

**Audit- Winter Road Maintenance Program Phase One and Two:
Leveraging Technology and Improving Design and Management
Of Contracts to Achieve Service Level Outcomes
2022 Procurement Enhancements**

Rec #	Recommendation	Implementation Actions	Action Plan/ Time Frame
Phase 1			
4	City Council request the General Manager, Transportation Services Division, to fully utilize the GPS technology available, which includes real-time exception reports, notifications, and route completion and performance reports, to better monitor contractor performance.	The scope of work within the next round of contracts will incorporate the use of GPS to a greater extent. As noted in the contract language, the City intends to utilize GPS to track operations start and end time, overall time and stoppage/breakdown time and reason. In addition, GPS will also be used to monitor equipment location, both during operations and during stand-by, verify vendor invoicing for operating hours, standby days and monitor operator working hours for legislative requirements and defend against claims.	Contract Language Modification - To be implemented at the beginning of the 2022 Contract Season.
5	City Council request the General Manager, Transportation Services Division, to prepare a plan with specific deliverables and timelines to modernize processes and integrate technology solutions with its GPS system.	See Recommendation 4. In addition to this, where feasible in the revised scope of work the contract language has been modified to ask for information electronically such as operating sheets, and notification in writing via email with the details for breakdowns etc. so the information can be verified with GPS.	Contract Language Modification - To be implemented at the beginning of the 2022 Contract Season. Some of this recommendation is currently taking place for current winter operations and reports

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6	City Council request the General Manager, Transportation Services Division, to ensure staff use GPS information and reporting to monitor route completion, departure and return times, late starts, excessive stop times, and vehicle locations for operational as well as standby purposes, and assess liquidated damages where applicable.	See Recommendation 4. In addition, the scope of work for the next round of contracts will be based on the performing within a specified time frame with a desired outcome per round of equipment activation. I.e. 2 hours, bare and wet pavement. In place of liquidated damages, price adjustments will be required based on the delivery of the service. Liquidated damages will be assessed in a more traditional manner.	Contract Language Modification - To be implemented at the beginning of the 2022 Contract Season.
10	City Council request the General Manager, Transportation Services Division, to develop clear guidelines and allowances for acceptable stop times, break times, and the valid operational reasons for taking these stops and breaks.	<p>Modified wording within the scope of work to include specific time frame (15 min) and reasons for stop times. Acceptable reasons for stop times include the following purposes:</p> <ul style="list-style-type: none"> a. Washroom, Coffee and Meals b. Replenishment of salt c. Repair of equipment d. Public health, safety or security concerns e. Requirements in the HTA or Ontario Employment Standards Act <p>Notification in writing to Contract Administrator if longer and mitigation measures to ensure work done in specified timeframes.</p> <p>Breakdowns will be allowed one (1) hour down time to repair or supply a spare piece of equipment for the continuation of a salting or plowing operation.</p>	Contract Language Modification - To be implemented at the beginning of the 2022 Contract Season.

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11	City Council request the General Manager, Transportation Services Division, to improve how it documents and tracks vehicle breakdowns and the deployment of spare vehicles.	Modified wording within the scope of work to include the specific wording that immediately when the Vendor becomes aware of a breakdown of equipment they must notify the City in writing of the issue and the measures being taken to mitigate. The Vendor will be allowed one (1) hour down time to repair or supply a spare piece of equipment for the continuation of a salting or plowing operation. If a replacement vehicle is being activated, the Vendor must identify this to the Contract Administrator. The replacement vehicle must have working GPS.	Contract Language Modification - To be implemented at the beginning of the 2022 Contract Season.
12	City Council request the General Manager, Transportation Services Division, to: <ul style="list-style-type: none"> a. ensure all vehicles, including spares, are properly marked with vehicle identification numbers, b. conduct daily physical verification of contractor vehicles on standby, including spares, and document and compare the observations to contractor standby logs, and c. require the contractor to obtain prior approval from the contract administrator when a vehicle needs to go off-site for any reason and document the expected return date. 	Modified writing within the scope of work to include specific wording as follows: <ul style="list-style-type: none"> a. Section 1.2 specifies 2 signs with unit identifiers per vehicle and must be the same vehicle for the entire Term. Signs must match GPS, and this also corresponds to any spare Vehicles b. Section 1.7.6 City will pay a Monthly Fleet Standby (Daily Rate) to the contractor verify with the GPS. Also clarified in GPS/AVL Section c. Under the requirements for Standby (Daily Rate) The absence of a piece of equipment for any part of a 24-hour day for any reason makes that piece ineligible for standby payment, unless otherwise approved the City. 	Contract Language Modification - To be implemented at the beginning of the 2022 Contract Season.

