



City of Kenosha

JOHN M. ANTARAMIAN, MAYOR

MANUAL FOR SNOW AND ICE CONTROL
PUBLIC WORKS DEPARTMENT 2021-2022

Table of Contents

INTRODUCTION.....2

DIRECTORY.....7

OPERATIONAL GUIDELINES.....8

STORM WARNING & ALERTING PROCEDURES.....15

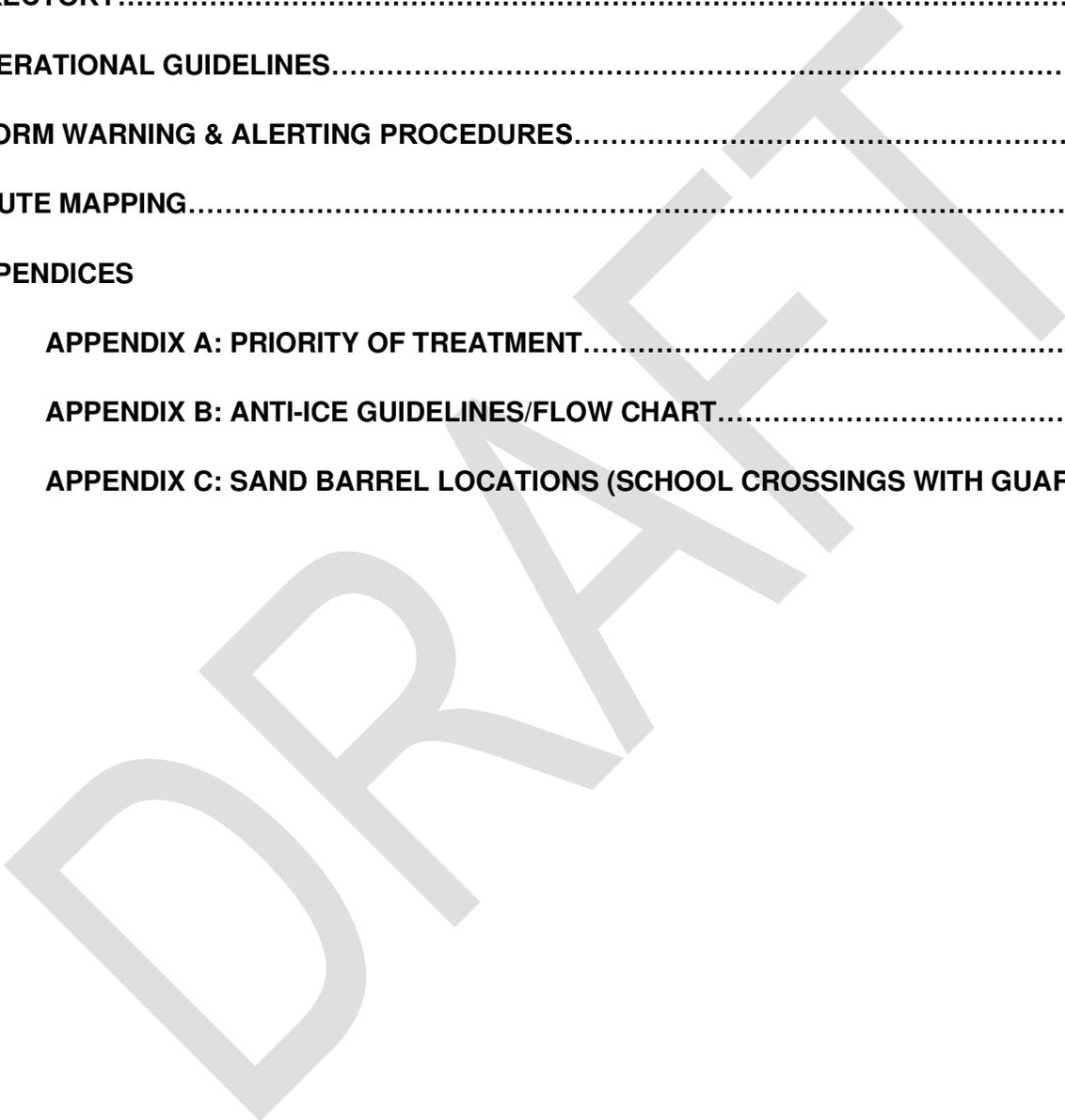
ROUTE MAPPING.....16

APPENDICES

APPENDIX A: PRIORITY OF TREATMENT.....17

APPENDIX B: ANTI-ICE GUIDELINES/FLOW CHART.....19

APPENDIX C: SAND BARREL LOCATIONS (SCHOOL CROSSINGS WITH GUARDS).....20



Manual for Snow and Ice Control

PUBLIC WORKS DEPARTMENT 2021-2022

INTRODUCTION

1. General Summary

Snow and ice control in the City of Kenosha is a combined effort of the various divisions of the City's Public Works Department. Each fall, representatives from the Public Works Department will meet to review and update the Snow and Ice Control Manual for the coming winter season. All divisions and personnel are responsible for aiding in winter operations and strive to be as effective and cost efficient as possible. The guidelines set forth in this manual should be adhered to whenever practical in order to provide the best service possible to the citizens of the City of Kenosha, while also being environmentally and fiscally responsible.

It is the goal of the Public Works Department to provide a transportation system that is safe and passable as often as possible within the limitations imposed by the natural environment and the availability of equipment, material and personnel resources. Due to such limitations, it is known that there will be occasions in which roadways, alleys and bridges may be slippery and snow and ice covered. During these periods, citizens must recognize the conditions and operate their vehicles in an appropriately safe manner. It is the goal of this manual to establish procedures to help limit such conditions as effectively and cost efficiently as possible.

Snow and ice control in the City of Kenosha is a joint effort by all Public Works Department personnel. This manual provides procedures and guidance to assist the Public Works Department in conducting snow and ice control operations. This manual will be used for the annual training of City of Kenosha personnel.

The content of this manual reflects best practices as determined by a review of other municipalities, counties, etc. as it relates to snow and ice control. This policy and proposed data collection took into consideration the South Eastern Wisconsin Regional Planning Commission (SEWRPC) Prospectus for Chloride Impact Study. Considerations were also made for the unique environment of the City of Kenosha as it relates to winter operations. This manual is intended to be a living document that is responsive to new technology, techniques and ideas. Suggestions for change may be submitted to the Director of Public Works.

