient follow up by the Road Supervisors as to the status of work orders and the timing of action plans to close the "open" work orders.
3. Some work orders have been completed and should have been "closed" in the system, but this was not done by despatch personnel.
4. In many cases, the Roads Supervisors do not sign the work orders as required, to indicate his/her sign-off that the work orders are now completed and closed.
5. A number of "closed" work orders, do not have the completed and signed work orders on file.
6. The Supervisors or Manager do not get any regular report of "Open" work orders to review and take action on.

**Implications:**

1. Control over work orders need improvement.
2. A number of work orders in the system have not been closed off.
3. There is no timetable of action plans to complete "open" work orders.

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**Recommendations:**

1. Work Orders which have been completed, should be signed by the supervisor to approve the closing of the work order.
2. Despatch personnel should complete the relevant sections of the completed work order in the system in order to close the completed work orders in the system.
3. The completed and signed work orders should be filed in the appropriate street file folder.
4. Road Supervisors and the manager, should receive a printout summary of work orders which are "open" monthly. A timetable of estimated dates with action plans should be prepared for corrective action.
5. There should be a review done of all the "open" work orders for 2005 and 2006 to determine which have been completed. These should be closed in the system by the appropriate personnel, pending the resolution of the IT issue.

**Corrective Actions ( Commissioner Bill Robinson Response)**

1. The recommendations (1-3) above reflect the process in place now however, we note that some work orders have not been signed by the Supervisor as completed. We will ensure staff are reminded to follow this procedure.
2. There is a system problem that shows closed work orders as open and some open work orders as closed. Staff have made a request to IT in February 2006 of this year (Ticket 80242) to investigate this issue. Staff and IT are trying to resolve this.
3. Timelines are often dependant upon budget allocations and seasonal factors. That is why there does not appear to be a timeline to complete open w/o's. For example, we may have 100 water ponding concerns that warrant repair, but only enough money to do 50%, as a result, the remaining ones will be open in the system until they are dealt with.

**Auditor's Response to Corrective Action:**

The implementation of the recommendations will improve the current status.



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**ROADS MAINTENANCE (PUBLIC WORKS)**

**Sweeping of Parking Lots - Bid T04-029**

**Observation(s)**

1. The City entered into a contract with A & G The Road Cleaners Ltd. to sweep parking lots at \$55/hr.
2. Each day, an Equipment Rental Form is filled out. It shows the names of employees and the hours each worked. The Equipment Rental Form is made out with the following description "sweeping parking lots as per list". The number of employees on the Equipment Rental Forms vary per day. The hours worked also vary for the employees.
3. There is a list of parking lots. Not all the parking lots are swept each day because the hours worked on the Equipment Rental Form fluctuate.

**Implication(s)**

1. Verification of which parking lots were swept cannot be verified as they are not mentioned on the Equipment Rental Forms.
2. The City could be charged for labour hours of sweeping at \$55/hour which was not done.

**Recommendation(s)**

1. Each Equipment Rental Form should be specific as to which parking lots were swept for the hours shown on the form. Parking lots should then be physically verified on a test basis to ascertain if the parking lots were swept and swept satisfactorily.
2. The general words "sweeping parking lots as per list" should not be used as they are non-specific.

**Corrective Action(s) (Commissioner Bill Robinson Response)**

The Supervisor provides the list of locations to be swept to the contractor, and he does spot check the work of the contractor. However, we are in agreement with the recommendation to better identify which parking lots are being paid for on each specific Equipment Rental Form. We will remind our contractor to identify on each form the lot(s) swept.

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**Auditor's Response to Corrective Action(s)**

The implementation of the recommendation will improve the current status.

