

Village of Buffalo Grove

SNOW & ICE CONTROL PLAN



Public Works Department

Operation Division 2023 – 2024

Chapter 1

Anti-Icing Program

The goal of the anti-icing program is to apply liquid blend on all Village streets prior to a snow event to prevent the bonding of the snow to the pavement. This process will allow time to call in our crews and have them out on their routes salting and plowing before the bonding of the snow to the pavement takes place. In some instances, it could save us from having to call out our salt crew for a light snow event. The liquid blend will be applied on the road in lines and has an effective range of 7-10 days.

We have two anti-icing methods that are in place, and they are determined by how soon the storm event will begin. When the storm is days away or when we are anti icing to stay proactive, we will use two staff members and two trucks to anti ice all village streets on regular working hours. This usually takes up to three 8-hour regular working days. The other method is when the storm is two days out or less, in this case we would use four staff members and two anti-icing trucks to anti ice all village streets for consecutive hours until complete, working overtime as needed. This process usually takes 24 consecutive hours.

The Village has three (3) anti-icing vehicles and two (2) anti-icing tanks. Truck 43496 has a 1300-gallon liquid tank with a two-lane sprayer system. This tank stays on this truck throughout the winter maintenance season.

Trucks 432 and 416 have the capability to carry and spray with our other anti-icing liquid tank. This tank is a 1050-gallon liquid tank with a three-lane sprayer configuration. On a regular basis this tank will be installed on 432 and will remain on this truck unless there is a need for a third back up truck during any given storm event.

Our Anti-icing program will cover all Village streets, including cul-de-sacs and blowouts.

When anti-icing, we will be applying material at a rate of 30 gallons per lane mile with 23.3% Brine, a blend rate of 80% brine and 20% Beet Heet, will be the standard. These rates may fluctuate depending on the anticipated storm. Truck 43496 with the 1300-gallon tank will complete all main roads first, while truck 432 with the 1050-gallon tank will start on the south end of town and work toward the north. Once truck 43496 has completed the main roads this truck will join 432 in anti-icing all Village streets from north to south. An anti-icing task should be made and attached to the current anti-icing work order. Information that should be noted on the task is temperatures (road & surface), wind speed, current weather, gallons used, and miles driven.

After each anti-icing task, both tanks will be drained, and all systems cleaned.

Chapter 2

Program Route Assignments and Material Application Rates

The Village of Buffalo Grove Public Works Department is responsible for the removal of snow and ice from 125 centerline miles of public streets, including 372 cul-de-sacs and Village parking lots. There are also 27.02 miles of additional roads within the municipal boundaries that are not part of this program and are maintained by a variety of State, County, and Township agencies.

The goal of the Snow and Ice Control Program is to maintain pavement surfaces on village owned and maintained streets. Maintenance will be accomplished with resources available and assigned, with efforts always focused on safety and ability of emergency vehicles to traverse the village during winter storm events. After an event ends, the goal will be to clear streets “curb to curb” as soon as possible, with an understanding that differing levels of snow and ice accumulation will affect overall maintenance time. With the staff and route reductions in 2020-21, an average goal time is 12 hours after the end of an event. Public Works is using this goal as a marker to improve service under the new resource limitations.

- *Trigger points to use additional staff.*
 - *When a wing truck(s) is down, and tandem plowing is needed.*
 - *When more than 3 belly blade trucks are down, and 1 ton need to be used.*
 - *When excessive snow accumulation is falling before morning or afternoon rush hour.*
 - *When large amounts of snow have fallen over night and snow end before evening, additional staff will afford us the opportunity to complete event before a third rotation shift is needed.*

The Village of Buffalo Grove Public Works Department Snow and Ice Control program is supported by all Sections that comprise the Public Works Department and all full-time staff members will be trained in our program goals and operational procedures.

Route Assignments

The Public Works Department has divided the Village roads into 8 clearly defined route assignments. Of these 8 routes 2 routes will have trucks with 12’ front blades & 10’ wing blades, 3 routes will have trucks with 12’ front blades & 8’ wing blades and 3 routes will have trucks with 11’ front blades and 10’ undercarriage blades. In addition to 8 route assignments assigned to Village roads, additional staff members are assigned to various other areas that are covered under our snow plan. These include:

- Supervisor to oversee all snow and ice operations.
 - *Evaluating of all Village streets*
 - *Evaluating of Campus walks, driveways, and parking lots*
 - *Evaluating of Pace/Metra walks, driveways, and parking lots*