2. Officials in Charge

The Director of Public Works is immediately responsible to the Mayor for directing and coordinating all snow and ice control efforts. The Director of Public Works shall have the authority to mobilize personnel from other City departments and utilize all available equipment necessary to complete winter operations.

The Director of Public Works or their designee shall supervise and coordinate the scheduling of personnel and equipment to ensure the completion of operations. The designee is expected to keep the Director apprised of the general conditions of all streets, alleys, parking lots and sidewalks and is responsible for recommending actions to achieve the completion of operations.

All Public Works superintendents and supervisors may be responsible for supervising or scheduling personnel and equipment, when required by the Director of Public Works or their designee, to ensure the completion of snow and ice control operations.

3. Specific Information for Residents and Property Owners

3.1 General Suggestions for Citizens and Property Owners to Ensure the Safety and Efficiency of Snow and Ice Control Operations

- a. When possible, do not park on City streets during snow and ice events, even if a parking ban may not be in effect.
- b. Between December 1st and March 31st Alternate Side Parking is in effect and must be adhered to between 1:00 AM and 6:00 AM (Ordinance 7.06). Cars may be ticketed or towed if they hinder the completion of snow and ice control due to non-compliance.
- c. Upon the declaration of a parking ban due to a snow emergency, all parked cars must be removed as quickly as possible (See 3.5 Parking Bans for full ordinance).
- d. Do not relocate snow from the parkway, sidewalks, driveways or personal property onto the paved street. Doing so is a violation of Ordinance 7.13 G (See 3.6 Snow Placement in the Right of Way for full ordinance).
- e. Store as much of the snow as possible from the driveway or handicap ramps downstream of the direction of traffic to help reduce larger windrows in front of such areas.
- f. According to Ordinance 5.11.1 it is the responsibility of the property owner to remove snow and ice from sidewalks abutting their property (See 3.7 Sidewalk Clearing for full ordinance). Fire hydrants and mailbox areas should also be cleared by the abutting property owner.
- g. Snow and ice control crews do not clear accumulated snow from private driveways or driveway aprons. This includes any additional snow (windrows) that may result from plowing operations.

-
- h. Attempt to wait for City plows to push snow from the street to the curb area before clearing driveway approaches to avoid leaving excess snow in the street.

3.2 Plow Trucks with Plows Raised

A truck with a raised plow does not necessarily indicate that the driver has completed your neighborhood or area. Here are a few examples of possible explanations for a truck with a raised plow:

- a. Returning for fuel or vehicle service
- b. Returning to the yard for additional treatment material (salt, prewet liquid, etc.)
- c. Responding to a call to assist emergency services for an accident or other emergency situation

Please be patient in these instances, as a plow will return to the area.

3.3 Mailboxes and Turf Damage

Plow operators are instructed to take precautions to avoid hitting mailbox posts. Citizens can help reduce the possibility of a damaged or broken mailbox or mailbox post by installing mailboxes at the maximum usable distance from the back of curb or edge of pavement.

The City shall not assume responsibility for damage to mailboxes or mailbox posts unless the plow physically contacts said mailbox. Mailbox replacement will only consist of a breakaway post and standard mailbox.

In the event that your mailbox is struck by a plow or your parkway is damaged, contact the Street Division as soon as possible at (262) 653-4070 (normal work hours are Monday through Friday 7:00 AM to 3:00 PM). Any damage from snow and ice control operations must be reported by April 1 of each year, or the claim may be denied. Any installation within the right of way (including a mailbox/post, sprinkler head and landscaping) is placed at the owner's risk. When placing a new mailbox, please follow the standards set by the US Postal Service; make sure the front face of the mailbox is at least 6-8" behind the curb in curbed areas and at least 6-8" behind the edge of pavement in rural areas, at a height of 41-45" above the road surface.

3.4 Priority of Treatment

The "treatment" of roadways as a part of snow and ice control operations takes on various forms. Treatment methods utilized by the City of Kenosha may include, but are not limited to, the application of salt, brine or other chemicals and the use of plows. A map displaying a visual representation of treatment areas by priority is located in Appendix A.

3.5 Parking Ban

The declaration of a snow emergency will follow Ordinance 7.13 F.1 Snow Emergency Ordinance.

Ordinance 7.13.F.1

The Director of Public Works, or in his/her absence the City Administrator, or in their absence, the Director of Engineering (Deputy Director of Public Works/City Engineer), may, in their discretion, declare an emergency to exist in the City, or in a section or sections thereof, for one (1) or more periods of seventy-two (72) hours, where snow, freezing rain, sleet, ice, snow drifts, flooding or other phenomena cause, or are likely to cause, hazardous road conditions on City streets or highways, which conditions will or may endanger the public health, safety or welfare, or which conditions will or may impede the movement of emergency vehicles or other vehicular traffic.

A parking ban will be in effect on any posted snow routes when snow or sleet accumulates to a depth of two (2) inches in any twenty-four (24) hour period, measured throughout the City by Public Works supervisors.

Some City streets are designated "Narrow Snow Emergency Streets" and are to be signed, according to the provisions under **7.13.F.2b**, enforcing a parking ban after four (4) inches of snow accumulation in a twenty-four (24) hour period. The majority of the signs on these designated streets have been replaced with signs enforcing a parking ban after two (2) inches of snow accumulation in a twenty-four (24) hour period, matching the provisions laid out for general snow routes or "Snow Emergency Streets" as described above. It must be determined whether these narrow streets should be considered under the same restrictions as general snow routes, as they are currently signed, or if they must be defined under different restrictions, as stated in the ordinance. Additional locations that may warrant the "Narrow Street" determination will be evaluated this coming season.

At any time, on any City street, after an emergency is declared under the provisions of **7.13 F.1** and proper notice is given under the provisions of **7.13 F.3.**, parking may be restricted. Once this has occurred, it is the responsibility of the owner or operator of a motor vehicle to remove the vehicle from City streets. Based on the dissemination of this information under **7.13 F.3**, owners or operators of motor vehicles are responsible for ascertaining the existence of weather conditions requiring the removal of parked motor vehicles from the areas designated by the parking ban. The methods of communication that may be utilized to broadcast the declaration of a weather emergency are discussed in Section 10 of the Operational Guidelines, laid out in this manual.

