

CITY OF BRISTOL – PUBLIC WORKS POLICY

25 Snow Removal and Ice Control

1. Policy Name

25 Snow Removal and Ice Control

2. Responsible Division and effective date

Public Works Streets Division, effective date TBD

3. Rationale or Purpose

This policy establishes the formal Snow Removal and Ice Control plan for the City of Bristol. The policy also defines the routes and priorities for snow removal and ice control.

4. Policy Statement

The Streets Division of Public Works has responsibility for control of snow and ice on City streets. The division strives to provide snow removal and ice control in a safe and cost effective manner. The City uses Public Works staff and equipment as well as private contractors as needed to provide adequate snow removal and ice control for the safety of travelers on City streets.

5. Scope

This policy applies to all streets within the City of Bristol, with the exception of State-maintained roads.

State-maintained roads within the City are Route 72, Route 69, Route 6 and Route 229. The State is responsible for snow removal and ice control on these roads. The Streets Division of Public Works will respond when an emergency situation arises and the State Department of Transportation is unavailable or as requested by the Chief or Shift Commander of Bristol Police Department when state resources are not able to respond in a timely manner.

Snow and ice control operations will be conducted when weather conditions do not endanger the safety of city employees and equipment. Factors that may delay snow and ice control operations include severe cold, significant winds, and limited visibility.

6. Procedures

The Director of Public Works or the Snow and Ice Control Supervisor (Superintendent of Streets) will decide when to begin snow or ice control operations. The criteria for the decision are as follows:

- Notice(s) from weather forecasts and services
- Notice from Bristol Police Department – precipitation/ emergency specific calls.
- Snow accumulation of two (1”) inches or more
- Drifting of snow that causes problems for travel;
- Icy conditions which seriously affect travel; and
- Time of snowfall in relationship to heavy traffic patterns.

To conserve funds and personnel, snowplowing operations will not generally be conducted for snowfall of less than two (1”) inches, however, ice control products and/or abrasives may be applied to assist in melting ice and traction.

Personnel scheduling and mobilization:

Once snow and ice control operations are initiated, the Streets Superintendent/ DPW Coordinator will contact the appropriate number of Public Works staff and private contractors to inform them of the start time and location for operations to begin. Private contractors are only utilized for plowing.

There are various phases of operations, shown below, but each event will be unique based on weather forecast, type and duration of precipitation:

Pre-Storm: Anti-icing agents will be applied to streets when a storm is imminent. Public Works staff will apply anti-icing agents based on when precipitation is expected to begin, and where safety concerns are greatest.

Phase I – notable to significant (minimal snow fall, rapidly melting snow, squalls or flurries) includes ice control products and road treatment being applied to streets where and when needed. This can range from spot treating specific areas to city-wide road treating as needed. Minimal plowing may occur resulting from precipitation

Phase II – major (4"-6" of snow accumulation expected) includes the use of Public Works staff and equipment, both plowing and road treatment.

Phase III – Heavy (major snow fall, six inches (6") or greater accumulation expected) includes Public Works staff and equipment, plowing and road treatment, as well as private contractors being called in to plow the Districts they are assigned to.

Post-Storm: Within six (6) hours after snow fall ceases, plowing operations will be completed and city-wide road treatment operations will begin. Factors that may prevent meeting this guideline include equipment failure, freezing rain or other icing conditions, traffic congestion, emergency situations, residents/contractors placing snow into the travel way, and personnel availability.

Due to the unique nature of each storm event, the Streets Superintendent/ DPW Coordinator must use experience and judgment to balance safety and expenses for each storm.

Private Contractors

Each fall, private contractors may apply to be considered for assisting the City with snow plowing operations. Eligible contractors must provide their own vehicle and equipment and comply with all requirements, rules, and regulations to participate. If enough private contractors apply and are eligible, a reserve list of contractors will be created to serve as fill-in or relief.

