



# TOWN OF MEREDITH PUBLIC WORKS DEPARTMENT

## Standard Operating Guidelines for Winter Maintenance and Snow and Ice Removal

**Governing Laws:** RSA 41:11, RSA 47:17, RSA 231:92-a and RSA 507-B, 2b

**Approved Date:** November 2009

**Next Review Date:** November 2011

**Policy:** It is the intent of the Town of Meredith to provide timely, efficient, and cost-effective winter maintenance, snow removal, and ice control on the roadways of the municipality for the safety and benefit of the town's residents, businesses and the general motoring public.

**Procedure:** The objective stated above will be achieved by implementation and execution of the procedures and tasks outlined in the Town of Meredith Winter Operations Snow Removal and Ice Control Procedures. Due to the many variables that are inherent in New England weather, each storm and/or weather event may require slightly different effort and/or emphasis on any number of maintenance tasks, which together, determine the overall winter maintenance, snow removal or ice control strategy.

**Level of Service:** It is not possible to maintain a snow and ice free black roads or sidewalks during a storm. It is the intention of the Town of Meredith to provide practical, safe access to homes, business and municipal facilities during winter storm within the confines of budget limitations.

It is our policy to start snow removal operations upon an accumulation of two inches of snowfall. The Public Works Director or his/her designee (example: Assistant Public Works Director), may, at his/her discretion, based upon weather information reports elect not to remove snow until there is a greater or lesser accumulation. Pre-treatment and ice control may be addressed prior to the actual snow beginning, during the actual storms as seen effective, and after the storm. It should be noted that the salt has a much slower effect on melting snow and ice at temperatures below 25 degrees and may not be applied without additives until it is warmer.

**Command:** Direction of all winter maintenance activities for the Town of Meredith is vested with the Public Works Director or his/her designee (example: Assistant Public Works Director) under the direction of the Town Manager.

**Execution:** The policy outlined above is intended to serve as the normal operation procedures for winter maintenance, snow removal and/or ice control for the Town of Meredith.

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One or more of the following, which may delay or prevent the implementation of this policy, may affect any part of or all of this policy:

1. Equipment Breakdown
2. Snow Accumulation in excess of 1 inch per hour
3. Traffic congestion
4. Emergencies
5. Illness or Absence of Personnel
6. Budget constraints
7. Extensive operations with an exhausted crew.

**Adoption:** This policy is effective as of November, 2009, and supersedes any policy formerly issued. All residents are encouraged to familiarize themselves with the content as it describes the condition that one might expect to encounter before, during and following a winter storm event.

**WINTER OPERATIONS-- SNOW REMOVAL AND ICE CONTROL PROCEDURES**

(Includes Paved and Gravel Streets and Highways, Sidewalks,  
Solid Waste Facility and Parking Areas)

**Equipment:** The Public Works Highway Division utilizes all the assets needed to address snow emergencies. A list of the current rolling stock assets is included in the appendix. The town owns six 35,000 gross vehicle weight (GVW) trucks, five 28,000 GVW trucks, and one 54,000 GVW truck, all which have mounted hydraulic powered sanders with wings and front plows. Several town pickups, backhoes, loaders and pieces of specialty equipment complete the snow and ice fighting force.

**Routes:** Currently, the town is divided into fifteen plow routes and fifteen treatment routes. There are a total number of 147.84 road miles in the Town of Meredith. Town maintained roads are comprised of 93 road miles, which include 32 miles of gravel roads and 61 miles of paved roads. Town roads not maintained in the winter include Class VI roads and Class V to summer cottage roads for a total of 4.4 miles. In addition, there are 20.9 miles of private roads that the town does not maintain. State roads in the town include 1.24 interstate road miles, 7.72 trunk lines and 19.68 miles of Class 2 roads.

**Manpower:** The town has 15 full time and 0 part time highway employees assigned to winter maintenance operations. In addition, one employee from the Solid Waste Facility is utilized to help plow town roads, and one supervisor and three employees from the Buildings and Grounds division and two employees from the cemetery division are used for snow removal and ice control on sidewalks, parking areas and all town building entrances.