The Police Operations Supervisor should be notified by the Public Works Director or their designee when parking bans take effect or are cancelled. The notifications of such bans are logged on a "Snow Notification Log." When any police officer finds a vehicle

unattended upon any street, alley or municipally-owned parking lot in violation of parking regulations, the officer is authorized to issue a parking citation and provide for the removal of the vehicle to a convenient place of safe storage. The owner of such vehicle shall have a mechanic's lien on said vehicle until all relevant towing and storage charges are paid by said owner. (Section **7.128B** of the Code of General Ordinances)

3.6 Snow Placement in the Right of Way

Ordinance 7.13.G

Moving Snow on to Street Right-of-Ways: No person, party, firm or corporation shall shovel, blow, dump, plow, or otherwise place snow in any public street, highway, or alley right-of-way, including sidewalks being a part thereof, except that snow removed from a public sidewalk may be placed in the lawn park area of said right-of-way.

3.7 Sidewalk Clearing

Ordinance 5.11.1

The responsible party shall remove and clear away or cause to remove or clear away all snow and ice from sidewalks within twenty-four (24) hours of the day following a snow fall; provided that when ice has so formed on any sidewalk that it cannot be removed, then the persons herein before referred to shall cause said ice from remaining and presenting a hazard to the users of the sidewalk by use of sand, abrasive material or any product designed to prevent ice from forming or to remain in its form and not to be injurious to the health and safety of the public.

Enforcement of Ordinance 5.11.1 is the duty of the Department of Public Works. Public Works staff will investigate any alleged violation of this ordinance upon receiving a complaint from a party identifying themselves by name and address, or from an alderman. Designees of the Director of Public Works may enforce this ordinance through the furnishing of a twenty-four (24) hour warning and explanation of Ordinance 5.11.1, and if said property is still in violation of Ordinance 5.11.1, then Public Works personnel may order the City contractor to clear the sidewalk and possibly issue the violator a citation. The twenty-four (24) hour time limit to remove or clear the sidewalk resets every time a new snow event occurs. Thus, if multiple events happen in a twenty-four (24) to forty-eight (48) hour time window, the order must be furnished at the end of the final snow event.

3.8 Weather Emergency Declaration

The declaration of an emergency will follow Ordinance 7.13 F.1 Snow Emergency Ordinance.

When an emergency is declared notice shall be given to the local news media for purposes of broadcast or printing, and furnished to the City Fire and Police Departments. Notice must be furnished no less than two (2) hours prior to enforcement of restrictions arising from the declared emergency. The methods of communication that may be utilized to broadcast the declaration of a weather emergency are discussed in Section 10 of the Operational Guidelines, laid out in this manual.

DIRECTORY

TELEPHONE NUMBERS		
Public Works Office	8:00 AM - 4:30 PM	653-4050
Street Division	7:00 AM - 3:00 PM	653-4070
Snow Emergency Information	24 Hour Recording	653-4074
Kenosha Emergency Government	8:00 AM - 5:00 PM or call Police Dispatch	605-7900 or 494-1102 pager
Police Operations Center (Sergeant's Desk)	24 Hour Phone	605-5201

DRAFT

OPERATIONAL GUIDELINES

1. Goal of Snow and Ice Control Operations

The control of snow and ice on City streets is the primary concern of personnel assigned to the Department of Public Works within the limitations imposed by the natural environment and the availability of equipment, material and personnel resources. The goal of such operations is to provide safe and passable road surface as often as possible while also being environmentally and fiscally responsible. Snow and ice accumulations will be removed as quickly as possible, consistent with policies established in this manual. This will include practices such as anti-icing, direct liquid application, salting (dry or prewetted), and mechanical removal via plowing. All of these practices will focus on breaking the bond between the snow/ice and the pavement. These practices will be used when they are most effective based on standard practices and limitations of the environmental conditions.

2. Typical Treatments Prescribed for Various Weather Conditions

The City of Kenosha has a wide variety of treatments, equipment, and technology that can be utilized to aid in snow and ice control. Examples include, but are not limited to, anti-icing, direct liquid application, salting (dry or prewetted), plows, wings and GPS/Automatic Vehicle Locator (AVL) location and data analysis.

Anti-icing is the process of applying salt brine or a blend of chemicals to the road surface prior to a storm to help delay or break the bond between snow/ice and the pavement. Anti-icing will be performed as often as possible. There are several guidelines that need to be followed prior to the start of anti-ice treatment (see Appendix B). The City is also capable of direct liquid application or the application of salt brine or a liquid chemical blend to the road surface during a storm. Many of the same guidelines that apply to anti-icing will also be applied to direct liquid application. Lastly, the City will prewet salt as often as possible, meaning salt brine or a liquid chemical blend will be applied to the salt prior to use. This technique helps reduce salt waste caused by bouncing and scattering and more quickly activates the chemical reaction that breaks the bond between snow/ice and the pavement. The only situations in which salt would not be prewetted would be mechanical failure of equipment or a complete depreciation of reserve prewet salt piles in storage.

Different liquid chemical blends are only effective at specific pavement temperature ranges and weather conditions. A few examples of this include, but are not limited to: use of salt brine only at temperatures of 20° F and above, use of a mixture of salt brine and organic product to increase the length of anti-ice and other treatments' duration of viability, use of calcium chloride in temperatures of 15° F and falling, and use of a mixture of brine and calcium chloride for ice cutting. Ultimately it is up to the discretion of the Public Works Director or their designee to make the final determination of how to best use these techniques to remove or prevent the bond between snow/ice and pavement, while being environmentally and fiscally responsible and efficient.

The necessary arrangements for delivery and storage of reasonable salt or chemical stock piles should be made well in advance of the winter season and be maintained throughout the season as needed. Upon warning or evidence of an approaching storm, City personnel should go into operation. It is desirable to apply chemicals before there is a definite indication of wet snow sticking to the pavement or the formation of ice in order to prevent the bond to the pavement. Once snow or ice is bonded to the pavement, it is significantly harder and more costly to remove than if done prior to bond formation.

Storage containers for ice control abrasives should be placed at crossing guard locations prior to the winter season (see Appendix C). Such containers should be placed adjacent to the curb, filled with a mixture of sand, salt and calcium chloride and refilled as needed. Barrels should be removed as early as the weather allows in the spring. The Director of Public Works or their designee will designate which, if any, newly placed concrete roads will be protected during their first winter season from salt damage by spraying and sealing them with a 50% linseed oil / 50% mineral spirits sealer.

