THE CORPORATION OF THE

TOWN OF COBALT

BY-LAW NO. 2022-28

Being a By-Law to adopt a Winter Operations Plan

WHEREAS under Section 8 of the Municipal Act, 2001, S.O. 2001, c. 25, as amended, the powers of a municipality shall be interpreted broadly to enable it to govern its affairs as it considers appropriate and to enhance the municipality's ability to respond to municipal issues;

AND WHEREAS under Section 9 of the Municipal Act, 2001, S.O. 2001, c. 25, as amended, a municipality has the capacity, rights, powers and privileges of a natural person for the purpose of exercising its authority under this or any other Act;

AND WHEREAS under Section 10 (1) of the Municipal Act, 2001, S.O. 2001, c. 25, as amended, a single-tier municipality may provide any service or thing that the municipality considers necessary or desirable for the public;

NOW THEREFORE the Council of The Corporation of the Town of Cobalt hereby enacts the following as a By-Law:

1. THAT Council hereby adopts the Winter Operations Plan for the Town of Cobalt, attached hereto as Schedule "A" and forming part of this By-Law; and

2. THAT the Clerk of the Town of Cobalt is hereby authorized to make any minor modifications or corrections of an administrative, numerical, grammatical, semantically or descriptive nature or kind to the By-Law and schedule as may be deemed necessary after the passage of this By-Law, where such modifications or corrections do not alter the intent of the By-Law.

AND FURTHER THAT 2014-2015 Winter Operations By-Law 2014-47, as amended, be repealed;

TAKEN AS READ A FIRST, SECOND AND THIRD TIME AND FINALLY PASSED this 20th day of December, 2022.

Original on File
Mayor

Original on File
Clerk

THE CORPORATION OF THE TOWN OF COBALT
SCHEDULE "A" TO BY-LAW

WINTER OPERATIONS PLAN

Part 1
General Provisions

1.1 Short Title

This By-Law shall be cited as the “Winter Operations Plan”

1.2 Purpose

This Winter Operations Plan sets out a policy and procedural framework for ensuring that the Town of Cobalt continuously improves the effective delivery of winter maintenance services and the management of materials used in winter maintenance operations, as outlined in Environment Canada’s Code of Practice for the Environmental Management of Road Salts along with Ontario Regulation 366/18; Minimum Maintenance Standards for Municipal Highways.

The Plan is meant to be dynamic, to allow the Municipality to evaluate and phase-in any changes, new approaches and technologies in winter maintenance activities in a fiscally sound manner. At the same time, any modifications to municipal winter maintenance activities must ensure that roadway safety is not compromised.

As specified in the Code of Practice for the Environmental Management of Road Salts, the Winter Operations Plan for the Town of Cobalt was endorsed by Council on December 20, 2022.

1.3 Objectives

The Town of Cobalt is committed to improving winter maintenance operations while continuing to ensure public safety. The Town of Cobalt operations staff will strive, insofar as reasonably practicable, to provide safe winter road conditions for vehicular and pedestrian traffic as set out in the level of service policies and within the resources established by the Council of the Town of Cobalt.

1.4 Policy Statement

The Town of Cobalt will provide efficient and cost-effective winter maintenance to ensure, insofar as reasonably practicable, the safety of users of the municipal transportation network in keeping with applicable provincial legislation and accepted standards while controlling the use of road salt in an environmentally responsible manner, and minimizing the negative environmental effects of handling, storage and applicable of salt on the environment. These commitments will be met by:

- Adhering to the procedures contained in the Winter Operations Plan;
- Reviewing and upgrading the Winter Operations Plan on an annual basis to incorporate new technologies and new developments;
- Committing to ongoing winter maintenance staff training and education; and
- Monitoring, on an annual basis, the present conditions of the winter maintenance program, as well as the effectiveness of the Winter Operations Plan.

Part 2
Definitions

Definition of words, phrases and terms used in this By-Law that are not included in the list of definitions in this section shall have the meanings which are commonly assigned to them in the context in which they are used in this By-Law.

The words, phrases and terms defined in this section have the following meaning for the purposes of this By-Law.

2.1 **Anti-icing** means the application of liquid de-icers directly to the road surface in advance of a winter event.

2.2 **De-icing** means the application of solids, liquids, pre-treated material to the road surface after the on-set of the winter event.

2.3 **Highway:** includes a common and public highway, street, avenue, parkway, driveway, square, place, bridge, viaduct or trestle, any part of which is intended for or used by the general public for the passage of vehicles and includes the area between the lateral property lines thereof.

2.4 **Paved Road:** is a road with an asphalt surface, concrete surface, composite pavement, or portland cement.

2.5 **Pre-treat:** the application of liquids, (calcium chloride, sodium chloride, etc.) dry sand, or salt; prior to being loaded for storage or applied to the road surface.

2.6 **Pre-wetting:** means the application of liquids (calcium chloride, sodium chloride, etc.) at the spinner of the truck just prior to application to the road surface.

2.7 **Surface Treated Road:** is road with bituminous surface treatment comprised of one of two applications of asphalt emulsion and stone chips over a gravel road.

