

City of Mississauga Internal Audit Report

TRANSPORTATION AND WORKS DEPARTMENT
WORKS OPERATIONS AND MAINTENANCE DIVISION
WORKS ADMIN, OPERATIONS AND MAINTENANCE SECTION
WORKS OPERATIONS, SIGNS AND PAVEMENT MARKINGS UNIT
SIGNS AND PAVEMENT MARKINGS AUDIT

November 30, 2020

City Manager's Department
Internal Audit Division

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**Transportation and Works Department
Works Operations and Maintenance Division
Works Administration, Operations and Maintenance Section
Works Operations, Signs and Pavement Markings Unit
Signs and Pavement Markings Audit**

BACKGROUND

The Signs and Pavement Markings Unit is responsible for creating a variety of signs for use throughout the city and to maintain roadway lines and signs that organize traffic and advise motorists.

Signs produced and installed by the unit provide guidance or information to the public and are used by a variety of businesses, including traffic operations, road safety, parks, and facilities and construction, among others. Usually, the unit does not produce regulatory and warning signs, which are purchased from a supplier; however, it has the capability to manufacture them if there is an urgent need.

The unit is accountable for the application, re-application and inspection of all longitudinal (centreline), transverse (including turn arrows) and railway crossing markings in the city. There are approximately 5,600 lane kilometres in the city.

Both signs and pavement markings must comply with provincial legislation and must meet provincial minimum maintenance standards. In 2017, the responsibility of removing nuisance signs and permitted signs that are on display after the sign permit has expired, was added to the Signs and Pavement Markings Unit's responsibilities.

The Manager of Works Operations oversees the operation of the Signs and Pavement Markings Unit and the day-to-day functions are led by a Supervisor and Assistant Supervisor. The unit is comprised of 25 CUPE 66 unionized staff who work both in the Sign Shop and in the field, and is based in the Mavis Works Depot. At the initial stages of the audit, the then Supervisor resigned voluntarily to join another municipality in a similar capacity. The new Supervisor started during the course of the audit.

The 2019 operating budget for the Signs and Pavement Markings Unit was \$3.58 million, while revenues (comprised of chargebacks and recoveries) were approximately \$678,000.

SCOPE

The focus of this audit was to examine the risk mitigation for the business operations with emphasis on payments, inventory, and compliance with provincial regulations, applicable by-laws, corporate policies and procedures. The work performed by two (2) Paid Parking Meter Technicians regarding the collection of money from the City's parking meters was excluded from the audit scope, as this is being covered in the 2020 Paid Parking Audit.

OBJECTIVES

The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing. The purpose of the audit was to assess if:

- A) Sign and pavement marking acquisitions and agreements and any related amendments/changes are conducted, approved, monitored, documented and retained in accordance with the City's Purchasing By-law, applicable corporate policies and procedures and good business practices;
- B) Payments are properly calculated, adequately supported, approved and processed in accordance with the terms and conditions of the applicable contract/agreements;
- C) There is liability insurance coverage, WSIB, contract performance securities, warranties, etc. where applicable to mitigate any risk exposure to the City;
- D) There are adequate inventory controls over hand tools and sign and pavement marking materials including receipt, storage/stocking, safeguarding, issuing and accurate recording of inventory;
- E) Signs are created, installed, controlled and managed in accordance with good business practices and applicable provincial legislation;
- F) Pavement marking application and re-application, including rumble strips, if applicable, are completed, inspected and monitored to ensure they meet or exceed provincial legislation and/or best practices;
- G) Cost of work performed (time and materials) by staff and third parties, including contract terms and conditions and regulatory requirements, are reviewed, supported, monitored and adhered to;
- H) Departmental procedures are clearly and comprehensively documented and comply with applicable legislation, industry standards, City By-laws, corporate policies and procedures and departmental requirements.

