Office of the City Clerk
Office of the City Manager

City of Edmonton
16th Floor, Century Place
9803 - 102A Avenue
Edmonton, AB T5J 3A3

Tel.: 780-496-5222
accessandprivacy@edmonton.ca

edmonton.ca

Reference: 2026-G-0597
Your Reference: 672930628-001

October 21, 2026

[redacted]
Sent by email only: [redacted]

Dear [redacted]

Re: *Access to Information Act* (ATIA)
Response Letter

This letter is in response to your City of Edmonton access to information request 2026-G-0597 under ATIA for the following:

> *Preamble: The City maintains a web page entitled "Snow Clearing Service Levels"*
>
> *During the period between 17 September and 9 October 2025, in the table indicating Snow Clearing Priority Hierarchy, the entry for Local/Residential Roads (Priority 4) - Parking Ban Phase was edited to change "the ban will shift to residential and industrial area roads" to "the ban may shift to residential and industrial area roads".*
>
> *During the period between 25 September and 29 November 2025, the entry for Local/Residential Roads (Priority 4) – Service Level was edited to change "completed within 10 days" to "completed within 14 days" [emphasis mine], and the entry for Local/Residential Roads (Priority 4) - Parking Ban Phase was edited to change "Lasts uo [sic] to 10 days" to "Lasts up to 14 days".*
>
> *Request: Please provide any documents or communications related to these web site changes, including requests or directives from Mayor, Council, or the Administration. Additionally, please provide the precise dates of these web page changes, and the names of any persons responsible for those changes.*
>
> *Timeframe: Aug 01, 2025 to Feb 28, 2026*

The City of Edmonton has decided to provide full access to the records you requested. A copy of the records is attached.

Under section 58(1) of ATIA, you may ask the Information and Privacy Commissioner to review this decision. To request a review, you must complete and deliver a Request for Review form

within 60 business days from the date of this notice to the Office of the Information and Privacy Commissioner (OIPC) at #410, 9925 – 109 Street, Edmonton, Alberta, T5K 2J8. The form is available under 'Forms' on the OIPC's website www.oipc.ab.ca or you can call 1-888-878-4044 to request a copy of the form.

Under section 59(1) you must also notify the City of Edmonton if you wish to request a review. Please send a written notification to accessandprivacy@edmonton.ca.

Cited sections of ATIA can be found online at:
https://kings-printer.alberta.ca/documents/Acts/a01p4.pdf

If you have any questions or concerns, please contact me at richelle.brazil@edmonton.ca.

Sincerely,

RBrazil

Richelle Brazil
Senior Corporate Access and Privacy Analyst
Corporate Access and Privacy

Attachment: Records (Pages 1-131)

The dates the Service Levels webpage (https://www.edmonton.ca/transportation/on_your_streets/neighbourhood-roads-winter) was updated between Aug 01, 2025 to Feb 28, 2026:

09/26/2025
10/21/2025
11/05/2025
01/06/2026
01/12/2026
01/15/2026
01/16/2026
01/23/2026
02/27/2026

Web Updates - Snow Clearing Service Levels

https://www.edmonton.ca/transportation/on_your_streets/neighbourhood-roads-winter

Approvals Matrix:
Valerie Dacyk, General Supervisor [x]
Michael Steger, Senior Communications Advisor [x]

Yellow highlight text is design notes for Web Ops and not for publication.

- **No changes** to the main image or page description.

- **No changes** to the first sentence. After the heading **Snow Clearing During Snowfalls, replace the existing text with the following:**

While snow is falling, equipment and crews:

- Focus on clearing major roadways like Whitemud Drive and Yellowhead Trail
- Clear and apply sand/salt to on/off ramps, bridge decks and river valley hills

When snow stops falling, crews conduct snow clearing following the priorities in the Snow and Ice Control Procedures. These priorities for roadways and active pathways are determined by a variety of factors, including safety, traffic speed and volume, design of the infrastructure, usage and more.

- **MOVE the 3 tiles of the section** Parking Ban Notices, Roadways Snow Clearing Map or the Active Pathways Snow Clearing Map tiles and links t**o BELOW** the sections with the hierarchy tables.

- **Snow Clearing Priority Hierarchy** section: In the ROADWAYS table, right column bottom row (the cell for Priority 4/Parking Ban Phase), change the text "Lasts up to 10 days" to "Lasts up to 14 days".

- **No changes** to the "Snow Clearing Tools and Methods" or "Windrows" dropdowns.

- **Replace the** text under the "Culs-de-sac" dropdown with the following:

Cul-de-sac clearing is done separately than regular residential blading. It involves both plowing and removing the snow to bare pavement from the entire cul-de-sac area. This process takes 4-6 weeks for crews to complete the 3,000 cul-de-sacs in Edmonton.

Due to the size and design of culs-de-sac, smaller snow clearing equipment is required. Culs-de-sac are cleared in response to large storm events, or when conditions warrant, on average 1-2 times per year. During this clearing, snow is stacked in the centre and removed during a clearing operation. Stacking and clearing may not occur at the same time. Removed snow is taken to one of the City's snow storage sites. For safety, residents should not allow children to play on or in the snow piles when they are present.

- **No changes** to the "Active Pathway and Bike Lane Maintenance" dropdown.

- **Related documents: Add the "Service Levels Infographic"** .

Council Policy
Snow and Ice Control Policy

Program Impacted	Movement of People and Goods: *Edmonton has an accessible and varied transportation system moving people, goods and services efficiently.* Public Safety: *Edmontonians are safe and secure in our community.*
Number	C409K
Date of Approval	August 16, 2021
Approval History	City Council October 9, 2018, C409J
Next Scheduled Review	August 16, 2026

The City of Edmonton, through its planning, decision-making, and leadership, will ensure that it provides a safe and reliable winter mobility network for people walking, rolling, biking, using transit and driving.

The purpose of this policy is to set snow and ice control guidelines that support the following outcomes for Edmontonians:

- **Safety:** To prevent or reduce collisions, slips, falls and injury to people, and to ensure that emergency responders can reach those that need help.
- **Reliability:** Edmontonians understand when active pathways and roadways are to be cleared and to what standard they are cleared to.
- **Connectivity:** Edmonton's snow clearing approach enables Edmontonians to move safely, whether walking, rolling, biking, using transit or driving, through a mobility network of active pathways and roadways.

Guiding Principles

These outcomes will be achieved in accordance with the following guiding principles:

- **Operational Excellence:** Operational decisions will be made to create Edmonton-specific solutions based on continuous improvement, fiscal responsibility, evaluation of new technology and processes as well as ongoing monitoring of current practices.

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- **Environmental Stewardship:** Safety and reliability of the winter mobility network will be achieved in a manner that protects the environment and infrastructure assets, and promotes climate resilience.
- **Equity:** Prioritization of winter maintenance activities based on equity is required to provide a mobility network that is accessible to people of all abilities and needs, and for all modes of transportation.
- **Shared Responsibility:** Maintaining a safe and livable winter mobility network is a responsibility shared by the City of Edmonton, Edmonton's business community and Edmontonians. Collaboration, co-operation, and partnerships are needed to exercise this responsibility effectively.
- **Public Awareness and Understanding:** The City of Edmonton will take a leadership role in increasing public awareness of winter maintenance activities and commit to transparency on how it impacts citizens.

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CITY POLICY

Attachment 3

POLICY NUMBER: C409J

REFERENCE:
City Council 2011 09 27
Cm ity Council 2010 05 12
City Council 2007 07 17
City Council 2007 03 20
City Council 2006 03 21
City Council 2001 09 11
City Council 1989 12 12
City Council 1984 01 10
City Council 1982 03 09
City Council 1981 02 24
City Council 1978 11 14

ADOPTED BY:
City Council

SUPERSEDES:
C409I

PREPARED BY: City Operations

DATE: 25 September 2018

TITLE: **Snow and Ice Control**

Policy Statement: Ensure that the transportation network is maintained in such a manner as to minimize economic loss to the community, prevent or reduce accident and injury, and facilitate the handling of emergencies by the emergency responders and police services.

The purpose of this policy is to set winter snow and ice control standards to provide for a safe and reliable transportation network while protecting the environment and providing excellent customer/citizen service.

Roadway Plowing:

- Plow snow from all freeways, arterial and collector roadways, bus routes and bus ways during and following the end of a storm to achieve bare pavement.
- Plow snow as required from roadways (other than freeways, arterial and collector roadways, roadways abutting schools and bus routes) carrying in excess of 1500 vehicles per day and emergency access routes.

Residential Blading:

- In any given snow event, a city-wide residential blading program will be initiated (including Alleys) immediately after the Arterial and Collector road network has been plowed and considered to be in safe condition.
- Residential Roads will be bladed to a 5 cm snow pack condition.
- Residential blading will be completed within 7 days, commencing within 48 hours following the end of the snowfall.
- When rutting or snow drifting occurs, residential roadways will be bladed to maintain a level, snowpack condition.

- Service level will only involve the blading of snow. Windrows (less than 30 cm in height) left behind blocking driveways will be the responsibility of the adjacent property owner. Windrows (more than 30 cm in height) left behind will be cleared as to not block driveways.
- Snow will not be hauled away except to permit safe passage.
- Notification of residential blading will be announced through the media. A parking ban will not be used.
- In the event that a 5 cm snow pack cannot be maintained on residential roads within one cycle of blading, plowing to bare pavement will be initiated where required.
- Alleys adjacent to roadways subject to seasonal parking bans will be given priority and will be bladed at the start of the residential blading cycle.

Snow Removal:

- Remove snow from business districts as required.
- Remove snow from arterial roadways when curb lanes are reduced to less than 3.2 metres in width by windrowed snow.
- Remove snow from collector roadways and bus routes as required when the driving width or parking area restricts safe vehicular movement.
- Remove snow from roadways in the designated windrow free zone and school drop off zones adjacent to schools on both sides of the roadway, after every major snowfall when a full plowing cycle is completed.
- Remove snow as required from roadways (other than, arterial and collector roadways, and bus routes) carrying in excess of 1500 vehicles per day, when the driving width or parking area restricts safe vehicular movement.

Active Transportation Modes:

- Plow snow from multi use trails and sidewalks adjacent to city owned land within 48 hours of a snowfall where there is an accumulation of 2 cm or more.
- Snow will not be hauled away.
- Property owners are required to clear snow from sidewalks adjacent to their property (frontage and flankage) within 48 hours of the end of snowfall to meet the requirements of the Community Standards Bylaw #14600.
- Plow snow from designated bicycle lanes with the roadway plowing to the same service level designated for that roadway.
- Maintain prioritized sidewalks, trails and bike routes to bare pavement within 24 hours from end of snowfall.

Transit Facilities:

- Clear snow from all sidewalks, ramps, stairs and bus platforms at transit facilities within 24 hours after the snowfall.
- Clear snow from all transit zone pads within 48 hours after the snowfall.

- Maintain bus stops adjacent to City property to bare pavement within 48 hours from end of snowfall.

Snow Storage Site Management:

- Snow removed from road right of way and private parking lots must be hauled to snow storage sites to meet Environment Canada and Alberta Environment guidelines and Codes of Practice outlined in the Salt Management Plan.

Salt Management Plan:

- Report to both Alberta Environment and Environment Canada annually on road salt usage and road salt management. Meet Codes of Practice established by Transportation Association of Canada and adopted by Environment Canada.

Severe Snowfall Event

A severe snowfall response can be initiated at the discretion of the Branch Manager for Parks and Roads Services. This severe snowfall response can be initiated if there is a snowfall event of 30 cm or more that threatens the mobility of the transportation network. The focus of this severe snowfall response will be to restore immediate mobility, not to address transportation network capacity. This severe snowfall response include:

- Deployment of all available resources to ensure mobility of the transportation network
- Delegation of control of deployment of all available resources in all city departments associated with snow clearing to the Director of Infrastructure Operations.
- Plowing to bare pavement on residential roads.
- Declaration of an overnight parking ban on all residential roads.

Snow Emergency

In the event of an extreme winter storm that causes the closure of a significant portion of the transportation network, the City Manager at her discretion can declare a snow emergency. This will initiate the activation of the Emergency Operations Centre. In this event all control of snow clearing activities will be through the Emergency Operation Centre and will focus on providing mobility for emergency and essential services only until generally mobility on the transportation network can be restored.

CITY POLICY

Attachment 3

Transportation Network Priority Hierarchy

Priority I

- **Freeways, Arterial roadways:**
  Maintain to a bare pavement standard within 36 hours from end of snowfall
- **Business districts, Busways:**
  Maintain to a bare pavement standard within 36 hours from end of snowfall
- **Bus stops adjacent to City property:**
  Maintain to a bare pavement standard within 48 hours from end of snowfall
- **Prioritized sidewalks, trails and bike routes:**
  Maintain to a bare pavement standard within 24 hours from end of snowfall

Priority 2

- **Collector/Bus Route Roadways, Transit Park and Ride access roads:**
  Maintain to a bare pavement standard within 48 hours from end of snowfall.

Priority 3

- **Local Industrial Roadways:**
  Maintain to a bare pavement standard within 5 days from the end of snowfall.

Priority 4

- **Residential Roadways, Alleys:**
  Blade level snowpack, start within 48 hours after snowfall and complete in 5 days. Alleys adjacent to roadways subject to seasonal parking ban will be done first.

Public and Stakeholder Engagement Feedback

Engagement Initiative and Year	What We Heard	What We Did
2021 Stakeholder Feedback on SNIC Policy Refresh	Accessibility Advisory Committee (AAC) • Expressed positivity on the recognition of active pathways and having more clarity on those priorities. • Wondered if the procedure could address bylaw and enforcement issues for sidewalk snow clearing. • Emphasized the need for more communication on the procedures especially around the 311 process. Edmonton Federation of Community Leagues (EFCL) • Asked for more clarity on snow clearing vs. removal, mobility network and process around windrow clearing on bus stops and sidewalks. • Encouraged the City to have more communication around equity with regards to active pathways. • Offered to help the City with any communication to leagues/residents. • Expressed interest in the future plans for community sandbox program and equipment donation like in 2021.	Additional clarification and details have been added to the SNIC policy and procedure such as: • Added definition of mobility network and pre-wet. • Clarified in the procedure that when the City of Edmonton is responsible for clearing windrows on a sidewalk, it will be in response to a 311 notification. • Added clear service levels for alleys/back lanes in business districts. Additional next steps also include: • EFCL will be looped in the communications plan for any future program messaging such as parking ban notifications. • AAC and EFCL will be engaged as part of the community sandbox program review.

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	Urban Development Institute (UDI)/Canadian Home Builders Association (CHBA) • Asked for more clarity on the pre-wetting of sand/salt mix with calcium chloride and where this was used - roadway or active pathway. • Shared concerns about the pre-wetting process and how that might impact infrastructure and landscaping. Business Improvement Areas (BIAs) • Asked for more clarity on service levels and priority for clearing alleys/back lanes, sidewalks and windrows in BIAs. • Wanted to understand how the SNIC operations team works with the enforcement team regarding snow and ice standards on private property.	
2020 Parking Ban Survey	The survey was conducted to get insights on resident use of street parking in winter and expectations around a potential parking ban and related communications. • Most respondents indicated they did not park on the street, but of those that do, mostly park 1-2 vehicles. • Majority of the respondents believed that removing vehicles from the street	A two-phase citywide parking ban was developed for the 2020-21 season. Given the mild winter, a parking ban wasn't called but the following steps have been taken: • The parking ban process has been added to the new SNIC procedure. • City website has been updated with details on the parking ban and an interactive map which displays the

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	improves the ability, quality, efficiency and effectiveness of snow removal on residential streets. • Most preferred a daytime ban. • Most preferred notification of a ban through emails, social media and the news media. Of the communications methods we have not employed in past seasons, neighbourhood signs and text alerts were the two most requested.	status of roads during a parking ban. • Large "No Parking" signs have been developed to be placed in residential areas when a ban is in effect, as requested through citizen feedback. • Alternative parking options have been identified at select publicly-accessible City facilities and Edmonton Public Library to support residents who are unable to find any parking during a parking ban. • A service design review is underway to identify ways to ensure better citizen awareness and more compliance with the ban in future. • Work is underway to develop a text alert system to deliver notifications.
2019 Residential Snow and Ice Control	This engagement was focused on getting feedback from the public on how to improve winter maintenance in residential areas. • Most residents wanted the City to maintain full driving lanes and supported a city-wide parking ban. • Many residents were concerned about the windrow and cul-de-sac clearing process and wanted better communication from the City. • Majority of the residents were okay with some snow accumulation on residential roads but preferred a	A parking ban trial was conducted in 2019-20 and eventually a city-wide parking ban was implemented in 2020-21. Other enhancements include: • More frequent maintenance in residential areas in between blading cycles as of 2020-21. This has also been added to the SNIC procedure. • Clear process for cul-de-sac and windrow clearing has been added to the SNIC procedure. This will also be updated on the website. • Service levels and priority hierarchy

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	higher service for sidewalks and pathways.	for active pathways has been clearly added to the SNIC procedure.
2019 Winter Walkways Symposium (Collaboration between City of Edmonton and EFCL)	This symposium invited internal and external stakeholders to learn about and explore innovative solutions for snow and ice clearing on Edmonton's walkways. • Most attendees wanted the City to prioritize the safety and accessibility of all users of the mobility network and not just roadway users. • Many attendees suggested the City use a community based approach like equipment sharing between leagues or a grant program for leagues to purchase equipment. • Majority of the attendees demanded greater clarity and communication of roles and responsibilities between the City, residents and businesses.	As part of the policy refresh work: • Principle of 'equity' has been added to the revised SNIC policy to emphasize the safety and accessibility for all users. • Information on the priority hierarchy for active pathways has been added to the SNIC procedure. Some of the ideas from the symposium that were executed included: • Snow removal grants for community leagues, seniors and persons with disabilities were offered in the 2019-20 and 2020-21 winter season. • Donating three pieces of surplus City equipment (dual-purpose snow clearing/mower units) to EFCL who gave it away to three leagues.

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COMMUNITY AND PUBLIC SERVICES COMMITTEE REPORT
Snow and Ice Control Policy Refresh

Recommendation of the Committee

That revised Snow and Ice Control Policy C409K, as set out in Attachment 1 of the August 11, 2021, City Operations report CO00396rev, be approved.

History

- At the August 11, 2021, Community and Public Services Committee meeting, the August 11, 2021, City Operations report CO00396rev was considered.
- The Committee heard from K. Kowalchuk, Edmonton River Valley Conservation Coalition.

Attachment

August 11, 2021, City Operations report CO00396rev

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Snow and Ice Control Policy Refresh

Recommendation

That Community and Public Services Committee recommend to City Council:

That revised Snow and Ice Control Policy C409K, as set out in Attachment 1 of the August 11, 2021, City Operations report CO00396rev, be approved.

Executive Summary

The Snow and Ice Control (SNIC) program supports ConnectEdmonton's strategic goals of creating a healthy city that embraces equity for all and vibrant urban places where mobility options are plentiful. The City Plan also emphasizes the need to build a community of communities where the use of transit and active transportation modes is promoted. Providing a safe and reliable winter mobility network is an essential part of achieving Vision Zero's long-term goals of zero traffic fatalities and serious injuries and in realizing the goals of the Safe Mobility Strategy.

Administration considered how to better align Edmonton's SNIC policy to meet the needs of the public, changing conditions, practices and technology. The policy was reviewed to ensure consistency with the new corporate policy framework. Operational content has been moved from the policy to the supporting administrative procedure to address processes, service levels and definitions.

This report presents the revised SNIC policy for approval, and supporting administrative procedure for information. The report explains the approach used to make the updates and the feedback collected from the public and internal and external stakeholders.

Report

The City of Edmonton strives to deliver a robust SNIC program that meets the diverse needs of Edmontonians as well as the complexities of changing climate and conditions. The COVID-19 pandemic is one example of how an unforeseen event changed the way Edmontonians move around the city, impacting traffic volume, transit ridership and how streets and active pathways are shared and used. The objective of the SNIC program is to ensure a safe and reliable mobility network for all users.

The Snow and Ice Control Policy, C409J, plays a critical role in guiding the service delivery and enhancements to the SNIC program. The policy has been updated several times since it was first established in 1978. The last update was approved at the October 9/10, 2018 City Council meeting. Recent conversations with Council, the

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public and stakeholders emphasized the need for the policy to better reflect current processes and public expectations. At the August 17, 2020 City Council meeting (City Operations report CR_7694rev), Administration committed to reviewing and developing a modernized, outcome-based SNIC policy.

An audit of the SNIC program, conducted in 2020, highlighted several opportunities to improve the SNIC policy and program. At the February 11, 2021 Audit Committee meeting (Office of the City Auditor report OCA00338 and City Operations report CO00180), Administration accepted all 12 recommendations made by the Auditor, including a review and update of the SNIC policy.

In 2020, some enhancements were made to the SNIC program including more frequent winter maintenance in residential areas, introduction of a citywide parking ban, and implementation of 12-hour shifts for operational staff. Given the mild winter season in 2020-21, the benefits associated with these changes were not fully realized. As a result, additional service level changes are not being recommended in this policy update.

SNIC Policy Refresh Approach

The refreshed SNIC policy is consistent with the new corporate policy framework. The new template includes key outcomes and guiding principles based on which program decisions will be taken. Operational content has been moved from the policy to a supporting administrative procedures document to enable Administration to be more agile and responsive to changing conditions and the needs of the public.

The approach used to update the SNIC policy and create the administrative procedures involved:

- Aligning the outcomes and terminology with corporate goals and plans such as the City Plan and the Safe Mobility Strategy and Design and Construction Standards.
- Adding clarity based on public and stakeholder feedback as well as the SNIC audit findings.
- Referring to snow and ice control policies/guidelines of other winter cities like City of Calgary, City of Toronto, City of Ottawa and City of Winnipeg as well as organizations like Transportation Association of Canada for examples on how policies are written and communicated.
- Seeking input from the front line staff for SNIC program as well as teams throughout Administration such as Edmonton Transit Service, Safe Mobility, Building Great Neighbourhoods, ENVISO, City Planning, Community Standards and Social Development.