Private contractors are assigned to a snow district. Each district has a Group Leader assigned. Group Leaders are responsible for calling in their snow plow teams. The group leader will assign each driver/plow to a specific street or area and amend assignments as needed. Group Leaders are also responsible to oversee and monitor snow plowing progress in their district. At the conclusion of the weather event, the Group Leader will complete pay sheets for their team and submit them to the Streets Superintendent.

Snow Routes

For snow removal and ice control operations, the City is divided into five (4) districts which coincide with City rubbish routes. They are:

District 1, Monday routes – Northeast section and Fern Hill Road area (portion of Wednesday route)

District 2, Tuesday routes – Southeast section and Bayberry Drive area

District 3, Wednesday routes – Northwest section

District 4, Thursday & Friday routes – Downtown, Federal Hill, and southwest section

Minor arterials provide options for alternate traffic movement and may also connect major arterials; some through service is provided but traffic volumes are lighter than among major arterials. Collectors provide for traffic movement between neighborhoods within the City and also give access to adjacent properties. They create the connecting links in the street system: traffic can be carried from local streets via collectors to major and minor arterials. Streets classified as minor arterials and collectors are included in the list below, along with schools. The streets which have high priorities for road treatment and plowing are:

District 1 (Monday Routes)

Ivy Drive (Ivy Drive School – arrival/dismissal)
Felice Road / Ohio Drive (Northeast Middle School – arrival/dismissal)
Jerome Avenue (B.A.R.C., Bristol Housing Authority)
Lewis Street
Maltby Street (Saint Paul School)
Maple Avenue
Mines Road
Mix Street (Edgewood School)
Oakland Street (north of Farmington Avenue)
Round Hill Road
Sonstrom Road
Stafford Avenue (north of Farmington Avenue) (Saint Paul School)
Shrub Road
Stevens Street (Northeast Middle School)
Vanderbilt Road
Willow Brook Road (Edgewood School- arrival/dismissal)

District 2 (Tuesday Routes)

Anderson Avenue (Street Matthew School – arrival/dismissal)
Andrews Street
Birch Street
Brook Street
Emmett Street
Central Street (Manross Public Library)
Church Avenue
Curtiss Avenue (Saint Matthew School – arrival/dismissal)
Frederick Street
Lincoln Avenue
Louisiana Avenue
Mountain View Avenue (Mountain View School)
Pine Street (Greene–Hills School)
Pine Street (Middle Street to Riverside Ave (Savino ?))
Redstone Street
Redstone Hill Road
Stafford Ave (south of Farmington Avenue), (Senior Center)
Todd Street
Washington Street
Welch Drive (Saint Matthew School – arrival/dismissal)

District 3 (Wednesday Routes)

Barlow Street

Battle Street
Chapel Street
Clark Avenue
Curtiss Street
Cypress Street
Hart Street
Hill Street
Jacob Street
James P. Casey Road
Jennings Road
Marsh Road
Matthews Street
Minor Street
North Main Street (Farmington Avenue to Curtiss Street)
North Pond Street
Peacedale Street (Burlington Avenue to Hart Street)
Peacedale Street (Eastwood Road to Perkins Street)(Chippens Hill School-arrival/dismissal)
Perkins Street

District 4 (Thursday Routes)

Belridge Road (Woodland Street to Brewster Road)
Bellevue Avenue
Blakeslee Street
Brewster Road (Belridge Road to Queen Street)
Broadview Street
Center Street (Bristol Historical Society)
Church Street (Bristol Board of Education)
Federal Street
Goodwin Street
High Street (Bristol Public Library)
Maple Street
Main Street
Meadow Street (City Hall)
Mellon Street (Riverside Avenue to Prospect Street)
Moody Street
North Main Street (Farmington Avenue to Church Street)
Oakland Street (Farmington Avenue to Goodwin Street)
Page Avenue
Prospect Street
Queen Street
Riverside Avenue (North Main Street to Main Street)
Stewart Street
Summer Street
Pound Street
Waterbury Road
West Washington Street (Hubbell School)
Woodland Street
Allentown Road
Crown Street (Bristol Central School – arrival/dismissal)
Cross Street
Divinity Street
Downs Street

East Road
Fall Mountain Road
Gridley Street
Lake Avenue
Peck Lane
Rockwell Avenue
South Street Extension
Union Street
View Street (Bristol Central School - arrival/dismissal)
Willis Street
Witches Rock Road
Wolcott Street (Wolcott Street-(Route 69) to Fall Mountain Road)

Priority

High volume routes are addressed first. Streets classified as high volume routes (minor arterials and collectors) which connect major sections of the city and provide access for emergency fire, police, hospital and medical services are considered high volume.

