



**Town of Penetanguishene
Policy/Procedure**

Policy Name: Maintenance Standards for Municipal Roads Policy		
Policy Division: Public Works Department	Department: Public Works - Roads Division	Policy Number: RDS-2024-01
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Corporate Policy (Approved by Council)		[X]
Administrative Policy (Approved by CAO)		[]
Related Documents/Legislation: O. Reg. 366/18: MINIMUM MAINTENANCE STANDARDS FOR MUNICIPAL HIGHWAYS		

POLICY STATEMENT:

The Town of Penetanguishene is committed to providing safe and accessible roads and sidewalks to the community.

PURPOSE:

The purpose of this Regulation (239/02 amended to O.Reg. 366/18) is to clarify the scope by establishing maintenance standards that are non-prescriptive as to the methods or materials to be used in complying with the standards but instead describe a desired outcome.

SCOPE:

This policy applies to all municipally owned roads, parking lots, and sidewalks that are open to the public in the winter or require winter access.

DEFINITIONS:

Bicycle Lanes means a portion of a roadway that has been designated by pavement markings or signage 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 signage and a physical or marked buffer.

Day means a 24-hour period.

Ice means all kinds of ice, however, formed.

Non-paved Surface means a surface that is not a paved surface.

Patrolling Roads means to observe the highway, either by driving on or by electronically monitoring the highway, and may be performed by persons responsible for patrolling highways or by persons responsible for or performing highway maintenance activities.

Paved Surface means a surface with a wearing layer or layers of asphalt, concrete or asphalt emulsion.

Potholes means a hole in the surface of a roadway caused by any means, including wear or subsidence of the road surface or subsurface.

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

Shoulder means the portion of a highway that provides lateral support to the roadway and that may accommodate stopped motor vehicles and emergency use;

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 a municipality.

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 percent.

Surface means the top of the sidewalk, roadway or shoulder.

Weather means air temperature, wind, and precipitation.

Weather Hazard & Significant Weather Event means the weather hazards determined by Environment Canada as meeting the criteria for the issuance of an alert under its Public Weather Alerting Program

Winter Patrolling a sidewalk means a visual observation of the sidewalk, either by driving by the sidewalk on the adjacent roadway or by driving or walking on the sidewalk or by electronically monitoring the sidewalk, and may be performed by persons responsible for patrolling roadways or sidewalks or by persons responsible for or performing roadway or sidewalk maintenance activities.

RESPONSIBILITIES:

The Director of Public Works is responsible for ensuring that the Road Supervisor reviews this policy annually and adheres to the policy.

The Road Supervisor is responsible for ensuring that employees understand and adhere to the policy.

Employees are responsible for ensuring they have read and understand the policy and seek further clarification of interpretation as needed.

PROCEDURES:

The Town has an obligation to maintain its road and sidewalk network to a safe level of service. To that end, the Town has developed “Winter Maintenance Standards”.

1. Road Classification

Listed below is the Road Classification System set by the Ministry of Transportation. The shaded areas indicated in the table below represent the range of road classes that apply to the Town of Penetanguishene Road Network. Primary roads within the network will be defined as Class 3 and Secondary roads will be defined under Class 4 and all other roads will be considered Class 5.

The table below specifies the classification for roads based on ADT and Posted Speed Limits.

CLASSIFICATION OF HIGHWAYS

Average Daily Traffic (number of motor vehicles)	Posted or Statutory Speed Limit (kilometers per hour)						
	100- 91	90- 81	80- 71	70- 61	60- 51	50- 41	40-1
53,000 or more	1	1	1	1	1	1	1
23,000 – 52,999	1	1	1	2	2	2	2
15,000 or 22,999	1	1	2	2	2	3	3
12,000 – 14,999	1	1	2	2	2	3	3
10,000 – 11,999	1	1	2	2	3	3	3
8,000 – 9,999	1	1	2	3	3	3	3
6,000 – 7,999	1	2	2	3	3	4	4
5,000 – 5,999	1	2	2	3	3	4	4
4,000 – 4,999	1	2	3	3	3	4	4
3,000 – 3,999	1	2	3	3	3	4	4
2,000 – 2,999	1	2	3	3	4	5	5
1,000 – 1,999	1	3	3	3	4	5	5
500 – 999	1	3	4	4	4	5	5
200 – 499	1	3	4	4	5	5	6
50 – 199	1	3	4	5	5	6	6
0- 49	1	3	6	6	6	6	6

