

To: Community and Operations Services Committee

From: Kevin Alexander, Commissioner,
Community and Operations Services Department

Report Number: CO-25-27

Date of Report: June 4, 2025

Date of Meeting: June 9, 2025

Subject: Snow and Ice Clearing on all Park Pathways and Park Parking Lots

Ward: All Wards

File: 03-05

1.0 Purpose

The purpose of this Report is to provide Council with a comprehensive overview of the operational and financial implications of expanding snow clearing service levels to include all Park Pathways and Park Parking lots, including an assessment of equipment, staffing, and facility requirements.

2.0 Recommendation

That the Community and Operations Services Committee recommend to City Council that Report CO-25-27 dated June 4, 2025, concerning snow clearing on all park pathways and park parking lots be received for information.

3.0 Input From Other Sources

- Legislative Services
- Legal Services
- Finance Services
- Facilities Management Services

4.0 Analysis

4.1 Definitions

Park pathways are located within a park boundary and provide pedestrian circulation between park amenities ("Park Pathways"). Park Pathways are not maintained in the winter, except in locations declared as all-season parks by Council.

Park parking lots are located within a park boundary and are generally intended to serve the users of the associated park ("Park Parking Lots").

4.2 Park Pathway Winter Maintenance

There are 170 locations with Park Pathways in the City of Oshawa with a total length of over 36 kilometers that are not maintained during the winter:

- 37 locations consist of grass or gravel Park Pathways and are not recommended to be maintained with either manual labour or machinery.
- 133 locations have Park Pathways with surface treatment of either asphalt, concrete or a combination of both, with a total length of over 24 kilometers. Each of these Park Pathways vary in length from 10 meters to 1,505 meters, with an average length of 75 meters.

Currently only three (3) locations are maintained during the winter:

- Lakeview
- Ed Broadbent
- Stonecrest

4.3 Park Pathway Maintenance Considerations

4.3.1 Park Pathway Standards and Equipment Limitations

Most Park Pathways have not been designed to withstand vehicle loading, and as such, any winter maintenance would have to be cleared manually with shovels or with small snow-clearing machines.

4.3.2 Salt Impacts

The use of salt to clear Park Pathways during winter is a common practice for maintaining safety and accessibility, but it creates significant environmental consequences. When salt is spread on Park Pathways, it eventually dissolves and is carried by meltwater into nearby soil and water bodies. Salt also damages soil chemistry, reduces vegetation health, and can corrode infrastructure and harm pets. Because salt does not break down or get filtered out by soil or water treatment processes, it accumulates over time, compounding its detrimental environmental impacts.

4.3.3 Park Pathway Deterioration from Freeze-Thaw Cycles

Clearing Park Pathways of snow and ice exposes them to increased freeze-thaw cycles, which significantly accelerates surface deterioration. When snow and ice are removed, water from precipitation or melting can seep into small cracks and pores in the asphalt and/or concrete. As temperatures fluctuate above and below freezing, this water repeatedly freezes and expands, then thaws and contracts, causing cracks to widen and the pavement to break apart.

This accelerated deterioration has direct implications for the asset management lifecycle of Park Pathways. Increased freeze-thaw damage shortens the expected lifespan of these assets, requiring more frequent maintenance, resurfacing, or full reconstruction to maintain safety and accessibility.

4.4 Park Parking Lot Maintenance Consideration

4.4.1 Salt Impacts

The use of salt to clear Park Parking Lots during winter is a common practice for maintaining safety and accessibility, but it creates significant environmental consequences. When salt is spread on Park Parking Lots, it eventually dissolves and is carried by meltwater into nearby soil and water bodies. Salt also damages soil chemistry, reduces vegetation health, and can corrode infrastructure and harm pets. Because salt does not break down or get filtered out by soil or water treatment processes, it accumulates over time, compounding its detrimental environmental impacts.

4.4.2 Park Parking Lot Deterioration from Freeze Thaw Cycles

Clearing Park Parking Lots of snow and ice exposes them to increased freeze-thaw cycles, which significantly accelerates surface deterioration. When snow and ice are removed, water from precipitation or melting can seep into small cracks and pores in the asphalt and/or concrete. As temperatures fluctuate above and below freezing, this water repeatedly freezes and expands, then thaws and contracts, causing cracks to widen and the pavement to break apart.