2.8 **Unpaved Road:** is a road that does not have an asphalt surface or concrete surface; or is made of composite pavement or portland cement. Ie. Dirt road.

2.9 **Winter Weather Event:** is a weather condition affecting roads such as snowfall, wind blown snow, freezing rain, frost, black ice, etc to which a winter event response is required.

2.10 **Winter Weather Event Response:** is a series of winter control activities performed in response to a winter event.

- **Continuous Winter Weather Event Response:** is a response to a winter event with full deployment of manpower and equipment that plow/salt/sand the entire system.
- **Spot Winter Weather Event Response:** is a response to a winter event with only a part deployment of manpower and equipment with full deployment to only part of the system.

2.11 **Winter Weather Event Response Hours:** the total number of person-hours per year (plowing, salting/sanding, winging back, etc.) to respond to winter events.

Part 3
Winter Maintenance Program

To achieve the Town’s level of service and enable the safe use of the Town’s roads, sidewalks and other transportation infrastructure, the Public Works Department of the Town of Cobalt undertakes the following the major activities related to winter maintenance:

- Anti-icing
- Snow plowing
- Salt / sand application
- Salt and sand transportation and storage
- Snow removal
- Snow storage
- Sidewalk plowing and de-icing

3.1 The System Being Maintained

The Town of Cobalt is responsible for winter maintenance on the following infrastructure:

Paved Roads	11 lane km
Surface Treated Roads	3 lane km
Unpaved Roads	0 lane km
Sidewalks	5 lane km
Paths and Trails	2 lane km

For the purpose of this winter operations plan, the highways under the jurisdiction of the Town of Cobalt have been classified as **Class 4** and **Class 5**, as per the following, Table 3.1.1, which is based on the Classification of Highways table included in Ontario Regulation 366/18. The determination of class level was made by using the Average Annual Daily Traffic in the 2010 Ministry of Transportation (MTO) Report – *Provincial Traffic Volumes (p.14)*.

Table 3.1.1: Highway Class System as found in Ontario Regulation 366/18, Minimum Maintenance Standards for Municipal Highways

Average Annual Daily Traffic (Number of Vehicles)	**Posted or Statutory Speed Limit (kilometres per hour)**						
	91-100	81-90	71-80	61-70	51-60	41-50	1-40
15,000 or more	1	1	1	2	2	2	2
12,000 - 14,999	1	1	1	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	3	3
5,000 – 5,999	1	2	2	3	3	3	3
4,000 – 4,999	1	2	3	3	3	3	4
3,000 – 3,999	1	2	3	3	3	4	4
2,000 – 2,999	1	2	3	3	4	4	4
1,000 – 1,999	1	3	3	3	4	4	5
500 – 999	1	3	4	4	4	4	5
200 – 499	1	3	4	4	5	5	5
50 – 199	1	3	4	5	5	5	5
0 – 49	1	3	6	6	6	6	6

