

# SNOW & ICE PLAN 2014 - 2015

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## VILLAGE OF CAROL STREAM DEPARTMENT OF PUBLIC WORKS

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Phil Modaff  
Director of Public Works

Todd Hoppenstedt  
Superintendent of Operations

**THIS PLAN HAS BEEN AMENDED TO REFLECT THE CHANGES ADOPTED BY THE VILLAGE BOARD WITH RESPECT TO APPLICATION OF SALT. THESE CHANGES WERE PUT IN PLACE TO ADDRESS THE NEED FOR REDUCING CHLORIDES IN WATERWAYS AND IN AN ATTEMPT TO CONTROL COSTS ASSOCIATED WITH THE PURCHASE OF SALT AND THE DAMAGE SALT DOES TO INFRASTRUCTURE**

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This plan is designed to support an “open-road” policy, which is intended to make all streets passable no more than eight hours after the last snowflake falls in any event. In order to achieve this policy, the Superintendent of Operations, in consultation with the Director of Public Works, will be responsible for authorizing and assigning the following resources:

- In-house personnel will be contacted when snow begins to accumulate on pavement and/or when weather forecasts predict accumulation. In-house personnel will be contacted before contractors are called upon.
- Should conditions and/or forecasts indicate the need for additional resources, contracted personnel and equipment will be used to supplement in-house resources. Agreements have been signed with four (4) qualified contractors detailing responsibility, securing insurance and acknowledging pay rates for a variety of equipment.

Once roads are made passable, resources will be strategically assigned and scheduled to fully open roads from curb-to-curb with more consideration to cost factors (such as overtime, use of contractors, employee fatigue, etc.).



**Plow trucks working in tandem provide more immediate impact**

## Preventing and Combating Accumulation of Snow Pack and Ice on Pavement

The Department employs several strategies to fight snow pack and ice accumulation:

- **Anti-Icing** is applied to prevent the early formation of ice patches, to reduce the formation of snow-pack and to create conditions which promote the build up of slush once snow has started to accumulate. The department's anti-icing production capability has been increased with the purchase of a new brine-making system in 2013. Increased production has allowed for an expanded use of brine prior to an event. Anti-icing will be deployed via two strategies depending on conditions:
  - When there are more than two days' notice prior to a predicted event crews will attempt to apply brine on every Village street, starting with courts and cul-de-sacs and progressing up through the main streets.
  - When less time is available before an event crews will spread brine on as many streets as possible, starting with the main streets and moving down to the lesser travelled streets.



**One of two de-icing units used in the fleet**



**Salt Storage Dome**

- Effective with the 2014-15 snow season, **salt spreading** will be done only during the final pass during plow operations (except on the main roadways where salt will be applied as needed). Furthermore, salt will not be routinely spread on courts and cul-de-sacs, but may be used during an ice storm if needed. The salt, coated with a liquid brine solution and a beet juice extract, is spread from plow trucks at a pre-determined rate based upon a variety of factors (pavement temperatures, wind, sunshine, air moisture and consistency of the snow). Salt is stored on-site under roof and brine is made on-site.
- **De-icing** is performed when ice has formed. Occasionally conditions allow spot locations of ice to form and crews may use any one of, or a concentrated mix of salt, salt brine, liquid calcium chloride and beet juice extract to melt the ice.

### Assignment of Resources

The Village's street system has been divided into sixteen zones. Attached is a map which depicts the various zones developed to make best use of available resources and to deliver timely and effective plowing throughout the community.

- Within most of the zones some streets may be classified as "arterials" or "mains", based upon their size and/or traffic volume. These arterials and mains are actually treated as one zone (zone #16), with two large trucks assigned specifically to work these streets throughout a snow event. The remainder of the streets are handled by in-house resources, with the exception of courts, cul-de-sacs and bubbles, which are assigned to contractors. On the attached map "mains" are shown in RED and "arterials" are shown in GREEN.<sup>1</sup>
- Equipment and personnel are assigned to each route so that work in all routes can begin at roughly the same time, rather than prioritizing one route over another.<sup>2</sup>

### Snow Plowing

The Village has a variety of in-house equipment assigned to plowing duties. Below are examples of the typical equipment used in each zone:



Large Dump Truck

<sup>1</sup> Some other roadways in the Village are under the jurisdiction of State, County or Township. Examples include: North Avenue, County Farm Road, Schmale Road, Gary Avenue and Army Trail Road.

<sup>2</sup> Under very heavy snow conditions, resources will be concentrated on mains and arterials.



Six-wheel Dump Truck



Small dump Truck



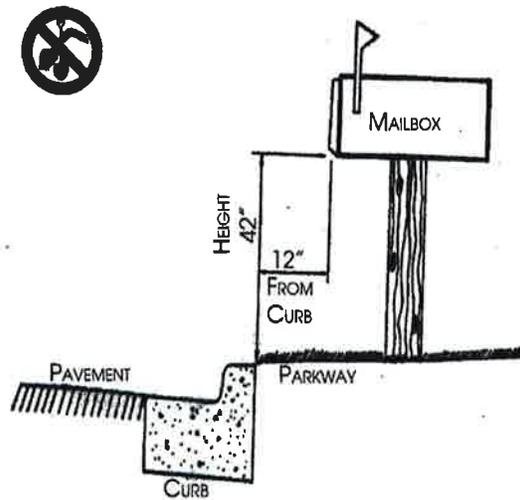
Wheeled Loader

## General Policies

Over the years the Village has adopted a number of policies in order to support the effective removal of snow from the streets. Below is a summary of those policies currently in place:

1. Sidewalks will not be plowed by the Village, including those in the area of schools. Property owners are strongly encouraged to shovel snow from walks adjacent to their property.
2. By ordinance, parking is not allowed on streets following a 1-inch snowfall. Public Works and Police staff will coordinate efforts to enforce this ordinance.
3. The Village will plow all streets, regardless of their acceptance status (i.e. – new developments with public improvements).
4. Residents are encouraged to remove snow from around fire hydrants adjacent to their property.
5. On garbage collection days residents are requested to place garbage containers in their driveways, not on the street or close to the curb. The Village will not reimburse residents for damage to garbage containers placed too close to the street.

6. All property owners are prohibited by Ordinance from depositing snow in the street when cleaning their driveways.
7. The Village will replace properly installed mailboxes damaged by direct contact with snowplows. However, mailboxes suffering damage due to improper installation (placed too close to curb) or due to deteriorated support (rotting wood, rusted metal, etc.) will not be the responsibility of the Village. In addition, the Village will not be responsible for mailboxes that may have suffered damage from snow flying off a plow.



**Mailbox Specifications**



**Improperly Installed Mailbox**

# Public Works Snow Zones