3. Priority of Streets and General Sequence of Snow and Ice Control

Snow and ice control operations are scheduled and completed in accordance with a priority sequence. Times listed are goals that are set based on the average storm or weather conditions. These are not guarantees, but should be achievable by City personnel under average snow or ice conditions. This timeline could be limited by the natural environment or the availability of equipment, material and personnel resources.

- The top priority is the achievement of plowed and/or salted pavement on all primary salt routes indicated on the snow map in red and green. Those streets displayed in red are typically arterials while those in green tend to be collectors, bus routes, school areas, etc. The goal for these streets is to be cleared within eight (8) hours after the end of a snowfall.
- The next priority is the plowing of all other City streets from curb to curb. **Curb to curb clearing is the goal as long as capacity in the parkway is available. Once the parkway reaches capacity streets will be plowed as close to the curb as possible.** The goal for completion of these areas is twenty-four (24) hours after a snowfall ends. This step will occur only after 2" of snow accumulation from one storm or series of smaller storms. Alternatively, these streets may be completed based on a storm's unique characteristics, such as a wet snow with a cold snap coming which could form ice and cause large windrows to freeze. **Similarly, these streets may be determined to warrant the use of salt in certain weather conditions, including but not limited to, freeze back, hardpack, freezing rain or ice events, etc. that create unsafe conditions on all or a section of the City's residential streets.** In the event that these secondary streets are plowed prior to the end of the storm, it may be necessary to plow all or some of them a second time.
- Residential plowing includes cul-de-sac and dead-end plowing. The goal for the completion of these areas is twenty-four (24) hours after a snowfall ends, but may be done apart from other residential roads so that the most efficient and cost-effective equipment is used in the maintenance of these areas.

- The next priority is the plowing of City alleys with parking access. Alleys with parking access should be evaluated after 2" of snow accumulation to determine if the alleys have become impassable for vehicular traffic and whether or not it is feasible to clear the alleys without causing damage. The plowing of all City alleys with parking access will occur after 4" snow accumulation from one storm or series of smaller storms. The goal for the completion of these areas is twenty-four (24) hours after a snowfall ends, but will occur after the completion of all residential street plowing. Alleys without parking access will be plowed upon request. This step will occur after the Director of Public Works or their designee determines that the requested alleys have become impassable for vehicular traffic.
- Removal of snow and ice from City-owned parking lots should also occur within twenty-four (24) hours after a snowfall ends.
- The plowing of all City-owned sidewalks, multi-use paths, and bridge pedestrian walkways shall be completed within twenty-four (24) hours of the day following a snowfall as per Section 5.11 of the General Code of Ordinances.
- The removal of snow from dead-end alleys without parking access may occur if alley traffic is adversely restricted by accumulation of snow, as determined by the Director of Public Works or their designee or upon request of the Police Department.
- The removal of snow from sidewalk abutting a property owner's property by force, according to the guidelines per Section 5.11.1 of the Code of General Ordinances, should occur after a twenty-four (24) hour notice has been furnished by City personnel. The violators may also receive a municipal citation.
- All requests for service will be held and scheduled according to the proper priority sequence. No exceptions will be made without the approval of the Director of Public Works or their designee except to provide access for City police or emergency services. Snow and ice removal is an emergency operation and shall take precedence over the scheduling of other work. Roadways shall be cleaned and widened as quickly as possible.
- As a consequence of plowing, cars parked on the street will unavoidably be plowed in and driveways may be blocked by windrows. City policy is not to clear any driveway, parked car, or sidewalk blocked as a result of any plowing operation.
- Automated carts that are tipped over, due to City snow plowing efforts, will be up righted and trash collected as reported.
- Automated carts that are damaged, due to City snow plowing efforts, will be repaired or replaced as reported.

4. Snow and Ice Control Operations

Snow and ice control operations will begin on primary designated streets (Reds and Greens) after an appreciable accumulation. City personnel will monitor roads, make use of forecasts, discuss with City Police, etc. to make this determination. Snow plowing will begin on all other streets once a total accumulation of 2" or greater occurs, when snowfall and weather conditions warrant plowing accumulations of less than 2" of snow, or if the Director of Public Works or their designee determines it is necessary. Once a full plow operation has begun, the process outlined in "Priority of Streets and General Sequence of Snow and Ice Removal" will be followed. The

exact sequence will be dictated by the environmental conditions, and it should be understood that it is up to the discretion of the Director of Public Works or their designee to determine how to best utilize City equipment and personnel. **The Director of Public Works or their designee must evaluate hourly the need to remain on primary designated streets (Reds and Greens) and the need to start on residential streets.**

While clearing streets, the snow must be moved off the traveled roadway to the curb line when the curb is free of vehicles. When parked cars are present, streets will be widened as much as possible and cars may be plowed in. In the case that the amount of accumulated snow is such that normal plowing operations can no longer provide a sufficiently wide and usable roadway, or parked vehicles are “side by side” or not staggered enough as to allow vehicles to pass through in a safe manor, the procedure outlined below should be followed:

- a. Investigate the area and make a judgment as to the severity of the condition and which side or sides shall be cleared (Public Works supervisor or police officer)
- b. Report location to the Police Department Shift Commander and Public Works Director or their designee
- c. Post temporary “No Parking” signs
- d. Issue the proper citations that may apply (Police Department)
- e. Remove vehicles in violation (Police Department) and report removals to Street Division Dispatchers
- f. Remove snow by Public Works personnel
- g. Remove temporary “No Parking” signs

5. Cleanup Operations and Record Keeping

After all City streets are open and snow and ice removal operations have officially been terminated, the key personnel responsible for snow removal shall make a thorough inspection of streets within the city limits **for cleanup**. This is done to determine which streets need additional work in order to increase the safety of their driving conditions. Verified sight hazards at some intersections may require some snow to be removed. **Necessary crews will remain on the Streets after the storm to follow up on needed cleanup efforts. It must be realized that the waste employees return to waste collection and that some parks employees are assigned to clear sidewalks during this time.** Following a street cleanup operation, public sidewalks adjacent to City property, safety islands, multi-use paths, and crosswalks may be cleared as necessary.

