

# Policy for Snow Removal and Ice Control

## Wahpeton, North Dakota

No: PW-100  
Policy: Snow Removal and Ice Control  
Approval Date: January 29, 2008

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**OBJECTIVE & GOALS:** It is the City of Wahpeton's objective to provide timely, efficient and cost-effective snow and ice control on City streets for the safety and benefit of the City's residents and the general motoring public. The primary goal is to keep main arterials passable for emergency vehicles and public transportation. The secondary goal is to clear snow and control ice on all other streets as quickly as possible.

**PROCEDURE:** The objective and goals stated above will be achieved by implementation and execution of the procedures and tasks outlined in the second section of this document and titled Snow Removal and Ice Control Practices & Procedures.

Due to the many variables that are inherent in North Dakota weather, each storm and/or weather event may require slightly different effort and/or emphasis on any number of maintenance tasks, which together, determine the overall winter maintenance, snow removal or ice control strategy. Conditions are evaluated using information provided by weather forecasts, the Wahpeton Police Department, and visual verification.

Although it is not possible to maintain snow and ice-free roads during a storm, the Department will conduct plowing operations throughout snowstorms to keep Emergency and Special Facility Routes open for vehicles. All operational decisions will be based upon this goal.

Removal of snow and ice from public streets and public parking lots is considered an emergency operation that takes precedence over other tasks of the Public Works Department. If another emergency arises during snow removal operations, the Public Works Director will decide which emergency has priority.

**COMMAND:** Direction of all winter maintenance activities for the City of Wahpeton is vested with the Public Works Director or designee.

**COMMENCING SNOW PLOWING, ANTI-ICING, AND DEICING OPERATIONS:** The Street Superintendent shall decide when snow and ice control operations shall begin. During nights and weekends the Wahpeton Police Department may advise the Street Superintendent when road conditions appear to warrant mobilization of snow removal or ice control activity.

**SNOW PLOWING:** Generally, snow removal operations will not begin until at least two inches of snow has accumulated on the streets within a 24 hour period. However, based upon weather information reports and previous accumulations of snow and ice on the streets, the Street Superintendent may decide to begin snow removal operations when greater or lesser accumulations have occurred, or when drifting snow is accumulating on the streets. Snow removal operations will generally be performed in late night and early morning hours when traffic is at a minimum for safety reasons and to avoid blocking parked cars on the streets or blocking driveways while residents are away from home. Consideration will be given to beginning snow removal operations to prevent or minimize the accumulation of packed snow which may cause rutting.

If, in the judgment of the Street Superintendent, Public Works Director, and Police Chief, it is necessary to remove snow during daytime to keep the emergency routes open for ambulances, fire trucks, and law enforcement, a Snow Emergency Declaration will be issued to prohibit parking on the Snow Emergency Routes, and if conditions warrant, a No Travel Declaration will be issued to prohibit vehicles from using City streets except in emergency situations.

**ICE CONTROL:** Ice control may be addressed during the actual storm as seen effective and following the storm. It should be noted that salt has a much slower effect on melting snow and ice at temperatures below 20 degrees and is not effective below 0 degrees; therefore, it is generally not applied until temperatures are 20 degrees or higher. Ice control in advance of a storm requires pretreatment with a liquid anti-icing agent for which the City is not equipped. Establishing a pretreatment ice control strategy would require a significant investment in equipment which would be seldom used in the typical winter season.

**CONTRACTING:** Most snow and ice control operations are performed by City crews. However, the City may use both City resources and private contractors to provide this service. The Street Superintendent may decide to use contractor services, based on the duration, intensity, and nature of the storm. Generally, contractor services are utilized for hauling snow, with City resources being sufficient for snow plowing, loading snow to be hauled, and most post-storm operations.

The Street Superintendent will maintain a list of contractors with their equipment and personnel they have available, and their current hourly rates. In the fall of the year, the Superintendent will obtain contact contractors to determine their availability for snow and ice control and their current hourly rates.

**EXTRAORDINARY WEATHER CONDITIONS:** During extraordinary snow and ice events, additional personnel and equipment may be utilized to supplement operations. During periods of extended continuous snowfall or freezing rain, operations may be focused on primary transportation routes and emergency service delivery locations and may be performed on a limited scale.

