

City of Lockport

Snow and Ice Control Policy 2009



PURPOSE

This pamphlet is a compilation of all relevant Department policies, procedures, guidelines, assignments, operational protocol and reference materials pertaining to snow and ice control. This pamphlet provides staff with essential background information and direction. It is our goal to minimize the impact of the inevitable inconvenience and hardship resulting from winter storms on the citizens we serve to the degree practical by having a consistent, organized plan of attack. Please review this pamphlet thoroughly. When policies, principles and practices contained herein are consistently followed, we will be in a position to provide the most effective control operations and emergency response possible for the community at large with the equipment and personnel available.

NOTIFICATION AND MOBILIZATION PROCEDURE

The Lockport Police Department has the responsibility for initial notification of the designated supervisor and on-call employee during off-duty times as summarized below.

When snow, ice, ice pellets, freezing drizzle or rain, or any combination is imminent or has accumulated to a depth which is considered potentially hazardous to vehicular travel in the city, the Watch Commander or Sergeant in charge is to authorize the dispatch agency, WESCOM, to notify Public Works on-call personnel **immediately!** In accordance with routine procedure, the time and person notified will be logged.

The Police Department has been consistently alerted that **early notification is essential**. It must be remembered that a minimum of (1) hour will elapse before the first salt truck will hit the streets. An early or premature call is far preferable to a late call. This is especially critical with approaching rush hours.

When weather conditions are predicted to deteriorate quickly after a regular workday, or if it is obvious to the supervisory staff that conditions warrant immediate service although Police notification has not yet been officially received, a crew will be promptly retained/organized.

The same holds true for weekend operations. We strive to be self-sufficient as possible. When conditions and predictions are extremely threatening or ominous, the responsible on-call supervisor should, at a minimum, promptly mobilize a skeleton crew for standby status.

When notified by the Police Department that service is required, the Public Works supervisor will initiate an Ice Control Response up to (10) salt trucks to cover all streets and municipal parking lots.

The Director of Public Works or his designee has full responsibility and authority for planning, coordinating, implementing, monitoring and managing all snow and ice control efforts.

ICE CONTROL RESPONSE

Our initial response to any snow emergency (stand-by or call-out) is to immediately dispatch up to (10) salt trucks to all streets and municipal parking lots beginning with all primary streets. Unless otherwise notified by the supervisor, all operators will continually salt/plow all streets and parking lots in their pre-assigned areas. The supervisor shall constantly monitor street condition and the progress of the storm to determine if and when additional salt/plow trucks or full plowing are needed.

The following are important reminders to be closely followed during and after all salting operation.



Drivers are to review detailed area maps carefully to clarify exact perimeters of their responsibility. Individual section maps are enclosed in each truck.

All Driver are to **"hit the road"** immediately upon checking in, after checking fuel, oil, salt and calcium levels in their vehicles. Do not wait until other drivers arrive!

Keep in contact with the supervisor by radio as necessary. **When completed with your designated route, check with the supervisor promptly to see if any other driver needs assistance.**

Inspect and **wash** the truck/spreader/spinner when finished to prevent "caking" and to identify mechanical problems in need of prompt repair. Always park vehicle fully fueled with a full tank of calcium chloride de-icer. If there is no indication that the vehicle will be needed within the next 24 hours after parking it, the vehicle shall be cleaned of all salt in the bed of the truck.

A liquid de-icing system (calcium chloride) is used to enhance effectiveness of salting efforts, especially at temperatures below 24 degrees Fahrenheit. Usage will be determined by the responsible supervisor/operator. The city operates two 4500 gallons calcium chloride tanks. One tank is located at the Public Works and Engineering facility next to the fuel tanks. The second tank is located at the Lockport sewer treatment plant next to the salt dome. Each salt/plow truck is

equipped with a calcium chloride tank, which should be sufficient for the treatment of multiple loads of salt. The pump and spray nozzles are calibrated to deliver the proper amount of liquid per ton of salt. The driver should monitor usage to assure proper system operation. Exercise caution when filling the tanks on the trucks. **Liquid de-icing chemicals are caustic. Always use extreme care and wear eye protection and rubber/vinyl gloves when filling and naturally, avoid spills.**

SNOW PLOWING ROUTES AND TRUCK ASSIGNMENTS

Route #1 Truck #132

All city streets that fall within the limits of the Victoria Crossings subdivision (east and west), Prime Blvd. Part of 163rd by Victoria Crossings, Parker Ridge and Parkside Estates

Route #2 Truck #126

All city streets that fall within the limits of Broken Arrow, Broken Arrow town homes, Thunder Hill, Dakota Glenn, Pueblo Point, Long Bow Creek, and parts of Farrell Road.

