

Highway Department Snow and Ice Removal Plan



Adopted by the Walworth County Public Works Committee
Date: 09/10/2018

Snow and Ice Removal

The Walworth County Highway Department is responsible for the snow and ice removal (referred to as snow removal) of approximately 400 lane miles of County Trunk Highways and an additional 700 lane miles of State Highways through contract with the Wisconsin Department of Transportation (WisDOT). Snow removal activities may occur any time of the day or night and likely requires overtime by the Highway Department personnel. Careful planning and preparation must be done prior to the winter season to ensure the safe and efficient snow removal throughout Walworth County.

Purpose

The purpose of this section is to define the level of expectations for snow and ice removal of County maintained roads during a winter storm event. The primary goal of winter maintenance is to achieve “passable roadways” within the limitations imposed by climatological conditions, the availability of resources, and environmental concerns during a winter storm event.

Snow Removal Procedures

The following section outlines the snow removal procedures used by the Walworth County Highway Department. **Exceptions to this policy may occasionally be necessary as dictated by weather and road conditions. The key element in implementing an efficient snow and ice control program, is receiving timely weather information.** Accurate weather forecasting is imperative in deciding on the level of response.

Decision to Begin Snow Removal

Several factors impact when the Highway Department begins the snow removal process. These factors include, but are not limited to, current roadway conditions, current weather conditions, forecasted weather conditions, and the time of day. Each storm presents unique challenges which must be dealt with accordingly. Given the overall size of Walworth County, it is possible for weather and road conditions to vary greatly from one area of the County to another area. The Highway Department will take all factors into consideration and will make a determination on the appropriate time to begin the snow removal process.

Snow Removal Methods

The primary method of snow removal shall be by plowing. Salt, sand/salt, salt with other additives, brine, and brine with other additives may be used to enhance snow removal or to improve traction. Motorists should expect that snow will be plowed into cross streets and driveways as a normal part of snow removal operations.

Passable Roadway

The intent of the snow removal process within Walworth County is to maintain a safe environment for the traveling public. This does not mean that the traveled portion of a roadway will be cleared to the pavement. In fact, the public should be aware that the traveled portion of a roadway and/or bridges will, at times, have snow and/or ice which will create slippery conditions. Motorists should be aware of these conditions and should exercise caution when driving during these conditions.

The goal of the Highway Department is to create a “passable roadway.” **A passable roadway is defined as a roadway surface that is free from as much ice and snow pack as is practical and can be traveled safely at reasonable speeds. A passable roadway should not be confused with a "dry pavement" or "bare pavement", which is essentially free of all ice, snow, and any free moisture from shoulder to shoulder.** This "dry/bare pavement" condition may not exist until the weather conditions improve to the point where this pavement condition can be provided.

The definition of "reasonable speed" is considered a speed that a vehicle can travel without losing traction. During and immediately after a winter storm event, a reasonable speed will most likely be lower than the posted speed limit. Motorists can expect some inconvenience and will be expected to modify their driving practices to suit road conditions.

Passable roadway expectations

The level of snow removal service depends on the type of roadway being serviced. The Highway Department maintains both State and County roadways. WisDOT divides these roadways into five (5) categories which determine the priority, level of service, and hours of operation. Within Walworth County, we maintain category 3-5 level of roads as outlined below:

Category 1: Major urban freeways and most highways with six lanes and greater

(These highways are considered “high volume” and receive 24-hour coverage, during the winter storm event.)

Highways in this category often have traffic congestion and snow storage problems, making typical plowing and de-icing agent applications very difficult or inappropriate. Therefore, when traffic volumes and snow storage are problems on these highways it may be appropriate to use extraordinary efforts, such as chemical removal, so that snow does not pack on the roadways during the winter storm event.

On these highways counties should strive for “passable roadway” conditions on all lanes and ramps, during the winter storm event. Plowing is the first priority for snow removal, however extraordinary efforts (as described above) may be taken so that snow does not pack on the roadways during the winter storm event.