In order to obtain significant cost data relative to snow removal operations, certain information must be documented. Pertinent information to be recorded includes: equipment used, personnel assigned, material used and storm information. The designee of the Director of Public Works is responsible for compiling records after each snow event operation. A report will then be generated for each storm or event that will include these records as well as data provided by the GPS / AVL system for accurate cost analysis.

6. After Action Report

Every snow event provides the City an opportunity to test its plans, protocols and equipment and achieve higher levels of proficiency. An after-action report documents what problems were encountered, what should be done to correct them, who is responsible and when the problem is

expected to be resolved. It also documents what worked well or was successful during an event. The after-action report must be completed within 48-72 hours after the storm has been cleared in order to quickly capture and act on lessons learned. This review should include all involved parties; Police, Fire, Transit, Snow Route Supervisors, Superintendents and the Public Works Director. Input should be given from the plow drivers as well. Staffing shortfalls and equipment failures must be evaluated. In the event there are back to back storms this after-action report will be completed within 48-72 hours after the last snow clearing event.

7. Accidents During Snow and Ice Removal Operations

An employee who has an accident of any type during snow and ice control operations must immediately notify their supervisor of the type of accident and the conditions that created it. If the accident involves a personal injury or vehicle accident, the driver shall remain at the scene of the accident until the police arrive. It is the supervisor's responsibility to notify the police. After the driver has sufficiently informed the police of conditions and other pertinent data concerning the accident, the supervisor will follow the standard operating procedures regarding possible disciplinary actions. In the event of a very minor accident which does not involve a vehicle or a personal injury, the supervisor will determine if the accident warrants calling the police department.

8. Training and Snow Season Preparations

Training sessions will be conducted as needed before and during the snow season. All new personnel shall receive a minimum of four hours of snow plow training prior to plowing on their own. This training shall be with seasoned drivers from Public Works, preferably during an actual anti-icing, salting or plowing event. Along with training new plow drivers, all new snow route supervisors will receive on-the-job training by seasoned supervisors from Public Works. It shall be a goal to have one supervisor be responsible for coordinating all vehicles and personnel assigned to two or more snow routes. Supervisors shall be responsible for checking the completeness of their routes and reviewing citizen complaints.

Training for all personnel **will be completed annually and may** include the completion of 'dry runs' on routes to identify problems (high manholes, inlets, tree branches, etc.) for **snow plowing operations** prior to the first snowfall, whenever possible. Public Works personnel should also inspect equipment and receive training on any new equipment or technology each season. Checks and calibrations on equipment should occur prior to the snow season, if possible. All training and equipment evaluation is subject to change based on environmental and work load factors, but the goal of Public Works is to have this completed prior to the first snow event of the season.

9. Snow and Ice Control Personnel & Equipment

Snow and ice control is always considered an emergency operation. Public Works personnel will initiate snow and ice control operations but, during full plow runs, it may be necessary to supplement **with paid snow plow volunteers. Paid volunteers may include personnel from other City departments, retirees and seasonal personnel with proper training and CDL requirements.** Prior to each snow season, a "**Snow Plowing Personnel List**" will be compiled of Public works

and paid volunteers. Public Works employees will be the first employees called to assist in snow and ice control operations. If additional help is needed, the remainder of the paid volunteer plowing personnel on the "Snow Plowing Personnel List" may be mobilized. It shall be the responsibility of any employee contacted for a plowing operation to report for work as requested. Any Public Works field office employee directed to report for emergency overtime work who fails to report may be subject to progressive discipline. Paid volunteers may refuse a requested scheduling for snow plowing operations.

Equipment used in snow and ice control operations is limited in number and capability. Specific equipment assignments will be made based upon these limitations. Personnel are assigned to routes and areas in which they are most familiar, as often as possible, to increase efficiency. Different weather conditions present unique impediments; temperature, wind, visibility, traffic and parked vehicles can reduce effectiveness and efficiency, which ultimately leads to increased operational costs. Every effort will be made to assign the maximum number of pieces of equipment to each route as weather, equipment and personnel availability allow.

Attempts will be made to minimize throwing snow on adjacent public walk areas or private property, as conditions allow. Care should further be taken to plow close to curbs where mail boxes are located at the curb line to allow for delivery of mail. In the instance that snow depth prevents plowing up to the mailboxes, the resident is responsible for clearing a path for the delivery of mail. On designated boulevards and streets adjacent to parks, an effort should be made to plow the snow to the boulevard or park side of the street, traffic permitting.

Personnel must keep in contact with their route supervisor or the Street Division Dispatchers through the use of mobile two-way radios. The use of GPS / AVL technology will allow supervisors and Snow Command to track the location and status of snow and ice control operations. This enables the Snow Command Center to be aware of plowing progress as well as field conditions. Personnel should not leave their route or equipment without prior authorization from their route supervisor.

Cutting edges on plows wear rapidly when in contact with the pavement and should be checked frequently to avoid damage to the cutting-edge mountings or mold boards. All pins, springs, and mounts on the plows should be inspected periodically during the storm and at the end of each shift.

The scheduling of personnel and equipment should result in a reasonable and equitable distribution of work in accordance with the plow routes. During continuous snow and ice control operations, employees will normally be scheduled for a double shift. When more than one shift is working, the route supervisor being relieved will brief the oncoming route supervisor of the status of his or her routes and the condition or availability of assigned equipment. Refueling and mechanical checks will be done at the end of each shift so that equipment is ready for immediate operation after a shift change. A written record should be maintained by the Director of Public Works or their designee of personnel and equipment assignments along with the start and completion time of every snow and ice control operation.

10. Snow Transport and Storage

Some areas lack sufficient space to store snow being cleared and therefore require the transport of snow to a storage location. Examples of such areas may include, but are not limited to, intersections prone to snow buildup impeding sight and business district on-street parking areas. Removal and storage of snow is generally conducted with snow blowers, graders, front end loaders, skid steers, toolcats and trucks. Snow shall be dumped in designated disposal areas chosen to limit the environmental impact. Snow dumping on park property shall be coordinated with the Park Division and will comply with any and all regulations established by the Park Commission.

The removal of snow from safety islands and bus stop intersections shall occur whenever a specific sight hazard is identified by Public Works supervisors and approved by the Director of Public Works. This step will normally be initiated after a public complaint and an inspection process verifies a sight hazard. The removal of snow from business district on-street parking areas and other such locations lacking sufficient snow storage space is to be scheduled when necessary, as determined by the Director of Public Works or their designee, and approved by City administration.

