



Town of Tyngsborough

Winter Road Maintenance Standard Operating Procedure

Managed by the Highway Department

MA Small MS4 Permit Requirement Summary:

Part 2.3.7.a.iii.5.

The permittee shall establish and implement procedures for winter road maintenance including the use and storage of salt and sand; minimize the use of sodium chloride and other salts, and evaluate opportunities for use of alternative materials; and ensure that snow disposal activities do not result in disposal of snow into waters of the United States. For purposes of this MS4 Permit, salt shall mean any chloride-containing material used to treat paved surfaces for deicing, including sodium chloride, calcium chloride, magnesium chloride, and brine solutions.

Personnel

The following personnel are responsible for snow and ice removal. Employees performing the procedures in this SOP shall receive annual stormwater pollution prevention training.

TABLE 1

Name	Responsibility
James Hustins	Supervisor
Michael Bergeron	Supervisor/Equipment Operator
William Lannan	Snow Plow and Sander Truck Driver
Robert Lareau	Snow Plow and Sander Truck Driver
Thomas Feeney	Snow Plow and Sander Truck Driver
William Wilson	Snow Plow and Sander Truck Driver
Patrick McCormick	Snow Plow and Sander Truck Driver
Corey Robinson	Snow Plow and Sander Truck Driver
Michael Gagnon	Snow Plow and Sander Truck Driver
Robert Pelletier	Snow Plow Truck Driver
Robert Woods	Snow Plow Truck Driver
Denis Sintiris	Snow Plow Truck Driver

Equipment

The municipality owns and maintains ice control and snow removal equipment listed in Table 2. Equipment maintenance shall be conducted consistent with the Vehicles and Equipment maintenance SOP, which shall be generated. The wash bay/ area is located at: **89 Kendall Road, Tyngsborough, MA.**

TABLE 2

Equipment Number	Make	Description	Additional Equipment	Primary Use
T-4	2002 Chevy	6 wheel dump truck	Slide in sander	General Plowing and Sanding
T-8	2019 International	6 wheel dump truck	Built in Sander	General Plowing and Sanding
T-12	2016 International	6 wheel dump truck	Built in Sander and Wing Plow	General Plowing and Sanding
T-7	2014 International	6 wheel dump truck	Built in Sander	General Plowing and Sanding
T-15	2002 Chevy	6 wheel dump truck	Slide in Sander	General Plowing and Sanding
T-17	2001 Chevy	6 wheel dump truck	Slide in Sander	General Plowing and Sanding
T-13	2015 International	6 wheel dump truck	Built in Sander and Wing Plow	General Plowing and Sanding
T-9	2015 International	6 wheel dump truck	Built in Sander and Wing Plow	General Plowing and Sanding

Plowing

When conditions warrant, plows are installed on the **8** larger trucks to move snow from the traveled roadway. Average time to install a plow is approximately **15** minutes. **25-30 hired vendor** smaller trucks are available for plowing of residential streets and clearing public lots.

Sand Spreaders

Sand spreaders are pre-mounted on the **8** larger trucks to spread sand on the traveled roadway. Each sand spreader is calibrated prior to the deicing season and annually thereafter. Sand spreaders are calibrated to dispense 240 cubic yards of sand per lane mile.

Salt Spreaders and Pre-Wetting Devices

Salt spreaders are pre-mounted on the **8** larger trucks to spread salt and sand on the traveled roadway. Each salt spreader is calibrated prior to the deicing season and annually thereafter. Salt application shall be calibrated to dispense rates of **240** pounds per lane mile. We currently do not have any trucks equipped with pre-wetting brine tanks. If this changes, procedures will be added here.

Anti-Icing Dispensers

The municipality has **0** pieces of equipment for this task.

Other Equipment available from other divisions: None

Materials

The major materials used in snow and ice control are coarse sand and coarse salt. These materials are stockpiled in advance of an event and are immediately available when needed and stocks are replenished between events.

Sand

Sand is used as an abrasive for traction on slick roadways. Approximately **1,500 tons** are anticipated to be used per year and are ordered from **Northeast Sand and Gravel** prior to each deicing season. Sand is stored in the covered facility located at: **89 Kendall Road, Tyngsborough, MA**. Loading areas and yards are swept **weekly** to prevent sand build-up and run-off.

Salt

Salt is used to expedite the melting of snow and ice from the street surface and also to keep the ice from forming a bond to the street surface. Approximately **3,000** tons of road salt are anticipated to be used per year and are ordered from **Eastern Salt** prior to each deicing season. Salt is stored in the covered facility located at: **89 Kendall Road, Tyngsborough, MA**. Loading areas and yards are swept **weekly** to prevent salt build-up and run-off.