Category 2: High volume four-lane highways (Annual Average Daily Traffic (AADT) \geq 25,000) and some four-lane highways (AADT $<$ 25,000), and some 6-lane highways.

(These highways are considered “high volume” and receive 24-hour coverage, during the winter storm event.)

Highways in this category typically do not have the traffic congestion and snow storage problems of those in category 1. However, they still have high traffic volumes that make it necessary to focus on more than just the driving lanes during the winter storm event.

On these highways counties should strive for “passable roadway” conditions on the driving lanes, ramps, and passing lanes during the winter storm event. Plowing is the first priority for snow removal. The counties should strive to keep the snow

from packing on the driving lanes, ramps, and passing lanes (if not needed for snow storage) during the winter storm event. Only enough de-icing agents should be used to keep the total accumulation workable, thereby minimizing bonding during the winter storm event. It is considered inappropriate to attempt to melt the snow as fast as it hits the ground or keep the highway wet so as to eliminate any accumulation or packing. If packing should occur, counties will strive for “passable roadway” conditions and eventually “bare pavement” as soon as practical after the winter storm event has ended.

Category 3: All other four-lane highways (AADT < 25,000) I43, US12 (Elkhorn – Genoa City), STH 50 (Lake Geneva – Kenosha County Line)

(These highways are considered “high volume” and receive 24-hour coverage, during the winter storm event.)

Highways in this category typically do not have the traffic congestion and snow storage problems of those in category 1. However, they still have high traffic volumes that make it necessary to focus on more than just the driving lanes during the winter storm event.

On these highways counties should strive for “passable roadway” conditions on the driving lanes, ramps, and passing lanes during the winter storm event. Plowing is the first priority for snow removal. The counties should strive to keep the snow from packing on the driving lanes, ramps, and passing lanes (if not needed for snow storage) during the winter storm event. **Only enough de-icing agents should be used to keep the total accumulation workable, thereby minimizing bonding during the winter storm event. It is considered**

inappropriate to attempt to melt the snow as fast as it hits the ground or keep the highway wet so as to eliminate any accumulation or packing. If packing should occur, counties will strive for “passable roadway” conditions and eventually “bare pavement” as soon as practical after the winter storm event has ended.

Category 4: Most high volume two-lane highways (AADT >= 5,000) and some 2-lane highways (AADT < 5000) US12 (Elkhorn – Whitewater), STH 50 (Lake Geneva – Delavan) and all other STH

(These highways are considered “high volume” and receive 24-hour coverage, during the winter storm event.)

On these highways counties should strive for “passable roadway” conditions on the driving lanes, during the winter storm event. Plowing is the first priority for snow removal. The counties should strive to keep the snow from packing on the driving lanes during the winter storm event. **Only enough de-icing agents should be used to keep the total accumulation workable, thereby minimizing bonding during the winter storm event. It is considered inappropriate to attempt to melt the snow as fast as it hits the ground or keeping the highway wet so as to eliminate any accumulation or packing.** If packing should occur, counties will then strive for “passable roadway” conditions and eventually “bare pavement” conditions as soon as practical, after the winter storm event.

Category 5: All other two-lane highways (County Highways)

(These highways are considered “all other” and receive 18-hour coverage, during the winter storm event.)

On these highways counties should strive for “passable roadway” conditions on the driving lanes, during the winter storm event. Plowing is the first priority for snow removal. The counties should strive to keep the snow from packing on the driving lanes during the winter storm event. **Only enough de-icing agents should be used to keep the total accumulation workable, thereby minimizing bonding during the winter storm event. It is considered inappropriate to attempt to melt the snow as fast as it hits the ground or keep the highway wet so as to eliminate any accumulation or packing.** If packing should occur, counties will then strive for “passable roadway” conditions and eventually “bare pavement” conditions as soon as practical after the winter storm event, during normal work hours (including Saturdays and Sundays).

During the time between the winter storm event ending and achieving “passable roadway” conditions, it is acceptable that only clear wheel tracks be provided when conditions warrant. Snow plowing services on category five (5) roads typically include regular service (4:00 a.m. to 9:00 p.m.) and emergency service primarily during the hours of 9:00 p.m. to 4:00 a.m.