O.Reg. 366/18, s.1(5).

General Notes

- The majority of the Town's road sections have a 50 km/hour or 60 km/hour speed limit.
- The ADT (Average Daily Traffic) for road sections in the Town range between 0 to 14,999 which includes Class 3 through to Class 6 categories, with the majority of the roads being considered Class 4 or 5
- The Town acknowledges that certain road sections are defined as Class 6; however, for the purposes of this policy all of the Class 6 roads will be maintained to the Class 5 maintenance standard.

2. Patrolling

The Road patrolling frequency is as set out in the table below. For example, Class 4 roads are to be inspected once every 14 days:

ROAD PATROLLING FREQUENCY	
Class of Highway	Patrolling Frequency
1	3 times every 7 days
2	2 times every 7 days
3	Once every 7 days
4	Once every 14 days
5	Once every 30 days

O. Reg. 239/02, s. 3.

The Town's Procedure is as follows

- Majority of the Town's roads fall within the Class 4 standard inspection frequency.
- Some of the primary or higher traffic roads are checked weekly;
- For example:
 - Robert Street West and East Thompson Road
 - Main Street Fuller Avenue
 - Church Street Sandy Bay
 - Tay Point Road Champlain Road
- During the Winter maintenance season, selected roads are patrolled daily.

Winter Sidewalk Patrolling

If it is determined by the municipality that the weather monitoring referred to below, indicates that there is a substantial probability of snow accumulation on sidewalks in excess of 8 cm, ice formation on sidewalks or icy sidewalks, the following representative sidewalks will be patrolled three times daily:

Representative Streets:

- | | | |
|-----------------------|-----------------|----------------|
| Robert St East & West | Fox Street | Burke Street |
| Peel Street | Main Street | Poyntz Street |
| Edward Street | Dufferin Street | Hilltop Street |

3. Weather Monitoring

From October 1st to April 30th, the standard is to monitor the weather, both current and forecast to occur in the next 24 hours, once every shift or three times per calendar day, whichever is more frequent, at intervals determined by the municipality. O. Reg. 366/18, s. 4.

From May 1st to September 30th, the standard is to monitor the weather, both current and forecast to occur in the next 24 hours, once per calendar day. O. Reg. 366/18, s. 4.

Note: The Town will meet the set standards as per O.Reg 366/18

4. Snow Accumulation

The plowing of roads due to snow accumulation frequency is as set out in the table below.

SNOW ACCUMULATION		
Class of Highway	Depth	Time
1	2.5 cm	4 hours
2	5 cm	6 hours
3	8 cm	12 hours
4	8 cm	16 hours
5	10 cm	24 hours

O. Reg. 366/18, s. 5 (5)

a) Roads

The Town's procedure in response to snow accumulation is as follows:

- During the winter operations season, snowplowing hours of operation may vary.
- The regular winter Roads Division Operating hours are night shift start at 11:00 pm to 7:00 am and day shift starts at 7:00 am to 3:30 pm.
- The primary roads (main arteries) are completed first, which include:

Robert St West & East	Main Street Fox Street	Church Street
Fuller Avenue	Sandy Bay Road	Tay Point Road
Champlain Road	Thompson Road	

- The secondary roads are plowed at least once prior to the conclusion of the shift. At that time, if it is required, then the primary roads are plowed again.
- Depending on the accumulation of snow the crew may be notified that the shift will start at 3:00 a.m for weekends and holidays. If this occurs, then all the roads are plowed and sanded.
- During the winter season, the Roads Division has a two (2) shift system in place. The day shift hours are 7:00 am to 3:30 pm and the night shift hours are 11:00 pm to 7:00 am.