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Proposed Policy and Administrative Procedure

The following list highlights specific changes being proposed to SNIC Policy C409J:

- Updating the Policy Statement to clearly identify and explain the three key outcomes of the SNIC policy - 'Safety,' 'Reliability' and 'Connectivity'.
- Updating the Policy Statement to emphasize accessibility for users of all modes of travel and replace the goal of preventing 'accident and injury' with 'collisions, slips, falls and injury' to be more inclusive.
- Adding and explaining the five Guiding Principles ('Operational Excellence', 'Environmental Stewardship', 'Equity', 'Shared Responsibility' and 'Public Awareness and Understanding') which will guide decision making and service levels for the SNIC program.
- Identifying the corporate outcomes that the SNIC policy serves to achieve ('Movement of People and Goods' and 'Public Safety').
- Moving all other operational content to the SNIC Administrative Procedure.

The draft SNIC Administrative Procedure (Attachment 2) provides a detailed overview of the procedures, service levels and definitions associated with the SNIC program. Administrative procedures support the delivery of the policy, are under the authority of the City Manager, and do not require formal Council approval. Key highlights include:

- Creating two distinct categories within the current priority hierarchy system to clearly identify snow clearing service levels for 'Roadways and Goods Movement Network' and 'Active Pathways and Public Amenities Network'.
- Carefully using and defining different terms to ensure clarity and consistency throughout the document such as the terms 'Snow Clearing', 'Snow Removal', 'Blading', 'Bare Pavement', 'Arterial Roadways', 'Business Districts', 'Shared Pathways', 'Windrows', 'Protected Bike Lanes' and 'Painted Bike Lanes'.
- Adding clarity around the parameters of when snow will be cleared or removed from different types of mobility networks such as how and when residential areas will be cleared, when a parking ban will be announced, when snow will be removed from business districts or when a windrow will be cleared by the City.
- Adding service levels for inventory which were not previously stated in the policy such as 'Culs-de-sac', 'Shared Streets' and 'Pedestrian Only Streets'.
- Adding details on processes which were previously missing in the policy or not aligned with operational practices such as 'Windrow Encroachment', 'Material Application', 'Community Sandbox', 'Parking Ban' and 'Public Inquiries'.

Financial Implications

Given that there are no significant service level changes being proposed with the SNIC policy refresh, no considerable financial impacts are anticipated. The enhancements made in the 2020-21 winter season involving more frequent residential maintenance

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and cul-de-sac clearing will be absorbed within the existing SNIC program budget for the upcoming winter season. Based on the results of the 2021-22 winter season, any additional budget requests may be brought forward in 2022.

Public Engagement

With no major service level changes identified in the policy, Administration used a focused approach to get insights on the revised draft SNIC policy and administrative procedure:

- Input was collected from key stakeholder groups such as Edmonton Federation of Community Leagues (EFCL), Urban Development Institute (UDI), Canadian Home Builders Association (CHBA), Business Improvement Areas (BIAs) and the Accessibility Advisory Committee (AAC).
- Public feedback was leveraged from past engagements conducted in 2019 (Residential Snow and Ice Control and Winter Walkways Symposium) and 2020 (Parking Ban Survey) when the public was engaged heavily on a variety of SNIC program elements.

A summary of how this feedback was used to inform the revised SNIC policy is outlined in Attachment 4.

Next Steps

Subject to City Council approval of the revised policy, Administration will:

- Update internal guidelines and manuals to ensure consistency with the revised SNIC policy and administrative procedure.
- Ensure Edmontonians are informed about what service levels will be on roads and pathways, as identified in the updated Snow and Ice Control Policy, as well as requirements for moving vehicles during citywide parking bans through a robust communications plan.
- Continue work on addressing the recommendations from the SNIC audit with collaboration from teams across the City as well as front line staff.
- Complete the public facing map for Active Pathways similar to the interactive map for Roadways currently on edmonton.ca/SafeTravels.
- Continue work on GPS installation in snow and ice equipment and a text messaging service for snow and ice related notifications to the public.
- Complete development of a temporary location at the Ellerslie Integrated Facility to support SNIC operations starting next winter season.

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Corporate Outcomes and Performance Management

Corporate Outcome(s): Edmonton has an accessible and varied transportation system moving people, goods and services efficiently			
Outcome(s)	**Measure(s)**	**Result(s)**	**Target(s)**
Edmonton has an accessible and varied transportation system moving people, goods and services efficiently	Roadway: % of service level achieved during major snowfall	TBD. The performance measures and targets are being reviewed as part of recommendations 4 and 5 of the SNIC audit to improve performance management and benchmarking processes. This is expected to be completed by 2021-22 winter season.	
	Active Pathway: % of service level achieved during major snowfall		
Corporate Outcome(s): Edmontonians are safe and secure in our community			
Edmontonians are safe and secure in our community	% reduction in the number of collisions on snowy and icy road surface conditions	TBD. Benchmark results and data collection methodology are being developed in collaboration with University of Alberta. This is expected to be ready for reporting by 2021-22 winter season.	
	% reduction in the number of 311 and Insight Community safety concerns on active pathways in winter months	TBD. Baseline and resulting targets to be established in 2021.	

Attachments

1. Snow and Ice Control Policy C409K
2. Snow and Ice Control Procedure
3. Current Snow and Ice Control Policy C409J
4. Public and Stakeholder Engagement Feedback

Others Reviewing this Report

- D. Croft, Acting Deputy City Manager and Chief Financial Officer, Financial and Corporate Services
- C. Owen, Deputy City Manager, Communications and Engagement
- A. Laughlin, Deputy City Manager, Integrated Infrastructure Services
- K. Armstrong, Deputy City Manager, Employee Services
- R. Smyth, Deputy City Manager, Citizen Services
- S. McCabe, Deputy City Manager, Urban Planning and Economy
- K. Fallis-Howell, Acting City Solicitor, Legal Services

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Council Policy
Snow and Ice Control Policy

Program Impacted	Movement of People and Goods: *Edmonton has an accessible and varied transportation system moving people, goods and services efficiently.* Public Safety: *Edmontonians are safe and secure in our community.*
Number	C409K
Date of Approval	TBD
Approval History	City Council 2018-10-09, C409J
Next Scheduled Review	TBD

The City of Edmonton, through its planning, decision-making, and leadership, will ensure that it provides a safe and reliable winter mobility network for people walking, rolling, biking, using transit and driving.

The purpose of this policy is to set snow and ice control guidelines that support the following outcomes for Edmontonians:

- **Safety:** To prevent or reduce collisions, slips, falls and injury to people, and to ensure that emergency responders can reach those that need help.
- **Reliability:** Edmontonians understand when active pathways and roadways are to be cleared and to what standard they are cleared to.
- **Connectivity:** Edmonton's snow clearing approach enables Edmontonians to move safely, whether walking, rolling, biking, using transit or driving, through a mobility network of active pathways and roadways.

Guiding Principles

These outcomes will be achieved in accordance with the following guiding principles:

- **Operational Excellence:** Operational decisions will be made to create Edmonton-specific solutions based on continuous improvement, fiscal responsibility, evaluation of new technology and processes as well as ongoing monitoring of current practices.

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- **Environmental Stewardship:** Safety and reliability of the winter mobility network will be achieved in a manner that protects the environment and infrastructure assets, and promotes climate resilience.
- **Equity:** Prioritization of winter maintenance activities based on equity is required to provide a mobility network that is accessible to people of all abilities and needs, and for all modes of transportation.
- **Shared Responsibility:** Maintaining a safe and livable winter mobility network is a responsibility shared by the City of Edmonton, Edmonton's business community and Edmontonians. Collaboration, co-operation, and partnerships are needed to exercise this responsibility effectively.
- **Public Awareness and Understanding:** The City of Edmonton will take a leadership role in increasing public awareness of winter maintenance activities and commit to transparency on how it impacts citizens.

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Procedure

Snow and Ice Control Procedure

This procedure falls under the Snow and Ice Control Policy C409K.

Program Impacted	Movement of People and Goods: *Edmonton has an accessible and varied transportation system moving people, goods and services efficiently.* Public Safety: *Edmontonians are safe and secure in our community.*
Approved By	City Manager
Date of Approval	TBD
Approval History	n/a
Next Scheduled Review	TBD

To achieve a safe and reliable mobility network, snow and ice control activities will be carried out in the following manner.

1. Snow Clearing Priority Hierarchy

1.1. Roadway and Goods Movement Network

1.1.1. Priority 1

Freeways, arterial roadways, business districts:

Maintain to a bare pavement standard within 36 hours following the end of snowfall.

Alleys/back lanes in business districts:

Maintain to 5 cm snowpack within 36 hours following the end of snowfall.

1.1.2. Priority 2

Collector roadways, Transit Park and Ride access roads:

Maintain to a bare pavement standard within 48 hours following the end of snowfall.

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1.1.3. Priority 3

Industrial roadways:

Maintain to a bare pavement standard within 5 days following the end of snowfall.

Rural roadways:

Maintain a level snowpack within 5 days following the end of snowfall.

1.1.4. Priority 4

Residential roadways and alleys/back lanes:

Maintain to 5 cm snowpack and completed within 7-9 days once a residential blading cycle is initiated.

1.2. Active Pathways and Public Amenities Network

1.2.1. Priority 1

Inventory adjacent to City facilities (City Hall, recreation centres and seniors centres), transit centres and LRT stations such as: City maintained sidewalks, wheelchair ramps, shared pathways, all season staircases and bus stops :

Maintain to a bare pavement standard within 24 hours following the end of snowfall.

Prioritized bike route network (network of protected bike lanes, designated painted bike lanes and designated shared pathways):

Maintain to a bare pavement standard within 24 hours following the end of snowfall.

1.2.2. Priority 2

Excluding inventory listed in 1.2.1, all other City maintained sidewalks, wheelchair ramps, shared pathways and parking lots, all season staircases, access to bus stops adjacent to City property, pedestrian bridges:

Maintain to a safe and passable surface beginning at the end of snowfall and completed within 48 hours following the end of snowfall.

1.2.3. Priority 3

Other manually cleared active pathways and public amenities (breezeways, benches and fire hydrants), pedestrian only streets:

Maintain to a safe and passable surface within 5 days following the end of snowfall.

Community sandboxes:

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Refill within 5 days following the end of snowfall.

2. Procedures for Snow and Ice Control

2.1. Roadways (Non-Residential)

2.1.1. Clear snow from all priority 1, 2 and 3 roadways following the end of snowfall where there is an accumulation of 2 cm or more, as per the priority hierarchy in section 1.1, Roadway and Goods Movement Network.

2.1.2. All priority 1 and 2 roadways are routed for snow and ice control. They will be monitored and maintained as required throughout the winter season and in response to 311 notifications, even when there is no snowfall. This may include, but not limited to, material application and snow plowing.

2.1.3. Alleys/back lanes in business districts are cleared during one of three circumstances: priority 1 snow clearing following the end of snowfall, maintenance blading between snowfall to maintain the snowpack, or in response to 311 notifications.

2.1.4. Snow will be removed from business districts by the City of Edmonton based on several factors including, but not limited to,

- 2.1.4.1. When windrows have been temporarily placed in a center stack formation,
- 2.1.4.2. When driving lanes are reduced to less than 3.2 metres in width by windrowed snow,
- 2.1.4.3. When accessibility to parking areas is restricted,
- 2.1.4.4. When line of sight has been obstructed due to windrow placement,
- 2.1.4.5. Current and forecasted weather.

2.1.5. Snow will be removed from arterial roadways when curb lanes are reduced to less than 3.2 metres in width by windrowed snow.

2.1.6. Snow will be removed from collector roadways when the driving lanes are reduced to less than 3.2 metres in width or parking area restricts safe vehicular movement.

2.1.7. Snow will not be removed from industrial or rural roadways unless to permit safe vehicular movement.

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2.1.8. Snow will be removed from roadways adjacent to the designated windrow free zones and school drop-off zones based on several factors including, but not limited to, windrow size, impacted parking areas, sightlines, current and forecasted weather.

2.2. Residential Roadways (Including Alleys/Back Lanes)

2.2.1. Residential roadways (including alleys/back lanes) are cleared only during one of three circumstances: through a residential blading cycle during phase 2 of the parking ban, maintenance blading between snowfall to maintain the snowpack, or in response to 311 notifications.

2.2.2. The decision to initiate a residential blading cycle will be made by the City of Edmonton based on several factors including, but not limited to, residential roadway conditions, current and forecasted weather, a minimum snowpack of 5 cm consistently citywide and status of snow clearing on priority 1, 2 and 3 roadways.

2.2.3. Residential roads and alleys/back lanes are maintained to approximately 5 cm snowpack condition in the driving lane.

2.2.4. Shared streets will receive the same level of service as the adjacent residential roadway on which they are located.

2.2.5. Snow will not be removed from residential roadways unless to permit safe vehicular movement.

2.2.6. Notification of a citywide residential blading cycle will be announced through a variety of communications channels. A phase 2 parking ban will be implemented as explained in section 2.8, Parking Ban.

2.2.7. Culs-de-sac are not cleared as part of the residential blading cycle given the techniques and equipment required. They will be cleared as per section 2.3, Cul-de-sac Clearing, set out below.

2.3. Culs-de-sac

2.3.1. Cul-de-sac clearing events will be initiated by the City of Edmonton based on several factors including, but not limited to, snow accumulation which impedes access, safety concerns, time of the year, and current and forecasted weather.

2.3.2. Service will include stacking and removal of snow from the cul-de-sac to achieve bare pavement.

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2.3.3. Cul-de-sac clearing, when initiated, can take between four to six weeks; typically they will be cleared no more than three times during a winter season.

2.4. Active Pathways and Public Amenities

2.4.1. Clear snow from all priority 1, 2 and 3 active pathways and public amenities following the end of snowfall where there is accumulation of 2 cm or more, as per the priority hierarchy in section 1.2, Active Pathways and Public Amenities Network.

2.4.2. Snow will not be removed from active pathways and public amenities.

2.4.3. Property owners are required to clear snow and ice from sidewalks, including corners and any pedestrian infrastructure on the sidewalks adjacent to their property, as per the requirements of the Community Standards Bylaw #14600.

2.4.4. Painted bike lanes will receive the same level of service as the adjacent roadway on which they are located (except for those identified as higher priority in section 1.2.1).

2.4.5. All active pathways and public amenities will be monitored and maintained as required throughout the winter season and in response to 311 notifications, even when there is no snowfall. This may include, but not limited to, material application, snow blowing and snow sweeping.

2.5. Windrow Encroachments

2.5.1. Driveways

2.5.1.1. Windrows (that are consistently 30 cm or less in height) left behind blocking driveways will be the responsibility of the adjacent property owner to clear. Windrows (that are consistently 30 cm or more in height) left behind blocking driveways will be cleared by the City of Edmonton to level snowpack within 12 hours of windrow placement.

2.5.1.2. When the City of Edmonton clears windrows on driveways, it is to allow a three metre wide opening, sufficient for a small car to pass safely.

2.5.2. Sidewalks

2.5.2.1. If windrow encroachment on sidewalks is consistently over 30 cm or more, and is 3m in length or greater, the City of Edmonton is responsible for clearing the windrow in response to a 311 notification. The adjacent property owner is responsible for clearing all other windrow encroachments.

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2.5.3. Protected Bike Lanes

2.5.3.1. If windrow encroachment on protected bike lanes is consistently over 30 cm or more, and is 3m in length or greater, it is the City of Edmonton's responsibility to clear.

2.5.4. The following will be left clear of any windrows:

Bus stops, crosswalks, signed accessible parking stalls, windrow free zones, school drop-off zones, fire hydrants.

2.6. Material Application

2.6.1. In addition to using mechanical means, the City of Edmonton may apply different materials for snow and ice control on the mobility network such as sand, salt, chips and calcium chloride.

2.6.2. A mix of sand and salt is typically applied to improve surface traction. The proportion of sand and salt may vary depending on the conditions including, but not limited to, air temperature, pavement temperature, humidity and dew point.

2.6.3. Chips may be used on snowpack and icy conditions in order to provide additional traction.

2.6.4. Salt may be used as a de-icer to melt any residual snow or ice depending on the conditions stated above.

2.6.5. Calcium chloride is used to pre-wet the sand-salt mix applied on roadways. Calcium chloride is used as an anti-icer/de-icer only for priority 1 active pathways and public amenities.

2.7. Community Sandbox

2.7.1. The City of Edmonton provides a courtesy service in the form of free sand in designated community sandbox locations as well as roadway maintenance yards during winter for communities to use on icy sidewalks and pathways.

2.7.2. Communities can request a sandbox by reaching out to the City of Edmonton. The City of Edmonton will assess the request based on the location being requested, availability of other sandboxes in the vicinity, accessibility to crews for filling and potential to block traffic or sidewalk access.

2.7.3. The City of Edmonton will inform the community if the request has been approved or not. If approved, the sandbox will be placed by the City of Edmonton.

2.7.4. Once placed, the sandbox will be refilled by the City of Edmonton after all active pathways have been cleared. Residents can also request additional refills by calling 311.

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2.8. Parking Ban

2.8.1. The City of Edmonton may declare a parking ban at its discretion based on factors including, but not limited to, amount of snowfall, rate of snow accumulation, and current and forecasted conditions.

2.8.2. The parking ban, when declared, will operate in two phases. During the first phase, no parking is permitted on arterial roadways, within business districts and roadways marked with seasonal no parking signage (collector roadways).

2.8.3. After Phase 1 is completed, Phase 2 will begin. At this point, parking would be prohibited on residential roadways, culs-de-sac, alleys/back lanes, and industrial roadways. Residents will need to arrange for alternative parking such as parking on their driveway or in their garage, in surplus parking on a neighbours property (with permission) or on cleared collector roads, many of which are within neighbourhoods.

2.8.4. Best efforts to ensure a minimum notice of 8 hours will be provided to the public before a parking ban is set to begin and a further minimum notice of 8 hours will be provided to the public when the City of Edmonton moves from Phase 1 to 2 of a parking ban, through a variety of communications channels. Exceptions may be necessary for emergencies.

2.9. Public Inquiries

2.9.1. Residents should call 311 for any inquiries or concerns related to the Snow and Ice Control program. The operational teams will address inquiries where an action may be required by the City of Edmonton.

2.9.2. Resolving the issue is dependent on several factors including, but not limited to, the nature of inquiry, accessibility, safety concerns, current and forecasted weather, and roadway conditions. Typically, 311 inquiries requiring City of Edmonton action will be resolved within 7 days.

2.9.3. Residents are provided with a reference number which they can use to track the status of their inquiry.

2.10. Monitoring Impacts

2.10.1. Environmental and Infrastructure Impacts:

2.10.1.1. The City of Edmonton will monitor the safety impacts of using the various snow and ice control activities in consideration with impacts on the environment and infrastructure

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through studies including, but not limited to traction, collisions, river water, soil and vegetation, corrosion, concrete and asphalt.

2.10.2. Snow Storage Site Management:

2.10.2.1. Snow removed from the mobility network will be hauled to the City of Edmonton snow storage sites to meet Environment Canada and Alberta Environment and Parks guidelines and Codes of Practice, as outlined in the Salt Management Plan.

2.10.3. Salt Management Plan:

2.10.3.1. The City of Edmonton will report to both Alberta Environment and Parks and Environment Canada annually on road salt usage and road salt management to meet Codes of Practice established by the Transportation Association of Canada and adopted by Environment Canada.

2.11. Severe Snowfall Event

2.11.1. A severe snowfall response can be initiated at the discretion of the Branch Manager for Parks and Roads Services. This severe snowfall response can be initiated if there is a snowfall of 30 cm or more within 24 hours or less that threatens access to the mobility network. The focus of this severe snowfall response will be to restore immediate mobility, not to address mobility network capacity.

2.11.2. A severe snowfall response includes:

2.11.2.1. Deployment of all available resources to restore mobility.

2.11.2.2. Delegation of control for deployment of all available resources in all City departments associated with snow clearing to the Director of Infrastructure Operations.

2.11.2.3. Declaration of city-wide parking ban.

2.12. Snow Emergency

2.12.1. In the event of an extreme winter storm that causes the closure of a significant portion of the mobility network, the City Manager at their discretion can declare a snow emergency. This will activate the Emergency Operations Centre. In a snow emergency, all snow clearing activities will be controlled through the Emergency Operation Centre and will focus on providing mobility for emergency and essential services only until general mobility can be restored.

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3. Definitions

3.1. **Mobility Network:** Entire transportation network that is maintained by the City of Edmonton for snow and ice control including the roadways and goods movement network as well as the active pathways and public amenities network.

3.2. **Snow Clearing**: Mechanical clearing of snow and ice including, but not limited to, plowing, brooming/sweeping and snow blowing.

3.3. **Freeways**: High traffic volume and speed roads with limited access and typically grade separated intersections.

3.4. **Arterial Roadways**: Roadways carrying larger volumes of traffic (people driving as well as those riding transit, walking and wheeling, cycling, and delivering goods) between areas with relatively few and controlled access points.

3.5. **Business Districts**: Roadways with commercial property on both sides having curb line sidewalks and on-street parking. This includes roadways in all 13 Business Improvement Areas within Edmonton (excludes industrial roadways).

3.6. **Alleys/Back Lanes**: Streets providing direct access to adjacent lands typically parallel to other classification of streets and mainly used for access, deliveries, and waste collection. In core urban areas, some alleys are evolving into shared streets, with alley oriented development.

3.7. **Bare Pavement**: Bare pavement is defined as a dry or wet surface generally clear of snow and ice (some patches of snow and ice may be present).

3.8. **Collector Roadways**: Roadways providing travel between residential and arterial roadways with direct access to adjacent properties. Designated bus routes through a residential area are also categorized as a collector roadway.

