



City of Markham

Fleet Operations Audit
March 14, 2025



Mayor and Members of Council,

Pursuant to MNP LLP's ("MNP") appointment to provide Auditor General Services, I am pleased to present the Fleet Operations Audit report ("report") of the Auditor General for the City of Markham ("City"). To ensure the results of our review are balanced, we have provided in this report a summary of identified strengths, as well as observations and recommendations for improvement.

The audit work was substantially completed on October 30, 2024. The report was discussed with the City's Management, who have reviewed the report and provided their responses within. This report is provided to you for information and approval of the City's proposed action plans.

Based on the results of the audit, MNP found that there is a strong leadership structure and meeting cadence, established operational reporting that guides day-to-day management of activities, and the implementation of a new Enterprise Asset Management system that will provide the opportunity for management to leverage more fleet data. The City also has foundational information and analysis for the development of a low-carbon municipal fleet strategy. There are however a number of opportunities for improvement to enhance the efficiency and effectiveness of fleet operations.

MNP has identified continued improvement areas, including obtaining clarity with regards to roles and responsibilities between Fleet Operations and the fleet function within the Fire Department for optimal performance; conducting a review of financial reporting with the view to ensure that all costs, credits and allocations of all Fleet-attributable functions are appropriately reflected; augmenting strategy and business plans to incorporate more robust priorities, goals, objectives, corresponding actions and performance measures of Fleet Operations for regular monitoring and reporting; continuing to develop, identify and assess the data captured by various systems used by Fleet Operations and determine ways this data can be used to optimize performance; and enhancing certain templates and reports to assist with efficient and effective review and monitoring of Fleet Operations.

The report will be posted on the City's website and made available to the public after tabling to Council.

Sincerely,

Geoff Rodrigues, CPA, CA, CIA, CRMA, ORMP Auditor General, City of Markham





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BACKGROUND

The City of Markham ("City") is a municipality with a population of approximately 369,000 residents, offering various services to its residents, including support programs, infrastructure, recreation, and cultural facilities. Markham strives to improve its transparency, efficiency, and effectiveness for the benefit of its residents.

The City's Operations Department – Fleet Division (referred to as "Fleet Operations" within this report), supports cross-functional operations within the City with a fleet of vehicles and equipment, currently operating 283 licensed vehicles and 717 non-licensed equipment across 15 divisions. These fleet assets have a life expectancy of five to ten years.

Fleet Operations functions include fleet tracking and monitoring, asset maintenance, vehicle remarketing, asset acquisition, and safety and compliance. Fleet Operations makes use of various fleet management tools to assist in the optimization of fleet lifecycle costs, facilitate a safe operating environment and support Markham's sustainability goals. Most recently, the City has implemented an Enterprise Asset Management system (called "Lucity") which Fleet Operations is able to utilize to manage its asset inventory, assess the condition of assets, and log, track and determine maintenance needs, and record fuel usage.

The City undertook this audit in order to evaluate the efficacy of fleet management, and identify potential opportunities for improvement to return enhanced value to the City.

OBJECTIVE

To assess the effective and efficient management and operation of the departmental vehicle and equipment fleet throughout its life cycle. Specifically, this audit assessed whether:

- 1. Fleet Operations services and functions are well governed and managed;
- 2. Fleet Operations expenditures (and recoveries) are made with due regard for economy and efficiency, providing good value for the City's taxpayers; and,
- 3. Appropriate procedures are in place to measure and report on the effectiveness of Fleet Operations services and functions.

SCOPE

The scope of this audit focused on:

- 1. **Governance and Structure Review** including governance structure, organization structure (e.g., centralization of the fleet management function), management structure, performance/results management and decision-making, reporting and monitoring, and policy existence.
- Financial and Operational Results of Fleet Operations including key performance indicators and analysis of common standard performance measures for Fleet Operations and including the quality of and access to relevant data.
- 3. **Business Case Review** including those developed for innovation initiatives, capital replacement and acquisition vs. rental decisions. Review will include business case structure, data, evaluation and decision criteria (objective and subjective), efficacy of calculations and analysis, review and approval protocols, and justification narrative.



Elements of Fleet Operations that are out of scope for this audit include detailed assessment of inventory, utilization of property, standard operating procedures, policy content, staffing assessments/compensation, insurance and licensing/regulatory.

RISKS

Given the stated objective, the following inherent risks¹ (i.e., potential risks) were identified and were considered which are typical for an audit of this nature.

