



**Township of Bonfield**  
**Winter Operations Policy**  
**2023-2024**

**Winter Season**

**November 15<sup>th</sup> to March 31<sup>st</sup>**

**Purpose:**

This winter operations plan sets out a policy and procedural framework for ensuring that the Township of Bonfield continuously improves on the safe and sustainable delivery of winter maintenance services. The Township of Bonfield uses the Maintenance Standards for Municipal Highways, O. Regulation 366/18 as a base line for winter operations service delivery.

**Definitions:**

“bicycle lane” means the Voyageur Bicycle Trail system.

“sidewalk” means the section from Caisse Populaire on Yonge Street to the east end of Church Street.

“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.

“winter event” is a weather condition affecting roads such as snowfall, windblown snow, freezing rain, frost or ice to which a winter event response is required.

“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. This condition allows for the Municipality to ensure the safety of its manpower and equipment.

**Objectives of Winter Operations Management:**

The Township of Bonfield is committed to providing safe and sustainable winter maintenance operations while continuing to improve those operations to provide safety and mobility for the traveling public. As an integral part of this effort the Township will strive to optimize the use of all winter maintenance materials and equipment to pursue the goals of a safe and sustainable transportation system.

The Township of Bonfield’s Public Works Staff will strive, insofar as reasonably practicable, to provide safe winter road conditions for vehicular and pedestrian traffic as set out in the Maintenance Standards for Municipal Highways.

The Township of Bonfield does not keep bare roads due to the gravel system within the Township but will maintain a hard packed surface. The Municipality does not use de-icing materials on roadways nor offer 24 hour service.

It is also advised that during winter events that the Public drive according to conditions to ensure their own safety.

**Roads System for Winter Maintenance:**

The Township of Bonfield is responsible for winter maintenance on the following roads. Road classes are determined by daily traffic count and speed limit. Maintenance Standards for Municipal Highways are determined by road class:

| Road Name         | Km    | Road Class | Road Name          | Km    | Road Class |
|-------------------|-------|------------|--------------------|-------|------------|
| Benoit Street     | .13   | 6          | North Star Drive   | 1.0   | 6          |
| Berry Road        | .4    | 6          | Palangio Road      | .63   | 6          |
| Blueseas Road     | 2.2   | 4          | Park Street        | .83   | 4          |
| Boisvert Street   | .1    | 4          | Pine Lake Road     | 8.14  | 4          |
| Boundary Road     | 3.95  | 5          | Pineland Drive     | .55   | 6          |
| Boxwell Road      | 2.5   | 6          | Railway Street     | .69   | 4          |
| Church Street     | .49   | 4          | Rainville Road     | .85   | 6          |
| Development Road  | 13.29 | 3          | Riverside Drive    | .39   | 6          |
| Eric Street       | .1    | 6          | Rutherglen Line    | 2.1   | 3          |
| Farmers Line      | 2.1   | 4          | Schayer Street     | .3    | 6          |
| Fichault Road     | 2.06  | 6          | Shields Point Road | 2.95  | 4          |
| Francoeur Road    | .8    | 6          | Southshore Road    | 3.12  | 4          |
| Gagne Street      | .1    | 4          | Sunnyside Road     | 5.01  | 4          |
| Gagnon Street     | 1.0   | 4          | Talon Crescent     | .28   | 6          |
| Georges Road      | .68   | 6          | Talon Lake Road    | 2.1   | 4          |
| Grand Desert Road | 10.95 | 4          | Trout Pond Road    | 6.1   | 4          |
| Greenwood Drive   | .8    | 6          | Trunk Road         | 10.83 | 3          |
| Guay Road         | 2.51  | 4          | Von Doeler Road    | 1.15  | 5          |
| Hillside Avenue   | .21   | 6          | Webbs Road         | 1.83  | 6          |
| James Street      | .39   | 5          | Wunders Road       | .8    | 6          |
| Labrecque Street  | .2    | 6          | Yonge Street       | 1.0   | 4          |
| Lakeshore Road    | .6    | 6          |                    |       |            |
| Lakeview Court    | .1    | 6          |                    |       |            |
| Landon Street     | .13   | 5          |                    |       |            |
| Laplante Road     | 2.51  | 6          |                    |       |            |
| Laurier Street    | .2    | 6          |                    |       |            |
| Levesque Street   | .33   | 5          |                    |       |            |
| Line 3 North      | .7    | 5          |                    |       |            |
| Line 3 South      | 5.55  | 4          |                    |       |            |
| Mark Street       | .43   | 4          |                    |       |            |
| Maple Road        | 5.8   | 5          |                    |       |            |
| McNutt Road       | 2.25  | 6          |                    |       |            |

### **Winter Maintenance Program:**

The major activities related to winter maintenance are:

- snowplowing
- sanding (3% salt mix)
- snow removal
- sidewalk plowing and sanding
- drift control
- scarifying/ice blading
- road patrol

During regular winter schedule hours, the above activities will be triggered by the Manger or Lead Hand when required. Outside of the winter schedule hours, 2 operators will be on- call and maintenance activities will be triggered by the Manager or Lead Hand when required to Maintain Maintenance Standards set out in O. Regulation 366/18.

Patrolling of entire road network will be done every 7 days. Representative roads will be patrolled after/during a weather event to determine when to commence winter operation activities. It is often only necessary to patrol certain road sections that are prone to winter events that would trigger maintenance procedures.

Appendix "A"-Map of Road System

Appendix "B"- Representative Roads Patrol

Plow routes are made in order to ensure operational efficiency, as well as prioritization of road networks according to class of road.

Appendix "C" shows the main road system which takes priority during an event.

Appendix "D" shows the plow routes in their entirety, including parking lots.

