

CITY OF APPLE VALLEY
SNOW AND ICE CONTROL POLICY AND PROCEDURES
November 6, 2008

I. SNOW AND ICE CONTROL POLICY

The purpose of the Snow and Ice Control Policy is to establish and maintain uniform definitions and procedures concerning snow and ice control operations for the City of Apple Valley. The City will provide such control in a safe and cost-effective manner, keeping in mind safety, budget, personnel, and environmental concerns. The City may use both City employees and private contractors to provide this service. It is in the City's best interest to have a snow and ice control policy, but because of variability in the weather and conditions, the policy must remain flexible.

Each year the Public Works Department prepares maps of the City clearly delineating major roads, collector and commercial streets, residential streets, cul-de-sacs, parking lots, and Ring Route and designated Central Village sidewalks. These maps are carried aboard snow removal equipment and are followed in accordance with a prearranged plan to remove snow and ice in a safe and efficient manner. Snow removal personnel should follow this plan unless directed by Police, Fire, or Public Works Superintendents during an emergency.

The removal of snow and ice from public streets, public parking lots, and other areas is considered an emergency operation that takes precedence over other tasks of the Public Works Department except other emergency situations.

A. Commencing Snow Plowing, Anti-Icing, and Deicing Operations:

The Public Works Director or designee shall decide when snow and ice control operations shall begin. Snowfalls of approximately two inches or more are plowed. Lesser amounts may require plowing or only the application of deicing chemicals or a sand/salt mixture depending upon weather conditions and snow accumulation. Weather conditions shall be monitored by the Police and Public Works Departments. Conditions are evaluated using information provided by weather forecasts, the Apple Valley Police Department, and visual verification.

B. Snow Plowing and Deicing Priorities:

- First Priority -- Arterial and Collector Streets
- Second Priority -- Commercial Streets
- Third Priority -- Residential Streets
- Fourth Priority -- Cul-de-sacs and Parking Lots
- Fifth Priority -- Ring Route and Designated Central Village Sidewalks

Priority ranking may be interrupted in order to respond to emergency requests for assistance or at the direction of the Public Works Director or designee.

C. Spreading Sand and Deicing Chemicals:

Sand and deicing chemicals are used during both snow and ice control procedures. The anti-icing/deicing program uses salt or a mixture of three parts salt to one part treated salt for temperatures down to approximately 15 degrees F., and treated salt for temperatures down to approximately 0 degrees F. During periods of extreme cold, salt or treated salt may be mixed with sand. When sand and salt are mixed, ratios vary according to the temperature.

Chemicals applied during anti-icing operations shall be applied at rates recommended by The Salt Institute and Cargill's Sensible Salting Guide with consideration given to past experience and weather forecasting for the following 24 hours.

D. Regulating Parking:

Apple Valley City Code of Ordinances Section 71.18 prohibits parking on any street in the City during any time that snowplowing or snow removal operations are in progress. Section 71.17 of Apple Valley City Code of Ordinances prohibits parking on public streets during the hours from 3:00 a.m. to 6:00 a.m. except as specified under Section 71.17, items 1, 2, and 3.

E. Allowing for Variable Weather Conditions:

During extraordinary snow and ice events, additional personnel and equipment may be utilized to supplement operations. During periods of extended continuous snowfall or freezing rain, operations may be focused on primary transportation routes and emergency service delivery locations and may be performed on a limited scale.

Snow and ice control operations should be conducted when weather conditions do not endanger the safety of employees or equipment, and operations are effective. Factors that may delay snow and ice control operations include severe cold, significant winds, limited visibility, and rapid accumulation of snow and/or ice.

F. Responsibilities and Concerns of Residents:

Under Apple Valley City Code of Ordinances Section 96.03, residents are responsible for removing snow and ice from sidewalks abutting their property. Under Section 94.17, residents are responsible for not obstructing any street or deposit snow or ice thereon. Therefore, the practice of depositing snow from driveways and walkways in the street is prohibited by City Ordinance. Minnesota Statute 169.42 prohibits depositing snow on public roadways and upon any public or privately owned land adjacent thereto without the owner's consent.

