

DECISION/DIRECTION NOTE

Title: Sidewalk Snow Clearing Service Levels

Date Prepared: September 3, 2020

Report To: **Committee of the Whole**

Councillor and Role: **Councillor Ian Froude, Public Works & Sustainability**

Ward: N/A

Decision/Direction Required:

To seek direction on increasing the level of service provided by the current sidewalk snow clearing program.

Discussion – Background and Current Status:

Winter sidewalk maintenance activities are an important component of an active transportation network and help to improve the commuter experience. The City of St. John's snow clearing program is intended to assist vehicles that are properly equipped for winter driving and operated using good winter driving practices as well as pedestrians using proper winter footwear.

The local climate is one of the biggest challenges we face for snow clearing sidewalks. St. John's is one of the snowiest cities in Canada, but also has a very temperate climate which results in a lot of rain and/or snowmelt immediately after a snowfall. That rain and melt causes our snow to get wet and heavy very quickly. The snow subsequently freezes, turning into ice. This hard, heavy snow creates an incredibly difficult challenge for our equipment.

It is important to recognize that the level of service for snow clearing and ice control will not be the same on sidewalks as it is in the roadway for the following reasons:

1. The physical characteristics of sidewalks such as limited width, obstructions (utility poles, guy wires, and fire hydrants), and lack of drainage.
2. The effect of pedestrian traffic compared to vehicular traffic (vehicles help move salt around once adjacent ice is melted).
3. Limitations of sidewalk equipment such as size, power, and speed. To match the same level of service would require double or triple the operator/equipment resources.
4. Smaller equipment tends to become damaged more easily than larger equipment when used in the hard packed and icy snow that is common in St. John's.

A significant challenge to achieving the level of service is the ability to recover completely from an event before the next event begins. It is important that expectations are managed during the winter season with resource constraints.

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The sidewalk snow clearing program is designed to provide the highest level of service during the daytime hours and it provides minimal overnight coverage. This document outlines the existing structure and supplies options to consider that will enhance the level of service.

Outline of the current sidewalk snow clearing program:

- 161 kilometers of sidewalk including 36 schools (primary to post-secondary)
- 12 routes (9 using internal forces and 3 contracted), averaging 13.4km per route
- 18 operators and 2 supervisors are assigned to the sidewalk snow clearing program from December 1 to March 21
- The current resources allocated to sidewalk snow clearing result in a four to seven-day completion timeline, for a **typical** St. John’s winter. This time varies with snowfall amounts, time between snow events, and ice accumulation.

The following options are provided for Council’s consideration. Neither option removes any portion of the 161km of sidewalks that are currently serviced.

Option 1

- Increased attention to priority 1 sidewalks. Staff will not begin working on lower priority sidewalks until all priority 1 segments are passable and have adequate traction.
- Increase the rate and frequency of salt applications.

Operating Cost	\$50,000
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Option 2

- Clear all pedestrian activated signals within 48 hours of the snow stopping.

Operating Cost	\$700,000
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Option 3

- Create three new routes, the average route length is shortened to 11km (18% decrease), the overall network remains at 161km.
- 4 additional pieces of sidewalk equipment
- 6 additional staff, 3 per shift

Capital Cost	\$900,000
Operating Cost	\$300,000

Option 4

- Add an evening shift (50% increased time working on network), route lengths are unchanged, and the overall network remains at 161km.
- 4 additional pieces of sidewalk equipment
- 9 additional staff + 1 additional supervisor

Capital Cost	\$900,000
Operating Cost	\$450,000

Option 5

- Create five new routes, the average route length is shortened to 9.5km (30% decrease), the overall network remains at 161km.
- 7 additional pieces of sidewalk equipment
- 10 additional staff, 5 per shift

Capital Cost	\$1,500,000
Operating Cost	\$500,000

Option 6

- Create 9 new routes, the average route length is shortened to 8 km (40% reduction), the overall network remains at 161km.
- 12 additional pieces of sidewalk equipment
- 4 loader/blower units to move large snow accumulations
- 18 additional staff, 9 per shift + 2 additional supervisors, 1 per shift

Capital Cost	\$3,300,000
Operating Cost	\$1,200,000

Key Considerations/Implications:

1. Budget/Financial Implications:
 - Various options and associated costs are outlined above.
2. Partners or Other Stakeholders:
 - All commuters in the City of St. John’s including pedestrians and motorists
3. Alignment with Strategic Directions/Adopted Plans:
 - A City that Moves
4. Legal or Policy Implications: N/A

5. Privacy Implications: N/A
6. Engagement and Communications Considerations: N/A
7. Human Resource Implications: N/A
8. Procurement Implications: N/A
9. Information Technology Implications: N/A
10. Other Implications: N/A

Recommendation:

That Council maintain the status quo. Given future anticipated budget challenges, enhancing the level of service for sidewalks is not recommended. The minimal cost option to produce a noticeable difference to residents is 700k per year which is not budgeted.

Prepared by: Lynnann Winsor

Approved by: Kevin Breen

Report Approval Details

Document Title:	Sidewalk Snow Clearing Service Levels.docx
Attachments:	
Final Approval Date:	Sep 10, 2020

This report and all of its attachments were approved and signed as outlined below:

No Signature - Task assigned to David Crowe was completed by workflow administrator Karen Chafe

David Crowe - Sep 10, 2020 - 12:20 PM

Lynnann Winsor - Sep 10, 2020 - 12:41 PM