

The Corporation of the City of Clarence-Rockland

Winter Maintenance Policy			
Code	POL2004.1-2411		
Jurisdiction	Operations		
Approved by	Resolution 2014-118	Date	2024-11-13

1.0 Policy Statement

The City of Clarence-Rockland shall provide winter maintenance operations in accordance with this policy as reasonably practicable, in order to meet provincial maintenance standards for municipal highways per O.Reg. 239/02, as amended, while striving to minimize adverse impacts to the environment.

The City commits to ongoing staff training and education for winter control maintenance staff and monitoring the effectiveness of winter operations. The City will continually review, assess and implement new approaches, procedures, and technologies to achieve continuous improvement and operational efficiencies with respect to winter operations.

2.0 Purpose/Objective

The City of Clarence-Rockland is committed to delivering safe, cost-effective winter operations. The Winter Control Policy provides framework for winter operations performed by the City of Clarence-Rockland in order to achieve the prescribed levels of service and standards in accordance with O.Reg. 239/02 the minimum maintenance standards for municipal highways under the Municipal Act.

3.0 Definitions

Asset for the purpose of this policy means a roadway, bicycle lane, sidewalk and/or multi-use pathway.

Average Daily Traffic (ADT) is a technical measurement of traffic volume on a road, in both directions. Conversion factors, which vary depending on time of year and week, extrapolate daily traffic counts into ADT.

Bicycle facility means the on-road and in-boulevard cycling facilities listed in Book 18 of the Ontario Traffic Manual;

Bicycle lane means a portion of a roadway that has been designated by pavement markings or signs for the preferential or exclusive use of cyclists, or a portion of a roadway that has been designated for the exclusive use of cyclists by signs and a physical or marked buffer;

CM means centimetres;

Day means a 24-hour period;

Ice means all kinds of ice, however formed;

Main street has the same meaning as identified in the City's Official Plan;

Major collector has the same meaning as identified in the City's Official Plan;

Minor collector has the same meaning as identified in the City's Official Plan;

Multi-use pathway means for the purpose of this policy, the part of the highway specifically set aside or commonly understood to be for active transportation use, typically consisting of a paved surface but does not include crosswalks, medians, boulevards, shoulders or any part of the multi-use pathway where cleared snow has been deposited;

Residential road and lane has the same meaning as identified in the City's Official Plan;

Roadway has the same meaning as in subsection 1 (1) of the Highway Traffic Act;

Rural local road has the same meaning as identified in the City's Official Plan;

Sidewalk means the part of the highway specifically set aside or commonly understood to be for pedestrian use, typically consisting of a paved surface but does not include Crosswalks, medians, boulevards, shoulders or any part of the sidewalk where cleared snow has been deposited;

Significant weather event means an approaching or occurring weather hazard with the potential to pose a significant danger to users of the highways within the City;

Snow accumulation means the natural accumulation of any of the following that, alone or together, covers more than half a lane width of a roadway:

1. Newly-fallen snow.
2. Wind-blown snow.
3. Slush;

Substantial probability means a significant likelihood considerably in excess of 51 per cent;

Surface means the top of a sidewalk, multi-use pathway, roadway or shoulder;

Weather means air temperature, wind and precipitation;

Weather hazard means the weather hazards determined by Environment Canada as meeting the Criteria for the issuance of an alert under its Public Weather Alerting Program. O. Reg. 239/02, s. 1 (1); O. Reg. 23/10, s. 1 (1); O. Reg. 47/13, s. 1; O. Reg. 366/18, s. 1 (1, 2).

4.0 Scope

The City of Clarence-Rockland provides winter operations maintenance on City owned Assets.

5.0 Procedure/Guidelines

5.1. General

5.1.1. Winter Season

For operational purposes, the winter season commences on November 15 and is completed by April 15, while acknowledging that winter events may occur outside of this timeframe. Should winter events occur outside this timeframe, the City will endeavor to meet the Level of Service (LOS) as identified in this winter control policy.

5.1.2. Weather Monitoring

The City performs weather monitoring as per the Minimum Maintenance Standards (MMS), O.Reg. 239/02. As soon as winter conditions arise, the City monitors the weather, both current and forecast to occur in the next 24 hours three times per day at intervals as determined as appropriate by the City. Weather monitoring can consist of monitoring daily weather forecasts, measuring air and roadway temperatures or receiving electronic weather forecasts and alerts.

