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2021 OPERATING BUDGET BRIEFING NOTE

Cost of Providing Harmonized Snow Clearing for the Entire City of Toronto for the 2021/2022 Winter Season Including an Equity Lens

At its meeting of January 12, 2021, the Toronto and East York Community Council requested the General Manager, Transportation Services, to prepare a budget briefing note to the Budget Committee assessing the cost of providing harmonized snow clearing for the entire City of Toronto for the 2021/2022 winter season for consideration during the 2021 budget process, including an equity lens. This briefing note responds to the Committee's request.

Background:

Mechanical sidewalk winter maintenance is activated with 2 cm of snow accumulation, or when icy conditions dictate. Sidewalks with high pedestrian volume (arterial roads, school zones, transit areas, and accessibility locations) are cleared first followed by collector and local roads.

Transportation Services mechanically clears snow and ice from approximately 5,600 kilometres of sidewalks in most areas of Toronto, which equates to approximately 81% of all city sidewalks. The City cannot currently provide mechanical snow clearing on all sidewalks due to narrow sidewalk widths, encroachments, on-street vehicle parking and existing plow limitations.

New Winter Maintenance Sidewalk Plow Trial

In selected areas where existing mechanical winter maintenance equipment doesn't fit, Transportation Services is conducting a trial with nine new smaller sidewalk plows. The trial started on February 6, 2020 and will continue throughout this upcoming winter season. The trial will include 230 km of sidewalks that currently serve seniors and individuals with disabilities, contain narrow widths, on-street parking, various encroachments and obstructions. This trial will determine whether it is possible to expand mechanical sidewalk clearing to parts of the city that do not currently receive it, and determine what resources, equipment and staffing, would be required.

Each new sidewalk plow has been assigned a beat with two routes, each ranging from 12-15 km of sidewalk and will be deployed whenever 2 cm of snow accumulates, the same as the threshold to activate sidewalk plows on existing City routes. Each sidewalk plow will be able to complete one route per day, meaning it will take two days to complete one full round of snow clearing on the sidewalks.

The new sidewalk plows have been deployed 10 times (to January 29, 2021) since the trial began. The average amount of snow cleared was approximately 3-5 cm deep, although on January 26, 2021 they operated in approximately 8 cm of snow. More snow events with this level of snowfall will be needed to assess the operational effectiveness and reliability of these sidewalk plows.

The success of the trial will be based on the new sidewalk plows effectively being able to navigate and clear the snow on the narrower sidewalks without causing property damage to on-street parked vehicles and encroachments. Snow events to date suggest that the new smaller sidewalk plows are still not able to navigate all sidewalks due to utility posts and retaining walls, thus some manual clearance would still be required. The trial results will determine the number and types of sidewalk plows as well as staffing levels required should City Council decide to implement winter harmonized sidewalk snow clearing for Toronto East York in time for the 2022/2023 winter season.

Equity Lens

At this time, there has not been sufficient trial results to measure the equity impacts of manual snow clearing as compared to the mechanical snow clearing on sidewalks. Following the trial, an equity lens assessment will be included in the report back to City Council in Q2 2021.

Costs to implement mechanical sidewalk clearing

If all remaining sidewalks were to receive mechanical winter service a capital cost of approximately \$6.5 million for 65 additional sidewalk plows would be incurred along with further annual staffing costs of \$2.6 million. These are preliminary costs that are subject to change pending procurement and staffing requirements which can be properly assessed as part of the trial evaluation.

Next Steps

Transportation Services is scheduled to report back to Toronto and East York Community Council in Q2 2021 on acceleration options on procuring the additional pieces of sidewalk plow required for full implementation of winter harmonized snow clearing for Toronto East York in time for the 2021/2022 winter season.

Key Points:

- Staff require further trial information to determine whether it's operationally and financially feasible to expand mechanical sidewalk clearing to parts of the city that do not currently receive it and will report to City Council in Q2 2021.
- The smaller sidewalk plows are built to order, customised to client requirements, and so have an order to delivery time of approx. 12 months. This means that, assuming a favourable trial this winter that demonstrates the operational effectiveness and reliability of these smaller plows in a constrained environment, delivery of the 65 sidewalk plows to enable expansion of the mechanical sidewalk program would be unlikely until the 2022/2023 winter season.

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