Snow and ice control operations will be conducted when weather conditions do not endanger the safety of employees or equipment, and operations are effective. Factors that may delay snow and ice control operations include severe cold, significant winds, limited visibility, and rapid accumulation of snow and/or ice.

**COMMUNICATIONS:** All Public Works rolling stock are equipped with high band radios capable of transmitting and receiving on a frequency of 158.760. Each plow and equipment operator is assigned a unique call number. A copy of the current call numbers is included in Appendix A. Radios are also maintained at the Streets Maintenance Shop, facilitating the operators' ability to communicate with the Wahpeton Police and Fire Departments. A radio is also located in City Hall to allow administrative staff to communicate with operators in emergency situations.

**PUBLIC SERVICE ANNOUNCEMENTS:** The Public Works Department provides information to the local radio stations on road conditions during storms and on the local public access TV Channel 8 and on the City's website encouraging public cooperation during snowstorms.

**REGULATING PARKING:** City of Wahpeton Code of Ordinances Section 14-411 prohibits parking on public streets during the time that snow removal operations are being conducted.

At the beginning of snow maintenance operations each year, usually by December 1, the City issues public notice of the winter parking ban during which on-street parking is prohibited between the hours from 2:00 a.m. to 6:00 a.m.

The purpose of this winter parking ban is to allow winter maintenance crews unobstructed snow removal and ice control routes in order to obtain maximum effectiveness of their efforts.

Police Officers may issue parking violations during snow plowing or snow removal operations in accordance with Chapter 14-415 of Wahpeton City Code. Vehicles which impede or prevent snow or ice control equipment from proceeding or which are deemed a public safety hazard shall be turned over immediately to Police Department and may be tagged and towed.

**SIDEWALKS:** Snow removal from sidewalks abutting City-owned property will be conducted as possible during winter storms, based on personnel availability. However, maintaining safe roadways will take priority over sidewalks.

**RESPONSIBILITIES AND CONCERNS OF RESIDENTS:** Under City Code of Ordinances Section 14.410 residents are responsible for removing snow and ice from sidewalks abutting their property. Residents are prohibited from depositing snow or ice from driveways and walkways in the street by Ordinance Section 14-513 which states "No person, firm, or corporation owning or occupying or using any private property in the City of Wahpeton shall haul, move into, or dump on any street, alley, or public way in the City of Wahpeton, any snow which has accumulated or located on such private property." In the Downtown Area (Dakota Avenue and one block either side) snow removed from sidewalks, but not driveways or parking lots, may be deposited in the streets for removal by the City.

The right of way (ROW) is generally 80' wide or wider and may extend up to 30 feet back of curb. By City ordinances the owner of the property abutting the ROW is required to maintain the area back of curb, including sidewalks. Property owners often confuse that area as their own property. Homeowner often cultivate extensions of their lawns, install landscaping materials, or erect fences or stonewalls in these boulevard areas, which may improve the appearance of the street, but often interferes with maintenance in the roadway. The intent of the right-of-way is to provide room for snow storage, utilities, sidewalks, and other City and public uses, and during snow plowing operations snow from public streets is routinely plowed onto the boulevard area back of the curb.

A common complaint by the public is that snow is deposited in driveways and walkways. Snow is not intentionally or carelessly deposited in driveways and walkways, but is a result of normal plowing operations. Most of the City's mainline plowing vehicles are equipped with a front plow and side wing for two-pass plowing of residential streets. Plows are angled to the right for plowing from the centerline of the street to the curb. For this reason, a certain amount of snow will be deposited in driveways. The cost of maintaining adequate personnel and equipment to clear walkways and driveways of snow deposited during plowing operations is prohibitive. When there is a large accumulation of snow, the plows will be able to open only the driving lanes on their initial shift prior to 7 AM, and would need to make additional passes to clear snow from the full width of the street the next day. This blocks the driveways twice and therefore is done only when no feasible alternative is available.

**SNOW REMOVAL FROM PRIVATE PROPERTY:** The City will only plow or sand public streets, driveways, or walkways, and will not remove snow from or sand private parking lots or driveways. The City does not normally provide winter maintenance for other public agencies.