City vehicles are deployed to high volume routes. Contractors may assist the street crews as required.

The second priority streets are those streets providing access to schools, Bristol Public Schools and Municipal Buildings, and business centers. These are also cleared by Public Works staff, but may be assisted by contractors.

The third priority streets are low volume residential streets. Contractors are primarily assigned to these streets. The fourth priority areas are municipal parking lots.

The Bristol Park Department is responsible for the bus shelters located on Blakeslee Street and Broad Street and the abutting sidewalk at the Forestville Veterans Memorial. All other bus shelters are maintained by the Streets or Building Maintenance Divisions. School sidewalks and designated sidewalks within the City of Bristol are addressed by the Board of Education maintenance staff.

City properties, Bristol Public School driveways and parking lots are addressed by the Streets Division. The lists of properties maintained by the Streets Division are:

District 1

Edgewood School – Mix Street / Willow Brook Road
Ivy Drive School – Ivy Drive
Northeast Middle School – Stevens Street / Felice Road
Bristol A.R.C. – Jerome Avenue
Commuter Parking Lot – Mix Street
Pump Station – Cherry Hill Drive

District 2

Greene Hills School – Pine Street
Mountain View School – Vera Road
Manross Library, Forestville – Central Street / Garden Street
Todd Street Parking Lot (south lot) – Todd Street
Pump Stations – Broad Street, East Main Street, Wooster Court

District 3

Chippens Hill Middle School – Peacedale Street
Meadow Street
West Bristol School

District 4

Board of Education – Church Street (plow only)

Bristol Eastern High School – King Street
Bristol Central High School – Wolcott Road / Crown Street / Peck Lane
Bristol A.R.C. (2) – Lake Avenue
Bristol Transfer Station – Lake Avenue
Bristol Waste Water Treatment Plant – Battisto Road
Bristol Public Library (Main & Children’s) – Main Street
Bristol City Hall parking lots – Laurel Street
Center Square
Ellen P. Hubble School – West Washington Street
Memorial Boulevard Middle School – Memorial Boulevard, South Street / Willis Street
South Side School – Tuttle Road
Stafford School – Louisiana Avenue
Pump Station – Tyler Way

The City will clear snow and treat City sidewalks abutting City owned property as necessary. The list of sidewalks is below. All other sidewalks, except sidewalks under the jurisdiction of the Bristol Board of Education, Bristol Housing Authority, and the Bristol Park Department are the responsibility of the abutting owner(s). Sidewalks maintained by the Department of Public Works include the following:

Church Street - (Parking lot)
North Main Street – (both sidewalks from Center St. to North St.), North Main Street (Court Complex)
Laurel Street @ North Main Street – (City Hall)
Meadow Street @ Kelly Street – (City Hall Employees Lot)
Main Street - (#308, #321, and underpass)
High Street – (#5, #51)
Riverside Avenue – (#270)
East Street – Bridge (North Side of Blvd.)
Mellon Street – (underpass)
West End Commuter Lot
Union Street – (opposite #151)
Hill Street @ Battle Street
Brook Street @ Farmington Avenue - (southwest corner)
King Street – (#361)
Bridge abutments plus sidewalks on the Riverside Ave extension called Savino ? from King/Middle to Pine.

In the event of a life threatening emergency (such as medical and/or fire response) the Police Department can request that a snow plow escort the emergency response vehicles. On days when school is in session, winter maintenance efforts will be timed to coincide with bus routing and delivery. On weekends, winter maintenance efforts will be timed to coincide with religious services, excluding State roads which fall under the jurisdiction of the CT Department of Transportation.

