

Snow & Ice Control



Snow & Ice Control Program

Program Overview

The Snow and Ice Control Program maintains a safe transportation network that is efficient for vehicle road users during the winter months and strives to ensure the City meets its legislative requirements in addition to Council's mandated levels of service.

Preventing the accumulation of snow and ice or quickly removing it (as is reasonably practical) increases safety, mobility, and improves commerce. As such, operational priorities are established for all of the City's roads, laneways, separated bike lanes, parking lots, sidewalks and paved trail networks, as defined in the Official Community Plan.

Snow & Ice management along provincial highways is managed by the BC Ministry of Transportation and Infrastructure (MoTI) and their contracted services.



Assets

Existing:

- Heavy Equipment: 14 Units
- Medium Equipment: 2 Units
- Small Equipment: 9 Units
- Salt and Sand Spreaders: 7 Units
- Truck Mounted Brine Units: 2 Units

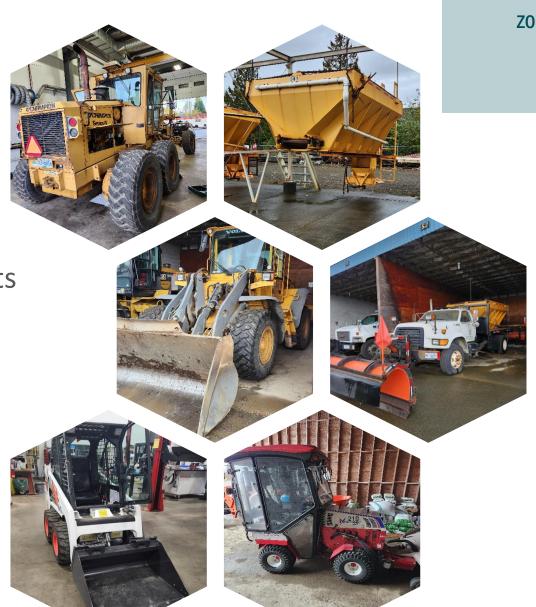
New for 2023:

1 Salt and Sand Spreader

Awaiting Delivery:

2 Heavy Equipment Units





Logic Model

A visual illustration of a program's resources, activities and expected outcomes

Inputs	Activities	Outputs	Outcomes	Impacts
 Labour hours Fleet Equipment Salt Sand Fuel Technology Public inquiries Contracts Policies Previous plans, routes and lessons learned 	 Pre-season preparations Safety and skills training Road patrols and inspections Weather monitoring Snow plowing and deicing "Snow removal" (hauling) Sidewalk clearing Fleet repairs Communications Record management Safety investigations Operational improvements 	 Maps and event documents Road user satisfaction from plowed and de-iced surfaces returning to mostly bare pavement conditions as soon as possible (winter maintenance) Citizen satisfaction from issue response (public inquiries) Cost effective operations from safe plowing speeds and efficient plowing zones and routes Material application rates aligned to weather patterns Contractor payments "Snow removal" (hauling) in priority areas (downtown core) 	 ✓ Staff safety awareness, knowledge and skills ✓ Interest and attention on maintaining safe, accessible, and reliable roads, sidewalks, paths, parking lots, facilities and parks ✓ Road user satisfaction ✓ Citizen satisfaction ✓ Public awareness of winter storms and driving hazards ✓ Accessible facilities and parks ✓ Mobility of traffic at or near normal speeds and density, especially on high traffic roads 	 Reduction of crashes that reported road conditions as a factor Commerce; transport of goods and services Reduced disruption of essential activities such as schools, medical appointments, garbage collection, police and emergency services Quality of life maintained related to users and various modes of transportation



When to Salt & Plow

ZOOM Window Space

The City clears 341 lane-km of roads, 64 linear-km of sidewalks, walkways and paved trails, and 25 parking lots

Asset Class	When does the City start to apply product (brine, or salt, or sand)?	How many hours does it take to apply product each round?*	When does the City start plowing?	How many hours does it take to plow each round?*	Required Outcome
Arterial roads	Before snow accumulates if temps are forecasted below 0°C without rain	3 hours (4 fleet vehicles)	Based on road conditions. Typically 2.5cm of snow accumulation	6-8 hours (6 fleet vehicles)	Bare pavement or centre bare
Major roads, transit routes and streets with hills	Before snow accumulates if temps are forecasted below 0°C without rain	3 hours (4 fleet vehicles)	Based on road conditions. Typically 2.5cm of snow accumulation	6-8 hours (6 fleet vehicles)	Bare pavement or centre bare
Local roads	By request	n/a	10cm of snow accumulation	14-20 hours (12 fleet vehicles)	Passable
Cul-de-sacs and lanes	By request	n/a	10cm of snow accumulation	24-36 hours from end of snowfall	Passable
Sidewalks	Before snow accumulates if temps are forecasted below 0°C without rain (DCBIA only)	3 hours	5cm if more than 10cm of snow accumulation is forecasted	48 hours from end of snowfall	Passable
Paved trails & paved multi-use paths	Before snow accumulates if temps are forecasted below 0°C without rain	3 hours	5cm if more than 10cm of snow accumulation is forecasted	48 hours from end of snowfall	Passable
Separated cycle tracks	Before snow accumulates if temps are forecasted below 0°C without rain	3 hours	5cm if more than 10cm of snow accumulation is forecasted	24 hours from end of snowfall	Bare pavement
Civic properties and public facilities	Before snow accumulates if temps are forecasted below 0°C without rain	3 hours	5cm if more than 10cm of snow accumulation is forecasted	24 hours from end of snowfall	Passable
Parking lots	Before snow accumulates if temps are forecasted below 0°C without rain	3 hours	5cm of snow accumulation	12 hours (2 fleet vehicles)	Bare pavement

