

Snow and Ice Control Annual Report (2021/2022)

Executive Summary

The City of Calgary (The City) is committed to the provision of a safe, customer focused, efficient and sustainable transportation system that supports mobility choices. The Roads Business Unit (Roads) partners with Calgary Parks, Calgary Transit, Fleet Services and Calgary Community Standards to deliver the winter operations services Calgarians receive and is committed to a well-maintained road, transit, sidewalk and pathway system in winter for all travel modes. City of Calgary staff and contractors support the delivery of safe winter driving, cycling and walking conditions through The City's Snow and Ice Control (SNIC) Program.

Spotlight on the 2021/2022 SNIC Program

Below Average Snowfall

- Total amount of snowfall for 2021/2022 winter season was 125 cm, below the average accumulations for the prior 4 winter seasons (172 cm). There were 32 total snow events compared to 21 for the previous winter season.
- On April 19 2022, Calgary experienced the snowiest day in more than 2 years since Sept 2019. Crews had to quickly respond to this significant Spring snow event where parts of the city received 25 cm of snow.

Performance

 SNIC Performance targets were achieved by completing Priority 1 routes within 24 hours (100% of events) and Priority 2 routes within 48 hours (94% of events). No snow route parking bans were activated during the 2021/22 winter season. From October 2021 to April 2022, Roads received 3,750 SNIC service requests (SRs).

Service Highlights

- The City initiated a review of the Snow and Ice Control policy to formally update winter service standards and policy objectives with an anticipated return to Council in 2023.
- Calgary hosted the PIARC XVI World Winter Service and Road Resilience Congress February 2022. Over 780 participants/experts took part in this international event.
- Calgary was the first city in Canada to give names to its fleet of snow plows through an innovative program to engage local schools through conversations about winter services.

Budget

- 2021/2022 SNIC expenditures for roadways and various mobility infrastructure totalled \$38.4 million. The SNIC Reserve balance increased to \$13.0 million due to operational savings and a favourable winter budget in 2021/2022.
- For the 2022 fiscal year, SNIC expenditures for the first half of the year were below the allocated budget. A total of \$22.4 million was spent with \$29.0 million remaining for SNIC operations for the rest of 2022. In November 2021, Calgary City Council approved a \$10.5 million increase to base budgets to enhance future snow clearing services.

Table of contents

Executive Summary	1
Introduction	3
Background	3
Updates to SNIC Services	3
Seven Day Plan	4
3-1-1 Service Requests	5
Snow and Ice Control Materials	5
Snow Storage Sites	6
Budget Review 2021/2022	7
SNIC Budget Details	8
SNIC to Improve Access for those with Mobility-Challenges	10
SNIC for Walking and Wheeling Lanes	11
Collision Data	11
SNIC Policy Metrics	12
2021/2022 Snow Route Parking Bans	12
Personnel, Equipment and Infrastructure	13
SNIC Contractors and Hired Equipment	13
Additional Information	1.1

Introduction

The City's SNIC Program Plan (Program Plan) provides detailed plans and strategies to meet the expectations set out in Council's SNIC Policy. The SNIC Policy and the Program Plan support the response to respond to changing weather patterns, funding levels, innovation, best practices and lessons learned. The SNIC Policy and Program Plan are established to address normal winter weather conditions, with strategies to address extreme winter conditions and snow emergencies. Trained personnel and the required resources are deployed to provide safe mobility on city infrastructure during the SNIC season.

Background

The aim of the SNIC Policy is to provide reasonable winter driving conditions for vehicles/cycles that are properly equipped for winter driving and are operated in a manner consistent with good winter driving habits. Council and Administration remain committed to the delivery of winter services within a policy framework that is efficient, inclusive and fiscally responsible. Extreme winter conditions and snow emergencies are addressed in the plan as they are likely to occur. Council and Administration are aware that response to extreme winter weather conditions requires a systematic approach with stakeholder awareness and collective commitment to a safe and well-maintained road system for all travel modes.