Snow and Ice Control Materials

The city will use road treatments, ice control products, and other chemicals when there are hazardous ice or slippery conditions. Streets with snow and/or ice are treated with sand/ice control products mix and magnesium chloride is used as an alternative melting agent when applicable and available. Magnesium chloride is

dispensed in conjunction with the ice control products and road treatment mixture to accelerate melting.

Different materials may be used to experiment their effectiveness for de-icing purposes. The material will be spread at an appropriate rate for effective control of ice and snow. The initial application of material is used to minimize the bonding of snow/ice to the pavement. The City will limit its use of chemicals if there is a negative impact on the environment as a result of their use.

Public Works is working to establish parameters for appropriate use and volumes of materials used in winter operations.

Equipment Inspection

At the conclusion of the winter season, Public Works will assess each vehicle for needed repairs and perform preventive maintenance based on available funding. In September, the Fleet Maintenance group will be preparing snow removal and ice control equipment for the upcoming season. Preventive maintenance, seasonal preparation and improvements and repairs are done as needed.

Equipment Calibration

The winter operations fleet is diverse and each truck is unique in design and equipment. Calibration for distributing ice control products, sand, and magnesium chloride is done manually by vehicle operators at the direction of the Snow and Ice Supervisor based on current and expected weather conditions. The Department of Environmental Protection mandates what abrasive materials are allowed for snow and ice control in the state of CT, and Public Works complies with these mandates.

Loading Procedures

Heavy Equipment Operators load dump trucks with ice control products/sand for winter operations using front bucket loaders. When a weather event is imminent, trucks are loaded in advance of the storm. Newly employed and qualified Heavy Equipment Operators are trained in all aspects of the dump trucks, bucket loaders and loading process.

Truck drivers fill magnesium chloride tanks on their vehicles. Before the start of each season, refresher training is provided to the drivers on proper procedures for filling magnesium chloride tanks, and required PPE's (Personal Protective Equipment) when filling tanks.

All trucks are loaded appropriately based on the Gross Vehicle Weight.

Spreading and Plowing Procedures

Snow will be plowed in a manner so as to minimize traffic obstructions. The center of the roadway will be plowed first to open the roads for travel. The snow will then be pushed from left to right. Contractors with smaller vehicles may need to initially plow the gutter portion of the street during heavy snowfalls in order to get the snow pushed off the roadway. The discharge will go onto the tree border area of the street. The entire width of the street may not be cleared immediately. Our focus is to have traffic flow during the storm.

On designated streets, the snow will be pushed toward the center line of the road, with openings cut in the berm of snow for businesses, intersections, driveways, and pedestrian traffic. The streets where snow will be plowed to the center of the street are: North Main Street – between North Street and School Street, and Riverside Avenue - between Main Street and North Main Street. Public Works may choose from time to time to expand or discontinue this method of plowing.

When plowing an intersection, the snow may be pushed diagonally across from the intersection; the truck will back up carefully and make a right turn, pushing the snow away from the center of the intersection and/or continue plowing to the intersection

and make a right turn, keeping the intersection clear as possible. Generally, the street shall be opened for two (2) way traffic flow and final push back of snow shall be complete at the end of the storm.

When plowing cul-de-sacs, the snow will be reasonably distributed to all abutting properties. Most of the snow will be pushed out of the cul-de-sac, unless there is a staging area located in the cul-de-sac.

In times of extreme snowfall, streets will not always immediately be able to be completely cleared of snow. During heavy snowfall, heavy equipment may be used to keep streets open.

Snow Storage

The Director of Public Works and/or the Snow and Ice Control Supervisor will determine when there is a need for snow to be removed from an area using heavy equipment and trucks. Such snow removal will occur in areas where there is no adequate room on the tree border for snow storage, snow accumulation of (18") eighteen inches in the gutter portion of the street(s) in the downtown area, designated streets where the snow is pushed toward the centerline of the roadway and in areas where accumulated piles of snow create a hazardous condition (i.e. cul-de-sacs and intersections). Snow removal operations will commence at the conclusion of other snowplowing operations. Snow removal operations may also be delayed depending on weather conditions and personnel. The snow will be removed and hauled to a snow storage area. The snow storage area will be located so as to minimize environmental problems. Excess snow in the downtown area can be stored at vacant City owned property in the area, snow from the northwest section of the City can be stored at the Old Peacedale Street excavation site.

