

The Corporation of the
TOWNSHIP OF THE ARCHIPELAGO

BY-LAW NO. 15-44

**Being a By-law to establish a Level of Service Policy
for the maintenance of the Township's roads**

WHEREAS Section 27 of the *Municipal Act*, 2001 S.O. 2001, c. 25, as amended, (the "**Municipal Act**"), provides that a municipality may pass by-laws in respect of highways under its jurisdiction;

AND WHEREAS The Corporation of the Township of The Archipelago wishes to preserve its water-based character, protect its natural environment and limit the expansion of its services with respect to the highways under its jurisdiction (the "**Township's roads**");

AND WHEREAS The Corporation of the Township of The Archipelago deems it expedient to adopt a Level of Service Policy with respect to the maintenance of the Township's roads;

NOW THEREFORE BE IT ENACTED as a By-law of the Council of The Corporation of the Township of The Archipelago (the "**Township**") as follows:

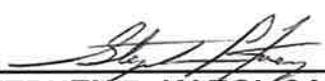
1. The Manager of Public Works and Facilities is responsible for ensuring that the Township's roads are maintained in accordance with the Township's "Level of Service Policy", attached as Schedule 'A' to this By-law.
2. The Manager of Public Works and Facilities is responsible for ensuring that all department employees are aware of the Township's "Level of Service Policy" assigned to Township roads on their patrols.
3. That By-law No. 08-26 is hereby repealed.

READ AND FINALLY PASSED IN OPEN COUNCIL this 20th day of November, 2015.

THE CORPORATION OF THE TOWNSHIP OF THE ARCHIPELAGO



REEVE



STEPHEN P. KAEGI, CAO/CLERK



Township of The Archipelago

Public Works



LEVEL OF SERVICE POLICY

Contents

Section 1.0 – Routine and Winter Patrolling	1
1.1 Introduction	1
1.2 Definitions	1
1.3 Operations Description	1
1.4 Weather Monitoring	2
Section 2.0 – Plowing and Sanding/Salting	3
2.1 Introduction	3
2.2 Definitions	3
2.3 Operations Description	3
2.3.1 Snow Plowing	3
2.3.2 Sanding/Salting	5
Section 3.0 – Road Surface Conditions	6
3.1 Introduction	6
3.2 Definitions	6
3.3 Operations Description	6
3.3.1 Potholes	6
3.3.2 Shoulder Drop-offs	7
3.3.3 Cracks	8
3.3.4 Debris	8
3.3.5 Road Discontinuities	8
3.3.6 Dust Control	9
Section 4.0 – Street Lights (Luminaires)	10
4.1 Introduction	10
4.2 Definitions	10
4.3 Operations Description	10
Section 5.0 – Signs	11
5.1 Introduction	11
5.2 Definitions	11
5.3 Operations Description	11
Section 6.0 – Bridges	13
6.1 Introduction	13
6.2 Definitions	13
6.3 Operations Description	13
Section 7.0 – Sidewalks	15
7.1 Introduction	15
7.2 Definitions	15
7.3 Operation Descriptions	15

Section 1.0 – Routine and Winter Patrolling

1.1 Introduction

The Township of The Archipelago will provide a level of service for routine patrolling that meets the Minimum Maintenance Standards O. Reg. 239/02 Section 3, under The Municipal Act 2001.

Road classifications are in accordance with O. Reg. 239/02. There are currently no Class 1,2,3 or Class 4 highways within the jurisdiction of the Township of The Archipelago.

1.2 Definitions

“day” means a 24-hour period.

“highway” means a common and public highway maintained by the Township of The Archipelago and includes any bridge, trestle, viaduct or other structure forming part of the highway.

“weather” means air temperature, wind and precipitation.

“substantial probability” means a significant likelihood considerably in excess of 51 per cent.

1.3 Operations Description

a) The Township of The Archipelago will routinely patrol highways at a frequency set out in Table 1A below.