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13	<p>City Council request the General Manager, Transportation Services Division, to:</p> <ul style="list-style-type: none"> a. improve documentation of assigned routes (and kilometers) and completed routes by contractor, as well as ensure explanations are documented for when routes are not fully completed, and b. examine the cases where routes do not appear to be completed for potential valid operational reasons and evaluate whether related issues need to be addressed. 	<p>Modification of the scope of work to</p> <ul style="list-style-type: none"> a. contractor is responsible to b. Winter weather related events will be reviewed and verified by GPS and field audits. The results of these reviews will be discussed with the contractors as required. 	<p>Contract Language Modification - To be implemented at the beginning of the 2022 Contract Season.</p> <p>Item b. has commenced already with the staff verifying the operating sheets submitted with the GPS reports and then discussing missed routes as required with the contractor for explanation.</p>

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14	<p>City Council request the General Manager, Transportation Services Division, to clarify wording in future winter maintenance contracts concerning:</p> <ul style="list-style-type: none"> a. contractor's obligation to detect and report GPS device malfunctioning within a set timeframe, b. reasonable stop and break times, c. preventing vehicle swapping between routes and locations to ensure GPS device information is accurate, and d. provisions for the assessment and enforcement of liquidated damages including clarifying the expectation for when the work commences. 	<p>The scope of work language has been modified to incorporate the following changes:</p> <ul style="list-style-type: none"> c. The Vendor shall verify all GPS/AVL hardware is functioning properly 45 days prior to the equipment's arrival at the City's facility and shall provide the City the status of all GPS/AVL units. In addition, The Vendor shall notify the city as soon as becoming aware of any GPS/AVL hardware malfunctions and in the event of a malfunction shall utilize a spare piece of equipment with fully functioning GPS/AVL until the regular equipment is repaired. d. Acceptable reasons for stop times include the following purposes: <ul style="list-style-type: none"> i. Washroom, Coffee and Meals ii. Replenishment of salt iii. Repair of equipment iv. Public health, safety or security concerns v. Requirements in the HTA or Ontario Employment Standards Act e. Modified the contract language to specify GPS, Vehicle ID and signs must be consistent for the term of the contract and GPS is to stay installed year round on the vehicle. f. The scope of work has been modified to incorporate a notification time (1 hour, 2 hours) to activate equipment and then a blanket specified timeframe for equipment to be loaded and on the streets (30 minutes). The work will be 	<p>Contract Language Modification - To be implemented at the beginning of the 2022 Contract Season.</p>

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		performance based timed for specific payment in hours for each round of equipment activated. This will be verified by GPS and field audits.	
15	City Council request the General Manager, Transportation Services Division, to reassess and document the rationale for liquidated damages amounts in the next contract cycle taking into account past claims against the City and other potential losses, to ensure that the liquidated damages amounts are fair and supportable.	The scope of work will be modified to include one section within the contract for Liquidated Damages and Transportation Services is working with City Legal to determine the best course of action	Contract Language Modification - To be implemented at the beginning of the 2022 Contract Season.

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17	<p>City Council request the General Manager, Transportation Services Division, to establish a formal process to:</p> <ul style="list-style-type: none"> a. ensure GPS devices are installed and functioning in all contractor vehicles, including spares, b. track all GPS devices and monitor them regularly to ensure the devices are functioning properly, c. periodically reconcile GPS billings, d. monitor and ensure GPS functionality issues are being reported to the GPS vendor and repaired on a timely basis, and e. monitor the calibration and functionality of salt spreaders. 	<p>Some of these items are operational procedures for staff; however the scope of work has been modified to include additional clarifications on the following items in this recommendation:</p> <ul style="list-style-type: none"> a. GPS contract language now states they must notify the city for hardware malfunctions and in the event of a malfunction shall utilize a spare piece of equipment with fully functioning GPS/AVL until the regular equipment is repaired. b. The city intends to utilize GPS to track operations start and end time, overall time and stoppage/breakdown time and reason. In addition, GPS will also be used to monitor equipment location, both during operations and during stand-by, verify vendor invoicing for operating hours, standby days and monitor operator working hours for legislative requirements and defend against claims c. This will be an operational procedure d. This is a revised operational procedure between the contractors, city staff and the GPS vendor e. Each piece of equipment must be calibrated according to the Calibration Procedure no later than seven (7) days prior to the beginning of the winter season. All vehicles must be calibrated monthly after the initial calibration or when a vehicle returns from maintenance. The results of this calibration must be submitted electronically to the Contract Administrator. 	<p>Contract Language Modification - To be implemented at the beginning of the 2022 Contract Season.</p> <p>Some of these items are operational procedures that do not require contract language changes, but rather formal changes to the processes to ensure accuracy</p>

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21	City Council request the General Manager, Transportation Services Division, to work together with Legal services on a detailed review of the contract documents and Request for Quote for the next contract cycle, and make the necessary improvements to ensure internal consistency, consistent use of terminology and defined terms, and simplification for implementation.	The new scope of work will apply to all contract areas to ensure a detailed review of the work and consistency in contract language and terminology and definitions. Transportation staff have been working with a team from Category Management, Legal, and Financial Services.	Contract Language Modification - To be implemented at the beginning of the 2022 Contract Season.
22	City Council request the General Manager, Transportation Services Division, to ensure that the management and payment for services is consistent with the express terms of the contract for the next contract cycle.	The new scope of work clearly states the methods of payment and the criteria under the Proposal Pricing section. This will be through the following items: <ul style="list-style-type: none"> • Standby (daily rate) for each piece of equipment in the fleet paid monthly • Operating rate (hourly for all services) paid monthly • Stockpiling, Loading, Supply/Manufacture of Salt and Salt Brine • Price Adjustments for performance 	Contract Language Modification - To be implemented at the beginning of the 2022 Contract Season.

