

Policy Title:		Applies to:		Reference #
Winter Maintenance Policy		Roadways & Transportation		2021-01-CO
Authority		Dates:		Total # of Pages
City Council		Effective:	01-NOV-2021	16
		Last Review:	01-OCT-2023	
		Next Review:	01-OCT-2024	
Alignment with Corporate Direction	<p>The Policy supports the Transportation Master Plan (TMP) and <i>Design Regina: The Official Community Plan (OCP)</i>, specifically:</p> <p><i>OCP Section D3, Transportation:</i></p> <ul style="list-style-type: none"> • <i>Goal 1 – Sustainable Transportation Choices; Offer a range of year-round sustainable transportation choices for all, including a complete street framework.</i> • <i>Goal 2 – Public Transit; Elevate the role of public transit.</i> • <i>Goal 3 – Integrated Transportation and Land Use Planning; Integrate transportation and land-use planning in order to better facilitate walking, cycling, and transit trips.</i> • <i>Goal 4 – Road network Capacity; Optimize road network capacity.</i> • <i>Goal 5 – Active Transportation; Promote active transportation for healthier communities</i> <p>The Policy supports City Council’s resolution to continue providing winter maintenance that effectively supports the health, attractiveness, and economic viability of our community.</p>			
Other Guiding Documents	<ul style="list-style-type: none"> • City of Regina VISION statement • City of Regina Strategic Plan (2018-2021) • Customer Level of Service (CLOS) FOR Winter Maintenance (2021-2022). See Appendix C • City of Regina Salt Management Plan (2021-2022) • <i>The Clean Property Bylaw</i> (No. 9881) • <i>The Regina Traffic Bylaw, 1997</i> (No. 9900) • City of Regina Transit Routes (Ongoing) 			

1.0 Purpose

The purpose of the Winter Maintenance Program is to provide winter maintenance that effectively supports the health, safety, attractiveness, and economic viability of this community. This policy provides an overview of guidelines for the Winter Maintenance Program. Both the policy and program are intended to be complimentary with the City of Regina’s (City) Salt Management Plan.

2.0 Scope

The scope of the Winter Maintenance Program and Policy includes public right of way assets involving streets, sidewalks, bicycles only lanes, alleys and easements.

The scope of the Winter Maintenance Program and Policy does not include the following public and private property or right of way assets that are located within City limits:

- a) in City parks and open spaces
- b) on City facilities and properties or on properties that are controlled by the City
- c) in the F.W. Hill Mall
- d) sidewalks that are property owner's responsibility to clear in accordance with *The Clean Property Bylaw*
- e) on properties controlled by the Provincial Capital Commission
- f) are the responsibility of the Ministry of Highways
- g) on private roads, sidewalks, facilities, or properties

The Winter Road Maintenance Program includes following general activities:

- a) snow plowing of streets, roads, alleys, bicycles only lanes and sidewalks
- b) ice control of streets, roads, alleys, bicycles only lanes and sidewalks
- c) snow removal
- d) snow storage
- e) opening catch basins
- f) success indicators, monitoring, documentation and reporting

3.0 Definitions

Alley – means a public highway intended primarily to give vehicles access to the rear or side of real property.

Bicycles only lane - means that portion of a longitudinal division of a highway that is designated for bicycles only by the *Traffic Bylaw* and is indicated through signs and/or pavement markings as being for bicycles only.

Business Day - means a working day of the week (Monday to Friday) with working hours of 8:00 a.m. to 4:45 p.m.

Downtown - means the area of the city of Regina bounded by Victoria Avenue to the south, Albert Street to the west, Saskatchewan Drive to the north and Broad Street to the east, including the sidewalks and boulevard on both sides of those streets;

Ice Control – the application of aggregate abrasives and/or chemicals to a driving or walking surface to improve traction.

Parking lane- means that portion of longitudinal division of a highway of sufficient width to accommodate the storage of a single line of vehicles adjacent to the curb and where parking is permitted.

Public highway- means a street, alley or other road designed and intended for or used by the general public for the passage of vehicles, but does not include any privately or publicly owned area primarily intended to be used for the parking of vehicles and the necessary passageways on that area;

Plow Snow (for Alleys) – the pushing of accumulated snow from the centreline of the alley surface, leaving snow ridges on each side, such that one vehicle width is provided.

Plow Snow (for Roads) - the pushing of accumulated snow from driving or parking lanes. The resulting snow ridges may be stored in centre medians or in parking lanes adjacent to the curb.

Plow Snow (for Sidewalks) – the pushing of accumulated snow from the sidewalk surface, resulting in a compacted snow walking surface, leaving snow ridges on both sides of the sidewalk.

Road- means a thoroughfare or a street intended for the use by vehicles. Roads may be paved or gravel. Roads provide passage and parking for vehicles as per instructions on the displayed traffic signs.

Roadway - that portion of the street set aside for the specific use of the general public for the passage of vehicles but does not include any privately or publicly owned area primarily intended to be used for the parking of vehicles and the necessary passageways on that area.