- *Continued evaluation of weather reports*
- *Continued charting of AVL system.*
- *Training staff during event (as needed)*
- *Taking pictures during event (as time permits)*
- *Floater Driver.*
 - *This route is the Thompson Blvd & Knollwood Dr hammerheads and Dogwood Terr & Hazelwood Terr.*
 - *Easton Ave from Rt. 22 to Main St will be maintained by us, as well.*
- *Mechanic.*
 - *Repair of snow and ice equipment during event.*
 - *Keep equipment on street up and running.*
 - *Load trucks with salt as needed, scaling as you go.*
 - *Track village vehicles on campus and pull inside as needed.*
 - *Help Campus route with walks and parking lots.*
 - *Stay with snow & ice crew, even during regular working hours.*
- *Campus route.*
 - *Plow and shovel all walks per campus map, salt specific walks defined on map.*
 - *Plow all campus lots, stacking snow in designated areas per map.*
 - *Address Police Department first and check often.*
 - *Address Village Hall second and have completed for 8:00 AM open.*
 - *Address Public Works third and have entry walks completed for 7:00 AM open.*
 - *The flow should always be Police, Village Hall & Public Works walks first. Followed by Police, Village Hall & Public Works lots second.*
 - *Extended walks around campus can be completed at the end of the event.*
 - *During overnight hours and on weekends the Police Department should be address more often as the other two buildings are closed to the public.*
 - *Always check campus map to make sure the few one-off spots are being addressed.*
- *Pace/Metra route.*
 - *Plow and shovel all walks per p/m map, salt specific walks defined on map.*
 - *Plow all driveway entrances to pace/metra, stacking snow in designated areas per map.*
 - *Plow a path back to the dog park.*
 - *Rotate from all walks to the driveway entrances and dog park path on a regular basis.*
 - *Salt walks at the end of the event or as needed during the event, (snow & ice Supervisor will provide guidance for this task).*
 - *Have driveway entrances and dog park path salted by Floater Driver or contact Supervisor.*
 - *Always check p/m map to make sure the few one-off spots are being addressed.*
- *Pace/Metra parking lot route.*

- *Addressed after midnight before the first train Monday thru Friday 5:00 AM. Time to plow parking lots is based on accumulation.*
- *Plow designated parking lots and stack snow per pace/metra map.*
- *Have area salted by Floater Driver or contact Supervisor.*
- Additional Crew 1 and Crew 2 staff.
 - *Available to cover front line calls when scheduled.*
 - *Available to cover calls during storms for your shift at a minute's notice.*

A total of 24 staff members will be available for any given winter storm event.

The Public Works Department has established 2 Winter Maintenance Crews, who will each be responsible for snow and ice activities, as well as other winter emergency activities during a 12-hour period each day. One crew will be responsible for snow and ice activities between 12:00 am – 12:00 pm, while the second crew will be responsible for snow and ice activities between 12:00 pm – 12:00 am. On a bi-weekly basis, these crews will rotate between the AM and PM responsibilities. In the event of a prolonged snow event, these crews will work successively in a “12 hours on – 12 hours off” sequence to maintain the service level on all roads.

During regular business hours, (when a trigger point has been activated) the salt or plow crew that is not on shift call will be available to tandem plow with the front-line drivers as needed or to help plow designated court routes in 1 ton and pick-up trucks. If determined by the Deputy Director of Public Works or designee, these support staff members that are assigned to specific routes will also be available to plow areas of greatest need during a storm event.

The utilization of support personnel will be determined by the Deputy Director of Public Works or designee (using the trigger point process) if prolonged, or severely heavy snow is forecast, or as other factors affecting Public Works staff levels are encountered. Support personnel includes but is not limited to administrative staff, off duty sworn Village personnel, and Engineering staff.

In the event of a major storm event, back up personnel, along with the front-line staff members, will tandem plow their assigned routes. These two trucks will plow the route together staying in view of each other, so that our GPS system can continue to track our progress.

For the 2021 winter season we have moved to the Garmin GPS system, which is operator friendly and gives us the opportunity to control our own GPS program and affords us the option to change routes as needed at any time. Each of our 9 routes are uploaded on all Garmin's, which include the plow and salt routes. Any driver will be able to pass through any route using this new system.

Salt and liquid application rates

400 lbs. of salt per lane mile and 30 gallons of liquid per ton of salt is our *standard application rate* while salting.

400 lbs. of salt per lane mile and 30 gallons of liquid per ton of salt is our *standard application rate* while plowing our **wing routes**.

400 lbs. of salt per lane mile and 30 gallons of liquid per ton of salt is our *standard application rate* while plowing our **“A” lap** (salting on the second pass).

200 lbs. of salt per lane mile and 30 gallons of liquid per ton of salt is our *standard application rate* while plowing our **“B” lap**.

20% blend will be our starting point when making liquids to pre-wet salt. This percentage can and will change as weather conditions change.

All these rates can and will be adjusted as needed when the road temperatures or storm event move up or down from the standard.

10 Salt application settings – 200, 250, 275, 300, 350, 400, 450, 500, 600, and 700.

10 Liquid application settings – 5, 10, 15, 20, 25, 30, 35, 40, 45, and 50.

Anti-Icing liquid rates – 23.3% Brine at 30 gallons per lane mile is our standard application rate. When road temperatures are below 20 degrees, we may adjust to 20% liquid blend (80% of brine and 20% of Beet Heet) or beyond, as needed. This is our *standard application rate* while Anti-Icing our roads.

Chapter 3

Winter Maintenance Response Levels and Communication

Generally, when our new WX Horizon weather system website sends us alerts that there is “snow possible” we will have our Crew Manager on call review the reports and evaluate the road conditions either on site or off site and communicate with the snow command team (which consist of Kyle Johnson, Jim Warnstedt, Bryan Beitzel, Chris Krase, Scott Fontanez, and Tom Milas) to determine the next course of action. The on-call crew manager will either call in his crew or continue to evaluate the road and air temperatures along with the road conditions, calling in the snow fighting crew when needed.

Definitions and descriptions

The Public Works Department has multiple response levels suited to meet the needs of our community and plan. Snow Command team will evaluate the present and projected conditions of every snow event and determine which response level is appropriate to battle the storm.

Below is a description of each of the response levels and an explanation of how the staffing will adjust to meet the challenges of each response.