5.1.3. Winter Patrol

The City performs winter Asset patrol per O.Reg. 239/02 Minimum Maintenance Standards. If it is determined by the City that the weather monitoring indicates that there is a substantial probability of snow accumulation or ice formation on a City Asset, the City will patrol the assets that the City selects as representative of its Assets, at intervals deemed necessary by the City, to check for such conditions.

Additionally, on the approach of a winter event and/or during a winter event, selected representative Assets patrolled may need to be altered depending on the type and severity of the winter event or the direction from which the storm approaches.

The purpose of the winter road patrol is to monitor and record weather and Asset conditions and mobilize winter maintenance operators and equipment should a winter event response be required. City staff will initiate the mobilization of both City and contractor equipment if needed.

During the Winter season as defined in section 5.1.1. of each winter season (weather dependent), City Assets are patrolled evenings and overnight as required.

5.2. **Classification and Priority System**

5.2.1 Road classification and functional classes

All roads throughout the province are classified using the Average Daily Traffic (ADT) and the posted speed limit. Higher classified roads are typically collector roads or highways with high ADT and posted speeds. Traditionally, higher classification roadways receive priority maintenance activities in view of their significance within a community. All municipal owned roads are classified using the “Classification of Highway” table provided in O.Reg 239/02. Road Classifications are periodically revised.

It is noted that all City roads are classified between Class 3 to Class 6. The City does not have any Class 1 or 2 highways as there are no Roadways within the City that meet the speed limit or ADT of the Provincial classification system.

Furthermore, all municipality owned roads within Clarence-Rockland have a defined functional class which identifies the type of usage for each road segment. Functional classes are defined and described in the City’s Official Plan. Table 1 presents the general relation between a road class and a functional class within the City of Clarence-Rockland.

Table 1: General relation between Road Classification and Functional Class

Functional Classes	Generally associated road class
Main Street	Class 3 or 4
Major Collector	Class 3, 4 or 5
Minor Collector	Class 4 or 5
Local and Residential Roads	Class 4, 5 or 6

5.2.2. Sidewalks/Multi-use Pathway classification and functional classes

There are no provincially legislated classification systems for sidewalks and multi-use pathways. However, the functional class of the roadway along or adjacent to which the sidewalk is located should provide guidance on the standard and level of service at which the asset should be maintained.

5.2.3. Bicycle Lanes classification and functional classes

While the City's Official Plan does not provide functional class for bicycle lanes, the functional class of the roadway along or adjacent to which the bicycle lane is located should be applied.

5.2.4. Priority system

The City recognizes the importance of a well-established prioritization system to deliver safe and cost-effective winter operations that meet established level of service and standards. To establish the prioritization system the City considers the following criteria:

- Roadways:
 - Classification of highway
 - Functional classes
 - The presence of essential services
 - Minimum maintenance standard as established by the province
- Bicycle lanes:
 - Classification of highway and functional class on which the bicycle lane is situated
 - Designated cycling routes
 - Minimum maintenance standard as established by the province
- Sidewalks/Multi-use pathways:
 - Classification of highway
 - Road functional class on which the Sidewalk/Multi-use pathway is situated
 - The presence of essential services
 - Population density
 - Designated cycling routes
 - Minimum maintenance standard as established by the province
- Snowbank removal:
 - Classification of highway
 - Road functional class
 - Designated sector

The priority matrix and associated level of service for each of these assets are listed in Appendix A, B, C and D.

5.2.5. Priority system limitations

The City reserves the right to modify any priority identified in Appendix A,B,C and D due to operational challenges or for operational efficiencies.

5.3. **Level of Service**

5.3.1 General

In providing safe driving, cycling and walking conditions through winter operations that meet or exceed O.Reg. 239/02 Minimum Maintenance Standards for Municipal Highways, the level of service and standards herein define the Roadway Authority's winter activities at those times of the year in which winter conditions can be anticipated. The Level of Service included in this section cover those activities required to remove snow and ice from the surface of the road, bicycle lane and sidewalk/multi-use pathway in winter.

This standard does not apply to shoulders or parking lanes adjacent to roads unless these form part of the designated City cycling routes. Snow and ice control for the foregoing items shall be considered as winter cleanup and carried out separately.

A winter event response is an occasion where staff has been called to respond to a winter condition. The activities covered by this level of service include but is not limited to continuous plowing, salting, applying abrasive materials, applying other chemical or organic agents, ice blading, winging back and snow bank removal.

Snow and ice control operations can be carried out 24/7 subject to weather conditions and in a manner that will enable the City to achieve this standard and level of service with available resources. Under extreme winter storm conditions (i.e. those that exceed normal conditions), snow and ice control operations will be carried out based on the capacity of resources in as continuous a manner as practicable, consistent with the level of service and standards detailed in Appendix A, B, C and D.