- Upon a police call out, the response time is within one hour, however, depending on the snow accumulation and the time of the call, the snow plowing operation may only be with a partial crew concentrating on the call-out area and the primary roads.

Weather Hazard & Significant Weather Event

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.

A 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 municipality.

The Town can declare a Significant Weather event in accordance with O.Reg 366/18 at any time at its discretion to do so. If the town declares a significant weather event, the standard for addressing roadways and sidewalks until the declaration of the end of the significant weather event is;

- a) To monitor the weather in accordance with section O.Reg 366/18
- b) If deemed practicable by the town to deploy resources to address snow accumulation on roadways, starting from the time that the municipality deems appropriate to do so.

During a Significant Weather event, all roadways and sidewalks within the municipality are deemed to be in a state of repair with respect to snow and ice accumulation. Roads and sidewalks will remain in a state of repair until the municipality declares the end of the significant weather event at which time the town will respond to snow and ice accumulation according to the appropriate table as outlined in the following sections.

The following will be the Weather Event Notice used during this time:

“A significant snowfall event has occurred in Penetanguishene over the last 12 hours and is expected to continue throughout the day. Due to the amount of snow accumulation that has been received over this period, the Roads Division may be delayed in reaching some areas of the road network as per the Town Minimum Maintenance Standard Policy”.

Example: For class 3 Roads, once the end of the Significant Weather Event has been declared by the municipality, the Minimum Maintenance Standard states the response time for the treatment of roadways is 8 hours as laid out in O.Reg. 366/18, s.5.

Note: The Town will meet the set standards as per O.Reg 366/18

b) Sidewalk

- The standard for addressing snow accumulation on a sidewalk after the snow accumulation has ended is to reduce the snow to a depth less than or equal to 8 centimeters within 48 hours; and to provide a minimum sidewalk width of 1 meter.

- If the depth of snow accumulation on a sidewalk exceeds 8 centimeters while the snow continues to accumulate, the sidewalk is deemed to be in a state of repair with respect to snow accumulation, until 48 hours after the snow accumulation ends.

Note: The Town will meet the set standards as per O.Reg 366/18

c) Bicycle Lanes

A bicycle lane means a portion of a roadway that has been designated by pavement markings or signage for the preferential use or exclusive use of cyclists, or a portion of a roadway that has been designated for the exclusive use of cyclists by signage and physically marked buffer.

The town will close bicycle lanes between November 15th through to April 30th in accordance with O.Reg 239/02 s. 16.8 (1) and the Traffic and Parking By-law (as amended).

5. Ice formation on roadways

If the municipality determines that there is a substantial probability of ice forming on a roadway, treat the roadway, if practicable, to prevent ice formation within the time set out in Table 1.

Table 1 – Ice Formation Prevention

Class of Highways	Time
1	6 hours
2	8 hours
3	16 hours
4	24 hours
5	24 hours

O. Reg. 366/18, s. 8.

Table 2 – Treatment of Icy Roadways

Class of Highways	Time
1	3 hours
2	4 hours
3	8 hours
4	12 hours
5	16 hours

O. Reg. 366/18, s. 5.

The Town's procedure in response to ice roadways is as follows:

- Depending on the time, the temperature, and the snow accumulation the Town's response to icy road conditions may vary, but will not violate O.Reg 366/18.
- Sanding operations usually occur at 5:00 a.m. (even with a two (2) shift system in place). This allows for the main arteries to be sanded prior to the increase in traffic volume. Following the application of winter control materials to the primary roads, the school zone and subdivision area roads will then be addressed.
- Due to the severity of the ice conditions, special attention is scheduled for stop sign areas, intersections, hills, shaded sections of roadways, and primary residential areas.