3.9. **Industrial Roadways**: Roadways providing direct access to wholesale or manufacturing complexes.

3.10. **Rural Roadways**: Roadways on which minimal development or improvement has been made, such as oiled or gravel roads.

3.11. **Residential (Local) Roadways**: A street or designated portion thereof abutted by sites which are primarily occupied by residential buildings. These are typically low-speed, low traffic volume.

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3.12. **Active Pathways and Public Amenities**: All mobility corridors or infrastructure that are not roadways including, but not limited to, sidewalks, bus stops, shared pathways, protected bike lanes, parking lots, all season staircases, wheelchair ramps and transit facilities.

3.13. **Transit Centres**: Bus facilities that act as a hub for several bus routes, providing an easy way for transit users to transfer from one bus to another, or in some cases, from a bus to the LRT.

3.14. **Protected Bike Lanes**: On-street bike lanes protected from moving cars, parked cars, and sidewalks, by a physical barrier.

3.15. **Painted Bike Lanes**: On-street bike lanes marked with paint and designated for bikes only but without physical separation from vehicular traffic.

3.16. **Shared Pathways**: Paved, off-street paths outside of road carriageway that are marked with signs that indicate that they are shared by people on bikes and pedestrians.

3.17. **City Maintained Sidewalks**: Sidewalks maintained by the City include those around public schools, City facilities or buildings such as recreation centres, senior centres or City Hall, as well as sidewalks around the perimeter of City assets such as parks, public utility lots and parking lots.

3.18. **All-Season Staircases**: Staircases that lead to a City maintained recreational space, City maintained sidewalks or shared pathways. In case of parallel staircases, only one staircase will be cleared for snow and ice control.

3.19. **Bus Stops Adjacent to City Property**: Bus stops with amenity pads located on or adjacent to City maintained sidewalks (i.e. not located on a sidewalk located on or adjacent to private property).

3.20. **Pedestrian Bridges**: Bridges meant for pedestrian or bike access that are restricted from vehicular traffic or are adjacent to vehicular traffic.

3.21. **Manually Cleared Active Pathways and Public Amenities**: Active pathways and public amenities that can't be reached mechanically and require manual snow clearing. Examples include breezeways with permanent bollards and City infrastructure like benches and fire hydrants.

3.22. **Breezeways**: Connections within or between neighbourhoods that can be accessed with a bike or on foot. Most breezeways have a paved or concrete surface.

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3.23. **Pedestrian Only Streets**: Unlike shared streets that allow people walking, wheeling, cycling, and driving to share the space, a pedestrian only street either prohibits vehicles from using the street at all times, or at specific times.

3.24. **Blading**: Mechanical plowing of snow and ice to leave a consistent, level snowpack.

3.25. **Shared Street**: These streets significantly limit motor vehicle traffic. Design elements like pavement material and entry features define the space and make it clear that shared streets are primarily designed for people walking, wheeling and cycling.

3.26. **Cul-de-sac**: A street or passage closed at one end with no through traffic abutted by sites which are primarily occupied by residential buildings.

3.27. **Snow Removal**: The complete removal of accumulated snow from a roadway or active pathway, usually undertaken after snow clearing is completed. This involves crews loading and removing windrowed snow from roadways or active pathways to an engineered snow storage site.

3.28. **Windrows**: The placement of snow into a long continuous row during snow clearing of roadways and active pathways.

3.29. **Windrow Free Zones**: Signed sections of a roadway, typically in front of a school, that are left free of windrows.

3.30. **School Drop-off Zones**: Designated areas in front of and surrounding schools that provide curb access for drop-off and pick-up by school buses. These are typically signed as windrow free zones.

3.31. **Pre-wet**: Calibrated/standardized application of calcium chloride brine to sand-salt mix as the mix is being distributed on the roadway to help activate the melting process, reduce material usage and prevent material scatter.

4. References

The following are legislative and administrative references relevant to this administrative procedure:

4.1. Community Standards Bylaw 14600

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Procedure

Snow and Ice Control Procedure

This procedure falls under the Snow and Ice Control Policy C409K.

Program Impacted	Movement of People and Goods: *Edmonton has an accessible and varied transportation system moving people, goods and services efficiently.* Public Safety: *Edmontonians are safe and secure in our community.*
Approved By	City Manager
Date of Approval	TBD
Approval History	n/a
Next Scheduled Review	TBD

To achieve a safe and reliable mobility network, snow and ice control activities will be carried out in the following manner.

1. Snow Clearing Priority Hierarchy

1.1. Roadway and Goods Movement Network

1.1.1. Priority 1

Freeways, arterial roadways, business districts:

Maintain to a bare pavement standard within 36 hours following the end of snowfall.

Alleys/back lanes in business districts:

Maintain to 5 cm snowpack within 36 hours following the end of snowfall.

1.1.2. Priority 2

Collector roadways, Transit Park and Ride access roads:

Maintain to a bare pavement standard within 48 hours following the end of snowfall.

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1.1.3. Priority 3

Industrial roadways:

Maintain to a bare pavement standard within 5 days following the end of snowfall.

Rural roadways:

Maintain a level snowpack within 5 days following the end of snowfall.

1.1.4. Priority 4

Residential roadways and alleys/back lanes:

Maintain to 5 cm snowpack and completed within 7-9 days once a residential blading cycle is initiated.

1.2. Active Pathways and Public Amenities Network

1.2.1. Priority 1

Inventory adjacent to City facilities (City Hall, recreation centres and seniors centres), transit centres and LRT stations such as: City maintained sidewalks, wheelchair ramps, shared pathways, all season staircases and bus stops :

Maintain to a bare pavement standard within 24 hours following the end of snowfall.

Prioritized bike route network (network of protected bike lanes, designated painted bike lanes and designated shared pathways):

Maintain to a bare pavement standard within 24 hours following the end of snowfall.

1.2.2. Priority 2

Excluding inventory listed in 1.2.1, all other City maintained sidewalks, wheelchair ramps, shared pathways and parking lots, all season staircases, access to bus stops adjacent to City property, pedestrian bridges:

Maintain to a safe and passable surface beginning at the end of snowfall and completed within 48 hours following the end of snowfall.

1.2.3. Priority 3

Other manually cleared active pathways and public amenities (breezeways, benches and fire hydrants), pedestrian only streets:

Maintain to a safe and passable surface within 5 days following the end of snowfall.

Community sandboxes:

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Refill within 5 days following the end of snowfall.

2. Procedures for Snow and Ice Control

2.1. Roadways (Non-Residential)

2.1.1. Clear snow from all priority 1, 2 and 3 roadways following the end of snowfall where there is an accumulation of 2 cm or more, as per the priority hierarchy in section 1.1, Roadway and Goods Movement Network.

2.1.2. All priority 1 and 2 roadways are routed for snow and ice control. They will be monitored and maintained as required throughout the winter season and in response to 311 notifications, even when there is no snowfall. This may include, but not limited to, material application and snow plowing.

2.1.3. Alleys/back lanes in business districts are cleared during one of three circumstances: priority 1 snow clearing following the end of snowfall, maintenance blading between snowfall to maintain the snowpack, or in response to 311 notifications.

2.1.4. Snow will be removed from business districts by the City of Edmonton based on several factors including, but not limited to,

- 2.1.4.1. When windrows have been temporarily placed in a center stack formation,
- 2.1.4.2. When driving lanes are reduced to less than 3.2 metres in width by windrowed snow,
- 2.1.4.3. When accessibility to parking areas is restricted,
- 2.1.4.4. When line of sight has been obstructed due to windrow placement,
- 2.1.4.5. Current and forecasted weather.

2.1.5. Snow will be removed from arterial roadways when curb lanes are reduced to less than 3.2 metres in width by windrowed snow.

2.1.6. Snow will be removed from collector roadways when the driving lanes are reduced to less than 3.2 metres in width or parking area restricts safe vehicular movement.

2.1.7. Snow will not be removed from industrial or rural roadways unless to permit safe vehicular movement.

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2.1.8. Snow will be removed from roadways adjacent to the designated windrow free zones and school drop-off zones based on several factors including, but not limited to, windrow size, impacted parking areas, sightlines, current and forecasted weather.

2.2. Residential Roadways (Including Alleys/Back Lanes)

2.2.1. Residential roadways (including alleys/back lanes) are cleared only during one of three circumstances: through a residential blading cycle during phase 2 of the parking ban, maintenance blading between snowfall to maintain the snowpack, or in response to 311 notifications.

2.2.2. The decision to initiate a residential blading cycle will be made by the City of Edmonton based on several factors including, but not limited to, residential roadway conditions, current and forecasted weather, a minimum snowpack of 5 cm consistently citywide and status of snow clearing on priority 1, 2 and 3 roadways.

2.2.3. Residential roads and alleys/back lanes are maintained to approximately 5 cm snowpack condition in the driving lane.

2.2.4. Shared streets will receive the same level of service as the adjacent residential roadway on which they are located.

2.2.5. Snow will not be removed from residential roadways unless to permit safe vehicular movement.

2.2.6. Notification of a citywide residential blading cycle will be announced through a variety of communications channels. A phase 2 parking ban will be implemented as explained in section 2.8, Parking Ban.

2.2.7. Culs-de-sac are not cleared as part of the residential blading cycle given the techniques and equipment required. They will be cleared as per section 2.3, Cul-de-sac Clearing, set out below.

2.3. Culs-de-sac

2.3.1. Cul-de-sac clearing events will be initiated by the City of Edmonton based on several factors including, but not limited to, snow accumulation which impedes access, safety concerns, time of the year, and current and forecasted weather.

2.3.2. Service will include stacking and removal of snow from the cul-de-sac to achieve bare pavement.

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2.3.3. Cul-de-sac clearing, when initiated, can take between four to six weeks; typically they will be cleared no more than three times during a winter season.

2.4. Active Pathways and Public Amenities

2.4.1. Clear snow from all priority 1, 2 and 3 active pathways and public amenities following the end of snowfall where there is accumulation of 2 cm or more, as per the priority hierarchy in section 1.2, Active Pathways and Public Amenities Network.

2.4.2. Snow will not be removed from active pathways and public amenities.

2.4.3. Property owners are required to clear snow and ice from sidewalks, including corners and any pedestrian infrastructure on the sidewalks adjacent to their property, as per the requirements of the Community Standards Bylaw #14600.

2.4.4. Painted bike lanes will receive the same level of service as the adjacent roadway on which they are located (except for those identified as higher priority in section 1.2.1).

2.4.5. All active pathways and public amenities will be monitored and maintained as required throughout the winter season and in response to 311 notifications, even when there is no snowfall. This may include, but not limited to, material application, snow blowing and snow sweeping.

2.5. Windrow Encroachments

2.5.1. Driveways

2.5.1.1. Windrows (that are consistently 30 cm or less in height) left behind blocking driveways will be the responsibility of the adjacent property owner to clear. Windrows (that are consistently 30 cm or more in height) left behind blocking driveways will be cleared by the City of Edmonton to level snowpack within 12 hours of windrow placement.

2.5.1.2. When the City of Edmonton clears windrows on driveways, it is to allow a three metre wide opening, sufficient for a small car to pass safely.

2.5.2. Sidewalks

2.5.2.1. If windrow encroachment on sidewalks is consistently over 30 cm or more, and is 3m in length or greater, the City of Edmonton is responsible for clearing the windrow in response to a 311 notification. The adjacent property owner is responsible for clearing all other windrow encroachments.

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2.5.3. Protected Bike Lanes

2.5.3.1. If windrow encroachment on protected bike lanes is consistently over 30 cm or more, and is 3m in length or greater, it is the City of Edmonton's responsibility to clear.

2.5.4. The following will be left clear of any windrows:

Bus stops, crosswalks, signed accessible parking stalls, windrow free zones, school drop-off zones, fire hydrants.

2.6. Material Application

2.6.1. In addition to using mechanical means, the City of Edmonton may apply different materials for snow and ice control on the mobility network such as sand, salt, chips and calcium chloride.

2.6.2. A mix of sand and salt is typically applied to improve surface traction. The proportion of sand and salt may vary depending on the conditions including, but not limited to, air temperature, pavement temperature, humidity and dew point.

2.6.3. Chips may be used on snowpack and icy conditions in order to provide additional traction.

2.6.4. Salt may be used as a de-icer to melt any residual snow or ice depending on the conditions stated above.

2.6.5. Calcium chloride is used to pre-wet the sand-salt mix applied on roadways. Calcium chloride is used as an anti-icer/de-icer only for priority 1 active pathways and public amenities.

2.7. Community Sandbox

2.7.1. The City of Edmonton provides a courtesy service in the form of free sand in designated community sandbox locations as well as roadway maintenance yards during winter for communities to use on icy sidewalks and pathways.

2.7.2. Communities can request a sandbox by reaching out to the City of Edmonton. The City of Edmonton will assess the request based on the location being requested, availability of other sandboxes in the vicinity, accessibility to crews for filling and potential to block traffic or sidewalk access.

2.7.3. The City of Edmonton will inform the community if the request has been approved or not. If approved, the sandbox will be placed by the City of Edmonton.

2.7.4. Once placed, the sandbox will be refilled by the City of Edmonton after all active pathways have been cleared. Residents can also request additional refills by calling 311.

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2.8. Parking Ban

2.8.1. The City of Edmonton may declare a parking ban at its discretion based on factors including, but not limited to, amount of snowfall, rate of snow accumulation, and current and forecasted conditions.

2.8.2. The parking ban, when declared, will operate in two phases. During the first phase, no parking is permitted on arterial roadways, within business districts and roadways marked with seasonal no parking signage (collector roadways).

2.8.3. After Phase 1 is completed, Phase 2 will begin. At this point, parking would be prohibited on residential roadways, culs-de-sac, alleys/back lanes, and industrial roadways. Residents will need to arrange for alternative parking such as parking on their driveway or in their garage, in surplus parking on a neighbours property (with permission) or on cleared collector roads, many of which are within neighbourhoods.

2.8.4. Best efforts to ensure a minimum notice of 8 hours will be provided to the public before a parking ban is set to begin and a further minimum notice of 8 hours will be provided to the public when the City of Edmonton moves from Phase 1 to 2 of a parking ban, through a variety of communications channels. Exceptions may be necessary for emergencies.

2.9. Public Inquiries

2.9.1. Residents should call 311 for any inquiries or concerns related to the Snow and Ice Control program. The operational teams will address inquiries where an action may be required by the City of Edmonton.

2.9.2. Resolving the issue is dependent on several factors including, but not limited to, the nature of inquiry, accessibility, safety concerns, current and forecasted weather, and roadway conditions. Typically, 311 inquiries requiring City of Edmonton action will be resolved within 7 days.

2.9.3. Residents are provided with a reference number which they can use to track the status of their inquiry.

2.10. Monitoring Impacts

2.10.1. Environmental and Infrastructure Impacts:

2.10.1.1. The City of Edmonton will monitor the safety impacts of using the various snow and ice control activities in consideration with impacts on the environment and infrastructure

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through studies including, but not limited to traction, collisions, river water, soil and vegetation, corrosion, concrete and asphalt.

2.10.2. Snow Storage Site Management:

2.10.2.1. Snow removed from the mobility network will be hauled to the City of Edmonton snow storage sites to meet Environment Canada and Alberta Environment and Parks guidelines and Codes of Practice, as outlined in the Salt Management Plan.

2.10.3. Salt Management Plan:

2.10.3.1. The City of Edmonton will report to both Alberta Environment and Parks and Environment Canada annually on road salt usage and road salt management to meet Codes of Practice established by the Transportation Association of Canada and adopted by Environment Canada.

2.11. Severe Snowfall Event

2.11.1. A severe snowfall response can be initiated at the discretion of the Branch Manager for Parks and Roads Services. This severe snowfall response can be initiated if there is a snowfall of 30 cm or more within 24 hours or less that threatens access to the mobility network. The focus of this severe snowfall response will be to restore immediate mobility, not to address mobility network capacity.

2.11.2. A severe snowfall response includes:

2.11.2.1. Deployment of all available resources to restore mobility.

2.11.2.2. Delegation of control for deployment of all available resources in all City departments associated with snow clearing to the Director of Infrastructure Operations.

2.11.2.3. Declaration of city-wide parking ban.

2.12. Snow Emergency

2.12.1. In the event of an extreme winter storm that causes the closure of a significant portion of the mobility network, the City Manager at their discretion can declare a snow emergency. This will activate the Emergency Operations Centre. In a snow emergency, all snow clearing activities will be controlled through the Emergency Operation Centre and will focus on providing mobility for emergency and essential services only until general mobility can be restored.

ATIA 43

3. Definitions

3.1. **Mobility Network:** Entire transportation network that is maintained by the City of Edmonton for snow and ice control including the roadways and goods movement network as well as the active pathways and public amenities network.

3.2. **Snow Clearing**: Mechanical clearing of snow and ice including, but not limited to, plowing, brooming/sweeping and snow blowing.

3.3. **Freeways**: High traffic volume and speed roads with limited access and typically grade separated intersections.

3.4. **Arterial Roadways**: Roadways carrying larger volumes of traffic (people driving as well as those riding transit, walking and wheeling, cycling, and delivering goods) between areas with relatively few and controlled access points.

3.5. **Business Districts**: Roadways with commercial property on both sides having curb line sidewalks and on-street parking. This includes roadways in all 13 Business Improvement Areas within Edmonton (excludes industrial roadways).

3.6. **Alleys/Back Lanes**: Streets providing direct access to adjacent lands typically parallel to other classification of streets and mainly used for access, deliveries, and waste collection. In core urban areas, some alleys are evolving into shared streets, with alley oriented development.

3.7. **Bare Pavement**: Bare pavement is defined as a dry or wet surface generally clear of snow and ice (some patches of snow and ice may be present).

3.8. **Collector Roadways**: Roadways providing travel between residential and arterial roadways with direct access to adjacent properties. Designated bus routes through a residential area are also categorized as a collector roadway.

3.9. **Industrial Roadways**: Roadways providing direct access to wholesale or manufacturing complexes.

3.10. **Rural Roadways**: Roadways on which minimal development or improvement has been made, such as oiled or gravel roads.

3.11. **Residential (Local) Roadways**: A street or designated portion thereof abutted by sites which are primarily occupied by residential buildings. These are typically low-speed, low traffic volume.

ATIA 44

3.12. **Active Pathways and Public Amenities**: All mobility corridors or infrastructure that are not roadways including, but not limited to, sidewalks, bus stops, shared pathways, protected bike lanes, parking lots, all season staircases, wheelchair ramps and transit facilities.

3.13. **Transit Centres**: Bus facilities that act as a hub for several bus routes, providing an easy way for transit users to transfer from one bus to another, or in some cases, from a bus to the LRT.

3.14. **Protected Bike Lanes**: On-street bike lanes protected from moving cars, parked cars, and sidewalks, by a physical barrier.

3.15. **Painted Bike Lanes**: On-street bike lanes marked with paint and designated for bikes only but without physical separation from vehicular traffic.

3.16. **Shared Pathways**: Paved, off-street paths outside of road carriageway that are marked with signs that indicate that they are shared by people on bikes and pedestrians.

3.17. **City Maintained Sidewalks**: Sidewalks maintained by the City include those around public schools, City facilities or buildings such as recreation centres, senior centres or City Hall, as well as sidewalks around the perimeter of City assets such as parks, public utility lots and parking lots.

3.18. **All-Season Staircases**: Staircases that lead to a City maintained recreational space, City maintained sidewalks or shared pathways. In case of parallel staircases, only one staircase will be cleared for snow and ice control.

3.19. **Bus Stops Adjacent to City Property**: Bus stops with amenity pads located on or adjacent to City maintained sidewalks (i.e. not located on a sidewalk located on or adjacent to private property).

3.20. **Pedestrian Bridges**: Bridges meant for pedestrian or bike access that are restricted from vehicular traffic or are adjacent to vehicular traffic.

3.21. **Manually Cleared Active Pathways and Public Amenities**: Active pathways and public amenities that can't be reached mechanically and require manual snow clearing. Examples include breezeways with permanent bollards and City infrastructure like benches and fire hydrants.

3.22. **Breezeways**: Connections within or between neighbourhoods that can be accessed with a bike or on foot. Most breezeways have a paved or concrete surface.

ATIA 45

3.23. **Pedestrian Only Streets**: Unlike shared streets that allow people walking, wheeling, cycling, and driving to share the space, a pedestrian only street either prohibits vehicles from using the street at all times, or at specific times.

3.24. **Blading**: Mechanical plowing of snow and ice to leave a consistent, level snowpack.

3.25. **Shared Street**: These streets significantly limit motor vehicle traffic. Design elements like pavement material and entry features define the space and make it clear that shared streets are primarily designed for people walking, wheeling and cycling.

3.26. **Cul-de-sac**: A street or passage closed at one end with no through traffic abutted by sites which are primarily occupied by residential buildings.

3.27. **Snow Removal**: The complete removal of accumulated snow from a roadway or active pathway, usually undertaken after snow clearing is completed. This involves crews loading and removing windrowed snow from roadways or active pathways to an engineered snow storage site.

3.28. **Windrows**: The placement of snow into a long continuous row during snow clearing of roadways and active pathways.

3.29. **Windrow Free Zones**: Signed sections of a roadway, typically in front of a school, that are left free of windrows.

3.30. **School Drop-off Zones**: Designated areas in front of and surrounding schools that provide curb access for drop-off and pick-up by school buses. These are typically signed as windrow free zones.

3.31. **Pre-wet**: Calibrated/standardized application of calcium chloride brine to sand-salt mix as the mix is being distributed on the roadway to help activate the melting process, reduce material usage and prevent material scatter.

4. References

The following are legislative and administrative references relevant to this administrative procedure:

4.1. Community Standards Bylaw 14600

ATIA 46

ATIA 47

Procedure

Snow and Ice Control Procedure

This procedure falls under the Snow and Ice Control Policy C409K.