Table 1A: Routine Patrolling Frequency

Classes of Highway	Patrolling Frequency
5 and 6	once every 30 days

Minimum Maintenance Standards O. Reg. 239/02

- b) Routine Patrolling will be carried out by driving on the highway to check for conditions described in O. Reg. 239/02 and this level of service policy.
- c) Routine Patrolling is not required between sunset and sunrise.
- d) In addition to routine patrolling, the municipality will select representative highways to patrol during winter maintenance.
- e) Winter patrol routes will not operate when conditions have been identified throughout the Municipality that will require commencement of snowplowing or sanding operations. The patroller may then be reassigned to snowplowing and/or sanding. The winter patrol and winter maintenance activity are an interchangeable function.

- f) If it is determined by the municipality that the weather monitoring referred to in section 1.4 indicates that there is a substantial probability of snow accumulation on roadways, ice formation on roadways or icy roadways, the minimum standard for patrolling highways is, in addition to that set out in section 1.3, to patrol highways that the municipality selects as representative of its highways, at intervals deemed necessary by the municipality, to check for such conditions.

1.4 Weather Monitoring

- a) From October 1 to April 30, the minimum 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.
- b) From May 1 to September 30, the minimum standard is to monitor the weather, both current and forecast to occur in the next 24 hours, once per calendar day.

Section 2.0 – Plowing and Sanding/Salting

2.1 Introduction

The Township of The Archipelago will provide a level of service for Winter Road Conditions that meets the Minimum Maintenance Standards O. Reg. 239/02 Sections 4 and 5, under The Municipal Act 2001.

Road classifications are in accordance with O. Reg. 239/02. There are currently no Class 1,2,3 or Class 4 highways within the jurisdiction of the Township of The Archipelago.

The Township of The Archipelago recognizes that severe weather conditions may occur that could prevent the attainment of the Level of Service specified in this policy. The Public Works department must work within the available resources and in such a manner to protect the safety of employees and the public.

2.2 Definitions

“season when the municipality performs winter highway maintenance” means that period of time from early November to the end of March of the following year in accordance with O. Reg. 239/02. The Township of The Archipelago may extend the season to mid-April when weather conditions create a demand for additional winter maintenance.

“highway” means a common and public highway maintained by the Township of The Archipelago and includes any bridge, trestle, viaduct or other structure forming part of the highway.

“roadway” means the part of the highway that is improved, designed or ordinarily used for vehicular traffic, but does not include the shoulder.

“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

“ice” means all kinds of ice, however formed

2.3 Operations Description

2.3.1 Snow Plowing

- a) The Municipality will deploy snow clearing resources to address the snow accumulation, as soon as practicable, after becoming aware of the fact that the snow accumulation on a roadway is greater than the depth set out in Table 2A.

- b) after the snow accumulation has ended, to address the snow accumulation so as to reduce the snow to a depth less than or equal to the depth set out in the Table within the time set out in the Table,
 - (i) to provide a minimum lane width of the lesser of three metres for each lane or the actual lane width, or
 - (ii) on a Class 5 highway with two lanes, to provide a total width of at least five metres.
- c) If the depth of snow accumulation on a roadway is less than or equal to the depth set out in the Table to this section, the roadway is deemed to be in a state of repair with respect to snow accumulation.
- d) The depth of snow accumulation on a roadway may be determined by a municipal employee, agent or contractor, whose duties or responsibilities include one or more of the following:
 - (i) Patrolling highways.
 - (ii) Performing highway maintenance activities.
 - (iii) Supervising staff who perform activities described in paragraph 1 or 2.
- e) The depth of snow accumulation on a roadway may be determined by,
 - (i) performing an actual measurement;
 - (ii) monitoring the weather; or
 - (iii) performing a visual estimate.
- f) For the purposes of this section, addressing snow accumulation on a roadway may include, but is not limited to,
 - (i) plowing the roadway;
 - (ii) salting the roadway;
 - (iii) applying abrasive materials to the roadway; or
 - (iv) any combination of the methods described in clauses (i), (ii) and (iii).
- g) This section does not apply to that portion of the roadway designated for parking.
- h) Table 2A: Snow Accumulation shown below contains the minimum maintenance standards specified in O. Reg 239/02 under the Municipal Act.

