

# TOWN OF TEMPLE, NH

## SNOW REMOVAL AND ICE CONTROL POLICY



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### GENERAL POLICY:

Winter weather in New England is difficult to predict. There are many variables affecting winter maintenance operations such as type of precipitation, air and ground temperatures, wind, time of day, and day of week. Winter maintenance is considered an art, not a science.

The Town of Temple's "Snow Removal and Ice Control Policy" is based on the goal of obtaining bare and dry pavements at the earliest practical time following cessation of a storm. Gravel roads shall be treated with sand accordingly. It is virtually impossible to provide bare roads during a winter storm and the Temple Highway Department does not attempt to do so.

Judgment based on experience is essential in conducting and timing remedial work to overcome ice and snow hazards. As each storm situation varies, it is important to emphasize that this policy be used as a guideline to assist the Road Agent in making well informed judgment decisions in the exercise of their snow removal and ice control responsibilities. The public should recognize that a rigid application of this policy is impossible given the varying conditions that exist in each storm. No policy could be prepared that could dictate set procedures under all the variants. Any attempt to dictate the timing of various winter maintenance operations from other than the specific location could create disastrous results.

Traffic volumes and road grades are the primary factors in determining the level of winter maintenance service. On paved roads the Highway Department shall attempt to provide some bare pavement, but not necessarily from shoulder to shoulder, within a day or two after a storm ends.

It is impractical to develop specific rules on winter maintenance operations due to the numerous variables involved in winter storms. The judgment of the Road Agent governs the type, quantities, and application schedule of materials used to control snow and ice. It is the intent of the Highway Department to use the minimum de-icing or anti-icing material needed to restore safe travel conditions as soon as practical following termination of winter storms.

Salting and sanding units are equipped with mechanical spreaders that accurately control the

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application rates of materials. Employees are instructed in the proper dispensing of the necessary quantity at the appropriate time.

### OPERATIONS:

Snow removal and ice control usually requires the timely application of either chemicals, abrasives, or a chemical-abrasive mixture to the roadway surface in combination with aggressive snow plowing operations. Choice of material is dependent upon the weather, type of road, and road conditions. Occasionally conditions such as low temperatures do not require material application. Materials available include the following:

Sodium Chloride: The use of sodium chloride (common salt) combined with snowplowing is the most effective, most economical, and safest snow and ice control method currently available for paved roads. Salt is most effective for melting purposes at temperatures above 20 degrees Fahrenheit, with reduced melting ability as the temperature drops. In general, the purpose of salt is to (1) reduce adherence of snow to the pavement, (2) keep the snow in a "mealy" condition and thereby permit nearly full removal by plowing, and (3) prevent the formation of ice or snow ice (hardpack). Salt is not intended to take the place of snowplows. It is economically and environmentally unacceptable to attempt to melt snow accumulations that are plowable. Salt is sometimes treated with additives such as calcium chloride or magnesium chloride to assist in its effectiveness at lower temperatures.

Abrasives: Abrasives (sand and fine material aggregates) are used primarily for immediate traction on hills, curves, intersections and other areas to increase traction. Sand is used on gravel roads. Salt is not used on gravel roads. Occasionally salt is added to the sand to help prevent the sand from freezing.

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### PLOWING OPERATIONS:

Plowing operations are generally initiated after 1 or 2 inches of snow have fallen and continue until the storm has ended. Widening and intersection view clearing is performed following cessation of the storm as necessary.

For light accumulation snowfalls, snow squalls, and so-called "Alberta clippers" of short duration, plowing and treating of roads may begin immediately to provide the desired results quickly and efficiently.

Temple's town roads are separated into four plow routes, each approximately 9 to 10 miles in length. Each route typically takes 3 to 4 hours to plow, with the cleanup pass taking more time. With a snowstorm accumulation of 1 inch per hour the average maximum depth of snow a motorist should encounter would be 3 to 4 inches, except during blizzard conditions and/or heavy wind and drifting conditions.

Frozen precipitation including sleet and freezing rain are special situations. When a changeover from snow or sleet to freezing rain is predicted or anticipated, snow and/or sleet may be left on the roads to capture the freezing rain, thereby preventing a glare ice condition, which without question is the most treacherous condition that occurs on roads. Heavy rain tends to wash off applied salt or sand, making it difficult to keep the roads ice-free.

### MAILBOXES AND OTHER STRUCTURES WITHIN THE HIGHWAY RIGHT-OF-WAY:

Occasionally mailboxes or other devices are damaged by snowplowing operations due to poor visibility, the mailbox being buried in the snowbank, or the weight/volume of the snow coming off the snowplow. This damage is not deliberate and in most cases is unavoidable. The Town of Temple is not responsible for damage and does not repair, replace, or re-erect boxes that are located within the highway right-of-way. The Road Agent will work with the box owners to locate the box in the safest possible location and offer advice on its design to minimize potential damage.

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### WIDENING OR PUSHING BACK SNOWBANKS:

Following snowstorms the Highway Department will typically push back snowbanks. This is a necessary operation because it accomplishes the following:

- (A) Provides room for future snow storage.
- (B) Reduces or prevents melted snow from running out onto the roadway and creating icing conditions.
- (C) Increases safe sight distance at intersections and driveways
- (D) Helps eliminate protrusions at driveways and intersections.

Unfortunately there is no way to prevent depositing snow into previously cleaned driveways or walkways except to leave a hazardous projecting mound of snow. With hundreds of driveways along our road system, it is impossible to clear these as the cost would be prohibitive.