This past winter, The City was honored to virtually host the PIARC XVI World Winter Service and Road Resilience Congress in February 2022. Over 780 participants and experts from 53 countries resiliency participated on a variety of winter service topics during this weeklong event. The City also initiated a review of the Snow and Ice Control policy to formally update winter service standards and policy objectives.

Updates to SNIC Services

In 2018, Calgary City Council previously authorized one-time funding of \$18.5 million to enhance Snow and Ice Control services for priority sidewalks, pathways, bus pads and wheelchair crossings from 2018 October through 2020 December.

Specific improvements included:

- Increased the priority of sidewalk clearing for all City-owned properties to 24 hours
- Added 100 km of pathways to be cleared
- Removed snow build up (windrows) at 500 high-priority wheelchair ramp locations
- Communications campaign to increase public awareness of importance of clearing sidewalks, including helping neighbours (Snow Angels) and new fines

During November 2021 budget deliberations, Council approved funding \$10.5 million for improved snow and ice control responsiveness and base funding for pedestrian SNIC service levels. These investments will enhance future response times for snow clearing services which will have a positive impact on the safety and wellbeing of Calgary citizens.

Funding will be used for accelerating service response times for snow clearing through supplementary resources such as staff, equipment and contractors.

Average snow clearing response times are projected to decrease from 24 hours to 18 hours for Priority 1 routes. Service enhancements will start in the Fall of 2022 and contribute to improved reliability for transit service and the active mobility network in addition to aligning with desired citizen service expectations. Funding will support the addition of more available resources and equipment during significant snowfall events for improved response to citizen inquiries and services in residential communities.

These investments will be used to make permanent enhancements for snow and ice control services related the pedestrian priority clearing routes including over 550 km of pathways and 500 km of sidewalks, all cleared within 24 hours.

Seven Day Plan

The SNIC response during the 2021/22 winter season was delivered through the Seven Day Plan. This plan allows us to quickly address the impact of any snow event on the mobility of our citizens and communicate the level of service. The plan is a systematic response that addresses high volume and high-risk transportation assets first and then moves to lower volume and lower risk assets. If another snow event occurs prior to completing the plan, our response resets back to Day One. The response timeframe was updated to include the enhanced service approved by Council in July 2018 and will be amended in future winter seasons.

Over the 2021/22 SNIC season, Calgary received 125 cm of snow. Snow Event #1 started on October 30, 2021 with 4 cm of snow. The Seven Day Plan was activated 32 times in 2021/22 which was an increase of 11 events compared to previous winter. Table 1 shows snow fall comparison for the last five SNIC seasons.

SNIC Season Snowfall (cm)					
Month	2017/18	2018/19	2019/20	2020/21	2021/22
September	0	1.8	34.4		
October	1.4	48.4	15.8	27.9	4.2
November	27.4	27.9	43.4	18.2	3.8
December	32.2	14.9	20.5	39.6	25.5
January	11	10.2	3.9	7.7	3.7
February	43.3	33.8	21.5	33.8	32.5
March	41.9	8.2	28.8	9.9	11.0
April	24.6	16.9	22.4	7.8	43.1
May	0	7.7	0	0	1
Totals	181.8	169.8	190.7	144.9	124.8

Table 1: Season comparison 2017-2022

3-1-1 Service Requests

During the 2021/22 SNIC season, Roads received 3,750 service requests (SRs). Table 2 shows the historical data from the past five seasons.

	Hi	istorical 3-1-	1 Data		
	2017/18	2018/19	2019/20	2020/21	2021/22
Total SNIC SRs	27,710	8,787	6,840	12,497	3,750

Table 2: SRs from 2017-2022

The Average Cycle Time (Days)/Response Time was 1.7 days. Escalated SRs totalled 11 (0.003%) and Overdue SRs were 84 (2%).

Snow and Ice Control Materials

Our team uses four main SNIC materials: road salt (sodium chloride), sanding chips, calcium chloride brine and sodium chloride brine.

Sanding chips are six-millimetre rock particles which contain up to three per cent salt. The liquid brines help the material stick to the road surface and are also used as an anti-icing agent applied directly to the road surface.