Table 2A: Snow Accumulation

Classes of Highway	Depth	Time for Removal
5 and 6	10 cm	24 hours

Minimum Maintenance Standards O. Reg. 239/02

2.3.2 Sanding/Salting

- a) The minimum standard for the prevention of ice formation on roadways is doing the following in the 24-hour period preceding an alleged formation of ice on a roadway:
 - (i) Monitor the weather in accordance with section 1.4.
 - (ii) Patrol in accordance with section 1.3.
 - (iii) If the municipality determines, as a result of its activities under paragraph 1 or 2, that there is a substantial probability of ice forming on a roadway, treat the roadway to prevent ice formation within the time set out in Table 2B to this section, starting from the time that the municipality determines is the appropriate time to deploy resources for that purpose.
- b) If the municipality meets the minimum standard set out in subsection (1) and, despite such compliance, ice forms on a roadway, the roadway is deemed to be in a state of repair until the earlier of,
 - (i) the time that the municipality becomes aware of the fact that the roadway is icy; or
 - (ii) the applicable time set out in the Table to this section for treating the roadway to prevent ice formation expires.
 - (iii) the minimum standard for treating icy roadways after the municipality becomes aware of the fact that a roadway is icy is to treat the icy roadway within the time set out in Table 2B to this section, and an icy roadway is deemed to be in a state of repair until the applicable time set out in Table 2B for treating the icy roadway expires.
 - (iv) for the purposes of this section, treating a roadway means applying material to the roadway, including but not limited to, salt, sand or any combination of salt and sand.
- c) The Municipality treats icy roadways in accordance with Table 2B for vehicular traffic. Maintenance for pedestrian purposes is not performed on roadways.

Table 2B: Icy Roadways

Classes of Highway	Time for Treatment
5 and 6	16 hours

Minimum Maintenance Standards O. Reg. 239/02

Section 3.0 – Road Surface Conditions

3.1 Introduction

The Township of The Archipelago will provide a level of service for Road Surface Conditions that meets the Minimum Maintenance Standards O. Reg. 239/02 Section 6, 7, 8, 9 and 16(1), under The Municipal Act 2001.

Road classifications are in accordance with O. Reg. 239/02. There are currently no Class 1,2,3 or Class 4 highways within the jurisdiction of the Township of The Archipelago.

3.2 Definitions

“day” means a 24-hour period.

“debris” means any material (except snow, slush or ice) or object on a roadway, that is not an integral part of the road way or has not been intentionally placed on the roadway by a municipality, and that is reasonably likely to cause damage to a motor vehicle or to injure a person in a motor vehicle.

“highway” means a common and public highway maintained by the Township of The Archipelago and includes any bridge, trestle, viaduct or other structure forming part of the highway.

“roadway” means the part of the highway that is improved, designed or ordinarily used for vehicular traffic, but does not include the shoulder.

“shoulder drop-off” means the vertical differential, where the paved surface of the roadway is higher than the surface of the shoulder, between the paved surface of the roadway and the paved or non-paved surface of the shoulder.

“surface discontinuity” means a vertical discontinuity creating a step formation at joints or cracks in the paved surface of the roadway, including bridge deck joints, expansion joints and approach slabs to a bridge.

3.3 Operations Description

3.3.1 Potholes

- a) The majority of pothole formations occur during the freeze/thaw cycles in spring and fall. Regular maintenance including spray patching and grading, is performed immediately following these cycles to prevent the formation of potholes.
- b) Potholes that are identified during routine patrols will be scheduled for repair as soon as practicable to prevent further degradation of the road surface structure and within the minimum maintenance standards detailed in sections c) and d) below.
- c) If a pothole exceeds both the surface area and depth set out in Table 3A, 3B, or 3C the Township of The Archipelago will repair the pothole within the time set out in Table 3A, 3B, or 3C as appropriate, after becoming aware of the condition.

