Town of Farmington
Winter Operations: Snow Removal and Ice Control Policy

Purpose: The goal of this policy is to provide a guideline for the timely, efficient, and cost-effective winter maintenance, snow removal and ice control operations on the roadways of the municipality for the safety and benefit of Town residents and the motoring public.

Considerations: As each storm situation varies, it is important to emphasize that this policy is to be used as a guideline to assist our road crews in making well informed, judgment decisions in the exercise of their snow removal and ice control responsibilities. 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. Other than the identification of a specific location, any attempt to dictate the timing of various winter maintenance operations could create disastrous results.

Traffic volume, roadway grade and posted speed are the primary factors in determining the level of winter maintenance service. It is not possible to maintain a snow or ice-free road or sidewalk surface during a storm. It is the intention of the Town to provide practical, safe access to homes, businesses and municipal facilities as soon as possible following the cessation of the storm.

The judgment of the Public Works Director governs the type, quantities and application schedule of materials used to control snow and ice. It is the intent of the Town to use the minimum deicing or anti-icing material needed to restore safe travel conditions as soon as practical following the termination of winter storms. Salting and sanding units are usually equipped with calibrated mechanical spreaders that accurately control the application rates of materials. Employees are instructed in the proper dispensing of the necessary quantity at the appropriate time.

The road system of Farmington is comprised of the following road types:

Class I and II: are part of the State of NH highway system and are maintained in accordance with the NH DOT "Snow Removal & Ice Control Policy" by the State Highway Department.

Class V: consists of all traveled highways other than Class IV that the town has a duty to maintain regularly. The Town has 40 miles of paved Class V roadways and 16 miles of gravel Class V roadways.

Class VI: consists of all other existing public ways, including local highways that are discontinued and subject to gates and bars. These roadways are NOT maintained by the Town.

Private Roads: consist of privately owned ways and are NOT maintained by the Town.

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

Sodium Chloride: The use of sodium chloride (commonly known as salt) combined with snow plowing is the most effective, most economical and safest snow and ice control method currently available. Salt is most effective for melting purposes at temperatures above 20 degrees F., with reduced melting ability as the temperature drops. In general, the purpose of salt is to (1) reduce adherence of snow to 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 (hard pack). 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 may also be added to sand stockpiles to prevent freezing of the abrasives. Generally, the Town uses approx. 1,000 tons of salt each season.

Abrasives: Abrasives (sand and fine mineral aggregates) are used primarily for immediate traction on hills, curves, intersections, railroad crossings and other areas to increase traction and minimize the use of salt. Sodium chloride may be added to abrasives in amounts dependent upon existing weather conditions. The Town of Farmington uses approx. 3,000 cubic yards of sand each season.

The application of materials or combination of materials is dependent not only on present roadway and weather conditions, but also on anticipated changes in these conditions and fiscal or logistical constraints experienced by the Public Works Department. The effects of peak traffic periods, approaching nightfall or daybreak, precipitation type, and predicted end of storm, are considered and evaluated prior to selecting the proper materials and rate of application.

Unpaved roads are usually treated with an application of sand and aggressive plowing operations. Paved roads may be treated with sand, salt, or a mixture of the two in combination with aggressive plowing operations. The sand, salt, or combination mixture is normally spread in one direction, applying the materials as close to the center of the roadway as possible thereby allowing traffic to work the mix in either direction.

Rates of Application:

Paved Surfaces: generally, an application of sodium chloride is the chemical of choice for most storm situations. Sodium chloride is used to prevent snow pack and ice build-up on the pavement and to aid removal of any build-up that occurs.

Gravel Surfaces: an application of sand will be applied to gravel surfaced roads to improve traction. Salt is not used on gravel surfaces because it could cause melting of the frozen gravel base.

Recommended Snow and Ice Treatments			
Conditions	**Temperature**	**Paved Surface**	**Unpaved Surface**
Sleet & Freezing Rain	Variable	Salt and/or abrasive	Abrasive only
Snow	20 degrees and Up	Salt and/or abrasive	Abrasive only
Snow	Below 20 degrees	Abrasive as needed	Abrasive only

There are many additional circumstances which will necessitate modification of these treatments. Some of these circumstances are:

- Rising or falling temperatures
- When pavement is cold and dry and snow is falling, chemicals are not applied. Plowing and treatment of icy spots, if they develop, is recommended.

II. Treatment Operations: Plowing operations are generally initiated after two inches of snow have fallen and continue until the storm has ended. Widening and intersection view clearing is performed following the cessation of the storm, as necessary, and is generally done during daylight hours when the best visibility prevails.

For light accumulation snowfalls or snow squalls of short duration, plowing may begin immediately and may include simultaneous salting and/or sanding to provide the desired results quickly and efficiently.

Truck-mounted snowplows and wing plows are utilized to clear roadways and shoulders of frozen precipitation. Storm intensity (generally measured in inches per hour) varies considerably in NH but average major snowstorms are approx. one inch per hour. The one-inch per hour intensity rate and the allowable snow accumulation is used in planning the availability of equipment necessary for snow removal operations.

Treatment Route Priorities: Traffic volume, roadway grade, accessibility to emergency and community services including school bus routes, special events and major commercial traffic connectors will be of primary focus. (See attached appendix A)

Treatment Routes: Are assigned by the Town's Public Works Director in accordance with the guidelines for Treatment Route Priorities.