Road Categories for Systematic Plowing and Ice Control – every road segment within the entire road network is classified into one of five categories which are defined as follows:

Category 1	<ul style="list-style-type: none"> • freeways/expressways • major arterials • Roads on a designated hospital route
Category 2	<ul style="list-style-type: none"> • Minor arterial roads, major collector roads with traffic volumes greater than 5,000 vehicles per day (VPD) • transit routes • all roads in Downtown • all bicycles only lanes (bicycles only lanes)
Category 3	<ul style="list-style-type: none"> • Major collector roads with traffic volumes less than 5,000 VPD, minor collector roads • industrial/commercial roads • residential/local roads with traffic volume greater than 1,500 VPD

	<ul style="list-style-type: none"> roads adjacent to School Drop-off Zones
Category 4	All gravel roads
Category 5	All local/residential roads with traffic volume less than 1,500 VPD

Routine-Mode Maintenance- refers to the post snow event cleanup including plowing and ice control as required, on the road network or sidewalks to establish seasonal driving or walking conditions and to correct deficiencies resulting from cumulative light snow events, spot drifting, or traffic effects and prepare for future snow events during the season. There are no timelines associated with Routine-Mode with maintaining the road network to Seasonal Driving Conditions, correcting deficiencies and preparing for future Snow Events.

Salt Management Plan – the most recent version of the City’s plan developed in accordance with Environment Canada’s “Code of Practice for the Environmental Management of Road Salts”.

Sandbox Program- The City provides free sand/salt mix for Regina residents to apply to icy sidewalks throughout the winter to help residents increase safety for pedestrians by applying the mix to sidewalks. This program is for individual residents and not for contractors.

School Drop-off Zone- pick-up or drop-off location as marked at the entrance of schools.

School Zone- as defined in *The Regina Traffic Bylaw, 1997 Section 10(1)(b)*.

Seasonal Winter Driving Conditions- are those conditions identified in Appendix D, Winter Conditions Terminology to this Policy.

Sidewalk – means the actual sidewalk where constructed on or adjacent to a part of a public highway or that portion of a public highway intended primarily for use by pedestrians or any structure in a park or other public place designed and intended for use by pedestrians.

Snow Event – a combination of snow, rain, freezing rain or wind, or other weather conditions causing snow or ice to accumulate on driving or walking surfaces or that have a similar effect on road surfaces. The end of a Snow Event is when precipitation or weather conditions no longer accumulates on road or sidewalk surfaces for a sufficient period of time to allow complete systematic plowing and ice control to be completed as specified in this Policy.

Snow Removal – refers to the reducing or clearing away of snow ridges or piles.

Snow Ridge – the row of excess snow formed by plowing roads, alleys, or sidewalks. *Snow ridges up to 30 centimetres height may be left across driveways, intersections, alleys and signed unloading zones after the plow.*

Snow Routes -refer to the designated route including specific road network and streets where a 24-hour parking ban is implemented in order to keep traffic moving and expedite snow plowing after heavy snowfall. Minimum eight hour notification is provided to residents and businesses by adopting multiple communication channels. Details about the Snow Route Program are available on Regina.ca/snowroutes.

Storm Mode Maintenance- refers to plowing and ice control (as required) of streets, roads, alleys or sidewalks when the snow event is still in progress.

Street - means that portion of a public highway lying between curbs where constructed and intended primarily for use by vehicles, or where no curb exists, that portion of a public highway intended for use by vehicles;

Systematic Ice Control - refers to a methodical approach taken to complete one ice control or sanding cycle on the road network or sidewalks as specified in this Policy following the end of a Snow Event or freezing rain.

Systematic Mode Maintenance- refers to performing Systematic Plowing and Systematic Ice Control activities during winter season.

Systematic Plowing– refers to a methodical approach taken to complete one plowing cycle on the road network or sidewalks as specified in this Policy following the end of a Snow Event.

Transit Stop- refers to the marked locations in the city where City buses stop to load or unload passengers utilizing City’s conventional transit system.

Typical Winter –refers to the typical weather conditions for Regina based on the past five winter seasons between October and April time period, and includes all or one or more of the following parameters:

- (a) average snow fall amounts
- (b) average number of snow days with greater than two centimetres Snow Event
- (c) average number of freeze thaw days during the season
- (d) average monthly temperatures ranging
- (e) high wind speeds on several days in a season causing drifting or blowing snow conditions

Weather Authority - means the federal, provincial or local weather source that the City uses to determine weather related measurements or conditions for the purpose of this Policy and includes but is not limited to Environment Canada and other professional weather forecasting models and services as the City considers appropriate and reliable.