Route #3 Truck #123

All city streets that fall within the limits of Broken Arrow South town homes, Navajo town homes, Lakewood at Broken Arrow, and Willow Walk. City portions of Gougar Road, Bruce Road, Oak Avenue and Farrell Road.

Route #4 Truck #133

All city streets that fall within the limits of Pine Valley, Neuberry Ridge, meadow Ridge, Parkview Manner, South Estates and everything from Lawrence Avenue east to Briggs Street and Division south to Neuberry Ridge.

Route #5 Truck #129

All city streets that fall within the limits of Division South to Parkview and Lawrence west to Prairie. All city streets on the west side of I&M Canal from 2nd Ave to Division.

Route #6 Truck #107

All city streets that fall within the limits of Commerce/Rail Road tracks east to Garfield Street. Division Street to 9th Street. Metra commuter parking lot, Madison Street parking lot.



Route #7 Truck #127

All city streets that fall within the limits of Commerce Street/Rail Road tracks east to Read Street. 9th Street North to Bluff Street. Central Square parking Lot and 8th Street parking Lot

Route #8 Truck #128

All city streets that fall within the limits of Garfield Street east to Porter Drive and from Division Street north to 9th Streets. North of 7th Street this route includes Read Street and everything west. Pleasant Grove Subdivision and Grand Point Crossings

Route #9 Truck #118

All city street that fall within the limits of Regency Point, Westwood Estates, Clover Ridge, Fieldstone, and Karen Springs. Sections of Farrell Road, the Police Station, Parts of Highland and Robson

Route #10 Truck #125

All city streets that fall within the limits of Abbey Glenn, The Woodlands, North Meadows, Saddlewood Estates, Whispering Pines, Creekside Estates (North) Deer Path Run, Port Ridge, The Fields, Forest Point, 151st from State to Gougar, Gougar Road from 151st north to 147th and east to Lemont Road, North on Lemont Road ¼ mile.

Cul-de-sacs, Alleys and Parking lots

The Director of Public Works or his designee will call out smaller snowplow trucks to plow areas such as cul-de-sacs, alleys, and municipal parking lots. The driver assigned to the route will be responsible in ensuring the smaller snowplow truck completes the areas in the route. Should a smaller truck not be available, the driver in charge of the route should make all reasonable attempts to complete all areas within their routes before concluding their shift or otherwise directed by the Public Works Director or his designee.

Small Truck Route Assignments

Route #1 Truck #109
Route #2 Truck #102
Route #3 Truck #134
Route #4 Truck #106
Route #5 Truck #105
Route #6 Truck #621
Route #7 Truck #622
Route #8 Truck #120
Route #9 Truck #708
Route #10 Truck#104

It is critical that for each storm we meet our goal of full-width, curb-to-curb clearance to better ensure vehicular safety, proper drainage and ample snow storage during subsequent storms.

The following are important instructions, policies and reminders to be observed during all plowing operations:

- Drivers are to review area-plowing maps carefully to clarify their responsibilities. Supervisors are to schedule time prior to November 15th for all primary drivers to drive and thoroughly inspect their normal area assignment. All potential hazards in roadways or adjacent thereto are to be noted and promptly submitted in writing to the director for correction.
- Drivers are urged to formulate a logical route in their mind to ensure the area is plowed in the most effective manner.
- All plows and spreaders are to be staffed with one person, unless otherwise directed (i.e. specific training requirements).
- All private roads and subdivisions are to be plowed by the homeowners association or their agent. The City of Lockport may be contracted to plow these areas at the expense of the owner, homeowners association or developer and only after all city streets have been plowed. A \$500.00 fee shall be paid to the City of Lockport per occurrence. Seasonal rate of \$3500.00 will be applied to areas that have less than 1 lane mile. Areas with more than 1 lane mile will be subject to the City's budgeted amount



for snow and ice control per lane mile multiplied by their lane mile distance. All fees shall be paid and accompanied by a signed liability waiver prior to any services being provided.

TANDEM PLOWING

A tandem plowing pass will typically consist of a lead dump truck making a center cut with the plow's left edge at or near the pavement centerline followed by a salt spreading truck pushing the remaining snow over the curb. The second plow's cut should overlap the first plow's path to prevent a snow ridge from forming between the two cuts. Salt should be spread on each tandem pass at one half of the 2-lane mile rate used for that storm. The spreader operator shall adjust the spinner control to overlap both plow cuts with salt. **It is imperative that during tandem plowing/salting that only the second of the two trucks spreads salt so as not to waste salt.**

EMERGENCY/ BLIZZARD TYPE CONDITIONS

The primary objective of the plan is to concentrate snow removal efforts on priority city streets, thoroughfares, arterials, and significant collectors during severe weather conditions. In isolated emergency circumstances, it may be necessary to supplement personnel and equipment with contractual assistance.