**DAMAGE TO PRIVATE PROPERTY:** The City will only be responsible to repair or replace damaged property having been in actual contact with snow removal equipment that is on private property and not within the public right-of-way, with the exception of mailboxes. Other damage within the public right-of-way is the responsibility of the property owner including, but not limited to, trees, shrubs, bushes, landscaping materials, decorative rock, and lawn/landscaping irrigation systems.

The City will repair or replace sod damaged by its snowplows during snow removal operations if reported to the Public Works Department by May 1. The City does not repair or replace sod damaged due to the application of sand, salt, or other deicing chemicals.

**MAILBOXES:** It is the responsibility of the resident to maintain their mail box in a state of good repair, and of sufficient strength to withstand normal maintenance operations. A mailbox damaged as a result of direct contact by City snow removal equipment will be temporarily repaired within 24 hours of receiving notification of such damage. If the mailbox and post cannot be temporarily repaired, a portable mailbox will be set in place so mail service may be continued. The City will replace the damaged mailbox structure the following spring with a standard No. 1 black, white, or silver mailbox mounted on a 4- by 4-inch treated wood post, or, if the property owner prefers to make his/her own repairs or replacement, will pay the owner the actual cost of materials based on paid invoices, not to exceed \$75.00.

**MANAGING COMPLAINTS AND REQUESTS FOR SERVICE:** During snow and ice control operations, numerous inquiries, complaints, and requests for service are received by the Public Works Department clerical staff. The Streets Division will take measures to keep clerical staff informed and updated regarding snow and ice removal operations (e.g., schedules and breakdowns).

The Public Works Department clerical staff shall answer questions and concerns from citizens and record pertinent information related to the inquiry. If the caller requires action which clerical staff is unable to perform, clerical staff shall notify appropriate personnel of inquiries, complaints, and requests for service based on the following:

- Safety issues affecting the public or City staff shall be forwarded immediately by radio or telephone, or hand delivered to the Street Superintendent or appropriate personnel, as determined in advance by the Public Works Director or designee.
- Nonsafety-related issues shall be forwarded to the Street Superintendent in a timely manner.
- Property damage (e.g., mailboxes and sod) shall be recorded and forwarded to the Streets Superintendent by e-mail immediately upon receipt.

If City Hall is closed during regular work hours due to a winter storm, the phones and the Public Works radio base station at City Hall will be staffed by the Public Works Administrative Assistant or designee to take service calls from the public as described above. City Hall staff will coordinate with the LEC on the hours of phone and radio coverage.

## **CITY OF WAHPETON SNOW REMOVAL AND ICE CONTROL PRACTICES & PROCEDURES**

**EQUIPMENT:** The Public Works Department utilizes all the assets of the department as needed to address snow emergencies. Snow equipment shall be operational by November 1st. Equipment with multiple uses may not be converted for snow operations until needed or the secondary use operations cease for the season. A list of the current rolling stock assets used in snow removal and ice control operations is included in Appendix B.

**ROUTES:** The City is divided into six (6) major plow routes. Several arterial or collector status streets are designated as Snow Emergency Routes, and streets located in the vicinity of essential public service providers are designated Special Facility Routes. Snow Emergency Routes and Special Facility Routes are shown in Appendix C, and Plow Routes are shown in Appendix D.

**MANPOWER:** The Streets Division has primary responsibility for removing snow and ice from city streets and sidewalks. The Division has six (6) full-time personnel, plus the Water & Sewer Forman assigned to its winter maintenance operations. In addition, the Utility Worker and the Custodian report to the Street Superintendent to assist during snow removal and ice control operations.

During major snowstorms the City also utilizes private contractors who are called out and directed by the Superintendent to haul snow.

A call list of City personnel is included in Appendix A and a contractor's call list is included in Appendix E.

**MATERIALS:** The City uses approximately 110 tons of rock salt and 600 cubic yards of sand each season. Sand is used as an abrasive and is applied to the road to improve traction. Salt is used as a de-icing and anti-icing agent. Prior to the onset of freezing weather, an average season's amount of salt and sand are purchased, mixed and stockpiled at the City Yard. Unless weather conditions require a different approach, streets are treated with a mixture of sand and salt. The mixture is maintained at a minimum of one part salt to six parts sand. The mixture is applied to the center of the roadway where traffic can work the mix traveling either way. The mixture, in conjunction with traffic action, creates a watery brine melting snow and/or ice, and resisting snow and ice packing on the roadway. The road crown further assists with the spreading of the brine mixture. The sand/salt mixture is only effective to approximately 20 degrees Fahrenheit.