4.0 Policy

4.1 General

The performance and end condition objectives outlined by this policy include the following underlying assumptions:

- a) That operational activities are being undertaken during a typical weather event, during a Typical Winter season. The City acknowledges that Regina may be subject to extreme or extraordinary weather which may diminish the City ability to achieve the policy objectives within the targeted time frames.
- b) The activities detailed herein attempt to reduce hazardous pavement conditions including road, sidewalk and alley surfaces caused by winter weather; however, the City acknowledges that weather conditions are beyond the City’s control and dangerous conditions may nonetheless result despite the City’s adherence to the Policy.
- c) The City’s decisions and measurements relating to weather conditions in this Policy will be based on collective information the City obtains from various Weather Authority sources like Government of Canada’s Weather, Climate and Hazards related services, weather forecasting professionals (agencies) and actual field conditions.
- d) That road safety is a cooperative activity between users of the roadways and the City. The City expects that users of the roadways will exercise reasonable care for their own safety and the safety of others when travelling on the road during winter conditions.

When weather conditions become so severe as determined by Manager, Roadways Seasonal Operations or their designate that the City’s winter maintenance operations cannot continue without compromising public and/or employee safety, then temporary road closures may be implemented. The Manager of Roadways Seasonal Operations, or their designate, makes the decision to temporarily close a road. When this occurs, City’s Dispatch Office shall contact:

- City Manager’s Office
- Communications & Engagement department
- Emergency Planning and Business Continuity Branch (EP&BC)
- Fire, Police, and Emergency Medical Services
- Traffic Operations branch

4.2 Levels of Service

Objective 1	Roads are made passable for emergency (fire, police, ambulance) response vehicles.
Objective 2	Seasonal winter driving conditions on roads and intersections are provided on key routes through Systematic Plowing and ice control operations.

Objective 3	Sidewalks access is provided on specific City-maintained sidewalk locations through systematic sidewalk snow plowing and ice control operations.
Objective 4	Access is provided in all alleys for the solid waste and recycling collection, utility companies and residents.
Objective 5	Safety and travel efficiency is ensured through the plowing and removal of snow ridges from in front of guardrails and off of bridge decks.
Objective 6	Seasonal winter driving conditions are maintained through snow removal operations.
Objective 7	A snow storage facility is available during the peak winter season for businesses, residents and City crews to store a ¹ reasonable amount of snow brought from private and public properties.
Objective 8	School zones are safe during winter.
Objective 9	Flooding conditions caused due to snow and ice melt are mitigated by providing catch basins opening service and by creating drainage channels during spring season as required.
Objective 10	Seasonal winter biking conditions are provided on bicycles only lanes through Systematic Plowing and ice control operations.
Objective 11	Transit stops are accessible
Objective 12	City roads along fields and open areas are accessible for emergency response vehicles, transit, and other City services by creating snow ridges where possible.
Objective 13	Availability of free sand for residents is improved to help mitigate icy sidewalk conditions by expanding the Sandbox Program citywide
Objective 14	Effectiveness of snow-plow operation are improved by temporarily removing parked cars through the Snow Routes Program.

4.3 Communication Plan

¹ Factors like weather conditions and overall safety at the snow storage site will decide what would be the 'reasonable' amount of snow that can be stored safely every season. Unsafe conditions due to factors like frequent freeze thaw conditions may force City to shut the snow storage site during middle of the season.

The Manager of Roadway Seasonal Operations or their designate shall work with Communications & Engagement to create a communication plan to clearly outline the level of service to be expected by residents leading into the winter season and throughout the winter season as required.

5.0 Roles & Responsibilities

This Policy is established by City Council.

The Manager of Roadways Seasonal Operations is responsible for the day-to-day operation and coordination of the Roadway Seasonal Operation’s Winter Maintenance Program.

6.0 Reference Material

- City of Regina Salt Management Plan
- *The Clean Property Bylaw*, No. 9881
- *The Regina Traffic Bylaw, 1997, No. 9900*

7.0 Revision History

Date	Description of Change	(Re)-Approval Required (y/n)
01-NOV-2021	Initial Release.	Yes