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**Materials:** The department uses approximately 2,500 tons of salt and 4,000 cubic yards of sand each season. The sand is used as an abrasive for paved and gravel roads and is applied to improve the public's motor vehicle traction. On paved roads, salt is tightly spread at 200 lbs. per lane mile to allow it to create liquid salt brine. The department employs salt as a de-icing agent. In the "Low Salt Areas" designated in town, only sand is used and only when necessary and salt is applied only in extreme icing conditions. Unless weather conditions require a different approach, winter maintenance routes are routinely treated with salt (paved roads) and sand (gravel roads). When salting paved roads, we typically treat @ 200 lbs per lane mile. Sand is spread at a higher ratio of 750 to 1,000 lbs per lane mile when needed. When the salt is applied it creates brine on the road surface that reduces snow compaction on the paved roads. Applying salt to gravel roads has a negative impact and can create mud. The road crown and the vehicular traffic further assist with the distribution of the brine. Salt becomes less effective as the temperature drops.

The town uses sand during extreme cold temperatures (once it drops below 15-18 degrees Fahrenheit) on all roads. During extreme cold, the town will only use sand and only where needed. Our sand is mixed with salt in a ratio of 20/1 (20 parts sand to one part salt). This helps to prevent the sand from freezing in the spreaders of the trucks and in the sand stock pile. During extreme sub-zero temperatures even this mixture will freeze.

Our sand supply is bid out each year. Following bid requirements and award, the sand is trucked in to our storage facilities throughout the winter season, as needed. Rock salt is purchased through a supplier, as needed, at state bid price, and is trucked in to our storage facilities throughout the winter season by the supplier. Our building storage facility is capable of storing approximately 500 hundred tons of salt and 1,500 tons of salt/sand mix undercover.

**Communications:** The Public Works Department rolling stock is equipped with two way radios capable of transmitting and receiving on frequency 153.98. Every employee is assigned a unique radio call number. Any private contractors working for the town communicate with DPW via their own cell phones. The Meredith Department of Public Works maintains communications both from the highway garage and from the Meredith Public Works office. Communication equipment used by the Police, Fire and Public Works departments allow for communication between departments.

**Schools:** The Department of Public Works is NOT responsible for the clearing of snow or for winter maintenance or treatments of the district schools' access roads and parking lots; this is done by private contract under the administration of the School District. However, on days when school is in session, our winter maintenance efforts on our town roads must be timed to coincide with bus routing and delivery.

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**Schools, continued:**

During a winter snow event, the bus company calls the Public Works Department and asks the Public Works Director or his/her designee (example: Assistant Public Works Director) for information on the road conditions. We relate information on conditions of our town roads and the bus company then relays that information to the superintendent of schools. The superintendent of schools then makes the decision whether to close school or to delay opening and for how long a delay. There are three towns included in the local school district so information must come from all three public works departments as conditions may vary from town to town.

**Winter Parking Ban:** The Town of Meredith has an ordinance (Sec 29-73) that enacts a winter parking ban every year from November 1st to April 1st between the hours of 12 Midnight and 6 AM. This ban prohibits parking in or on any town road or in any town right of way during those times. Any vehicle so parked as to obstruct such snow plowing and or snow removal operations may be towed by the Town of Meredith at the expense of the vehicle owner, unless specified exempt by the Town of Meredith Highway Department. The purpose of this winter parking ban is to allow winter maintenance crews unobstructed snow removal and ice control routes as much as possible and to maintain the maximum effectiveness of their efforts. The penalty is a fine not to exceed \$25.00 for each violation.

**Placing of Snow:** The placing of snow on the road surface of any public roads within the Town of Meredith is prohibited. Pursuant to Sec 26-3 of the Code of Ordinances, any person who shall place or cause to be placed, any snow or ice, upon the surface of any Class 4 or Class 5 highway or road way of the Town of Meredith, shall be subject to a fine and reimbursement to the town for any expense incurred in the cleanup of said violation.

**Plow Route Priorities:** With a total of 93 miles of town roads to remove snow and ice from, and sixteen pieces of equipment to handle this responsibility, the Highway Department needs to assign priorities for winter maintenance route activity in order to maximize the effectiveness of their efforts for the motoring public.

School bus routes are given the first priority during school days. Each plow route will ensure that the best possible snow clearance will be completed within one half hour of bus route time.