Program Impacted	Movement of People and Goods: *Edmonton has an accessible and varied transportation system moving people, goods and services efficiently.* Public Safety: *Edmontonians are safe and secure in our community.*
Approved By	City Manager
Date of Approval	TBD
Approval History	n/a
Next Scheduled Review	TBD

To achieve a safe and reliable mobility network, snow and ice control activities will be carried out in the following manner.

1. Snow Clearing Priority Hierarchy

1.1. Roadway and Goods Movement Network

1.1.1. Priority 1

Freeways, arterial roadways, business districts:

Maintain to a bare pavement standard within 36 hours following the end of snowfall.

Alleys/back lanes in business districts:

Maintain to 5 cm snowpack within 36 hours following the end of snowfall.

1.1.2. Priority 2

Collector roadways, Transit Park and Ride access roads:

Maintain to a bare pavement standard within 48 hours following the end of snowfall.

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1.1.3. Priority 3

Industrial roadways:

Maintain to a bare pavement standard within 5 days following the end of snowfall.

Rural roadways:

Maintain a level snowpack within 5 days following the end of snowfall.

1.1.4. Priority 4

Residential roadways and alleys/back lanes:

Maintain to 5 cm snowpack and completed within 7-9 days once a residential blading cycle is initiated.

1.2. Active Pathways and Public Amenities Network

1.2.1. Priority 1

Inventory adjacent to City facilities (City Hall, recreation centres and seniors centres), transit centres and LRT stations such as: City maintained sidewalks, wheelchair ramps, shared pathways, all season staircases and bus stops :

Maintain to a bare pavement standard within 24 hours following the end of snowfall.

Prioritized bike route network (network of protected bike lanes, designated painted bike lanes and designated shared pathways):

Maintain to a bare pavement standard within 24 hours following the end of snowfall.

1.2.2. Priority 2

Excluding inventory listed in 1.2.1, all other City maintained sidewalks, wheelchair ramps, shared pathways and parking lots, all season staircases, access to bus stops adjacent to City property, pedestrian bridges:

Maintain to a safe and passable surface beginning at the end of snowfall and completed within 48 hours following the end of snowfall.

1.2.3. Priority 3

Other manually cleared active pathways and public amenities (breezeways, benches and fire hydrants), pedestrian only streets:

Maintain to a safe and passable surface within 5 days following the end of snowfall.

Community sandboxes:

ATIA 49

Refill within 5 days following the end of snowfall.

2. Procedures for Snow and Ice Control

2.1. Roadways (Non-Residential)

2.1.1. Clear snow from all priority 1, 2 and 3 roadways following the end of snowfall where there is an accumulation of 2 cm or more, as per the priority hierarchy in section 1.1, Roadway and Goods Movement Network.

2.1.2. All priority 1 and 2 roadways are routed for snow and ice control. They will be monitored and maintained as required throughout the winter season and in response to 311 notifications, even when there is no snowfall. This may include, but not limited to, material application and snow plowing.

2.1.3. Alleys/back lanes in business districts are cleared during one of three circumstances: priority 1 snow clearing following the end of snowfall, maintenance blading between snowfall to maintain the snowpack, or in response to 311 notifications.

2.1.4. Snow will be removed from business districts by the City of Edmonton based on several factors including, but not limited to,

- 2.1.4.1. When windrows have been temporarily placed in a center stack formation,
- 2.1.4.2. When driving lanes are reduced to less than 3.2 metres in width by windrowed snow,
- 2.1.4.3. When accessibility to parking areas is restricted,
- 2.1.4.4. When line of sight has been obstructed due to windrow placement,
- 2.1.4.5. Current and forecasted weather.

2.1.5. Snow will be removed from arterial roadways when curb lanes are reduced to less than 3.2 metres in width by windrowed snow.

2.1.6. Snow will be removed from collector roadways when the driving lanes are reduced to less than 3.2 metres in width or parking area restricts safe vehicular movement.

2.1.7. Snow will not be removed from industrial or rural roadways unless to permit safe vehicular movement.

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2.1.8. Snow will be removed from roadways adjacent to the designated windrow free zones and school drop-off zones based on several factors including, but not limited to, windrow size, impacted parking areas, sightlines, current and forecasted weather.

2.2. Residential Roadways (Including Alleys/Back Lanes)

2.2.1. Residential roadways (including alleys/back lanes) are cleared only during one of three circumstances: through a residential blading cycle during phase 2 of the parking ban, maintenance blading between snowfall to maintain the snowpack, or in response to 311 notifications.

2.2.2. The decision to initiate a residential blading cycle will be made by the City of Edmonton based on several factors including, but not limited to, residential roadway conditions, current and forecasted weather, a minimum snowpack of 5 cm consistently citywide and status of snow clearing on priority 1, 2 and 3 roadways.

2.2.3. Residential roads and alleys/back lanes are maintained to approximately 5 cm snowpack condition in the driving lane.

2.2.4. Shared streets will receive the same level of service as the adjacent residential roadway on which they are located.

2.2.5. Snow will not be removed from residential roadways unless to permit safe vehicular movement.

2.2.6. Notification of a citywide residential blading cycle will be announced through a variety of communications channels. A phase 2 parking ban will be implemented as explained in section 2.8, Parking Ban.

2.2.7. Culs-de-sac are not cleared as part of the residential blading cycle given the techniques and equipment required. They will be cleared as per section 2.3, Cul-de-sac Clearing, set out below.

2.3. Culs-de-sac

2.3.1. Cul-de-sac clearing events will be initiated by the City of Edmonton based on several factors including, but not limited to, snow accumulation which impedes access, safety concerns, time of the year, and current and forecasted weather.

2.3.2. Service will include stacking and removal of snow from the cul-de-sac to achieve bare pavement.

ATIA 51

2.3.3. Cul-de-sac clearing, when initiated, can take between four to six weeks; typically they will be cleared no more than three times during a winter season.

2.4. Active Pathways and Public Amenities

2.4.1. Clear snow from all priority 1, 2 and 3 active pathways and public amenities following the end of snowfall where there is accumulation of 2 cm or more, as per the priority hierarchy in section 1.2, Active Pathways and Public Amenities Network.

2.4.2. Snow will not be removed from active pathways and public amenities.

2.4.3. Property owners are required to clear snow and ice from sidewalks, including corners and any pedestrian infrastructure on the sidewalks adjacent to their property, as per the requirements of the Community Standards Bylaw #14600.

2.4.4. Painted bike lanes will receive the same level of service as the adjacent roadway on which they are located (except for those identified as higher priority in section 1.2.1).

2.4.5. All active pathways and public amenities will be monitored and maintained as required throughout the winter season and in response to 311 notifications, even when there is no snowfall. This may include, but not limited to, material application, snow blowing and snow sweeping.

2.5. Windrow Encroachments

2.5.1. Driveways

2.5.1.1. Windrows (that are consistently 30 cm or less in height) left behind blocking driveways will be the responsibility of the adjacent property owner to clear. Windrows (that are consistently 30 cm or more in height) left behind blocking driveways will be cleared by the City of Edmonton to level snowpack within 12 hours of windrow placement.

2.5.1.2. When the City of Edmonton clears windrows on driveways, it is to allow a three metre wide opening, sufficient for a small car to pass safely.

2.5.2. Sidewalks

2.5.2.1. If windrow encroachment on sidewalks is consistently over 30 cm or more, and is 3m in length or greater, the City of Edmonton is responsible for clearing the windrow in response to a 311 notification. The adjacent property owner is responsible for clearing all other windrow encroachments.

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2.5.3. Protected Bike Lanes

2.5.3.1. If windrow encroachment on protected bike lanes is consistently over 30 cm or more, and is 3m in length or greater, it is the City of Edmonton's responsibility to clear.

2.5.4. The following will be left clear of any windrows:

Bus stops, crosswalks, signed accessible parking stalls, windrow free zones, school drop-off zones, fire hydrants.

2.6. Material Application

2.6.1. In addition to using mechanical means, the City of Edmonton may apply different materials for snow and ice control on the mobility network such as sand, salt, chips and calcium chloride.

2.6.2. A mix of sand and salt is typically applied to improve surface traction. The proportion of sand and salt may vary depending on the conditions including, but not limited to, air temperature, pavement temperature, humidity and dew point.

2.6.3. Chips may be used on snowpack and icy conditions in order to provide additional traction.

2.6.4. Salt may be used as a de-icer to melt any residual snow or ice depending on the conditions stated above.

2.6.5. Calcium chloride is used to pre-wet the sand-salt mix applied on roadways. Calcium chloride is used as an anti-icer/de-icer only for priority 1 active pathways and public amenities.

2.7. Community Sandbox

2.7.1. The City of Edmonton provides a courtesy service in the form of free sand in designated community sandbox locations as well as roadway maintenance yards during winter for communities to use on icy sidewalks and pathways.

2.7.2. Communities can request a sandbox by reaching out to the City of Edmonton. The City of Edmonton will assess the request based on the location being requested, availability of other sandboxes in the vicinity, accessibility to crews for filling and potential to block traffic or sidewalk access.

2.7.3. The City of Edmonton will inform the community if the request has been approved or not. If approved, the sandbox will be placed by the City of Edmonton.

2.7.4. Once placed, the sandbox will be refilled by the City of Edmonton after all active pathways have been cleared. Residents can also request additional refills by calling 311.

ATIA 53

2.8. Parking Ban

2.8.1. The City of Edmonton may declare a parking ban at its discretion based on factors including, but not limited to, amount of snowfall, rate of snow accumulation, and current and forecasted conditions.

2.8.2. The parking ban, when declared, will operate in two phases. During the first phase, no parking is permitted on arterial roadways, within business districts and roadways marked with seasonal no parking signage (collector roadways).

2.8.3. After Phase 1 is completed, Phase 2 will begin. At this point, parking would be prohibited on residential roadways, culs-de-sac, alleys/back lanes, and industrial roadways. Residents will need to arrange for alternative parking such as parking on their driveway or in their garage, in surplus parking on a neighbours property (with permission) or on cleared collector roads, many of which are within neighbourhoods.

2.8.4. Best efforts to ensure a minimum notice of 8 hours will be provided to the public before a parking ban is set to begin and a further minimum notice of 8 hours will be provided to the public when the City of Edmonton moves from Phase 1 to 2 of a parking ban, through a variety of communications channels. Exceptions may be necessary for emergencies.

2.9. Public Inquiries

2.9.1. Residents should call 311 for any inquiries or concerns related to the Snow and Ice Control program. The operational teams will address inquiries where an action may be required by the City of Edmonton.

2.9.2. Resolving the issue is dependent on several factors including, but not limited to, the nature of inquiry, accessibility, safety concerns, current and forecasted weather, and roadway conditions. Typically, 311 inquiries requiring City of Edmonton action will be resolved within 7 days.

2.9.3. Residents are provided with a reference number which they can use to track the status of their inquiry.

2.10. Monitoring Impacts

2.10.1. Environmental and Infrastructure Impacts:

2.10.1.1. The City of Edmonton will monitor the safety impacts of using the various snow and ice control activities in consideration with impacts on the environment and infrastructure

ATIA 54

through studies including, but not limited to traction, collisions, river water, soil and vegetation, corrosion, concrete and asphalt.

2.10.2. Snow Storage Site Management:

2.10.2.1. Snow removed from the mobility network will be hauled to the City of Edmonton snow storage sites to meet Environment Canada and Alberta Environment and Parks guidelines and Codes of Practice, as outlined in the Salt Management Plan.

2.10.3. Salt Management Plan:

2.10.3.1. The City of Edmonton will report to both Alberta Environment and Parks and Environment Canada annually on road salt usage and road salt management to meet Codes of Practice established by the Transportation Association of Canada and adopted by Environment Canada.

2.11. Severe Snowfall Event

2.11.1. A severe snowfall response can be initiated at the discretion of the Branch Manager for Parks and Roads Services. This severe snowfall response can be initiated if there is a snowfall of 30 cm or more within 24 hours or less that threatens access to the mobility network. The focus of this severe snowfall response will be to restore immediate mobility, not to address mobility network capacity.

2.11.2. A severe snowfall response includes:

2.11.2.1. Deployment of all available resources to restore mobility.

2.11.2.2. Delegation of control for deployment of all available resources in all City departments associated with snow clearing to the Director of Infrastructure Operations.

2.11.2.3. Declaration of city-wide parking ban.

2.12. Snow Emergency

2.12.1. In the event of an extreme winter storm that causes the closure of a significant portion of the mobility network, the City Manager at their discretion can declare a snow emergency. This will activate the Emergency Operations Centre. In a snow emergency, all snow clearing activities will be controlled through the Emergency Operation Centre and will focus on providing mobility for emergency and essential services only until general mobility can be restored.

ATIA 55

3. Definitions

3.1. **Mobility Network:** Entire transportation network that is maintained by the City of Edmonton for snow and ice control including the roadways and goods movement network as well as the active pathways and public amenities network.

3.2. **Snow Clearing**: Mechanical clearing of snow and ice including, but not limited to, plowing, brooming/sweeping and snow blowing.

3.3. **Freeways**: High traffic volume and speed roads with limited access and typically grade separated intersections.

3.4. **Arterial Roadways**: Roadways carrying larger volumes of traffic (people driving as well as those riding transit, walking and wheeling, cycling, and delivering goods) between areas with relatively few and controlled access points.

3.5. **Business Districts**: Roadways with commercial property on both sides having curb line sidewalks and on-street parking. This includes roadways in all 13 Business Improvement Areas within Edmonton (excludes industrial roadways).

3.6. **Alleys/Back Lanes**: Streets providing direct access to adjacent lands typically parallel to other classification of streets and mainly used for access, deliveries, and waste collection. In core urban areas, some alleys are evolving into shared streets, with alley oriented development.

3.7. **Bare Pavement**: Bare pavement is defined as a dry or wet surface generally clear of snow and ice (some patches of snow and ice may be present).

3.8. **Collector Roadways**: Roadways providing travel between residential and arterial roadways with direct access to adjacent properties. Designated bus routes through a residential area are also categorized as a collector roadway.

3.9. **Industrial Roadways**: Roadways providing direct access to wholesale or manufacturing complexes.

3.10. **Rural Roadways**: Roadways on which minimal development or improvement has been made, such as oiled or gravel roads.

3.11. **Residential (Local) Roadways**: A street or designated portion thereof abutted by sites which are primarily occupied by residential buildings. These are typically low-speed, low traffic volume.

ATIA 56

3.12. **Active Pathways and Public Amenities**: All mobility corridors or infrastructure that are not roadways including, but not limited to, sidewalks, bus stops, shared pathways, protected bike lanes, parking lots, all season staircases, wheelchair ramps and transit facilities.

3.13. **Transit Centres**: Bus facilities that act as a hub for several bus routes, providing an easy way for transit users to transfer from one bus to another, or in some cases, from a bus to the LRT.

3.14. **Protected Bike Lanes**: On-street bike lanes protected from moving cars, parked cars, and sidewalks, by a physical barrier.

3.15. **Painted Bike Lanes**: On-street bike lanes marked with paint and designated for bikes only but without physical separation from vehicular traffic.

3.16. **Shared Pathways**: Paved, off-street paths outside of road carriageway that are marked with signs that indicate that they are shared by people on bikes and pedestrians.

3.17. **City Maintained Sidewalks**: Sidewalks maintained by the City include those around public schools, City facilities or buildings such as recreation centres, senior centres or City Hall, as well as sidewalks around the perimeter of City assets such as parks, public utility lots and parking lots.

3.18. **All-Season Staircases**: Staircases that lead to a City maintained recreational space, City maintained sidewalks or shared pathways. In case of parallel staircases, only one staircase will be cleared for snow and ice control.

3.19. **Bus Stops Adjacent to City Property**: Bus stops with amenity pads located on or adjacent to City maintained sidewalks (i.e. not located on a sidewalk located on or adjacent to private property).

3.20. **Pedestrian Bridges**: Bridges meant for pedestrian or bike access that are restricted from vehicular traffic or are adjacent to vehicular traffic.

3.21. **Manually Cleared Active Pathways and Public Amenities**: Active pathways and public amenities that can't be reached mechanically and require manual snow clearing. Examples include breezeways with permanent bollards and City infrastructure like benches and fire hydrants.

3.22. **Breezeways**: Connections within or between neighbourhoods that can be accessed with a bike or on foot. Most breezeways have a paved or concrete surface.

ATIA 57

3.23. **Pedestrian Only Streets**: Unlike shared streets that allow people walking, wheeling, cycling, and driving to share the space, a pedestrian only street either prohibits vehicles from using the street at all times, or at specific times.

3.24. **Blading**: Mechanical plowing of snow and ice to leave a consistent, level snowpack.

3.25. **Shared Street**: These streets significantly limit motor vehicle traffic. Design elements like pavement material and entry features define the space and make it clear that shared streets are primarily designed for people walking, wheeling and cycling.

3.26. **Cul-de-sac**: A street or passage closed at one end with no through traffic abutted by sites which are primarily occupied by residential buildings.

3.27. **Snow Removal**: The complete removal of accumulated snow from a roadway or active pathway, usually undertaken after snow clearing is completed. This involves crews loading and removing windrowed snow from roadways or active pathways to an engineered snow storage site.

3.28. **Windrows**: The placement of snow into a long continuous row during snow clearing of roadways and active pathways.

3.29. **Windrow Free Zones**: Signed sections of a roadway, typically in front of a school, that are left free of windrows.

3.30. **School Drop-off Zones**: Designated areas in front of and surrounding schools that provide curb access for drop-off and pick-up by school buses. These are typically signed as windrow free zones.

3.31. **Pre-wet**: Calibrated/standardized application of calcium chloride brine to sand-salt mix as the mix is being distributed on the roadway to help activate the melting process, reduce material usage and prevent material scatter.

4. References

The following are legislative and administrative references relevant to this administrative procedure:

4.1. Community Standards Bylaw 14600

ATIA 58

ATIA 59

Procedure

Snow and Ice Control Procedure

This procedure falls under the Snow and Ice Control Policy C409K.

Program Impacted	Movement of People and Goods: *Edmonton has an accessible and varied transportation system moving people, goods and services efficiently.* Public Safety: *Edmontonians are safe and secure in our community.*
Approved By	City Manager
Date of Approval	TBD
Approval History	n/a
Next Scheduled Review	TBD

To achieve a safe and reliable mobility network, snow and ice control activities will be carried out in the following manner.

1. Snow Clearing Priority Hierarchy

1.1. Roadway and Goods Movement Network

1.1.1. Priority 1

Freeways, arterial roadways, business districts:

Maintain to a bare pavement standard within 36 hours following the end of snowfall.

Alleys/back lanes in business districts:

Maintain to 5 cm snowpack within 36 hours following the end of snowfall.

1.1.2. Priority 2

Collector roadways, Transit Park and Ride access roads:

Maintain to a bare pavement standard within 48 hours following the end of snowfall.

ATIA 60

1.1.3. Priority 3

Industrial roadways:

Maintain to a bare pavement standard within 5 days following the end of snowfall.

Rural roadways:

Maintain a level snowpack within 5 days following the end of snowfall.

1.1.4. Priority 4

Residential roadways and alleys/back lanes:

Maintain to 5 cm snowpack and completed within 7-9 days once a residential blading cycle is initiated.

1.2. Active Pathways and Public Amenities Network

1.2.1. Priority 1

Inventory adjacent to City facilities (City Hall, recreation centres and seniors centres), transit centres and LRT stations such as: City maintained sidewalks, wheelchair ramps, shared pathways, all season staircases and bus stops :

Maintain to a bare pavement standard within 24 hours following the end of snowfall.

Prioritized bike route network (network of protected bike lanes, designated painted bike lanes and designated shared pathways):

Maintain to a bare pavement standard within 24 hours following the end of snowfall.

1.2.2. Priority 2

Excluding inventory listed in 1.2.1, all other City maintained sidewalks, wheelchair ramps, shared pathways and parking lots, all season staircases, access to bus stops adjacent to City property, pedestrian bridges:

Maintain to a safe and passable surface beginning at the end of snowfall and completed within 48 hours following the end of snowfall.

1.2.3. Priority 3

Other manually cleared active pathways and public amenities (breezeways, benches and fire hydrants), pedestrian only streets:

Maintain to a safe and passable surface within 5 days following the end of snowfall.

Community sandboxes:

ATIA 61

Refill within 5 days following the end of snowfall.

2. Procedures for Snow and Ice Control

2.1. Roadways (Non-Residential)

2.1.1. Clear snow from all priority 1, 2 and 3 roadways following the end of snowfall where there is an accumulation of 2 cm or more, as per the priority hierarchy in section 1.1, Roadway and Goods Movement Network.

2.1.2. All priority 1 and 2 roadways are routed for snow and ice control. They will be monitored and maintained as required throughout the winter season and in response to 311 notifications, even when there is no snowfall. This may include, but not limited to, material application and snow plowing.

2.1.3. Alleys/back lanes in business districts are cleared during one of three circumstances: priority 1 snow clearing following the end of snowfall, maintenance blading between snowfall to maintain the snowpack, or in response to 311 notifications.

2.1.4. Snow will be removed from business districts by the City of Edmonton based on several factors including, but not limited to,

- 2.1.4.1. When windrows have been temporarily placed in a center stack formation,
- 2.1.4.2. When driving lanes are reduced to less than 3.2 metres in width by windrowed snow,
- 2.1.4.3. When accessibility to parking areas is restricted,
- 2.1.4.4. When line of sight has been obstructed due to windrow placement,
- 2.1.4.5. Current and forecasted weather.

2.1.5. Snow will be removed from arterial roadways when curb lanes are reduced to less than 3.2 metres in width by windrowed snow.

2.1.6. Snow will be removed from collector roadways when the driving lanes are reduced to less than 3.2 metres in width or parking area restricts safe vehicular movement.

2.1.7. Snow will not be removed from industrial or rural roadways unless to permit safe vehicular movement.

ATIA 62

2.1.8. Snow will be removed from roadways adjacent to the designated windrow free zones and school drop-off zones based on several factors including, but not limited to, windrow size, impacted parking areas, sightlines, current and forecasted weather.