**WEATHER MONITORING:** The Streets Division monitors the National Weather Service website (<http://www.crh.noaa.gov/ifps>) for weather forecasts and advisories, and monitors the NDDOT website (<http://dotrwis.dot.state.nd.us/scanweb/>) for real-time weather conditions and pavement temperatures at the DOT site located approximately 8 miles west of the City on ND Hwy 13 at its junction with County Hwy 81.

**PLOW ROUTE PRIORITIES:** With a total of 48 miles of streets and alleys from which to remove snow and control ice, the Public Works Department has to assign priorities for winter maintenance activities in order to maximize the effectiveness of their efforts for the motoring public. Streets are prioritized for snow removal and ice control as follows:

1. Emergency Routes
2. Special Facility Routes

3. Streets and Avenues, including School Areas and Bus Routes
4. Alleys
5. Shared Use Paths
6. Sidewalks adjacent to City owned property

**ROADS NOT RECEIVING WINTER MAINTENANCE BY THE CITY:** The City provides winter maintenance for all streets within its corporate limits, with the following exceptions:

1. ND Hwy 210B
2. ND Hwy 127 (11<sup>th</sup> Street), south of 4<sup>th</sup> Avenue South
3. Dakota Avenue (ND Hwy 13), west of 12<sup>th</sup> Street
4. Old Highway 13, west of 11<sup>th</sup> Street South
5. County Highway 87, north of ND Hwy 210B
6. County Highway 10E (25<sup>th</sup> Avenue North)
7. Dakota Ave Bridge (Wilkin County has primary maintenance responsibility, but City often plows in process of turning around on Dakota Avenue)
8. 12<sup>th</sup> and 13<sup>th</sup> Avenues North, west of 7<sup>th</sup> Street North (maintained by NDSCS)
9. Private Streets and Roads
  - a. Streets in Sunset Park and Sunset Court mobile home parks;
  - b. Streets located on School District property;
  - c. Streets located on NDSCS property;
  - d. Streets and alleys located in vacated ROW;
10. Unaccepted streets, whether located in or out of ROW
11. Streets in City Parks, (the City provides winter maintenance for the entire length of RJ Hughes Drive through the Park and Golf Course as a Priority 5 street) .

#### **SNOW EMERGENCY OPERATIONS:**

Snow Emergency Declaration:

- During snow storms forecasted to have a duration of 2 days or more, and snow fall greater than 12", or heavy drifting snow, the Public Works Director with the concurrence of the Police Chief and the Mayor may suspend the ordinances regulating parking as provided by City of Wahpeton Code of Ordinances Section 14-411 thru 14-13. Such suspension shall make it unlawful for vehicles to be parked on Emergency and Special Facilities Routes.

No Travel Declaration

- The City Police Chief with the concurrence of the Mayor and Public Works Director may issue and enforce a No Travel Declaration in conjunction with or following a Declaration of Snow Emergency in the City which may or may not coincide with a state or county No Travel Declaration.
- At the discretion and direction of the Police Chief city streets may be barricaded to prevent travel by the public during No Travel Declarations.

Notice to the Public:

- Notice to public shall be made a minimum of 12 hours in advance of emergency parking restrictions and shall be disseminated by radio, TV, the City's website, the public TV channel, and in the earliest possible edition of the local newspaper.

Enforcement of Emergency Parking Restrictions

- Parking restrictions for emergency snow operations shall be enforced by the Police Department as provided by City of Wahpeton Code of Ordinances Section 14-415. Vehicles which impede or prevent snow or ice control equipment from proceeding or

which are deemed a public safety hazard shall be turned over immediately to Police Department to be tagged and towed.

- During Snow Emergency or No Travel Declarations, the Street Department will keep two City parking lots open and available for use by residents on the Snow Emergency Routes who have had their driveways blocked shut while they were away from home. The parking lots at City Hall on the north side and at the Senior Center on the south side will be open and City crews will transport residents from the lots to their home one time and back to retrieve their vehicle after their driveway is open.