Anti-icing and Pre-Wetting Chemical

We do not currently use anti-icing or pre-wetting chemicals. Section will be updated if needed.

Salt Alternatives

We do not currently use anti-icing or pre-wetting chemicals. Section will be updated if needed.

Procedures

Salt Application

1. Whenever conditions warrant, salt is applied to the roadway prior to accumulation of snow to prevent compacted snow from bonding to the roadway surface. The Senior Highway Foreman will instruct staff when salt application is appropriate. Salting will not be done when pavement temperatures are above **35** degrees F or below **0** degrees F.
2. Prior to salt application, equipment will be checked to ensure proper working order and ensure proper calibration of equipment. All fluid levels will be checked and filled to proper levels, all lights must be in working order. A visual walk-around inspection of the truck or equipment must be made. Any repairs must be made and reported to a supervisor or mechanic before leaving the yard.
3. The standard salt application speed is: **20** mph.
4. Follow the prioritized route or schedule. This schedule is located at: **89 Kendall Road, Tyngsborough, MA**.
5. Before parking any truck or equipment after use, all fluid levels will be checked and filled. All minor repairs will be done by the operator. Any repairs the operator cannot perform will be written up on the proper forms and turned in to the Senior Highway Foreman. The Senior Highway Foreman will determine importance and will assign the repairs according to schedule. All deicing chemical will be washed from equipment at the wash bay or designated wash area.

Snow Plowing

1. As the storm develops and **2 to 4** inches of snow has accumulated, all drivers and available equipment will begin to plow their assigned routes.
2. Prior to plowing operations, equipment will be checked to ensure proper working order. All fluid levels will be checked and filled to proper levels, all lights must be in working order. A visual walk-around inspection of the truck or equipment must be made. Any repairs must be made and reported to a supervisor or mechanic before leaving the yard.
3. Avoid plowing, pushing, blowing or storing excess snow, deicer, or other debris in or near creeks, watercourses or storm drainage systems.
4. Reduce plowing speed in sensitive areas (near creeks, wetlands or other water courses) to prevent snow and deicing materials from entering waterways.
5. The standard plowing speed is: **20** mph.
6. Follow the prioritized route or schedule. This schedule is located at: **89 Kendall Road, Tyngsborough, MA.**
7. Before parking any truck or equipment after use, all fluid levels will be checked and filled. Blades or bolts, which need replacing, will be taken care of unless told to do otherwise. Chains that need repairs will be repaired. All minor repairs will be done by the operator. Any repairs the operator cannot perform will be written up on the proper forms and turned in to The Senior Working Foreman. The Senior Working Foreman will determine importance and will assign the repairs according to schedule.

Sand Application

1. Whenever conditions warrant, sand is applied to the roadway to increase traction. The Senior Working Foreman will instruct staff when sand application is appropriate. Sanding will not be done when pavement temperatures are above 35 degrees F.
2. Prior to sand application, equipment will be checked to ensure proper working order and ensure proper calibration of equipment. All fluid levels will be checked and filled to proper levels, all lights must be in working order. A visual walk-around inspection of the truck or equipment must be made. Any repairs must be made and reported to a supervisor or mechanic before leaving the yard.
3. The standard sanding speed is: **20** mph.
4. Follow the prioritized route or schedule. This schedule is located at: **89 Kendall Road, Tyngsborough, MA.**
5. Before parking any truck or equipment after use, all fluid levels will be checked and filled. Blades or bolts, which need replacing, will be taken care of unless told to do otherwise. Chains that need repairs will be repaired. All minor repairs will be done by the operator. Any repairs the operator cannot perform will be written up on the proper forms and turned in to The Senior Working Foreman. The Senior Working Foreman will determine importance and will assign the repairs according to schedule.

Salt Alternative Application

We do not currently use anti-icing or pre-wetting chemicals. Section will be updated if needed.

Record Keeping and Documentation

1. Maintain a master schedule of prioritized snow and sanding routes and the miles or roads plowed or sanded. **Documentation is maintained at 89 Kendall Road, Tyngsborough, MA.**
2. Keep copies of manufacturer's recommendations for equipment calibration, plowing speed and salt/sand application rates. **Documentation is maintained at 89 Kendall Road, Tyngsborough, MA.**
3. Keep records of the amounts of salt, sand, liquid deicer, and salt alternatives applied per season. **Documentation is maintained at 89 Kendall Road, Tyngsborough, MA.**

Keep a list of all employees trained in the facility's Stormwater Pollution Prevention binder or computer file.