When performing snow removal operations, it may become necessary to restrict parking in order for snow to be pushed back or removed. This process is accomplished by placing temporary "No Parking" signs in the designated areas. This eliminates the possibility of improper notification. All signing is generally done during the day and at least twenty-four (24) hours prior to the start of snow removal or hauling operations. This enables the City to prosecute individuals who violate these parking restrictions.

11. Communication

Communication with the public is an important part of snow and ice control operations. The Public Works Department may make use of Cable TV (channel 25), WLIP radio, WGTD radio, WRJN radio, TV Channels 4,6,12, 58 and the Kenosha News and any social media the City utilizes to keep the public informed of the status of any declared snow emergency. The City's twenty-four (24) hour hotline (262-653-4074) is also updated to notify callers of current parking restrictions.

The City may also post notifications of snow emergencies to the Kenosha Public Stuff App as well as to the City website. Lastly, the City will be issuing Snow Emergency and Parking Ban updates on AlertSense to all users who have signed up to receive them.

12. Police Updates

The Police Department will be kept informed of snow and ice control operations. They will also be contacted to inquire about existing conditions of City streets at times to help determine if a response is required from Public Works personnel. When operations occur outside of normal working hours, police dispatch should be informed regarding when crews are working, where they are working and when snow and ice control operations have been completed.

STORM WARNING & ALERTING PROCEDURES

1. Contracted Weather Services & General Procedures

The City contracts annually with a consulting meteorological service to provide storm forecasting services. Such a service will provide as much advanced notice of an impending storm as possible. The Director of Public Works, or their designee, will be notified immediately by the weather service or by the Police Shift Commander if a storm develops which has not been previously forecasted. After notification, the Director of Public Works, or their designee, shall notify the Police Department when snow and ice control operations commence and outline the scope of said operations.

After the decision to commence operations has been made by the Director of Public Works, or their designee, they will determine the proper tactics to employ, based upon the existing environmental conditions and the information provided to them from the contracted weather service. If a designee of the Public Works Director is on duty, they are responsible for the mobilization of assigned personnel, complying with policies and procedures and informing the Director of Public Works of changing or unusual conditions.

A list of available Public Works snow removal personnel should be maintained by Public Works superintendents. The list should account for personnel out of town, on sick leave, etc. in case of a call out. A list of supervisor personnel to be called in the event of an emergency should also be provided to the Police Department.

All statements to the news media about snow and ice control operations will be made by the Director of Public Works, or their designee.

ROUTE MAPPING

1. Priority Streets

The City of Kenosha delineates streets and locations that are treated with salt on the route maps using three designations: Reds, Greens and SYCHs (Stops, Yields, Curves and Hills). Streets shown in red are usually major arterials that the City is responsible for maintaining. Those shown in green are usually collectors, bus routes, school access roads, etc. Lastly, stops, yields, curves and hills that have been identified as requiring treatment are displayed in black.

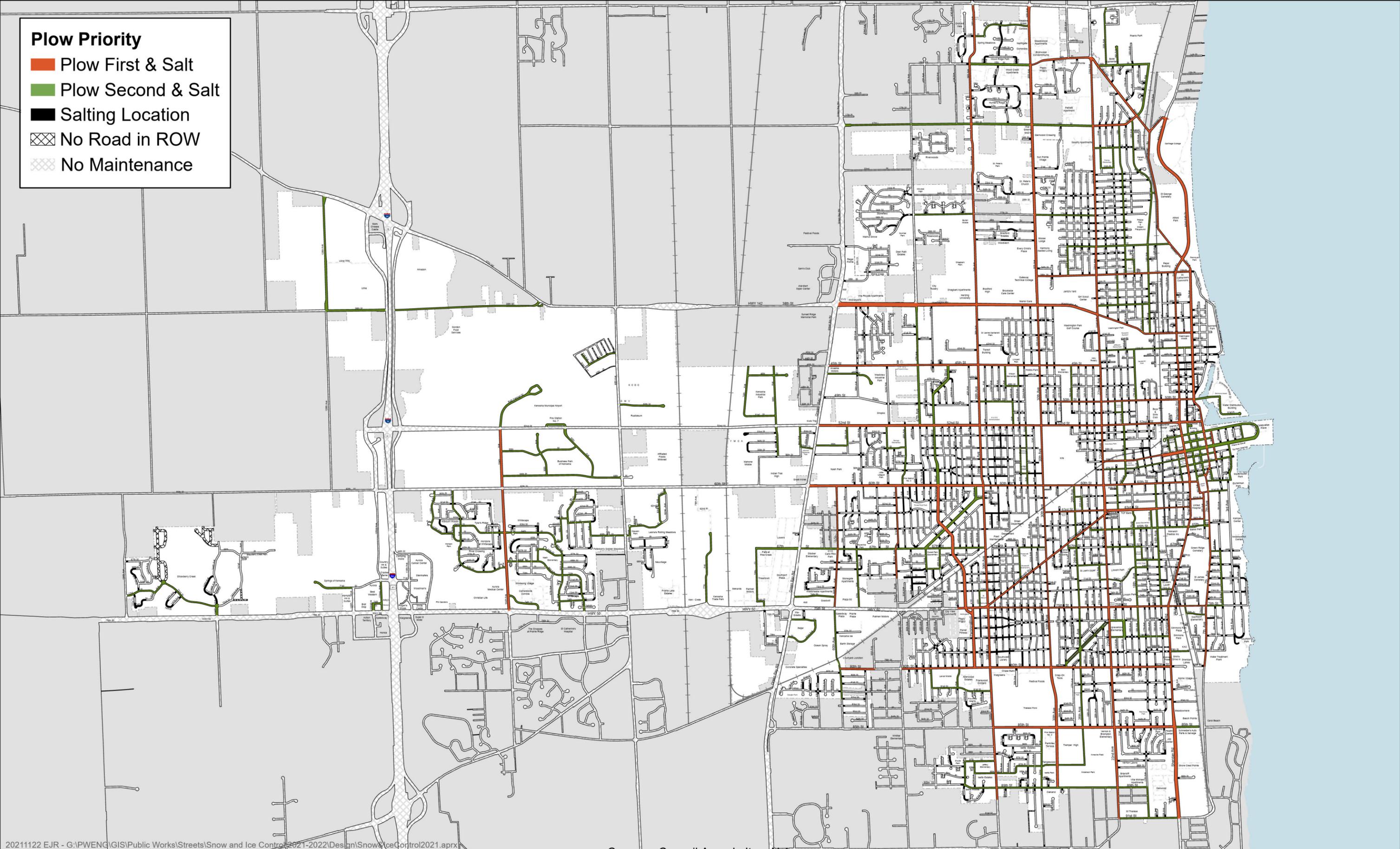
These route maps should be updated annually to include new roads, added or changed regulatory signs, etc. Located below is the summary, by snow route, of the current centerline mileage, the centerline mileage for Reds and Greens, and the number of stops, yields, curves and hills that are salted.