**Appendix A (of Appendix B)
Winter Maintenance Policy- Level of Service (LOS)**

LOS Objective	Measures	Attribute	Goal	Data Source	Data Owner	Seasonal Monitoring Tools	Documentation & Reporting
ROADS							
<p>Objective 1 Roads are made passable for emergency (fire, police, ambulance) response vehicles.</p>	<p>All Roads: Level of Service</p> <ul style="list-style-type: none"> Roads will be made passable for emergency response vehicles Storm Mode Maintenance will be provided When severe snow event occurs, operational focus would be to establish and maintain passability on these roads 	Accessibility, Health & Safety, Legislative	<p>All Road Categories (1-5):</p> <ul style="list-style-type: none"> Requests by the emergency response vehicles to make any route passable are attended on top priority 	<ul style="list-style-type: none"> Site inspections Service requests Daily shift supervisor's Plow & Ice Control Report Feedback from City's Operations staff, Regina Police Services, Emergency Medical Services (Saskatchewan Health Authority), Fire and Protective Services 	Seasonal Roadways Operations, Regina Police Services, Emergency Medical Services (Saskatchewan Health Authority), Fire and Protective Services	<ul style="list-style-type: none"> Number of service requests Telematics data Plow/ ice-control/ snow Removal lists 	<ul style="list-style-type: none"> Annual Winter Maintenance Summary Report to Council, Post -Snow Event Report to key stakeholders
<p>Objective 2 Seasonal Winter Driving Conditions on roads and intersections are provided on key routes through Systematic Plowing and Ice Control operations.</p>	<p>Category 1 Roads: Targeted timeline to complete Systematic Plowing and Systematic Ice Control:</p> <ul style="list-style-type: none"> Within 24 hours of end of Snow Event with 5 cm or more snow accumulation <p>Level of Service:</p> <ul style="list-style-type: none"> Snow ridges will be reduced Snow ridges will be left around parked vehicles Driving lanes and designated turning lanes will be plowed <p>Routine Mode Maintenance:</p> <ul style="list-style-type: none"> Post snow event clean-up will be completed within seven days following Systematic Plowing competition <p>Category 2 Roads: Targeted timeline to complete Systematic Plowing and Systematic Ice Control:</p> <ul style="list-style-type: none"> Is within 36 hours of end of Snow Event with 5 cm or more snow accumulation <p>Level of Service</p> <ul style="list-style-type: none"> Snow ridges will be reduced Snow ridges will be left around parked vehicles 	Accessibility, Health & Safety, Legislative	<p>All Road Categories (1-5):</p> <ul style="list-style-type: none"> Ensure all Levels of Service mentioned under 'Measures' are met consistently on Category 1-5 roads during the season and Seasonal Winter Driving Conditions are restored within specified timelines for respective road category Reasons for any deviations from the goal are analysed and reported 	<ul style="list-style-type: none"> Site inspections Service requests Daily shift supervisor's Plow & Ice Control Report Feedback from City Transit Operations staff 	Seasonal Roadways Operations	<ul style="list-style-type: none"> Number of service requests, Telematics data Plow/ ice-control/ snow Removal lists 	<ul style="list-style-type: none"> Annual Winter Maintenance Summary Report to Council Post -Snow Event Report to key stakeholders

	<ul style="list-style-type: none"> • Driving lanes and designated turning lanes will be plowed <p>Routine Mode Maintenance:</p> <ul style="list-style-type: none"> • Post snow event clean-up will be completed within seven days following Systematic Plowing competition <p><u>Category 3 Roads:</u></p> <p>Targeted timeline to complete Systematic Plowing and Ice Control:</p> <ul style="list-style-type: none"> • Is within 48 hours of end of Snow Event with 5 cm or more snow accumulation <p>Level of Service</p> <ul style="list-style-type: none"> • Snow ridges will be reduced • Snow ridges will be left around parked vehicles • Driving lanes and designated turning lanes will be plowed <p>Routine Mode Maintenance:</p> <ul style="list-style-type: none"> • Post snow event clean-up will be completed within 14 days following Systematic Plowing competition <p><u>Category 4 Roads:</u></p> <p>Targeted timeline to complete Systematic Plowing:</p> <ul style="list-style-type: none"> • Is within 60 hours of end of Snow Event with 5 cm or more snow accumulation <p>Level of Service</p> <ul style="list-style-type: none"> • Snow ridges will be reduced • Snow ridges will be left around parked vehicles • Driving lanes and designated turning lanes will be plowed • Roads will be plowed to a compacted snow surface <p>Routine Mode Maintenance:</p> <ul style="list-style-type: none"> • Post snow event clean-up will be completed within 14 days following Systematic Plowing competition <p><u>Category 5 Roads:</u></p> <p>Residential snow plowing activity is triggered by:</p> <ul style="list-style-type: none"> • 15 cm or more snow accumulation after a Snow Event • No specific Timeline to complete plowing and ice control activity on local/ residential roads <p>Level of Service:</p> <ul style="list-style-type: none"> • The ice control on residential roads is based on Field Supervisor inspection • Driving lanes and Turning lanes to be plowed to compacted snow surface 						
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	<ul style="list-style-type: none"> Rut heights to be reduced as required during the season based on Field Supervisor inspection. <p>Routine Mode Maintenance:</p> <ul style="list-style-type: none"> Post snow event clean-up will be completed within 21 days following Systematic Plowing competition <p>Note: Systematic Road Plowing operations may also be triggered in other circumstances where there are several snow accumulations of less than 5 cm, and the Manger of Roadways Seasonal Operations will make the determination to call a systematic response if warranted.</p>						
<p>Objective 3 Sidewalks access is provided on specific City-maintained sidewalk locations through systematic sidewalk Snow Plowing and Ice Control operations.</p>	<p>The City will make all City maintained sidewalks, that are typically adjacent to City owned properties, accessible for pedestrians as per details mentioned below:</p> <p>Level of Service:</p> <ul style="list-style-type: none"> Systematic Plowing for sidewalk operations will be triggered by 5 cm snow accumulations during a single Snow Event Targeted timeline to plow sidewalks is within 48 hours after the end of Snow Event. Sidewalk locations in Schedule B- Downtown will be plowed within 24 hours Sidewalk will be sanded after completion of plowing activity as required and as determined by the Field Supervisor 	<p>Accessibility, Customer Service, Health & Safety, Legislative</p>	<ul style="list-style-type: none"> Ensure all Levels of Service mentioned under 'Measures' are met consistently on all City-maintained sidewalks during the season and Seasonal Winter Walking conditions are restored within specified timelines Reasons for any deviations from the goal are analysed and reported 	<ul style="list-style-type: none"> Service requests Feedback from Operations staff Daily shift supervisor's Sidewalk Maintenance Report Enforcement data 	<p>Facilities Services, Parks & Open Space, Seasonal Roadways Operations, Bylaw Enforcement</p>	<ul style="list-style-type: none"> Number of service requests, Telematics data Plow/ ice-control/ snow Removal lists 	<ul style="list-style-type: none"> Annual Winter Maintenance Summary Report to Council Post -Snow Event Report to key stakeholders
<p>Objective 4 Access is provided in all alleys for the solid waste and recycling collection, utility companies and residents.</p>	<p>Alleys will be made passable for the collection of solid waste and access by utility companies and the public during the season. Ice control would be provided only as required.</p> <p>When 15 cm snow accumulation in a single Snow Event occurs then the City will Systematically Plow the alley network within 96 Hours of such Snow Event.</p> <p>Level of Service:</p> <ul style="list-style-type: none"> Single vehicle passage width would be provided on a compacted snow surface Rut heights to be reduced as required during the season based on Field Supervisor inspection Ice control would be provided as required on spot sections at the alley exit points and on grades exceeding 5%, based on Field Supervisor inspection Snow ridges may be formed on both sides of the plowed surface and are not reduced in height across garages, driveways, or parking lot entrances Driving lanes and Turning lanes to be plowed to compacted snow surface 	<p>Accessibility, Customer Service, Health & Safety</p>	<ul style="list-style-type: none"> Ensure all Levels of Service mentioned under 'Measures' are met consistently for City's alley network during the season All requests relating to solid waste and recycling collection, and utility companies' priorities are attended based on mutually agreed timelines Reasons for any deviations from the goal are analysed and reported 	<ul style="list-style-type: none"> Residential Plow lists/ maps Trouble spots Daily Shift-Supervisor's Report 	<p>Seasonal Roadways Operations</p>	<ul style="list-style-type: none"> Number of service requests, Telematics data, Alley maintenance lists 	<ul style="list-style-type: none"> Annual Winter Maintenance Summary Report to Council Post -Snow Event Report to key stakeholders