#### Priorities:

- Priorities will remain as described earlier in this document, except Snow Emergency Routes will be receive additional plowing as necessary to limit snow accumulation to no more than 4" during daytime. Greater accumulations may be allowed to accumulate during the night until the next day's shift begins.
- Based on personnel availability and predicted storm duration and intensity, plowing lower priority streets may need to be deferred until later in the storm to ensure higher priority streets remain passable.

#### Operations:

- During emergency operations only the travel lanes will be plowed.
- A loader and operator will be positioned at each Fire Station for clearing intersections on an on-call basis and to accompany emergency services vehicles to their call locations if needed.
- Work Shifts: Operators will work no more that 16 hr shifts and no more than 16 hours in any 24 hour period.
- Use of Contractors: Contactors may be hired to load and haul snow from Dakota Avenue and from streets in vicinity of emergency services providers.
- Communications with Other Agencies: The Street Superintendent will communicate with the State and County Highway Departments be through the LEC and/or directly with the other agencies superintendents by cell phone.
- In the event that school is dismissed early due to heavy snow fall, streets in the vicinity of the schools will be cleared as necessary for bus activity upon request by the School Superintendent.

### **POST-STORM OPERATIONS:**

#### Snow Removal

- Downtown Business District (Dakota Avenue and streets one block either side) will be maintained as possible during business hours. The main snow clearance and removal effort will be done during the parking curfew hours from 2 AM to 6 AM. Work will generally begin around 1 AM to windrow the snow. Loading and hauling will begin around 3 AM and will usually be complete by 7 AM. Property owners are allowed to place snow from sidewalks in the gutter for removal by the City, but generally are unable to clear their sidewalks before the City's snow removal operation begins, so the City will return the following night to complete snow removal.
- City Parking Lots will be maintained by plowing during the winter storm. Snow will be removed and salt and sand will be applied after the storm as determined necessary by the Streets Superintendent.
- Intersections: Snow from intersections will be cleared as necessary to provide adequate sight distance. Intersections on arterials and collectors will be first priority, followed by intersections in vicinity of the schools.

- Cul-de-sacs bulbs will have snow cleared and hauled out when space for snow storage becomes inadequate for subsequent snow plowing operations.

#### Sanding

- All signalized and stop controlled intersections and curves on arterial and collector streets will be sanded on a daily basis after a storm and usually daily during the winter when ice and snow is present on the pavement.
- As conditions warrant, yield controlled intersections and curves on local streets will be sanded.
- Generally a salt/sand mixture will be applied. When temperatures are below zero sanding is ineffective because it will not stick in place and is swept aside by traffic.

#### Cutting and Widening:

- Consideration will be given to beginning snow removal operations to prevent or minimize the accumulation of packed snow which may cause rutting.
- Snow banks resulting from the previous accumulations will be pushed back, or shelved, to make space for future snow storms as the Street Superintendent determines necessary.
- Packed snow and ice that results in heavy rutting or irregularities will be cut with motor graders. Loaders will follow the graders to remove the resulting windrow from driveways such that no driveway is blocked for more than 30 minutes. On streets with numerous driveways, two loaders per grader will be needed to open driveways within the above-stated time constraints.
- Cutting & Widening Priorities will be the same as Plow Route Priorities. Alley widening will immediately follow street widening.

**FIRE HYDRANTS:** Hydrants are located and cleared of snow after streets and sidewalks are completed. Hydrants are marked with flexible, high-visibility wands so they may be easily located.

**SIDEWALK SNOW REMOVAL:** The City removes snow only from sidewalks abutting City-owned parcels.

Sidewalk snow clearance will not begin until all other snow removal operations are in progress and/or complete. If there are insufficient personnel available to conduct sidewalk snow removal operations, as well as street and road clearance, the streets and roads shall take priority.

**SCHOOLS:** Regular snow plowing operations on streets and avenues are completed on bus routes and in the vicinity of the schools before the normal bus routing and delivery begins.

The School District administers the clearing of snow and winter treatment operations for the access roads, parking lots, sidewalks and other school facilities on the District's property.