Supervisors shall maintain contacts with local contractors who operate loaders, tractors, plows and trucks for hauling in disaster situations.

All snowstorms are categorized based on severity and snow accumulation. They are:

Category 1 Storm: (Minor)- Typically frost, ice or nuisance snow. Isolated trouble areas (bridges, hills, overpasses, some intersections) may be treated.

Category 2 Storm: (Minor)- A prediction of less than 2 inches of snow. All hills, bridges, overpasses and major intersections treated.

Category 3 Storm: (Intermediate)- A prediction of 2-4 inches of snow. Parking restrictions for all marked snow routes; other parking bans may be implemented. All city streets and intersections will be plowed and/or treated. Mobility will be maintained in alleys.

Category 4 Storm: (Major)- A prediction of 4-6 inches of snow. Parking restrictions implemented. All city streets and intersections plowed and/or treated. Plowing priority system implemented. Mobility maintained in alleys.

Category 5 Storm: (Major)- A prediction of 6-12 inches of snow. Parking restrictions implemented. All city streets and intersections plowed and/or treated. Plowing priority system implemented. Due to accumulation of snow, in/out plowing implemented for off-route streets. Snow removal from sidewalks in downtown area and higher-speed arterials may be included. ESDA could declare an emergency. May take up to 7 days for removal and pushing back snow once streets are cleared.

Category 6 Storm: (Severe)- A prediction of more than 12 inches of snow. Parking restrictions implemented. All city streets and intersections treated. Plowing priority system implemented. Due to accumulation of snow, in/out plowing implemented for off-route streets. Snow removal from sidewalks in downtown area and higher-speed arterials may be included. ESDA could declare an emergency. May take up to 14 days for removal and pushing back snow once streets are cleared.

During high winds, drifting and/or blizzard-like conditions the main routes are repeatedly plowed as needed, even if off-route streets are still snow covered. These conditions as well as heavier snow often lengthen the time needed to clear the snow.

Rock salt (sodium chloride) is spread on streets to prevent unsafe travel conditions when either snow or ice begin to accumulate. It takes 4+ hours to completely salt the entire city. The amount of salt used is based on the total snow accumulation, outside air temperatures and traffic conditions since temperature and vehicular traffic are critical factors in the effectiveness of salt. The city uses

caution to ensure salt applications are not excessive and, therefore, detrimental to the environment or to automobile bodies.

Priority Plowing System

The city has established a Priority Plowing system for our 150 lane miles of roadway based on traffic volume, speed limit and potential safety concerns.

First Priority: Primary roadways are those with the highest traffic volume, adjacent to schools, leading to hospitals and emergency vehicle routes. These are generally considered "arterial" and "collector" roadways. Hills and bridges are included in this category.

Second Priority: Second priority roadways include residential streets and cul-de-sacs. During and after a storm's completion, some streets become snow packed as a result of wind, drifting conditions and/or vehicular traffic over unplowed roads. All attempts will be made to reduce snow pack situations. Snow accumulations impairing motorists' sight distance will be monitored and addressed as needed.

City crews will plow one path (in/out) through every roadway to allow residents mobility as early as is practical in the storm. Crews will return later to finish pushing the snow back and clean storm inlets.

Alleys:

Due to the narrow width, plowing alleys deposits snow on (and potentially causing damage) to adjacent structures such as garages and fences and also impairs garbage pickup as well as obstructing alley access where snow has been deposited. However city crews will evaluate alley conditions during heavier snow accumulations to determine if city assistance is needed to maintain alley mobility.

Cul-de-sacs:

The City of Lockport has upwards of 150 cul-de-sacs and dead end streets. Cul-de-sacs are the most time-consuming, taking an average of about 35 minutes to clear each one, which is eight times longer than it takes to plow a through street of the same size. These are more difficult due to the limited space to dump snow without burying driveways, mailboxes, streetlights or fire hydrants.

Driveways and sidewalks:

It is the responsibility of the resident and property owners to keep driveways and sidewalks clear of ice and snow. The city urges citizens to keep this critical part of Lockport's transportation system moving by clearing sidewalks, especially for children walking to and from school.

State law protects property owners from any additional liability if they shovel their sidewalks. Residents should shovel snow into their own yard, not onto the street. Putting snow onto the street is against the law because it causes dangerously slippery conditions for both motorists and pedestrians.

City crews try to avoid putting large piles of snow in front of driveways; however, this is not always possible. To avoid having to double shovel, citizens may want to wait until after their street has been plowed before clearing their driveway.

Residents are also asked to keep snow cleared around fire hydrants to aid firefighters and mailboxes to aid postal carriers.

