



# INFORMATION REPORT

<b>TO:</b>	Chair and Members Public Works Committee
<b>COMMITTEE DATE:</b>	April 19, 2021
<b>SUBJECT/REPORT NO:</b>	Sidewalk Snow Clearing Update (PW19022(c)) (City Wide) <b>(Outstanding Business List Item)</b>
<b>WARD(S) AFFECTED:</b>	City Wide
<b>PREPARED BY:</b>	Bob Paul (905) 546-2424 Ext. 7641
<b>SUBMITTED BY:</b>	Edward Soldo Director, Transportation Operations & Maintenance Public Works Department
<b>SIGNATURE:</b>	

## COUNCIL DIRECTION

Not applicable.

## INFORMATION

### Background

At the January 21<sup>st</sup>, 2019 General Issues Committee meeting, Transportation Operations & Maintenance staff were requested to provide a consolidated summary and financial update regarding previous reports related to winter sidewalk maintenance in the City. At the February 28, 2019 General Issues Committee meeting, Information Report - Winter Sidewalk Maintenance (PW19022) was provided that outlined the requested information and cost estimates based on 2018 expenditures.

At the March 27, 2019 Council Meeting, staff were asked to prepare a report that integrated an Equity, Diversity and Inclusion (EDI) framework into the development of a new service standard related to snow removal from sidewalks during the winter. At the February 13, 2020 General Issues Committee meeting dealing with the 2020 Operating Budget, Report PW19022(a) - Sidewalk Snow Removal was provided and outlined a number of level of service enhancement scenarios for consideration. Council referred the matter back to staff for additional information and consultation with the public.

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On November 19, 2020, Report PW19022(b) was presented to the General Issues Committee. Staff were asked to summarize findings regarding additional information about By-Law No. 03-296, challenges associated with universal sidewalk snow removal, engage with Committees about persons with mobility issues, and communicate with other municipalities.

The matter was referred to the 2021 Operating Budget deliberations for consideration. At the February 19, 2021 General Issues Committee, which dealt with the 2021 Operating Budget, the matter respecting the Sidewalk Snow Clearing Program Options was referred to the Public Works Committee.

The purpose of this Information Report PW19022(c) is to provide updated 2021 costs, identify timelines and process for potential implementation, summarize previous data and public consultation, and identify potential level of service enhancements for Council consideration for implementation for the winter season of 2022/2023.

### Overview

The City of Hamilton currently clears 397 km of the approximate 2,445 km of sidewalks across Hamilton. This includes sidewalks on municipally owned property, along reverse frontage lots, formerly Ward 12 in its entirety, and sidewalks adjacent to school property owned by either the Public or Private School Board, in conjunction with By-law No. 03-296 on a charge-back basis.

By-law No. 03-296 requires that every occupant or owner shall, within 24 hours of the cessation of a winter storm event, or within 24 hours of the cessation of a series of consecutive winter storm events, remove and clear all snow and ice from sidewalks abutting the highways in front of or alongside, or at the rear of any occupied or unoccupied lot or vacant lot. The City will activate snow clearing equipment if accumulation of snow is 5 cm or greater, or, whenever required to achieve bare pavement. Residents will still be required to follow By-Law No. 03-296.

### Levels of Service Enhancement Options

The City of Hamilton currently allocates \$33.7 million each year for winter maintenance, of which \$2.1 million is dedicated to sidewalk winter maintenance.

As per Report PW19022(b), a number of service level enhancement options have been developed to integrate an Equity, Diversity and Inclusion (EDI) lens into the provision of sidewalk snow clearing. These service levels have been further delineated to provide two options, one that provides a snow pack end condition and one that provides a bare pavement end condition.

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Scenario 1 – Existing Level of Service – Maintaining sidewalks on municipally owned property, along reverse frontage lots, formerly Ward 12 in its entirety, and sidewalks adjacent to school property, owned by either the Public or Separate School Board, in conjunction with By-law No. 03-296 on a charge-back basis.

Scenario 2 – Priority 1 and 2A Roadways – Maintaining sidewalks in the existing level of service plus the addition of an estimated 783 km of sidewalk along transit routes.

### Service Level 2A

- Activate when snow accumulation is 5 cm or greater
- Snow packed condition with de-icing material application

### Service Level 2B

- Activate when snow accumulation is 5 cm or greater
- Bare concrete with application of salt

Scenario 3 – City Wide Roadways – Maintaining all sidewalks across the City

### Service Level 3A

- Activate when snow accumulation is 5 cm or greater
- Snow packed condition with de-icing material application

### Service Level 3B

- Activate when snow accumulation is 5 cm or greater
- Bare concrete with application of salt

The estimated costs for Scenario 2 and 3 are based on the approach identified in Report PW19022(b) - Winter Sidewalk Maintenance which used the former Ancaster Ward 12 service delivery model and is based on updated 2021 costs related to contracted service delivery and salt costs.

