

the Village of New Lenox

"Home Of Proud Americans"



Snow & Ice Removal Policy

October 27th, 2014

The Village of New Lenox Public Works— 2401 Ellis Rd

TABLE OF CONTENTS

The Plan's Objective:	2
Notification and Response:	2
Snow Removal Operations:	2
Table 1: Snowfalls and Typical Responses	3
Location Spot-Treatment:	3
Ice Prevention and Removal Operations:	3
Table 2: Ice-Storms and Typical Responses	4
Salt Usage:	4
Liquid Deicers and Performance Enhancers:	5
Road Pretreating:	5
Salt Prewetting:	5
Snow in the Parkway and Driveway Aprons:	6
Parkway Damage:	6
Mailbox Damage:	6
Figure 1: Proper Mailbox Placement	6
Reimbursement Criteria:	7
Assistance to Private Property:	7
Snow Ordinances:	7
Departure from Policy:	8
No Duty or Right Created:	8
Policy Priority:	8

The Plan's Objective:

The Village of New Lenox Public Works Department has and continues to take pride in the removal of snow and ice from Village roads. It has been said many times by residents, motorists traveling through town, and neighboring municipalities that New Lenox has both the quickest response to snow events, often completing operations prior to residents' morning commutes, and the safest, most drivable roads during longer winter storm events.

The Public Works' objective when performing Snow and Ice Removal Operations is to minimize the adverse effects winter-weather has on driving conditions. By conducting these operations in a safe, efficient, and timely manner, the people who live, work, and conduct business in the Village can proceed with their affairs unimpeded.

The Public Works strive for bare pavement from one edge of road to the other after all snow events. Although there are factors that can at times prevent or delay this goal, this can often be achieved in as little as two hours after a smaller snow event, within five hours after a moderate snowfall, and eight hours after a major snow storm.

Notification and Response:

The Village of New Lenox will be utilizing the services of an outside company to notify staff of forecasted winter weather. The contracted company will employ Certified Consulting Meteorologists to provide site-specific forecasting, and will notify staff two hours prior to winter weather impacting the Village.

Once notified, the Street Department Superintendent (or his or her representative) will assess conditions and determine the best operations to efficiently minimize hazards winter weather creates for motorists.

When an after-hours response is required, the Street Department Superintendent (or his or her representative) will begin the notification process using a phone tree. The Superintendent will contact Crew Leaders, and these three will notify all staff and contractors that snow/ice removal operations are required.

Snow Removal Operations:

The Snow and Ice Plan recognizes that no two winter-storm events are identical; each storm's intensity, duration, temperature and wind speed are different. Therefore, all of these factors will be assessed when deciding which course of action to use when addressing road conditions.

For each winter storm, the Public Works will utilize all available staff and equipment to perform snow and ice removal operations. This ensures the quickest, most wide-spread response throughout the Village to provide safe roads for residents and motorists.

In order to provide safe service and abide by State Laws, all snow plow operators will obey the rules of the road while performing snow and ice removal operations. Drivers will obey speed limits and come to complete stops at STOP signs, and the practice of "reverse-plowing" is strictly prohibited.

Snow Removal Operations (cont.):

For Snow and Ice Removal operations, all drivers/operators are assigned a predetermined route for which they are responsible to maintain. Operators assign priorities to roads in their route, designating main roads, secondary roads, side-streets, dead-ends and cul-de-sacs, and perform operations accordingly. Main roads will be cleared first, secondary roads next, and so on. This means streets with greater volumes of traffic and higher speed limits will be treated first, reducing the hazards on roads that are likely to be driven by more residents and motorists.

Table 1 lists a variety of snowfalls and typical responses. While not all snowfalls will perfectly fit into one of these categories, this table will illustrate typical responses to given conditions.

