



WINTER MAINTENANCE POLICY

Town of Sandwich, Massachusetts October 2016

Purpose

The purpose of this policy is to provide written guidelines for procedures performed by the Department of Public Works (DPW) during snow and ice events. Bearing in mind that winter storm conditions are highly variable, the DPW reserves the right to deviate from this policy as needed to adequately address each individual storm.

Responsibilities

The DPW is responsible for winter maintenance operations for approximately 170 miles of roads (145 public and 25 private). The DPW also services Town facilities including but not limited to school parking lots, sidewalks, cemeteries, the police station, fire stations, the transfer station and numerous town-owned buildings.

The Massachusetts Highway Department is responsible for all state-owned roads including Route 6, Route 6A and Route 130 (from Route 6A to Main Street and from Shawme Road to the Power Lines near the Coca-Cola plant).

The Army Corps of Engineers is responsible for maintaining two federally-owned roads near the Sandwich Marina: Ed Moffit Drive and Freezer Road.

Materials Used

Winter coastal storms on Cape Cod are difficult to forecast and can change throughout the duration of a storm. Sandwich frequently experiences snow, sleet, rain and mixed precipitation during the same storm. Due to this unpredictability, the DPW must have a variety of materials to treat these variable storm conditions.

The DPW uses materials both before storms (anti-icing or pre-treatment) and during and after storms (de-icing) to ensure the safety of those traveling on our roadways. All materials are applied to roadways based on strict application guidelines that take into account the pavement temperature and type of precipitation. The types of materials used by the DPW are detailed below.

Rock Salt (Sodium Chloride) – Salt is used to break the bond of the ice to the pavement or to prevent it from forming by lowering the freezing point of water. Salt is readily available and

very effective. The disadvantage is salt's corrosiveness to vehicles, impact on the environment and it's not effective at low temperatures.

Sand – Sand is mixed with salt at low temperatures to provide traction for vehicles. It is readily available and inexpensive. Sand's disadvantage is that it does not melt snow and ice, clogs drainage structures and requires costly spring sweeping and disposal.

Liquid Calcium Chloride – Calcium chloride attracts moisture and releases heat and is very effective when used for pre-treating roads. It works well at low temperatures and when mixed with salt it melts snow and ice much faster than using salt alone. Calcium chloride is expensive and must be timely applied. The DPW has used this chemical in the past but has replaced it with Ice-Ban, described below.

Ice Ban – Similar to calcium chloride, Ice Ban is effective at low temperatures and works well for pre-treatment. Ice Ban, made from a beer byproduct, is less corrosive and more environmental friendly than other chemicals. When mixed with salt it enhances the performance of salt by adhering to the road in freezing temperatures. Based on recent success, the DPW will continue to use Ice Ban for winter maintenance.

Operations

As mentioned earlier, due to the variable storm conditions on Cape Cod, the DPW must be able to adapt to changing conditions using a variety of materials and treatment techniques. The DPW's winter maintenance plan below is used as a guide for winter storms. Actual procedures will change based on on-going monitoring of the storm and communication with other municipal officials. The following are general procedures carried out during a storm event:

Preparation of Storm

Prior to the arrival of a storm, the DPW communicates with its emergency management team and other appropriate municipal and state officials to prepare for a storm. The DPW ensures that it has an adequate supply of materials and that all vehicles and equipment are in good working condition. The DPW will monitor the weather as the storm approaches and plan the snow maintenance operations in accordance with anticipated storm conditions.

Treatment of Roads

Once a storm arrives, the DPW will pre-treat (anti-ice) the roads with materials specific to the condition of the road and anticipated storm impacts. Ice Ban mixed with sand and salt will be applied to prevent ice from forming on the roads.

Plowing priorities are based on the road classification described in "Level of Service" below. The plowing of the arterial and collector roads begins when snow starts to accumulate on the roads. When snow accumulation reaches 3 inches, the DPW will call in private contractors to plow the local subdivision roads. The 3 inch policy may be altered depending on the type of snow. For example, a storm with heavy, wet snow followed by several days of forecasted freezing weather may require plowing at 2 inches while a storm with light, fluffy snow can be plowed at 4 inches.

During major storms, the DPW and private contractors will continue to plow all roads as needed throughout the duration of the storm. Due to safety responsibilities, an emphasis will be given to plowing the major roads first.

Road de-icing (salt) will be applied throughout the storm as necessary to reduce ice buildup. Once the storm has passed, the DPW will scrape off any excess snow and ice on the major roads and provide a final application of anti-icing to minimize potential freezing following snow melt.

Suspension of Operations

The DPW will continue to plow throughout the duration of a storm. A temporary suspension of plowing may occur due to changing weather conditions, driver fatigue or other circumstances. This decision will be made at the discretion of the Director of Public Works.

After the Storm

Following major storms, snow will be pushed back on all roads as close as possible to the curb and intersection corners will be widened. If necessary, the DPW will load, transport and deposit excess snow in areas as designated by the Town’s Debris Management Plan.

Sidewalks will be plowed once the storm has ended.