## Financial Impacts

To enhance the existing level of service to Scenario 2 (include priority 1 and 2A roadways plus base) would result in an additional 783 km of sidewalks cleared. Activating at 5 cm or greater under service level Scenario 2A snow packed condition, would result in an estimated cost increase of \$4.44 million, with a residential Impact of 0.3%, or \$12. Activating under service level Scenario 2B, clear and application of salt, would result in an estimated cost increase of \$4.83 million, with a residential Impact of 0.3%, or \$13.

To enhance the existing level of service to Scenario 3 (include all 2,445 km of sidewalks on City roadways), activating at 5 cm or greater under service level Scenario 3A snow packed condition, would result in an estimated cost increase of

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\$8.07 million, with a residential Impact of 0.6%, or \$26. Activating under service level Scenario 3B, clear and application of salt, would result in an estimated cost increase of \$9.07 million, with a residential Impact of 0.7%, or \$30.

Attached as Appendix “A” to Report PW19022(c) – Sidewalk Snow Clearing Cost Estimate summarizes the scenarios described above. Due to the various implementation scenarios and operational constraints, it is not possible to determine financial impacts Ward by Ward with a high level of accuracy.

Not included in the sidewalk snow clearing cost estimate are the restoration costs to damaged property as a result of the program. These include costs related to items within the road allowance such as parked cars, fences, posts, hedges, plantings, in ground lawn sprinklers, driveway curbs or other obstructions within the right-of-way due to plowing or blowing operations.

Sod damage is a significant source of concern in other municipalities and a budget for sod repair following the winter control season would be required. In conversation with municipalities who provide a similar service, the costs of restoration for a typical winter season may run between \$75,000 to \$100,000 per season.

To provide the level of service in Scenario 2 or 3, the City would need to contract additional services to the private sector based on current in-house staffing levels. Additional supervisory staff would also be required to oversee the program. The enhancements would not be implemented prior to the 2022/2023 winter season as the appropriate sidewalk snow clearing resources are currently not available within the marketplace.

Additionally, approximately \$100,000 in one-time consultant costs will be required to develop a detailed program based upon routing and equipment needs in relation to the existing sidewalk inventory. This detailed review will help create the required tender for services.

### **Service Requests**

If Scenario 2 or Scenario 3 are approved, it is expected that service requests directed at the City and Council would increase. A summary of service requests received based on a typical winter season are shown below, as well as a heavier than average consecutive storm events for comparison, specifically from February 12, 2021 to February 22, 2021. Approximately 25% of all winter service requests are sidewalk related as shown below.

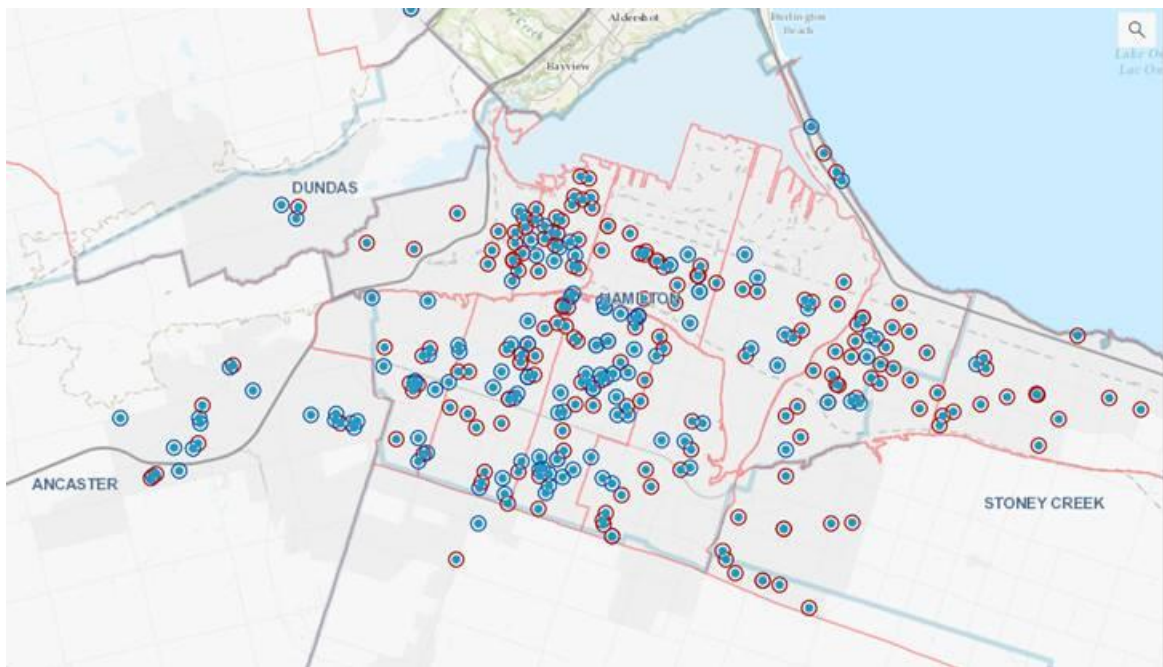
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Number of Service Requests – 2019/2020 winter season		
Ward	Sidewalk	All Requests
1	0	14
2	3	12
3	1	17
4	3	12
5	38	89
6	54	173
7	73	207
8	63	207
9	11	71
10	7	48
11	12	83
12	16	130
13	7	60
14	31	92
15	5	68
Total	328	1283