This accelerated deterioration has direct implications for the asset management lifecycle of Park Parking Lots. Increased freeze-thaw damage shortens the expected lifespan of these assets, requiring more frequent maintenance, resurfacing, or full reconstruction to maintain safety and accessibility.

4.4.3 Snow Removal Practices and Drainage Related Safety Hazards

Clearing snow from Park Parking Lots often results in windrows of snow accumulating around the perimeter. If the parking lot is not designed with adequate drainage outlets, such as swales and catch basins, these windrows can block proper drainage, leading to areas of ponding water. When temperatures drop, this standing water can freeze, creating additional safety hazards due to the increased risk of slips and falls.

4.5 Current Service Level for Winter Maintenance of Park Pathways and Park Parking Lots

Currently, the City performs winter maintenance at 37 Park Parking Lots that support different City-owned buildings, such as community centres, recreation facilities, city administrative buildings and fire halls, for a total of approximately 64,250 square meters.

Winter maintenance is not provided for Park Parking Lots that are not associated with a community centre, recreation facility, fire hall or city administration building, unless specific direction has been received by Council. Currently Cordova Dog Park is the only Park Parking lot currently maintained during the winter.

4.5.1 Gravel Park Parking Lots

Currently the City has eight (8) gravel Park Parking Lots. Staff do not recommend providing snow clearing on gravel lots due to the risk of damaging the existing gravel surface, requiring restoration work in the spring and damaging snow clearing equipment.

4.5.2 Service Level Priorities for Park Parking Lots and Trails

There are currently three (3) service level designations assigned to Park Parking Lots and Trails for snow clearing response times and activities to take place.

4.5.2.1 Service Level 1

Service level 1 designation is assigned to areas where snow and ice removal shall be completed no later than midnight of the first day following the end of a storm, which is performed 24 hours a day, 7 days a week.

The City currently maintains ten (10) parking lots which are associated with City-owned buildings. These parking lots are designated with service level 1 status and are maintained by a fleet of vehicles comprised of trucks equipped with snowplows and front-end loaders:

- City Hall
- Consolidated Operations Depot (C.O.D.)
- Alexandra Park
- Animal Services
- Union Cemetery
- Lakeview Park (All Lots)
- Ed Broadbent Park
- Fire Halls

4.5.2.2 Service Level 2

Service level 2 designation is assigned to maintenance locations where snow clearing activities can be undertaken between dusk to dawn, seven (7) days a week.

The City has designated six (6) Trails with Service Level 2 status:

- Lakeview Park
- Ed Broadbent Park
- Michael Starr (Adelaide Ave to Hillcroft St)
- Joseph Kolodzie Oshawa Creek Bike Path
- Harmony Creek
- Waterfront

4.5.2.3 Service Level 3

Service level 3 designation is assigned to maintenance locations where snow clearing activities can be undertaken between dusk to dawn, Monday to Friday, during the day shift.

The City currently maintains 37 Park Parking Lots with service level 3 status, which are maintained by a fleet of vehicles comprised of trucks and front-end loaders with snowplows:

- Lakeview Beach Lot (multiple lots)
- Greenhouse and Farewell Yard
- Southmead Park
- Lake Vista Park
- Cordova Valley Parks (Includes Dog Park)
- Lakefront West Park
- Glen Stewart Park
- North Oshawa Community Centre Park
- Connaught Park
- Valleyview Park Tot Lot
- Rotary Hall
- Sunnyside Park
- Cowan Park
- Bathe Park
- Fernhill Park
- Kingside Park
- Rundle Park
- Storie Park
- Thornton Park
- Woodview Park

4.6 Current Resources for Snow Clearing

The City's Parks, Trails and Forestry team currently has the following resources at their disposal for the purposes of snow and ice clearing:

4.6.1 Snow Removal Equipment

The Parks, Trails and Forestry division currently has the following fleet at its disposal:

- Chevrolet Silverado 3500HD
- Ford F450
- Ford F550 Dump Body (2)
- Bobcat/Toolcat 5600T
- CAT Front End Loader
- BobCat All Wheel Skid Steer
- John Deere 4WD Tractor (3)
- GMC 2500 HD Crew Cab
- John Deere 3046R Tractor (2)
- Chevrolet Silverado 2500 HD

4.6.2 Staff Compliment

The Parks, Trails and Forestry division has a roster of 20 staff that are utilized for snow clearing, consisting of six (6) working forepersons, twelve (12) skilled labourers and two (2) Operator 1.