5.3.2. Surface Treatment Standard – Roadways and Bicycle Lanes

This Surface Treatment standard applies to winter snow and ice control operations on all roadways, including adjacent shoulders and bicycle lanes where designated as City cycling routes. Bare Pavement, Centre-Bare and Snow Packed treatment standards are used for various functional classes of roadway. They can be defined as:

- Bare Pavement: requires that snow and ice be controlled, cleared and/or prevented for the full travelled road pavement width, including, paved shoulders and/or adjacent cycling lanes. It does not include parking lanes.
- Centre-Bare: requires that snow and ice be controlled, cleared and/or prevented in a strip down the middle of the road pavement width for a minimum width of 1.5 m on each side of centerline.
- Snow-Packed: requires that snow and ice be cleared and that ruts and/or potholes that may cause poor vehicle control be levelled off. Abrasive or deicing materials are applied at intersections, hills and sharp curves.

Surface treatment standards used for each functional classes of roadways are defined in Appendix A.

5.3.3. Surface Treatment Standard – Sidewalk/Multi-use pathway

Snow Packed treatment standard is used for all classes of sidewalks and pathways as defined in Appendix B and C. It can be defined as:

- Snow-Packed: requires that snow and ice be cleared and that ruts be levelled off.

During weather periods subject to freeze-thaw cycles, the City will monitor the conditions of sidewalks and pathways and provide spot application of abrasives or deicing materials.

5.3.4. Snow accumulation response – Roadways / Bicycle lanes / Sidewalks and Multi-use Pathways

After the City becomes aware of the fact that the snow accumulation is greater than the depth set out in Appendix A, B and C – “Snow Depth” column, it will deploy resources as soon as practicable to address the snow accumulation within the time set out in Appendix A, B and C – “Time” column.

If after the snow accumulation has ended, the snow accumulation is greater than the depth set out in Appendix A, B and C – “Snow Depth” column, the minimum standard is to clear the snow accumulation to a depth less than or equal to the depth set out in Appendix A, B and C – “Snow Depth” column within the time set out in Appendix A, B and C – “Time” column.

If the depth of snow accumulation on a road is less than or equal to the depth set out in Appendix A, B and C – “Snow Depth” column, the roadway, bicycle lane, sidewalk or Multi-use pathway is deemed to be in a state of repair with respect to snow accumulation.

5.3.5. Snowbank removal

Snowbank removal operations are not legislated by the province. There is no minimum maintenance standards for this type of operation. It is up to the municipality to establish its own level of service. Snowbank removal level of service is defined in Appendix D.

5.3.6. Snow clearing width

Due to snow accumulation on the side of roads, bicycle lanes and sidewalks/multi-use pathways, the minimum cleared width of these assets, after the snow accumulation has ended, will be as follows:

- Roadways: The lesser of three 3 meters for each lane or the actual lane width
- Class 3 Roadway: Full road width.
- Class 4 and Class 5 Roadways: Roadways with two lanes, a total width of at least five meters shall be provided.
- Bicycle lanes: The lesser of 1 meter or the actual bicycle lane width.
- Sidewalks/Multi-use Pathways: The lesser of 1 meter or the actual sidewalk width.

5.3.7. Ice Prevention and Ice Formation– Roadways, Bicycle lanes and/or Sidewalks/Multi-Use pathways

The standard for the prevention of ice formation is for City staff to monitor the weather in accordance with section 5.1.2. and perform winter road patrols in accordance with section 5.1.3.

If the municipality determines that there is a substantial probability of ice forming on a roadway, bicycle lane and sidewalk/multi-use pathway, it shall treat the assets within the time set out in Appendix A and B, “Prevention” column, starting from the time the City determines is the appropriate time to deploy resources.

If the municipality meets the standard set out herein and, despite such compliance, ice forms on an asset, the roadway, bicycle lane and/or sidewalk/multi-use pathway is deemed to be in a state of repair until the applicable time set out in Appendix A and B, “Formation”

column, expires after the municipality becomes aware of the fact that the roadway, bicycle lane and/or sidewalk/multi-use pathway is icy.

For the purposes of this section, treating a roadway and bicycle lane and/or sidewalk/multi-use pathway means applying material to the roadway, including but not limited to, salt, sand or any combination of salt and sand. For greater certainty, this section (5.3.7) applies in respect of ice formation on bicycle lanes on a roadway but does not apply to other types of bicycle facilities.