- Fleet services and functions may not be well governed and/or managed resulting in inefficiencies or ineffectiveness in decision-making, reporting and monitoring, and policy development.
- Decentralization of the governance structure and/or organization structure may not align for effective or efficient management of the fleet operations and management function.
- Fleet expenditures are made without due regard for economy and efficiency and may are provide value for money.
- Uneconomic allocation of funds dedicated to procuring and maintaining fleet assets (total cost of ownership) may result in higher costs than necessary and budget overruns.
- Standard performance measures, targets or key performance indicators may not be set, tracked or monitored or trend analysis conducted to assist with assessing fleet performance or for continuous improvement.
- Limited access to relevant and/or quality data or the tools/systems required in order to conduct trend analysis, assess performance or make informed operational and managerial decisions.
- Procedures or processes may not be in place to assist in the measurement and reporting on the effectiveness of Fleet services and functions.
- Standard processes and procedures may not be in place, or quality data not available, to enable the effective and efficient use of business cases, calculations, and other similar analyses when conducting assessments of new initiatives, capital replacements, and other business decisions.

¹ The risk derived from the environment without the mitigating effects of internal controls - **Institute of Internal Auditors**. For clarity, this is a list of typical potential risks that were identified at the outset of the audit.



APPROACH

In accordance with MNP's audit methodology, the high-level work plan included the following phases:

1. Planning Phase

- Define objectives and scope.
- Confirm project duration and schedule.
- Assign team members and develop team structure.
- Describe deliverables.
- Create Audit Planning Memo and distribute to stakeholders.



2. Execution Phase (Information Gathering & Analysis)

- Review policies, processes, procedures, reporting, and other relevant data and documentation.
- Conduct interviews / discussions.
- Conduct evaluation, assessment and analytics.



3. Improvement & Reporting Phase

- Identify gaps and impovement opporutnities.
- Prepare draft report with findings and recommendations.
- Validate and present findings and recommendations to management.
- Issue final report.

AUDIT TEAM

The audit was carried out by the following MNP team:

Geoff Rodrigues, Auditor General	Provided expertise in assessment methodology, directed the MNP team in all stages of the audit, and ensured that firm and professional quality assurance standards were maintained.	
Veronica Bila, Engagement Delivery Partner	Oversaw all aspects of the engagement and reviewed results.	
Jason Hails, Subject Matter Expert	Provided expert knowledge on fleet management, governance, and business case analysis.	

STRENGTHS

In conducting the audit, MNP noted the following strengths with respect to the City's fleet management practices and activities:

Governance and Management Structure

Fleet Operations has a strong leadership structure with personnel at the Manager, Senior Manager and Director, Operations hierarchy levels. The meeting cadence is also strong, allowing for appropriate levels of review and approval among various staff and levels of management, up to the Commissioner, Community Services and the Chief Administrative Officer. The leadership structure in place and meeting cadence observed allows for effective management review, feedback and decision-making through Fleet Operations budgeting and day-to-day functions.



Operational Reporting	Fleet Operations maintains a set of financial and operational reporting that guides budget variance monitoring and day-to-day management activities. There are also other reports that are generated and reviewed for Fleet Operations management. All of these reports provide useful inputs for day-to-day management and ultimately for analysis and decision-making purposes to evaluate the composition of the fleet itself, efficient stockroom inventory levels, work order management, and vendor management.
Ability to Start to Access Systems and Data	Although Lucity is a relatively new system utilized by Fleet Operations, this Enterprise Asset Management system offers Fleet Operations with the opportunity to start to leverage data, develop performance measures and monitor performance over time.
Business Cases for New Fleet Purchases	Fleet Operations conducts evaluative exercises and maintains standard administrative procedures to assess options and justify fleet purchases and procurement of vehicles, equipment and related services. While the City has general policies that govern asset replacements, Fleet Operations takes a prudent approach by evaluating, through a business case, the specific asset that may be subject to replacement by determining an optimal course of action by balancing maintenance costs, remaining life and salvage value against the cost of replacement. The framework for business case evaluation is evident, with strong policies, developed templates and robust review and approval procedures.
Foundation for the Development of a Low-Carbon Municipal Fleet Strategy	In July 2023, the City engaged Dunsky Energy + Climate Advisors ("Dunsky") to produce a "Low-Carbon Municipal Fleet Strategy". The scope of Dunsky's report, delivered at the end of September 2024, was to "recommend a comprehensive municipal low-carbon fleet strategy that is effective, realistic, and informative, while meeting all federal and municipal emission targets in the next few decades". The Dunsky report is a thoughtful and comprehensive report and provides the foundational information and low-carbon considerations for the City to develop and implement its own Municipal Fleet Strategy. We understand that the report and the City's strategy and plan will be presented to Council in the upcoming months.