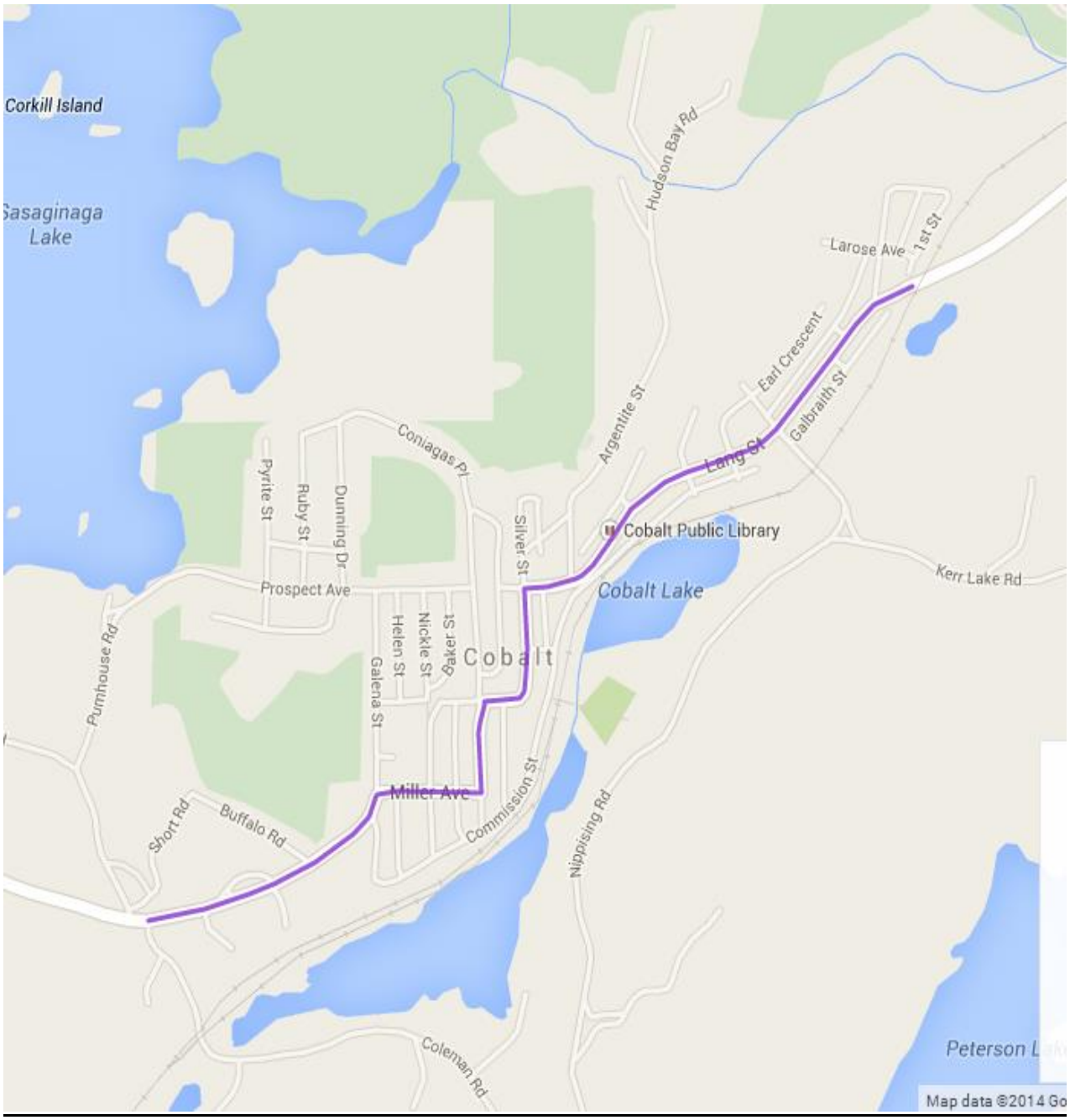
3.2 Road Systems in the Town of Cobalt

Table 3.2.1 and Map 3.1.1 found below summarizes the road systems in the Town of Cobalt.

Table 3.2.1 – Cobalt Road Systems

	Paved Lane / Km		**Surface Treated / Km**		**Unpaved Lane / Km**	
	Rural	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**
Class 1						
Class 2						
Class 3						
Class 4		2.3				
Class 5		9.08		2.84		
Class 6						

Map 3.1.1: Class 4 Roads



Map 3.1.1 illustrates the Class 4 roadways in the Town of Cobalt. All other roads are deemed Class 5.

Legend

Class 4 Roads

Unmarked Roads = Class 5

3.3 Level of Service

The Town of Cobalt provides the following level of service during the winter maintenance season, as set out in Part 4, in response to a winter weather event.

While this Winter Operations Plan establishes levels of service, it is acknowledged that conditions may occur which temporarily prevent achieving levels assigned. In such cases, attempts should be made to keep roads open, consistent with resources available.

When it becomes evident that available resources are not sufficient to maintain roads open and passable, the Public Works Department may implement road closing procedures in co-operation with the Ontario Provincial Police.

3.4 Weather Monitoring

(1) 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 three times per calendar day, at intervals determined by the municipality.

(2) 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.

In order to determine an effective winter event response and allocate the appropriate resources, the Town supplements road patrol information with weather information from various sources which include:

- Observations from municipal staff, communication with staff of adjacent municipalities and MTO contractors
- Monitoring websites i.e. www.theweathernetwork.com

Weather forecasts are monitored on the radio, television, and online for the purpose of planning. Patrolling by the Public Works Superintendent is used to monitor ongoing situations in order to determine whether equipment should be dispatched.

3.5 Patrolling

(1) The standard for the frequency of patrolling of highways to check for conditions described in this Regulation is set out in Table 3.5.1. O. Reg. 23/10, s. 3 (1); O. Reg. 366/18, s. 3 (2)

Table 3.5.1 – 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 – Connecting Link	Once every 14 days
5 – Remainder of Town	Once every 30 days

(2) If it is determined by the municipality that the weather monitoring indicates that there is a substantial probability of snow accumulation on roadways, ice formation on roadways or icy roadways, the standards for patrolling highways is, in addition to that set out Table 3.5.1, to patrol highways that the municipality selects as representative of its highways, at intervals deemed necessary by the municipality, to check for such conditions. O. Reg. 47/13, s. 2; O. Reg. 366/18, s. 3.

(3) Patrolling a highway consist of observing the weather and road conditions and may be performed by persons responsible for patrolling highways or by persons responsible for or

performing highway maintenance activities. Should a winter event be observed, or a winter event response is required, the person responsible for patrolling highways shall mobilize winter maintenance operators and equipment. O. Reg. 23/10, s. 3 (1);

(4) On the approach of a winter event, or during a winter event, the route of representative roads may be modified, insofar as reasonably practicable, depending on the type and severity of the winter event or the direction from which the storm approaches.

3.6 Procedure for Declaring a Winter Weather Event

(1) Trigger of a Winter Weather Event

The procedure for declaring a winter weather event (WWE) is to be followed whenever a WWE is occurring or is about to occur. The following criteria should be considered when deciding to declare a WWE:

- Environment Canada’s weather hazard warnings
- Road Weather Information System weather hazard warnings

It is prudent to consider other weather forecast tools, including but not limited to, snow/ice fall intensity, sun light, temperature, dew point, time of day, etc. and actual site conditions. If there is uncertainty as to whether a weather event is significant, treat it as significant.