- d) A pothole shall be deemed to be in a state of repair if its surface area or depth is less than or equal to that set out in Table 3A, 3B, or 3C as appropriate.

Table 3A: Potholes on Paved Surface of Roadway

Classes of Highway	Surface Area	Depth	Time for Completion of Repair
5 and 6	1000 cm ²	8 cm	30 days

Minimum Maintenance Standards O. Reg. 239/02

Table 3B: Potholes on Non-Paved Surface of Roadway

Classes of Highway	Surface Area	Depth	Time for Completion of Repair
5 and 6	1500 cm ²	12 cm	30 days

Minimum Maintenance Standards O. Reg. 239/02

Table 3C: Potholes on Paved or Non-Paved Surface of Shoulder

Classes of Highway	Surface Area	Depth	Time for Completion of Repair
5 and 6	1500 cm ²	12 cm	60 days

Minimum Maintenance Standards O. Reg. 239/02

3.3.2 Shoulder Drop-offs

- Regular shoulder grading is performed during spring and fall, when time and resources permit, to prevent the formation of shoulder drop-off.
- Problem areas are identified through routine patrolling and historical data. Shoulder grading is performed in these areas at an increased frequency appropriate to the requirements of each area.
- A shoulder drop-off condition that is identified during routine patrols will be scheduled for shoulder grading as soon as practicable to prevent further degradation of the road surface structure and within the minimum maintenance standards detailed in sections d) and e) below.
- If a shoulder drop-off is deeper, for a continuous distance of 20 metres or more, than the depth set out in Table 3D, the Township of The Archipelago will repair the shoulder drop-off within the time set out in the Table after becoming aware of the condition.

- e) A shoulder drop-off shall be deemed to be in a state of repair if its depth is less than or equal to that set out in Table 3D.

Table 3D: Shoulder Drop-offs

Classes of Highway	Depth	Time for Completion of Repair
5 and 6	8 cm	30 days

Minimum Maintenance Standards O. Reg. 239/02

3.3.3 Cracks

- a) The majority of cracks occur during the freeze/thaw cycles in spring and fall. Regular maintenance including patching, is performed immediately following these cycles to prevent the formation of cracks.
- b) Cracks that are identified during routine patrols will be scheduled for repair as soon as practicable to prevent further degradation of the road surface structure and within the minimum maintenance standards detailed in sections c) and d) below.
- c) If a crack on the paved surface of a roadway is greater, for a continuous distance of three metres or more, than both the width and depth set out in Table 3E, the Township of The Archipelago will repair the crack within the time set out in the Table after becoming aware of the condition.
- d) A crack shall be deemed to be in a state of repair if its width or depth is less than or equal to that set out in the Table.

Table 3E: Cracks

Classes of Highway	Width	Depth	Time for Completion of Repair
5 and 6	5 cm	5 cm	180 days

Minimum Maintenance Standards O. Reg. 239/02

3.3.4 Debris

- a) If there is debris on a roadway, the Township of The Archipelago will remove the debris as soon as practicable after becoming aware of the condition.

3.3.5 Road Discontinuities

- a) The majority of road discontinuities occur during the freeze/thaw cycles in spring and fall. Most road discontinuities are temporary conditions, caused by frost heave. Road discontinuities found during the freeze/thaw cycle will be identified with a warning sign and monitored for potential repairs.
- b) Regular maintenance including patching and grading, is performed immediately following these cycles to repair any permanent surface discontinuities.

- c) Surface discontinuities that are identified during routine patrols will be scheduled for repair as soon as practicable to prevent further degradation of the road surface structure and within the minimum maintenance standards detailed in section e) below.
- d) If a surface discontinuity, (other than a surface discontinuity on a bridge deck) exceeds the height set out in Table 3F, the Township of The Archipelago will repair the surface discontinuity within the time set out in the Table after becoming aware of the condition.
- e) A surface discontinuity on a roadway, other than a surface discontinuity on a bridge deck, is deemed to be in a state of repair if its height is less than or equal to the height set out in the Table to this section.