Level #1 Response

Level #1 Storm Event – this is defined by the Public Works Department as an event that should not require more than a standard application of Road Salt treated with a blend of liquid deicer. Typically, this event will vary from wet roads that ice over up to 1” of snow, with weather and road temperatures that are suitable for simply melting the snow from the pavement. The Crew Manager will have the option to plow the crown of the roads as they salt if the snow accumulation or the road temperature warrants this process. The 8’ wing trucks will have to remember to adjust their spinner when moving from salting to plowing and vice versa. When the salt crews drop plows, they will be making 1 additional pass down each street and salting on the second pass as they go. However, they will not be curbing the streets. The additional pass is to clear the snow from the center of the road and the combination of salt, liquids, and traffic will melt the three feet of snow that is left on the curb line. **Note – It is important to remember that road salt and liquid deicer requires a combination of time, traffic, and sunlight to achieve a full melt from any accumulated snow. The application of road salt will not achieve immediate bare pavement conditions.**

Level #2 Response

Level #2 Storm Event – this is defined as a plowable snow event, not requiring more than the standard 8 5-Ton plow trucks plowing snow and applying road salt with liquid deicer once the road has been plowed. This response level is appropriate for steady, moderately accumulating snow events that do not typically exceed 24 hours in duration. A trigger point can be activated during this event, and we will respond accordingly. When predicted snow fall is 3” or more all snow and ice equipment should be activated.

Level #3 Response

Level #3 Storm Events – this is defined as a plowable snow event, with larger and faster accumulating snow totals. This is a fast-moving winter event not typically exceeding 24 hours in duration. For this response level, the Public Works Department would “overlap” the winter maintenance crews and assign extra personnel and equipment during the normal working hours of 7:00 am – 3:30 pm, with the expectation that the largest part of the event was behind us when the original crew leaves work at 3:30 pm. Cul-de-sac vehicles or tandem plowing may be deployed during this type of storm event.

Level #4 Response

Level #4 Storm Events – this is defined as a plowable snow event that is expected to last for 36 hours or longer. The Public Works Department would initiate the 12 hours ON / 12 hours OFF call back procedure with split crews working from midnight – noon and noon – midnight for the duration of the event. This response level is appropriate for steady, moderately accumulating snow events that will persist for quite a while, and ultimately depositing a significant total amount of snow on the ground.

Level #5 Response

Level #5 Storm Events – this is defined the same way as a Level #4 with crew assignments similar. What differentiates a Level #5 response will be the rate of accumulation, the difficulty of pushing the snow due to the weight of the snow, and other storm related challenges that slow down the overall process for the program. If the Snow Command team determines that storm conditions warrant a Level #5 response the following will be added to the existing Level #4 response:

- Additional staff and equipment assigned to each residential Route; to work in tandem with the primary 5-Ton plow unit.
 - 7:00 am – 3:30 pm
 - 7:00 am – 7:00 pm (depending on the conditions and available manpower)
- Rotating Winter Maintenance Supervisors working in 12 hour shifts along with split primary crews.

Level #6 Response

Level #6 Storm Events – this is defined by the Public Works Department as an event that cannot be completed during our standard plowing cycle time goal. This would be a blizzard or large ice storm event, which would require us to change from our standard cycle times and general service level to an emergency service level.

- Focus on arterial routes.
 - The three 8' wing routes and three belly blade routes would be supported by a secondary truck that can maintain court openings.
 - The two 10' wing routes would be supported by a secondary 5-ton truck to work in tandem in this route.
 - All trucks would be in A lap mode only, making a single pass in each direction including cul-de-sacs.
 - Blowouts and hammer heads will be addressed at the end of the event.
 - Plow trucks at the ready to assist with plowing in areas that have not been designated for scheduled plowing.

- Floater for EMA assist
- Floater for stuck vehicles in our way
- No campus or Metra sidewalk effort
 - Minimal effort on PD & PW Lots
- No immediate response to resident complaints on driveways or other issues
- Public Works Superintendent and Admin staff will be present to take calls and answer questions.
- Public Works open to the Public.
- Public Works staff responding to other emergencies like downed trees/limbs or power outages.

Communication

Snow command team, which will be comprised of our (deputy directors, superintendents, and 2 snow managers) will meet and discuss the plan of attack for any predicted snow event.

The Superintendent on call will then relay the decided plan via email to the other PW managers, Police Department, and communication team (Molly).

Snow manager on call will text the snow command team whenever there is a change in the response level and when the event is at its conclusion. The Superintendent on call will communicate these changes to the other PW managers, Police Department, and the communication team (Molly) as needed.

When available and on regular working hours the Snow Manager will have designated staff shadow them during any snow event, as we continue to work on our succession plan.

The current storm event response level will be posted in the front office during any given snow event. This is done so all staff are aware of the conditions, and aware of all assignments, or any changes to assignments throughout the event.

Chapter 4 Performance Goals and Objectives

The Snow and Ice Control Plan have divided the streets maintained by the Public Works Department according to center line miles and anticipated plowable lane miles, as well as travel time. The Public Works Department has assigned equipment for these routes targeted towards the anticipated plowable lane miles, the targeted needs of any given route, and the challenges of each. Although routes do vary in time and total miles, drivers are instructed to help each other until all routes are completed and all Village streets are cleared of snow.