2.2. Residential Roadways (Including Alleys/Back Lanes)

2.2.1. Residential roadways (including alleys/back lanes) are cleared only during one of three circumstances: through a residential blading cycle during phase 2 of the parking ban, maintenance blading between snowfall to maintain the snowpack, or in response to 311 notifications.

2.2.2. The decision to initiate a residential blading cycle will be made by the City of Edmonton based on several factors including, but not limited to, residential roadway conditions, current and forecasted weather, a minimum snowpack of 5 cm consistently citywide and status of snow clearing on priority 1, 2 and 3 roadways.

2.2.3. Residential roads and alleys/back lanes are maintained to approximately 5 cm snowpack condition in the driving lane.

2.2.4. Shared streets will receive the same level of service as the adjacent residential roadway on which they are located.

2.2.5. Snow will not be removed from residential roadways unless to permit safe vehicular movement.

2.2.6. Notification of a citywide residential blading cycle will be announced through a variety of communications channels. A phase 2 parking ban will be implemented as explained in section 2.8, Parking Ban.

2.2.7. Culs-de-sac are not cleared as part of the residential blading cycle given the techniques and equipment required. They will be cleared as per section 2.3, Cul-de-sac Clearing, set out below.

2.3. Culs-de-sac

2.3.1. Cul-de-sac clearing events will be initiated by the City of Edmonton based on several factors including, but not limited to, snow accumulation which impedes access, safety concerns, time of the year, and current and forecasted weather.

2.3.2. Service will include stacking and removal of snow from the cul-de-sac to achieve bare pavement.

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2.3.3. Cul-de-sac clearing, when initiated, can take between four to six weeks; typically they will be cleared no more than three times during a winter season.

2.4. Active Pathways and Public Amenities

2.4.1. Clear snow from all priority 1, 2 and 3 active pathways and public amenities following the end of snowfall where there is accumulation of 2 cm or more, as per the priority hierarchy in section 1.2, Active Pathways and Public Amenities Network.

2.4.2. Snow will not be removed from active pathways and public amenities.

2.4.3. Property owners are required to clear snow and ice from sidewalks, including corners and any pedestrian infrastructure on the sidewalks adjacent to their property, as per the requirements of the Community Standards Bylaw #14600.

2.4.4. Painted bike lanes will receive the same level of service as the adjacent roadway on which they are located (except for those identified as higher priority in section 1.2.1).

2.4.5. All active pathways and public amenities will be monitored and maintained as required throughout the winter season and in response to 311 notifications, even when there is no snowfall. This may include, but not limited to, material application, snow blowing and snow sweeping.

2.5. Windrow Encroachments

2.5.1. Driveways

2.5.1.1. Windrows (that are consistently 30 cm or less in height) left behind blocking driveways will be the responsibility of the adjacent property owner to clear. Windrows (that are consistently 30 cm or more in height) left behind blocking driveways will be cleared by the City of Edmonton to level snowpack within 12 hours of windrow placement.

2.5.1.2. When the City of Edmonton clears windrows on driveways, it is to allow a three metre wide opening, sufficient for a small car to pass safely.

2.5.2. Sidewalks

2.5.2.1. If windrow encroachment on sidewalks is consistently over 30 cm or more, and is 3m in length or greater, the City of Edmonton is responsible for clearing the windrow in response to a 311 notification. The adjacent property owner is responsible for clearing all other windrow encroachments.

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2.5.3. Protected Bike Lanes

2.5.3.1. If windrow encroachment on protected bike lanes is consistently over 30 cm or more, and is 3m in length or greater, it is the City of Edmonton's responsibility to clear.

2.5.4. The following will be left clear of any windrows:

Bus stops, crosswalks, signed accessible parking stalls, windrow free zones, school drop-off zones, fire hydrants.

2.6. Material Application

2.6.1. In addition to using mechanical means, the City of Edmonton may apply different materials for snow and ice control on the mobility network such as sand, salt, chips and calcium chloride.

2.6.2. A mix of sand and salt is typically applied to improve surface traction. The proportion of sand and salt may vary depending on the conditions including, but not limited to, air temperature, pavement temperature, humidity and dew point.

2.6.3. Chips may be used on snowpack and icy conditions in order to provide additional traction.

2.6.4. Salt may be used as a de-icer to melt any residual snow or ice depending on the conditions stated above.

2.6.5. Calcium chloride is used to pre-wet the sand-salt mix applied on roadways. Calcium chloride is used as an anti-icer/de-icer only for priority 1 active pathways and public amenities.

2.7. Community Sandbox

2.7.1. The City of Edmonton provides a courtesy service in the form of free sand in designated community sandbox locations as well as roadway maintenance yards during winter for communities to use on icy sidewalks and pathways.

2.7.2. Communities can request a sandbox by reaching out to the City of Edmonton. The City of Edmonton will assess the request based on the location being requested, availability of other sandboxes in the vicinity, accessibility to crews for filling and potential to block traffic or sidewalk access.

2.7.3. The City of Edmonton will inform the community if the request has been approved or not. If approved, the sandbox will be placed by the City of Edmonton.

2.7.4. Once placed, the sandbox will be refilled by the City of Edmonton after all active pathways have been cleared. Residents can also request additional refills by calling 311.

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2.8. Parking Ban

2.8.1. The City of Edmonton may declare a parking ban at its discretion based on factors including, but not limited to, amount of snowfall, rate of snow accumulation, and current and forecasted conditions.

2.8.2. The parking ban, when declared, will operate in two phases. During the first phase, no parking is permitted on arterial roadways, within business districts and roadways marked with seasonal no parking signage (collector roadways).

2.8.3. After Phase 1 is completed, Phase 2 will begin. At this point, parking would be prohibited on residential roadways, culs-de-sac, alleys/back lanes, and industrial roadways. Residents will need to arrange for alternative parking such as parking on their driveway or in their garage, in surplus parking on a neighbours property (with permission) or on cleared collector roads, many of which are within neighbourhoods.

2.8.4. Best efforts to ensure a minimum notice of 8 hours will be provided to the public before a parking ban is set to begin and a further minimum notice of 8 hours will be provided to the public when the City of Edmonton moves from Phase 1 to 2 of a parking ban, through a variety of communications channels. Exceptions may be necessary for emergencies.

2.9. Public Inquiries

2.9.1. Residents should call 311 for any inquiries or concerns related to the Snow and Ice Control program. The operational teams will address inquiries where an action may be required by the City of Edmonton.

2.9.2. Resolving the issue is dependent on several factors including, but not limited to, the nature of inquiry, accessibility, safety concerns, current and forecasted weather, and roadway conditions. Typically, 311 inquiries requiring City of Edmonton action will be resolved within 7 days.

2.9.3. Residents are provided with a reference number which they can use to track the status of their inquiry.

2.10. Monitoring Impacts

2.10.1. Environmental and Infrastructure Impacts:

2.10.1.1. The City of Edmonton will monitor the safety impacts of using the various snow and ice control activities in consideration with impacts on the environment and infrastructure

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through studies including, but not limited to traction, collisions, river water, soil and vegetation, corrosion, concrete and asphalt.

2.10.2. Snow Storage Site Management:

2.10.2.1. Snow removed from the mobility network will be hauled to the City of Edmonton snow storage sites to meet Environment Canada and Alberta Environment and Parks guidelines and Codes of Practice, as outlined in the Salt Management Plan.

2.10.3. Salt Management Plan:

2.10.3.1. The City of Edmonton will report to both Alberta Environment and Parks and Environment Canada annually on road salt usage and road salt management to meet Codes of Practice established by the Transportation Association of Canada and adopted by Environment Canada.

2.11. Severe Snowfall Event

2.11.1. A severe snowfall response can be initiated at the discretion of the Branch Manager for Parks and Roads Services. This severe snowfall response can be initiated if there is a snowfall of 30 cm or more within 24 hours or less that threatens access to the mobility network. The focus of this severe snowfall response will be to restore immediate mobility, not to address mobility network capacity.

2.11.2. A severe snowfall response includes:

2.11.2.1. Deployment of all available resources to restore mobility.

2.11.2.2. Delegation of control for deployment of all available resources in all City departments associated with snow clearing to the Director of Infrastructure Operations.

2.11.2.3. Declaration of city-wide parking ban.

2.12. Snow Emergency

2.12.1. In the event of an extreme winter storm that causes the closure of a significant portion of the mobility network, the City Manager at their discretion can declare a snow emergency. This will activate the Emergency Operations Centre. In a snow emergency, all snow clearing activities will be controlled through the Emergency Operation Centre and will focus on providing mobility for emergency and essential services only until general mobility can be restored.

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3. Definitions

3.1. **Mobility Network:** Entire transportation network that is maintained by the City of Edmonton for snow and ice control including the roadways and goods movement network as well as the active pathways and public amenities network.

3.2. **Snow Clearing**: Mechanical clearing of snow and ice including, but not limited to, plowing, brooming/sweeping and snow blowing.

3.3. **Freeways**: High traffic volume and speed roads with limited access and typically grade separated intersections.

3.4. **Arterial Roadways**: Roadways carrying larger volumes of traffic (people driving as well as those riding transit, walking and wheeling, cycling, and delivering goods) between areas with relatively few and controlled access points.

3.5. **Business Districts**: Roadways with commercial property on both sides having curb line sidewalks and on-street parking. This includes roadways in all 13 Business Improvement Areas within Edmonton (excludes industrial roadways).

3.6. **Alleys/Back Lanes**: Streets providing direct access to adjacent lands typically parallel to other classification of streets and mainly used for access, deliveries, and waste collection. In core urban areas, some alleys are evolving into shared streets, with alley oriented development.

3.7. **Bare Pavement**: Bare pavement is defined as a dry or wet surface generally clear of snow and ice (some patches of snow and ice may be present).

3.8. **Collector Roadways**: Roadways providing travel between residential and arterial roadways with direct access to adjacent properties. Designated bus routes through a residential area are also categorized as a collector roadway.

3.9. **Industrial Roadways**: Roadways providing direct access to wholesale or manufacturing complexes.

3.10. **Rural Roadways**: Roadways on which minimal development or improvement has been made, such as oiled or gravel roads.

3.11. **Residential (Local) Roadways**: A street or designated portion thereof abutted by sites which are primarily occupied by residential buildings. These are typically low-speed, low traffic volume.

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3.12. **Active Pathways and Public Amenities**: All mobility corridors or infrastructure that are not roadways including, but not limited to, sidewalks, bus stops, shared pathways, protected bike lanes, parking lots, all season staircases, wheelchair ramps and transit facilities.

3.13. **Transit Centres**: Bus facilities that act as a hub for several bus routes, providing an easy way for transit users to transfer from one bus to another, or in some cases, from a bus to the LRT.

3.14. **Protected Bike Lanes**: On-street bike lanes protected from moving cars, parked cars, and sidewalks, by a physical barrier.

3.15. **Painted Bike Lanes**: On-street bike lanes marked with paint and designated for bikes only but without physical separation from vehicular traffic.

3.16. **Shared Pathways**: Paved, off-street paths outside of road carriageway that are marked with signs that indicate that they are shared by people on bikes and pedestrians.

3.17. **City Maintained Sidewalks**: Sidewalks maintained by the City include those around public schools, City facilities or buildings such as recreation centres, senior centres or City Hall, as well as sidewalks around the perimeter of City assets such as parks, public utility lots and parking lots.

3.18. **All-Season Staircases**: Staircases that lead to a City maintained recreational space, City maintained sidewalks or shared pathways. In case of parallel staircases, only one staircase will be cleared for snow and ice control.

3.19. **Bus Stops Adjacent to City Property**: Bus stops with amenity pads located on or adjacent to City maintained sidewalks (i.e. not located on a sidewalk located on or adjacent to private property).

3.20. **Pedestrian Bridges**: Bridges meant for pedestrian or bike access that are restricted from vehicular traffic or are adjacent to vehicular traffic.

3.21. **Manually Cleared Active Pathways and Public Amenities**: Active pathways and public amenities that can't be reached mechanically and require manual snow clearing. Examples include breezeways with permanent bollards and City infrastructure like benches and fire hydrants.

3.22. **Breezeways**: Connections within or between neighbourhoods that can be accessed with a bike or on foot. Most breezeways have a paved or concrete surface.

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3.23. **Pedestrian Only Streets**: Unlike shared streets that allow people walking, wheeling, cycling, and driving to share the space, a pedestrian only street either prohibits vehicles from using the street at all times, or at specific times.

3.24. **Blading**: Mechanical plowing of snow and ice to leave a consistent, level snowpack.

3.25. **Shared Street**: These streets significantly limit motor vehicle traffic. Design elements like pavement material and entry features define the space and make it clear that shared streets are primarily designed for people walking, wheeling and cycling.

3.26. **Cul-de-sac**: A street or passage closed at one end with no through traffic abutted by sites which are primarily occupied by residential buildings.

3.27. **Snow Removal**: The complete removal of accumulated snow from a roadway or active pathway, usually undertaken after snow clearing is completed. This involves crews loading and removing windrowed snow from roadways or active pathways to an engineered snow storage site.

3.28. **Windrows**: The placement of snow into a long continuous row during snow clearing of roadways and active pathways.

3.29. **Windrow Free Zones**: Signed sections of a roadway, typically in front of a school, that are left free of windrows.

3.30. **School Drop-off Zones**: Designated areas in front of and surrounding schools that provide curb access for drop-off and pick-up by school buses. These are typically signed as windrow free zones.

3.31. **Pre-wet**: Calibrated/standardized application of calcium chloride brine to sand-salt mix as the mix is being distributed on the roadway to help activate the melting process, reduce material usage and prevent material scatter.

4. References

The following are legislative and administrative references relevant to this administrative procedure:

4.1. Community Standards Bylaw 14600

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CITY POLICY

POLICY NUMBER: C409J

REFERENCE:
City Council 2015 11 03
City Council 2011 09 27
City Council 2010 05 12
City Council 2007 07 17
City Council 2007 03 20
City Council 2006 03 21
City Council 2001 09 11
City Council 1989 12 12
City Council 1984 01 10
City Council 1982 03 09
City Council 1981 02 24
City Council 1978 11 14

ADOPTED BY:
City Council 9 October 2018

SUPERSEDES:
C409I

PREPARED BY: City Operations

DATE: 25 September 2018

TITLE: **Snow and Ice Control**

Policy Statement: Ensure that the transportation network is maintained in such a manner as to minimize economic loss to the community, prevent or reduce accident and injury, and facilitate the handling of emergencies by the emergency responders and police services.

The purpose of this policy is to set winter snow and ice control standards to provide for a safe and reliable transportation network while protecting the environment and providing excellent customer/citizen service.

Roadway Plowing:

- Plow snow from all freeways, arterial and collector roadways, bus routes and bus ways during and following the end of a storm to achieve bare pavement.
- Plow snow as required from roadways (other than freeways, arterial and collector roadways, roadways abutting schools and bus routes) carrying in excess of 1500 vehicles per day and emergency access routes.

Roadway Anti-Icing/De-Icing:

- Apply salt and/or calcium chloride as anti-icing/de-icing agents to maximize effectiveness on as required basis.

Residential Blading:

- In any given snow event, a city-wide residential blading program will be initiated (including Alleys) immediately after the Arterial and Collector road network has been plowed and considered to be in safe condition.
- Residential Roads will be bladed to a 5 cm snow pack condition.
- Residential blading will be completed within 7 days, commencing within 48 hours following the end of the snowfall.

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CITY POLICY

- When rutting or snow drifting occurs, residential roadways will be bladed to maintain a level, snowpack condition.
- Service level will only involve the blading of snow. Windrows (less than 30 cm in height) left behind blocking driveways will be the responsibility of the adjacent property owner. Windrows (more than 30 cm in height) left behind will be cleared as to not block driveways.
- Snow will not be hauled away except to permit safe passage.
- Notification of residential blading will be announced through the media. A parking ban will not be used.
- In the event that a 5 cm snow pack cannot be maintained on residential roads within one cycle of blading, plowing to bare pavement will be initiated where required.
- Alleys adjacent to roadways subject to seasonal parking bans will be given priority and will be bladed at the start of the residential blading cycle.

Snow Removal:

- Remove snow from business districts as required.
- Remove snow from arterial roadways when curb lanes are reduced to less than 3.2 metres in width by windrowed snow.
- Remove snow from collector roadways and bus routes as required when the driving width or parking area restricts safe vehicular movement.
- Remove snow from roadways in the designated windrow free zone and school drop off zones adjacent to schools on both sides of the roadway, after every major snowfall when a full plowing cycle is completed.
- Remove snow as required from roadways (other than, arterial and collector roadways, and bus routes) carrying in excess of 1500 vehicles per day, when the driving width or parking area restricts safe vehicular movement.

Active Transportation Modes:

- Plow snow from multi use trails and sidewalks adjacent to city owned land within 48 hours of a snowfall where there is an accumulation of 2 cm or more.
- Snow will not be hauled away.
- Property owners are required to clear snow from sidewalks adjacent to their property (frontage and flankage) within 48 hours of the end of snowfall to meet the requirements of the Community Standards Bylaw #14600.
- Plow snow from designated bicycle lanes with the roadway plowing to the same service level designated for that roadway.
- Maintain prioritized sidewalks, trails and bike routes to bare pavement within 24 hours from end of snowfall.

Transit Facilities:

- Clear snow from all sidewalks, ramps, stairs and bus platforms at transit facilities within 24 hours after the snowfall.
- Clear snow from all transit zone pads within 48 hours after the snowfall.
- Maintain bus stops adjacent to City property to bare pavement within 48 hours from end of snowfall.

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Snow Storage Site Management:

- Snow removed from road right of way and private parking lots must be hauled to snow storage sites to meet Environment Canada and Alberta Environment guidelines and Codes of Practice outlined in the Salt Management Plan.

Salt Management Plan:

- Report to both Alberta Environment and Environment Canada annually on road salt usage and road salt management. Meet Codes of Practice established by Transportation Association of Canada and adopted by Environment Canada.

Severe Snowfall Event

A severe snowfall response can be initiated at the discretion of the Branch Manager for Parks and Roads Services. This severe snowfall response can be initiated if there is a snowfall event of 30 cm or more that threatens the mobility of the roadway network. The focus of this severe snowfall response will be to restore immediate mobility, not to address transportation network capacity. This severe snowfall response include:

- Deployment of all available resources to ensure mobility of the transportation network
- Delegation of control of deployment of all available resources in all city departments associated with snow clearing to the Director of Infrastructure Operations.
- Plowing to bare pavement on residential roads.
- Declaration of an overnight parking ban on all residential roads.

Snow Emergency

In the event of an extreme winter storm that causes the closure of a significant portion of the transportation network, the City Manager at her discretion can declare a snow emergency. This will initiate the activation of the Emergency Operations Centre. In this event all control of snow clearing activities will be through the Emergency Operation Centre and will focus on providing mobility for emergency and essential services only until generally mobility on the transportation network can be restored.

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CITY POLICY

Transportation Network Priority Hierarchy

Priority I

- **Freeways, Arterial roadways:**
  Maintain to a bare pavement standard within 36 hours from end of snowfall
- **Business districts, Busways:**
  Maintain to a bare pavement standard within 36 hours from end of snowfall
- **Bus stops adjacent to City property:**
  Maintain to a bare pavement standard within 48 hours from end of snowfall
- **Prioritized sidewalks, trails and bike routes:**
  Maintain to a bare pavement standard within 24 hours from end of snowfall

Priority 2

- **Collector/Bus Route Roadways, Transit Park and Ride access roads:**
  Maintain to a bare pavement standard within 48 hours from end of snowfall.

Priority 3

- **Local Industrial Roadways:**
  Maintain to a bare pavement standard within 5 days from the end of snowfall.

Priority 4

- **Residential Roadways, Alleys:**
  Blade level snowpack, start within 48 hours after snowfall and complete in 5 days. Alleys adjacent to roadways subject to seasonal parking ban will be done first.

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6.7 **Alternative Practices to Address Snow and Ice Control**

G. Cebryk, Deputy City Manager, J. Tecklenborg and A. Dechamplain, City Operations, made a presentation and answered Council's questions. J. Lawrence, Tiger Calcium; S. Rapanos, City Operations; W. Goulden, Integrated Infrastructure Services; K. Fung, Financial and Corporate Services (Law); and L. Cochrane, City Manager, answered Council's questions.

Moved M. Nickel - J. Dziadyk:

That Administration dis-continue the anti-icing pilot and the pilot expansion as outlined in the October 3, 2018, City Operations report CR_6320.

In Favour: **Lost**

M. Banga, T. Cartmell, T. Caterina, J. Dziadyk, M. Nickel, A. Paquette

Opposed:

D. Iveson, B. Esslinger, S. Hamilton, B. Henderson, A. Knack, S. McKeen, M. Walters

Moved A. Knack - B. Esslinger:

That revised City Policy C409J, Edmonton's Snow and Ice Control Policy, as set out in Attachment 4 of the October 3, 2018, City Operations report CR_6320, be approved.	City Ops.

In Favour: **Carried**

D. Iveson, T. Cartmell, J. Dziadyk, B. Esslinger, S. Hamilton, B. Henderson, A. Knack, S. McKeen, A. Paquette, M. Walters

Opposed:

M. Banga, T. Caterina, M. Nickel

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Community and Public Services Committee Report

Alternative Practices to Address Snow and Ice Control

THIS ITEM WAS REFERRED TO CITY COUNCIL WITHOUT A COMMITTEE RECOMMENDATION

Administration Recommendation

That revised City Policy C409J, Edmonton's Snow and Ice Control Policy, as set out in Attachment 4 of the October 3, 2018, City Operations report CR_6320, be approved.

