

**SNOW AND ICE CONTROL
POLICIES AND PROCEDURES
CITY OF OWATONNA**

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STATEMENT OF PURPOSE

This manual describes the policies and procedures for the City of Owatonna's snow and ice control operations. The manual describes in some detail critical information for elected officials, employees and the public.

Although this manual is intended to represent policies and procedures of the City of Owatonna in regard to snow and ice control, the city reserves its right to change procedures depending upon variables found with weather conditions.

The policies and procedures outlined in this manual reflect the level of service currently rendered to residents of Owatonna. This manual will be reviewed annually in September, at which time public comment will be sought relative to potential policy and procedural changes.

City streets must be passable to allow normal traffic flow and emergency vehicles to respond to all areas within the City. In providing snow and ice control, the City endeavors to maintain adequate traction for vehicles properly equipped for winter driving conditions. The City, however, does not guarantee bare, dry pavement after each snowfall or that streets are totally free of ice and snow or related driving hazards common to Minnesota winter conditions. Residents are advised to listen to the local radio stations for announcements related to roadway conditions and snow removal operations.

COMMENCING SNOW AND ICE CONTROL OPERATIONS

The City of Owatonna starts snow and ice control operations when any of the following conditions exist:

- * With a snow accumulation of two inches or more.
- * Drifting snow that causes problems for travel.
- * Icy conditions which seriously affect travel.
- * Road conditions which could deteriorate due to peak traffic volumes.

PLOWING

On streets in which snow is not picked up, plowing occurs from the centerline to the right edge of the street.

On streets in which snow is picked up, plowing occurs from the right edge of the roadway and/or sidewalk to the centerline of the street.

Plowing speeds for centerlines shall not exceed 20 miles per hour. For curb side passes, plowing speed shall not exceed 15 miles per hour.

On bridge decks which contain sidewalks, plowing to the centerline will occur if snow plowed onto the sidewalk would significantly impede pedestrian travel.

On overpasses, plowing from the centerline to the right edge of the roadway will occur, unless said method poses hazards to pedestrians or vehicles below the overpass. If so, the overpass will be plowed from the right edge to the centerline and removed.

Areas with sidewalks adjacent to schools are plowed to the opposite side of the street, with pickup of snow on those boulevards occurring later in the snow event operation.

SNOW REMOVAL

Snow removal of centerline windrowed snow will begin approximately two hours after motor patrol operators start work. With a snowfall of four inches or less, centerline windrowed snow will be removed within a normal 12 hour shift. For snowfalls in excess of four inches, generally an additional three hours of pickup time will be required for every additional one inch of snow.

Removal of snow from boulevards will occur when sight visibility at an intersection, from a car, is severely limited. Arterials, collectors, streets adjacent schools, and emergency care facilities

shall be of the highest priority. Churches and residential areas prone to significant drifting are of a secondary priority.

Aforementioned snow removal efforts may be delayed based upon weather conditions, budget considerations, availability of equipment, personnel, and contractors.

Storage of snow from windrowed areas and boulevards will be deposited at one of the following locations:

- City property in the 1100 block of Industrial Road
- County property directly east of the race track at the Steele County Fairgrounds.
- City property on the north side of Bridge Street, west of 32nd Avenue
- City Property on Killworth Drive
- City property east and north of Alexander Drive

ICE CONTROL

Salt Brine shall be applied prior to a predicted snow or ice event when appropriate at critical location including bridge decks and hills.

For initial and subsequent ice control measures calcium chloride shall be applied as soon as possible after sufficient precipitation has fallen, but before the snowpack or ice bonds to the pavement.

The city will use sodium chloride (NaCl, salt brine) as a prewetting solution.

The city will attempt to provide bare pavement for driving lanes on all arterials and collectors.

Ice control will be performed on the following priority basis:

1. Bridge decks
2. Arterial hills & intersections
3. Collector intersections
4. Arterials
5. Collectors
6. Designated streets
7. Designated intersections

PRIORITIES

Snow removal and ice control will be performed on a priority basis. The City has classified streets based on the function, traffic volume and importance to the welfare of the community. The sequencing of the snow removal and ice control shall be principle and arterial roadways first, collector streets second and residential routes third. Snow and ice control from City sidewalks and trails shall occur in conjunction with street snow removal provided staffing and equipment are available.