Municipal staff is responsible for reporting changing winter weather and/or road conditions as the charges are observed in the field.

In the event that a road must be closed due to a severe winter storm, OPP will contact the Public Works Superintendent. The Public Works Superintendent will then assure that barricades are properly placed that prevent any vehicles from entering onto the roadway. Detour signs will also be placed in proper positions to redirect traffic.

However, it should be emphasized that the decisions will be subjective and external input, whether in this plan or elsewhere, merely acts as an aid in determining if a call out of staff or equipment is warranted. It is vital that the Public Works Superintendent records the prevalent conditions and relevant information when they make a decision. When a WWE response is required, the Public Works Superintendent or their designate, will initiate a call out.

3.7 Snow Accumulation

(1) The minimum standard for addressing snow accumulation is,

(a) the Public Works Department will deploy resources 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 3.7.1; and

(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 Table 3.7.1 within the time set out in the table:

i. To provide a minimum lane width of the lesser of three meters for each lane or the actual land width; or

ii. On a Class 4 or Class 5 highway with two lanes, to provide a total width of at least five meters.

(2) If the depth of the snow accumulation on a roadway is less than or equal to the depth set out in the Table 3.7.1, the roadway is deemed to be in a state of repair with respect to snow accumulation.

(3) For the purpose of this section, the depth of snow accumulation on a roadway may be determined in accordance with subsection (4) of Section 3.7 by a municipal employee, agent or contractor, whose duties or responsibilities include one or more of the following:

(a) Patrolling Highways
(b) Performing highway maintenance activities
(c) Supervising staff who perform activities described in paragraph 1 or 2.

(4) The depth of snow accumulation on a roadway may be determined by:

(a) Performing an actual measurement
(b) Monitoring the weather; or
(c) Performing a visual estimate

(5) For the purposes of this section, addressing snow accumulation on a roadway includes, but is not limited to:

(a) Plowing the roadway
(b) Salting the roadway; or
(c) Applying a sand/salt mix; or
(d) Any combination of the methods described above.

(6) The objective will be to complete sidewalk clearing and shoveling operations in the same

Table 3.7.1: Snow Accumulation

The minimum standard for treating snow w.r.t time on roadways is:

CLASS OF HIGHWAY	DEPTH	TIME
1	--	--
2	--	--
3	--	--
4	8 cm	16 hours
5	10 cm	24 hours
6	--	--

3.8 Ice Formation on Roadways and Icy Roadways

(1) The minimum standard for the prevention of ice formation on roadways is doing the following, within the 24-hour period preceding an alleged formation of ice on a roadway:

(a) Monitor the weather in accordance with section 3.4
(b) Patrol in accordance with section 3.5
(c) If the municipality determines that there is a substantial probability of ice forming on a roadway; treat the roadway to prevent ice formation within the time set out Table 3.8.1, starting from the time that the municipality determines is the appropriate time to deploy resources for that purpose.

(2) 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:

(a) The time that the municipality becomes aware of the fact that the roadway is icy; or
(b) The applicable time set out in Table 3.8.1 for treating the roadway to prevent ice formation expires.

(3) 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 3.8.1, and an icy roadway is deemed to be in a state of repair until the applicable time set out in the Table for treating the icy roadway expires.

(4) 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.

Table 3.8.1: Icy Roadways

The minimum standard for treating icy roadways is:

Class of Highway	Time
1	--
2	--
3	--
4	12 hours
5	16 hours
6	--

3.9 Sidewalks

The objective is to make the sidewalk as safe as possible, to be reached as soon as possible, after a storm has ended, and normally within (24) hours. The trigger to start plowing operations is 10 cm snow accumulation.

The objective is to treat the icy sidewalk as soon as practicable after becoming aware that the sidewalk is icy, and normally within (16) hours.

Refer to Appendix 3 for a map of sidewalks that have been approved for winter maintenance.

3.10 Shovelled Areas

Shovelled areas are classified in accordance with the associated vehicular traffic and proximity to downtown business areas and municipal buildings, as shown in Appendix 4.

The objective is to make these areas as safe as possible, to be reached as soon as possible, after a storm has ended, and normally within (48) hours. Staff priority will be given to plowing and sanding/salting roadways and sidewalks.

The objective is to treat these areas as soon as practicable after becoming aware that the area is icy, and normally within (16) hours.

Refer to Appendix 4 for a map of areas approved for winter maintenance.

Part 4
Winter Maintenance Season

The winter maintenance season within which the Town of Cobalt will perform winter highway maintenance commences on **November 1st** and is completed **May 1st**.

4.1 Winter Preparations

In the months prior to the start of the winter maintenance season, the Town of Cobalt undertakes the following tasks to prepare for the upcoming winter season.

4.2 Prior to the Winter Season

Prior to the winter season, if required; prepare and call tenders for the supply of materials (salt, sand, liquid), replacement parts (for plows, solid and liquid application equipment), and contract equipment (plow trucks, spreader trucks, combination units). Transportation of material (salt and sand) will also be commenced prior to the winter season, along with maintenance on the equipment.