SUMMARY OF OBSERVATIONS

Based on the work performed, Internal Audit concluded that:

- Acquisitions and agreements followed the Purchasing By-law (Objective A).
- A systematic error in invoicing by one vendor was detected by the new supervisor and then validated by Internal Audit. Management advised us that the vendor has agreed to repay the City the bulk of the excess payments. Further detail is provided under "Key Recommendations" below. Payments to other vendors, reviewed by Internal Audit on a sample basis, were properly calculated, adequately supported and approved. However, some payments were being charged to cost centres of the Sign Shop's former division, rather than Works Operations and Maintenance (Objective B & Objective G).
- The vendor for Pavement Markings presented adequate liability coverage, WSIB and warranties. As for sureties, the previous Senior Manager of the area, who left in 2019,

had the bid surety reduced from \$100,000 to \$25,000. Justification or rationale was not documented. This could limit the City's ability to cover eventual losses with the vendor's services (Objective C).

- An inventory system to track receipt, storage, consumption and purchasing of tools, materials and supplies has not been implemented. Further detail is provided under "Key Recommendations" below (Objective D).
- Accountability over the maintenance of signs across the city is not clearly defined and several instances of outdated and hard-to-read signs were observed. Further detail is provided in the "Key Recommendations" section below (Objective E).
- Pavement marking application and re-application were completed and compliant with City and Provincial standards, with inspectors monitoring its execution on a regular basis, albeit with opportunities for improvement. The Division decided to move this responsibility to Technical Services (Objective F).
- Staff performing the various tasks in the unit are knowledgeable about the process and their key responsibilities; however, there is no formal documentation for each task. The job descriptions present some discrepancies regarding the roles and responsibilities of each position. Procedures need to be documented to ensure practices are consistent and corporate policies are followed (Objective H).

In addition to the initial scope of the audit, we noted that the physical space where the Sign Shop is located has been modified throughout the years by its own staff, at times resulting in possible breach of the Building Codes. A work group involving several disciplines then inspected the locations, addressed immediate concerns, and prepared a plan to correct the remaining issues throughout 2021 and up to March 2022.

Key Recommendations

All observations and recommendations were presented in detail to management of the Signs and Pavement Markings Unit and divisional leadership, who developed action plans to address them. Where the observations required the participation of other divisions (F&PM, IT, MM and Finance), the corresponding leadership was also included in the communication and agreed with the action plans and target timeframes for implementation.

Appendix A outlines the detailed recommendations, together with the action plans and timelines proposed by management. Our key recommendations and observations are further detailed below.

Formally establish an inventory system to ensure supplies are purchased, received and used properly

Materials and supplies used by the unit are purchased via invoices or procurement cards and stored in the locked buildings at the rear of the Mavis Yard. Internal Audit noted that an inventory system, whether manual or electronic, has not been implemented.

In particular, we noted that there was no designated area for the receipt of materials (which was established during the audit), inventory has not been regularly counted, and receipts are not reconciled with the materials consumed.

As a result, this situation reduces the ability to prevent losses, identify missed or misused inventory, detect waste and obsolescence, manage replenishment and validate the inventory book value.

In addition, we also noted that there are no periodic changes to the electronic access code to the storage building.

Management advised us that a project to create an inventory system was expected to commence this past spring, but was delayed due to the pandemic. Information Technology will work with the Signs and Pavement Markings Unit to implement an initial inventory system by mid-2021 and initiate a project for a more robust system tying with electronic work orders in the future.

Establish clear ownership for the lifecycle of City-issued signs

City-issued signs provide residents and visitors with important information about the law, warnings, directions and other relevant information. They are posted to enhance the safety and well-being of drivers, passengers, cyclists and pedestrians.

However, the responsibilities around the lifecycle of the signs have not been clearly defined; as a result, the audit found a number of informational and directional signs that were outdated, in poor condition or hard to read.

A notable positive exception is the new system being implemented by Parks and Forestry, which aims to minimize the number of signs required and implement a dedicated team to monitor their condition.

For the remaining business units, a Signs Management process will need to be implemented to ensure proper guidance and information to citizens and minimize reputational risks.

Note that our analysis does not include regulatory and warning signs, which are acquired externally and are not part of the scope of this audit.

Ensure vendor invoices are adequately scrutinized and costs compared against the contract agreement

During the audit, a new Supervisor was assigned to the unit. When analyzing new invoices for the 2020 pavement markings repainting season, the new Supervisor identified systematic errors in the invoices issued by the contractor. Such errors were concentrated in the repainting of stop bars and crosswalk lines.