^{*}It may take multiple rounds to clear a road due to ongoing

anawfall

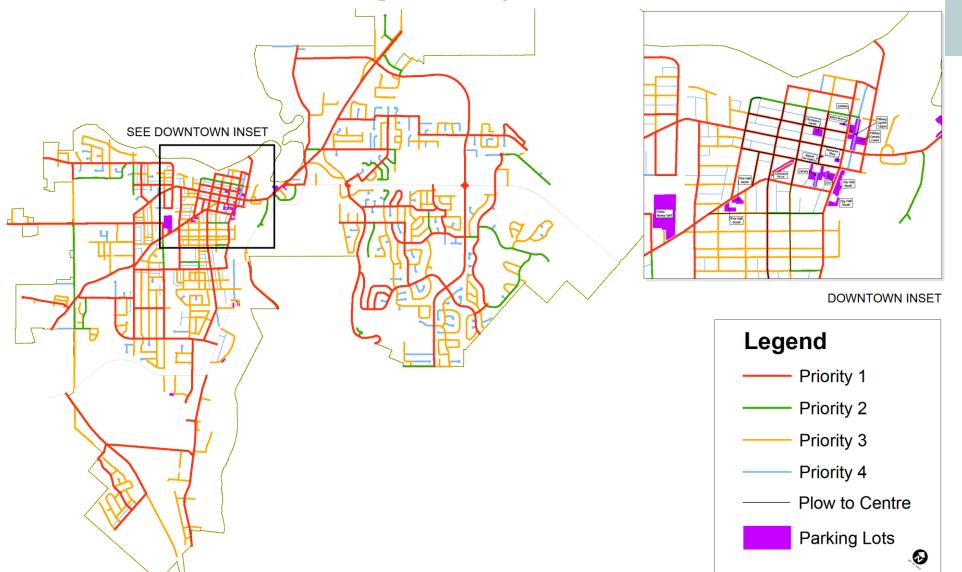
Street Clearing

The City clears snow from roads in order of priority:

- 1. Arterial and major collector roads, emergency services facilities, bus routes and the downtown core commercial area
- 2. Minor collector roads, streets with steep hills, school zones
- 3. Local roads
- 4. Cul-de-sacs and lanes



Street Clearing Map



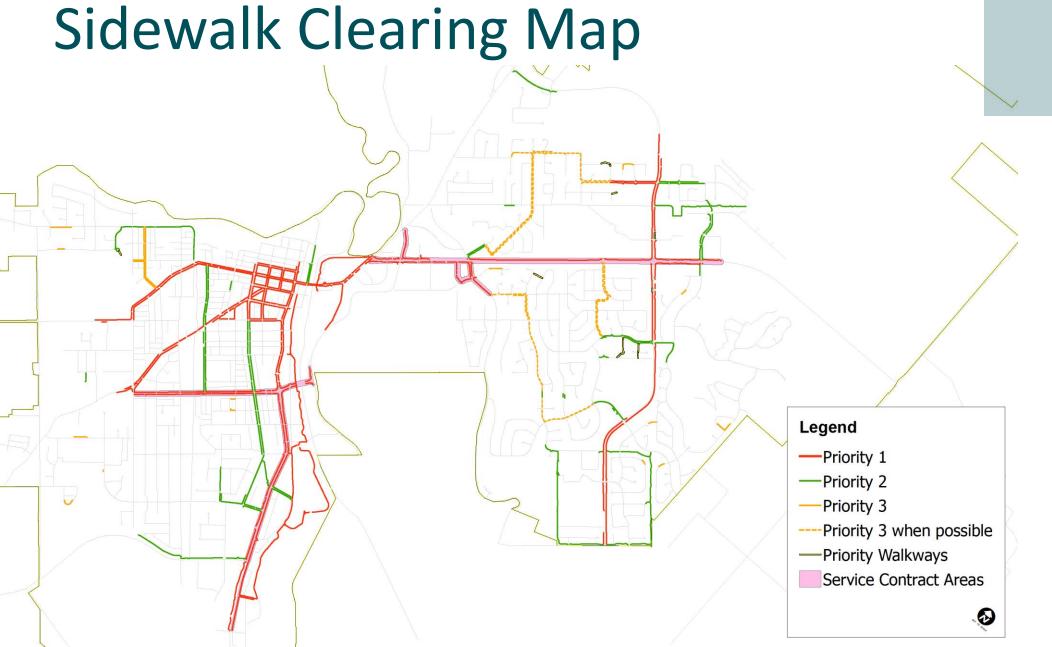
Sidewalk Clearing

The City clears snow from sidewalks on high volume pedestrian routes where mechanical clearing is possible.

This includes arterial roads, the downtown core, park frontages, transit areas, sidewalks adjacent to emergency and municipal facilities, separated bike lanes and prioritized paved walking trails.

Snow is also cleared from sidewalks on collector roads without residential homes where mechanical clearing is possible.





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Next Steps

Snow & Ice Control Policy Update: 2024

ZOOM Window Space