As anti-icing agents, sodium chloride brine and calcium chloride brine perform over different temperature ranges. The sodium chloride brine is used during warmer winter temperatures whereas calcium chloride brine is used during colder winter temperatures.

Studies have shown that without pre-wetting, only 46 per cent of the material applied to a roadway will stay in the middle third of the roadway. However, if the material is pre-wet, 78 per cent will stay in the middle third of the roadway. This practice increases the efficiency of the sanders, reduces costs and helps minimize our impact on the environment.

A five-season comparison of SNIC material consumption is shown in Table 3. Road salt usage during the 2021/22 SNIC season was 51,229 tonnes, which is 23 per cent lower when compared over the past five seasons. Sanding chip consumption during the 2021/22 SNIC season was 39,544 tonnes, or 2 per cent lower compared to the past five winter seasons.

	SNIC Material Consumption				
SNIC Season	Road Salt/NaCl (tonnes)	Sanding Chips (tonnes)	Calcium/Sodium Chloride Brine (litres)	Snow Days	Snowfall (cm)
2017/18	84,286	67,322	1,033,869	62	182
2018/19	70,177	46,477	1,144,593	62	169
2019/20	79,857	21,585	345,942	69	191
2020/21	48,637	26,528	28,308	55	145
2021/22	51,229	39,544	58,030	52	125
Average	66,837	40,291	522,149	60	162

Table 3: Five-year comparison of SNIC materials consumption, snow days and total snow fall

The City has initiated several trials to evaluate new materials that could potentially decrease long-term usage of road salt materials and these trials will continue in 2022/23. The City continues to use Beet 55 as an anti-icing and de-icing agent on pedestrian cycling infrastructure for Priority 1 and 2 routes. Beet 55 is a trademarked liquid organic accelerator alternative to other anti-icing and de-icing products. When this is blended with salt brine at 65% salt brine and 35% Beet 55, the freezing point will be lower than by using pure salt brine but higher than by using calcium chloride at 30% concentration.

Snow Storage Sites

The City has three snow storage sites to manage snow removed from roadways. These sites are found in Table 4 below:

Site	Address	Capacity (cubic metres)
Highfield	1320-50 Ave. S.E.	~600,000
Spring Gardens	1025-32 Ave. N.E.	494,100
Pumphouse	2140 Pumphouse Ave. S.W.	55,805

Table 4: Snow Storage sites

As an alternative to removing and storing snow, Roads Maintenance reviewed the effectiveness of Mechanical Snow Melter equipment. However, it was determined that the resulting water from the melting process would not meet environmental guidelines for discharging into the storm water system.

Budget Review 2021/2022

The graph in Figure 1 shows our SNIC budget and actual expenditures compared to snow fall and snow days for the past five seasons.

During the 2021/22 SNIC season, 125cm of snow was reported to have fallen in Calgary over 52 snow days.

Budget expenditures for the 2021/2022 winter season totalled \$38.4 million including contributions to the Snow and Ice Control Reserve. Expenditures by category were as follows: Equipment (25%), Labour (37%), Materials (23%) and Contractors (12%). Equipment and labour costs are the primary winter season costs and are typically proportional to snow fall. When crews are not working on snow clearing, they work on environmental control, winter sweeping, depot maintenance pothole repairs and service requests.

The current balance in the SNIC Reserve is \$13 million and subject to change due to evolving operational needs.

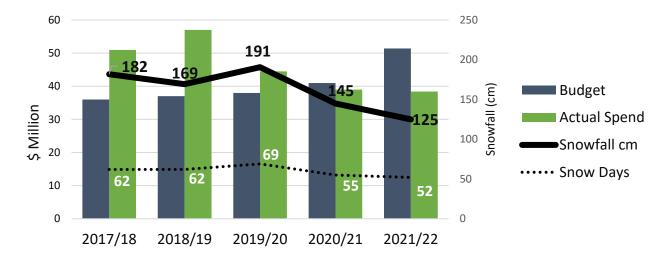


Figure 1: Expenditures and snow days 2017-2022

SNIC Budget Details

The tables below show the annual SNIC budget and actual cost for the winter season of 2021/2022 for Roads.