At that point, the invoices were retained without payment and an analysis of the previous invoices within the same contract was performed by the unit and validated by Internal Audit. This analysis revealed that the problem had been occurring since the inception of the contract in 2017, causing excess payments of \$790K.

The error likely originated due to incorrect process adjustments after a change in the width of stop bars in 2017 from 450mm to 500mm. Vendor staff multiplied the linear measurements by 5, apparently interpreting that the unit price was for a 100mm width. In 2018, the City changed

the width to 600mm and the invoices started to come with a multiplication by 6. However, the unit price in all cases already accounted for the adjusted width, not needing to be corrected by such multiplier.

Internal Audit later identified imprecisions in the measurements in a sample of 20 intersections, which, if representative of all measurements, would indicate an estimated additional \$60K in overpayments in the 3 years.

Management advised that the contractor affirmed that the errors were involuntary due to the change in the width of the stop bars, and agreed to return the \$790K to the City by means of a credit to be applied against their work for 2020, which is expected to be sufficient to cover this credit.

Ensure physical space complies with building codes to safeguard the health and safety of employees

The physical space where the Signs and Pavement Markings Unit is located presented several changes from the approved plan, which were effected directly by its employees, without participation from Facilities and Property Management and at times without the required permits. These changes included, among others, adding walls, building a lunchroom containing new electric equipment and installing piping and new equipment. Management indicated that the changes started in 2010 and gradually accumulated over the years.

Internal Audit noted that some changes resulted in potential safety concerns, such as partially blocking sprinklers, lunchroom with difficult access to the exits, and overflow of the electric water heater being discharged into an eye-washing sink.

A workgroup comprised of representatives of Works Operations and Maintenance, Facilities and Property Management, and Health and Safety later inspected the building and identified several items that need correction. The group then initiated short-term measures to contain items of immediate concern, but determined that there were no imminent health and safety risks that would warrant closing the location during remediation.

The remaining items, which relate to compliance with building codes and permitting, are being addressed through F&PM and are expected to be corrected throughout 2021 and until March 2022. As a further control, staff are no longer allowed to purchase construction materials and equipment not directly required for sign installation.

CONCLUSION

Based on the observations above, Internal Audit assessed the control environment at the Signs and Pavement Markings Unit as requiring improvement. While many of the core activities are being discharged properly, the lack of inventory controls over materials and the unclear accountabilities around maintenance of the non-regulatory signs impair the objectives of efficient and effective operations. Additionally, the overpayment to a supplier for an extended period, while not occurring with other vendors in the sample, denotes the need for added scrutiny of financial matters.

On a positive note, the issue with overpayments was identified by the new Supervisor, who has exercised more scrutiny and also demonstrated commitment to solving the other issues presented in the report. Similarly, divisional management has been supportive of the solutions agreed upon.

A total of 16 recommendations resulted from this audit. Details of the audit recommendations and management comments can be found in Appendix A.

Management has agreed to all the recommendations. One (1) will be completed by the end of December 2020; one (1) will be completed by end of March 2021; five (5) will be completed by the end of June 2021; one (1) by end of September 2021; five (5) by end of December 2021; two (2) will be completed by March 31, 2022, and the final one (1) at the end of December 2023.



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Summary of Audit Recommendations**

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Rec	Recommendation	Priority (H/M/L)	Comments/Status	Classification
1	That the S&PM Unit work in conjunction with F&PM to correct all inconsistencies and non-compliance with the Building Code, requesting permits when necessary. Priority should be given to situations that pose health and safety hazards, such as fire and building code violations and deficient working conditions.	H	Management agrees as does Facilities and Property Management. Currently F&PM has a consultant working on scoping the work that needs to be done. Any immediate life and fire safety issues will be addressed by F&PM immediately and then prioritized items will be addressed through the project plan. According to F&PM's timeline, WOM Management agrees with the recommendation target date. To be completed by March 31, 2022	Compliance with and Clarification of Corporate Requirements
2	That the employees of the S&PM Unit be forbidden to effect changes themselves and be forbidden to buy construction materials and equipment that is not for the use of sign installation.	H	Management agrees, will communicate to employees and add a standard operating procedure as per recommendation #9. To be completed by December 31, 2021	Compliance with and Clarification of Corporate Requirements
3	That the kitchen be demolished in order to provide more work space.	H	Management agrees. Facilities and Property Management agreed with the action plan and timing. Due to Covid-19, lunch room will stay in place to provide space for staff until restrictions are lifted. Wall will be removed; however, timing is dependent on the priority assigned by the Consultant hired by F&PM. To be completed by March 30, 2022	Efficiency and Effectiveness

