



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Transportation Operations and Maintenance Division

TO:	Mayor and Members General Issues Committee
COMMITTEE DATE:	January 28, 2020
SUBJECT/REPORT NO:	Sidewalk Snow Removal (PW19022(a)) (City Wide) (Outstanding Business List Item)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Bob Paul (905) 546-2424 Ext. 7641
SUBMITTED BY:	Edward Soldo Director, Transportation Operations & Maintenance Public Works Department
SIGNATURE:	

RECOMMENDATIONS

- (a) That staff expand existing communications initiatives regarding winter storm activities to include additional information about By-law No. 03-296 and on-street parking during snow events; and
- (b) That the Sidewalk Clearing Program, Snow Angels Program, Pro-Active Sidewalk Snow Removal Enforcement and Regular Maintenance of Canada Post Community Mailbox Locations, be removed from the General Issues Committee Outstanding Business List.

EXECUTIVE SUMMARY

At the March 22, 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. Three scenarios were identified, ranging from \$3.06 to \$5.36 million. It should be noted that any enhancements could not be implemented prior to the 2020/2021 winter season.

Should Council wish to further consider the development of a municipal winter sidewalk maintenance program, as per the EDI framework, staff recommend the engagement of consulting services to prepare a detailed program based on an assessment of the

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existing inventory, routing and staffing needs, with recommendations for service levels and a delivery model. This information would be used to develop a request for proposal which would provide more definitive costing and implementation timing.

To enhance existing sidewalk snow removal compliance, staff recommend expanding the existing winter storm communications activities to focus more heavily on residents' responsibilities regarding removing snow from sidewalks adjacent to their property, and to request they avoid parking on the road during snow events.

Alternatives for Consideration – N/A

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: To enhance this service level to include priority 1 and 2A roadways would result in an additional 783 km of sidewalks cleared at a cost in the range of \$1.48 to \$1.78 million, bringing the total budget to between \$3.06 and \$3.36 million. If the service level enhancement was expanded further to include all 2,445 km of sidewalks on city roadways, it would require an increase in the range of \$3.53 to \$3.78 million, bringing the total budget to between \$5.11 and \$5.36 million.

Staffing: N/A

Legal: N/A

HISTORICAL BACKGROUND

At the March 27, 2019 Council meeting, the following directions were approved:

(iv) Sidewalk Clearing Program (Item 6.8)

That staff be directed to prepare a report for consideration during the 2020 budget that would include, but not be limited to, integrating an Equity, Diversity and Inclusion (EDI) framework of removing snow on sidewalks in high pedestrian areas, around parks, day care and childcare facilities, senior housing and eldercare facilities and provide connectivity to transit routes.

(v) Snow Angels Program, Pro-Active Sidewalk Snow Removal Enforcement and Regular Maintenance of Canada Post Community Mailbox Locations (Item 6.8)

That staff be directed to report back to either before or to the General Issues Committee during the 2020 Operating Budget process respecting the following:

(a) The feasibility of ways and means to enhance the Snow Angel program;

- (b) The feasibility of greater proactive sidewalk snow removal enforcement; and
- (c) Communications with Canada Post for regular maintenance (snow and ice removal) of the Community Mailbox locations.

At the February 28, 2019 General Issues Committee (GIC) meeting, staff provided through Report PW19022, a consolidated summary and financial update regarding previous reports related to winter sidewalk maintenance in the City.

The City maintains Municipal roadways as per Ontario Regulation 239/02 - Minimum Maintenance Standards for Municipal Highways - made under the Municipal Act, 2001 (MMS).

The City has a 24/7 winter response team equipped with; over 500 total pieces of winter equipment (in-house and contracted), which includes 161 road plow salt/sanders and 22 sidewalk plows. The response team maintains the City's 6,478 lane-kilometres of roadway, approximately 1,100 cul-de-sacs, and over 2,300 bus stops.

The City currently provides partial snow clearing winter control for sidewalks using City staff in conjunction with contracted services to clear 397 km of the approximate 2,445 km of sidewalks across Hamilton. The response standard for snow clearing is within 24 hours of the end of a winter event.

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 does not offer individual snow removal services for seniors or individuals with disabilities. In 2005, the City approved the development of the Snow Angels Program that is coordinated through the Healthy & Safe Communities Department. This program involves the recruitment of volunteers to clear snow on sidewalks, walkways and driveway entrances left by snow plows for eligible seniors and individuals with disabilities in the Hamilton area.