Note: The Town will meet the set standards as per O.Reg 366/18

6. Pothole

Potholes are divided into three (3) categories

a) Paved Surface

Example: For Class 4 Roads, the maintenance standard specifies that for potholes with a Surface Area of 1000 cm² (12" x 12") and a Depth of 8 cm (3") that the Response Time is to be within 14 days

POTHOLES ON PAVED SURFACE OF ROADWAY

Class of Highway	Surface Area	Depth	Time
1	600 cm ²	8 cm	4 days
2	800 cm ²	8 cm	4 days
3	1000 cm²	8 cm	7 days
4	1000 cm²	8 cm	14 days
5	1000 cm²	8 cm	30 days

O.Reg. 239/02, s. 6, Table 1

The Town's procedure in response to potholes on the paved surface of the roadway is as follows:

- Throughout the year the majority of the roads are patrolled every 14 days depending on the class while concentrating on areas with numerous potholes.
- All potholes are repaired including the potholes smaller than the size indicated the above standard chart
- Response to pothole repairs may vary due to weather conditions.

Note: The Town will meet the set standards as per O. Reg 239/02

b) Non-Paved Surface (Gravel Roads)

Example: For Class 4 Roads, the maintenance standard specifies that for potholes with a Surface Area of -1500 cm (16" x 16") and a Depth of 10 cm (4") that the Response Time is to be within 14 days.

POTHoles ON NON-PAVED SURFACE OF ROADWAY

Class of Highway	Surface Area	Depth	Time
3	1500 cm ²	8 cm	7 days
4	1500 cm ²	10 cm	14 days
5	1500 cm ²	12 cm	30 days

O. Reg. 239/02, s. 6, Table 2.

The Town's procedure in response to a pothole on a non-paved surface is as follows:

- During spring gravel roads are patrolled periodically for potholes
- Grading portions of gravel roads can be done if the road conditions allow.
- "A" gravel will be added if grading cannot be performed.
- All gravel roads are graded with attention to stop signs, curves, hills, and areas of poor drainage areas due to an increase in potholes.

Note: The Town will meet the set standards as per O.Reg 366/18

c) Shoulder Potholes

Example: For Class 4 Roads, the maintenance standard specifies that for potholes with a Surface Area -1500 cm (12" x 12") and a Depth of 8 cm (4") that the Response Time is to be within 14 days.

POTHoles ON PAVED OR NON-PAVED SURFACE OF SHOULDER

Class of Highway	Surface Area	Depth	Time
1	1500 cm ²	8 cm	7 days
2	1500 cm ²	8 cm	7 days
3	1500 cm ²	8 cm	14 days
4	1500 cm ²	10 cm	30 days
5	1500 cm ²	12 cm	60 days

O. Reg. 239/02. S. 6, Table 3

The Town's procedure in response to a pothole on a paved or non-paved surface of the shoulder is as follows:

- Majority of shoulder potholes appear in early spring.
- Shoulder grading is done to eliminate the potholes.
- "A" gravel may be added, if necessary

Note: The Town will meet the set standards as per O.Reg 239/02

7. Shoulder Drop Offs

Example: For Class 4 Roads, the maintenance standard specifies that for a shoulder drop-off with a Depth of 8 cm (3"), for a continuous distance of 20 meters or more, that the Response time is to be within 14 days.

SHOULDER DROP-OFFS	
Class of Highway	Time
1	4 days
2	4 days
3	7 days
4	14 days
5	30 days

O. Reg. 366/18, S. 9 (2)

The Town's procedure in response to a shoulder drop-off is as follows:

- Majority of the shoulder drop-offs are completed during shouldering of potholes.
- Asphalt shoulders are graded periodically with extra consideration being made to curves and intersections.