Municipal Parking Areas are also serviced by the Town's Public Works Department. The Public Works Director shall consider the hours of operation and accessibility needs in determining the scheduling of these services. There are Town maintained sidewalks, which will be attended to at the end of the snow event.

Snow & Ice Management Planning			
Priority Level	**Plowing Frequency**	**Planned Allowable Accumulation**	**Max. Allowable Accumulation**
Level I	2 ½ hours	2"- 3"	3 "- 4"
Level II	2 ½ hours	3"	4" – 5"
Level III	4 hours	4"	6"

The preceding table is based on an average accumulation of one inch per hour under optimum conditions (i.e. no traffic tie-ups or accidents, no equipment breakdowns or personnel shortages) and excludes the initial response time. The average maximum depth of snow or other accumulation a motorist may encounter on roadways, except during blizzard conditions and/or heavy wind and drifting conditions, is shown in the right-hand column of the table. During optimal conditions, Level I and II roadways are treated simultaneously within the assigned Treatment Routes.

Frozen precipitation including sleet and the build-up of ice caused by freezing rain are special situations, and not subject to procedures indicated above. When a changeover from snow or sleet to freezing rain is predicted or anticipated, snow and/or sleet may be left on the road surface to capture the freezing rain thereby preventing a glare ice situation which without question is the most treacherous condition that occurs on roadways.

It is the policy of the Farmington Public Works Department to perform snow removal and ice control operations in a consistent and impartial manner. There are a few plowing procedures that are frequently misunderstood and are explained as follows:

Mailboxes and Other Structures within the Right-of-Way: Occasionally, mailboxes or other devices are damaged by snow plowing operations due to poor visibility, the mailbox being buried in a snow bank or the weight/volume of snow being plowed. This damage is not deliberate and in most cases is unavoidable. **The Town of Farmington will replace mailboxes only if the box has been previously installed to USPS standards. The replacement box will be a standard box, 4x4 post placed in a bucket full of concrete. In the spring it will be the responsibility of the property owner to install the box permanently to USPS Standards.**

In the event of personal property damage, the Town of Farmington will only be responsible to repair or replace damaged property having been in actual contact with the snow removal equipment that is on private property and not within the public right-of-way.

Homeowners may not shovel or plow snow into the roadway or across a public way to the opposite snow bank.

Widening or Pushing Back Snow Banks: Following storms with heavy snowfall or when several storms result in substantial snow banking, the Public Works Department under the direction of the Public Works Director will initiate road-widening procedures. Snow banks may be pushed back, or shelved, using the plow and wing of the grader or other suitable equipment. The purpose of this operation is:

- To provide room for future snow storage
- Reduce or prevent melted snow from running out onto the roadway and creating icing conditions
- Increase safe sight distance at intersections and driveways
- Maintain a uniform line by eliminating protrusions at driveways and intersections.

Unfortunately, there is no way to prevent depositing snow in previously cleaned driveways or walkways.

Equipment Failure & Hiring Private Contractors: In the event the Town experiences equipment failure, the Director of Public Works will have a list of private contractors willing to assist the town. The Director of Public Works will solicit an hourly rate for equipment and operator and assign routes when so needed.

III. Authority: The implementation of all winter maintenance activities for the Town of Farmington is vested with the Director of Public Works or his/her designee.

This policy is to be used as a guideline to assist our road crews in making well informed, judgment decisions in the exercise of their snow removal and ice control responsibilities.

IV. Effective: The Town of Farmington, through it's Board of Selectmen has adopted this Winter Operations Snow Removal and Ice Control Policy –as amended to be effective, ***DATE February 20, 2013.*** All residents are encouraged to familiarize themselves with the content as it describes the conditions that one might expect to encounter before, during and following a winter storm event.

Appendix A: Priority Level Classifications

Level I

Bay Rd
Central St
Charles St
Chestnut Hill Rd
Civic St
Governors Rd
Hornetown Rd
Main St
Meaderboro Rd
Meeting House Hill Rd
Ridge Rd
Spring St
Tappan St
Ten Rod Rd
Thayer Dr
Wilson St
Worster St

Level II

Blouin Ave
Bunker St
Cameron Dr
Church St
Cocheco Rd
Courtian St
Cresent St
Cross St
Dodge Cross Rd
Garfield St
Glen St
Green St
Grove St
High Street
Hillview Terr
Maple St
Memorial Dr
Milton Rd
Montgomery Dr
Mooney St
Mt. Vernon St
Orange St
Park Dr
Poor Farm Rd
River Rd
School St
Silver St
Union St
Waldron Rd
Webster St
Winter St
Sky View Dr.

Level III

Acorn Court
Aiken Rd
Baldwins Way
Berry Court
Blaine St
Butler Court
Canal St
Curtis Rd
Dick Dame Lane
Dolan Street
Dump Rd
Foxtrot Dr
Freedom Dr
Grant St
Gray Ave
Hancock St
Hickory Court
Lilac St
Lincoln St
Lone Star Ave
Loring Ave
Marston Crt
Mechanic St
Paulson Rd
Pearl Lane
Pearson St
Perkins Ave
Pine Knoll Dr
Pleasant St
Prospect St
Rand Rd
Reservoir Rd
Sarah Greenfield
Seymour Crt
Sheepboro Rd
Smith Crt
Summer St
Town Rd
Trotting Park Rd
Water St
Cherub Dr
Cottontail Ln
Holly Ln
Labrador Rd
Russell Ln

Received / Recorded 2/21/2013
Kathy L Seaver
Town Clerk - Tax Collector