2021-2022 Snow Route Mileage					
Route	Centerline Miles	Reds/Greens Centerline Miles	Lane Miles	Reds/Greens Lane Miles	# SYCH
1	37.7	15.0	83.2	37.8	200
2	32.5	11.4	77.0	34.5	116
3	32.0	16.4	68.3	37.3	130
4	33.7	12.4	71.3	29.6	230
5	34.8	10.8	77.5	29.5	239
6	39.7	15.3	82.8	34.3	145
7	29.8	12.1	60.3	27.8	173
8	26.2	10.5	53.0	21.8	151
9	36.7	9.4	75.9	21.8	257
10	33.1	14.7	77.8	40.9	144
Totals:	336.1	127.9	727.2	315.2	1785



Plow Priority

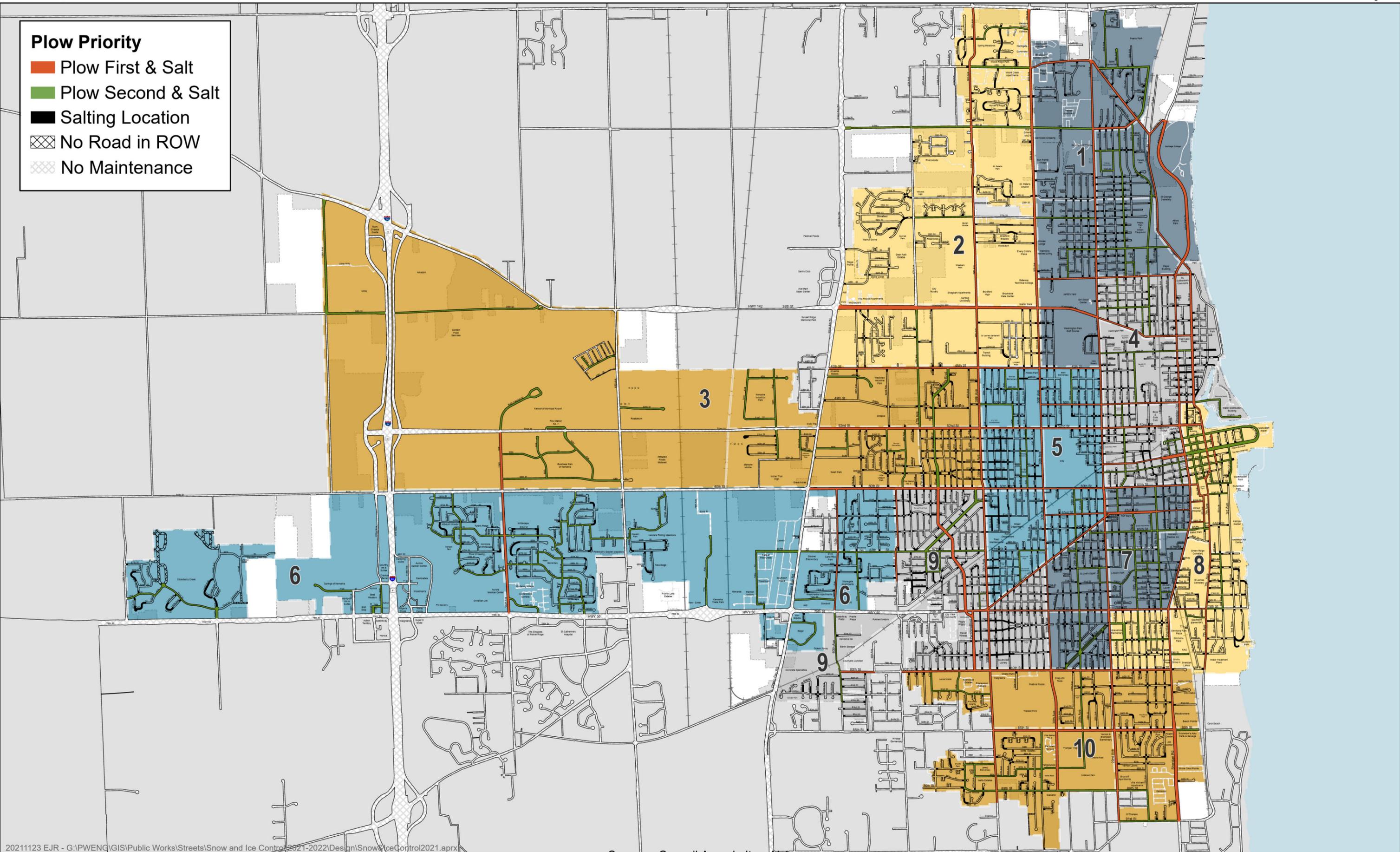
- Plow First & Salt
- Plow Second & Salt
- Salting Location
- No Road in ROW
- No Maintenance