### **Plowing and Sanding Procedures:**

During a winter storm there are a number of elements that must be taken into consideration before a reasonable and responsible course of action can be determined.

Snow type and depth dictates the speed of plowing. Plowing will not exceed 40km/h.

Sand is dispersed from the left of the truck and has a spread of 1.2 meters to 2 meters at a rate of 35km/h.

Hills and corners may get “blasted” sand to ensure extra traction.

At times the road network will be “spot” sanded as a means of touching up road systems that have only periodic need for sand. In thawing events shaded areas may retain snow pack and need to be addressed.

#### Appendix “E” Spot Sanding Map

#### **Forecast:**

The forecast is one element that must be monitored three times daily beginning November 15<sup>th</sup> to March 31<sup>st</sup>. The forecast aids in decision making practices. Long term storms require long term action, and it is important to be aware of the forecast at all times so that manning and equipment can be planned accordingly. It also avoids over reacting during a short term storm.

#### **Depth of Snowfall:**

The course of action is determined by what time it is, the amount, and duration of snowfall. Dry type snow or heavy wet snow can also affect what action is needed.

Snow plowing and sanding operations normally start at 4:00 a.m. Monday to Saturday and when it is required, evenings and Sundays.

The following are the Maintenance Standards for snow depth and reaction times:

| <b>Class of Highway</b> | <b>Snow Accumulation</b> | <b>Reaction Times</b> |
|-------------------------|--------------------------|-----------------------|
| 3                       | 8 cm                     | 12 hours              |
| 4                       | 8 cm                     | 16 hours              |
| 5                       | 10 cm                    | 24 hours              |
| 6                       | 10 cm                    | 28 hours              |

#### **Ice Formation:**

The Township of Bonfield does not use any de-icing material. The Township will sand the roadways to increase traction. Often during freezing rain events, sand is quickly covered by freezing rain and becomes ineffective. The following table shows legislative reaction times to ice and freezing rain:

| <b>Class of Highway</b> | <b>Reaction Times</b> |
|-------------------------|-----------------------|
| 3                       | 8 hours               |
| 4                       | 12 hours              |
| 5                       | 16 hours              |
| 6                       | 20 hours              |

**Roadside Footpath Maintenance:**

The Township is responsible for maintaining a small roadside footpath system which runs along the north side of Yonge Street to the Bonfield Community Center, and the north side of Church Street. The standards for addressing snow accumulation on a roadside footpath after the snow accumulation has ended is; to reduce the snow to a depth of less than or equal to 8 cm within 48 hours. Sanding of roadside footpath’s will also be monitored to ensure traction. Patrol of roadside footpath’s will be performed.

**Bicycle Trail Maintenance:**

The Township of Bonfield has a bicycle trail within its roadway system and closes the trail on the first Tuesday after the Thanksgiving weekend. Closing the bicycle trail frees the Township from performing winter maintenance on the trail system. The trail is re-opened on the long weekend of May.

**Parking Lots:**

The Township of Bonfield maintains several parking lots in winter.

These parking lots are as follows:

|                         |                           |
|-------------------------|---------------------------|
| Township Office/Library | Rink Area                 |
| Government Dock         | Top of Blue Sea Rd.       |
| 2 Fire Halls            | Pumping Station Accesses  |
| Medical Center          | Landfill                  |
| Public Works Garage     | Parking Areas on Mark St. |

\* Maintenance Standards do not regulate parking lot levels of service \*

**Weather Hazard Event Road Closure and Procedures:**

When Environment Canada issues an alert through its Public Weather Alerting Program, the Township of Bonfield will carefully monitor the storm for the safety of its employees. When no visibility is evident and does not allow for the safe operations of winter maintenance activities the Township shall exercise the right to cease operations and temporarily close the road system. Also freezing rain events could trigger this procedure. Not only are we ensuring our employees safety, we are ensuring the safety of our public as well as the equipment.

Once it is determined that Winter Operations will cease, a media release will be given to local radio and news, posted to the Township website and any other means of being able to alert the public. This allows the roads to then be described as being in a “state of repair”. Once the

weather allows for operations to reconvene then the Maintenance Standards for reaction times will commence and the Public will be notified.

**Record Keeping:**

Full and accurate completion of the documents listed below, according to the applicable procedures, ensures that the municipality is protected from liability by providing solid documentation that procedures have been followed.

Staff is responsible for the following records:

**Equipment Operators:**

Amount of pickled sand used on the route.

Time of entry into the route.

Route plowed and strategy used. (Plow/sanding/spot sanding etc.)

On-Duty log for CVOR

**Patrollers:**

Winter Patrol Record

**Management and Lead hand:**

Operations Diary

Incident Reports if needed

Weather Reports 3 times daily

**Public Works Clerk:**

To enter all data into Citywide Software for inventory purposes and maintenance tracking.

Appendix "F" Plow Route and Inventory Operator Sheets

Appendix "G" Patrolling Sheet

Appendix "H" Incident Report

Appendix "I" On-Duty Log

Appendix "J"- Door Shoveling and Sidewalk Trip Sheet

# Appendix

- Pages 1, 2 - Appendix A- Road Map
- Pages 3, 4 - Appendix B- Representative Roads Patrol
- Page 5 -Appendix C- Priority Plow/Sand Route
- Pages 6 to 9 -Appendix "D" Plow Routes
- Page 10 -Appendix "E" Spot Sanding Map
- Pages 11, 12 - Appendix "F" Plow Route and Inventory Sheets
- Pages 13, 14 -Appendix "G" Patrolling Sheet
- Page 15 -Appendix "H" Incident Report
- Page 16 -Appendix "I" On- Duty Log
- Page 17 -Appendix "J" Tractor/Labour Door Ways and Sidewalks