Note: The Town will meet the set standards as per O.Reg 366/18

8. Cracks

Example: For Class 4 Roads, the maintenance standard specifies a response time of 14 days for cracks greater than 5 cm wide and 5cm deep for a continuous distance of 3 meters or more.

CRACKS

Class of Highway	Time
1	30 days
2	30 days
3	60 days
4	180 days
5	180 days

O. Reg. 366/18, s. 10 (2).

The Town's procedure in response to cracks is as follows:

- Majority of the cracks are completed in the summer during the preventive maintenance program.

Note: The Town will meet the set standards as per O.Reg 239/02

9. Debris

Example: For Class 4 Roads, the maintenance standard specifies a response time as soon as practicable.

The Town's procedure in response to debris is as follows:

- Debris is removed within 24 hours once the Town has been notified.

Note: The Town will meet the set standards as per O.Reg 366/18

10. Luminaire

Example: If 3 or more consecutive lights on the same side of the road are out, on a Class 4 Road, the maintenance standard specifies a response time of 14 days.

LUMINAIRES

Class of Highway	Time
1	7 days
2	7 days
3	14 days
4	14 days
5	14 days

O. Reg 239/02, s. 10, Table

The Town's procedure in response to luminaires is as follows:

- During road patrols any inoperative street lights are identified and a repair request is forwarded to the street light contractor and completed
- The contractor schedules the repairs within the allotted time set

Note: The Town will meet the set standards as per O.Reg 366/18

11. Signs

Example: For Class 4 Roads, the maintenance standard specifies a response time of 30 days

REGULATORY AND WARNING SIGNS

Class of Highway	Time
1	7 days
2	14 days
3	21 days
4	30 days
5	30 days

O. Reg. 239/02/, s. 12, Table

The Town's procedure in response to signs is as follows:

- During road patrol and daily work operations all signs are inspected and restored accordingly in accordance with the Ontario Traffic Manual.
- Retroreflectivity Inspection of Regulatory or Warning Signs completed annually.

Note: The Town will meet the set standards as per O.Reg 366/18

12. Traffic Control Signal Systems

The maintenance standard is to deploy resources as soon as practicable after becoming aware of the defect to repair the defect or replace the defective component of the traffic control signal system.

The Town's procedure in response to a traffic control signal system is as follows:

- Once made aware of a defect, the contractor is notified, and repairs are completed as soon as practicable.
- Inspections of the Traffic Signals and Conflict Monitors are completed semi-annually

Note: The Town will meet the set standards as per O.Reg 239/02

13. Discontinuities

a) Roadway

Example: For Class 4 Roads, the maintenance standard specifies a response time of 21 days

SURFACE DISCONTINUITIES		
Class of Highway	Height	Time
1	5 cm	2 days
2	5 cm	2 days
3	5 cm	7 days
4	5 cm	21 days
5	5 cm	21 days

O. Reg. 239/02, s. 16, Table

The Town's procedure in response to a roadway surface discontinuity is as follows:

- On being made aware of the defect, the Town or contractor is notified and repairs are completed.

Note: The Town will meet the set standards as per O.Reg 366/18

b) Sidewalk

The Town's procedure in response to sidewalk surface discontinuities is as follows:

- Inspection of sidewalks is performed to check for surface discontinuity annually.
- When trip hazards in excess of 2 cm are determined they are marked with paint to alert users of the defect.

14. Encroachments, area adjacent to sidewalk

The area adjacent to a sidewalk begins at the outer edges of a sidewalk and ends at the lesser of the limit of the highway, the back edge of a curb if there is a curb and a maximum of 45 cm. The standard for the frequency of inspecting an area adjacent to a sidewalk to check for encroachments is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection.

The town will inspect encroachments with a pre-determined inspection report which indicates hazards found and actions taken to repair on an annual basis scheduled through the work order system.

Note: The Town will meet the set standards as per O.Reg 366/18