Table 3F: Surface Discontinuities

Classes of Highway	Height	Time for Completion of Repair
5 and 6	5 cm	21 days

Minimum Maintenance Standards O. Reg. 239/02

3.3.6 Dust Control

- a) Dust control is a regular treatment program applied annually to gravel and dirt roads.
- b) Due to the high cost of dust suppressants, the treatment is not repeated during the year so the application must be timed to provide optimum coverage for the season. The dust suppressants are generally applied in early summer.

Section 4.0 – Street Lights (Luminaires)

4.1 Introduction

The Township of The Archipelago will provide a level of service for streetlights that meets the Minimum Maintenance Standards O. Reg. 239/02 Section 10 under the Municipal Act 2001.

Road classifications are in accordance with O. Reg. 239/02. There are currently no Class 1,2,3 or Class 4 highways within the jurisdiction of the Township of The Archipelago.

4.2 Definitions

“day” means a 24-hour period.

“highway” means a common and public highway maintained by the Township of The Archipelago and includes any bridge, trestle, viaduct or other structure forming part of the highway.

“streetlight” means the complete lighting unit consisting of a lamp and the parts designed to distribute the light, to position or protect the lamp and to connect the lamp to the power supply. (Regulation 239/02 uses the term Luminaires.)

4.3 Operations Description

- a) Streetlights will be scheduled for repair when the Municipality becomes aware that it is not functioning.
- b) Streetlights located in a high traffic area may be immediately scheduled for repair at the discretion of the Director of Public Works.
- c) In addition the level of service specified in sections a) and b), streetlights will be repaired to the Minimum Maintenance Standards O.Reg 239/02.

Section 5.0 – Signs

5.1 Introduction

The Township of The Archipelago will provide a level of service for signs that meets the Minimum Maintenance Standards O. Reg. 239/02 Sections 11 and 12 under the Municipal Act 2001.

Road classifications are in accordance with O. Reg. 239/02. There are currently no Class 1,2,3 or Class 4 highways within the jurisdiction of the Township of The Archipelago.

5.2 Definitions

“day” means a 24 hour period.

“highway” means a common and public highway and includes any bridge, trestle, viaduct or other structure forming part of the highway.

“regulatory sign” means a traffic sign advising drivers of action they should or must do (or not do), under a given set of circumstances.

“warning sign” means a sign which indicates conditions on or adjacent to a highway or street that are actually or potentially hazardous to traffic operations.

5.3 Operations Description

- a) The minimum standard for the frequency of inspecting signs of a type listed below to check to see that they meet the retro-reflectivity requirements of the Ontario Traffic Manual is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection.
- b) A sign that has been inspected in accordance with section a) is deemed to be in a state of repair with respect to the retro-reflectivity requirements of the Ontario Traffic Manual until the next inspection in accordance with that section, provided that the municipality does not acquire actual knowledge that the sign has ceased to meet these requirements.
- c) If any sign of a type listed below is illegible, improperly oriented, obscured or missing, the minimum standard is to deploy resources as soon as practicable after becoming aware of the fact to repair or replace the sign.
 - Checkerboard
 - Curve sign with advisory speed tab
 - Do not enter
 - Load Restricted Bridge
 - Low Bridge
 - Low Bridge Ahead
 - One Way

- School Zone Speed Limit
 - Stop
 - Stop Ahead
 - Stop Ahead, New
 - Traffic Signal Ahead, New
 - Two-Way Traffic Ahead
 - Wrong Way
 - Yield
 - Yield Ahead
 - Yield Ahead, New
- d) The minimum standard for the frequency of inspecting regulatory signs or warning signs to check to see that they meet the retro-reflectivity requirements of the Ontario Traffic Manual is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection.
- e) A regulatory sign or warning sign that has been inspected in accordance with section d) is deemed to be in a state of repair with respect to the retro-reflectivity requirements of the Ontario Traffic Manual until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge that the sign has ceased to meet these requirements.
- f) If a regulatory sign or warning sign is illegible, improperly oriented, obscured or missing, the minimum standard is to repair or replace the sign within the time set out in Table 5A to this section after becoming aware of the fact.
- g) In this section, “*regulatory sign*” and “*warning sign*” have the same meanings as in the Ontario Traffic Manual, except that they do not include a sign listed in subsection 11(2) of this Regulation.