FIRST PRIORITY

Arterials and collectors shall be designated as snow emergency routes and are the highest priority for service. Arterials and collectors are identified on the street system map in the Appendix of this manual. They include the following:

Arterials:

24th Ave NW & SW
Bridge Street
Hoffman Drive
County Rd 45 N
26th St. NW & NE
Oak Avenue
Main Street
Rose Street
32nd Avenue NW from Bridge St. to Hoffman

Collector:

Lemond Road	20th Street NE	State Avenue
Allan Avenue	22nd Street NE	Bixby Road
Mosher Avenue	Ridge Road NE	Elm Avenue from 18th Street SE to 16th Street NE
McKinley Street	Truman Avenue	Mineral Springs Road
18th St. SW & SE	Mineral Springs Parkway	Broadway from Lincoln to Grove
Lincoln Avenue	Cherry Street	Kenyon Road
School Street	Crestview Lane NE	Pine Avenue from Broadway to Cherry
Havana Road	Rice Lake Street	Dane Road
Glendale Street	Greenhaven Lane NE	3rd Avenue NE from 16th Street NE to 26th Street NE
Allan Avenue	Cedar Avenue	St. Paul Road from Mineral Springs Rd to Stoneridge
North Street	Partridge Avenue	7th Avenue NE from Mineral Springs Rd to 26th St NE
11th Avenue NE	Grove Avenue	Bigelow Ave NE from Mineral Springs Rd to 22nd St NE
14th Street NE	County Road 180	Hemlock Ave from 22nd Street NE to 26th Street NE
19th Street NE	Austin Road	

EMERGENCY ACCESS POINTS

Emergency access points are streets or alleys that lead to sites having importance to the welfare of the community, i.e., hospital, law enforcement, fire station, public utilities. Emergency access points also receive a first priority for service. They include the following:

- 26th Street NW from I-35 to 24th Avenue NW - Hospital
- 24th Avenue NW from CSAH 2 (Hoffman Drive) to 26th Street NW - Hospital
- North Elm Avenue from E. Pearl Street to E. Rose Street – Police Department
- South Walnut Avenue from W. Main Street to W. School Street - OPU
- Industrial Road NW from W. North Street to the City Shop – Street Department
- Main Street from Oak to Grove – Fire Department

SECOND PRIORITY

Streets that are not arterials or collectors that lead to commercial business districts, centers of major employment, or school sites are considered secondary priorities for service.

At the present time, all Owatonna schools, public and private, are located at the intersection or are adjacent to an arterial or collector, with the exception of Wilson School. The following streets leading to Wilson School have been identified as a secondary priority:

- Selby Avenue to Mound Street
- Mound Street to Hilltop Avenue
- Hilltop Avenue to Lynwood Street
- Lynwood Street to Meadow Lane
- Meadow Lane to Jeffrey Street
- Jeffrey Street to Allan Avenue

A commercial business district not serviced by arterials and collectors includes the area bordered by the following:

- South of Rose Street
- West of Elm Avenue
- North of Main Street
- West of Oak Avenue

Portions of the Owatonna Industrial Park qualify for a second priority. Those streets included are:

- Park Drive NW
- St. John Drive NW
- 4th Street NW
- Alexander Drive SW
- Alexander Street SW
- Lemond Street SW
- 32nd Avenue NW

THIRD PRIORITY

Residential Streets and Alleys

The third priority for service is residential through streets, then cul-de-sacs and alleys. These areas encompass everything not included in the first two priorities. Undeveloped gravelled residential streets will be the last streets to receive service.

FOURTH PRIORITY

Sidewalks

In accordance with Section 650 of the Ordinance Code, "All snow, ice, dirt and rubbish remaining on a public sidewalk more than twenty-four (24) hours after its deposit thereon is a public nuisance. The owner and the occupant of any property adjacent to a public sidewalk shall use due diligence to keep such walk safe for pedestrians. No such owner or occupant shall

allow snow, ice, dirt or rubbish to remain on the walk longer than twenty-four (24) hours after its deposit thereon.