History

- Councillors B. Henderson and T. Caterina referred the October 3, 2018, City Operations report CR_6320 to City Council without a Committee recommendation.
- At the October 3, 2018, Community and Public Services Committee meeting, the October 3, 2018, City Operations report CR_6320 and the October 3, 2018, City Operations report CR_6238 were considered and dealt with together. The Committee heard from C. Gersdorff; R. Preston, Urban Development Institute Edmonton; and D. Peck, Canadian Home Builders' Association – Edmonton Region and the following motion was passed:

  6.4 - Effects of Mandating Snow Tires

  That the October 3, 2018, City Operations report CR_6238, be received for information.

Attachment

October 3, 2018, City Operations report CR_6320

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Alternative Practices to Address Snow and Ice Control

Recommendation:

That Community and Public Services Committee recommend to City Council:

> That revised City Policy C409J, Edmonton's Snow and Ice Control Policy, as set out in Attachment 4 of the October 3, 2018, City Operations report CR_6320, be approved.

Executive Summary

The City of Edmonton's Snow and Ice Control Policy (C409I) sets winter snow and ice control standards to provide a safe and reliable transportation network while protecting the environment and providing excellent customer/citizen service.

Preliminary results of the anti-icing pilot were shared with Committee on July 4, 2018 (CR_5033). The report showed improved accessibility of the paths, roads, bus stops and bike lanes during the winter, reduced operational costs, and significantly reduced sand application with the addition of the anti-icing pilot. When the report was presented to Committee, the environmental results of the anti-icing pilot and the remaining public engagement results were unavailable.

This report is a follow-up to CR_5033 and includes information on:

- The newly available environmental results which demonstrate that the pilot had no discernable impact on the quality of the city's stormwater that discharged into the North Saskatchewan River.
- The newly available public engagement data showed respondents from the Edmonton Insight Community were in favour of the pilot. The results from an open link survey available to the broad public was not as positive.
- Proposed updates to the current Snow and Ice Control Policy which are intended to reflect achieving bare pavement for prioritized roads, bike lanes, paths and bus stops.
- New monitoring processes Administration is initiating to collect Edmonton-based evidence about the results of winter road activities and potential for future improvements. This monitoring will capture the impact of salt

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and calcium chloride on different types of infrastructure, including concrete and asphalt, metal and vegetation.
- Operating practices that are being adjusted for the 2018-2019 winter season in order to minimize the amount of salt and calcium chloride needed to achieve bare pavement, which includes adding a corrosion inhibitor to the road salt being applied.

Report

Updated Pilot Results

In July 2018, Administration presented initial results of the 2017-2018 anti-icing pilot to Committee. Updated results from the environmental monitoring and engagement surveys are now available and are presented below.

Environmental Monitoring:

Administration conducted an environmental evaluation to measure the results of the anti-icing pilot on the storm water and snow storage sites. Monitoring was conducted using:

- The City's historical use of winter road maintenance materials;
- Environmental monitoring data at four major storm water outfalls to the North Saskatchewan River; and
- Environmental monitoring at the City's snow storage sites.

Administration considered historical data with similar snowfall years, with a primary focus on chloride concentration at snow site outfalls. Chloride is a key environmental indicator for dry salt (sodium chloride) and wet brine (calcium chloride), making it the focal point of this study. As it was available, snowmelt data up to the end of July 2018 was used in the chloride evaluation for 2017-2018.

Summary of Environment Monitoring Findings (see Attachment 1 for complete findings):

- 4.5 percent of the total chloride applied to Edmonton roads in 2017-2018 was related to the application of anti-icing brine.
- The reduction of winter sand application during the pilot was accompanied by an increase in dry salt use.
- The anti-icing pilot produced no apparent impact on the quality of the city's stormwater that discharges into the North Saskatchewan River. The increase in dry salt application in 2017-2018 was not obvious in the data, potentially due to overland flow, discharge to other outfalls, and/or contributions of de-icers from other sources such as private businesses and citizens.

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- There was no apparent impact to dissolved organic material entering the North Saskatchewan River due to the anti-icing pilot project .

The City will continue to monitor the local ecosystem to see if there are any changes as a result of the pilot.

Public Engagement:

Administration contracted Leger to better understand the perceived effectiveness of implementing alternative practices to address snow and ice control. The initial market research study included two methods: a survey with 1,054 Edmontonians using Leger's online panel, and five focus groups comprised of four types of road users and one stakeholder group. Findings from this initial study were provided to Council in July 2018 (CR_5033). Additional engagement data is now available.

Summary of Additional Public Engagement Findings (for full findings see Attachment 2):

An online survey asking the same questions as the initial study was sent to the Edmonton Insight Community and was also available to the public via an open survey link on the City's website. 1,906 responses were collected from the Edmonton Insight Community and 4,211 responses were collected from people who accessed the open survey.

- 88 percent of Edmonton Insight Community respondents and 95 percent of open survey respondents were aware that the City was using anti-icing product this past winter.
- Prior to being provided with benefits and downsides of the anti-icing pilot, 31 percent of the Edmonton Insight Community respondents, and 21 percent of open survey respondents had a positive opinion about the pilot program.
- After being provided with benefits and downsides of the anti-icing pilot, 44 percent of the Edmonton Insight Community respondents, and 25 percent of open survey respondents had positive opinions about the anti-icing pilot;
- After being provided with benefits and downsides of the anti-icing pilot, 66 percent of the Edmonton Insight Community respondents, and 37 percent of open survey respondents felt the anti-icing pilot should continue;
- After being provided with benefits and downsides of the anti-icing pilot, 58 percent of the Edmonton Insight Community respondents, and 34 percent of open survey respondents thought the pilot should be expanded.

Updates to the Snow and Ice Control Policy

Administration proposes making updates to the Snow and Ice Control Policy to reflect results of the winter 2017-2018 pilot. Service levels will continue to be calibrated

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during winter 2018-2019 to determine the optimal service level targets based on costs and how long it takes to remove the snow.

Attachment 3 outlines each of the proposed policy updates and the current policy practice in detail. Highlights include:

- Updating policy language to include service levels for prioritized sidewalks, trails, and priority bike routes, as well as bus stops adjacent to City property;
- Removing the Roadway Sanding and Street Sanding Recycling sections from the current policy;
- Reclassifying Roadway Priority Hierarchy to include bus stops, paths, bike lanes and roads; and
- Include reaching bare pavement as the service level objective.

Attachment 4 contains the City of Edmonton Snow and Ice Control Policy C409J with the changes outlined above for Committee consideration.

New Initiatives

Administration has undertaken new initiatives for the upcoming winter season in an effort to continually improve the Snow and Ice Control program and gather Edmonton-based evidence on the results of anti-icing/de-icing activities.

Additional Monitoring:

Administration has initiated an on-site monitoring process to capture the results of salt and calcium chloride on different types of infrastructure.

- Concrete and Asphalt Study - Administration will use an external consultant to conduct a field study that can measure the impact of chloride on concrete and asphalt.
- Metal Corrosion Study - Administration will use an external consultant to conduct a corrosion study to monitor the impact of chloride on vehicles and other metal-based infrastructure such as bridges.
- Vegetation Study - In partnership with a research institute, Administration will conduct a study that can investigate the effects of anti-icing and de-icing agents on urban plants and tree species, in controlled and real-time field conditions.
- Traffic Safety Study - Administration will continue monitoring traffic safety through an online dashboard that captures daily collision trends on routes where anti-icing material is applied. The study will also include an historical comparison of collisions on controlled sites and a jurisdictional review of traffic safety trends where anti-icing is used for snow and ice control.
- Internal Engagement - During the spring and early summer, Administration began conducting an internal engagement of City staff regarding the anti-icing

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pilot. The focus group studies are underway and will be continued in the upcoming winter season.
- Jurisdictional Review - Administration has expanded its review of industry best practices across similar municipalities and road jurisdictions.

Operational Changes:

Along with monitoring processes, Administration is implementing several operational changes to improve the efficiency and effectiveness of the Snow and Ice Control program for the 2018-2019 winter season. These changes include:

- Contracting a third party for High-Speed Arterial Roads - Administration has requested a new procurement for snow removal and ice control on major arterial roadways. Targets from the 2017-2018 winter season were not achieved with the current labour and equipment resources. The procurement of this service would provide labour, materials, appropriately sized equipment, and operations management for Whitemud Drive, Yellowhead Trail, Calgary Trail/Gateway Boulevard, and Manning Freeway. Administration will use existing staff and equipment to focus efforts on achieving targets for existing lower volume arterial and collector roadways where current City equipment is better suited. This contract will be accommodated within the existing operating budget.
- Pilot Expansion - Administration plans to expand the anti-icing pilot to cover additional arterial and collector roads during the 2018-2019 winter season. Anti-icing will be expanded to all priority 1 and 2 arterial and collector roads, which is an inventory of 3,134 km. This includes adding 295 km to the previously piloted 2,839 km. Priority bus stops and protected bike lanes will continue to be piloted in 2018-2019. Staffing will be adjusted to leverage existing resources to consolidate the previously separated snow and ice operations for bus stops, bike lanes, stairs, multi-use trails, and sidewalks.
- Wetting Road Salt - Administration will be implementing a procedure to pre-wet road salt before use to increase the consistency of application and reduce the quantity of salt needed. The amount of salt used will be monitored and reported back to Council at the end of winter 2018-2019, in the summer of 2019.
- Use of Corrosion Inhibitor - The current supply of calcium chloride contains an organic corrosion inhibitor that reduces the corrosion rate by 70 percent compared to salt. A new corrosion inhibitor is being evaluated by the supplier that allows for a higher concentration of calcium chloride, making the product more effective at lower temperatures. Preliminary results show zero percent corrosion compared to sodium chloride.
- Align Shift Scheduling - Administration is in the process of optimizing shift scheduling to improve operational efficiency. Shift length and timing is anticipated to deliver significant improvements in the service delivery of Snow

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and Ice Control programs as it optimizes equipment use through a more evenly distributed workforce over a 24/7 period.

Residential Public Engagement:

Administration plans to engage residents in the upcoming winter season to understand their expectations for snow removal, road clearing, seasonal parking bans and service level improvements in residential areas. The purpose is to develop and deliver a pilot program that is based on the engagement feedback aimed specifically at residential snow and ice control.

Next Steps

To better understand the results of achieving bare pavement for Snow and Ice Control, Administration recommends the following path forward:

- Collect data from monitoring studies to track the results of anti-icing and de-icing agents on different types of infrastructure;
- Work with Traffic Safety to establish a public education campaign on the benefits of achieving bare pavement as part of the Snow and Ice Control program;
- Continue expanding the anti-icing pilot for the 2018-2019 winter season, and collect data to inform the Snow and Ice Control Policy and service levels;
- Analyze public engagement feedback for residential areas and launch a residential snow and ice pilot for the 2019-2020 winter season; and
- Collaborate with the City's bridge engineers to identify opportunities to pilot the anti-icing program on select City bridges and establish a process to monitor them.

Budget Implications

Administration is requesting an estimated capital profile of $4,070,00 for the 2019-2022 Capital Budget, including additional funding to purchase equipment necessary to optimize the application of anti-icing and de-icing products. Attachment 5 gives the description, quantity, cost breakdown, and procurement requirement for each type of equipment needed under this profile.

Corporate Outcomes and Performance Management

Corporate Outcome(s): Edmonton is a safe city			
Outcome(s)	**Measure(s)**	**Result(s)**	**Target(s)**
The City promotes improved mobility and	Average number of collisions on anti-icing routes compared to	To be determined	Decrease in collisions

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traffic safety through the anti-icing pilot	previous years with similar snowfall.		
Corporate Outcome(s): The City of Edmonton has sustainable and accessible infrastructure			
The City promotes increased accessibility by adhering to established directives, policies and guidelines, Snow and Ice Control Policy C409I	Average time from the end of a snowfall to when arterials and freeways are cleared to bare pavement.	48 hours (2017-2018)	36 hours Note: Target will continue to be calibrated in winter 2018-2019 to determine optimum service levels
	Average time from the end of a snowfall to when bus stops adjacent to City property are cleared to bare pavement.	24 hours (2017-2018) Note: This was just for the 167 prioritized bus stops within the pilot	48 hours
	Average time from the end of a snowfall to when prioritized sidewalks, trails and bike routes are cleared to bare pavement.	24 hours (2017-2018)	24 hours

Risk Assessment

Risk Element	Risk Description	Likelihood	Impact	Risk Score (current)	Current Mitigations	Potential Future Mitigations
4 - Customers /Citizens	Reclassifying Roadway Priority Hierarchy and updating policy language to include service levels for prioritized sidewalks, trails and bike routes, as well as bus stops adjacent to City property	2 - Unlikely	2 - Moderate	4 - Low	Optimize crew routes, leverage existing resources and adjust staffing to achieve additional service levels for the entire mobility network.	Review industry's best practices and continuously improve: shift schedules, equipment utilization, process and training.
7 - Environmental	Removing the Street Sanding Recycling section from the current policy	1 - Rare	2 - Moderate	2 - Low	Recycling sand has currently stopped, with collected sand being stockpiled at City yards.	Secure contract with local landfills to use collected sand as covers (Costs will reduce compared to recycling sand).

Attachments

1. Environmental Monitoring and Metrics Report
2. Anti-Icing Pilot Evaluation - Public Engagement Report
3. Snow and Ice Control Policy - Proposed Updates
4. Snow and Ice Control Policy C401J
5. Capital Profile

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Others Reviewing this Report

- S. Padbury/R. Kits, Acting Deputy City Managers, Financial and Corporate Services
- C. Owen, Deputy City Manager, Communications and Engagement
- A. Laughlin, Deputy City Manager, Integrated Infrastructure Services
- P. Ross, Acting Deputy City Manager, Urban Form and Corporate Strategic Development
- K. Armstrong, Deputy City Manager, Employee Services

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Snow and Ice Control Policy Updates

Policy Section	Current Policy Practice	Potential Policy Amendment
Winter maintenance Programs: *Roadway Sanding*	• Crews will be on duty at all times from mid October to mid April to provide sand/salt mixture to meet weather conditions. • Frequency of sanding is as indicated in Roadway Priority Hierarchy.	• Remove section from Policy
Active Transportation Modes: *Prioritized Sidewalks, Trails and Bike Routes*	Current policy does not prioritize sidewalks, trails and bike routes: • Plow snow from multi use trails and sidewalks adjacent to City owned land within 48 hours of a snowfall where there is an accumulation of 2 cm or more. • Plow snow from designated bicycle lanes with the roadway plowing to the same service level designated for that roadway.	• Update the *Active Transportation Modes* to include the following: "Maintain prioritized sidewalks, trails and bike routes to bare pavement within 24 hours from end of snowfall."
Transit Facilities: *Bus Stops Adjacent to City Property*	Current policy does not include service levels for bus stops adjacent to City property: • Clear snow from all sidewalks, ramps, stairs and bus platforms at transit facilities within 24 hours after the snowfall. • Clear snow from all transit zone pads within 48 hours after the snowfall.	• Update the *Transit Facilities* to include the following: "Maintain bus stops adjacent to City property to bare pavement within 48 hours from end of snowfall."
Street Sanding Recycling	All street sand collected shall be washed and recycled for re-use.	• Remove the *Street Sanding Recycling* section from the policy.

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Roadway Priority Hierarchy	Current policy does not include the entire mobility network: **Priority I** Freeways, Arterial roadways, Business Districts, Bus ways • Sanding standard frequency, every 4 to 8 hours • Sanding storm frequency, every 2 to 4 hours • Plow within 36 hours after end of snowfall **Priority 2** Collector/Bus Route Roadways, Transit Park and Ride access roads • Sanding standard frequency, every 8 to 12 hours • Sanding storm frequency, every 4 to 8 hours • Plow within 48 hours after the end of snowfall **Priority 3** Local Industrial Roadways • Sand on an as required basis • Plow within 5 days after the end of snowfall **Priority 4** Residential Roadways, Alleys • Sand on an as required basis • Blade level snow pack, start within 48 hours after snowfall and complete in 5 days • Alleys adjacent to roadways subject to seasonal parking ban will be done first	• Modify policy language to "Mobility Network Priority Hierarchy" • Remove sanding frequency requirement from the hierarchy • Update classifications and priority hierarchy to reflect the following: **Priority I** **Freeways, Arterial roadways:** Maintain to a bare pavement standard within 36 hours from end of snowfall **Business districts, Bus ways:** Maintain to a bare pavement standard within 36 hours from end of snowfall **Bus stops adjacent to City property:** Maintain to a bare pavement standard within 48 hours from end of snowfall **Prioritized sidewalks, trails and bike routes:** Maintain to a bare pavement standard within 24 hours from end of snowfall **Priority 2** **Collector/Bus Route Roadways, Transit Park and Ride access roads:** Maintain to a bare pavement standard within 48 hours from end of snowfall **Priority 3** **Local Industrial Roadways:** Maintain to a bare pavement standard within 5 days from the end of snowfall • Priority 4 remains the same

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CITY POLICY

Attachment 4

POLICY NUMBER: C409J

REFERENCE:	**ADOPTED BY:**
City Council 2011 09 27 City Council 2010 05 12 City Council 2007 07 17 City Council 2007 03 20 City Council 2006 03 21 City Council 2001 09 11 City Council 1989 12 12 City Council 1984 01 10 City Council 1982 03 09 City Council 1981 02 24 City Council 1978 11 14	City Council **SUPERSEDES:** C409I
PREPARED BY: City Operations	**DATE:** 25 September 2018
TITLE: **Snow and Ice Control**	

Policy Statement: Ensure that the transportation network is maintained in such a manner as to minimize economic loss to the community, prevent or reduce accident and injury, and facilitate the handling of emergencies by the emergency responders and police services.

The purpose of this policy is to set winter snow and ice control standards to provide for a safe and reliable transportation network while protecting the environment and providing excellent customer/citizen service.

Roadway Plowing:

- Plow snow from all freeways, arterial and collector roadways, bus routes and bus ways during and following the end of a storm to achieve bare pavement.
- Plow snow as required from roadways (other than freeways, arterial and collector roadways, roadways abutting schools and bus routes) carrying in excess of 1500 vehicles per day and emergency access routes.

Residential Blading:

- In any given snow event, a city-wide residential blading program will be initiated (including Alleys) immediately after the Arterial and Collector road network has been plowed and considered to be in safe condition.
- Residential Roads will be bladed to a 5 cm snow pack condition.
- Residential blading will be completed within 7 days, commencing within 48 hours following the end of the snowfall.
- When rutting or snow drifting occurs, residential roadways will be bladed to maintain a level, snowpack condition.

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- Service level will only involve the blading of snow. Windrows (less than 30 cm in height) left behind blocking driveways will be the responsibility of the adjacent property owner. Windrows (more than 30 cm in height) left behind will be cleared as to not block driveways.
- Snow will not be hauled away except to permit safe passage.
- Notification of residential blading will be announced through the media. A parking ban will not be used.
- In the event that a 5 cm snow pack cannot be maintained on residential roads within one cycle of blading, plowing to bare pavement will be initiated where required.
- Alleys adjacent to roadways subject to seasonal parking bans will be given priority and will be bladed at the start of the residential blading cycle.

Snow Removal:

- Remove snow from business districts as required.
- Remove snow from arterial roadways when curb lanes are reduced to less than 3.2 metres in width by windrowed snow.
- Remove snow from collector roadways and bus routes as required when the driving width or parking area restricts safe vehicular movement.
- Remove snow from roadways in the designated windrow free zone and school drop off zones adjacent to schools on both sides of the roadway, after every major snowfall when a full plowing cycle is completed.
- Remove snow as required from roadways (other than, arterial and collector roadways, and bus routes) carrying in excess of 1500 vehicles per day, when the driving width or parking area restricts safe vehicular movement.

Active Transportation Modes:

- Plow snow from multi use trails and sidewalks adjacent to city owned land within 48 hours of a snowfall where there is an accumulation of 2 cm or more.
- Snow will not be hauled away.
- Property owners are required to clear snow from sidewalks adjacent to their property (frontage and flankage) within 48 hours of the end of snowfall to meet the requirements of the Community Standards Bylaw #14600.
- Plow snow from designated bicycle lanes with the roadway plowing to the same service level designated for that roadway.
- Maintain prioritized sidewalks, trails and bike routes to bare pavement within 24 hours from end of snowfall.

Transit Facilities:

- Clear snow from all sidewalks, ramps, stairs and bus platforms at transit facilities within 24 hours after the snowfall.
- Clear snow from all transit zone pads within 48 hours after the snowfall.

- Maintain bus stops adjacent to City property to bare pavement within 48 hours from end of snowfall.

Snow Storage Site Management:

- Snow removed from road right of way and private parking lots must be hauled to snow storage sites to meet Environment Canada and Alberta Environment guidelines and Codes of Practice outlined in the Salt Management Plan.

Salt Management Plan:

- Report to both Alberta Environment and Environment Canada annually on road salt usage and road salt management. Meet Codes of Practice established by Transportation Association of Canada and adopted by Environment Canada.

Severe Snowfall Event

A severe snowfall response can be initiated at the discretion of the Branch Manager for Parks and Roads Services. This severe snowfall response can be initiated if there is a snowfall event of 30 cm or more that threatens the mobility of the transportation network. The focus of this severe snowfall response will be to restore immediate mobility, not to address transportation network capacity. This severe snowfall response include:

- Deployment of all available resources to ensure mobility of the transportation network
- Delegation of control of deployment of all available resources in all city departments associated with snow clearing to the Director of Infrastructure Operations.
- Plowing to bare pavement on residential roads.
- Declaration of an overnight parking ban on all residential roads.

Snow Emergency

In the event of an extreme winter storm that causes the closure of a significant portion of the transportation network, the City Manager at her discretion can declare a snow emergency. This will initiate the activation of the Emergency Operations Centre. In this event all control of snow clearing activities will be through the Emergency Operation Centre and will focus on providing mobility for emergency and essential services only until generally mobility on the transportation network can be restored.