## **Appendices**

- A. Radio Call Numbers and Equipment Assignments for Operators
- B. Equipment for Snow and Ice Control
- C. Map of Emergency and Special Facilities Routes
- D. Map of Plow Routes
- E. Contractors Call-Out Phone Numbers
- F. Helpful Hints for Citizens

## **Appendix B Equipment List**

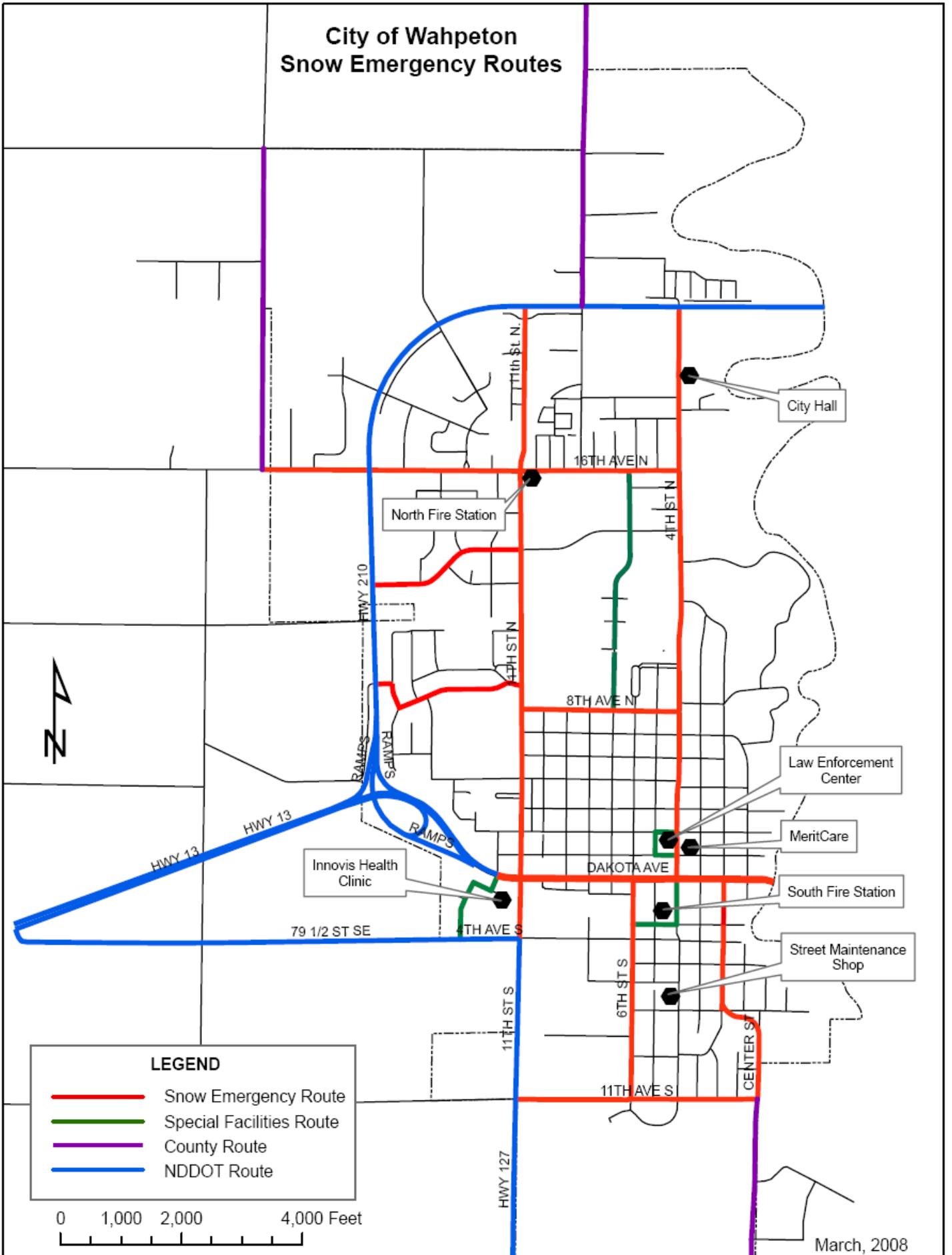
Snow removal equipment consists of:

1. Three single-axel trucks equipped with front mounted plows, side mounted wings, and sanders
2. One dual-axel truck equipped with front mounted plow, side mounted wing, sander, and under-body scraper
3. Two single axel trucks with sanders
4. One dual-axel truck for hauling snow
5. One motor grader, 6-wheel drive with 14' blade, 11' wing, and front V-plow
6. One motor grader, 4-wheel drive with 14' blade and 11' wing
7. One 4 x 4 pick-up truck with 4-way plow to maintain municipal parking areas, bike paths, small streets, and utility facilities
8. Two wheeled loaders
9. One skid-steer loader
10. One 500 ton/hour snow blower
11. One blower and one broom mounted on mowers and used on designated sidewalks and at City buildings
12. One walk-behind snow blower used on sidewalks and at City buildings.

## **Appendix C**

# **Map of Emergency & Special Facilities Routes**

# City of Wahpeton Snow Emergency Routes



## **Appendix D**

### **Map of Plow Routes**



## **Appendix E**

### **Contractors Call-Out Phone Numbers**

## **Appendix F**

### **Helpful Hints for Citizens**

## **SNOW REMOVAL HELPFUL HINTS FOR THE CITIZENS OF WAHPETON**

The success of our snow removal program depends upon your assistance. The Public Works Department wants to provide you with the best service possible within the constraints of personnel and equipment available. There are many things that you can do to help us do our job better.

1. **Parking:** When it starts to snow, park your vehicles off the street if possible. This protects your vehicles from being plowed in or being slid into by passing vehicles. Parking your vehicle off the street after a storm allows us to clear the parking lane of your street, or to cut packed snow and ice from the street.

**During the winter months no parking is allowed on public streets during the hours from 2:00 AM to 6:00 AM.**

2. **Depositing Snow on Public Roadways:** City ordinances prohibit you from putting ice or snow removed from your driveway, parking lot or other areas of your property into the streets, alleys, or public way. The property owner can be held liable for collisions and damages caused by snow piles placed in the roadway.

We recommend that you put snow removed from the sidewalk abutting your property onto your yard in order to preserve the boulevard area for storage of the snow from the streets. Remember that any snow you place in the street will probably be thrown back into your driveway by a passing snowplow.

3. **Driveways:** The City of Wahpeton, like the majority of agencies having snow and ice control responsibilities, does not clear snow from driveways due to the high cost of providing a timely and equitable service to all residents. There are more than 2,500 driveways in the city, and if it were to take only two minutes per driveway to clear the snow, it would take approximately 80 hours at a cost of over \$5,000 per event in 2005 dollars.

Generally the City is finished with snow plowing operations on all streets by 7:00 AM. After that time property owners can clear their driveways with little risk that they will be blocked by further City snow removal operations.

4. **Damages from Plowing Operations:** When snow covers everything it is impossible for the plow operator to determine the location of curbs and other obstructions. As a result, some damage does occur to sod, curbs, driveways, sprinkler systems, etc. If you should experience this problem, just call the Public Works Department at 642-6565 and needed repairs will be scheduled when weather permits.
5. **Damages to Mailboxes:** A mailbox damaged as a result of direct contact by City snow removal equipment will be temporarily repaired within 24 hours of receiving notification of such damage. If the mailbox and post cannot be temporarily repaired, a portable mailbox will be set in place so mail service may be continued. The City will replace the damaged mailbox structure the following spring with a standard No. 1 black, white, or silver mailbox mounted on a 4- by 4-inch treated wood post, or, if the

property owner prefers to make his/her own repairs or replacement, will pay the owner the actual cost of materials based on paid invoices, not to exceed \$75.

6. **Assistance to Stranded Motorists:** City personnel may assist stranded motorists by contacting law enforcement or emergency personnel. City employees will not attempt to remove vehicles from ditches, snowbanks or any other impediment.
7. **Communicating with the City:** To report hazardous street conditions or to get additional information about the City's Snow Control Program, please call **642-6565**. Your request will be taken in person during normal working hours. You can leave a message on the answering machine after hours. Please be understanding when making special requests. Response time will vary depending on the status of scheduled routes and our priority level.

**To report an emergency** please contact the Police Department.