	For the period of October 2021 to December 31 2021	
Activity	Budget	Actual
Snow Removal P1 and P2	559,477	255,998
Snow Removal Residential	45,030	37,663
Ploughing P1 and P2	462,742	203,612
Sanding and Salting P1 and P2	7,240,635	9,180,075
Residential Sanding and Ploughing	1,029,669	961,077
Transit SNIC LRT Stations*	0	0
Transit SNIC Bus Zones*	0	38,932
Snow Dump Site Maintenance	26,750	567
Separate Bikeways	92,881	29,179
Snow Fencing	34,076	32,049
Anti Icing	146,862	264,096
Material Handling and Storage	80,394	80,392
Sidewalk SNIC Clearing	1,189,016	1,191,138
Winter Supplementary Work**	1,601,097	1,250,898
Winter Operations	12,508,629	13,525,675
SNIC Reserve ***		2,615,369
2021 TOTAL	12,508,629	16,141,044

Table 5: 2021 SNIC expenditures and budget

	For the period of October 2021 to December 31 2021	
Activity	Actual	Recovery
Transit SNIC LRT Stations	162,091	(162,091)
Transit SNIC Bus Zones	514,500	(470,173)

Table 6: Calgary Transit - 2021 SNIC activity expenditures versus recovery

	For the period of January 2022 to April 30 2022		Fiscal Year 2022
Activity	Budget	Actual	Budget
Snow Removal P1 and P2	1,843,332	370,220	2,467,294
Snow Removal Residential	396,855	58,743	497,262
Ploughing P1 and P2	628,941	980,783	1,587,851
Sanding and Salting P1 and P2	12,025,940	12,141,694	29,549,026
Residential Sanding and Ploughing	2,362,962	1,857,089	3,851,849
Transit SNIC LRT Stations*	0	0	0
Transit SNIC Bus Zones*	0	709	0
Snow Dump Site Maintenance	66,371	882	124,114
Separate Bikeways	114,616	132,410	350,363
Snow Fencing	42,929	39,323	174,562
Anti-Icing	247,529	129,761	410,115
Material Handling and Storage	138,930	568,757	480,268
Sidewalk SNIC Clearing	3,254,268	2,343,066	7,835,676
Winter Supplementary Work**	2,346,739	3,668,216	4,143,442
Winter Operation	23,469,412	22,291,652	51,471,823
SNIC Reserve Transfer		-	-
2022 Total (Jan-April)	23,469,412	22,291,652	51,471,823
2021/22 Season Total		38,432,696	

Table 7: 2022 SNIC expenditures and budget

	Year to Date – For the period of January 2022 to April 30 2022	
Activity	Actual	Recoveries
Transit SNIC LRT Stations	194,314	(194,314)
Transit SNIC Bus Zones	756,661	(755,952)

Table 8: Calgary Transit 2022 YTD expenditures and recoveries

Table 9 below shows the SNIC expenditures on pathways and sidewalks during the 2021/22 winter season.

For the period of October 2021 to December 31 2021				
Sidewalk SNIC Clearing	Department	Budget	Expenditures	
	Roads	1,189,016	1,191,138	
	Parks	530,000	1,777,164	
	2021 Total	1,719,016	2,968,302	
	For the period of January 2022 to May 31 2022			
Sidewalk SNIC Clearing	Department	Budget	Expenditures	
	Roads	3,254,268	893,878	
	Parks	691,000	2,091,758	
	2022 Total	3,945,268	2,985,636	
20	21/22 Season Total	5,664,283	5,953,939	

Table 9: SNIC expenditures on pathways and sidewalks during the 2021/2022 SNIC season