The majority of snow removal within Walworth County will occur between the hours of 4:00 a.m. and 9:00 p.m. It should be noted that these service hours are provided as a guideline and may be modified on a case-by-case basis. With the

exception of twenty-four roadways, the Highway Department will provide reduced service on County Roads beginning at 9:00 p.m. The Highway Department will also provide emergency service between 9:00 p.m. and 4:00 a.m. primarily at the request of the Walworth County Sheriff’s Office. The Highway Department maintains communication with the Sheriff’s Office and will respond to their specific emergency requests.

- **The county highway department is not liable for injuries caused by ice or snow accumulation on the roadway unless it has been there for more than 3 weeks (s. 81.15, Wis. Stats.).** That being stated, it typically takes only a day or two, even in the worst storms, to remove the majority of the ice and snow from the pavement.

Exceptions

Exceptions to this guideline will occur when subsequent winter storm events happen at a frequency where it is not possible to obtain passable roadway conditions and subsequently bare pavement between the events. The severity of a winter storm event, roadway temperatures, and availability of resources along with other factors will dictate how soon passable roadway conditions and subsequently bare pavement can be obtained.

Road Conditions

Winter road conditions can be found at:

<http://www.dot.wisconsin.gov/travel/road/winter-roads.htm>

High volume highway expectations

When conditions warrant, 24-hour coverage should be provided during a winter storm. Depending on the severity and duration of the storm, maintaining a full complement of operators may not be practical. However, some minimal coverage should be provided (perhaps by reducing or staggering the workforce).

Definition of "24-hour coverage": 24-hour coverage means that the county has a presence on the highway for 24 hours per day during a winter storm event unless passable roadway conditions have been achieved. This would only happen during winter storm events of long duration and when conditions warrant. When this does occur it may mean further reducing the coverage on routes in the "all other" classification to assure available manpower, or extending the winter operation section lengths on the high volume routes. **However, continuous coverage does not mean that the county runs three shifts or that there are patrol trucks on the highway 24 hours per day throughout the winter irrespective of weather conditions.**

"All other" highway expectations

When conditions warrant, coverage should be provided up to 18 hours per day during the storm. The gap in coverage is necessary to provide for operator recovery time. The operator recovery time should typically be between the hours of 9:00 p.m. and 4:00 a.m., but will vary with specific storm conditions.

Some minimal ability to respond to emergencies should be provided during the hours that full coverage is not provided.

Exceptions

The above highway classifications and coverage times are intended as a guide in winter maintenance operations and changes may be deemed appropriate based on local conditions. Exceptions to these guidelines may include:

Reducing coverage due to extreme conditions which would include:

- Limited visibility for operators
- Length and severity of the storm
- Continuing service beyond suggested hours to prevent snow compaction or other hazardous conditions
- Allowing breaks between shifts during off Average Daily Traffic (ADT) peak hours to reduce operational costs and operator fatigue

Service Areas

Figure 14 displays the current snowplow routes for State Highways while **Figure 15** displays the current snowplow routes for County Highways. The Highway Department reviews snow routes on a regular basis and make adjustments as needed to most effectively and efficiently accomplish the snow removal process.

Snow Emergency

A snow emergency may be declared when the visibility declines to a point that it is hazardous to the driving public or snowplow operators to be on the roads. Under these conditions, snowplowing and/or ice control operations may be suspended until visibility improves. The Highway Department, may on occasion determine that it is in the best interest of the traveling public to close a road, or roadway segment. When a snow emergency is declared, the Highway Department will

notify the Sheriff's Office, WisDOT, and if possible, local media regarding the specific concerns of the emergency. When a snow emergency has been declared, the level of service, snow removal hours, and/or department personnel hours may be adjusted as needed to best accomplish the snow removal process.

Authority to Declare

The Highway Commissioner will have the authority to declare a snow emergency. In the absence of the Highway Commissioner, an appointed Highway Department designee will have the authority to declare a snow emergency.