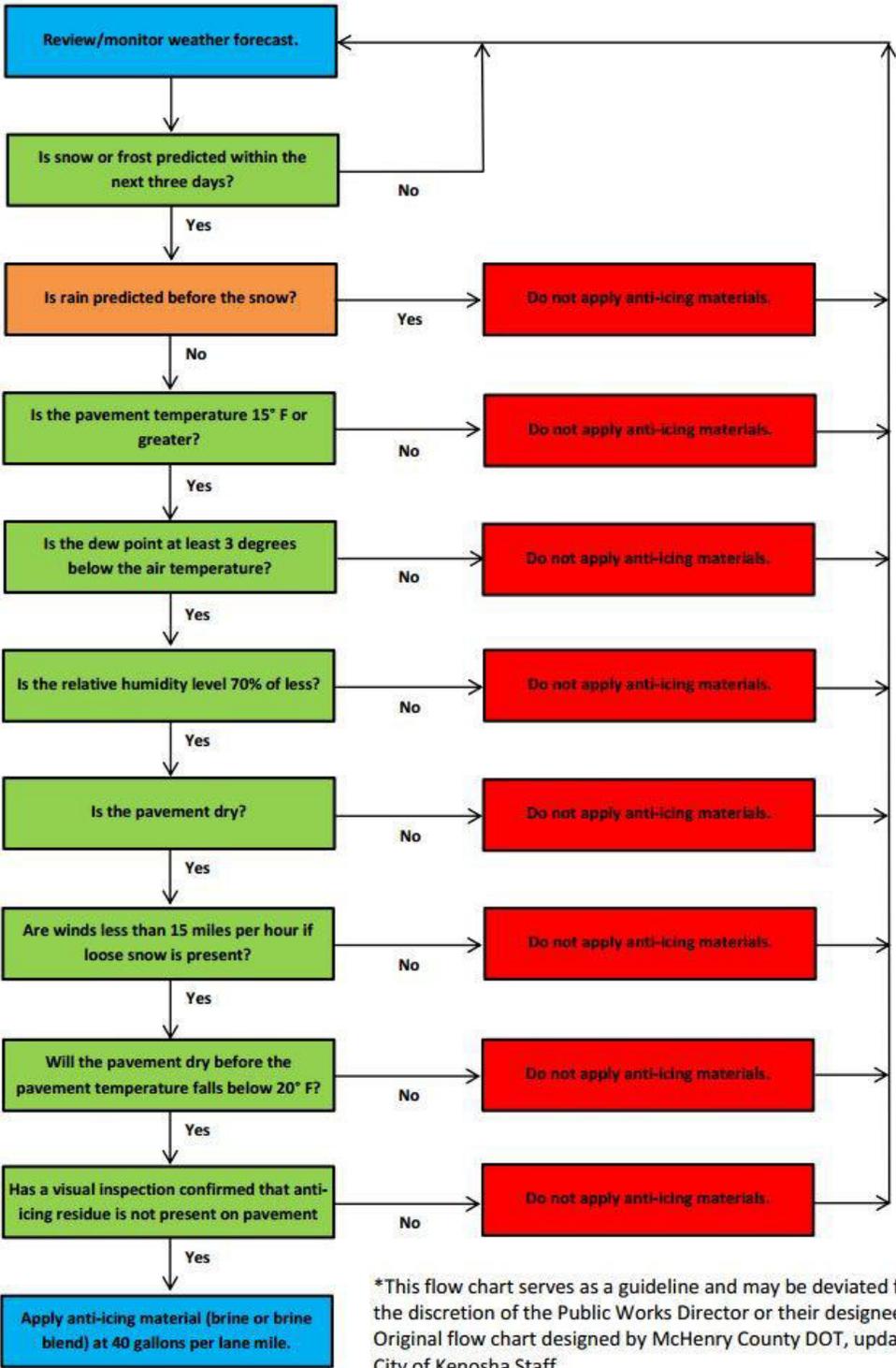
Plow Priority

- Plow First & Salt
- Plow Second & Salt
- Salting Location
- No Road in ROW
- No Maintenance



Appendix B – Anti-Ice Guidelines / Flow Chart

Anti-Icing Application Decision Flowchart





2021-2022 Sand Barrel Locations (School Crossings with Guards)

ID	East West Street	North South Street	Location Name	Quantity	Barrel Placement
1	60th St	33rd Ave	KTEC West & McKinley Elementary	2	Northeast & Southeast Corners
2	52nd St	33rd Ave	KTEC West & McKinley Elementary	1	Northwest Corner
3	45th St	32nd Ave	Wilson Elementary	1	Northwest Corner Fence
4	43rd St	19th Ave	Jefferson Elementary	1	Southwest Corner
5	43rd St	Sheridan Rd	Washington Middle & Jefferson Elementary	1	Northwest Corner
6	34th St	18th Ave	Grant Elementary	1	Southwest Corner
7	16th Pl	Birch Rd	Bose Elementary	1	Southwest Corner
8	15th St	19th Ave	Bose Elementary	1	Southwest Corner
9	21st St	22nd Ave	Harvey Elementary	1	Southwest Corner
10	28th St	39th Ave	Bullen Elementary	1	West Side by Bullen
11	52nd St	49th Ave	Strange Elementary	1	Southwest Corner
12	55th St	49th Ave	Strange Elementary	1	Southwest Corner
13	67th St	45th Ave	Forest Park Elementary	1	Southwest Corner
14	67th St	47th Ave	Forest Park Elementary	1	Southeast Corner
15	67th St	60th Ave	Stocker Elementary	1	Southwest Corner
16	69th St	98th Ave	Nash Elementary	1	Southwest Corner
17	80th St	43rd Ave	Lance Middle	1	Southwest Corner
18	88th St	39th Ave	Jeffery Elementary	1	Northwest Corner
19	85th St	22nd Ave	Tremper High & Vernon Elementary	2	Southwest & Southeast Corners
20	78th St	22nd Ave	Grewenow Elementary	1	Northeast Corner
21	75th St	22nd Ave	Grewenow Elementary	1	Southeast Corner
22	75th St	10th Ave	Southport Elementary	1	Northeast Corner
23	75th St	7th Ave	Southport Elementary	1	Northwest Corner
24	77th St	7th Ave	Southport Elementary	1	West Side by Southport
25	65th St	Sheridan Rd	Brass Elementary	1	Northwest Corner
26	65th St	17th Ave	Brass Elementary	1	Southwest Corner
27	63rd St	14th Ave	Brass Elementary	1	Southwest Corner
28	60th St	18th Ave	Frank Elementary	1	Southeast Corner
29	56th St	19th Ave	Frank Elementary	2	Northeast & Southeast Corners
30	Roosevelt Rd	30th Ave	Roosevelt Elementary	1	Northeast Corner
31	Roosevelt Rd	33rd Ave	Roosevelt Elementary	1	Southwest Corner
32	75th St	33rd Ave	Roosevelt Elementary	1	Northwest Corner

Please place & band all barrels near any pole that is adjacent to the set location, but do not block access to the crosswalk.