SUMMARY OF OBSERVATIONS AND RECOMMENDATIONS

To enable the City to set priorities in their action plans, we have reported our observations in one of three categories, "Low", "Medium" or "High" based on our assessment of the significance (i.e., impact and likelihood of occurrence) of each observation, as follows:

Rating	Description
Low	The observation is not critical but should be addressed in the longer term to improve economy, efficiency or effectiveness of the function (i.e., 6 to 12 months).
Medium	The observation represents a weakness in economy, efficiency or effectiveness, which could have or is having an adverse effect on the ability to achieve service or performance objectives. The observation requires management action within the short-to-intermediate term (i.e., 3 to 6 months).
High	The observation represents a weakness in economy, efficiency of effectiveness, which could have or is having a major adverse effect on the ability to achieve service or performance objectives. The observation requires immediate management action (i.e., 0 to 3 months).

A high-level summary of our observations and recommendations can be found in the table provided below with detailed observations and recommendations found in **Appendix A**.

Def		Priority		
Ref	Summary Observations and Recommendations	H	М	L
1	Fleet Operations and the Fire Department			
	During the audit, it was noted that there is a current lack of clarity with regards to roles and responsibilities between Fleet Operations and the fleet function within the Fire Department (referred to as Fire Fleet in this observation). There are different sets of perceived requirements between the two units and outstanding questions about the optimal degree to which Fire should operate independently versus adhering to a more centralized Fleet Operations structure. Central to the lack of clarity is the application of centralized Fleet Operations' policies and procedures to Fire Fleet operations, and the level of collaboration to facilitate efficient and effective fleet operation services.			
	A centralized fleet operations structure and governance model should be maintained, however, the roles, responsibilities and approval processes between Fire Fleet and Fleet Operations should be reviewed and clarified for optimal performance. This should include policies and processes, consideration of a simple service level agreement, and enhanced collaboration.			



2.1				Priority			
Ref	Summary Observations and Recommendations	Н	M	L			
2	Financial Reporting - Cost Allocations and Credits						
	During the audit, we identified that the Fleet Operations monthly internal financial report does not represent a full costing of Fleet Operations, as it does not include all costs and credits for Fleet Operations functions.						
	Conduct a review of the Fleet Operations' monthly internal financial report with the view to ensure that all costs, credits and allocations of all Fleet-attributable functions are appropriately reflected.						
3	Fleet Operations' Strategy, Business Plans, Goals and Performance Measures						
	While business planning is conducted at the Fleet Operations level with support from the Operations Department, strategic planning is conducted only at the Operations Department level, with no strategic or detailed plans, goals and performance measures at the sub-division (i.e., Fleet Operations) level.						
	A Fleet Operations strategy and business plan should be augmented within the Operations Departmental Business Plan, incorporating the priorities, goals and objectives of the City and the Operations Department, as well as corresponding actions and performance measures of Fleet Operations for regular monitoring and reporting, working within and following the City's standard planning processes and timelines. In developing the Fleet Operations strategic and business plans, existing documents could be built-upon by adding specific Fleet Operations strategy, plans, goals, and performance measures.						
4	Data and Performance Measure Reporting						
	Standard City practice includes management reporting on an annual basis of the performance measures set in the Operations Departmental Business Plan, however, there are no active reports throughout the fiscal year that provide regular monitoring, tracking or reporting against other performance measures or key performance indicators (KPIs).						
	Continue to assess the data captured by the various systems used by the City and determine ways this data can be further developed, analyzed, and incorporated for optimized performance, as well as presented regularly to senior leadership and Council. The data and reports developed should integrate into the performance measures that are set as per Fleet Operations strategic and business plans.						
5	Capital Budget Contingency						
	While the City uses the contingency limit as a conditioning exercise to encourage a focus on the impact of budgeting and project overruns, it appears that the contingency allowance threshold of \$250,000 was put in place many years ago and may not be adequate for the size and scale of the City's portfolio. If this limit is too low, the City may not achieve the right balance of project control (through discussion/review when						



Ref	Summary Observations and Recommendations	Priority			
Kei	Summary Observations and Recommendations	I	М	٦	
	limits are exceeded) and administrative efficiency, whereby projects are permitted to proceed without the need for incremental review. While the specific threshold limit of the Contingency amount is not an overly restrictive constraint given overrun accounting and the replenishment process, a detailed root cause analysis of project overruns should be conducted, and where overruns are deemed excessive, the City should implement solutions to improve accuracy and accountability for the capital budgeting and project management processes. Solutions could include the application of contingencies for specific categories of capital, incremental training, and revised review procedures. Consider also developing a more appropriate contingency level based on accepted industry thresholds to help streamline project review and decision-making.				
6	Business Case Financial Analysis Templates Upon review of the financial analysis template that accompanies business cases, and the completion of two different business cases (i.e., Vehicle Electrification and Rent vs				
	Buy of Seasonal Vehicles), we noted that the template and analysis, which uses Excel, was conducted on an ad-hoc basis, with no clear instructions or explanations of embedded methodology or calculation inputs or results, rendering the financial analysis difficult to understand.				
	Financial analysis templates should be developed and implemented in MS Excel for Departments to use for common (and unique when needed) procurements and expenditures.				
7	Reporting Improvement Opportunities				
	During review of certain management reports, we noted that improvement opportunities could be made to enhance certain reports' frequency and their contents to assist with efficient and effective review and monitoring of Fleet Operations.				