During a Snow Event

The Public Works Department has established a pattern where each street will be plowed in each route once before plowing any one street a second time. In the case of our 5 wing trucks each street will be plowed from the center of the road to the curb during the first run through the route. In the case of our 3 undercarriage trucks, we will make a center lane pass in each direction on the first run through the route and then make a curb pass on the second run through the route. These route runs include passes in and around cul-de-sacs as vehicles proceed through their assigned Route. As route runs are completed, operators and equipment will start over and proceed through their assigned routes again, as needed. This pattern will continue for the duration of any snow event until the snow has stopped and clean up procedures can begin. Once the snow has stopped the Crew Manager will define clean-up operations. In the case of the belly blade trucks, this could mean moving from your B lap to you're A lap and plowing through A & B to completion. In the case of the wing trucks, it could mean cleaning courts up as you plow through your route (not just making two clockwise passes in the circles but pushing up access snow on to the island and finishing with a counterclockwise move around the circle of the court at the curb). Once the snow stops and we are still in a plowing event communicate with your Crew Manager for clarification of the next process.

During a snow event, staff will utilize road salt and liquid deicer as instructed by the Crew Manager. In a prolonged snow event, the use of materials will be adjusted to the appropriate application rate to prevent snow from bounding to the surface of the road. The Crew Manager will evaluate road conditions throughout the snow event and communicate instructions and application rates, as needed.

When plowing Cul-De-Sacs all trucks will work in a clockwise rotation making sure to clear the court as quickly as possible without burying driveways. The goal is to clear the cul-de-sac as quickly and best as possible without putting excessive snow in any one driveway and limiting backup, as well as clearing the court for easy passage. When there is a need to push snow up into the center island or into the parkway where there aren't any center islands, the driver should make as few pushups as possible, and moving on through the route. Cleanup including courts will take place once the snow has stopped and you have been advised by your Crew Manager.

Clean up Procedures.

Clean up procedures will begin when routes have successfully been cleared curb to curb or when the snow has stopped, and the Crew Manager has advised the procedure. Clean up consist of clearing snow from various areas like intersections, cul-de-sacs, and any other areas that snow has built up due to accumulation.

During clean up despite the stacking of snow in the parkways, it is reasonable that cul-de-sac driveway aprons will receive similar quantities of deposited snow as the aprons along the

streets. Cul-de-sac driveway aprons will not be plowed by staff as part of routine snow and ice control maintenance.

As always staff will not apply materials to melt snow. Staff will plow off accumulating snow and apply materials to prevent refreezing of the pavement. This includes sidewalk and parking lot plowing.

Chapter 5 ***Pace / Metra and Municipal Campus*** ***Winter Maintenance***

PACE / METRA

The Pace and Metra parking lots and sidewalks will be maintained throughout the winter season and during snow and ice events. The Public Works Department will assign seasonal staff to perform ongoing winter maintenance in conjunction with the train schedule for all sidewalks, entrances & dog park path, along with full time staff to clear all lots of snow.

The schedule for winter maintenance is as follows:

Monday – Friday

When it becomes necessary, the Public Works Department will have full time staff arrive to work at 5:00 am to inspect the walks and lots and perform salting on icy surfaces as needed.

During a snow and ice event, seasonal staff is assigned to the maintenance of walks, entrances & dog park path as part of the afterhours call back. The seasonal staff will report to work to clear snow from walks, entrances & dog park path. The seasonal staff will apply salt as needed or as instructed by the crew manager. If it becomes necessary to plow accumulated snow, the seasonal staff will clear snow from the walks, entrances & dog park path, including the main entrances to both the Pace and Metra drop off locations. The seasonal staff will continue to keep open passes on all walks and main driveway until the final train has arrived and all passengers have been dropped off and depart the facility (10:00 PM).

The seasonal staff will either continue to clear all sidewalks and salt as needed after hours while snow is still accumulating at pace/metra, or they may be moved to campus to help clear sidewalks and lots there. The full-time staff will plow all parking lots after hours. This shift will start based on the snow accumulation, keeping in mind all lots need to be cleared by 5:00 AM the next morning.

Weekends

The weekend schedule for winter maintenance at Pace/Metra goes into effect every Friday at 10:00 pm. In most cases we will be addressing the pace/metra walks and lot through the weekend as storm events occur with our regular snow and ice crew. However, winter maintenance activities at pace/metra will not necessarily be performed during the weekends. If plowable snow has accumulated over the weekend, we will report to work early the following Monday to clear all snow from walks and lots. We will maintain access to the Park District dog park at the rear of the lots until the end of the snow event. (Note: When necessary, a weekend crew will be called in to clear and salt snow and ice. Temperatures and accumulation will determine these needs.

MUNICIPAL CAMPUS WINTER MAINTENANCE

The seasonal staff is responsible for the winter maintenance activities for the following list of municipal parking lots and sidewalks:

- Police Department
- Village Hall
- Public Service Center

During snow and ice events, the seasonal staff will maintain these identified parking lots and sidewalks completing salting and snow removal based on priority and greatest need.

The schedule for winter maintenance is as follows:

Light Snow – Salting Application

During a typical salt call out, the seasonal staff on call will sensibly salt all identified campus parking lots and sidewalks. The Crew Manager will inspect the municipal campus during and at the end of each event.

Accumulating Snow – Plowing Application

When snow starts to accumulate the seasonal staff will alternate from plowing the walks to plowing the parking lots. The Crew Manager will inspect the municipal campus during and at the end of each event.

Normal business hours: Monday – Friday (7:00 am – 3:30 pm)

The seasonal staff will keep all driving lanes open with clearing passes in each parking lot. Seasonal staff will attempt to clear parking stalls and piles of snow as time permits. Police lots will depend on the availability of staff to shuttle vehicles between lots. Seasonal staff will maintain clearance of campus sidewalks.