RELEVANT CONSULTATION

The following City of Hamilton Departments/Divisions have been consulted in the development of this report:

- Healthy & Safe Communities: Children's Services and Neighbourhood Development;

- Planning & Economic Development: Licensing & By-law Enforcement
- Public Works: Transportation Operations & Maintenance: Business Initiatives;
- Corporate Services: Finance; and
- City Manager's Office: Corporate Communications.

The following external parties have been consulted for this report:

- Canada Post

ANALYSIS AND RATIONALE FOR RECOMMENDATIONS

Alternative Sidewalk Winter Maintenance Service Levels

The integration of an Equity, Diversity and Inclusion (EDI) framework into decisions related to transportation can be challenging as there are many potential impacts to consider, different ways to measure impacts and multiple ways to categorize users of the system.

Transportation affordability, housing affordability, impacts on low income communities, transit availability and service quality, AODA design, mobility needs, parking and service quality for non-vehicle drivers are all considerations that need to be taken into account when reviewing service delivery levels related to transportation infrastructure.

The integration of the EDI framework into transportation service levels will promote fairness that ensures residents of all identities are treated fairly by removing barriers and creating equal opportunities, promoting diversity through the understanding of different user group experiences and being inclusive by creating an environment in which all people are respected through the identification and removal of barriers.

To integrate an EDI framework for removing snow on sidewalks a review of alternative sidewalk winter service level scenarios was undertaken.

The target areas are located throughout the community. Developing sidewalk clearing routes that encompass every location that meets the criteria was not possible. Staff were able to analyse the known locations of the areas of interest and overlay their locations onto the present Hamilton Street Railway transit routes. It was determined that most of the relevant sidewalks are located on the City's priority 1 and 2A winter control snow clearing roadways. Based upon this analysis it is estimated that an additional 783 km of sidewalk would need to be incorporate into the City of Hamilton's sidewalk snow clearing program.

Using this approach, three scenarios were developed for analysis:

Scenario 1 – Base Case (existing 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 base case plus the addition of an estimated 783 km of sidewalk.

Scenario 3 – City Wide Roadways – Maintaining all sidewalks in the city.

The estimated costs for scenario 2 and 3 are based on the approach identified in Report PW19022 Winter Sidewalk Maintenance which used the former Ancaster Ward 12 service delivery model and is an average of the past five (5) winter seasons. These costs include standby contractual sidewalk plowing units, in-house manpower and material costs.

Winter Control Program – Sidewalk Snow Clearing

Scenario	Sidewalk (km)	Percentage of Inventory (%)	Activation Trigger	Service Level	Estimated Costs (million)
1	397	16.2	Snow covered	Clear and application of salt	\$1.58* *Budgeted
2	1,180	48.2	5.0 cm accumulation on City sidewalks on priority 1 and 2A roadways plus the existing inventory	Snow packed condition with de-icing material application	\$3.06 - \$3.36
3	2,445	100	5.0cm accumulation on all City sidewalks	Snow packed condition with de-icing material application	\$5.11 - \$5.36

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Not included in the above-mentioned cost estimate are the restoration costs to damaged property as a result of the program. These include costs relate 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 as a result of the 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 that 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 based on current in-house staffing levels, the City of Hamilton will need to contract the additional service out to the private sector. Additional supervisory staff will be required to oversee the program and those requirements will be identified in a future budget. The enhancements would not be implemented prior to the 2020/2021 winter season as the appropriate sidewalk snow clearing resources are currently not available within the marketplace.

Council should be aware that bare pavement condition can only be achieved through the application of de-icing material. The use of de-icing material will increase the costs associated with manpower, equipment time and materials, which will increase the overall program costs.

As mentioned in Report PW19022, the City of Hamilton has a Salt Management Plan which was approved in 2003. Under the Canadian Environmental Protection Act, 1999, the Government of Canada published a Code of Practice for the Environmental Management of Road Salts on April 3, 2004. The Code is designed to help municipalities and other road authorities better manage their use of road salt in a way that reduces their impacts on the environment while maintaining road safety. The use of road salt, in sufficient concentrations, poses a risk to plants, animals and the aquatic environment.

The use of road salt on sidewalks is not recommended from an environmental perspective and may also damage the concrete sidewalks contributing to the deterioration of other assets, and damage sod adjacent to the sidewalk.

Municipal Service Comparison

Sidewalk plowing is typically triggered for most municipalities at the 5 cm threshold, with target pavement conditions varying from bare pavement to the more typical snow packed condition. A comparison is attached to Report PW19022(a) as Appendix “A”.

Completion time for the sidewalk snow clearing program for most municipalities is 24 hours from the end of the event, to 72 hours after commencement of the sidewalk snow clearing operations (Toronto), to five working days from commencement of the

residential sidewalk clearing operations (Winnipeg). In most cases, municipalities that do service their entire sidewalk network do so only after the adjacent street or all of the roads within the city or town have been maintained.

