

Town of Barnstable

Department of Public Work

Snow and Ice Control Operations Plan

I. Mission:

The mission of the Department of Public Works is to remove accumulations of snow and ice from town, county and most private roads, municipal parking areas and some town sidewalks/bike paths as rapidly and efficiently as possible. The safety and mobility of the community is of the utmost importance during any type of precipitation that may form ice and/or accumulating snow. The Department must respond immediately to each storm and the varying storm condition that may occur throughout the winter season to first maintain public safety on our roadways and as soon as possible to leave all other areas in an accessible condition.

II. Responsibilities:

The Department, through its Highway Division, has responsibility for snow and ice removal from:

- A. 461 miles of roads comprised of 271.19 miles of town roads and 190.05 miles of private roads.
 - 1. 151 miles or 30% of the roads are treated as primary and collector streets
 - 2. 310 miles or 70% of roads are treated as secondary or residential streets
 - 3. Private roads other than those listed on the “do not maintain list” receive snow and ice removal. Private driveways, easements, mutual access driveways and roads closed to the public do not receive snow and ice removal.
- B. 54 municipal parking areas containing 46 acres
- C. 90 miles of town sidewalk and four miles of bike path. Salt and sand treatment is limited to business districts.
- D. One major and four minor business districts.

III. Goals:

The Department's goal is to remove a large portion of the accumulated snow and ice from its areas of responsibility. The removal will be of sufficient width and depth to allow the adequately prepared public to travel at reduced speeds throughout the town. Removal is

accomplished by applying a sand/salt mixture (assisted by liquid deicer at low temperatures) at various rates to create traction and speed the melting process. When required, plowing is used to remove excess or large accumulations of snow and ice in conjunction with the sand/salt treatment. The Department does not attempt to achieve bare pavement during any storm. The practice is far too expensive and the large quantities of salt required would be detrimental to the environment.

Under most circumstances, a large storm of 8" to 12" will require the following time frames to reach the previously described goals after the end of the precipitation.

- A. Primary or collector streets - 8 hours.
- B. Secondary or residential streets - 16 hours
- C. Sidewalks/Bike paths - 48 hours
- D. Snow removal from business districts - 48 hours when needed. In the case of storms continuing for periods of 24 to 48 hours with accumulations of more than 12 inches, time delays proportionate to the depth of snow and length of storm will greatly increase the times listed in items B, C and D above.

IV. Authorization:

The Department operates pursuant to various state and municipal laws.

- A. MGL Chapter 44 Section 31D pertains to incurring liability and making expenditures in excess of the available appropriation for snow and ice removal.
- B. MGL Chapter 40 Section 6C pertains to appropriation of money for snow and ice removal from private ways.
- C. Fiscal year snow and ice operating budget -pertaining to the available appropriation for snow and ice removal.
- D. Town of Barnstable General Ordinance Article XII -pertaining to prohibitions of private property owners placing snow or ice onto a street or sidewalk and the removal of vehicles interfering with snow and ice operations within public ways.

V. Department Organization:

The Department officials, responsible for the administration, supervision and coordination of snow and ice control:

- A. The Director of DPW is the official responsible for the oversight of the overall snow and ice control program.

- B. The Highway Supervisor under general direction of the Director is the DPW official responsible for the direct supervision and administration of the operations.
- C. The Highway General Foreman under the general direction of the Highway supervisor is the DPW official responsible for the detailed planning, organizing and coordinating operations.

VI. Situation:

The DPW Highway Division is located at 382 Falmouth Road, (Route 28), Hyannis, MA 02601. Telephone 790-6331 for snow and ice removal and 790-6330 for all other matters. Under normal conditions the Division operates on a five-day schedule, Monday through Friday, from 7:00 AM to 3:30 PM.

- A. The Department of Public Works resources available to the Highway Division for snow and ice control are comprised of:
 - 1. 52 DPW personnel (includes supervisory/administrative/mechanical repair staff and equipment operators).
 - 2. 60 pieces of DPW equipment and 171 pieces of contractual equipment ranging from small sidewalk plows and pickup trucks to ten wheel trucks and heavy construction equipment.
 - 3. A command center used to coordinate and communicate with DPW/Contractual personnel, fire/police personnel and the general public is located at the Highway Division Headquarters.
 - 4. An equipment maintenance shop for repairs for DPW equipment during operations is located at the Highway Division Headquarters.
 - 5. 3,000 tons of sand, 3,500 tons of salt, 300 tons of sand/salt mixture and 5,000 gallons of liquid deicer are stored at the Highway Division. 1,000 additional tons of sand/salt mixture and 2,000 gallons of liquid deicer are located at the Solid Waste Division.