After hours and weekends:

Following normal business hours, snow and ice maintenance will be completed by a seasonal staff. The seasonal staff will plow all identified parking lots and sidewalks on the campus. All sidewalks leading up to the Police Station, Village Hall, and Public Service Center will be cleared using walk behind snow blowers or hand shovels only. seasonal staff will coordinate with Police staff to shuttle cars between lots so that both lots can be cleared.

Other Municipal Locations Maintained by BGPW

- 3 Fire Station parking lots (SALTING ONLY)
 - Buffalo Grove Golf Course parking lots (SALTING ONLY)
 - Arboretum Golf Course parking lot (SALTING ONLY)
- These locations will be maintained by our Floater Mechanic and truck 416 will be used for this process.

Additional Procedures

- When changing shifts, the goal is to keep the truck on the route as much as possible having the current driver return to the shop at 11:45 and the on-shift driver returning to the route at 12:00, after meeting with his partner driver and manager.
- Snow Buddies need to work together and communicate on a regular basis for shift change, call coverage and any other issue that effects your route responsibilities.
- No one can park in the shop during any type of snow event.
- When parking in our lot please park in groups, so that we can plow as big of areas as we can during the event.
- Our liquid Farm needs to be kept at full capacity. Ordering Beet Heet ahead of time and keeping our brine tank full is a priority.
- When trucks go down the mechanics need to give the manager a solid, “will be back up in 15 minutes or less” if they can’t guarantee that, the driver takes the first backup truck.
- The backup truck order should be as follows: 416 first out, this truck will always be loaded with salt and liquid. Truck ? second out and will need to be loaded. When our second backup truck hits the road 432, our third backup truck needs to be prepared for battle. That means the anti-icing tank needs to be removed from this unit.
- Benching needs to occurs on a regular basis, along with court cleanout when snow accumulates on the parkway.

Chapter 6

Snow Fighting Equipment

Primary Snow Fighting Equipment

(6) 5 – ton units with nose plow, undercarriage plow, salt spreader, and 150-gallon liquid tank to prewet the salt.

<u>UNIT #</u>	<u>YEAR</u>	<u>MANUFACTURER</u>	<u>PLOW TYPE</u>
432	2011	International	11 ft. Bonnell nose plow 10 ft. Bonnell undercarriage 150 gal. rear liquid tank
416	2011	International	11 ft. Bonnell nose plow 10 ft. Bonnell undercarriage 150 gal. rear liquid tank
424	2007	International	11 ft. Bonnell nose plow 10 ft. Bonnell undercarriage 150 Gal. Rear Liquid Tank
426	2007	International	11 ft. Bonnell nose plow 10 ft. Bonnell undercarriage 150 Gal. Rear Liquid Tank
428	2007	International	11 ft. Bonnell nose plow 10 ft. Bonnell undercarriage 150 Gal. Rear Liquid Tank

(5) 5 – ton wing units with nose plow, wing plow, salt spreader, and 300-gallon liquid tank to prewet the salt.

<u>UNIT #</u>	<u>YEAR</u>	<u>MANUFACTURER</u>	<u>PLOW TYPE</u>
414	2015	Freightliner	12 ft. Bonnell nose blade 10 ft. Bonnell wing blade (2) 150 gal. side liquid tanks
418	2017	Peterbilt	12 ft. Bonnell nose blade 8 ft. Bonnell wing blade (2) 150 gal. side liquid tank
434	2015	Freightliner	12 ft. Bonnell nose blade 10 ft. Bonnell wing blade (2) 150 gal. side liquid tanks

422	2019	Peterbilt	12 ft. Bonnell nose blade 8 ft. Bonnell wing blade (2) 150 gal. side liquid tanks
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439	2019	Peterbilt	12 ft. Bonnell nose blade 8 ft. Bonnell wing blade (2) 150 gal. side liquid tanks
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(2) Anti-Icing liquid tanks.

43496	1996	International	(1) 1300 gal. liquid tank
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416/432	2011	International	(1) 1050 gal. liquid tank
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Secondary Snow Fighting Equipment

(4) 1.5 Ton Dump Trucks with nose plows and dry material spreaders

<u>UNIT #</u>	<u>YEAR</u>	<u>MANUFACTURER</u>	<u>PLOW TYPE</u>
415	2011	Ford F450	9 ft. Western nose plow
420	2011	Ford F450	9 ft. Western nose plow
417	2011	Ford F450	9 ft. Western Pro V plow
419	2011	Ford F450	9 ft. Western Pro V plow

(4) 1 Ton Pick-up Trucks with nose plow

<u>UNIT #</u>	<u>YEAR</u>	<u>MANUFACTURER</u>	<u>PLOW TYPE</u>
460	2018	Ford F350	8 ft. Western nose plow
461	2018	Ford F350	8 ft. Western nose plow
470	2018	Ford F350	8 ft. Western nose plow
472	2008	Ford F350	8 ft. Western nose plow

(3) ¾ Ton Pick-up Trucks with nose plow

<u>UNIT #</u>	<u>YEAR</u>	<u>MANUFACTURER</u>	<u>PLOW TYPE</u>
450	2018	Ford F350	8 ft. Western nose plow
457	2002	Chevrolet 2500	8 ft. Western nose plow
441	2002	Chevrolet 2500	8 ft. Western nose plow

Specialty Snow Fighting Equipment

<u>UNIT #</u>	<u>YEAR</u>	<u>MANUFACTURER</u>	<u>PLOW TYPE</u>
453	2008	Ford F350 Utility Body	8 ft. Western with crane