RECOMMENDATIONS

The Auditor General recommends that:

- 1. The Fleet Operations Audit Report be received; and,
- 2. That staff be authorized and directed to do all things necessary to give effect to this resolution.

ACKNOWLEDGEMENT

We would like to express our appreciation for the collaboration and efforts made by City personnel, as their contributions assisted in ensuring a successful audit engagement. City staff provided the Auditor General with unrestricted access to all activities, records, systems, and staff necessary to conduct this review freely and objectively.

APPENDIX A – DETAILED OBSERVATIONS AND RECOMMENDATIONS

#	Observation	Rating	Recommendation	Management Response
1	Pleet Operations and the Fire Department During the audit, it was noted that there is a current lack of clarity with regards to roles and responsibilities between Fleet Operations and the fleet function within the Fire Department (referred to as Fire Fleet in this observation). There are different sets of perceived requirements between the two units and outstanding questions about the optimal degree to which Fire should operate independently versus adhering to a more centralized Fleet Operations structure. Central to the lack of clarity is the application of centralized Fleet Operations' policies and procedures to Fire Fleet operations, and the level of collaboration to facilitate efficient and effective fleet operation services. For example: 1. The Fire Department maintains a separate budget from Fleet Operations, however, the Fleet Operations' internal financial reports include fire fleet costs for almost all line items but excluding Oil & Lubricants (account #4310), Vehicle Parts (account #4320) and External Vehicle Maintenance (account #5420). This separation of budgets and co-mingling of some financial cost reporting can cause confusion on accountability for budget variances and cost overruns and lack of clarity on responsibilities. 2. Fire Fleet purchases are made both independently and sometimes with support from Fleet Operations. This could cause inconsistent application of policies and processes (i.e., procurement policies, approvals, business cases for new purchases, etc.). In addition, capital expenditure approval requirements among Fire and Fleet staff/leadership have been noted to cause confusion and subsequent questioning of the appropriateness of the approval authority. The lack of clarity between Fleet Operations and Fire Fleet may	Rating	A centralized fleet operations structure and governance model should be maintained, however, the roles, responsibilities and approval processes between Fire Fleet and Fleet Operations should be reviewed and clarified for optimal performance. This should include the following areas: Policies and Processes: Review and complete a rationalization of policies, processes and procedures that govern Fleet Operations and determine application to Fire Fleet functions. Document which policies apply to Fire Fleet, and what are allowable exceptions based on Fire Fleet's unique needs. To avoid decision-making conflicts, ensure consistency, and for right-sized applicability, review and refine procurement, business case, decision-making policies, and spending authorities based on an appropriate balance of the needs of each the Fire Fleet and Fleet Operations. Rationalization and clarification of staff roles and responsibilities for all Fleet Operations and Fire Fleet staff that work together (i.e., who does what, when and why). Validation and potential adjustment to budgeting and reporting structures that overlap Fire Fleet and Fleet Operations, with the objective of leveraging the expertise of Fire Fleet staff, Fleet Operations, Procurement and Finance to best provide budget and cost accountability between the two units.	City staff agree that the centralized fleet operations structure and governance model should be maintained. Where resources permit, we will review and document the roles, responsibilities, and approval processes as part of ongoing continuous improvement efforts. Policies and Processes: The Corporate Fleet policies were last updated in 2022 with Fire Services included in the policy working group and subsequently signed off. The current policies and processes are applied across the City and currently allow exceptions for specific stakeholders, provided they remain in compliance. All policies and processes are subject to regular reviews, during which stakeholder feedback will be considered for further customization. Service Level Agreement: Fleet Operations will seek opportunities to establish a Service Level Agreement with Fire Services including clarification on roles and responsibilities for all Fleet Operations and Fire Fleet Staff.
	impact the overall effective and efficient management of fleet			