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**ROADS MAINTENANCE (PUBLIC WORKS)**

**Interlocking Repairs**

**Observations**

1. The City signed a contract with Forest Contractors to do interlocking repairs at various locations for a total of approximately \$60,000. Within the contract, there is a price per square metre which includes removal and replacement of interlocking stone and labour. There is no clause for the cost of brick replacement in the contract.
2. An invoice for \$55,801.47 was presented to the City and was processed. The invoice was initialled by a City employee as "all totals OK, SS". There was no supporting documentation to detail specifically which addresses made up the 955 square metres and 5,125 replacement bricks that were charged to the City. The invoice description read "m2 of interlocking – Woodbridge, Thornhill, Kleinburg," with square metres for each area.

**Implications:**

1. The City could be overcharged for interlocking work and brick replacement.
2. The invoice could not be verified to any specific addresses.

**Recommendations:**

It is recommended that in the future:

1. The invoice should give more specific, detailed description of the locations(street addresses) where the interlocking work and brick replacement was done.
2. The invoice should be approved (signature and date) by the City employee to confirm the specific addresses and the square metre of interlocking work and brick replacement.
3. The tender should have a clause for the price of brick replacement.

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**Corrective Actions: ( Commissioner Bill Robinson Response)**

1. Prior to the work being done, the employee would provide a list of locations and measurements to the contractor for repair. The final areas would be confirmed by the employee against what was provided to the contractor and paid for. As such, it would be hard for the contractor to overcharge us for work done since we are the ones giving the measurements.
2. However, to more clearly show the work being done, we will in future request the contractor to provide a copy of the list of locations repaired to the invoice.
3. When the current contract expires, we will include a provision in the new contract for the supply of new bricks. The need for replacement bricks came about as some of the bricks were damaged to the point that they could no longer just be re-set. As such, replacements had to be obtained.

**Auditor's Response to Corrective Action:**

The implementation of the corrective actions will improve the current status.

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**Catch Basin Cleaning**

**Observations:**

The City has a 3 year contract (ending December 31, 2007) with Flow Kleen Technology Ltd for \$338,400 to clean catch basins. For 2005, there was an approved budget to clean approximately 10,000 catch basins @\$14.10/catchbasin for a total of \$141,000.

The clauses in the contract states:

1. "The contractor shall provide the Owner(City of Vaughan) with copies of the disposal tickets( weigh tickets) for every load as verification of correct disposal." "The site(s) shall have a Provisional Certificate of Approval from the Ministry of the Environment."
2. "The contractor shall be required to submit a completed Hire Equipment Form at the end of each working day to Operations Department Staff". "The Hired Equipment Form will reflect the number of accomplished units for one day( number of catch basins cleaned)".

It was observed that:-

1. Copies of disposal tickets (weigh tickets) for every load as verification of correct disposal, was not provided to the Owner.
2. Hired Equipment Forms reflecting the number of accomplished units for one day (number of catch basins cleaned), was not submitted at the end of each working day to Operations Department Staff. However, Flow Kleen did submit a daily list of the streets and number of catch basins cleaned. This list was signed for the most part by a City employee. However, between November 11, 2005 - November 24, 2005, these lists were not signed. The auditor was also informed that the City employee did not work alongside the contractor every day but on certain days, contrary to the contract which required a City employee to accompany the contractor on a daily basis to verify that each catch basin was satisfactorily cleaned.

**Implications**

1. Some requirements of the contract are not being adhered to .
2. The catch basins cleaned by the contractor, were not verified daily by a City employee.
3. The contractor could possibly charge the City for catch basins which were not cleaned at all or which were not adequately cleaned.

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**Recommendations:**

It is recommended that:-

1. Verification of correct disposal of material, should be presented to the City as required in the contract.
2. The daily list of streets and catch basins cleaned submitted by the contractor, would be acceptable as a substitute for the Hired Equipment Forms, provided that it is signed by a City employee that the catch basins were cleaned satisfactorily.
3. As per the agreement, a City employee should accompany the contractor on a daily basis and ensure that the catch basins are cleaned satisfactorily.