Prior to the winter season the Town will:

1. Conduct a mandatory training session for staff where all policies, procedures, reporting procedures for callout, route maps, equipment training and safety precautions will be discussed. Any issues resulting from the meeting with regards to the meeting’s content shall be resolved either at the meeting or prior to the winter season.

2. Inspect equipment to ensure proper working order. Schedule and complete any and all equipment repairs.

3. Arrange for the delivery of materials (salt and sand) and begin filling storage facilities.

4. Confirm that all guiderail, catchbasin, hazard and fire hydrant markers, if any, are in place. Any missing markers will be replaced prior to the winter season.

4.3 One Month Prior to the Winter Season

One Month Prior to the winter season the Town will:

1. Allow operators time to familiarize themselves with any new equipment, material application rates, material application equipment and their route.

2. Have 100% of the fleet ready to respond to a winter event.

3. Have sufficient staff available to operate the fleet if conditions warrant a winter event response.

Part 5
Operations

5.1 Staffing and Hours of Work

Each shift, Public Works Superintendent will assign an employee to a specific vehicle used for winter operations. Each vehicle is assigned a route for sanding/salting or plowing. The Town of Cobalt adheres to the hours of service as set out in the Highway Traffic Act, Regulation 555/06.

5.2 Public Works Facility

The winter maintenance services for the Town are based out the Public Works Facility at 9 Hudson Bay Road.

Material Storage Details: The salt is stored in the salt shed, while the salt/sand mix is stored outside of the Public Works building.

5.3 Snow Removal and Disposal

Snow is removed and hauled to the sites listed in Table 5.3.1 when the accumulation of piled snow impedes traffic on the road and/or sight lines at intersections. When reasonably practicable, snow removal is performed in order to accommodate special occasions and functions.

This operation requires the use of a loader and dump truck.

Table 5.3.1 – Disposal Sites

Name	Location	Surface Paved	Run Off Controlled	Drainage/ Run Off	Surrounding Land Use
Third Street Disposal Site	Third Street	N	N	Run-off naturally drains to the north down a cliff into a forested area	North: undeveloped land South: Residential East: undeveloped land West: Residential
Damiani Drive Disposal Site A	Damiani Drive	N	N	Run-off naturally drains to the south into Cobalt Lake	North: Road South: Commercial East: Residential West: R
Damiani Drive Disposal Site A	Damiani Drive	N	N	Run-off naturally drains to the south into Cobalt Lake	North: Road South: Commercial East: Residential West: Residential
Watson Place Disposal Site	Watson Place	N	N	Run-off naturally drains to the North down a cliff into a forested area	North: undeveloped land South: Residential East: undeveloped land West: Residential

5.4 Sand/Salt and Plow Routes

Appendix 2 contains image files of the sand/salt routes and plow routes.

5.5 Communications

All winter maintenance vehicles are equipped with two way communications (radio, cell phone, etc.). Municipal staff is responsible for reporting changing winter weather and/or road conditions as the changes are observed.

Call or inquiries can be directed to the Public Works Office:

- Phone: 705-679-8110
- Between 7:30a.m to 4:00p.m.
- Monday, Tuesday, Wednesday, Thursday, and Friday.

5.6 Training

The Town of Cobalt provides winter operations training for all staff involved in the delivery of winter services. It is compulsory for the municipal staff to attend training sessions.

Current Winter Operations Trainings:

- Equipment Circle Check
- Record Keeping
- Health and Safety
- Level of Service – policies, practices, procedures
- Identification of Plow Routes – including variations from year to year and issues identified along the route
- Yard and Equipment Maintenance

5.7 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 thorough documentation that procedures have been followed.

Staff is responsible for keeping the following records:

- Materials used (sand, salt)
- Route Plowed

PW Director or designate is responsible for keeping the following records:

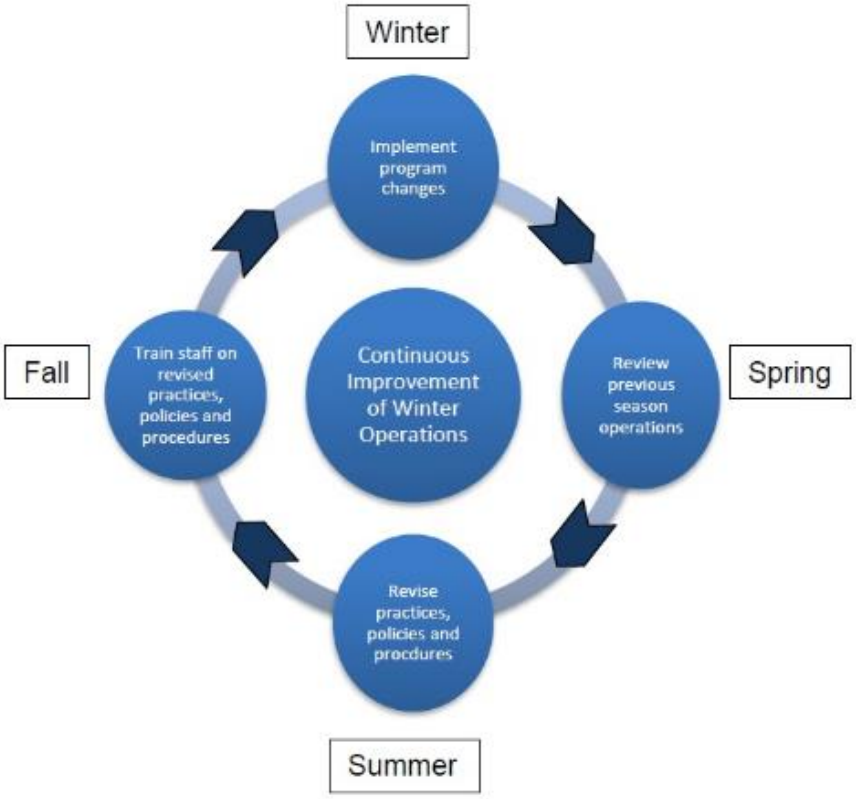
- Operations Diary
- Incident reports
- Total materials used
- Equipment Mechanical Results