5.3.8. Closed Bicycle lanes and Sidewalks/Multi-Use pathway during Winter Season Due to operational constraints, some municipality owned bicycle lanes, sidewalks and multi-use pathways are not maintained and are therefore closed and not maintained during Winter season as described in section 5.1.1. These closed assets are identified in Appendix E.

When a municipality closes a bicycle lane, sidewalk or multi-use pathway or part of an asset pursuant to its powers under the Act, the asset is deemed to be in a state of repair in respect of all conditions described in O.Reg. 239/02 from the time of the closure until the asset is re-opened by the municipality.

Proper signage and announcement that meets Ontario Regulation will be posted accordingly.

5.3.9. Level of Service limitations

The Winter Control Policy Levels of Service are based on O.Reg. 239/02 as amended. Should there be discrepancies and/or omissions with the City Levels of Service/standards as identified in the Winter Control Policy as compared with O.Reg. 239/02 as amended, O.Reg. 239/02 as amended shall prevail.

5.4. Significant Weather Event

Ontario Regulation 239/02 – Minimum Maintenance Standards for Municipal Highways includes a new provision for municipalities to declare a significant weather event. A significant weather event is an approaching or occurring weather hazard that has the potential to pose a significant danger to users of a roadway. A weather hazard is defined by Environment Canada as meeting the Criteria of an alert under Environment Canada’s Public Weather Alerting Program which includes weather events such as blizzards, blowing snow and winter storms.

The City may declare a significant weather event when a weather hazard, either forecasted or occurring, has the potential to pose a significant danger to users of the roadways in which the City has authority. The declaration of a significant weather event suspends the standard timelines required to meet the City winter maintenance Level of Service. All roadways and/or sidewalks and/or multi-use pathways are deemed in a state of repair with respect to snow accumulation and/or ice conditions, until the City declares the significant weather event has ended.

In each case, during the course of a declared significant weather event, the standard for addressing winter maintenance is to monitor the weather and deploy resources to address the issue, starting from the time the City deems it most appropriate to do so. When the City declares an event has ended, standard timelines for winter maintenance activities then begin. The declaration of a significant weather event is not a notice of reduced service levels or a road closure. It is to notify the public that due to the forecasted or current weather conditions, caution is to be exercised and that it may take longer than usual to restore the conditions back to a normal state of repair.

To declare a significant weather event, or to declare the end of a significant weather event, the

City shall comply with the provisions of s.16.9 of Ontario Regulation 239/02.

6.0 Responsibility

Implementation of this Policy will be in accordance with applicable Council and/or City by-laws, policies and procedures, legislation, and collective agreement provisions.

7.0 Review and Amendments

The policy needs to be reviewed every year (1) by the Operations Department.

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APPENDIX A – ROAD PRIORITY AND LEVEL OF SERVICE MATRIX

Priority	Functional Class and Highway classification	Surface Treatment Standard	Snow Accumulation		Ice Treatment Timeframe	
			Snow Depth (cm)	Time (hrs)	Prevention (hrs)	Formation (hrs)
1	Main Street	Bare pavement	8	12	16	8
2	- Major Collector (All classes included); and - All other Class 3 roads	Bare pavement	8	12	16	8
3	- Minor Collector (All classes included); and - All other Class 4 roads	Bare pavement	8	16	24	12
4	Class 5 and 6 Local roads with elevated level of service (ie Essential Services, Schools, Transit, Steep horizontal or vertical curves, or with designated City cycling route)	Bare pavement	10	24	24	12
5	Class 5 Rural and Urban Local Roads	Centre bare	10	24	24	12
6	- Class 5 Residential Local roads; and - Class 5 Local Gravel roads	Snow packed	10	24	24	16
7	- Class 6 Rural Local roads; and - Class 6 Residential Local roads; and - Class 6 Local Gravel roads	Snow packed	10	24	24	16

APPENDIX B – SIDEWALKS/MULTI-USE PATHWAY PRIORITY AND LEVEL OF SERVICE MATRIX

Priority	Description	Surface Treatment Standard	Snow Accumulation		Ice Treatment Timeframe	
			Snow Depth (cm)	Time (hrs)	Prevention (hrs)	Formation (hrs)
1	• Main Street • Commercial Core Area & Service commercial • School Zones	Snow Packed	8	48	48	48
2	• Major and Minor Collector • Down City/urban residential neighbourhoods where sidewalks and/or multi-use pathways are the only safe place to walk • Sidewalks and/or multi-use pathways in Villages • Pathways that serve as main community links • Sidewalks and/or multi-use pathways along roads with emergency facilities, public facilities or retail/commercial frontages • Pathways designated as part of City cycling routes					
3	• Sidewalks and/or multi-use pathways along rural and suburban residential roads • Paved pathways in rural and suburban neighbourhoods (pathways that are winter maintained)					