**Corrective Actions ( Commissioner Bill Robinson Response)**

1. This issue of not having a full-time person assigned to monitor this work was brought up in the spring at one of our Continuous Improvement staff meetings. As a result, we have directed that staff be sent with the contractor to ensure that we get an accurate count of the basins being cleaned, regardless of the overtime involved.
2. As for the weigh slips, it is practice for the contractor to take the material back to his facility to dry out before hauling for disposal. There would not be weigh slips issued on a daily basis for disposal. This drying out of material and disposal at a later date is common in dealing with this type of material, and previously the City stored and dried the material at the JOC prior to disposal.
3. Since payment is made on the basis of the number of catch basins cleaned, and not by weight of material removed, weigh slips are not needed. Accordingly, the next contract will be rewritten to only require the contractor to identify the approved disposed site(s) to which our material would be taken. The contractor will also be required only to provide confirmation that the material was actually disposed of at the approved site(s).

**Auditor's Response to Corrective Action:**

The implementation of the corrective actions will improve on the current position.

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**Supply Street Signs ( Purchase Order charged in lump sum):**

**Observations:**

1. A review of charges to the General Ledger account for Sign Installation costs, revealed that a \$10,300 lump sum payment was made against a Purchase Order with a total value of \$28,840 and was charged to the General Ledger account. There was no single invoice for \$10,300. A number of invoices added up to this amount. This practice of charging a lump sum to the General Ledger account instead of charging on an invoice by invoice basis, is sometimes done.

**Implication:**

- 1) It can be time consuming to establish which invoices make up the lump sum charge in the General Ledger account.

**Recommendation:**

- 1) Invoices should be charged individually to the General Ledger account. There should be no grouping of invoices to be charged to the account in one lump sum. This will ensure that each General Ledger transaction can be easily referenced to an invoice.

**Corrective Actions ( Commissioner Bill Robinson Response)**

- 1) This appears to be an administrative issue which we have no concerns with having individual invoices entered into the system.

**Auditor's Response to Corrective Action:**

The implementation of the recommendation will improve in the recording of invoices.

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**Locates****Observations**

1. It was observed that expenses for Locates are charged to the Streetlight Maintenance account in the General Ledger. The Locates are done by the same company that does streetlight maintenance viz., Langley Utilities Contracting Ltd. Locates work include removal, cable drop, sewer, fence, deck, hydro repairs, tree planting etc.
2. Approximately \$153,000 was spent on Locates work up to the end of June 2006. There is no tender issued for Locates work. The work was given to Langley Utilities Contracting Ltd who has provided a Quote to the department and are charging accordingly.

**Implications**

1. Locates work of tree removal, cable drop, sewer, fence, deck, hydro repairs, tree planting etc is different in nature from streetlight maintenance and should have its own account in the General Ledger.
2. The Streetlight Maintenance account in the General Ledger is overstated by Locates costs.
3. Without a tender, the City may not be getting the most competitive price .

**Recommendations**

1. Due to the separate nature of the work, Locates costs should be budgeted annually, should have its own General Ledger account and should not be included with streetlight maintenance costs.
2. The Locates work should also be tendered out as costs are in excess of \$100,000 annually. This will provide some assurance that the City is getting the most competitive price for Locates work.

**Corrective Actions ( Commissioner Bill Robinson Response)**

- 1) Recently, Power Stream officially advised the City that they are no longer able to perform this service. The City needs to respond to calls requesting the locating of street light power lines. As this is a new requirement identified during 2006, a cost was obtained from our contractor to perform this on a trial basis to determine the extent of the work involved and the annual budget impact. In reviewing the rates being paid by other owners of street light infrastructure for locating services, the City was getting good value from Langley for the rate being paid.



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- 2) Due to a huge increase in the number of locates being requested from the City to locate its underground power supply cables for the street lights, we have approached Purchasing to allow Langley to perform this work until a separate tender can be awarded for this work. This tender will hopefully start Jan. 1, 2007 and expire the same time as our maintenance contract in 2008. In 2008, the price for providing locates will be bid as a separate item in the maintenance contract. The cost of locates can then be addressed through the creation of a separate line in the budget.