<p>Objective 5: Safety and travel efficiency are ensured through the plowing and removal of Snow Ridges from in front of guardrails and off of bridge decks.</p>	<p>As part of Routine Mode Maintenance, safety and travel efficiency will be improved through snow plowing and snow removal activities in front of guardrails, subways and bridge-decks all over the city.</p> <p>Level of Service:</p> <ul style="list-style-type: none"> • Safety and travel efficiency will be improved • Excessive amount of snow in front of guardrails, subways and bridge decks will be removed 	<p>Accessibility, Health & Safety, Legislative</p>	<ul style="list-style-type: none"> • All guardrails and bridge deck locations in the city are plowed and removed as required as part of Routine Mode Maintenance • Plow and removal activity during the season is consistently validated through field inspection • Reasons for any deviations from the goal are analysed and reported 	<ul style="list-style-type: none"> • Service requests • Parks pathways/ walkways lists • Feedback from Parks Operations Staff • Daily Shift Supervisor's Plow Report 	<p>Seasonal Roadways Operations</p>	<ul style="list-style-type: none"> • Number of service requests • Telematics data • Plow/ Ice-control/ snow removal lists 	<ul style="list-style-type: none"> • Annual Winter Maintenance Summary Report to Council • Post -Snow Event Report to key stakeholders
<p>Objective 6: Seasonal Winter Driving Conditions are maintained through Snow Removal operations.</p>	<p>Snow Ridges will be removed where they impact street, lane, travel widths or sight lines as determined by City staff on all Category 1 to 3 roads. Snow Removal would generally involve loading and hauling of snow off site.</p> <p>Level of Service:</p> <ul style="list-style-type: none"> • Snow Ridges will be reduced to a maximum height of 30 cm across driveways and intersections • Snow Ridges of any height would be removed from Accessible Parking Meter stalls within 24 hours of Systematic Plowing • Snow Ridges of any height would be removed from between signed accessibility parking spots. • Snow Ridges would be removed from both sides of the School Drop-off Zones • Snow Ridges would be removed at Transit stops. • Snow Ridges of any height may be left around parked vehicles • Snow Ridges in downtown metered parking stalls will be removed within 48 hours of Systematic Plow 	<p>Legislative, Accessibility, Health & Safety</p>	<ul style="list-style-type: none"> • Snow removal activity completed on all identified locations as per the level of service mentioned under 'Measures' • Reasons for any deviations from the goal are analysed and reported 	<ul style="list-style-type: none"> • Site inspections • Service requests • Daily shift supervisor's Snow Removal report • Feedback from stakeholders like Regina Police Service, Transit Operations staff, Regina Downtown Business Improvement District (RDBID) 	<p>Seasonal Roadways Operations</p>	<ul style="list-style-type: none"> • Number of service requests • Telematics data • Snow removal lists • Contractor tickets for contracted trucks 	<ul style="list-style-type: none"> • Annual Winter Maintenance Summary Report to Council • Post -Snow Event Report to key stakeholders
<p>Objective 7: A snow storage facility is available during the peak winter season for businesses, residents and City crews to store a ²reasonable amount of snow brought from private and public properties.</p>	<p>City owned and managed snow storage facility will be provided throughout the season to systematically store snow hauled by private contractors, residents and City crews.</p> <p>Level of Service:</p> <ul style="list-style-type: none"> • Number of days the snow storage site was open for public and businesses in a season • Number of safety concerns reported/ resolved in a season. • Number of Service Requests complaints received • Percentage of Cost recovered from private snow haulers as part of the Snow Storage Site user fee 	<p>Customer Service, Sustainability, Environmental Stewardship, Accessibility</p>	<ul style="list-style-type: none"> • Snow storage site open 24 hours a day 7 days a week throughout the season, weather permitting • Safety not compromised through regulated traffic flow, adequate lighting, adequate signage and well-maintained roads Daily tail-gate talks, immediate review of any safety concerns and creation of a corrective action plan to mitigate any safety related concerns for future • Approximately 60% of the cost to operate the Snow Storage Site is recovered to cover the cost of 	<ul style="list-style-type: none"> • Service requests • OnGuard reports • Monthly revenue 	<p>Seasonal Roadways Operations</p>	<ul style="list-style-type: none"> • Number of service requests • Snow Storage Site seasonal opening and closing dates • OnGuard reports based on RFID data • Contractor tickets for contracted trucks • Daily Activity Report, Daily 	<ul style="list-style-type: none"> • Annual Winter Maintenance Summary Report to Council • Post -Snow Event Report to key stakeholders • OnGuard Report for Snow Storage Site transactions