A common perception by the public regarding snowplow operations is that snow is intentionally deposited in driveways and walkways. Snow is not intentionally deposited

in driveways and walkways but is a result of normal plowing operations. Most of the City's mainline plowing vehicles are equipped with a front plow and side wing for two-pass plowing of residential streets. Plows are angled to the right for plowing from the centerline of the street to the curb. For this reason, a certain amount of snow will be deposited in driveways. The cost of maintaining adequate personnel and equipment to clear walkways and driveways of snow deposited during plowing operations is prohibitive.

The City will not plow private streets, driveways, or walkways. Snow from public streets will be plowed onto boulevards. Building obstructions on boulevards ultimately increases costs to taxpayers because of equipment breakage and additional time required to complete snow removal operations. In order to keep added expenses to a minimum and maximize safety, the City requires a clear zone behind the curb for snow storage.

Residents are allowed a mail/media box within the boulevard area. All mail/media boxes must be located behind the curb line and/or shoulder of the road. It is the responsibility of the resident to maintain their mail/media box in a state of good repair. Mail/media boxes should be of sufficient strength to withstand normal maintenance operations.

G. Repair of Damaged Property:

Snow and ice control operations may cause property damage even under the best of circumstances and care on the part of the operators. The major types of damage are to improvements in the road right-of-way which extends approximately 13 feet beyond the curb location. The intent of the right-of-way is to provide room for snow storage, utilities, sidewalks, and other City and Public uses.

The City will repair/replace sod damaged by its snowplows during snow removal operations if reported to the Public Works Department by June 1 of the current year. Other damage within the public right-of-way is the responsibility of the property owner including, but not limited to, trees, shrubs, bushes, landscaping materials, decorative rock, and lawn/landscaping irrigation systems.

The City does not repair/replace sod damaged due to the application of sand, salt, or other deicing chemicals.

Mailboxes that comply with MN Statute 169.072, MN Rule 8818 and US Postal specifications which are damaged as a result of direct contact by City snow removal equipment will be temporarily repaired within 48 hours of receiving notification of such damage. If the mailbox and post cannot be temporarily repaired, a portable mailbox will be set in place so mail service may be continued. The City will replace the damaged mailbox structure the following spring with a standard No. 1 black, white, or silver mailbox mounted on a 4 x 4-inch treated post.

Residents whose mailboxes are knocked down as a result of direct contact by City snow removal equipment may request reimbursement of expenses up to \$75, if they so choose,

to replace the mailbox structures themselves, relieving the City of any further obligation. In such cases, the City will provide portable, temporary mailboxes until the following spring.

Mailbox damage must be reported to the Public Works Department prior to June 1 of the current year to qualify for repair.

Mailboxes which do not comply with MN Statute 169.072, MN Rule 8818 and US Postal specifications or are damaged due to snow deposited from plows (versus being hit by City snow removal equipment) will not be replaced. The City does not take responsibility for damage to media or paper boxes and does not repair them.

H. Managing Complaints and Requests for Service:

During snow and ice control operations, numerous inquiries, complaints, and requests for service are received by the Public Works Department clerical staff. The Streets Division will take measures to keep clerical staff informed and updated regarding snow and ice removal operations (e.g., schedules and breakdowns).

The Public Works Department clerical staff shall answer questions and concerns from citizens and record pertinent information related to the inquiry. If the caller requires action which clerical staff is unable to perform, clerical staff shall notify appropriate personnel of inquiries, complaints, and requests for service based on the following.

- Safety issues affecting the public or City staff shall be forwarded immediately by radio or telephone, or hand delivered to appropriate personnel, as determined in advance by the Public Works Director or designee.
- Nonsafety-related issues shall be forwarded to the appropriate personnel in a timely manner.
- Property damage (e.g., mailboxes and sod) shall be recorded and turned over to the Streets Superintendent through normal channels.

II. SNOW AND ICE CONTROL PROCEDURES

It is the intention of the Public Works Department to review the following procedures on an annual basis in order to make the changes necessary to maximize safety and efficiency.