Additional Snow Fighting Equipment

<u>UNIT</u>	<u>YEAR</u>	<u>TRACTOR TYPE</u>	<u>BUCKET CAPACITY</u>
FEL 1	2008	Atlas Bobcat S300	¾ cu.yds.
FEL 2	2005	Caterpillar fel/backhoe	
FEL 3	1998	Volvo L 90	3 cu.yds. /5 cu.yds.
FEL 6	2016	Caterpillar fel/backhoe	
FEL 5	2008	Atlas Bobcat S70	¼ cu.yds
MT T1	2014	Trackless Snow Blower	

Chapter 7 Sidewalk Snow Removal

The Village Board of Trustees has directed staff to remove snow on certain sidewalks in the Village. Sidewalks located near multi-family areas housing senior citizens and retail areas have been identified as sidewalks the Village will maintain during the snow season, as well as all properties owned by the Village. In addition to the sidewalks near multi-family housing, the Village will also perform snow removal on sidewalks identified as school routes for children walking to/from school, or sidewalks leading to/from areas of mass transportation. These walks will be cleared when accumulated snow requires plowing. Sidewalk snow removal activities will be completed after all Village-maintained streets have been completed. Maintenance on the sidewalks will take place on regular working hours after a storm event or on the rare occasion that the storm event ends on the beginning of a weekend or holiday a crew will work on overtime to complete sidewalk plowing. The Deputy Director or his designee will make that call.

The Public Works Department utilizes a combination of 2 pieces of equipment to complete the 27 miles of identified sidewalks. 1 Bobcat skid loaders (fitted with snow brooms, blowers, or plow blades) and 1 MT Trackless tractor (fitted with a snow blower, broom, or plow blade). This activity will take 2 employees approximately 2 business days to complete. Additional staff and equipment can be used when needed.

Certain areas may be suspended from snow removal due to higher-than-normal accumulation levels. Staff will advise the Office of the Village Manager if this becomes necessary.

Chapter 8 Public Works Front Line Staffing And Winter Maintenance Assignments

The Public Works Department is comprised of 38 full time staff members and 10 seasonal staff members that will be included in the Snow and Ice Control Plan. Staff members will be assigned either a primary or secondary responsibility for winter maintenance activities based on program needs, as well as departmental responsibilities outside of the snow and ice control program.

2023-2024 OPERATIONS WINTER MAINTENANCE CREW ASSIGNMENTS

CREW #1	ROUTE ASSIGNMENT & EQUIPMENT	CREW #2
SCOTT FONTANEZ	SUPERVISOR TR 460	TOM MILAS
BRETT KRAHN	1 8' WING 422	TIM MALINOWSKI
RYAN CHAFFER	2 8' WING 439	JEFF WELLS
KARL ROSENBERG	3 8' WING 418	RANDY KESTER
BRAD CURTIS	4 BB 424	GEORGE CARTWRIGHT
RYAN ALFORD	5 BB 426	JAKE DOHERTY
SHANE FIRNBACH	6 BB 428	RYAN SERKOWSKI
DAVE GRETZ	7 10' Wing 414	RON WEINERT
ANDY DZIEKANSKI	8 10' Wing 434	PETE ROSENBERG
TOM SEEFELDT	MECHANIC*FLOATER	DEAN GROBARCHIK
JIM WARGO	FLOATER*MECHANIC TR 461	DOMINICK TUNZI
GAVIN HIGGS	CAMPUS TR 403	PETE CZERWINSKI
CAESAR MATEO	CAMPUS	MYLES McDARRAH
JARED BALDY	PACE/METRA UTV	MARTIN HERNANDEZ
JOSH WALLACE	PACE/METRA LOTS AM	NICK SMITH
JOHN DUCKWALL		NICK HERNANDEZ
COLIN WOTRING		JOSH SCHNEBERGER
BEN KRUSE		ERIC HANSEN
MIKE WITT		MIKE MARQUART
MATT ROGERS		MATT BETTASSO
MIKE FLAHERTY		MIKE McDONOUGH
SCOTT TUCCORI		KORY OLSEN
ANDREW WARMOWSKI		JEREMY BROWN
ROOPENDRA RAMINENI		
	SEASONAL STAFF	STREET SECTION
	ADMINISTRATION	FORESTRY SECTION
		BUILDING MAINTENANCE
		CENTRAL GARAGE
		WATER SECTION
		SEWER SECTION
EXEMPT BACK UP PERSONNEL		
MIKE SKIBBE	DIRECTOR OF PUBLIC WORKS	
KYLE JOHNSON	ASST. DIRECTOR	
JIM WARNSTEDT	ASST. DIRECTOR	
BRYAN BEITZEL	SUPERINTENDENT	
CHRIS KRASE	SUPERINTENDENT	
TYLER ANKNEY	MANAGEMENT ANALYST	

The Public Works Department will staff 2 Winter Maintenance Crews; each of which will cover 12 hours of the 24-hour day. As employees assigned to primary winter maintenance activities are away from work on leave, employees from the secondary winter maintenance pool will be moved to the primary assignments. Each of the crews will be supported by two 2 mechanics that will be responsible for repairs and other floater task.

Alternate Winter Maintenance Assignments – Staffing

Additional support staff comprising of administrative staff, Engineering staff, and off duty sworn Village personnel may be utilized during the winter season. Many factors contribute to the unique characteristics of every winter storm event that could result in this level of staffing. If determined by the Deputy Director of Public Works or his designee, this additional support staff may be called upon to assist with winter maintenance activities.