Mailbox Damage:

The City of Lockport is not responsible for damage resulting from snow exiting the plow blade or for weak deteriorated posts. Should a city vehicle or plow hit a mailbox and cause damage, the resident has an option of having the city repair the existing mailbox, replace the mailbox with a black or white metal mailbox and wooden post, or make the repairs themselves and be reimbursed for material costs up to \$30.00 providing the resident gives a sales receipt and invoice to the city.

The city is not responsible for mailboxes damaged during snowplowing if they do not meet U.S. Postal Service's guidelines. These guidelines state the front (face) of the mailbox may not extend beyond the back of the curb or overhang the curb or street. A 6" (inch) setback measured from the back of the curb to the front of the mailbox is recommended. However, the front (face) of the mailbox should not be greater than 6" (inches) from the back of the curb. Mailbox height should be between 36" to 42" measured from the bottom of the mailbox to the street level. If a mailbox is on a curve or cul-de-sac, it should be before and as close to the edge of the driveway as possible. The approach to a mailbox should be kept clear 10ft in each direction.

Railroad Crossings

It is the responsibility of all public works personnel to operate snow removal equipment with **extreme** caution at all times, especially at or near railroad crossings. It is necessary that we cooperate fully with railroads and other highway jurisdictions in maintaining all railroad crossings in a safe condition. The following precautions must be observed by all employees (as well as local contractors and other governmental agencies) operating snow removal equipment over or near railroad crossings at all time:

1. stop all heavy snow removal equipment before driving over a crossing;
2. be alert for trains from **both** directions when approaching crossings;
3. raise the nose and blade of snowplows as well as tractor buckets to clear rails, planks or rubberized grade crossing structures;
4. be sure that chunks of ice, large mounds of snow or other heavy debris are not deposited within the crossing zone;
5. spread sufficient amount of salt or abrasive to the pavement approaching the crossing to afford adequate traction and protection for traffic; and

6. turn spreaders off prior to actually crossing the grade in order to assure salt or abrasives are not deposited on the crossing or directly in the rail flangeway.

All personnel must realize the importance of complying with this policy in order to avoid derailments or related highway accidents. Proper and safe operation of snow removal equipment can minimize the potential for unnecessary property damage, personal injury and attendant lawsuits.

Clean up of Equipment and Facilities

Salt loading areas around bulk storage bins shall be cleaned up as soon as practical after every storm. All salt and plow trucks shall receive a preliminary wash/rinse down after every use and a thorough cleaning as soon as practical after each storm event. They shall be parked fully fueled and ready to go on a moments noticed. Special care should be given when operating next to bulk storage facility and the fuel island.

Any salt or abrasive spills in the field due to mechanical malfunction or overloading of hoppers shall be noted and thoroughly cleaned up at the conclusion of snow operations.

Equipment Inspection/Serviceing

All snow and ice control equipment is to be thoroughly inspected, repaired, re-calibrated and put into service for snow operations by November 1st. The bulk material storage facilities shall be inspected after receipt and filling of every salt order received as well as after every major storm for tidiness, structural stability and accidental damage. All plows will be fully inspected and repaired by fleet maintenance staff after every major storm event. **It is the specific responsibility of all personnel to report any defect they observe in equipment, street, right-of-way or facility conditions, or in operating or safety related procedures in writing c/o the immediate supervisor for the purpose of assuring expeditious remedial action.**

Rules of the Road

All snow and ice control equipment drivers shall be thoroughly familiar with the most current version of the *Illinois Rules of the Road* and the *Illinois Commercial Drivers License Study Guide*, both published and available through any Secretary of State's office. All supervisors shall secure a copy of each and have it available for review at all times.

Accident Prevention

Snow and ice control operations have certain inherent risks. Drivers are reminded to drive defensively. **All vehicles must have amber strobes and/or rotating lights activated during snow/ice removal operations.** Be alert for

changing road and traffic conditions at all times. Keep your eyes moving; use extreme caution during all backing maneuvers; exercise due diligence to avoid mailboxes; and report all accidents promptly! If the incident is serious, radio the supervisor so photos and police reports can be obtained. Departmental investigation will follow as soon as practical during or after completion of pending snow and ice obligations.

Commuter/Public Parking Lots

The commuter lot shall receive priority attention from the two assigned drivers in order to be fully plowed by 5:30am during the regular workdays Monday through Friday. In the event of a late start, additional units shall be called to assist the lots/stalls closest to the train station shall be plowed first.

The Police Department lot shall be plowed at regular intervals during a snow event. Special attention should be given to one hour prior to shift change when possible.

Roadway Jurisdictional Map

Current list of Municipal, County and State roads (attachment)

Plow/Salt Routes Sectional Maps

Area snow route maps indicating the area of responsibility (attachment)