Snow Operations Damages

Winter operations may cause property damage. Crews use due care when they are addressing the streets during winter operations. Damage typically occurs within the City right-of-way. This is the area where curbs, driveway aprons, lawns, mailboxes, sidewalks, trees, and utilities are located. This area is known as the tree border. Damage to private property, the area located outside of the City right-of-way occurs infrequently. The City will accept responsibility to private property if it is apparent that the damage was caused by Public Works or private contractors (hired by the City for snow removal and ice control) equipment and personnel. Residents who sustain damage should call the Public Works Department at 584-6125 to report the damage.

Prior to the start of winter operations, each contractor Group Leader must review their district and proactively identify problematic issues (manhole cover or catch basins protruding above street level, basketball hoops in the street, mailboxes not properly installed) and report their findings for the Streets Superintendent to address.

If damage occurs from winter operations, and it is verified by the Public Works Department, the Streets Division will assist the homeowner with such repairs when applicable (mailboxes, lawn damage, curbing, driveway aprons or tree damage). The Streets Division will make the damaged area safe to any immediate hazards. The reported damage will be logged into the service request data base. Permanent repairs are typically done in the construction season following the winter season. If a damage report is disputed or a claim is made of damage to personal property outside of the right-of-way from winter operations, the resident may make such claim with the Claims Department of the City of Bristol at 860-584-6153.

Curbing is frequently damaged by winter operations. Broken curbing that is dislodged from the curb is picked up after winter operations conclude. Broken curbing still in

place will be left and removed in the construction season as needed. New curbing, loam and seed will be installed as necessary.

The driveway apron is located at the end of the driveway where vehicles enter and exit the property from the street. Damage occasionally occurs to this area during winter operations. The driveway apron will be repaired during the construction season. The driveway apron is installed in the right of way portion with a one and one half inch lip to prevent water from entering the property.

Lawns which are scraped by the plow or damaged from equipment will be repaired with loam and seed the following season as the weather dictates. Residents are encouraged to water these areas once the repair has been made.

Claims for damage to utility poles are also referred to the Claims Department.

Parking Limitations

City ordinance prohibits on-street parking between the hours of 2:00 AM and 6:00 AM between December 15th and March 15th each year. When warranted, a more restrictive storm parking ban will be enacted which prohibits all on-street parking. The parking ban will be announced to the public through media resources and stay in effect till the conclusion of the operation.

7. Roles/Responsibilities

The Snow and Ice Control Supervisor role is filled by the following positions, in the order presented, based on availability: Superintendent of Streets, DPW Coordinator, Superintendent of Solid Waste and Fleet Manager

It is the responsibility of Public Works to manage ice control and snow removal to ensure safe travel on City streets.

The Superintendent of Streets will assign winter operation Group Leaders to inspect their respective district prior and during the winter operations season and proactively address any hazards that may cause damage to personal property or equipment. Supervisors; and Group Leaders (when invoked) will make necessary adjustments to their assigned areas due to circumstances which affect winter operations. Group Leaders will oversee trucks and equipment which have been assigned to them by the Supervisor for storm fighting. The Supervisor(s) may handle a smaller operation when group leaders are not warranted.

Travelers are urged to stay off the streets during a winter storm to help minimize delays in service. It is advisable to handle all errands prior to the predicted winter weather. The Streets Division and travelers must afford reasonableness to each other during inclement weather. The Department appreciates the cooperative effort by the residents and travelers of Bristol.

8. Definitions

N/A

9. References

See also City of Bristol, Code of Ordinances:

Section 14-32, Section 14-39, Section 21-23, Section 21-24, Section 21-25, and Section 21-25.2

10. Consequences of Non-Compliance

N/A

Approval authority: Board of Public Works

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