Table 1: Snowfalls and Typical Responses

Storm Category	Storm Description	Typical Response
Snowfall 1	Coating to 1 inch snow accumulation	Staff applies salt to all routes
Snowfall 2	1 to 6 inches snow accumulation	Staff plows driving lanes during storm; plows curb-to-curb upon storm's end and drops salt on cleaned roads
Snowfall 3	6+ inches of snow accumulation over an extended period of time (24+ hours)	Implement Split Shifts; once storm has passed, entire team reports in to clear all streets edge of road to edge of road and drop salt
Drifting 1	Winds blow loose snow into Village roadways without an actual snowfall	Staff will check entire town for drifting roadways; snowplow operators will drive in tandem to open up roadways and remove drifts; de-icing materials will not be applied

Location Spot-Treatment:

Under certain conditions, there are times when staff will spot treat areas in town; one example of this is slow snow accumulation occurring overnight. These areas have been identified as "trouble-spots" which are difficult to drive under normal road conditions, or areas where safety is of a higher concern (such as around schools). With the right conditions, a two-man team will treat these areas in lieu of a larger, more extensive response to "hold over" these areas until the storm is complete and a town-wide response is activated.

Ice Prevention and Removal Operations:

Freezing rain or sleet can create very hazardous conditions while driving on roadways. Snow on roads reduces traction but can still be traveled when care is taken. Roads that freeze over with a layer of ice often have no traction, therefore becoming extremely hazardous to drivers.

When icy conditions are predicted, treatment before roads become hazardous is imperative. Pretreatment can be done by either application of the beet-juice/brine mix (if warning time and conditions allow) or through application of rock-salt immediately prior to the event.

Ice Prevention and Removal Operations (cont.):

Table 2 lists a few scenarios concerning icy roads and appropriate responses. Once again, not every ice storm will fall into one of these categories, but this table will illustrate typical responses to ice-storm events.

Table 2: Ice-Storms and Typical Responses

Storm Category	Storm Description	Typical Response
Ice 1	Light Rain, Freezing Rain, or Sleet	Pre-treat roads immediately prior to event with rock salt.
Ice 2	Ice (not preceded by rain, sleet or freezing rain)	Pre-treat roads with liquid beet juice/brine mix if possible. Post-treat roads with rock salt if necessary.
Ice 3	Heavy, continuous freezing rain	Pre-treat roads immediately prior to event with rock salt; continuously monitor road conditions until precipitation ends. Pre-wet salt with calcium-chloride if temperatures are below 20°F.

Salt Usage:

At times, conditions may be present that will prevent the staff from applying de-icing materials (brine mix and rock salt) to Village roads. The most common reasons for this are high winds (which cause drifting), near-zero temperatures, and salt shortages.

When wind speeds increase and exceed fifteen miles-per-hour (15 mph), the chance of loose snow blowing into Village roads increases dramatically. This is especially true in open areas, such as roads along farm fields. When de-icing materials are applied to these roads, snow collects rapidly in the roadway. This is because the snow sticks to the de-icing materials and it accumulates faster than it can be melted; the snow then quickly builds up and makes the roadway impassable. On the other hand, when these roads are left untreated, snow can continue to blow and hopefully exit the roadway. The Public Works has a limited amount of snow fence which can be installed prior to winter to help reduce drifting onto roadways. Placement of snow fence is made at the discretion of the Street Department Superintendent.

Extreme cold may also prevent the use of de-icing materials. When the temperature decreases, so does the effectiveness of de-icing materials. Salt rapidly loses its effectiveness to melt snow and ice below twenty degrees Fahrenheit (20°F) and becomes impractical to use at fifteen degrees Fahrenheit (15°F); however, sunlight may warm pavement to this temperature even when temperatures are below fifteen degrees, and straight salt may be used under these conditions. Calcium-chloride can be added to the rock salt in order to melt snow in colder conditions. With the addition of this material, rock salt may be used for de-icing down to five degrees Fahrenheit (5°F). Below this temperature, the Public Works staff will not spread de-icing materials due to their ineffectiveness at such low temperatures.

Salt Usage (cont.):

During winters with many snow events, the limited salt supply is a cause for concern. Aside from the budgetary issues caused from purchasing additional salt incurs, the availability of rock salt becomes an issue as well. Bad winters impact everyone, and supplies may be exhausted or delivery could be unavailable for extended periods of time. When this occurs, actions must be taken to conserve our salt supply. This may be done by applying salt only to roads with higher speed limits, applying less salt on all roads, or even spot salting intersections, especially if temperatures are expected to rise above freezing within twenty-four hours of a winter-event's end.