#	Observation	Rating	Recommendation	Management Response
	operations, especially any efficiencies that can be gained through a centralized fleet model, as well as consistency in policy, procedures and processes, and financial accountability.		 Service Level Agreement: Where practical, consider the establishment of a simple service level agreement (SLA) between Fleet Operations and Fire Fleet, where Fire Fleet is an internal client of Fleet Operations. The SLA should include performance expectations and accountabilities for each group. Formalize a simple process to manage and monitor SLA for performance and potential fine-tuning of scope and performance measures. Collaboration: Enhance collaborative and open Communication channels between the groups to foster collaboration and efficiency. Augment the current monthly Fleet/Fire meetings with agenda items (at least temporarily) that address progress of the above implementation initiatives. 	Collaboration: Fleet Operations will maintain ongoing collaboration with Fire Services moving forward and will seek improvement opportunities to foster collaboration and accountability.
2	 Financial Reporting - Cost Allocations and Credits During the audit, we identified that the Fleet Operations monthly internal financial report does not represent a full costing of Fleet Operations, as it does not include all costs and credits for Fleet Operations functions. Anomalies are noted as follows: The Water Department pays for its own fuel, while Fleet Operations incurs and reports the fuel expense for all other departments in its monthly financial report. Fire Fleet fuel is not always incurred by Fleet Operations, as sometimes the Fire Fleet will refuel at stations external to the City. As mentioned in Observation #1 above, certain Fire Fleet costs are included in the Fleet Operations monthly financial report, whereas others are not. 	Medium	Conduct a review of the Fleet Operations' monthly internal financial report with the view to ensure that all costs, credits and allocations of all Fleet-attributable functions are appropriately reflected. This will allow Fleet Operations to standardize reporting that better reflects Fleet Operations' functions and enable performance comparisons/benchmarking to other Fleet management entities.	City staff recognize the importance of regularly reviewing and analyzing financial information. As part of ongoing continuous improvement efforts, we will consider any necessary updates to tools and templates to ensure that adequate and relevant information is captured.

#	Observation	Rating	Recommendation	Management Response
	 Charger Operating & Maintenance costs from the Civic Centre are not included in the Fleet Operations monthly financial report, while other Charger costs are. The Fleet Operations monthly financial report is not allocated insurance costs related to the fleet it manages. By not allocating all costs and credits for Fleet functions, the City will not have a true picture or full costing of all Fleet Operations costs which may impact decision-making, as well as not knowing the full extent of expenditures, variances to budgets, and other financial implications. 			
3	Fleet Operations' Strategy, Business Plans, Goals and Performance Measures While business planning is conducted at the Fleet Operations level with support from the Operations Department, strategic planning is conducted only at the Operations Department level, with no strategic or detailed plans, goals and performance measures at the sub-division (i.e., Fleet Operations) level. Upon review of the 2024 Operations Departmental Business Plan, we noted the following: The 2024 plan includes a cascading set of goals, objectives, actions and performance measures as follows: Weasures	Low	A Fleet Operations strategy and business plan should be augmented within the Operations Departmental Business Plan, incorporating the priorities, goals and objectives of the City and the Operations Department, as well as corresponding actions and performance measures of Fleet Operations for regular monitoring and reporting, working within and following the City's standard planning processes and timelines. In developing the Fleet Operations strategic and business plans, existing documents (i.e., the Operations Departmental Business Plan) could be built-upon by adding an appendix with specific Fleet Operations strategy, plans, goals, and performance measures, and considering the following items listed below:	City staff acknowledge the benefits for an expanded strategy, business plan, and performance measures for Fleet Operations. As part of ongoing continuous improvement efforts, we will evaluate the best available information and integrate it into the Departmental Business Plan to provide clear goals and objectives. Strategic Planning: Although Fleet Operations does not have a distinct strategic plan, the key principles underpinning fleet operations, including replacement, and redeployment of fleet vehicles are covered under
	Departmental Objectives 12 Departmental Action 47 Performance Measures 22 Fleet Operations is only noted in a limited fashion in this Departmental business plan. The discreet references to Fleet Operations in the 2024 Operations Plan are as follows:		Strategic Planning: Incorporate a multi-year approach in alignment with broader City plans and articulate clear medium to longer term strategy and objectives for Fleet Operations.	our Corporate Fleet Management & Maintenance Policy. Furthermore, any decisions with financial implications are supported by a multi-year approach (Lifecycle Planning) and ongoing conditional assessment.