SNIC to Improve Access for those with Mobility-Challenges

Through the One Calgary 2019-2022 Budget, \$2 million was allocated to improve accessibility for citizens with mobility challenges during the SNIC season. This funding was initially allocated in the 2015 to 2018 Action Plan. During the Spring of 2015, the mobility-friendly program focused on bus pads and bare pavement bus stops with large windrow accumulation. These locations included bus stops with high numbers of transit ramp deployments (to assist citizens with mobility challenges), including hospitals, senior homes, and locations where mobility-challenged individuals often visit. Calgary Transit and CN worked together to provide a list of priority locations. Calgary Transit identifies prioritized locations to use the funding for this program. Roads has a contract in place that allows this work to be completed as on-demand SNIC work. During the 2021/22 SNIC season, Roads' contractor provided service to over 1200 bus stop locations and 5.15 km of sidewalk.

SNIC for Walking and Wheeling Lanes

The City's cycle track (walking and wheeling lanes), bike lanes, multi-use pathways, neighbourhood greenways (bicycle boulevards), shared lanes, and signed bicycle routes all contribute to mobility choices. The City has approximately 13 km of cycle track that is cleared within 24 hours after snow stops falling. All 57 km of marked, on-street bike lanes are cleared within 48 hours after snow stops falling.

- Cycle Track 13 km (SNIC clearing priority the same as all downtown roadways, within 24hrs)
- Bicycle Lane: **57 km** (SNIC Clearing within 48hrs)
- Shared Lane: 20 km (SNIC Clearing same as the Priority as the road it is on)
- Neighbourhood Greenway: **20 km** (SNIC Clearing same as the Priority as the road it is on)
- Signed On-Street Bikeway: 384 km (SNIC Clearing same as the Priority as the road it is on)

Collision Data

One of the primary goals of the SNIC program is to provide safe travel conditions regardless of mobility choice. Comparison of collisions during the last 4 winter seasons of complete collision data (Figure 2) are below. For 2020/21, the number of 'Slush/Snow/Ice' related collisions decreased significantly compared to the prior winter season. It should be noted that the total number of collisions reduced due to less vehicle travel during the COVID19 pandemic. In 2021/22, the total number of collisions/injuries related to winter related surface conditions was lower than the 2018/19 and 2019/20 winter seasons.

	2018/2019	2019/2020	2020/2021	2021/2022	Average
All Collisions (On City Roads) During Winter Season	19,748	17,188	11,538	13,335	15,452
Slush/Snow/Ice Surface Condition (SSI)	7,590 (38%)	6,312 (37%)	4,170 (36%)	5,009 (37%)	5,770
Total #SSI Injuries (All Injury)	295	271	170	241	244
SSI% All Injury	3.9%	4.3%	4.1%	4.8%	4.3%
Priority 1 Routes Collisions					
Slush/Snow/Ice Surface Condition	3,349	2,693	1,629	2,428	2,525
Total #SSI Injuries (All Injury)	177	157	83	155	143
SSI% All Injury	5.3%	5.8%	5.1%	6.4%	5.6%
Priority 2 Routes Collisions					
Slush/Snow/Ice Surface Condition	1,444	1,224	778	898	1,086
Total #SSI Injuries (All Injury)	57	58	38	44	49
SSI% All Injury	3.9%	4.7%	4.9%	4.9%	4.6%

Figure 2: Snow Related City-wide SNIC Season Collisions (Oct 1 - Mar 31). Excludes parking lots/driveways, Deerfoot TR and Stoney TR.

SNIC Policy Metrics

The SNIC program service levels are based on the Council approved SNIC Policy. In 2022, The City initiated a formal process to update the policy to ensure it is meeting citizen expectations, provides clear direction to Administration and achieves desired levels of service. The purpose of the policy is to:

- Maintain reasonable conditions on roadways and sidewalks to minimize hazards and economic loss to the community
- Ensure safe access for emergency vehicles providing Fire, Police and Emergency Medical Services
- Provide guidelines for management and operating personnel to handle winter maintenance operations
- Outline citizens' responsibilities regarding sidewalk snow and ice control on private property

To align with the approved SNIC service levels outlined in the SNIC Policy, three Key Performance Indicators (KPIs) were identified (See Figure 3: Roads Maintenance KPIs and Performance Achieved).