² Factors like weather conditions and overall safety at the snow storage site would decide what would be the 'reasonable' amount of snow that can be stored safely every season. Unsafe conditions due to factors like frequent freeze thaw conditions may force City to shut the snow storage site during middle of the season.

			<p>storing snow brought by private contractors and haulers (as per City's Official Community Plan OCP guidelines)</p> <ul style="list-style-type: none"> Reasons for any deviations from the goal are analysed and reported 			Tailgate Talk Report	
<p>Objective 8: School Zones are safe during winter</p>	<p>Snow Removal activity around School Drop-off Zones is enhanced on both sides of the road, after completion of a Systematic Plow following a Snow Event.</p> <p>Level of Service:</p> <ul style="list-style-type: none"> Snow Ridges of any height would be removed from both sides of the School Drop-off Zones within 72 hours 	Legislative, Health & Safety	<ul style="list-style-type: none"> Ensure the Level of Service mentioned under 'Measures' met consistently for the School Drop-off Zones during the season Reasons for any deviations from the goal are analysed and reported 	<ul style="list-style-type: none"> Dispatch calls Service requests Calls from Emergency Response Management teams 	Seasonal Roadways Operations	<ul style="list-style-type: none"> Number of service requests Telematics data Contractor tickets for contracted trucks Removal-tracking Lists Feedback from school boards 	<ul style="list-style-type: none"> Annual Winter Maintenance Summary Report to Council Post -Snow Event Report to key stakeholders
<p>Objective 9: Flooding conditions caused due to snow and ice melt are mitigated by providing catch basins opening service and by creating drainage channels during or before the onset of spring season as required.</p>	<p>Catch basin opening activity along the entire road network and creation of drainage channels in open areas as required to mitigate flooding conditions and manage drainage issues.</p> <p>Level of Service:</p> <ul style="list-style-type: none"> Snow and ice build-up from the surface of the catch basins is removed using equipment and hand crew during spring season as required Drainage channels are created before the onset of spring season in open areas adjacent to vulnerable areas as required Above activities may require deploying multiple crews and equipment towards the end of the winter season based on weather and field inspections 	Accessibility, Health & Safety, Legislative	<ul style="list-style-type: none"> All blocked catch basins due to snow and ice are opened as required during spring to improve drainage and mitigate flooding situations citywide Field inspections carried out to confirm all catch basins are providing drainage of snow and ice melt successfully Field inspections carried out to identify vulnerable open areas based on the amount of snow and create drainage channels on identified locations, as required Reasons for any deviations from the goal are analysed and reported 	<ul style="list-style-type: none"> Field inspections Service requests Daily shift supervisor's Activity Report 	Seasonal Roadways Operations	<ul style="list-style-type: none"> Number of service requests Catch basin sector maps 	<ul style="list-style-type: none"> Annual Winter Maintenance Summary Report to Council Post -Snow Event Report to key stakeholders
<p>Objective 10: Seasonal Winter Biking conditions are provided on Bicycles Only Lanes through Systematic Plowing and Ice Control operations.</p>	<p>Bicycles only lanes would be plowed, sanded and snow removed based on the road category as well as based on field inspection findings.</p> <p>Level of Service:</p> <ul style="list-style-type: none"> Since the current Bicycles only lanes are Category 2 lanes, these would be plowed within a targeted timeline of 36 hours after a Snow Event with 5 cm of snow The Bicycle Only Lanes will get the same level of service as Category 2 roads with additional monitoring through focused bike lane field inspections All bicycle only lanes would be cleared in a consistent manner 	Accessibility, Health & Safety, Legislative	<ul style="list-style-type: none"> All bicycles only lanes are inspected and plowed/ sanded/snow-removed as per the Level of Service mentioned under 'Measures'. Bicycle only lane surfaces are maintained consistently for each lane Reasons for any deviations from the goal are analysed and reported 	<ul style="list-style-type: none"> Field inspection Service requests Daily shift supervisor's Plow & Ice control report 	Seasonal Roadways Operations	<ul style="list-style-type: none"> Number of service requests Bicycle Only Route Maintenance Maps Telematics data Post-season stakeholder meeting 	<ul style="list-style-type: none"> Annual Winter Maintenance Summary Report to Council Post -Snow Event Report to key stakeholders