Snow Angels

Snow Angels is a volunteer supported initiative where residents are geographically matched with low income seniors or those with disability who require assistance to shovel their own properties within 24 hours of a snowfall. Since resuming oversight of the program in 2015, the Healthy and Safe Communities Department have been able to match between 80% to 95% of the residents on the list with a Snow Angel volunteer.

However, given that matches are made geographically in their neighbourhoods, some residents go without a Snow Angel as recruitment within certain neighbourhoods is not as successful. For the 2018/2019 season, approximately 9 residents went without a match.

As a volunteer-based program, success is based on the numbers and geographical location where recruitment can match the needs. The number of volunteers can fluctuate on a daily, monthly and yearly basis based on desire, injuries, other commitments, reliability and the working conditions. Given the environmental working conditions, cold and physical work, throughout the year there is turnover of volunteers affecting the number of residents matched as well as the continued desire to take on this role - compassion fatigue does set in with the volunteers in harsher winters. Snow clearing occurs when over 3 cm of snow has fallen, which historically has resulted in shovelling events varying from 5 to 20 times per winter season.

Every year, calls are received from residents who would like to receive a Snow Angel, and in some cases offer to pay for snow clearing but cannot find willing and affordable help. Not all residents that request a Snow Angel may be qualified under the eligibility review.

Given that the Snow Angels program is volunteer based, enhancing it is entirely tied to how many residents can be recruited.

Pro-Active Sidewalk Snow Removal Enforcement

As referenced in the Information Update to Council on March 26, 2019, “Snow and Ice By-law Enforcement Update – 2019”:

From January 1 to March 15, 2019, Licensing & By-law received 2,786 complaints of By-law infractions for failing to remove snow from sidewalks. Of these complaints 55% were found to be infractions and 1,240 Orders to Comply were issued to property owners. There was a 94% compliance rate once the order was issued with 1,163

residents clearing their snow. Licensing and By-law Services found 77 non-compliant properties that were sent to contractors for clearing. Sidewalk snow clearing is the top priority of Municipal Law Enforcement when a winter snow or ice event occurs.

It should be noted that Licensing & By-law Services does not proactively enforce sidewalk snow removal, but enforcement is based on a reactive model that responds to public complaints. During snow events, all other service levels are suspended so the team can focus on responding to calls for service in relation to sidewalk snow removal.

Regular Maintenance of Canada Post Community Mailbox Locations

Snow clearing activities will begin at CMB (Community Mailbox) sites once snow accumulation reaches 5 cm and should be completed within 24 hours:

- Snow clearing activities will take place during the hours of 6:00 a.m. to 8:00 p.m.;
- Snowdrift or plough back areas will be cleared within 24 hours of it being reported to Canada Post;
- Canada Post is responsible for clearing the area immediately in front of the CMB and paved access ways across boulevards that lead to the site;
- Canada Post will not clear snow from a grass boulevard to avoid damaging sod within the City's boulevard; and
- Should a resident have a concern about snow or ice at a particular CMB site, they are asked to call 1-866-607-6301 or submit a snow clearance request at <https://www.canadapost.ca/web/en/pages/support/default.page> (under Community Mailbox click on Request Snow Clearance).

It is important that customers contact Canada Post through their customer contact number or via their website as this will launch a service ticket and allows Canada Post to track the response.

Any residents who feel snow or ice may inhibit their ability to safely retrieve their mail should contact Canada Post as described above and retrieve their mail after the site is cleared and conditions have improved.

Winter Storm Communications

Public Works and Corporate Communications already have a robust communications protocol during winter storm events, with regular updates to Council, posts on www.hamilton.ca and at @cityofhamilton on Twitter. During large storm events updates are shared with our local media partners, radio, print, online ads are published to provide residents with information about the City's response to the storm, tips on clearing their snow from their property, and more.

For the coming season, staff recommend expanding the existing winter storm communications activities even further to focus more heavily on residents' responsibilities regarding removing snow from sidewalks adjacent to their property, and to request they avoid parking on the road during snow events to allow space for plows to safely clear the snow.

ALTERNATIVES FOR CONSIDERATION

N/A

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Economic Prosperity and Growth

Hamilton has a prosperous and diverse local economy where people have opportunities to grow and develop.

Healthy and Safe Communities

Hamilton is a safe and supportive city where people are active, healthy, and have a high quality of life.

Built Environment and Infrastructure

Hamilton is supported by state of the art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

APPENDICES AND SCHEDULES ATTACHED

Appendix "A" to Report PW19022 (a) – Municipal Service Level Comparison