Liquid Deicers and Performance Enhancers:

New methods for ice prevention and snow removal utilize liquid deicers and performance enhancers. While there are many different liquids available and many ways to mix them, the Village uses liquid deicers in two ways: road pretreating and salt prewetting.

The Village currently purchases bulk amounts of calcium-chloride and beet-juice. Calcium-chloride is a liquid deicer, as it has a significant ice melting capacity when used alone. It is often used to make salt more effective at temperatures below 15°F. Beet juice, on the other hand, is a performance enhancer. While it does not have a significant melting capacity on its own, it helps salt adhere to the roadway. Beet juice also has a dark color, absorbing more light on sunny days and it can aid in melting snow and ice by helping warm deicing materials.

Road Pretreating:

Road pretreating is when a liquid deicer is applied directly to the roadway before a storm and it is intended to prevent snow or ice from bonding directly to the roadway. If this bond is prevented, it is hoped that roads will require less rock salt to melt residual snow after roads have been plowed. It can also melt smaller snow falls if conditions allow and time is given.

Pretreatment does require a number of conditions to be favorable in order to be applied. For example, pavement must be above 15°F and relative humidity should be below 70%; this allows the water in the pretreatment solution to evaporate from the roadway before the winter storm arrives. Otherwise, the water will freeze and a layer of thin ice will be present before the event even occurs.

Salt Prewetting:

Prewetting is the process of applying a liquid deicer to rock salt before spreading the salt on the roadway. Rock salt that has been through the prewet process tends to bounce less, keeping more salt on the roadway. Also, prewet salt activates quicker, providing safer roads in a shorter amount of time.

Snow in the Parkway and Driveway Aprons:

During and/or after winter events with snow accumulating over one inch, snow and ice removal operations will include the using plows to remove snow from Village streets. During plowing operations, snow from the plow's blade is deposited along the road's edge, including parkways and driveway aprons. This is even more evident on street corners and inside cul-de-sacs, as there is more snow to push off the roads and relocated snow is piled higher.

Parkway Damage:

Over the course of the winter, snowplow operators may inadvertently damage the parkway. This may happen when a plow damages a lawn or removes shoulder-stone on roads without curbs. In either instance, the Public Works Department will restore the affected area.

Parkway areas that have been scrapped with the plow edge will be restored with pulverized dirt and premium grass-seed mix. Misplaced shoulder-stone will be raked out of lawns and additional stone placed on the roadside if necessary.

Mailbox Damage:

An area of concern for homeowners and the Village is the damaging of mailboxes present in the parkway during snow removal operations. This can be very frustrating for both parties, as residents expect to be able to receive mail daily and snowplow drivers often cannot avoid damaging mailboxes because they are improperly placed or are already in poor condition.

Mailboxes are private property and they must meet very specific guidelines when installed¹. According to United States Postal Service:

- The mailbox is required to be 6-8 inches behind curb and 41-45 inches off the ground;
- The post should be constructed from a wooden "4x4" post or a two-inch diameter standard steel or aluminum pipe; and
- Mailbox-posts cannot be constructed of potentially dangerous supports, such as heavy metal pipe or concrete posts.

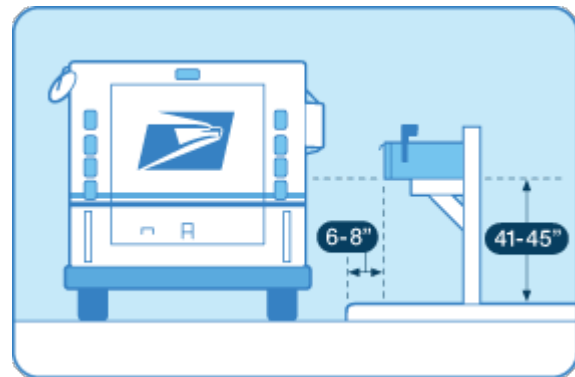


Figure 1: Proper Mailbox Placement

Before the winter season arrives, Public Works staff will evaluate the mailboxes on Village roads. By using this proactive approach, Village staff will assess the condition of mailboxes and create a list of mailboxes that have deficiencies which should be addressed prior to the winter season.