The date will be recorded as Day/Month/Year. It will be written in a numerical format (ie. 27/09/12). The time shall be documented using the 24 hour clock format.

Always retain the original copy of documents regardless of the appearance. Writing must be legible for others to read and written in ink. Stains or dirt on the documents is not an issue. If a document requires correction then a line is to be placed through the incorrect information without making it illegible and continue writing on the original document.

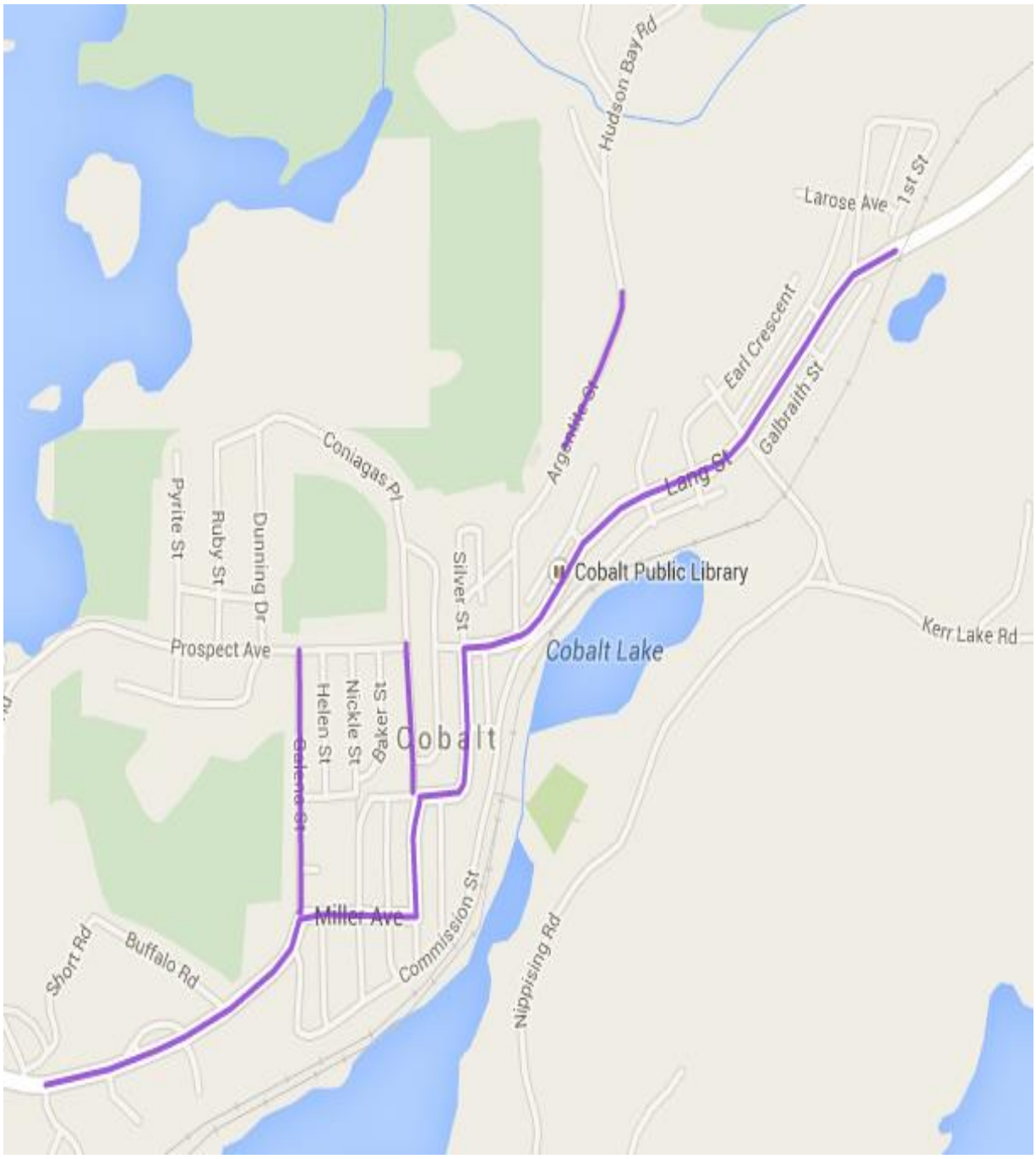
Part 6
Monitoring and Updating

The purpose of monitoring and updating is to provide a basis for continuous improvement of the winter operations plan and the winter maintenance policies, practices and procedures of the Town**.**



At the end of the winter season, as identified in Part 4, a meeting to review winter operations will be held each year with all winter operations staff to itemize all issues that arose during the winter season and discuss how these issues may be resolved. Prior to the start of the next winter season and with sufficient lead time to implement any changes, the staff shall be trained on the changes to equipment and/or winter maintenance policies, practices and procedures.