County and State Agencies Responsibilities

In addition to the streets maintained by the Buffalo Grove Public Works Department, there are multiple County and State agencies that perform snow and ice control maintenance on streets throughout the Village of Buffalo Grove. The Buffalo Grove Public Works Department does not perform snow and ice control maintenance on any of these streets. All snow and ice related questions, comments, or concerns should be directly communicated with the agencies responsible for snow and ice control maintenance on the given streets.

Agency Contact Information

Illinois Department of Transportation	847-705-4226
Lake County Highway Department	847-377-7498
Cook County Highway Department – District 1	847-397-4145
Cook County Highway Department – District 2	847-827-1164
Village of Wheeling	847-279-6900
Village of Arlington Heights	847-368-5800
Vernon Township	847-634-4600

County and State Roads not maintained by Village of Buffalo Grove

Buffalo Grove Rd	Arlington Heights Rd
Rt. 22 (Half Day Rd)	Rt. 68 (Dundee Rd)
Aptakisic Rd	Rt. 21 (Milwaukee Ave)
Deerfield Pkwy	Rt. 83 (McHenry Rd)
Lake-Cook Rd	

Chapter 9
Municipal Codes – Village Ordinances
Mailbox Damage Policy

Village of Buffalo Grove Municipal Code

Chapter 2.08.040 Duties

The Village Manager shall be the chief administrative officer of the Village and shall be responsible to the Corporate Authorities for the proper administration of the affairs of the Village. The power and duties of the Village Manager shall be to:

- E. Exercise control of all departments and divisions thereof now in existence, or that may hereafter be:

The Public Works Department operates under the authority and approval of the Village Manager. The Village Manager or his designee authorizes the Public Works Department to administer the snow & ice control plan on an annual basis.

Chapter 10.08.010 Parking Restrictions

It is unlawful to park any vehicle on any public highway for a period of three minutes at any time after snow begins to fall and for a period of twenty-four hours after snow stops falling if the snow on the street exceeds two inches in depth; provided, that said twenty-four-hour parking restriction shall continue during snow removal operations until completed. As an exception to the provisions of this Chapter, any vehicle may park for a period not to exceed thirty minutes while engaged in loading and unloading property.

(Ord. 95-35 § 3 (part), 1995; Ord. 66-1 § 25, 1966).

Chapter 10.08.020 Deposit of snow upon public highway

It is unlawful to plow or remove or cause to be plowed or removed ice or snow from any shopping center, parking lot, commercial or institutional service area or driveway or any other public or private service area or driveway and deposits such ice or snow upon a public highway

or along the shoulder or edge of a public highway. Such prohibition shall also pertain to a residential driveway or sidewalk.
(Ord. 95-35 § 3 (part), 1995).

Mailbox Replacement Policy

It shall be the policy of the Public Works Department to repair all mailboxes that have been damaged by DIRECT CONTACT WITH THE SNOWPLOW during snow removal operations. Before the snow season begins, plow operators will drive their assigned routes and make note of those mailboxes that may be a hazard. The driver will also note those mailboxes that are already in state of disrepair for future consideration if contact is made with snowplow. Residences identified as having mailboxes in disrepair will be notified with a deficient mailbox door tag explaining the mailbox replacement policy.

Occasionally during winter plowing when snow has accumulated at the curb to a height greater than three feet, the windrow of snow coming off the snowplow blade will have a wave effect across the top of the snow. This wave effect will dislodge mailboxes from the post. If this occurs, it shall be the responsibility of the resident to replace his/her mailbox.

If a mailbox and/or post are damaged by direct contact by the snowplow blade and is beyond repair, it is standard Village policy for the mailbox and/or post to be replaced by the Village with the Village of Buffalo Grove standard mailbox and wooden wolmanized 4" x 4" post as illustrated on the attached installation document.

If a decorator mailbox and/or post are damaged by direct contact by the snowplow blade and is beyond repair, the standard procedure is that the Village will replace the mailbox and/or post with the approved standard mailbox and/or post. If the resident chooses to have the decorator or standard mailbox and/or post replaced, the Village will reimburse the resident the cost of materials for the approved standard mailbox and/or post up to the amount of \$50.00 and it shall be the responsibility of the resident to purchase and install the decorator or standard mailbox and/or post.

The following procedure is required for reimbursement.

- The resident will call the Public Works Department to report the damage within 1 working day of the end of a plowable snow event.
- The Public Works will send staff to inspect the damage for a direct plow blade strike.
- Once the damage has been investigated Public Works staff will respond to the resident and inform them of the Public Works response. If the damage is due to a direct plow blade strike the resident will have the option to buy and install a new mailbox and/or post and submit for reimbursement up to \$50.00. The resident will also have the option to have the Public Works Department install the standard mailbox and/or post.
If the damage is not due to a direct plow blade strike, the resident will be informed that any repairs or replacement will be done at the resident's expense.
- Mailbox repairs that can be completed prior to the springtime snow melt and thaw will be completed as soon as possible. Mailbox post replacements will take place