Designation	Response Time
Priority 1 Routes	Through lane ploughed and sanded completed within 24 hours of the end of snowfall (100% sanded/salted and 90% ploughed)
Priority 2 Routes	Through lane ploughed and sanded; completed within 48 hours of the end of snowfall (100% sanded/salted and 90% ploughed)
Priority 3 Routes	Within 4 days after Priority 2 routes complete (sanded and ploughed when temperature conditions allow)
Priority 4 Routes	Within 4 days after Priority 2 routes complete (sanded and ploughed when temperature conditions allow)

Figure 3: SNIC service levels

2021/2022 Snow Route Parking Bans

A Snow Route parking ban may be considered when snow accumulation of 10 centimetres or greater is forecast. Snow routes include major roadways and most bus routes. A major advisory is issued when a snow event is expected in the forecast. This advisory is meant to serve as a warning that parking bans may soon be in effect on snow routes. Vehicles should be moved as quickly as possible following the notice. Vehicles that remain parked on these roads during the ban are subject to enforcement, up to and including a parking tag and tow. Business Improvement Areas (BIAs) and the downtown core have overnight bans (9 pm. to 6 am.).

During the 2021/22 winter season, no snow route parking bans were activated.

Personnel, Equipment and Infrastructure

The Roads Business Unit commits personnel, material, equipment, infrastructure, capital and operational funds to SNIC operations as follows:

- 421 personnel working rotating shifts, available 24/7 throughout the season
- Material, including equipment consumables (i.e. plough blades) and snow remediation substances (salt, de-icing liquids and abrasives).

The various machinery and equipment include:

- 78 City owned tandem trucks and 16 leased trucks equipped to plough and apply materials
- 27 graders
- 9 snow blowers
- 11 smaller single axle trucks equipped to plough and apply materials in residential areas such as cul-de-sacs where tandems are unable to work
- 9 front-end loaders
- 8 Leased Articulating Tractors (Holder C70)

SNIC Contractors and Hired Equipment

The City retains services from contractors to augment City personnel and equipment for SNIC operations. Our Maintenance Division and Parks, in conjunction with the Supply Management Division, has contracts to provide the following SNIC services:

- Transit Trouble Spots: 219 lane-km
- District Trouble Spots: 504 lane-km
- 1200 Priority bus pads
- 958 km of sidewalks
- 2431 traffic islands and medians
- 19 km of walkways and pedestrian bridges
- 165 miscellaneous locations, including stairs
- 136 traffic calming curb locations

The Roads Maintenance Division also works closely with the Fleet Services business unit to maintain and coordinate equipment used for SNIC. Fleet Services maintains a rental equipment tender and hired truck contract that is reviewed every two and six years respectively.

The infrastructure required for the delivery of SNIC services in Calgary includes nine district depots and three snow storage sites, as well as the right-of-way infrastructure. The 2021/22 SNIC season budget provided the maintenance operations support for the right-of-way infrastructure shown below:

Infrastructure Right-of-Way				
Description	Lane-km	Linear-km	SNIC Service	Quantity
Expressways	1,632	553	Yes	-
Arterial Roadways	2,348	818	Yes	-
Collector Roadways	4,237	1,514	Yes	-
Residential Streets	9,729	3,631	Yes	-
Gravel Roadways	293	136	Yes	-
Back Lanes Paved	1,158	540	As required - WRS*	
Back Lanes Gravel	2,175	1,259	As required - WRS*	-
Cycle Track/ Walking/wheeling lane		13	Yes	-
Bicycle Lane		57	Yes	-
Shared Lane		20	Yes – same priority as adjacent roadway	-
Neighbourhood Greenway		20		-
Signed On-Street Bikeway		384		-
Sidewalks (Roads)	-	5,749	Yes – 958	-
Engineered Walkways	-	-	No	2209
Vehicle Bridges	-	-	Yes	187
Pedestrian Bridges	-	-	Yes	58 (Roads)
Park Bridges	-	-	Yes	128
LRT Bridges			Yes - select locations	22
LRT Stations			Yes - select sidewalks	47
Bus Zones	-		Yes	6,144
Stairs/Steps			Yes	2,947

Data obtained from The City's ArcGIS. *WRS – Waste and Recycling Services business unit

Table 10: Infrastructure Right-of-Way

Additional Information

Please visit The City's Snow and Ice Control webpage at Calgary.ca/snow for more information on winter operations, SNIC clearing updates and Snow Route parking bans.