Level of Service

The level of service provided for public and private roads is based a variety of factors including but not limited to traffic volumes, speed limits, emergency needs, school routes, storm type and geographical characteristics of a road. Winter maintenance road priorities and type of treatment is assigned in accordance with these factors. The three classifications of roads for winter maintenance are detailed below:

Arterials and Collectors

Roads classified as arterials and collectors receive first priority for snow and ice maintenance and include the following town-owned streets:

Asa Meiggs Road	Howland Road	Stowe Road
Beale Street	Jones Road	Quaker Meetinghouse Road
Boardley Road	Main Street	Route 130
Chase Road	Meiggs Backus Road	Sandy Neck Road
Cotuit Road	Newtown Road	Service Road
Farmersville Road	Old County Road	Snake Pond Road
Great Hill Road	Pinkham Road	Tupper Road
Harlow Road	Pimlico Pond Road	

Bus Routes and Steep Vertical Alignments

When school is in session, the bus routes and school parking lots will be plowed and treated with materials as needed to ensure safe access for the bus drivers. School bus drivers communicate with DPW officials when additional maintenance is needed on specific routes. Roads and intersections with steep inclines will be plowed and treated as needed to minimize safety issues

at these locations. These roads take precedence over other local roads and will be maintained during the storm as dictated by the storm conditions.

Local Roads

Local roads consist of all other roads not classified as arterials or collectors. They include town and privately owned roads and generally are characterized by low-volume, low-speed roads. These roads will not be plowed until 3 inches of snow have accumulated on the streets.

Depending on the type of storm and road conditions, the DPW may plow the main local roads entering a subdivision without plowing the intersecting local roads when there is less than 3 inches of accumulation. This procedure allows subdivision access for residents to/from the arterial and collector roads.

Note: The level of service priorities listed above is subject to change due to uncontrollable circumstances during snow events. For instance, if an emergency response team needs access to a local road, DPW drivers from a nearby arterial or collector road will be diverted to provide safe access for the emergency responders.

Private Road Snow Removal Policy

In accordance with the Board of Selectmen's [Winter Maintenance of Private Roads Policy](#) adopted April 1994, private roads will not be plowed unless they meet acceptable plowable road standards. Residents of private roads must submit a [Petition Form](#) by November 1 each year to be considered for the DPW's private road plow list. All property owners/abutters must sign the petition form in order to receive winter maintenance.

If a private road is not accepted it will be placed on the [Private Roads Not Accepted for Winter Maintenance](#) list. The DPW inspects private roads each year to ensure that they meet plowable road standards. The DPW will notify residents by local newspaper, via the town web site or other notification form. The residents will be given ample time to meet the standards prior to the winter season. Residents must contact the DPW for inspection once standards are met. If met, the roads will be removed from the Private Roads Not Accepted for Winter Maintenance list.

Town Layout (Right-of-Way) Policies

Damaged Mailboxes

The Town does not repair damaged mailboxes caused by snow plowing. The Town will only repair or replace mailboxes if evidence shows that the actual plow blade hit the mailbox. The Town is not responsible for damage to a mailbox from snow being plowed onto it. If the plow blade damaged your mailbox please contact the DPW (508-833-8002) and we will inspect the mailbox following the storm.

Mailboxes should be located 18 inches from the edge of road to minimize damage from snow plowing. Residents should contact the Postal Service to determine proper location of the mailboxes.

Damaged Lawns, Sprinklers, Shrubs, Etc

The Town will not repair any damaged items that were located within the Town layout (i.e., right-of-way). The Town layout typically extends 5 to 15 feet beyond the pavement. Property owners can view the [Town GIS Maps](#) to see the approximate town layout near their frontage.

To minimize damage to lawns, the Town recommends that residents install stakes or markers 6 to 12 inches off the edge of pavement to alert snow plowers of the road edge. The DPW recommends using 48-inch orange fiberglass markers with white reflective tape. Fiberglass markers will minimize damage to vehicles if accidentally struck and the reflective tape is clearly visible to snow plowers. Markers are available at local hardware stores.

If residents have installed markers and still experience damage to their lawns (i.e., grass is torn up), they should contact the DPW for inspection following the storm.

Contact Information

During a storm, residents may call the DPW with any questions or concerns. Depending on the severity of the storm, calls may be answered by a recording. All messages will be responded to in as timely a manner as possible. Complaints about snow plowing operations will be inspected by the DPW within 48 hours of a storm ending.

Winter maintenance operations will be based out of the DPW office located at 500 Route 130 (next to Transfer Station) during all storms. The DPW number to contact during storms is 508-833-8002.

During severe storms, the Town's Emergency Operation Center, located at the Human Services Building on Quaker Meetinghouse Road, will open and assist with the winter maintenance operations, particularly emergency incidents.

How You Can Help

To help the DPW effectively and efficiently perform winter maintenance operations and to provide for the residents safety, the Department offers the following tips: [Winter Storm Tips](#).

Frequently Asked Questions

Understandably, there are many questions regarding winter maintenance and the Town's responsibilities to the residents. The DPW has developed a list of [Frequently Asked Questions](#) in an effort to help residents understand the Town's Winter Maintenance Policy.