<p>Objective 11: Transit stops are accessible</p>	<p>Sidewalk adjacent to the transit stops plowed by City crews to mitigate accessibility challenges for users of the transit system.</p> <p>Level of Service:</p> <ul style="list-style-type: none"> • All sidewalks with transit stops would be cleared within 48 hours' time-period • Snow Ridges of any height would be removed from between signed Transit stops • Since the Transit routes are classified as category 2 or higher, these would be plowed within a targeted timeline of 36 hours after a Snow Event with 5 cm of snow <ul style="list-style-type: none"> ○ This would help in ensuring the parking lanes on transit routes along transit stops are cleared during Systematic Plow, thereby enhancing accessibility 	<p>Accessibility, Health & Safety, Sustainability</p>	<ul style="list-style-type: none"> • All sidewalks with transit stops are cleared of snow or ice and validated by quality inspections • Reasons for any deviations from the goal are analysed and reported 	<ul style="list-style-type: none"> • Field inspection • Service requests • Daily shift supervisor's Plow & Ice control Report 	<p>Seasonal Roadways Operations, Bylaw Enforcement</p>	<ul style="list-style-type: none"> • Number of service requests • Transit Route Maintenance Maps • Telematics Data • Post-season stakeholder meeting 	<ul style="list-style-type: none"> • Annual Winter Maintenance Summary Report to Council • Post -Snow Event Report to key stakeholders
<p>Objective 12: City roads along fields and open areas are accessible for emergency response vehicles, transit, and other City services by creating Snow Ridges where possible.</p>	<p>Snow Ridges would be created in open areas and fields (where permitted by property owners) to mitigate drifting and blowing snow on to the city roads and intersections as required.</p> <p>Level of Service:</p> <ul style="list-style-type: none"> • Snow Ridges created in open areas as required • Typically, the Snow Ridges will be created once there is enough snow on the ground • Snow Ridges will be inspected, added and maintained through the season as required • In addition to creating Snow Ridges adjacent to roads in open areas, City crews will utilize other winter maintenance techniques involving mechanically plowing and removing snow, as required 	<p>Accessibility, Sustainability, Health & Safety, Responsiveness, Customer Service</p>	<ul style="list-style-type: none"> • Single or multiple rows of snow ridges created at approved open locations around the City when sufficient snow available and Snow Ridges are warranted • Dedicated crew deployed to attend gravel roads, outer roads and Snow Ridges at approved locations • Reasons for any deviations from the goal are analysed and reported 	<ul style="list-style-type: none"> • Field inspection • Service requests • Shift supervisor's Report on Snow Ridges and Snow Plowing 	<p>Seasonal Roadways Operations</p>	<ul style="list-style-type: none"> • Number of service requests • Telematics data • Snow Ridge Map • Amount of time outer roads had to be closed due to blown-in snow/ drifting snow. 	<ul style="list-style-type: none"> • Annual Winter Maintenance Summary Report to Council • Post -Snow Event Report to key stakeholders
<p>Objective 13: Availability of free sand for residents is improved to help mitigate icy sidewalk conditions by expanding the Sandbox Program citywide.</p>	<p>The City of Regina provides free sand/salt mix for Regina residents to apply to icy sidewalks throughout the winter. This is to encourage residents to help increase safety for pedestrians by applying the sand-salt mix to sidewalks.</p> <p>Level of Service:</p> <ul style="list-style-type: none"> • Sandbox locations will be reviewed yearly, and new sandboxes added and serviced during winter, as required in the vicinity of high pedestrian traffic areas in the city throughout the winter season • Sandboxes will be placed at convenient locations in different parts of the City • All sandboxes placed in different parts of the city will be serviced every 24 hours or earlier based on the weather conditions • Crews fill the sandboxes as soon as the level of sand in the sandbox is less than a quarter full • The sandboxes are meant for individual use and not for contractors serving multiple customers 	<p>Accessibility, Health & Safety, Legislative, Customer Service</p>	<ul style="list-style-type: none"> • Ensure the Level of Service mentioned under 'Measures' met consistently for all sandbox locations throughout the season • Reasons for any deviations from the goal are analysed and reported 	<ul style="list-style-type: none"> • Field inspection • Service requests • Shift supervisor's Report on Snow Ridges • Material consumption data 	<p>Seasonal Roadways Operations</p>	<ul style="list-style-type: none"> • Number of Service Requests • Sandbox Service Reports • Material Consumption Report 	<ul style="list-style-type: none"> • Annual Winter Maintenance Summary Report to Council • Post -Snow Event Report to key stakeholders