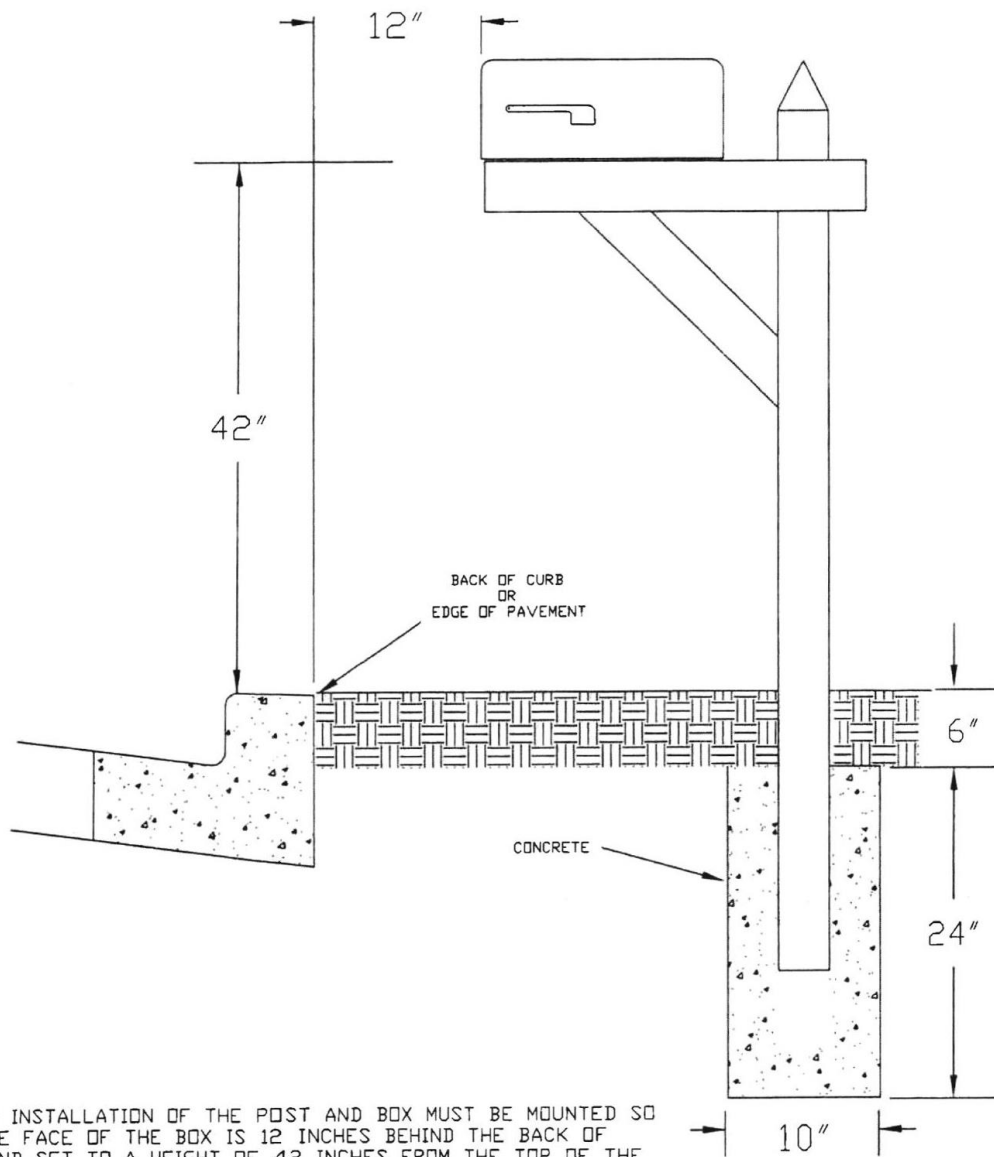
following the winter season when snow melt and thaw allows for new post installations.

- Residents that have mailbox and/or post damage that choose to repair/replace themselves are responsible to submit receipts for materials to the Public Works Department. Once the repairs and/or replacements have been completed, Public Works staff will inspect the completed work to make sure the installation was done properly. Pending proper installation confirmation, reimbursement will be made to the residents for materials purchased to make the repair up to \$50.00. Reimbursement checks will be processed as a purchase order and will follow the same purchase order procedures as an invoice.

Proper Installation of mailbox and/or post

Installation requirements for mailboxes and/or mailbox posts have been established by the Village of Buffalo Grove Engineer. Any reimbursement for mailbox repairs or replacements must follow the established installation requirements.

The installation of the post and box must be mounted so the face of the box is 12 inches behind the back of curb and set to a height of 42 inches from the top of the curb to the bottom of the box. The post should be set in a hole 10 inches in diameter and 30 inches deep. Concrete should be placed around the post and up to 6 inches from the finished surface. The remaining 6 inches should be back filled with dirt once the concrete has hardened. The material used for the post shall be a 4" x 4" pressure treated post of 1-1/2" I.D. minimum to a 2" I.D. maximum steel or aluminum post, maximum wall thickness 0.154".



THE INSTALLATION OF THE POST AND BOX MUST BE MOUNTED SO THE THE FACE OF THE BOX IS 12 INCHES BEHIND THE BACK OF CURB AND SET TO A HEIGHT OF 42 INCHES FROM THE TOP OF THE CURB TO THE BOTTOM OF THE BOX. THE POST SHOULD BE SET IN A HOLE 10 INCHES IN DIAMETER AND 30 INCHES DEEP.

CONCRETE SHOULD BE PLACED AROUND THE POST AND UP TO 6 INCHES FROM THE FINISHED SURFACE.

THE MATERIAL USED FOR THE POST SHALL BE A 4" X 4" PRESSURE TREATED POST OR 1 1/2" I.D. MINIMUM TO A 2" I.D. MAXIMUM STEEL OR ALUMINUM POST, MAXIMUM WALL THICKNESS 0.154".

MAILBOX
INSTALLATION

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