Appendix 1 – Route of Representative Roads
Roads used for monitoring of snow accumulation



Appendix 2 – Plow Routes
Road Plow Route “A” – 18.28 Lane Km

The streets that make up Road Plow Route “A” consist of:

- The Connecting Link
- Cobalt Hill
- Galena Hill
- Cambrian Hill
- Larose Hill
- Coniagas Road and Coniagas Hill
- Ruby Street
- Trailer Park
- Hudson Bay Road and Hudson Bay Road Hill
- Grandview Hill
- Prospect Avenue
- First, North and Third Street

Road Plow Route “B” – 29.99 Lane Km

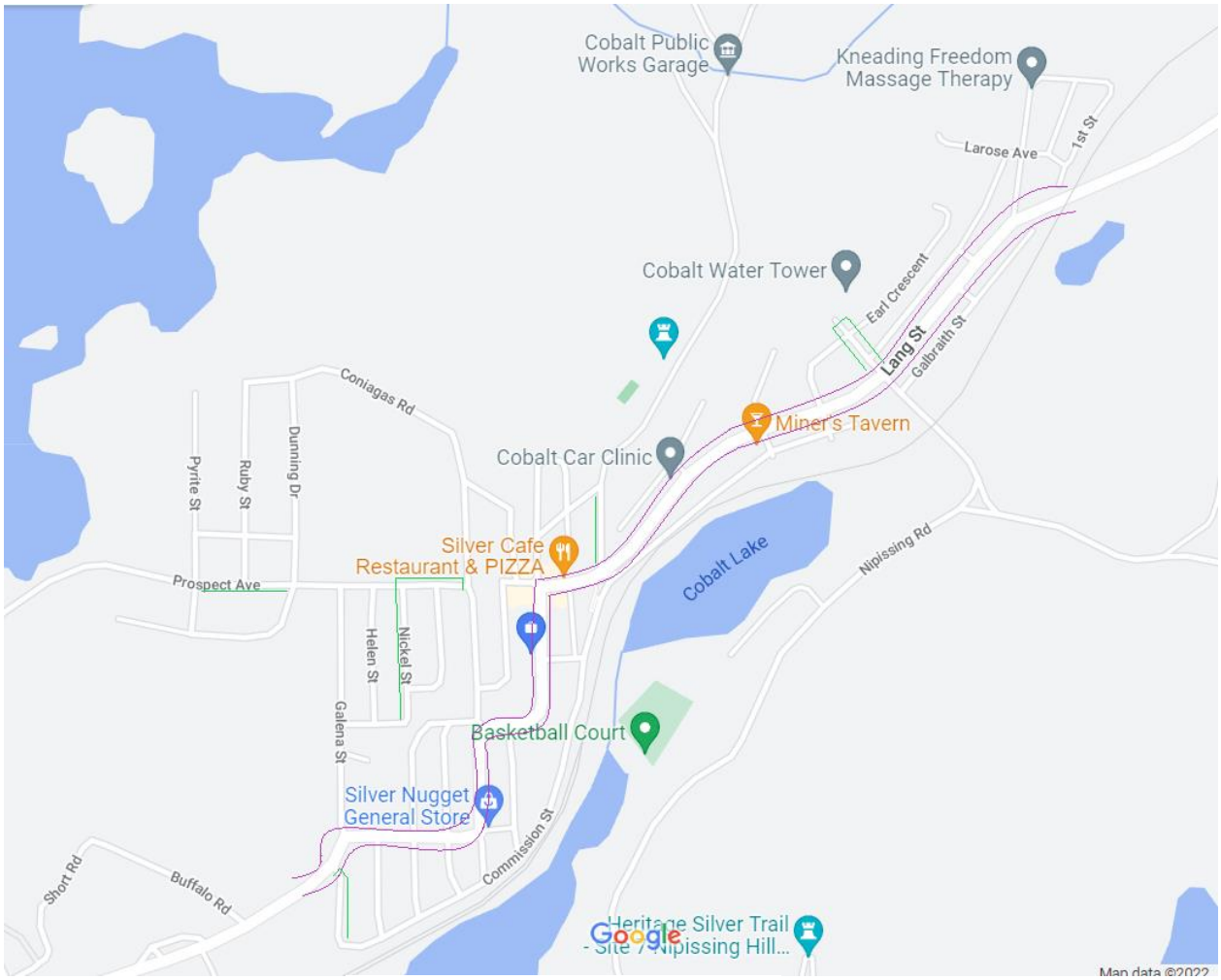
Legend

Priority 1

Priority 2

Road Plow Route “B” consists of the all the roads within the Town of Cobalt. Priority 1 roads are plowed first, and once they are cleared, Priority 2 roads are plowed.