Second priority is given to the public parking areas: Town Offices, Town Hall, Library, Police Station and both Fire Stations will be maintained by plowing during winter storms. The application of slip resistant materials will be applied after the storm as determined by the Public Works Director or his/her designee (example: Assistant Public Works Director).

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**Solid Waste Transfer Station/Recycling Center:** The transfer station personnel are required to assist with the winter snow removal operations. If the facility is open to the public during a snow or ice storm, personnel will plow/shovel/snow blow this area prior to opening for public use. All public areas shall be kept as clear as possible to provide as safe an access is reasonably possible. Sand and other slip resistant materials shall be used in public areas. It will often not be possible to maintain clear ground, but a reasonable effort will be made during storms.

**Meredith Roads Not Receiving Winter Maintenance:** The Town of Meredith does not maintain a number of roadways as part of its ongoing winter maintenance activities. The areas NOT maintained by the town include:

- Town roads classified as Class VI roads
- Private roads
- Class V to summer cottage roads
- State maintained roads and number routes

**Post Storm Operations:** As determined by the Director of Public Works or his/her designee (example: Assistant Public Works Director or foreman), the snow banks resulting from previous storm snow accumulations shall be pushed back, or shelved, using the plow and wings of dump trucks, grader or other suitable equipment to make space for snow removal from future storms.

**Damage to Private Property:** It should be noted that the municipality is not to be held responsible for damage to any private property that is located within the town right of way (ROW). The ROW is often 50' wide from the center of the road, but is often property owners are confused and consider this their own property. In most cases, the ROW extends ten to twenty feet on either side of the paved or gravel road. Homeowners cultivate extensions their lawns, place mailboxes, fences or stone walls within this ROW area, which may improve the appearance of their property or the street, but it is obstructive to a good maintenance operation being conducted on the roadway.

Homeowners should not put bark mulch, crushed rock, stone walls, fences (visible and invisible), irrigation systems, trees, lawns or plantings in the town right of way. The town is not liable for any damage that may occur to property within its right of way. Many items interfere with heavy equipment and can become a hazard for vehicles and pedestrians. They often cause drainage failures and thereby road deterioration.

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**Location of Mailboxes:** Mail and newspaper boxes are allowed at the owner's risk within the right of way for the purpose of convenience. The United States Postal Bulletin 22102 states "The Postal Service suggests using a semi-arch or extended arm support which allows snowplows to sweep near or under mailboxes without damaging supports and provides easy access to the mailboxes by the carriers and the customers." Please refer to the Town of Meredith complete Mailbox Placement Policy attached.

The following are suggestions for reducing the possibility of damage and liability:

- Mailboxes should, whenever possible, be installed at least three feet from the edge of the pavement or road edge.
- Installation should be sufficiently sturdy to withstand the weight of heavy snow resulting from coming off a plow and hitting the mailbox and post during winter maintenance plowing operations.

**Sidewalk Snow Removal:** Sidewalk snow plowing will be done at the end of the snow or ice storm, within the limitations of manpower, equipment, and storm size. If there are insufficient personnel available to conduct sidewalk snow removal operations, as well as street and road clearance, the streets and roads will take priority. The sidewalks will be treated with salt and/or sand as quickly as possible after the storm, as required. The Town of Meredith has over 5-1/2 miles of sidewalks. During large snow events it could take more than a day after the storm to open them up for pedestrians.

**Snow Pick Up Town Wide:** To facilitate safe sight lines and access to sidewalks, snow pickup operations will occur. Snow pickup and removal operations are typically scheduled when a snowfall of 12-15 inches of snow has accumulated. However, the Public Works Director and/or his designee may decide to hold off on the snow pickup and removal if another storm is due to come in. Then the total snow accumulation can be picked up with less time and labor involved. This operation is typically done at night due to high traffic volume during the day. It is also much safer for pedestrians and the motoring public as the snow pickup equipment takes up most of the road space during removal operations. This operation is a lengthy process and does impede traffic flow so we do it only when necessary and when time and weather permit. Snow pickup may occur on as needed basis to ensure safe sight lines. As in all parts of this Guideline, snow pickup is subject to budgetary constraints.