Operations

The Park & Recreation Department performs snow and ice removal from all sidewalks on and adjacent to City owned properties, including parks, parking lots, some Owatonna Public Utilities property and in accordance with the Steele County Fairgrounds maintenance agreement.

Exceptions

Snow and ice removal is done by the Parks and Recreation department at specific sidewalk locations that are adjacent to the curb or under a special agreement. The locations are:

- 1418 S. Oak Avenue (Oakdale Motel)
- Oak Avenue from Holly Street to Rose Street
- State Avenue from Frontage Lane NW to 12th Avenue NW
- W. Bridge Street from I-35 to Walnut Avenue
- W. Main Street from Walnut Avenue to East Park Square
- E. Rose Street from Willow Avenue to Oakwood Lane NE
- Mineral Springs Road along Forest Hill Cemetery
- Mineral Springs Road from St. Paul Road to Mineral Springs Parkway
- St. Paul Road along Forest Hill Cemetery
- St. Paul Road from 24th Street NE to 26th Street NE
- N. Cedar Avenue from 13th Street NE to 14th Street NE (west side)
- N. Cedar Avenue from 11th Street NE to 14th Street NE (east side)
- North Street from railroad tracks to N. Cedar Avenue (south side)
- North Street from Straight River Bridge to N. Oak Avenue (south side)
- Lemond Road from W. Bridge Street to I-35 Bridge
- Bixby Road from E. University Street to Truman Avenue SE
- Truman Avenue from E. School Street to E. Main Street

FIFTH PRIORITY

Trails

The City of Owatonna has a multiple-use trail system created to provide a variety of recreational opportunities for city residents and visitors. The Park & Recreation Department performs snow and ice removal on the trails that are designated as 4-season. The 4-season trail locations are:

- Kaplan's Woods Parkway from Linn Avenue to Morehouse Dam
- Lake Kohlmier lower loop
- Cashman Crossing Bridge and Morehouse Manor trail
- All trails within Morehouse Park
- Muckle Trail from Morehouse Dam to North Street
- North Straight River Parkway
- Buxton Trail including all hard surface trails in Mineral Springs Park
- N. Cedar Avenue from 24th Street NE to 26th Street NE
- St. Paul Road from 26th Street NE to Stoneridge Lane NE

EXCEPTIONS

Trails that are designated as 3-season and that have no destinations or specific termini at this time shall not have snow and ice removal done.

Trail from Partridge Avenue to Countryview Avenue along the north side of Rose Street

SCHEDULE

Snowplow operators, during a snow event, will work a maximum of 12 hours operating equipment, in any 24 hour period. All employees shall take appropriate breaks.

Most snow removal and ice control operations performed in conjunction with a snow event begin at midnight.

During an extended snow event, the Street Maintenance Manager may split the crew in order to provide around the clock coverage.

PROCESS

The following represents the "normal" sequence of steps for snow removal and ice control operations within the city.

A truck with a plow, underbody scraper, wing and sander is typically deployed to one of eight truck plow zones within the City.

Three motor patrols are dispatched to the downtown zone, which represents those areas where snow is windrowed and loaded into trucks. Contracted haulers begin approximately two hours after the motor patrols begin. Snow is blown into trucks by a large snowblower which is mounted to a front-end loader.

Begin piling snow in city owned parking lots.

Begin plowing cul-de-sac and alleys.

Once the initial cleanup from a snow event has been completed, streets requiring replowing, or additional ice control measures are redone.

Removal of snow from downtown alleys with front end loaders and trucks begins. Motor patrols will blade snow from curb areas around schools and from streets with indented parking, the snow is loaded and removed.

Since air temperature plays a major role in determining to what extent motor patrols are able to remove compacted snow, scraping of streets, alleys, and parking lots may occur on an intermittent basis.

Snow causing sight obstructions is removed from boulevards.

USE OF SAND, SALT AND OTHER CHEMICALS

Sand, salt and chemicals are useful in controlling snow and ice, but their benefits vary under differing conditions. The City of Owatonna street maintenance department will take into account the volume of traffic, type of weather conditions (including temperature, wind and form of precipitation), and the type and location of the road when applying sand, salt and/or chemicals.