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4	That equipment that is no longer useful is disposed of according to the Disposal of City Assets Policy (03-06-10).	H	Management agrees. To be completed by December 31, 2020	Compliance with and Clarification of Corporate Requirements
5	That an inventory system be developed to keep track of material and supplies purchased, received and issued, and that procedures be developed for conducting and completing a systematic inventory count.	H	Management agrees as does Information Technology. They will be working with Information Technology's assistance to: <ul style="list-style-type: none"> a) set up an inventory in the unit (expected timeline six to eight months); b) deep dive on procedures (12-18 months; dependent on new hires); c) develop required Standard Operating Procedures (three to six months); d) build the structures through the IT process (three to six months). To be completed by December 31, 2023	Safeguarding of Assets and information
6	That Signs and Pavement Markings work with Corporate Finance to review and update the cost centres and amend the budget going forward.	M	Management agrees. Works Operations and Corporate Finance management agree to work together to resolve this recommendation. To be completed by June 30, 2021	Operational Control and Financial Reporting
7	That the General Fees and Charges By-law Schedule "B-1" be updated to accurately reflect the fees charged by the Signs and Pavement Markings Unit.	M	Management agrees. Will ensure it is done for the 2021 Fees and Charges By-law. To be completed by December 31, 2021	Operational Control and Financial Reporting

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8	That clear ownership for the lifecycle of City-issued signs be established and a review be completed to determine if the signs are needed.	M	Management agrees. To be completed by December 31, 2021	Compliance with and Clarification of Corporate Requirements
9	That formally documented Standard Operating Procedures (SOPs) be developed, reviewed annually and approved by management.	M	Management agrees. To be completed by December 31, 2021	Compliance with and Clarification of Corporate Requirements
10	That job descriptions be reviewed and updated to accurately reflect the roles and responsibilities of the staff in the Signs and Pavement Markings Unit.	M	Management agrees. To be completed by June 30, 2021	Compliance with and Clarification of Corporate Requirements
11	That Signs and Pavement Markings record all staff training on a spreadsheet and keep it in a central repository (eventually in SuccessFactors, Learning Management System, timing according to HR Work Plan) and assessments be mandatory for employees who have completed job required training, and results be retained for record-keeping.	M	Management agrees. Learning and Organizational Development in Human Resources has agreed to develop a standardized learning record spreadsheet (including naming conventions, name and employee number, type of training, name of training). Will work on a long-term plan to determine job-specific required training and to implement training records into SuccessFactors, Learning Management System. To be completed by June 30, 2021	Compliance with and Clarification of Corporate Requirements
12	That a sign replacement program be implemented in order to comply with the minimum maintenance standards as set out in the Municipal Act.	M	Management agrees. To be completed by June 30, 2021	Compliance with and Clarification of Corporate Requirements
13	That Signs and Pavement Markings staff follow the Works Operations & Maintenance Contract Cost Management Procedures.	M	Management agrees. Standard Operating Procedure will be developed to ensure invoices are scrutinized.	Compliance with and Clarification of Corporate Requirements

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			To be completed by December 31, 2021	Corporate Requirements
14	That all painted intersections (stop bars and crosswalks) be measured to ensure vendor compliance.	M	Management agrees. Currently working with Technical Services to gather information to be ready for new contract. To be completed by June 30, 2021	Compliance with and Clarification of Corporate Requirements
15	That the function of inspecting pavement markings be moved to Technical Services Inspectors.	M	Management agrees. Will work with Technical Services on the transition. To be completed by March 31, 2021	Compliance with and Clarification of Corporate Requirements
16	That the holdback amount be at least the minimum of 5% for non-construction and that Materiel Management approve all changes to sureties and retain justification documentation.	M	Materiel Management now writes and posts all addendums. Procurements are posted on Bids and Tenders. Procurement Surety Policy to be reviewed and updated as necessary and staff will be trained on the updated policy. To be completed by September 30, 2021	Operational Control and Financial Reporting