	Observation			Rating	Recommendation	Management Response
 Goal 3 - Safe, Sustainable and Complete Community – while there is no narrative of objectives or actions specifically for Fleet Operations, there are two performance measures related to Fleet, as follows. We are not aware of regular reporting of these two performance measures. 					Business Planning: Either include detailed Fleet Operations objectives and actions in the Operations Departmental Business Plan to drive accountability and expected results or	Business Planning: The City currently consolidates division business planning into t Departmental Business Plan with alignment to the Corporate Strategic Plan. Fleet Operations
epartmental Perforn easures in Support of fleet utilizing hybri- chnology (light duty v nder 10,000 lb GVW) censed fleet availabili	of Goal 2019 2020 2021 d ehicles 16% 16% 16%	2022 Z024 Target T	Long- LT Target Year 15% 2024 2024		develop a discrete Fleet Operations Business Plan that aligns with the higher level Operations plan. Economy and Efficiency Objectives:	part of the Operations department, with business planning managed within the sa hierarchy. In the 2026 Operatio business plan update, City Staff
Operation of the contract of t	Stewardship of Moneyons is noted in one goal ance measure associat We are not aware of rance measure.	objective/actied with the act	on, with or ion, as		 Include economy and efficiency objectives for Fleet Operations in Operations business plans, with corresponding actions and performance measures. Incorporate SMART principles into the performance measures (specific, measurable, achievable, relevant, timely). 	will consider opportunities to enhance specific focus on Fleet Operations. Economy and Efficiency Objectives: Fleet Operations will explore th potential of utilizing the Asset
2. Proactively our assets to maximize the (financial, so environment cultural) on investment	growth on programs, service and the bottom line.	effective fleet	nplement life cycle luding ement		 Green Fleet/Vehicle Electrification Strategy and Objectives: Include the City's strategy, objectives, actions and performance measures related to vehicle electrification and green fleet initiatives. Performance Measures: 	Management System (EAM) to develop performance measures and incorporate SMART princip Green Fleet/Vehicle Electrificat Strategy and Objectives: Fleet Operations will continue in exploring market opportunities
partmental Bus rently drafted,	rt of Goal ating cost	2022 Z024 te Target Ta \$4,751 <\$6,000 <\$5	5 027 plan, as		 Develop and implement a rationalized suite of Fleet Operations performance measures. Examples of common Fleet Operations performance measures that could be developed as part of the City's strategic and business planning are: Fleet Utilization Up/downtime Hours in service Total cost per kilometer 	Green Fleet initiatives in collaboration with the Sustainability and Asset Management Department and vincorporate the future Councilapproved City Green Fleet strate deliverables into department business plans.

	Observation				Recommendation	Management Response
Note 2025 appro Durir revie revie withi record conti	-2027 Operations De oved. Ing the audit, we also ws of Fleet Operation w of each report, MN in this report) with po mmendations for Flee inuous improvement	Departmental Objective Protect natural and built infrastructure and enhance their resilience. ucting this repor partmental Bus noted that Man ns, dated 2015 a NP observed sim otentially beneficet Operations to	Departmental Action Participate in the development of a Green Fleet Strategy on City owned licensed vehicles. Participate in the development of a Green Fleet Strategy on City owned licensed vehicles. Part, the final version of the iness Plan had not yet been agement conducted two and 2017 respectively. Upon onliar themes (as contained	Rating	Rating Recommendation Fuel cost per kilometer or fuel efficiency Emissions generated Total cost of ownership Preventative maintenance on-time completion rate Work order time to repair Utilization of mechanics Repair costs per vehicle Number of safety incidents Safety incident rate per kilometer Compliance with regulations (e.g. inspections, licensing, etc.) Fleet inventory turnover Customer satisfaction Among the measures selected, with Fleet servicing a number of Markham departments, MNP recommends that Fleet Operations implement a customer satisfaction metric based on internal customer surveys. Consider incorporating data that Fleet Operations already obtains from various existing reports into the development of key performance measures, such as EV costs, charger use and fueling reports.	Management Response Performance Measures: Fleet Operations will continue to explore the opportunity to leverage the EAM System to develop and report on performance measures. Previous Fleet Operations Reviews: City staff will continue to take options and recommendations into consideration when establishing future strategy and business goals.
By no with meas	specific and actionab sures, there may be a ations should prioriti	ole goals, objecti I lack of clear did Ize, resulting in l	less than optimal		Operations already obtains from various existing reports into the development of key performance measures, such as EV costs,	
mana to ide addit may repo and r	agement. This could a entify and accurately tion, not having clear lead to inefficiencies rting and monitoring reporting on perform	also lead to Flee report on their strategic and be or ineffectivened and policy devel ance measures etter understance	usiness goals and objective ess in decision-making, elopment. Setting of, tracking will provide an opportunity d its performance over time		 Previous Fleet Operations Reviews: Fleet Operations should review the prior management-conducted review reports and re-assess the options and recommendations included therein (i.e., related to upgrades to systems, processes and the structure of Fleet Operations) which could be built into future strategic and business plans. 	