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CITY POLICY

Attachment 4

Transportation Network Priority Hierarchy

Priority I

- **Freeways, Arterial roadways:**
  Maintain to a bare pavement standard within 36 hours from end of snowfall
- **Business districts, Busways:**
  Maintain to a bare pavement standard within 36 hours from end of snowfall
- **Bus stops adjacent to City property:**
  Maintain to a bare pavement standard within 48 hours from end of snowfall
- **Prioritized sidewalks, trails and bike routes:**
  Maintain to a bare pavement standard within 24 hours from end of snowfall

Priority 2

- **Collector/Bus Route Roadways, Transit Park and Ride access roads:**
  Maintain to a bare pavement standard within 48 hours from end of snowfall.

Priority 3

- **Local Industrial Roadways:**
  Maintain to a bare pavement standard within 5 days from the end of snowfall.

Priority 4

- **Residential Roadways, Alleys:**
  Blade level snowpack, start within 48 hours after snowfall and complete in 5 days. Alleys adjacent to roadways subject to seasonal parking ban will be done first.

CITY POLICY

POLICY NUMBER: C409I

REFERENCE:
City Council 2011 09 27
City Council 2010 05 12
City Council 2007 07 17
City Council 2007 03 20
City Council 2006 03 21
City Council 2001 09 11
City Council 1989 12 12
City Council 1984 01 10
City Council 1982 03 09
City Council 1981 02 24
City Council 1978 11 14

ADOPTED BY:
City Council
November 3, 2015

SUPERSEDES:
C409H

PREPARED BY: Transportation Services

DATE: 26 November 2015

TITLE: **Snow and Ice Control**

Policy Statement: Ensure that roadways are maintained in such a manner as to minimize economic loss to the community, prevent or reduce accident and injury, and facilitate the handling of emergencies by the emergency responders and police services.

The purpose of this policy is to set winter snow and ice control standards to provide for a safe and reliable transportation network while protecting the environment and providing excellent customer/citizen service.

Winter Maintenance Programs (within city limits)

Roadway Sanding:

- Crews will be on duty at all times from mid October to mid April to provide sand/salt mixture to meet weather conditions.
- Frequency of sanding is as indicated in Roadway Priority Hierarchy.

Roadway Plowing:

- Plow snow from all freeways, arterial and collector roadways, bus routes and bus ways following the end of a storm to achieve bare pavement.
- Plow snow as required from roadways (other than freeways, arterial and collector roadways, roadways abutting schools and bus routes) carrying in excess of 1500 vehicles per day and emergency access routes.

Residential Blading:

- In any given snow event, a city-wide residential blading program will be initiated (including Alleys) immediately after the Arterial and Collector road network has been plowed and

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- considered to be in safe condition. Residential Roads will be bladed to a 5 cm snow pack condition.
- Residential blading will be completed within 7 days, commencing within 48 hours following the end of the snowfall.
- When rutting or snow drifting occurs, residential roadways will be bladed to maintain a level, snow pack condition.
- Service level will only involve the blading of snow. Windrows (less then 30 cm in height) left behind blocking driveways will be the responsibility of the adjacent property owner. Windrows (more then 30 cm in height) left behind will be cleared as to not block driveways.
- Snow will not be hauled away except to permit safe passage.
- Notification of residential blading will be announced through the media. A parking ban will not be used.
- In the event that a 5 cm snow pack cannot be maintained on residential roads within one cycle of blading, plowing to bare pavement will be initiated where required.
- Alleys adjacent to roadways subject to seasonal parking bans will be given priority and will be bladed at the start of the residential blading cycle.

Snow Removal:

- Remove snow from business districts as required.
- Remove snow from arterial roadways when curb lanes are reduced to less then 3.2 metres in width by windrowed snow.
- Remove snow from collector roadways and bus routes as required when the driving width or parking area restricts safe vehicular movement.
- Remove snow from roadways in the designated windrow free zone and school drop off zones adjacent to schools on both sides of the roadway, after every major snowfall when a full plowing cycle is completed.
- Remove snow as required from roadways (other than, arterial and collector roadways, and bus routes) carrying in excess of 1500 vehicles per day, when the driving width or parking area restricts safe vehicular movement.

Active Transportation Modes

- Plow snow from multi use trails and sidewalks adjacent to city owned land within 48 hours of a snowfall where there is an accumulation of 2 cm or more.
- Snow will not be hauled away.
- Property owners are required to clear snow from sidewalks adjacent to their property (frontage and flankage) within 48 hours of the end of snowfall to meet the requirements of the Community Standards Bylaw #14600.
- Plow snow from designated bicycle lanes with the roadway plowing to the same service level designated for that roadway.

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Transit Facilities

- Clear snow from all sidewalks, ramps, stairs and bus platforms at transit facilities within 24 hours after the snowfall.
- Clear snow from all transit zone pads within 48 hours after the snowfall.

Snow Storage Site Management:

- Snow removed from road right of way and private parking lots must be hauled to snow storage sites to meet Environment Canada and Alberta Environment guidelines and Codes of Practice outlined in the Salt Management Plan.

Street Sanding Recycling:

- All street sand collected shall be washed and recycled for re-use.

Salt Management Plan:

- Report to both Alberta Environment and Environment Canada annually on road salt usage and road salt management. Meet Codes of Practice established by Transportation Association of Canada and adopted by Environment Canada.

Severe Snowfall event

A severe snowfall response can be initiated at the discretion of the General Manager of Transportation. This severe snowfall response can be initiated if there is a snowfall event of 30 cm or more that threatens the mobility of the roadway network. The focus of this severe snowfall response will be to restore immediate mobility, not to address roadway capacity. This severe snowfall response include

- Deployment of all available resources to ensure mobility of the roadway network
- Delegation of control of deployment of all available resources in all city departments associated with snow clearing to the Director of Roadway Maintenance.
- Plowing to bare pavement on residential roads.
- Declaration of an overnight parking ban on all residential roads.

Snow Emergency

In the event of an extreme winter storm that causes the closure of a significant portion of the roadway network, the City Manager at his discretion can declare a snow emergency. This will initiate the activation of the Emergency Operations Centre. In this event all control of snow clearing activities will be through the Emergency Operation Centre and will focus on providing mobility for emergency and essential services only until generally mobility on the roadway network can be restored.

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Roadway Priority Hierarchy

Priority I

Freeways, Arterial roadways, Business Districts, Bus ways

- Sanding standard frequency, every 4 to 8 hours
- Sanding storm frequency, every 2 to 4 hours
- Plow within 36 hours after end of snowfall

Priority 2

Collector/Bus Route Roadways, Transit Park and Ride access roads

- Sanding standard frequency, every 8 to 12 hours
- Sanding storm frequency, every 4 to 8 hours
- Plow within 48 hours after the end of snowfall

Priority 3

Local Industrial Roadways

- Sand on an as required basis
- Plow within 5 days after the end of snowfall

Priority 4

Residential Roadways, Alleys

- Sand on an as required basis
- Blade level snow pack, start within 48 hours after snowfall and complete in 5 days.
- Alleys adjacent to roadways subject to seasonal parking ban will be done first.

Councillor A. Sohi. • **Emerging Economy** - Councillor M. Walters is removed. • **Gender Based Violence Prevention** - Councillor S. McKeen replaces former Councillor A. Sohi. • **Multiculturalism** – Councillor B. Esslinger replaces former Councillor A. Sohi • **Public Engagement** - Councillor A. Knack is added. • **Public Transit** - Councillor D. Loken replaces former Councillor A. Sohi. **Council Chamber Revised Seating Chart** 5. That Administration provide a report at the November 17, 2015, City Council meeting on a revised seating chart, reflecting the change in seating positions to accommodate the newly elected Ward 12 Councillor to be seated in Councillor M. Oshry's seat and to move Councillor M. Oshry to the vacant Ward 12 seat, and that it become effective at that time.	Corporate Svcs. **Due Date:** Nov. 17, 2015

In Favour: **Carried**

D. Iveson, B. Anderson, T. Caterina, B. Esslinger, E. Gibbons, B. Henderson, A. Knack, D. Loken, S. McKeen, M. Oshry, M. Walters

Absent:

M. Nickel

6.11 Windrow Free and School Drop Off Zone

Moved D. Loken - B. Esslinger:

That the Snow and Ice Control Policy C409H, be amended, on page two, under the heading Snow Removal, bullet four, by adding the following "and school drop off zones" after "zone", to	Transportation Svcs.

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read as follows: Remove snow from roadways in the designated windrow free zone and school drop of zones adjacent to schools on both sides of the roadway, after every major snowfall when a full plowing cycle is completed.	

In Favour: **Carried**

D. Iveson, B. Anderson, T. Caterina, B. Esslinger, E. Gibbons, B. Henderson, A. Knack, D. Loken, S. McKeen, M. Nickel, M. Oshry, M. Walters

6.12 **Budget Impacts of Waste Audit and Instructions to Utility Advisor**

Moved D. Loken - B. Esslinger:

1. That Administration provide any amendments to the budget that arises as a result of the November 12, 2015, Office of the City Auditor report CR_3018 - Edmonton Waste Management Centre Contract Review.	Financial Svcs. and Utilities
2. That Administration work with the Utility Advisor to provide comments to City Council, if required, on the financial impact of the November 12, 2015, Office of the City Auditor report CR_3018 - Edmonton Waste Management Centre Contract Review.	Financial Svcs. and Utilities **Due Date:** Nov. 27, 2015 City Council Budget

In Favour: **Carried**

D. Iveson, B. Anderson, T. Caterina, B. Esslinger, E. Gibbons, B. Henderson, A. Knack, D. Loken, S. McKeen, M. Nickel, M. Oshry, M. Walters

7. BYLAWS

7.1 **Bylaw 17413 - A Bylaw to Designate the Rose Residence as a Municipal Historic Resource**

Moved B. Anderson - T. Caterina:

That Bylaw 17413 be read a first time.

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CITY POLICY

POLICY NUMBER: C409H

REFERENCE:
City Council 2011 09 27
City Council 2010 05 12
City Council 2007 07 17
City Council 2007 03 20
City Council 2006 03 21
City Council 2001 09 11
City Council 1989 12 12
City Council 1984 01 10
City Council 1982 03 09
City Council 1981 02 24
City Council 1978 11 14

ADOPTED BY:
City Council
~~11 December 2014~~
Nov ~~3rd~~ 26 2014 Budget

SUPERSEDES:
C409G

PREPARED BY: Transportation Services

DATE: 26 November 2014

TITLE: **Snow and Ice Control**

Policy Statement: Ensure that roadways are maintained in such a manner as to minimize economic loss to the community, prevent or reduce accident and injury, and facilitate the handling of emergencies by the emergency responders and police services.

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Residential Blading:

- In any given snow event, a city-wide residential blading program will be initiated (including Alleys) immediately after the Arterial and Collector road network has been plowed and

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- considered to be in safe condition. Residential Roads will be bladed to a 5 cm snow pack condition.
- Residential blading will be completed within 7 days, commencing within 48 hours following the end of the snowfall.

- When rutting or snow drifting occurs, residential roadways will be bladed to maintain a level, snow pack condition.
- Service level will only involve the blading of snow. Windrows (less then 30 cm in height) left behind blocking driveways will be the responsibility of the adjacent property owner. Windrows (more then 30 cm in height) left behind will be cleared as to not block driveways.
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- Remove snow as required from roadways (other than, arterial and collector roadways, and bus routes) carrying in excess of 1500 vehicles per day, when the driving width or parking area restricts safe vehicular movement.

Active Transportation Modes

- Plow snow from multi use trails and sidewalks adjacent to city owned land within 48 hours of a snowfall where there is an accumulation of 2 cm or more.
- Snow will not be hauled away.
- Property owners are required to clear snow from sidewalks adjacent to their property (frontage and flankage) within 48 hours of the end of snowfall to meet the requirements of the Community Standards Bylaw #14600.
- Plow snow from designated bicycle lanes with the roadway plowing to the same service level designated for that roadway.

CITY POLICY

Transit Facilities

- Clear snow from all sidewalks, ramps, stairs and bus platforms at transit facilities within 24 hours after the snowfall.
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Snow Storage Site Management:

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- All street sand collected shall be washed and recycled for re-use.

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- Declaration of an overnight parking ban on all residential roads.

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CITY POLICY

Roadway Priority Hierarchy

Priority I

Freeways, Arterial roadways, Business Districts, Bus ways

- Sanding standard frequency, every 4 to 8 hours
- Sanding storm frequency, every 2 to 4 hours
- Plow within 36 hours after end of snowfall

Priority 2

Collector/Bus Route Roadways, Transit Park and Ride access roads

- Sanding standard frequency, every 8 to 12 hours
- Sanding storm frequency, every 4 to 8 hours
- Plow within 48 hours after the end of snowfall

Priority 3

Local Industrial Roadways

- Sand on an as required basis
- Plow within 5 days after the end of snowfall

Priority 4

Residential Roadways, Alleys

- Sand on an as required basis
- Blade level snow pack, start within 48 hours after snowfall and complete in 5 days.
- Alleys adjacent to roadways subject to seasonal parking ban will be done first.

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L. Cochrane, Acting City Manager, answered Council's questions.

Moved M. Nickel - B. Anderson:

Value-added Service regarding Canada Post That Administration provide a report to the Community Services Committee outlining any possible value-added service for the city that might be created between Canada Post, the Canadian Union of Postal Workers and the City of Edmonton.	Corporate Svcs. Community Svcs. **Due Date:** Sep. 3, 2014 CS Committee

In Favour: **Carried**

D. Iveson, B. Anderson, T. Caterina, B. Esslinger, B. Henderson, A. Knack, D. Loken, S. McKeen, M. Nickel, M. Oshry, A. Sohi, M. Walters

Absent:

E. Gibbons

6.9 **Amendments to Snow and Ice Control Policy C409G**

Moved B. Anderson - M. Nickel:

1. That the proposed amendments as outlined in Attachment 1, as amended, of the May 21, 2014, Transportation Services report CR_876, be approved for inclusion in an updated Snow and Ice Control Policy to be presented prior to the 2015 Operating Budget Deliberations.	Transportation Svcs.
2. That the related financial impacts from the updated Snow and Ice Control Policy be approved for inclusion in a service package for consideration during the 2015 Operating Budget Deliberations.	Financial Svcs. and Utilities

In Favour: **Carried**

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D. Iveson, B. Anderson, T. Caterina, B. Esslinger, B. Henderson, A. Knack, D. Loken, S. McKeen, M. Nickel, M. Oshry, A. Sohi, M. Walters

Absent:

E. Gibbons

7. BYLAWS

7.1 Bylaw 16821 - A Bylaw to authorize the City of Edmonton to construct, finance and assess Residential Asphalt Alley Paving Local Improvement

Moved B. Anderson - T. Caterina:

That Bylaw 16821 be read a first time.

In Favour: **Carried**

D. Iveson, B. Anderson, T. Caterina, B. Esslinger, B. Henderson, A. Knack, D. Loken, S. McKeen, M. Nickel, M. Oshry, A. Sohi, M. Walters

Absent:

E. Gibbons

Moved B. Anderson - T. Caterina:

That Bylaw 16821 be read a second time.

In Favour: **Carried**

D. Iveson, B. Anderson, T. Caterina, B. Esslinger, B. Henderson, A. Knack, D. Loken, S. McKeen, M. Nickel, M. Oshry, A. Sohi, M. Walters

Absent:

E. Gibbons

Moved B. Anderson - T. Caterina:

That Bylaw 16821 be considered for third reading.

In Favour: **Carried**

D. Iveson, B. Anderson, T. Caterina, B. Esslinger, B. Henderson, A. Knack, D. Loken, S. McKeen, M. Nickel, M. Oshry, A. Sohi, M. Walters

Absent:

E. Gibbons

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Absent:

E. Gibbons

5.7 Winter Road Maintenance Program Policy – Options for Snow Removal Reserve

Moved K. Leibovici - R. Hayter:

That the revised Winter Road Maintenance Program Policy C409F, as outlined in the revised Attachment 2 of the May 4, 2010, Transportation and Public Works Committee Report 3 be approved.	Transportation

In Favour: **Carried**

S. Mandel, A. Sohi, B. Anderson, B. Henderson, D. Iveson, D. Thiele, J. Batty, K. Krushell, K. Leibovici, L. Sloan, R. Hayter, T. Caterina

Absent:

E. Gibbons

5.8 Fast Tracking LRT Construction (NAIT, Southeast and West)

R. Boutilier, General Manager, Transportation Department; and M. Koziol, Capital Construction Department, made a presentation and answered Council's questions.

Moved D. Iveson - D. Thiele:

Southeast and West LRT – Construction Delivery Method 1. That Administration complete an analysis and determine the appropriate construction delivery method for the Southeast and West LRT line, and return to Transportation and Public Works Committee with a recommendation before the end of 2010.	Construction TPW Committee **Due Date:** Dec. 2010
LRT Long-Term Sustainable Funding Options 2. That the Mayor, on behalf of City Council, explore options for long-term, sustainable funding from other orders of government for the construction of the LR, and that Administration work with the Mayor's Office and report back to Transportation and Public Works Committee on the outcome of the discussions.	Mayor Transportation TPW Committee **Due Date:** Sep. 1, 2010

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CITY POLICY

POLICY NUMBER: C409G

REFERENCE:
City Council 2010 05 12
City Council 2007 07 17
City Council 2007 03 20
City Council 2006 03 21
City Council 2001 09 11
City Council 1989 12 12
City Council 1984 01 10
City Council 1982 03 09
City Council 1981 02 24
City Council 1978 11 14

ADOPTED BY:
City Council
27 September 2011

SUPERSEDES:
C409F

PREPARED BY: Transportation Services

DATE: 27 September 2011

TITLE: **Snow and Ice Control**

Policy Statement: Ensure that roadways are maintained in such a manner as to minimize economic loss to the community, prevent or reduce accident and injury, and facilitate the handling of emergencies by the emergency responders and police services.

The purpose of this policy is to set winter snow and ice control standards to provide for a safe and reliable transportation network while protecting the environment and providing excellent customer/citizen service.

This policy is to be reviewed one year after implementation.

Winter Maintenance Programs (within city limits)

Roadway Sanding:

- Crews will be on duty at all times from mid October to mid April to provide sand/salt mixture to meet weather conditions.
- Frequency of sanding is as indicated in roadway priority hierarchy.

Roadway Plowing:

- Plow snow from all freeways, arterial and collector roadways, bus routes and bus ways following the end of a storm to achieve bare pavement.
- Plow snow as required from roadways (other than freeways, arterial and collector roadways, roadways abutting schools, and bus routes) carrying in excess of 1500 vehicles per day and emergency access routes.

Residential Blading:

- In any given snow event, a city-wide residential blading program will be initiated (including alleys) immediately after the arterial and collector road network has been plowed and considered to be in safe condition. Residential roads will be bladed to a 5 cm snow pack

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condition.

- Residential blading will be completed within 5 days, commencing within 48 hours following the end of the snowfall.
- When rutting or snow drifting occurs, residential roadways will be bladed to maintain a level, snow pack condition.
- Service level will only involve the blading of snow. Windrows (less than 30 cm in height) left behind blocking driveways will be the responsibility of the adjacent property owner. Windrows (more than 30 cm in height) left behind will be cleared as to not block driveways.
- Snow will not be hauled away except to permit safe passage.
- Notification of residential blading will be announced through the media. A parking ban will not be used.
- In the event that a 5cm snow pack cannot be maintained on residential roads within one cycle of blading, plowing to bare pavement will be initiated where required.
- Alleys adjacent to roadways subject to seasonal parking bans will be given priority and will be bladed at the start of the residential blading cycle.

Snow Removal:

- Remove snow from business districts as required.
- Remove snow from arterial and collector roadways and bus routes as required when the driving width or parking area restricts safe vehicular movement.
- Remove snow as required from roadways (other than arterial and collector roadways, and bus routes) carrying in excess of 1500 vehicles per day, when the driving width or parking area restricts safe vehicular movement.

Active Transportation Modes:

- Plow snow from multi use trails and sidewalks adjacent to City owned land within 48 hours to meet the requirement of Community Standards Bylaw #14600.
- Snow will not be hauled away.
- Property owners are required to clear snow from sidewalks adjacent to their property (frontage and flankage) within 48 hours of the end of snowfall to meet the requirements of the Community Standards Bylaw #14600.
- Plow snow from designated bicycle lanes with the roadway plowing to the same service level designated for that roadway.

Transit Facilities:

- Clear snow from all sidewalks, ramps, stairs and bus platforms at transit facilities within 24 hours after the snowfall.
- Clear snow from all transit zone pads within 48 hours after the snowfall.

Snow Storage Site Management:

- Snow removed from road right-of-way and private parking lots must be hauled to snow storage sites to meet Environment Canada and Alberta Environment Guidelines and Codes of Practice outlined in the Salt Management Plan.

This policy is subject to any specific provisions of the Municipal Government Act or other relevant legislation or Union Agreement.

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CITY POLICY

Street Sanding Recycling:

- All street sand collected shall be washed and recycled for re-use.

Salt Management Plan:

- Report to both Alberta Environment and Environment Canada annually on road salt usage and road salt management. Meet Codes of Practice established by Transportation Association of Canada and adopted by Environment Canada.

Severe Snowfall Event

A severe snowfall response can be initiated at the discretion of the General Manager of Transportation Services. This severe snowfall response can be initiated if there is a snowfall event of 30 cm or more that threatens the mobility of the roadway network. The focus of this severe snowfall response will be to restore immediate mobility, not to address roadway capacity. This severe snowfall response includes:

- Deployment of all available resources to ensure mobility of the roadway network.
- Delegation of control of deployment of all available resources in all City Departments associated with snow clearing to the Director of Roadway Maintenance.
- Plowing to bare pavement on residential roads.
- Declaration of an overnight parking ban on all residential roads.

