

Audit Committee Report

DATE: Monday, November 22, 2021

WARD(S): ALL

**TITLE:VAUGHAN FIRE AND RESCUE SERVICES (VFRS) MECHANICAL DIVISION
REVIEW**

FROM:

Kevin Shapiro, Director of Internal Audit

ACTION: FOR INFORMATION

Purpose

To communicate the findings from the VFRS Mechanical Division Review.

Report Highlights

- The Mechanical Maintenance Division maintains and repairs fire trucks and provides ongoing maintenance and support to VFRS vehicles.
- MCG Consulting Solutions was engaged through a competitive procurement process to perform a best practice review of the VFRS Mechanical Operations.
- The City received a Provincial grant under the Audit and Accountability Fund that covered the full cost of the review.
- Internal Audit had planned an audit of VFRS Mechanical Maintenance Division operations in 2021. However, given the fact that MCG Consulting Solutions had been already engaged in a review of VFRS Mechanical Operations, Internal Audit leveraged this initiative and participated in monitoring the work undertaken by MCG Consulting Solutions.
- The review identified strengths and improvement opportunities.
- The root cause of many of the operational issues identified in this report has been caused by the absence of a Fleet Management Information System (FMIS).
- Management has developed action plans which will mitigate the identified risks and address the recommendations outlined in the report.
- Internal Audit will follow up with management and report on the status of management action plans at a future Audit Committee meeting.

Recommendations

1. That the MCG Consulting Solutions Report on the VFRS Fleet Review be received.

Background

The Mechanical Maintenance Division maintains and repairs fire trucks, and provides ongoing maintenance and support to vehicles, including all VFRS fleet vehicles. The VFRS fleet of 61 assets is maintained by four mechanics who work under the Chief Mechanical Officer (CMO) from a central shop located at the Joint Operations Center (JOC). Each member of the division holds a motor vehicle and heavy truck technician certification enabling them to perform highly specialized repairs and maintenance on truck apparatus.

Several divisions of the VFRS rely on a fleet of vehicles and equipment in their daily work, including the Operations Division, Fire Prevention, Administration Division, Training Division, and the Mechanical Division. Vehicles and equipment vary greatly in size and complexity, ranging from handheld pieces of equipment such as chainsaws, to specialized fire apparatus such as platform trucks. If a vehicle or piece of equipment is out of service for repair or maintenance, it impacts the efficiency of routine service delivery and emergency response.

The City of Vaughan engaged MCG Consulting Solutions through a competitive procurement process to perform a benchmarking study and best practice assessment of VFRS's Mechanical Maintenance Division to ensure VFRS is managing its fleet of vehicles and equipment in the most effective and efficient manner possible. Key fleet functions reviewed include governance, organization and staffing, acquisition and replacement planning, technology, and maintenance. The City received a Provincial grant under the Audit and Accountability Fund that covered the full cost of the review.

Internal Audit had planned an audit of VFRS Mechanical Maintenance Division operations in 2021. However, given the fact that MCG Consulting Solutions had already been engaged in a review of VFRS Mechanical Operations, Internal Audit leveraged this initiative and participated in monitoring the work undertaken by MCG Consulting Solutions.

Previous Reports/Authority

Not applicable.

Analysis and Options

In fulfilment of *RFP21-102: Consultant for the Review of Vaughan Fire and Rescue Services (VFRS) Mechanical Division*, MCG Consulting Solutions analyzed City data and compared the resulting calculations, ratios, and benchmarks with industry norms. These industry norms are derived from industry associations such as APWA (the American

Public Works Association) and NAFA Fleet Management Association, as well as the project team's experience working with hundreds of government jurisdictions.

MCG Consulting Solutions has prepared a report, including an executive summary, highlighting their methodology, key findings, and recommendations. It has been provided to the Audit Committee as Attachment 1.

VFRS has developed action plans which will mitigate the identified risks and address the recommendations outlined in the report. The action plans have been provided to the Audit Committee as Attachment 2.

Financial Impact

There are no direct economic impacts associated with this report.

Broader Regional Impacts/Considerations

Not applicable.

Conclusion

While the Mechanical Division has made progress on several initiatives over the past number of years, further improvements will be required to ensure risks related to the execution of VFRS mechanical activities are efficiently and effectively mitigated.

Comprehensive, accurate, and readily accessible records regarding mechanical operations are essential to optimizing performance and managing costs. Having all maintenance and other data available in a computerized system accessible by all fleet program stakeholders is key for managing mechanical operations. While there are many benefits of fleet management software, the overall value boils down to maximizing efficiency by having complete visibility into the mechanical operations.

The root cause of many of the operational issues identified in this report has been caused by the absence of a Fleet Management Information System (FMIS).

The Department still relies on outdated processes, like spreadsheets, manual documents, and whiteboards to manage mechanical operations. Existing technology does not track important fleet metrics such as maintenance productivity, and although upgrades are promised, they are years in the future. This significantly increases the risk of inadequate vehicle maintenance, poor efficiency and employee productivity, weak inventory management and inadequate replacement planning.

The City of Vaughan is looking to collectively implement an all-in-one ERP system known as JD Edwards, that encompasses the multiple facets of the City's operations. Although JD Edwards touches multiple operational components of an organization it does not master any one component. JD Edwards is designed to handle basic fleet transactions

but lacks functionality to properly manage and report on the day-to-day operations of a complex mechanical operation.

A fully functioning FMIS is immediately required and would be the backbone of the improved operating model. The FMIS would host the fleet inventory and all data needed to make decisions on fleet and maintenance management.

Leading systems are aligned with best practice processes and include standard reports and analysis tools for tracking all aspects of mechanical operations. Stakeholders should be involved, and all operational components and processes should be considered before making this decision.

The review also identified several other areas for improvement that impact VFRS operating model, including developing:

- A 20-year replacement plan to identify capital requirements;
- A policy framework to guide decisions; and
- A progressive staffing plan that will grow with the organization.

Internal Audit will follow up with management and report on the status of management action plans at a future Audit Committee meeting.

For more information, please contact: Kevin Shapiro, Director of Internal Audit, ext. 8293

Attachments

1. Attachment 1 – MCG Consulting Solutions Report – Fleet Review VFRS
2. Attachment 2 – Management Action Plans

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Approved by

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Kevin Shapiro, Director of Internal Audit