<p>Objective 14: Effectiveness of snow-plow operation are improved by temporarily removing parked cars through expansion of the Snow Routes Program, as required.</p>	<p>Snow Routes Program is expanded to improve winter maintenance operation efficiency and end conditions on.</p> <p>Level of Service:</p> <ul style="list-style-type: none"> • Snow Routes will typically come in effect once there is 5cm or more snow on the ground or as determined by the Manager of Roadways Seasonal Operation based on the road conditions • Snow Route locations would be plowed within 48 hours • Downtown snow removal will be coordinated within Snow Route notification timelines • Minimum 8 hours notification will be provided prior to the start of the Snow Route parking bans • Residents and businesses will be able to sign-up for an email notification system by following easy steps 	<p>Accessibility, Health & Safety</p>	<ul style="list-style-type: none"> • Ensure the Level of Service mentioned under 'Measures' met consistently for all Snow Route locations during the season • Auto-notification facility to sign-up for Snow Route notifications available for all residents and businesses • Reasons for any deviations from the goal are analysed and reported 	<ul style="list-style-type: none"> • Shift supervisor's Report on Snow Routes • Field inspection 	<p>Seasonal Roadways Operations</p>	<ul style="list-style-type: none"> • Snow Routes locations map • Snow Route Plow crew report on timelines • Number of Parking Tickets issued • Telematics data 	<ul style="list-style-type: none"> • Annual Winter Maintenance Summary Report to Council • Post -Snow Event Report to key stakeholders
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Appendix B (of Appendix B) – Winter Road Condition Terminology

The following are some typical winter conditions experienced in Regina and their definitions.

Condition	Definition
Visibility Good	A driver can see more than 500 metres.
Visibility Poor	A driver can see less than 250 metres. Under this condition, winter maintenance equipment will not begin work on the road until visibility improves. Equipment already on the road may be removed if visibility continues to deteriorate.
Visibility Zero	A driver can see less than 100 metres. Under this condition, winter maintenance equipment may be removed and road may be temporarily closed.
Street Closed	Street is impassable because it has been closed for operational reasons or weather.
Drifting Snow	Ground drifting caused by winds which blows snow which may adversely affect driving surface conditions, such as sticking snow or reducing visibility.
Heavy Snow	More than five centimetres of loose snow covers the Road resulting in traffic encountering difficulties when moving or passing.
Icy Conditions	Street, Road, alley or Sidewalk surface is covered with ice causing hazardous conditions for drivers and pedestrians due to reduced surface traction
Icy or Slippery sections	A minor situation causing reduction in the surface traction due to intermittent rain, frost, sticking snow or ice patches. This includes light pavement frost
Loose Snow	Loose snow less than five centimetres of loose snow covers the street and may cause driving difficulties.
Pavement Frost	Buildup of frost on a Street, Sidewalk, Roads or alley surface that reduces braking effectiveness of vehicles or creates hazardous walking conditions.
Seasonal Winter Driving	No specific problems with driving however there could be the occasional condition as mentioned in this table including icy conditions, slush, snow packed, loose snow or other impediments to driving. Extra caution is required by road users.
Seasonal Winter Biking	No specific problem with bicycling, however there could be the occasional condition as mentioned in this table including icy conditions, slush, snow packed, loose snow or other impediments to biking. Extra caution is required by road users.
Seasonal Winter Walking	No specific problem with walking on the sidewalks, however there could be the occasional condition as mentioned in this table including icy conditions, slush, snow packed, loose snow, snow piles or other impediments to walking. Extra caution is required by sidewalk users.
Slush	A buildup of ice or snow and water on the pavement as a result of snow fall when pavement temperatures are at or near the freezing point. This creates driving conditions that may cause an unsuspecting driver to lose control of a vehicle.
Snow Drifts	Small snow dunes or snow piles on the Roads, Street sections, Sidewalks or alleys at intermittent intervals and are most likely to occur on such infrastructure in open areas.
Swirling Snow	A condition created by traffic in loose snow that reduces visibility.
Snow Packed	This condition exists where the entire driving or walking surface is covered with packed snow.
Fog	Moist air low to the ground resulting in reduced visibility.
Emergency Winter Response	Excessive amount of snow, ice, wind impeding Normal Winter Driving as well as snow and ice maintenance activities specified under Winter Maintenance Policy. City would follow an Emergency Winter Response Plan.