A. Plowing Procedures:

The City is divided into fourteen plow routes. Twelve plow trucks, six loaders, and eight 4-wheel drive vehicles are used to complete snow removal operations. First priorities are removing snow and ice from arterial, collector, and commercial roadways. Major arterial and collector roads (4-lane) and collector streets (2-lane) may be plowed using multiple staggered plow trucks. An additional plow route may be added to continue clearing of major roads while the other thirteen are working on residential streets. Loaders and 4-wheel drives are generally sent out at the same time as the snowplows. Loaders and some of the 4-wheel drives may not be used during certain snow removal operations based on weather conditions and snow accumulation. When dispatched, loaders begin snow removal in cul-de-sacs, and the 4-wheel drives remove snow from City parking lots with Police and Fire lots as priorities. After parking lots have been cleaned, seven of the 4-wheel drives will assist loaders. The operators of the remaining 4-wheel drives may be reassigned to other vehicles or return to their divisions.

Once arterial and collector roads have been plowed, the plow trucks move to commercial and residential streets. Upon completion of snow removal from residential streets, the Public Works Director or designee determines whether the arterial and collector roads should be re-plowed. The decision to plow will be made according to residual snow fall and/or existing conditions.

Cul-de-sacs will be plowed to the center whenever possible with the intention of bulk snow storage in this area. Exceptions will be defined by the Public Works Director or designee after identifying a special need or circumstance.

B. Anti-Icing And Deicing Procedures:

The City's trucks are sent out under the same priority criteria as plowing procedures: arterial and collector streets first; then, commercial and residential streets; and cul-de-sacs. City-owned parking facilities are included. Hilly areas are often given higher priority than flatter areas.

The following procedures shall be followed in order to maintain safe road conditions, establish uniformity, conserve deicing materials, and minimize environmental impacts:

1. SANDER ADJUSTMENTS

- The auger speed shall be calibrated and adjusted to supply deicing material to the spinner plate in the amount necessary for the required anti-icing or deicing operation.
- The size of the hole in the auger box shall be adjusted so as to not overfeed the spreader.
- Spinner shall be adjusted to spread material in a 4- or 8-foot pattern.
- The spinner shall be adjusted to throw out material 2 or 4 feet to both sides of the spinner.
- The auger shall be calibrated and speed adjusted to provide material to the spinner at rates of 125, 250, 375, and 500 pounds per minute for manually operated controllers. The auger shall be calibrated to provide material to the spinner at a minimum of 100 pounds and a maximum of 1,000 pounds material per lane mile for ground speed automated controllers.

2. GROUND SPEED

- To achieve desired placement of deicing material on the road surface, ground speed should not exceed 25 miles per hour. Conditions may require a slower ground speed.

3. PLACEMENT OF DEICING MATERIAL ON ROAD SURFACE

a. Sand and Salt Mixture

- Material should be placed on the crown of road on residential streets, allowing traffic to carry it to curbside. On arterial, collector, and commercial roads spinners should be set for 8-foot wide coverage.
- During plowing operations material should not be applied to residential streets until the final pass with the exception of intersections, hills, curves, and school zones.
- In residential areas, material should be applied 100 feet prior to an intersection. Distances may increase depending on circumstances.

b. Salt/Treated Salt Application

- Material shall be placed on the crown of the road surface allowing traffic to carry it to curbside.

- Arterial and collector roads (4-lane): Spread salt continuously on inside lane and spot salt as necessary on outside lane (e.g., 250-300 foot intervals) based on weather conditions.
 - Collector Streets (2-lane): Spread salt continuously based on weather conditions.
 - Residential Streets: Spread salt continuously on hills, curves, and intersections. Spread salt intermittently on sloped streets unless otherwise directed by Superintendent or designee.
 - Cul-de-sacs: Spot salt on sloped cul-de-sacs as necessary.
 - Material should be applied 100 feet prior to an intersection. Distances may increase depending on circumstances.
4. Deicing Material Applied Relative to Topography, Type of Precipitation, Road Surface Conditions, and Temperature
- Areas with hills and sharp curves will require more deicing materials than flatter areas.
 - Application rates of deicing materials increase as temperatures drop.
 - Chemicals applied during anti-icing operations shall be applied at rates recommended by The Salt Institute and Cargill's Sensible Salting Guide with consideration given to past experience and weather forecasting for the following 24 hours.

C. Parking Violations, Snowbird Reporting Procedures:

Police, Community Service Officers, and Code Enforcement Officers may issue parking violations during snow plowing or snow removal operations. Vehicles which impede or prevent snow or ice control equipment from proceeding or which are deemed a public safety hazard shall be turned over immediately to Police Department and may be tagged and towed.

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