Number of service requests – February 12, 2021 to February 22, 2021		
Ward	Sidewalk	All Requests
1	12	63
2	23	75
3	18	76
4	15	81
5	38	153
6	22	129
7	49	143
8	44	134
9	9	64
10	22	79
11	6	55
12	20	48
13	4	33
14	16	65
15	21	46
Total	319	1244

As a visual reference, the winter events from February 12, 2021 to February 22, 2021 are shown below.

Map 1 - Sidewalk Snow Clearing Requests




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## Environmental Impacts

In 2001, Environment Canada released an assessment report stating road salts are entering the environment in large amounts and are posing a risk to plants, animals, birds, fish, lakes, stream ecosystems, and groundwater. Road salts are used across the City and the rest of Canada as de-icing and anti-icing chemicals for winter road and sidewalk maintenance. The Government of Canada is not banning the use of road salts or proposing any measures that would compromise or reduce road safety.

With the recent concerns being raised on the negative side effects salt has on the environment we are looking for ways to reduce our salt dependency while maintaining user safety. This remains the most important priority within winter maintenance operations. Although there is ongoing research into the use of alternatives to road salt (i.e. sodium chloride) in winter maintenance, it continues to be the most cost-effective de-icing agent across Canada.

Should either Scenario 2 or Scenario 3 be approved, the adverse effects salt has on the environment should be taken into consideration.

It is expected that the increased use of salt used in sidewalk snow clearing would contribute to increased chloride levels in our water network. Hamilton Water monitors and tests for chlorides in the raw drinking water supply from Lake Ontario and there has been an increase in samples over the last number of years since 2017.

## Public Engagement

As a part of PW19022(b), the Transportation Operations & Maintenance Division, with support from Corporate Communications, and in partnership with Community Initiatives conducted an online sidewalk snow clearing engagement project to help measure and better understand the needs of residents related to sidewalk snow clearing in winter months.

The engage Hamilton website launched on August 10, 2020 and closed on September 14, 2020. The website featured a survey and provided an opportunity for feedback, questions from residents and comments from advisory groups. A media release and social media campaign was utilized to drive residents to the engage Hamilton website requesting participation in the survey. Advisory groups were contacted directly via email and directed to the website.

## Summary of Engagement Results

Some of the survey highlights can be found below (n=1,987):

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- 31.6% reported they do not feel safe at all using Class 1 or 2A sidewalk routes in winter;
- 58.8% indicated they feel slightly safe using Class 1 or 2A sidewalk routes in winter;
- 74.6% stated improving winter walkability should be a Council priority;
- 81.6% indicated they support a tax increase of less than or equal to \$10;
- 67.0% responded they support a tax increase of \$10-\$25;
- 49.6% indicated they don't support a tax increase of greater than \$50;
- 73.1% believe the City should invest resources (i.e. financial, human, equipment) to sidewalk snow-clearing to provide a more consistent service;
- 41.0% expressed general comments in favour of the City taking over all sidewalk clearing;
- 24.6% had concerns regarding accessibility or safety;
- 15.5% expressed sidewalk snow clearing as an equity issue.

Detailed survey results and analysis of comments can be found attached as Appendix "B" to Report PW19022(c) – Engagement Results.

### **Municipal Scan**

The Transportation Operations & Maintenance Division conducted a municipal scan to understand and gauge the level of service being conducted in other Canadian municipalities as it relates to sidewalk snow removal.

The review came in response to a motion approved by the General Issues Committee (GIC) on February 13, 2020 that directed staff to communicate with other municipalities providing sidewalk snow removal.

Detailed survey results and analysis of comments can be found attached as Appendix "C" to Report PW19022(c) – Municipal Scan.

### **APPENDICES AND SCHEDULES ATTACHED**

Appendix "A" to Report PW19022(c) – Sidewalk Snow Clearing Cost Estimate

Appendix "B" to Report PW19022(c) – Engagement Results

Appendix "C" to Report PW19022(c) – Municipal Scan