We work 24/7 to keep you moving

When it snows, we have a plan

Once a snowfall ends, the Councilapproved seven-day snow plan comes into effect city-wide.

The plan sets out which roads, sidewalks, bikeways and pathways our crews will clear, to what extent, and on which day. While it's still snowing, and before the plan is activated, crews are out on major roads plowing snow to prevent build-up and applying anti-icing material.



Did you know? This would be equivalent to driving back and forth between Calgary and Edmonton 54 times.

Day 1 **OF SEVEN-DAY PLAN**

Completed within 24 hrs.

4,084 lane km (25% of all roads)

563 km of pathways

508 km of sidewalks

Major roads are Priority 1

City Crews work during snowfall and 24 hours after snowfall ends, plowing and removing snow on Priority 1 routes.

- Major roads plowed to bare pavement include: Crowchild Trail, Memorial Drive and Macleod Trail
- Downtown
- Pedestrian overpasses
- LRT platforms
- Downtown cycle tracks
- Designated sections of pathways and sidewalks along City-owned properties

Equipment/staff for a typical snowfall:

- 100-120 pieces of heavy equipment working daily
- 1,000-1,200 total hours



20,000 vehicles per day

Day 2

3,625 lane km

(21% of roads)

OF SEVEN-DAY PLAN

Did you know? Priority 2 routes are snow routes, and may be subject to a parking ban.

Completed within 48 hrs.

Average annual snowfall in Calgary is 130 cm.

Keeping our sidewalks and pathways clear

Property owners are required to clear adjacent sidewalks within 24 hours of snowfall ending, or risk being fined up



Did you know? There are over 5,500 kilometres of sidewalks in Calgary. The City is responsible for clearing 11% of these sidewalks.

OF SEVEN-DAY PLAN

Priority 3 & 4 routes:

9,100 lane km

(54% of roads)

Priority 2 roads include bus routes

After 24 hours, Priority 2 roads are plowed.

- Intersections and crosswalks controlled by traffic lights
- Emergency routes (e.g. hospitals and fire stations)
- Bus routes and roads with on-street bike lanes
- Includes roads such as Kensington Road and Acadia Drive.



Snow Route Parking Ban:

during a ban, parking is temporarily restricted on designated snow routes for up to 72 hours.



5,000-19,999 vehicles per day

Feeder, collector and residential streets

After the first 48 hours, Priority 3 & 4 plowing includes:

- Complete major routes (turn lanes, and on/off ramps) on Priority 1 and 2 routes
- Windrows at busy crosswalks and wheelchair curb ramps
- Feeder/collector and bus routes at:
- Designated hills
- Stop/Yield signs
- Bus stops
- Playground zones
- Monitor major routes for freeze-thaw condition

Responsible clearing

The City follows a Council-approved Seven-Day snow plan, to maintain a safe network while being budget conscious. Our snow plan does not include:

- Plowing residential roads down to bare pavement
- Snow removal from residential areas
- Clearing back lanes, alleyways



What we lay down

Keeping our roads clear and safe takes a lot of material. In the 2020/2021 winter season we used:

- Nearly 48,000 tonnes of salt
- Almost 26,500 tonnes of pickle (salt/gravel mix)



Did you know? Most of the gravel material we lay down is picked up during The City's Street Sweeping program in the spring.



What it costs when it snows

\$1.2 million is the cost to clear Calgary's roads

\$100,000-\$115,000 is the cost to clear Calgary's sidewalks **\$25,000-\$35,000** is the cost to clear Calgary's pathways



\$7 is the average monthly household cost for snow clearing on your property tax.