PUBLIC AND EMPLOYEE SAFETY

It will be the policy of the City of Owatonna to temporarily suspend snow removal and ice control operations if weather conditions pose employee safety concerns. Examples include ice storms, blizzard conditions, extreme cold temperatures.

The City of Owatonna will use local media, brochures, and public presentations to inform residents of public safety concerns related to snow removal and ice control operations. Safety concerns include but are not limited to the following examples:

- snow caves built within the right-of-way
- vehicles passing plow trucks
- following plow trucks too closely
- blowing or plowing snow from driveways onto streets

COMPLAINTS

Complaints are to be directed to the Public Works Department Administrative Office, 540 West Hills Circle, 444-4350.

City staff will attempt to address complaints within 24 hours from receipt. For complaints which can't be addressed within 24 hours, complainant shall be so informed immediately.

PROPERTY DAMAGE

City staff will inspect property damage complaints within 12 hours of receiving the complaint when possible. A property damage report form will be completed and submitted to the Public Works Department Administrative Office.

City staff will repair turf damage within the right-of-way which was caused by city snow removal operations when springtime weather conditions permit.

City will not be responsible for damage to items placed in the right of way. Items include landscaping, sprinkler systems, etc.

If a mailbox is physically contacted and damaged by a plow the owner has two options for repair or replacement. Only mailboxes which are physically contacted by the plow are eligible.

1. City staff will replace mailbox and support with the breakaway type in accordance with USPS recommendations.
2. If the resident does not want the break away type mailbox support, they may request a one-time reimbursement of \$75.00. The reimbursement will only be available once per property regardless of ownership and includes any labor and costs the owner may incur. Non-conforming mailboxes and support structures will be the responsibility of the residents they serve.

Where mailboxes are placed adjacent to the street, it shall be the policy of the City that snow shall be plowed as close as practicable to the curb to allow for passage of traffic and mail delivery. It shall be the responsibility of the property owner to keep piled snow away from mailboxes so mail can be delivered.

Complainants not satisfied with staff response shall be told they may file a written claim with the City's insurance company.

ACCIDENTS DURING SNOW AND ICE CONTROL OPERATIONS

Should any employee have an accident of any type during snow/ice control operations the personnel policy relevant to accidents shall be followed.

OWATONNA DEGNER REGIONAL AIRPORT

Snow Removal Plan – Updated 2010

I. Purpose: To establish an orderly procedure and outline responsibility to facilitate the removal of snow and the elimination of hazardous field conditions.

II. Responsibility: The Airport Manager shall have the overall responsibility for the operation of this plan. It shall be the responsibility of the Manager to coordinate a plan of action with all agencies using the airport facilities and removing snow and ice. The Manager will coordinate with the FAA Flight Service Station (FSS) to obtain the following information:

1. Anticipated time of snowfall onset
2. Estimated duration
3. Expected depth of snow
4. Prevailing wind direction and temperature during snowfall
5. Prevailing wind direction and temperature after snowfall

Tenants: All airport tenants are responsible for the necessary cooperation with the Manager insofar as the movement of aircraft is concerned. Tenants will also need to see that all items such as chocks, tools, and pieces of wood and metal are removed from their respective areas before the snow removal operations begin. Because snow removal equipment is susceptible to damage by such items, any ramps not cleared of hazards cannot be cleared by equipment.

III. Snow Removal:

1. **Priorities:** Area priorities will be determined by the operational equipment of the various airport users and are generally depicted as shown on the attached Exhibit.
2. **Conditions:** Snow removal will commence on the runways when an accumulation of $\frac{1}{2}$ to 1 and $\frac{1}{2}$ inch is reached or at the discretion of the Airport Manager. Snow removal on taxiways, ramps, and hangar areas will commence when an accumulation of 2 inches is reached, or upon termination of the snowfall and at the discretion of the Airport Manager.
3. **Sanding:** Sanding will be done when deemed necessary by the Airport Manager.