Snow Emergency

In the event of an extreme winter storm that causes the closure of a significant portion of the roadway network, the City Manager, at his discretion can declare a snow emergency. This will initiate the activation of the Emergency Operations Centre. In this event, all control of snow clearing activities will be coordinated through the Emergency Operation Centre and will focus on providing mobility for emergency and essential services only until general mobility on the roadway network can be restored.

Roadway Priority Hierarchy

Priority I

Freeways, Arterial roadways, Business Districts, Bus ways.

- Sanding standard frequency, every 4 to 8 hours.
- Sanding storm frequency, every 2 to 4 hours.
- Plow within 36 hours after end of snowfall.

Priority 2

Collector/Bus Route Roadways, Transit Park and Ride access roads.

- Sanding standard frequency, every 8 to 12 hours.
- Sanding storm frequency, every 4 to 8 hours.
- Plow within 48 hours after the end of snowfall.

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CITY POLICY

Priority 3

Local Industrial Roadways

- Sand on an as required basis.
- Plow within 5 days after the end of snowfall.

Priority 4

Residential Roadways, Alleys

- Sand on an as required basis.
- Blade to level snowpack, start within 48 hours after snowfall and complete in 5 days.
- Alleys adjacent to roadways subject to seasonal parking bans will be done first.

This policy is subject to any specific provisions of the Municipal Government Act or other relevant legislation or Union Agreement.

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CITY PROCEDURE

POLICY NUMBER: C409G

AUTHORITY: City Manager

EFFECTIVE DATE: 3 Nov 2011

TITLE: **Snow and Ice Control**

1. DEFINITIONS

1.01 Arterial Roadways and Freeways – Those roadways identified in the Transportation Systems Bylaw (Bylaw 15470).

1.02 Alley – A narrow highway providing access to the rear of buildings and parcels of land;

1.03 As Required – As a statement that service will not be limited to a preplanned number of work occurrences per year. It allows operating forces to apply field judgment and expertise to varying weather conditions.

1.04 Bare Pavement – Condition refers to a snow free condition in the driving lanes of roadways. Bare pavement shall be not more than 2 cm of snow cover on the roadway surface.

1.05 Blade Snow – Light blading of snow or compacted snow and ice to maintain a level snow pack and make roadways passable or to level ruts.

1.06 Collector Roadways – This category of roadway carries vehicles between Arterial and Residential roadways. It may be divided and have more than two travel lanes with full access to adjacent properties.

1.07 Emergency Access Routes – As defined by Roadways Maintenance Section, roads providing access from arterial, collector roadways or bus routes to a hospital, auxiliary hospital, nursing home, ambulance centre, police station, or fire station.

1.08 Plow Snow – pushing accumulated snow from the roadways surface either to the sides of the roadway or the centre of the roadway in order to maintain no less than one vehicle lane in each direction.

1.09 Residential Streets – as streets or designed portions thereof abutting by sites four fifths of which are occupied by residential buildings only and none of which are occupied by industrial buildings.

1.10 Residential Plowing to Bare Pavement – plowing to a condition of not more then 2 cm of snow cover on the roadway surface. Shall include:

- Not more than 2 cm of snow cover on the roadway surface
- All driveways, crosswalks and corners will be opened

This policy is subject to any specific provisions of the Municipal Government Act or other relevant legislation or Union Agreement.

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- Access will be opened at all location identified on trouble spot lists which includes locations identified by DATS as high volume pick up/drop off, seniors centre's and schools fronting residential schools
- Where windrows of snow are created they will not be hauled away.
- In cul de sacs snow will be stacked in the centre and hauled away as required.

1.11 Road Salt – all de-icing agents that promote the melting of snow and/or ice.

1.12 Rutting – troughs in compacted snow and ice which make the maneuvering of a vehicle dangerous.

1.13 Sanding – The application of abrasive materials and road salt to roadways by calibrated mechanical spreaders. To improve vehicle traction and promote safe traffic flow.

1.14 Seasonal Parking Ban – A ban on all parking on designated residential bus routes during the winter season.

1.15 Snow Drifting – as the deposit of wind blown snow on roadways or lanes which makes the passage of vehicle traffic impossible.

1.16 Snow Removal – the complete removal of windrowed snow from established routes to a snow storage site.

2. PROCEDURES

2.01 The General Manager of Transportation Services to:

(a) Authorize the instructions or specifications necessary to properly implement the Policy of City Council and to approve any changes in those instructions upon direction of City Council.

(b) Exercise control of the staff of Transportation Services directing such assistance as may be required to the Roadway Maintenance Section during a severe snow event or snow related emergencies. Will act as liaison with City Council.

(c) Detailed instructions necessary to properly implement this policy are contained in the "Snow and Ice Control Manual" and "Salt Management Plan" as approved by the General Manager of Transportation Services for the direction of all employees and equipment concerned.

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CITY PROCEDURE

POLICY NUMBER: **C409G**

AUTHORITY: City Manager **EFFECTIVE DATE:** 3 Nov 2011

TITLE: **Snow and Ice Control**

2.02 The Director of Roadway Maintenance to:

(a) Declare the Seasonal Parking Ban to be in effect when snowfall accumulations require a general plowing of the arterial and collector roads or if a heavy snowfall warning is issued by Environment Canada for the City of Edmonton. Lift Seasonal Parking Ban when plowing is completed, if the pavement width on roadways subject to the Seasonal Parking Ban is reduced by windrowed snow to 9 metres or less, the ban will remain in effect until snow removal from these roadways is completed.

(a) Exercise control over the deployment of all available resources in all city departments associated with snow clearing during a severe snowfall event.

(b) Engage all necessary resource from Corporate Communication to initiate a communications plan to inform residents of progress of severe snowfall response through media releases, advertising and the city web site. This will include a schedule of residential plowing to be updated daily, released to the media daily and updated on the city web site.

This policy is subject to any specific provisions of the Municipal Government Act or other relevant legislation or Union Agreement.

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CITY PROCEDURE

POLICY NUMBER: C409G

AUTHORITY: City Manager

EFFECTIVE DATE: 3 November 2011

TITLE: **Snow and Ice Control**

1. DEFINITIONS

1.01 Arterial Roadways and Freeways – Those roadways identified in the Transportation Systems Bylaw (Bylaw 15470).

1.02 Alley – A narrow highway providing access to the rear of buildings and parcels of land;

1.03 As Required – As a statement that service will not be limited to a preplanned number of work occurrences per year. It allows operating forces to apply field judgment and expertise to varying weather conditions.

1.04 Bare Pavement – Condition refers to a snow free condition in the driving lanes of roadways. Bare pavement shall be not more than 2 cm of snow cover on the roadway surface.

1.05 Blade Snow – Light blading of snow or compacted snow and ice to maintain a level snow pack and make roadways passable or to level ruts.

1.06 Collector Roadways– This category of roadway carries vehicles between Arterial and Residential roadways. It may be divided and have more than two travel lanes with full access to adjacent properties.

1.07 Emergency Access Routes – As defined by Roadways Maintenance Section, roads providing access from arterial, collector roadways or bus routes to a hospital, auxiliary hospital, nursing home, ambulance centre, police station, or fire station.

1.08 Plow Snow – pushing accumulated snow from the roadways surface either to the sides of the roadway or the centre of the roadway in order to maintain no less than one vehicle lane in each direction.

1.09 Residential Streets – as streets or designed portions thereof abutting by sites four fifths of which are occupied by residential buildings only and none of which are occupied by industrial buildings.

1.10 Residential Plowing to Bare Pavement – plowing to a condition of not more then 2 cm of snow cover on the roadway surface. Shall include:

- Not more than 2 cm of snow cover on the roadway surface
- All driveways, crosswalks and corners will be opened

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- Access will be opened at all location identified on trouble spot lists which includes locations identified by DATS as high volume pick up/drop off, seniors centre's and schools fronting residential schools
- Where windrows of snow are created they will not be hauled away.
- In cul de sacs snow will be stacked in the centre and hauled away as required.

1.11 Road Salt – all de-icing agents that promote the melting of snow and/or ice.

1.12 Rutting – troughs in compacted snow and ice which make the maneuvering of a vehicle dangerous.

1.13 Sanding – The application of abrasive materials and road salt to roadways by calibrated mechanical spreaders. To improve vehicle traction and promote safe traffic flow.

1.14 Seasonal Parking Ban – A ban on all parking on designated residential bus routes during the winter season.

1.15 Snow Drifting – as the deposit of wind blown snow on roadways or lanes which makes the passage of vehicle traffic impossible.

1.16 Snow Removal – the complete removal of windrowed snow from established routes to a snow storage site.

2. PROCEDURES

2.01 The General Manager of Transportation Services to:

(a) Authorize the instructions or specifications necessary to properly implement the Policy of City Council and to approve any changes in those instructions upon direction of City Council.

(b) Exercise control of the staff of Transportation Services directing such assistance as may be required to the Roadway Maintenance Section during a severe snow event or snow related emergencies. Will act as liaison with City Council.

(c) Detailed instructions necessary to properly implement this policy are contained in the "Snow and Ice Control Manual" and "Salt Management Plan" as approved by

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CITY PROCEDURE

POLICY NUMBER: C409G

AUTHORITY: City Manager **EFFECTIVE DATE:**

TITLE: **Snow and Ice Control**

the General Manager of Transportation Services for the direction of all employees and equipment concerned.

2.02 The Director of Roadway Maintenance to:

(a) Declare the Seasonal Parking Ban to be in effect when snowfall accumulations require a general plowing of the arterial and collector roads or if a heavy snowfall warning is issued by Environment Canada for the City of Edmonton. Lift Seasonal Parking Ban when plowing is completed, if the pavement width on roadways subject to the Seasonal Parking Ban is reduced by windrowed snow to 9 metres or less, the ban will remain in effect until snow removal from these roadways is completed.

(a) Exercise control over the deployment of all available resources in all city departments associated with snow clearing during a severe snowfall event.

(b) Engage all necessary resource from Corporate Communication to initiate a communications plan to inform residents of progress of severe snowfall response through media releases, advertising and the city web site. This will include a schedule of residential plowing to be updated daily, released to the media daily and updated on the city web site.

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Snow and Ice Control Policy – C409G Review

Motion on the Floor:

MOVED B. Henderson – K. Leibovici:
Made at the September 14, 2011, City Council meeting):

That the Snow and Ice Control Policy C409G, as outlined in Attachment 1 of the September 6, 2011, Transportation Services report 2011TS6162 be approved, with the following changes:

a) add a review period of one year after implementation
b) at the end of the purpose statement, immediately after the word "environment" add "and providing excellent customer/citizen service"
c) under the heading Residential Blading, in the first bullet, delete "a 5 cm snow pack" and replace with "bare pavement (with windrows)"
d) under the heading Snow Removal, in the second bullet, delete "once per winter" and replace with "as required"
e) under the heading Roadway Plowing, in the second bullet, immediately following "and collector roadways" add "roadways abutting schools,"
f) under the heading Residential Blading, in the fifth bullet, immediately following "hauled away" add "except to permit safe passage"

Recommendation:
That the Motion on the Floor be amended as follow:

1. remove clause "c" and re-alphabetize the proceeding clauses
2. add clauses f, g and h as follows:
   f) under the heading Residential Blading, add a bullet "Alleys adjacent to roadways subject to seasonal parking bans will be given priority and will be bladed at the start of the residential blading cycle"
   g) under the heading Residential Blading, the seventh bullet be deleted and replaced with "in the event that a 5 cm snow pack cannot be maintained on residential roads within one cycle of blading, plowing to bare pavement will be initiated where required"
   h) under the heading Priority 4, add a third bullet "alleys adjacent to roadways subject to seasonal parking bans will be done first.

Report Summary

This report is requesting approval of the Snow and Ice Control Policy C409G and provides Administration's response to the recommendations of the Peer Review Panel.

Previous Council/Committee Action

At the September 14, 2011, City Council meeting, the following motion was passed.

MOVED B. Henderson – K. Leibovici:

That the Snow and Ice Control Policy C409G, as outlined in Attachment 1 of the September 6, 2011,

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Transportation Services report 2011TS6162 be approved, with the following changes:

a) add a review period of one year after implementation
b) at the end of the purpose statement, immediately after the word "environment" add "and providing excellent customer/citizen service"
c) under the heading Residential Blading, in the first bullet, delete "a 5 cm snow pack" and replace with "bare pavement (with windrows)"
d) under the heading Snow Removal, in the second bullet, delete "once per winter" and replace with "as required"
e) under the heading Roadway Plowing, in the second bullet, immediately following "and collector roadways" add "roadways abutting schools,"
f) under the heading Residential Blading, in the fifth bullet, immediately following "hauled away" add "except to permit safe passage"

and the September 6, 2011, Transportation Services report 2011TS6162 be referred back to Administration to provide a report to the September 27, 2011, City Council meeting outlining:

- a budget package detailing the additional cost implications of the motion on the floor
- an alternate wording for the policy (and resource implications) for Council's consideration that would lead to a 5 cm snow pack, and if the 5 cm snow pack cannot be maintained within one round of clearing, bare pavement clearing would be triggered as needed to overcome the snow accumulation
- an alternate wording for amendments to confirm priority for alleys abutting and adjacent to collector roads

At the September 6, 2011, Transportation and Infrastructure Committee meeting, the following motion was passed:

That Transportation and Infrastructure Committee recommend to City Council:

That the Snow and Ice Control Policy C409G, as outlined in Attachment 1 of the September 6, 2011, Transportation Services report 2011TS6162 be approved, with the following changes:

a) add a review period of one year after implementation
b) at the end of the purpose statement, immediately after the word" environment" add "and providing excellent customer/citizen service"
c) under the heading Residential Blading, in the first bullet, delete "a 5 cm snow pack" and replace with "bare pavement (with windrows)"
d) under the heading Snow Removal, in the second bullet, delete "once per winter" and replace with "as required"
e) under the heading Roadway Plowing, in the second bullet, immediately following "and collector roadways" add "roadways abutting schools,"
f) under the heading Residential Blading, in the fifth bullet, immediately following "hauled

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At the March 16, 2011, City Council meeting, the following motion was passed.

2. That the Snow and Ice Control Policy – C409G (a revision to the Winter Road Maintenance Program Policy C409F), as outlined in Attachment 1 of the March 8, 2011 Transportation Services report 2011TD2315, be referred to the Peer Review Panel, and upon completion of the review, Policy recommendations be brought forward to Transportation and Infrastructure Committee.

Report

Additional Information requested

Attachment 4 provides a copy of the Snow and Ice Control Policy C409G showing the recommended changes. This provides a response to part b and c of the referral motion.

a) a budget package detailing the additional cost implications of the motion on the floor.
The financial impact of blading to bare pavement is broken down as follows:

- There would be an additional cost per cycle due to lower productivity (slower process) of $0.8 million over the proposed 2012 budget.
- One cycle of grader plowing during the season would be required as a clean up from blading with truck plows, an additional $3 million.
- Total additional impact of $3.8 million.

As part of the review of the City's Snow and Ice Control Program, the Peer Review Panel looked at the current Winter Road Maintenance Policy and proposed Snow and Ice Control Policy that was presented to City Council on March 16, 2011. The Peer Review Panel made twelve recommendations in their report to the City Manager. Of these recommendations, three were focused directly on the Policy:

- *Recommendation 5: Adjust the current Policy so that pedestrians, cyclists and/or transit routes are identified in the priority hierarchy. Include information about responsibilities of citizens and the City of Edmonton for clearing of sidewalks.*
- *Recommendation 7: Provide only four levels of roadway priority in the Snow and Ice Control Policy.*
- *Recommendation 8: Correlate winter maintenance activities and timelines with priorities listed in the Snow and Ice Control Policy. This information may be included in the roadway priority description for added clarity.*

All of these recommendations have been incorporated into the draft Snow and Ice Control Policy C409G (Attachment 1). Active transportation modes have been identified; multi use trails, sidewalks and bicycle lanes; and service levels indicated. Transit facilities have also been identified and a service level has been set.

Attachment 3 provides Administration's response to all ten Recommendations of the Peer Review Panel.

The number of roadway priorities has been reduced from six to four and the plowing and sanding service levels for each priority have been incorporated in the priority descriptions.

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Policy

The proposed Snow and Ice Control Policy C409G replaces the Winter Road Maintenance Program Policy C409F.

Corporate Outcomes

An effective snow and ice control program supports "The Way We Move" strategic goal of a well maintained infrastructure and ensures a safe reliable transportation network.

Budget/Financial Implications

Capital funding of the changes for implementing the new Snow and Ice Control Policy were previously approved by City Council on March 16, 2011. The additional capital included 20 sander/plow trucks, two loaders and five blower attachments. Operating impacts of supporting the new equipment and implementing the new Snow and Ice Control Policy will be reviewed as part of the 2012 Operating Budget through a service package.

Justification of Recommendation

The proposed amendments to the Motion on the Floor address the questions put forward at the September 14, 2011, City Council meeting, and the subsequent motion from that meeting. The proposed policy incorporates recommendations from the Peer Review Panel, addresses the improved service levels for residential roads and identifies the response to a severe snowfall event and snow emergency in addition to the normal winter response.

Attachments

1. City Policy C409G – Snow and Ice Control Policy
2. Side by Side Comparison of Current Policy C409F with recommended Policy C409G
3. Response to Recommendations from SNIC Peer Review
4. Snow and Ice Control Policy C409G showing the recommended revisions

Others Reviewing this Report

- L. Rosen, Chief Financial Officer and Treasurer

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L. Rosen, Chief Financial Officer and Treasurer; and
S. Farbrother, City Manager, answered Council's questions.

In Favour: **Carried**

S. Mandel, A. Sohi, B. Anderson, B. Henderson, D. Iveson, D. Loken, E. Gibbons, J. Batty, K. Diotte, K. Leibovici, T. Caterina

Absent:

K. Krushell, L. Sloan

6.2 **Snow and Ice Control Policy - C409G Review**

Moved: B. Henderson - K. Leibovici (Made at the September 14, 2011, City Council meeting):

That the Snow and Ice Control Policy C409G, as outlined in Attachment 1 of the September 6, 2011, Transportation Services report 2011TS6162 be approved, with the following changes:

a) add a review period of one year after implementation
b) at the end of the purpose statement, immediately after the word "environment" add "and providing excellent customer/citizen service"
c) under the heading Residential Blading, in the first bullet, delete "a 5 cm snow pack" and replace with "bare pavement (with windrows)"
d) under the heading Snow Removal, in the second bullet, delete "once per winter" and replace with "as required"
e) under the heading Roadway Plowing, in the second bullet, immediately following "and collector roadways" add "roadways abutting schools,"
f) under the heading Residential Blading, in the fifth bullet, immediately following "hauled away" add "except to permit safe passage"

A. Sinclair, City Clerk; S. Farbrother, City Manager; and B. Stephenson and B. Dunford, Transportation Services, answered Council's questions.

Amendment moved K. Leibovici - D. Iveson:

That the Motion on the Floor be amended to add clauses g and h as follows:

g) under the heading Residential Blading, add a bullet "Alleys adjacent to roadways subject to seasonal parking bans will be given priority and will be bladed at the start of the residential

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blading cycle"

h) under the heading Priority 4, add a third bullet "alleys adjacent to roadways subject to seasonal parking bans will be done first

B. Stephenson and B. Dunford, Transportation Services, answered Council's questions.

In Favour: **Carried**

S. Mandel, A. Sohi, B. Anderson, B. Henderson, D. Iveson, D. Loken, E. Gibbons, J. Batty, K. Diotte, K. Leibovici, T. Caterina

Absent:

K. Krushell, L. Sloan

B. Stephenson and B. Dunford, Transportation Services, answered Council's questions.

Amendment moved D. Iveson - E. Gibbons:

That the Motion on the Floor be amended to replace clause "c" with the following:

c) under the heading Residential Blading, the seventh bullet be deleted and replaced with "in the event that a 5 cm snow pack cannot be maintained on residential roads within one cycle of blading, plowing to bare pavement will be initiated where required"

In Favour: **Carried**

S. Mandel, A. Sohi, B. Anderson, B. Henderson, D. Iveson, D. Loken, E. Gibbons, J. Batty, K. Diotte, T. Caterina

In Favour: **Carried**

K. Leibovici

Absent:

K. Krushell, L. Sloan

Motion as Amended, put:

That the Snow and Ice Control Policy C409G, as outlined in Attachment 1 of the September 6, 2011, Transportation Services report 2011TS6162 be approved, with the following changes: a) add a review period of one year after implementation b) at the end of the purpose statement, immediately after the word "environment" add "and providing excellent	Transportation

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customer/citizen service" c) under the heading Residential Blading, the seventh bullet be deleted and replaced with "in the event that a 5 cm snow pack cannot be maintained on residential roads within one cycle of blading, plowing to bare pavement will be initiated where required" d) under the heading Snow Removal, in the second bullet, delete "once per winter" and replace with "as required" e) under the heading Roadway Plowing, in the second bullet, immediately following "and collector roadways" add "roadways abutting schools," f) under the heading Residential Blading, in the fifth bullet, immediately following "hauled away" add "except to permit safe passage" g) under the heading Residential Blading, add a bullet "Alleys adjacent to roadways subject to seasonal parking bans will be given priority and will be bladed at the start of the residential blading cycle" h) under the heading Priority 4, add a third bullet "alleys adjacent to roadways subject to seasonal parking bans will be done first	

B. Stephenson and B. Dunford, Transportation Services; and A. Sinclair, City Clerk, answered Council's questions.

In Favour: **Carried**

S. Mandel, A. Sohi, B. Anderson, B. Henderson, D. Iveson, D. Loken, E. Gibbons, J. Batty, K. Diotte, T. Caterina

Opposed:

K. Leibovici

Absent:

K. Krushell, L. Sloan

6.3 **2010-2013 Council Initiatives - Transportation Services - Traffic Safety Terms of Reference**

Moved D. Iveson - D. Loken:

That the Terms of Reference for the 2010-2013 Council Initiative, Traffic Safety, as outlined in Attachment 1 of the September 20, 2011, Transportation Services report	Transportation

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