#	Observation	Rating	Recommendation	Management Response
4	Standard City practice includes management reporting on an annual basis of the performance measures set in the Operations Departmental Business Plan, however, there are no active reports throughout the fiscal year that provide regular monitoring, tracking or reporting against other performance measures or key performance indicators (KPIs). We do note that the City has either recently implemented (or is in the process of implementing) a number of systems that are starting to gather data that will assist Fleet Operations in managing its business, including the following: • An Enterprise Asset Management system ("Lucity") has been recently implemented, which includes the fleet database, and which is capable of geographic information system (GIS) technology integration for detailed mapping and special analysis of assets. Fleet Operations plans to implement integrated GIS with Lucity to enhance potential functionality in the areas of real-time tracking, geofencing, route optimization and compliance/reporting. • An Automatic Vehicle Location ("AVL") system is in the process of being implemented. The AVL is planned to include a data layer that can be pulled into Lucity, which has Fleet Operations thinking about enhanced data and analysis capabilities for vehicle tracking. • "MyTankInfo" which is a mobile-friendly dashboard that provides Fleet Operations with access to fuel level data, tank alarm information, and compliance reporting tools. Without clean and detailed data, Fleet Operations will not be able to set standard performance measures or targets, track or monitor KPIs, conduct trend analysis to assist with assessing fleet operations performance to make informed operational and managerial decisions,	Low	Continue to assess the data captured by the various systems used by the City and determine ways this data can be further developed, analyzed, and incorporated for optimized performance, as well as presented regularly to senior leadership and Council. The data and reports developed should integrate into the performance measures that are set as per Fleet Operations strategic and business plans (refer to Recommendation #3 above). The following should also be considered: • Once performance measures have been established, develop fit-for-purpose automated reports directly generated from the various systems so that data does not need to be manipulated into other formats (i.e., excel) which can increase the risk of error and inaccuracies. • Data analysis, tracking, monitoring and reporting should be done on at least a quarterly basis, and in alignment with other monthly or quarterly reports. Performance measurement reporting should be refined by reviewing the comprehensive hierarchical portfolio of reports, focusing not just on variance and status reporting, but also allowing for management variance and status explanations that will help direct the ongoing strategy and performance of Fleet Operations.	City staff acknowledge the need to assess and analyze the new and current data generated from the newly implemented EAM system. As part of ongoing continuous improvement efforts, we will evaluate the best available performance measures for Fleet Operations and integrate to the annual business plan reporting. Performance Measures: Fleet Operations will continue to explore the opportunity to leverage the EAM system in developing performance measures.

#	Observation	Rating	Recommendation	Management Response
	or continuously improve. Implementing data analysis activities will allow Fleet Operations to identify opportunities for improvement, and consequently develop and implement efficiency and effectiveness initiatives for improved service and performance.			
5	Capital Budget Contingency During the audit, it was noted that Fleet Operations included a \$250,000 contingency allowance in their 2024 fiscal year budget to be used for capital budget overruns. At the time of our audit fieldwork (October 2024), the allowance was overdrawn by over approximately \$2 million, with potential increase by the end of the year. With a capital budget reported in the Capital Status Departmental Review report of approximately \$25 million in 'open' projects, the budgeted contingency of \$250,000 represents 1% of total open capital projects, and the overdraw represents approximately 8% of open projects. The contingency is often fully subscribed, overages are recorded in capital overrun accounts, and the contingency is replenished twice per year through reserve funding. Based on our review, while the City uses the contingency limit as a conditioning exercise to encourage a focus on the impact of budgeting and project overruns, it appears that the contingency allowance threshold of \$250,000 was put in place many years ago, and may not be adequate for the size and scale of the City's portfolio. If this limit is too low, the City may not achieve the right balance of project control (through discussion/review when limits are exceeded) and administrative efficiency, whereby projects are permitted to proceed without the need for incremental review.	Low	While the specific threshold limit of the contingency amount is not an overly restrictive constraint given overrun accounting and the replenishment process, a detailed root cause analysis of project overruns should be conducted, and where overruns are deemed excessive, the City should implement solutions to improve accuracy and accountability for the capital budgeting and project management processes. Solutions could include the application of contingencies for specific categories of capital, incremental training, and revised review procedures. Consider also developing a more appropriate contingency level based on accepted industry thresholds to help streamline project review and decision-making.	City staff recognize the importance of developing cost estimates that are as accurate as possible, based on the best available information, and integrating this data into the budget process. Updated cost information is consistently considered and utilized to guide planning and budgeting for future projects. Where necessary and appropriate, City staff will incorporate contingencies based on standardized corporate guidelines. Additionally, mechanisms are in place throughout the year to secure additional funding, as needed, to support the timely and successful delivery of projects. The effectiveness of financial policies, processes, and procedures is continuously monitored and assessed, with any required improvements being considered as part of ongoing continuous improvement efforts.
6	Business Case Financial Analysis Templates Fleet Operations requests Departments to prepare and submit business cases, including financial analysis, to assess options and justify fleet purchases and procurement of vehicles, equipment and related services. Upon review of the financial analysis template that	Low	Financial analysis templates should be developed and implemented in MS Excel for Departments to use for common (and unique when needed) procurements and expenditures. These templates should provide: O Purpose of the template	Corporate templates designed to capture critical information and considerations for decision-making are utilized in key business processes, including the annual