IV. Airport Traffic Control:

1. When snow removal procedure starts, appropriate NOTAMS will be filed with the Flight Service Station.
2. While snow removal operations are in progress on any one runway, the runway may be declared closed for all operations and cannot be reopened except by order of the Manager. The runway may remain open if safety considerations and efficiency of snow removal are not adversely affected.
3. While snow removal operations are in progress on any one runway, touch-and-go operations will be prohibited on the other runway.

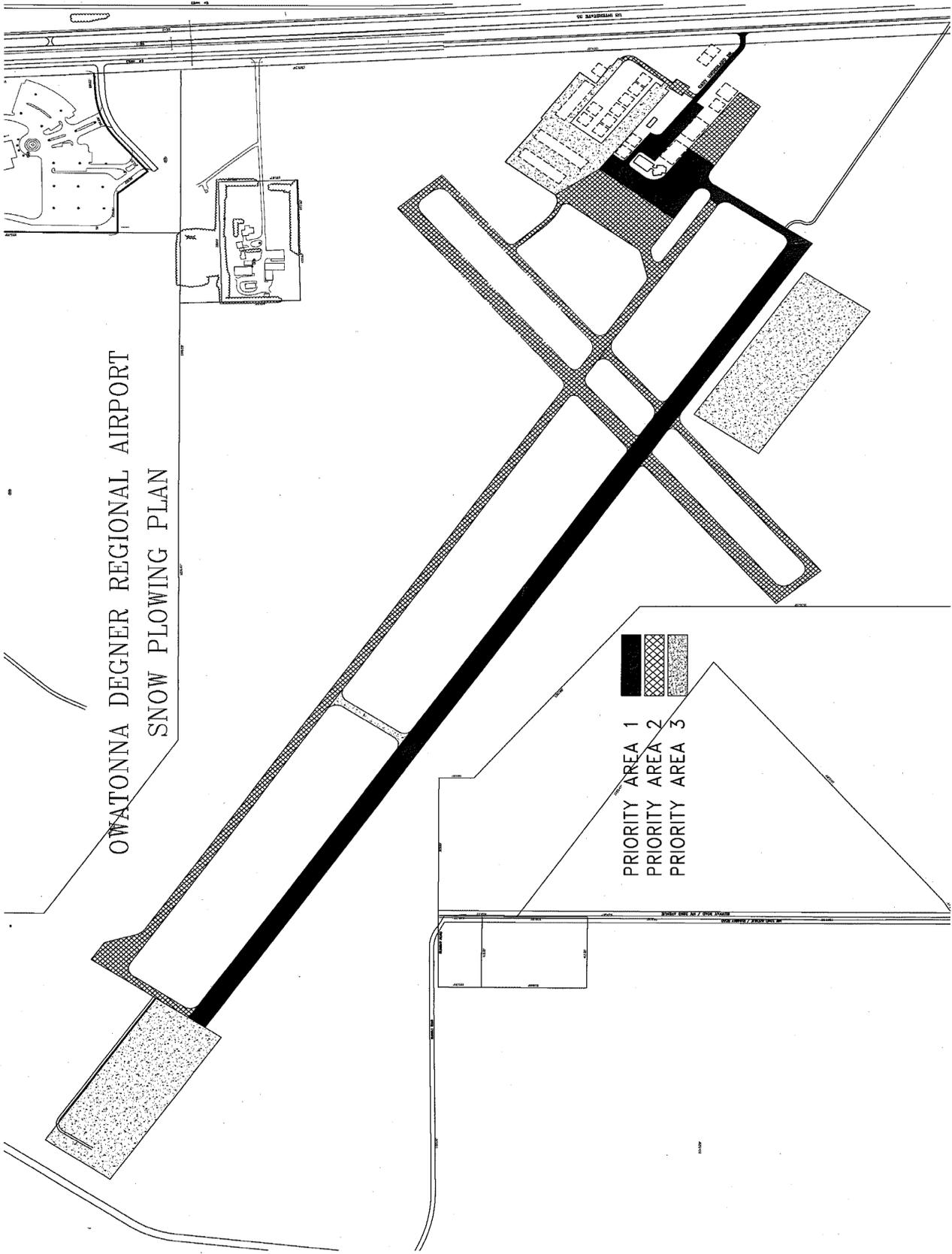
4. Snow removal equipment on the runways will maintain contact with the Airport Manager and the Unicom radio frequency so as to remain advised of airport traffic conditions. Equipment ordered to clear the runway for any reason will remain clear until ordered to resume operations.