Table 5A: Regulatory and Warning Signs

Classes of Highway	Time for Completion of Repair
5 and 6	30 days

Minimum Maintenance Standards O. Reg. 239/02

Section 6.0 – Bridges

6.1 Introduction

The Township of The Archipelago will provide a level of service for Bridges that meets the Minimum Maintenance Standards O. Reg. 239/02 Section 15 and 16 under the Municipal Act 2001.

Road classifications are in accordance with O. Reg. 239/02. There are currently no Class 1,2,3 or Class 4 highways within the jurisdiction of the Township of The Archipelago.

6.2 Definitions

“bridge deck spall” means a cavity left by one or more fragments detaching from the paved surface of the roadway or shoulder of a bridge.

“day” means a 24-hour period.

“highway” means a common and public highway maintained by the Township of The Archipelago and includes any bridge, trestle, viaduct or other structure forming part of the highway.

“surface discontinuity” means a vertical discontinuity creating a step formation at joints or cracks in the paved surface of the roadway, including bridge deck joints, expansion joints and approach slabs to a bridge.

6.3 Operations Description

- a) The majority of bridge deck spalls occur during the freeze/thaw cycles in spring and fall. Regular maintenance including patching is performed immediately following these cycles to prevent the formation of further spalls.
- b) Bridge deck spalls that are identified during routine patrols will be scheduled for repair as soon as practicable to prevent further degradation of the bridge surface structure and within the minimum maintenance standards detailed in section c) below.
- c) If a bridge deck spall exceeds both the surface area and depth set out in Table 6A below, the spall will be repaired, within the time specified in Table A after becoming aware of the condition.
- d) The bridge deck spall is deemed to be in a state of repair if its surface area or depth is less than or equal to that set out in Table 6A.

- e) If the surface discontinuity on a bridge deck exceeds 5 cm, the condition will be repaired as soon as practicable after becoming aware of the condition.
- f) A surface discontinuity on a bridge deck is deemed to be in a state of repair if its height is less than or equal to five centimetres.

Table 6A: Bridge Deck Spalls

Classes of Highway	Surface Area	Depth	Time for Completion of Repair
5 and 6	1,000 cm ²	8 cm	7 days

Minimum Maintenance Standards O. Reg. 239/02

Section 7.0 – Sidewalks

7.1 Introduction

The Township of The Archipelago will provide a level of service for sidewalks that meets the Minimum Maintenance Standards O. Reg. 239/02 Section 16.1 under the Municipal Act 2001.

7.2 Definitions

“surface discontinuity” means a vertical discontinuity creating a step formation at joints or cracks in the surface of the sidewalk.

7.3 Operation Descriptions

- a) The minimum standard for the frequency of inspecting sidewalks to check for surface discontinuity is once per calendar year, with each inspection taking place not more than 16 months from the previous inspection. O. Reg. 23/10, s. 10
- b) A sidewalk that has been inspected in accordance with subsection (1) is deemed to be in a state of repair with respect to any surface discontinuity until the next inspection in accordance with that subsection, provided that the municipality does not acquire actual knowledge of the presence of a surface discontinuity in excess of two centimetres.
- c) If a surface discontinuity on a sidewalk exceeds two centimetres, the minimum standard is to treat the surface discontinuity within 14 days after acquiring actual knowledge of the fact. O. Reg. 23/10, s. 10.
- d) A surface discontinuity on a sidewalk is deemed to be in a state of repair if it is less than or equal to two centimetres.
- e) For the purpose of subsection (2), treating a surface discontinuity on a sidewalk means taking reasonable measures to protect users of the sidewalk from the discontinuity, including making permanent or temporary repairs, alerting users' attention to the discontinuity or preventing access to the area of discontinuity. O. Reg. 23/10, s. 10.