¹ Guidelines and graphic found on USPS Website - <https://www.usps.com/manage/know-mailbox-guidelines.htm>

Mailbox Damage (cont.):

When a mailbox is damaged, residents should notify Public Works and have a work order created. Public Works will make temporary repairs, or provide a temporary mailbox, to all reports of damage; it is the Public Works intent that all Village residents continue to receive postal service.

Reimbursement Criteria:

When the snow-removal season ends, permanent repairs can be made and replacements can be installed. The Village will reimburse residents for materials used in repair of their mailbox. In order to qualify for reimbursement, a damaged mailbox must meet the following criteria:

1. The mailbox must meet the USPS guidelines as previously stated;
2. The post, supports, and box must be determined to be in good shape prior to being damaged (rotted or rusted posts, supports, and boxes will not be replaced); and
3. Residents requesting reimbursement must have previously entered a work order with Public Works at the time of damage.

When these criteria are met, the Village of New Lenox will reimburse residents up to \$125² for repair or replacement materials for mailboxes. All claims for reimbursement with receipt must be received by the Village by May 1st. Mailboxes that do not meet these criteria are not eligible for reimbursement.

Assistance to Private Property:

When a Public Works employee notices a stuck or stranded vehicle in a driveway, roadway, parkway, or parking lot, the employee will treat the hazardous area to the best of their ability, providing it is in a Village maintained roadway or parking lot. The Street Department Superintendent should then be immediately notified in order to alert the Police Department of any remaining hazard and the need for motorist's assistance.

Snow Ordinances:

There are two Village ordinances that affect snow and ice removal operations: one regarding parking during snow storms and the other concerns deposits of snow from driveways and sidewalks. The purposes of these ordinances are to help ensure the safety of motorists using the roadway, make snow and ice removal procedures more efficient, and reduce the need for additional cleanup after a winter storm. The ordinances are stated as such:

Sec. 90-159. General parking restriction during snow removal operations.

- (a) Any provision of this chapter to the contrary notwithstanding, it shall be unlawful to park any motor vehicle on any street in the village when snow shall have accumulated to the depth of two inches or more as measured at the intersection of Maple Street and Cedar Road in the village. This parking restriction shall continue until the snow removal operation is complete.

² This figure will be reevaluated in five-year intervals.

Snow Ordinances (cont.):

Sec. 74-1. Deposit of injurious materials, snow, or other substances on street, right-of way or sidewalk

- (b) *Deposit of injurious materials; deposit of ice or snow.*
 - (2) No person shall throw, blow, shovel, or plow ice or snow onto any street or public way or onto any sidewalk or property of another person, or onto any other place which would create a hazard to vehicular traffic or danger to pedestrians.

Plows and salt spreaders have to work around parked cars, and large ice-patches are created by deposited snow after the roads have already been cleaned. By not adhering to these ordinances, residents ensure additional snow and ice removal operations will be performed by the Public Works staff, increasing the cost of snow and ice removal and endangering motorists until these operations are repeated. Residents in violation with these ordinances should be warned and given an opportunity to remove the hazard, while repeat offenders risk being fined.

Departure from Policy:

The Village recognizes that conditions may be so unusual or unexpected that a departure from these general policies should be authorized. Therefore, when conditions warrant, the Street Department Superintendent, in consultation with the Public Works Superintendent and/or the Village Administrator, may order a departure from these general guidelines when conditions require such action. This policy may be affected in total or in part, as result of equipment breakdown, weather conditions, inadequacy of equipment, state or federal regulations, shortage of personnel, and any other unforeseen, uncontrolled, or unanticipated event. No additional rights shall be granted to any individual or entity simply by the adoptions and enforcement of this policy.

No Duty or Right Created:

The purpose of this policy is to establish the goals and guidelines for operations for the Village of New Lenox's staff regarding snow and ice removal. It is not to be construed to create any duty to any individual, person, or entity. This policy does not provide any special protection or service to any particular individual or groups of individuals.

Policy Priority:

This policy, dated October 27th, 2014, supersedes all others and, to the extent that any previous rule, regulation, policy or past practice, written or unwritten, is in conflict with provisions of this policy, such is hereby withdrawn, voided, and all personnel should conduct themselves in conformity with this policy.