V. Personnel to be contacted:

Dave Beaver Airport Manager (507) 456-5027

Scott Overland Street Superintendent (507) 456-5028

- VI. Inspection:** Field and runway conditions may be inspected only by personnel designated by the Airport Manager.



APPENDIX

STREETS EXEMPT FROM WINTER PARKING ORDINANCE

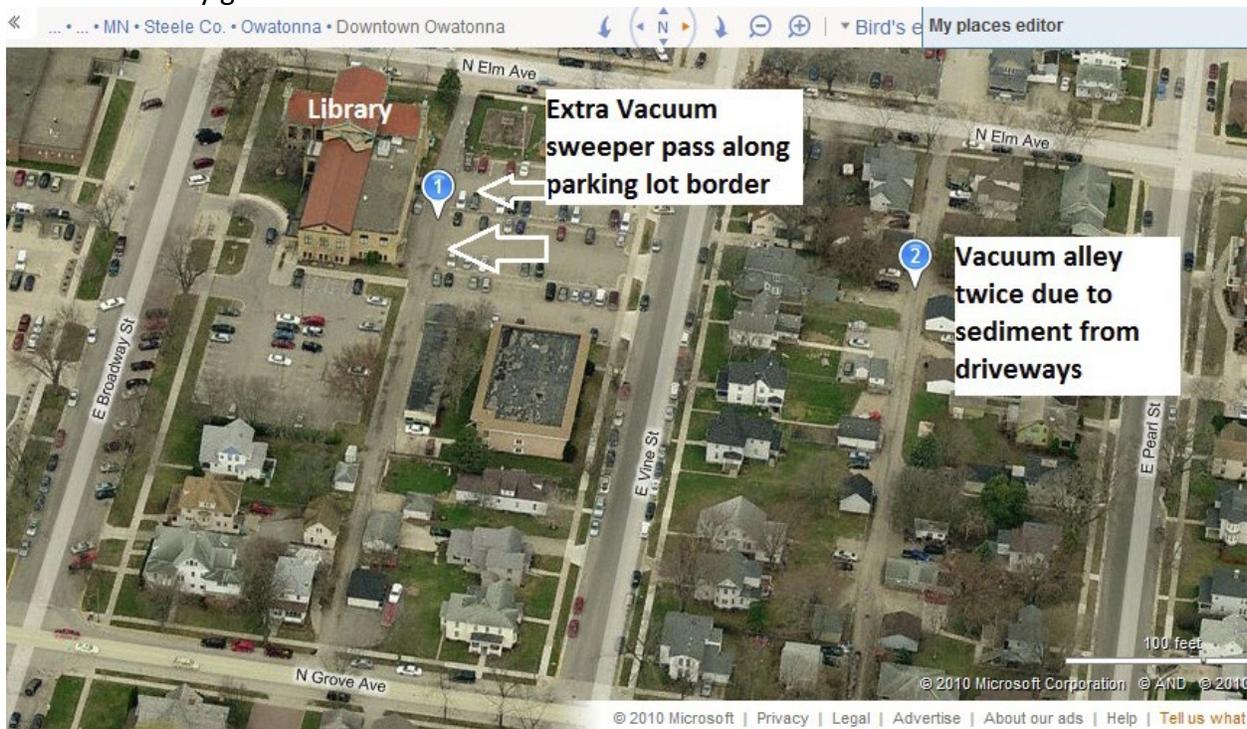
1. All cul-de-sacs (any street with the word “PLACE” in its name).
2. Any “DRIVE” or “LANE” where the house numbers change from even to odd on the same side of the street (as being snow plowed or swept). The following is a list of those exempt streets:
 - Arglen Drive NW
 - Autumn Drive SE
 - Cardinal Drive SE
 - Colonial Manor Streets (Clark Dr NW, Heritage Dr NW, Lewis Dr NW, Rosewood Dr NW, Strand Dr NW, Wilson Dr NW)
 - Greenhaven Lane NE
 - Greenwood Drive NE (N. & S. of 20th St NE)
 - Linn Drive SW
 - Morning Drive SE
 - Oakwood Lane NE (between Rose St and Rice Lake St)
 - Richway Lane SE (E. of Sunlight Ave SE)
 - Willow Creek Drive NE
3. Any street where parking is limited to one side.
4. Any street that has other more restrictive parking requirements.