**Auditor's Response to Corrective Action:**

The issuance of the tender in 2007 will satisfy recommendation 2. Recommendation 1 can wait as explained in the Corrective Actions.

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**Streetlight Re-lamping**

**Observations:**

1. Approximately \$756,000 is budgeted for streetlight maintenance costs which includes re-lamping of street lights.
2. The contractor provides useful data in their invoices viz., (1) street name (2) date (3) quantity of bulbs replaced for each wattage type (4) quantity and wattage of ballasts replaced (5) starters and (6) PE.
3. The quantities are not checked to ensure that the number of lights charged to the City, actually exist in the street or that the quantities charged actually were replaced.
4. The quantities charged by the contractor for each street, are authorized for payment based on "trust".

**Implications:**

1. Controls over streetlight re-lamping charges can be improved.
2. The City could be overcharged for quantities it did not receive. There is sole reliance on trust.

**Recommendations:**

- 1) Although the contractor has proven to be service-oriented and the department is very satisfied with their services, there should be some physical tests done to verify that the City is charged (1) not more than the quantity of lights that actually exist in the streets and (2) the quantity and description of material actually replaced.

**Corrective Actions ( Commissioner Bill Robinson Response)**

- 1) Due to current staff levels, there is not sufficient staff that can be assigned to follow the street light contractor around at night to count the number of new bulbs, ballasts etc. being installed. Unless additional staff are provided for the Roads section, this and other activities, will never be able to be monitored fully.
- 2) However, staff are able to determine the number of street lights on a given street by checking the database of street lights in the HIRM System maintained by Engineering Services. A street lighting inventory and assessment was done for

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the City in 2003 by Delcan, and since 2003, Engineering Services has updated and maintained the street lighting inventory. This is available to Public Works through GIS tools. This database provides the necessary information needed to review the number of lights on streets to ensure that we are not paying for work on lights that do not exist. Staff will also do periodic site checks on ground fault repairs the contractor is undertaking to verify the work is taking place.

**Auditor's Response to Corrective Action:**

- 1) The corrective actions will provide some control over the charges by the contractor.

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**Spray Patching**

**Observations**

1. The City entered into a contract with a contractor (MSO Construction Ltd) for spray patching. The City was charged 464.59 tonnes of stone chips at an invoice cost of \$21,371.14 and 48,738.74 litres of emulsion at an invoice cost of \$62,872.97.
2. Weigh tickets were produced, however it was observed that:-
  - (1) none were signed by a receiver representing the City of Vaughan
  - (2) The weigh tickets were not checked on a test basis to verify the weights.

**Implications**

1. The material listed on some weigh tickets submitted to the City for payment, may not have been received by the City.
2. Without verifying weigh tickets, the City could be overcharged for weights it did not receive.

**Recommendations**

1. Weigh tickets should be signed and dated by a City receiver to confirm that the material was received and in good condition.
2. Weigh tickets should be test checked on a random basis to verify the Gross weight, Tare weight and Net weight.

**Corrective Action(s) ( Commissioner Bill Robinson Response)**

We have initiated a request to initial the weigh bills to confirm that we have received the materials ( quantity and weight) satisfactorily.

**Auditor's Response to Corrective Action(s):**

The implementation of the corrective actions will provide assurance that the quantity and material was received satisfactorily.

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**Conclusion**

- 1) The commissioner and director have responded favourably to all findings and recommendations in the Internal Audit Report.
- 2) When all corrective actions/recommendations are implemented, internal controls will be improved, the quality of performance in carrying out assigned responsibilities will be enhanced, the department will operate more effectively and efficiently and the Internal Audit department will have added value to the organization and assisted members of the organization in the effective discharge of their responsibilities.
- 3) It is noted that in order to ensure quality services are provided by external contractors, such as catch basin cleaning, staff resources may be required.