4.6.3 Current Staffing and Equipment Location

The current staff and equipment are housed at the Consolidated Operations Depot. As noted in the GROFNA Report CS-20-32, the facility is currently at capacity for staff and equipment. Staff are currently working on an update to the GROFNA report, per Council Direction, CNCL-25-19, to discuss current and future needs and will be presented to Council at a future date.

5.0 Financial Implications

5.1 Park Pathways Winter Maintenance

To clear snow and ice from all Park Pathways at service level 3 would require a crew consisting of a 1 tonne truck, snow clearing machine, trailer, salt bin, shovels, one (1) lead hand and two (2) labourers. These requirements would be in addition to our current staff complement and fleet inventory.

Not all Park Pathways have lighting; therefore, all required maintenance will need to be completed during the dayshift, 8:30 a.m. - 4:30 p.m.

The estimated average time to clear a Park Pathway is approximately 800 meters per hour having an estimated path width of 1.50 meters.

In an 8-hour shift, approximately 6.40 kilometers can be maintained by one crew.

To complete clearing and maintenance with a service level 3 designation, it would take four (4) days to complete with one (1) crew, following each event.

The approximate annual operating cost to complete the clearing of Park Pathways would be:

Item	Cost
Labourer (2)	\$185,000
Lead Hand	\$110,000
Trailer – Fleet Rate	\$2,000
Class 09 – Fleet Rate	\$35,000
Small Snow Clearing Machine (John Deere Utility Vehicle) – Fleet Rate	\$7,000
Salt	\$35,000
Total Operating	\$374,000

The estimated capital cost to complete the clearing of Park Pathways would be:

Item	Cost
Trailer	\$15,000
Class 09 Truck (1 Tonne truck with snowplow)	\$100,000
Small Snow Clearing Machine (John Deere Utility Vehicle)	\$55,000
Total Capital	\$170,000

The total cost to implement snow clearing of all Park Pathways would be approximately \$545,000.

5.2 Park Parking Lot Winter Maintenance

There are forty (40) Park Parking Lots that are not maintained for snow and ice clearing for a total of approximately 47,800 square meters. As noted in 4.5.1, there are eight (8) Park Parking Lots with a surface treatment of gravel and should not be considered for winter maintenance.

Park Parking Lots vary in area from 82 square meters to over 9,600 square meters with an average of 1,225 square meters.

The average time to clear a parking lot is 2,200 square meters per hour, consisting of one (1) crew with a 1 tonne truck with snowplow and salt box and one (1) skilled labourer.

To maintain 32 additional parking lots with service level 3 designation, it would take three (3) days to complete with two (2) crews, following each event. These crews would be in addition to our current staff complement and fleet inventory.

The approximate annual operating cost to complete the clearing of Park Parking Lots would be:

Item	Cost
Skilled Labourer (2)	\$200,000
Class 09 (2 Units) - Fleet Rate	\$70,000
Salt	\$40,000
Total	\$310,000

The estimated Capital cost to complete the clearing of Park Parking Lots would be:

Item	Cost
Class 09 Truck 2 units (1 Tonne Truck with snowplow)	\$200,000

The total cost to implement snow clearing of the additional Park Parking Lots would be approximately \$510,000.

5.3 Limitations of Costing for Snow Clearing

At this time, the financial provisions for additional snow clearing do not include allowances for any increased maintenance of Park Pathways or Park Parking Lots that may arise from the impacts identified in Sections 4.3 and 4.4.

6.0 Relationship to the Oshawa Strategic Plan

This report responds to the Oshawa Strategic Plan Priority Area “Lead: Governance and Service Excellence” with the goal to provide transparent, efficient, and responsible fiscal stewardship and use of resources.



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