Winter:

- **No sand is to be placed on the two porous pavements at any time. The sand clogs the porous pavement and prevents the stormwater from entering as designed.**
- **To prevent icing, a brine based application is to be placed on the alleys prior to the forecasted storm event, after the forecasted event, and as needed.**

Semiannual:

- **Vacuum porous pavements twice per year with an industrial vacuum sweeper (100 bar/125 psi high pressure water blast followed by a vacuum for solids and liquids)**
 1. Extra vacuum passes along Library/Federated parking lot border because of increased sedimentation.
 2. Extra vacuum passes in porous asphalt alley due to increased sedimentation from driveway gravel.



Clog Prevention Maintenance

- Vacuum the pavement twice per year (or align with rainy season).
- Maintain planted areas adjacent to pavement.
- Immediately clean any soil deposited on pavement.
- Do not allow construction staging, soil/mulch storage, etc. on unprotected pavement surface.
- Clean inlets draining to the subsurface bed twice per year.

Winter Snow/Ice Removal

- Monitor the permeable pavement in the winter. Porous pavement systems generally perform better and require less treatment than standard pavements.
- Do not apply abrasives such as sand or cinders on or adjacent to porous pavement.
- Place snowplow blades slightly higher than for conventional pavements.
- Apply salt as necessary; however, keep in mind that salts will infiltrate, so organic deicers are preferable.

Maintenance Repairs

- **Do not seal-coat permeable pavement surfaces.**
- Patch damaged areas less than 50 square feet with porous or standard pavement.
- Patch damaged areas larger than 50 square feet with an approved permeable pavement.

Definition of Precipitation

- Rain:
 - Light: 1/10 inch per hour.
 - Moderate: 1/10 to 3/10 inch per hour.
 - Heavy: More than 3/10 inch per hour.
- Drizzle: Fairly uniform precipitation composed of fine drops.
- Fog: minute particles of water droplets that float with air currents but not fall to the ground.
- Sleet: Frozen rain drops or snowflakes that have melted and refrozen.
- Freezing Rain or Drizzle: Rain or drizzle that falls in liquid form but freezes on impact.
- Snow (defined by visibility and accumulation):
 - Light: Visibility of 3/4 mile and accumulation of up to 2 inches in 12 hours.
 - Moderate: Visibility of 1/4 to 3/4 mile.
 - Heavy: Visibility of 1/4 mile or less and/or accumulation of 4 or more inches in 12 hours.
- Blizzard: Wind speeds of at least 35 mile per hour accompanied by considerable falling and/or blowing snow and a temperature of 10 degrees Fahrenheit or lower, all of which are expected to prevail for an extended period of time.
 - Severe Blizzard: Blizzard with winds of at least 45 miles per hour.
 - Near Blizzard: Only two of the three ingredients for a blizzard.
- Wet and Dry Snow:
 - Wet Snow: Falls at a temperature of 25 degrees Fahrenheit or higher.
 - Dry Snow: Falls at a temperature below 25 degrees Fahrenheit.
- Drifting:
 - Pin: Minimal shifting of snow on or across road surfaces.
 - Slight: Snow building up in towns, sheltered areas, and on hills and curves.
 - Considerable: General buildup of snow on road surfaces.