APPENDIX C – BICYCLE LANE PRIORITY AND LEVEL OF SERVICE MATRIX

Priority	Description	Surface Treatment standard	Snow Accumulation		Ice Treatment Timeframe	
			Snow Depth (cm)	Time (hrs)	Prevention (hrs)	Formation (hrs)
1	• Bicycle lane along Class 3 roads	Bare pavement	8	24	16	8
2	• Bicycle lane along Class 4 roads	Bare pavement	8	24	24	12
3	• Bicycle lane along Class 5 roads	Same as associated roadway (see Appendix A)	10	24	24	16
4	• Bicycle lane along Class 6 roads	Same as associated roadway (see Appendix A)	10	24	24	16

Note: For greater certainty, this section applies in respect of ice formation on bicycle lanes on a roadway, but does not apply to other types of bicycle facilities.

APPENDIX D – SNOW BANK REMOVAL PRIORITY AND LEVEL OF SERVICE MATRIX

Priority	Description	Snow bank width (m)	Snow bank height(m)
1	Any roadways where snowbanks cause operational issues	N/A	N/A
2	Commercial Core Area & Service Commercial Area (as defined by the City's Official Plan) with sidewalks and/or multi-use pathways	0.7	0.4
3	Major/Minor Collectors with sidewalks and/or multi-use pathways	1.5	1
4	Local and Residential Roadways with sidewalks and/or multi-use pathways	1.5	1

APPENDIX E – CLOSED BYCICLE LANES, SIDEWALKS/MULTI-USE PATHWAYS

Asset Type	Street	Side	From	To	Length (m)
Bicycle Lane	Chamberland ST.	West	Laporte ST.	County Road 17	741
Bicycle Lane	Chamberland ST.	East	County Road 17	Laport ST.	748
Bicycle Lane	Docteur Corbeil BLVD.	North	St-Jean ST.	Marble CR.	133
Bicycle Lane	Docteur Corbeil BLVD.	North	Marble CR.	Marble CR.	186
Bicycle Lane	Docteur Corbeil BLVD.	North	Marble CR.	Sterling AV.	228
Bicycle Lane	Docteur Corbeil BLVD.	North	Sterling AV.	Topaze CR.	487
Bicycle Lane	Docteur Corbeil BLVD.	North	Topaze CR.	Topaze CR.	180
Bicycle Lane	Docteur Corbeil BLVD.	North	Topaze CR.	Caron ST.	154
Bicycle Lane	Docteur Corbeil BLVD.	South	St-Jean ST.	Ruby ST.	130
Bicycle Lane	Docteur Corbeil BLVD.	South	Ruby ST.	Marble CR.	188
Bicycle Lane	Docteur Corbeil BLVD.	South	Sterling AV.	Mercury ST.	486
Bicycle Lane	Docteur Corbeil BLVD.	South	Mercury ST.	Opale ST.	183
Bicycle Lane	Docteur Corbeil BLVD.	South	Opale ST.	Caron ST.	149
Bicycle Lane	St-Joseph ST.	West	Du Parc AV.	Martin ST.	35
Bicycle Lane	St-Joseph ST.	West	Martin ST.	Chéné ST.	88
Bicycle Lane	St-Joseph ST.	West	Chéné ST.	St-Laurent ST.	87
Bicycle Lane	St-Joseph ST.	West	St-Laurent ST.	Patricia ST.	80
Bicycle Lane	St-Joseph ST.	West	Silver LN.	Jasper CR.	329
Bicycle Lane	St-Joseph ST.	East	Patricia ST.	Silver LN.	280
Bicycle Lane	St-Joseph ST.	East	Silver LN.	Jasper CR.	328
Bicycle Lane	St-Joseph ST.	East	Jasper CR.	Docteur Corbeil BLVD.	74
Bicycle Lane	St-Joseph ST.	West	Patricia ST.	Silver LN.	280
Bicycle Lane	St-Joseph ST.	West	Jasper CR.	Docteur Corbeil BLVD.	70
Bicycle Lane	St-Joseph ST.	East	Du Parc AV.	Martin ST.	35
Bicycle Lane	St-Joseph ST.	East	Martin ST.	Chéné ST.	86
Bicycle Lane	St-Joseph ST.	East	Chéné ST.	St-Laurent ST.	91
Bicycle Lane	St-Joseph ST.	East	St-Laurent ST.	Patricia ST.	78