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23	City Council request the General Manager, Transportation Services Division, to perform a cost-benefit analysis of in-house versus outsourced delivery of its winter road maintenance program, to determine whether it would be beneficial or not to increase the level of in-house delivery	Transportation Services has received a report on this analysis from a consultant and in order to gain economies of scale local salting in the Former Toronto and East York District will be contracted out in favour of bringing sidewalk clearing and trails in-house with an aim to expand in future years of the contract.	Implemented as part of the nRFP and 2022 including contract language to bring additional sidewalk services in-house
24	City Council request the General Manager, Transportation Services Division, to: <ul style="list-style-type: none"> a. develop meaningful Key Performance Indicators (KPIs) to measure the achievement of Council-approved service levels, b. develop performance metrics for the next contract cycle to measure and monitor contractor performance, c. improve processes and documentation to have relevant and readily available information to measure the KPIs, and d. publicly report on the KPIs on at least an annual basis. 	This recommendation is a portion of <ul style="list-style-type: none"> a. Internally the Division has started to measure KPI to track the Provincial and Council Mandated service levels b. The next round of contracts will have specific performance metrics and price adjustments for route completion and meeting service levels c. Additional information will be collected as KPI in relation to the contracts to inform decisions on monitoring contractor performance with an aim at including some of these additional KPI in future contracts d. Reporting of KPIs that will be publicly reported annually will be based on meeting provincial and council mandated service levels, repairs to damages within a timely manner, user satisfaction and a direct review of the claims from Insurance and Risk Management 	Contract Language Modification - To be implemented at the beginning of the 2022 Contract Season. (b., c. & d.) Some of these items are already being recorded and addressed (a. & d)

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26	City Council request the General Manager, Transportation Services Division, to analyze legal claims information and 311 service requests on a regular basis to provide additional indicators of where contractor performance needs closer monitoring.	<p>Consultation with Transportation's legal litigation team to review previous claims for modified wording in contract language. This has been completed and will be implemented.</p> <p>Transportation is also reviewing 311 service requests on a monthly basis and more regular at times to review additional monitoring of contractors</p>	<p>Contract Language Modification - To be implemented at the beginning of the 2022 Contract Season.</p> <p>Review of service requests started in the 2020/2021 Season</p>
27	City Council request the General Manager, Transportation Services, to develop a reporting process regarding complaints received about winter maintenance and to develop a process to include complaints in contract management and contractor performance evaluations, with a special emphasis on recurring issues.	<p>Staff are currently creating heat maps for winter service requests and complaints and staff are proactively looking at this during winter events for discussion with contractors.</p> <p>The contractor performance evaluations will be incorporated as this is a mandatory requirement for all contractors in the City of Toronto. The previous winter contracts were issued prior to the CPE being implemented.</p>	The Division is already reviewing complaints and using the information for discussion with the contractors. CPE will be included in the next round of contracts for 2022
Phase 2 Audit			
1	City Council request the General Manager, Transportation Services Division, to implement fleet reduction and deployment adjustments to achieve cost savings and make winter operations more cost-effective.	The nRFP encouraged suppliers to specify their own equipment from a suite of choices that could provide more than one type of service ie. salting and plowing with the same vehicle with an aim to reduce the overall fleet and Daily Rate costs	Contract Language Modification - To be implemented at the beginning of the 2022 Contract Season.

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2	City Council request the General Manager, Transportation Services Division, to include flexibility in the Request for Proposal for the next contract cycle to be able to control the fleet size by type of vehicle and the deployment, particularly during the shoulder season (October/November, March/April).	The new contract stipulates due to changes based on warm weather conditions at the start and end of the winter seasons there may be situations where the fleet can be reduced without impacting services. The City will provide reasonable notice based on current weather patterns to realize Daily Rate savings	Contract Language Modification - To be implemented at the beginning of the 2022 Contract Season.
3	City Council request the Chief Financial Officer consider setting up a reserve for the cost savings generated from improved fleet size/deployment, and using if/when surge capacity may be needed for unusual snow events during the winter shoulder season (October/November, March/April).	The Division in consultation with Financial Planning is unable to set up a reserve fund; however, Transportation Services will review any realized savings from winter services contracts and consider making a larger contribution to the Fleet budget in the subsequent budget cycle.	This activity to commence in the 2024 budget cycle