Snow Plow Zones

City Of Owatonna



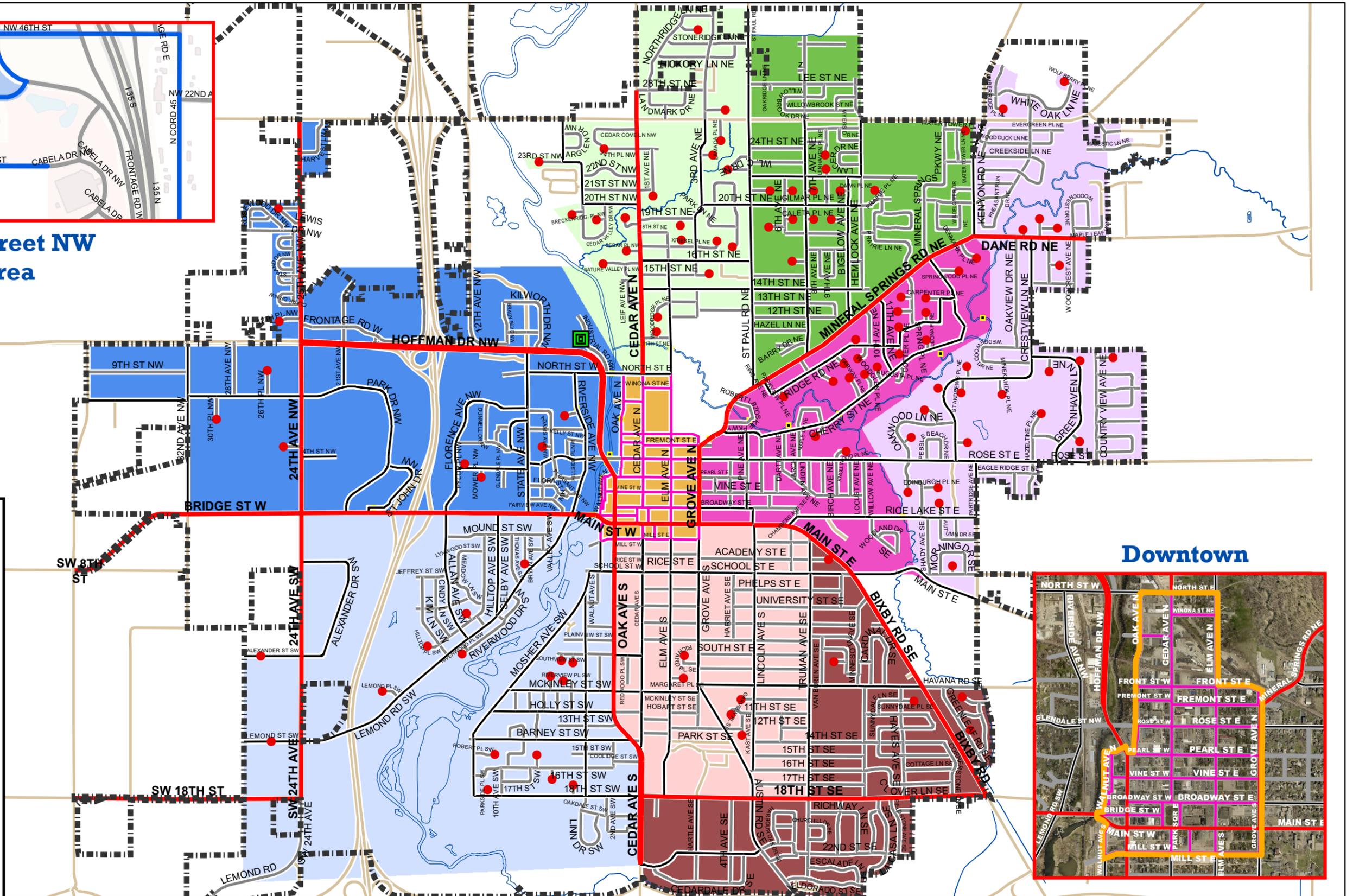
November 2, 2018



46th Street NW Area

Plow Routes

- Street Cul-De-Sac (110)
- Primary Plow Route
- Secondary Plow Route
- Residential Plow Route
- Downtown Plow Route
- Road
- DOWNTOWN
- EAST PLOW AREA 1
- EAST PLOW AREA 2
- NORTH PLOW AREA 1
- NORTH PLOW AREA 2
- SOUTH PLOW AREA 1
- SOUTH PLOW AREA 2
- WEST PLOW AREA 1
- WEST PLOW AREA 2



Downtown