Appendix 3 – Sidewalk Routes
Sidewalk Plow Route “A” & “B” – 4.49 Lane Km

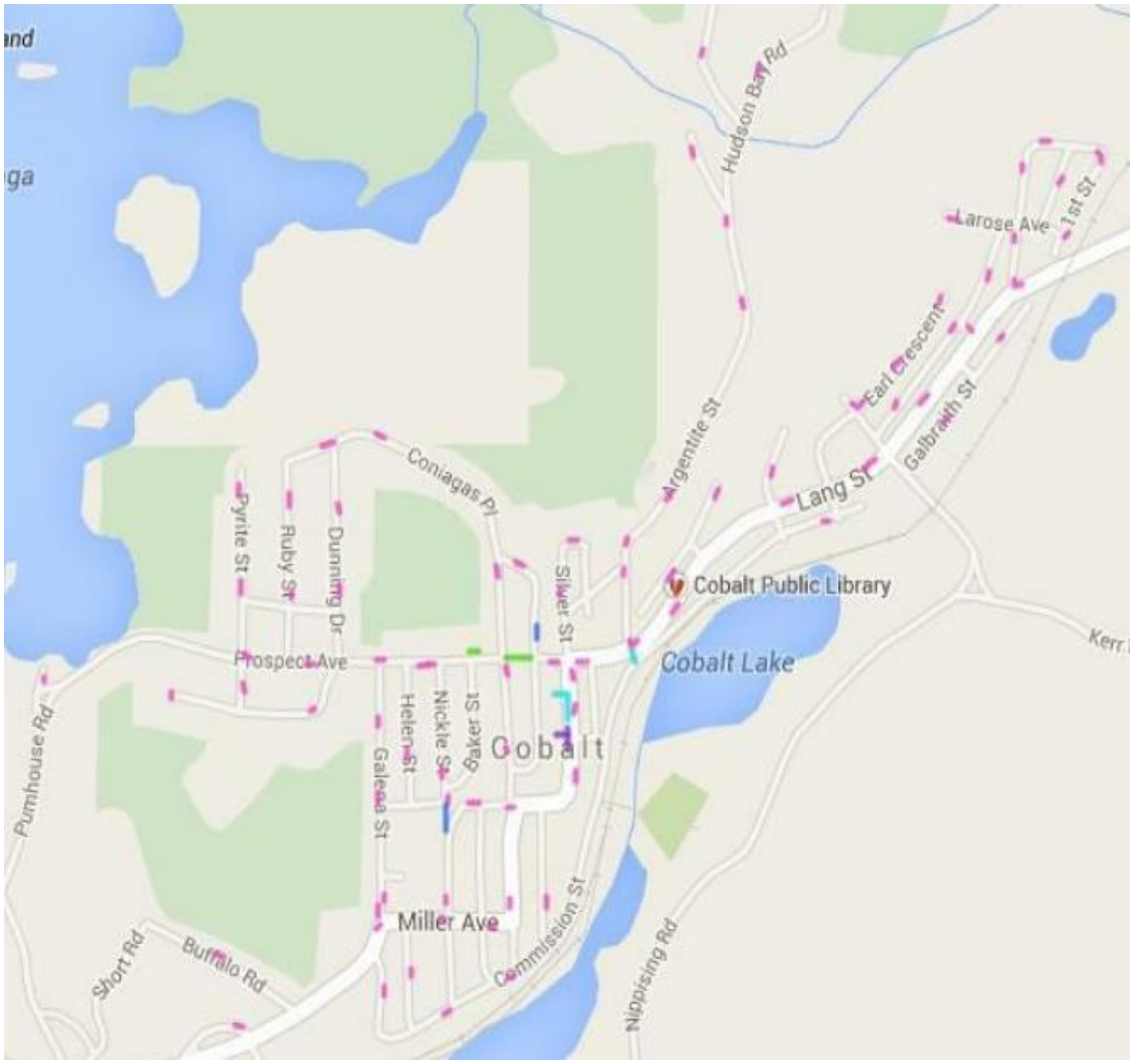


Legend

Priority 1 (Route "A")

Priority 2 (Route "B")

Appendix 4 – Shovelled Areas
Areas Shovelled – 2.66 Lane Km



Legend

- **Priority 1**
- **Priority 2**
- **Priority 3**
- **Priority 4**
- **Priority 5**
- **Priortity 6**

Priority 1: Town Office, Community Hall, and Recreation Office entrances, and the walk way between community hall and post office.
Priority 2: Fraser Walkway, Steps on Prospect and steps in front of Old High School,
Priority 3: Entrance and exit to Library.
Priority 4: Steps on Nickel Street and steps across from the Fire Hall.
Priority 5: Entrance to Mining Museum, and Theatre (side exits and ramp at theatre) and ramp to Train Station
Priority 6: Bus Shelters and Fire Hydrants.

DISCLAIMER

The information contained within this document is not legal advice nor meant to take the place of legal advice. All are encouraged to consult with independent legal counsel with respect to the information contained herein. Furthermore, the information and recommendations contained in this document do not form legal “standards” and should not be viewed as such.