#		Observation		Rating	Recommendation	Management Response	
	accompanies business cases, and the completion of two different business cases (i.e., Vehicle Electrification and Rent vs Buy of Seasonal Vehicles), we noted that the template and analysis, which uses Excel, was conducted on an ad-hoc basis, with no clear instructions or explanations of embedded methodology or calculation inputs or results, rendering the financial analysis difficult to understand. Without the standardization of processes and procedures in place, there may be a reduction in the effective and efficient use of business cases, calculations, and other similar analyses when conducting assessments of new initiatives, capital replacements, and other business decisions. Standard financial analysis templates, with guidance around inputs, assumptions, methods of analysis, decision criteria and expected financial results are useful to evaluate the economy of various fleet strategies, options, procurements and expenditures.				 Instructions Guidance for: Inputs and assumptions Methods of analysis (individual and comparative) Decision criteria Form of presentation Interpretation of results 	budget process and procurement approvals. City staff recognize the importance of regularly reviewing these documents to ensure their continued effectiveness and will incorporate this assessment into ongoing continuous improvement efforts.	
7	Reporting Improvement Opportunities Fleet Operations maintains a set of financial and operational reporting that guides day-to-day management activities. The following table identifies certain of these reports, a brief description of their purpose and the reports' frequency:			Low	The following improvements should be made for continuous maturity of the Fleet Operations set of reports: 1. Fleet Financial Statement Consider including prior YTD Actuals in the report, including variance of actuals between current and prior year.	City staff recognize the importance of regularly reviewing and analyzing financial information. As part of ongoing continuous improvement efforts, we will consider necessary updates to tools and templates to ensure that	
	#	Report	Description	Frequency		 Within this report (i.e., on another tab) 	sufficient and relevant information
	2	Fleet Financial Statement Fleet Forecast	Expense variance report, budget-to-actual, month-to-date, year-to-date, and by object/account. Expense variance report and fiscal year forecast, with variance against year-	Once per year in Aug/Sept		or as an appendix to the report, include management comments for: O Variances that exceed a predetermined threshold. O Any noteworthy comments that may inform the forecasting exercise.	is captured.
			to-date budget and forecast variance against fiscal year budget.	based on July Financial Statement		 2. Fleet Forecast Consider including one other instance of budget variance analysis and forecast at 	
	3	Capital Project Portfolio Review	Portfolio and Project Status – open, closed,	Quarterly		10 months to: o Validate year-end projection.	

Observation			Rating	Recommendation	Management Response	
		carried forward, budget- to-actual, and remaining projects.			 Offer Management the opportunity to course correct in- year. 	
	Capital Project Status Update	Status by project, budget- to-actual, remaining dollars and time, simplified status narrative and forecast closure date.	Twice per year		 Inform budget for the following fiscal year. 3., 4. Capital Project Status Update and Capital Status Department Review Enhance the frequency of the 	
1	Capital Status Departmental Review	Similar report to Capital Project Status Update report above. This report includes instructions, and slightly more detailed status update narrative.	Quarterly		completion of the Capital Project Status Update report to quarterly to boost accountability, project management and contingency management. Increase the level of detail within the status narrative for a more comprehensive understanding of	
1	Fleet Procurement Status Report	For each Procurement, description, general ledger code, asset identification, budget, actual cost, plan date, and management notes.	Monthly		 Add information on project initiation date for variance assessment against completion or forecast completion. Consider combing these two capital status reports into one report. 	
	Markham Corporate Financial Report	Month and year-to-date variance report (dollars and FTEs) by high level Department/ Commission with Fleet Operations included within Community Services.	Monthly		 8. EV Operating Costs It would be useful to further disaggregate and identify the various types of EV costs to ensure that the City develops a baseline record of its EV fleet costs for use with further evaluation and business cases for the 	
	EV Operating Costs	Operating costs by electric vehicle and plug-in hybrid electric vehicle.	Monthly		expansion of the Green Fleet.	

#	Observation	Rating	Recommendation	Management Response
	and/or contents to assist with efficient and effective review and monitoring of Fleet Operations.			