VII. Concept of Operations:

The Department's snow and ice operations are divided into four different phases.

- A. The preparation phase includes the following areas of preparation.
 - 1. Pre-winter DPW equipment maintenance repairs and overall planning review etc beginning in September.

2. Employee training, contractor hiring, route designations and stockpiles of materials, fuels etc, are completed during October and November.
 3. Supervisory personnel monitor weather forecasts and conditions from November to mid-April.
- B. The readiness phase is activated when weather indicators warn of impending precipitation that may form ice and/or snow.
1. Supervisory personnel review the various forecasts for precipitation start time, duration and amount. Based on these indicators and local conditions, an opening operational strategy is formed.
 2. DPW personnel in all divisions are notified of the impending conditions and equipment is checked for readiness.
 3. During off duty hours, usually in the late evening and early morning hours, a snow and ice watch, consisting of 2 highway foremen, may be required due to the uncertainty of the precipitation start time. In addition, the police department notifies Highway personnel when snow and ice conditions begin to occur.
- C. The Control Phase is activated as precipitation begins or as conditions warrant. During this phase various levels of response may be required.
1. Level One - sanding crews are dispatched to apply sand and salt on the primary and collector streets. These roads will receive constant attention throughout the storm. Secondary or residential streets and municipal parking areas are evaluated and if required, sand and salt are applied as the precipitation ends. In some case scenarios this may commence without any precipitation present for the sole purpose of pre-treating roads for a more effective response.
 2. Level Two - when it becomes evident through local conditions and up-dated weather forecasts that accumulating snow will be excessive, DPW/contractual personnel are dispatched to those areas that require plowing, including the sidewalks in the business portion of Main Street, Hyannis. As the storm ends and plowing is completed, sand and salt is applied to the effected areas. In some case scenarios contractors may be asked to respond to a meet point and standby before any precipitation is present for the sole purpose of a more effective response.
 3. Level Three - addresses storms (blizzards) that exceed the available department and contractual resources. During this level, the Department's primary goal will be to keep major thoroughfares open for emergency vehicles. Private contractors with heavy construction equipment are hired

to augment the existing forces. If an emergency is declared by the Town Manager, the Town of Barnstable Emergency Operations Plan will take effect. Assistance is requested from the Massachusetts Highway Department, Massachusetts Emergency Management Agency and Federal Emergency Management Agency. Communication and coordination with other town agencies and departments is continually maintained. Every possible resource available to the department is used to stabilize the condition and return the areas of responsibility to the established goals.

- D. The cleanup phase is activated as the control phase nears completion.
 - 1. Miscellaneous sanding and/or plowing duties are performed by DPW employees as required.
 - 2. If required, sidewalk plowing begins with an emphasis on village centers and sidewalks adjacent to and radiating from public schools.
 - 3. If required, as determined by the Director in communication with the Town Manager, excessive accumulations of snow are removed from the village business districts.

VIII. Interaction with Town Agencies/Public:

For the Department's plan to be successful, coordination and communication with other agencies and the public is of the utmost importance.

- A. During any snow and ice operation
 - 1. Police and fire personnel requesting assistance receive timely response by DPW equipment.
 - 2. Public requests for assistance are reviewed by supervisory personnel for authenticity, type of response required and priority.
 - 3. When weather conditions dictate the closing of municipal buildings or other facilities, the Town Manager will be notified, through the Director, of road and parking lot conditions by 5:00 AM or as soon as reasonable prior to scheduled openings for this decision. The Superintendent of Schools is advised of the present road conditions prior to school opening.
 - 4. Updated road/storm conditions and the Department's progress in the operation are reported to the public and the news media upon request.

B. During severe storms

1. When plowing is curtailed due to low visibility, DPW equipment is based at the village fire stations to assist in emergency responses that may be required.
2. Town agencies having four-wheel drive vehicles assist in the effort to maintain the public safety and mobility.
3. When an emergency is declared by the Town Manager, the Town of Barnstable Emergency Operations Plan will Take Effect.
4. As Specified In The Town Code Snow And Ice removal (Adopted 3-6-1965, approved 3-25-1965 (Art. XII of Ch. III of the General Ordinances as updated through 7-7-2003, Section 206-5 Snow and Ice on Street Restricted (amended 11-6-1978, approved 6-1979), No person shall throw or put snow or ice into a street or on a sidewalk unless especially authorized by the Superintendent or his designee.

IX. Proviso:

The Department will, as weather conditions dictate, alter its plan of attack for a specific storm when the public interest and safety are better served.