Figure 1. Snowplow Route (State Roads)

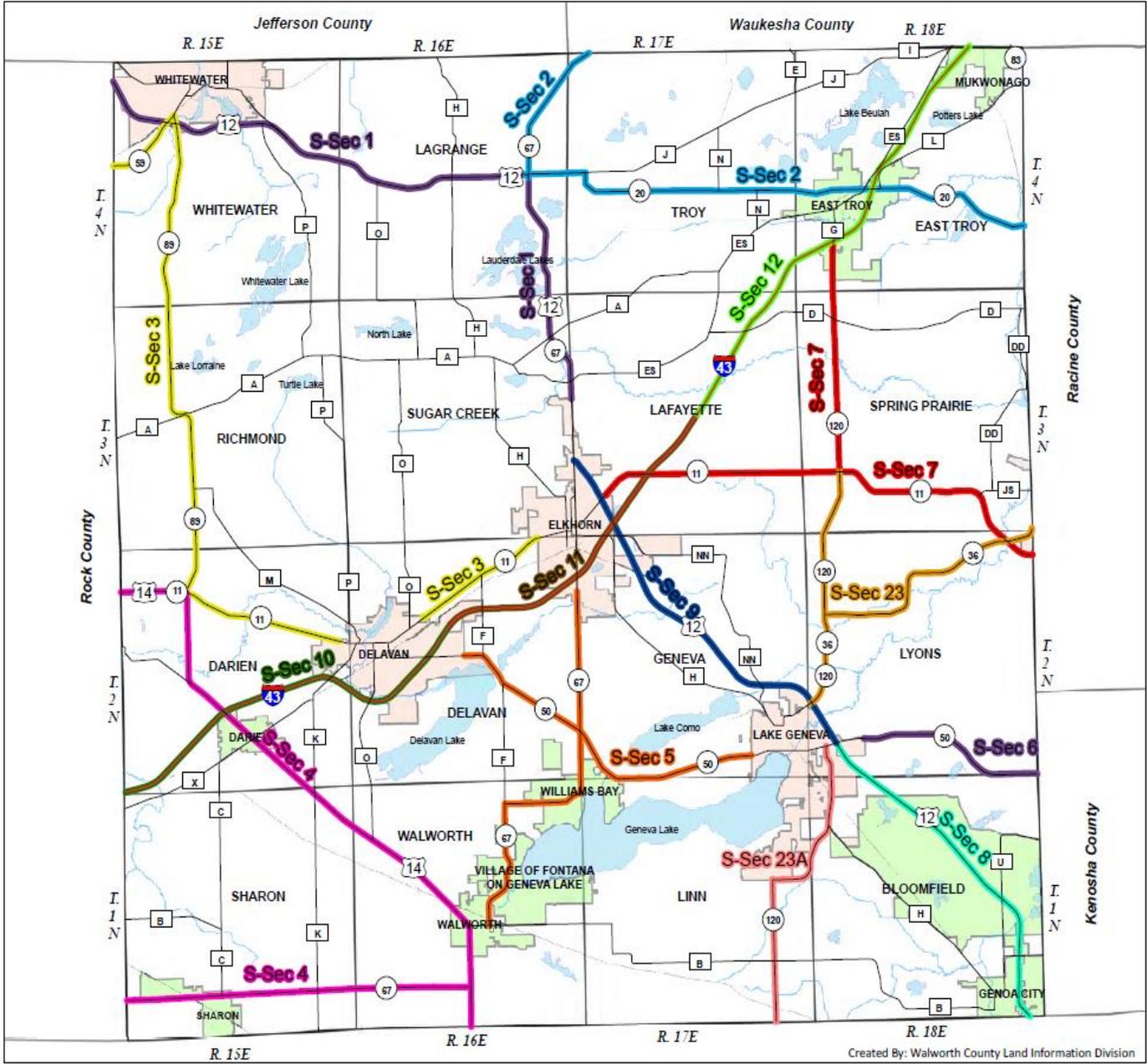
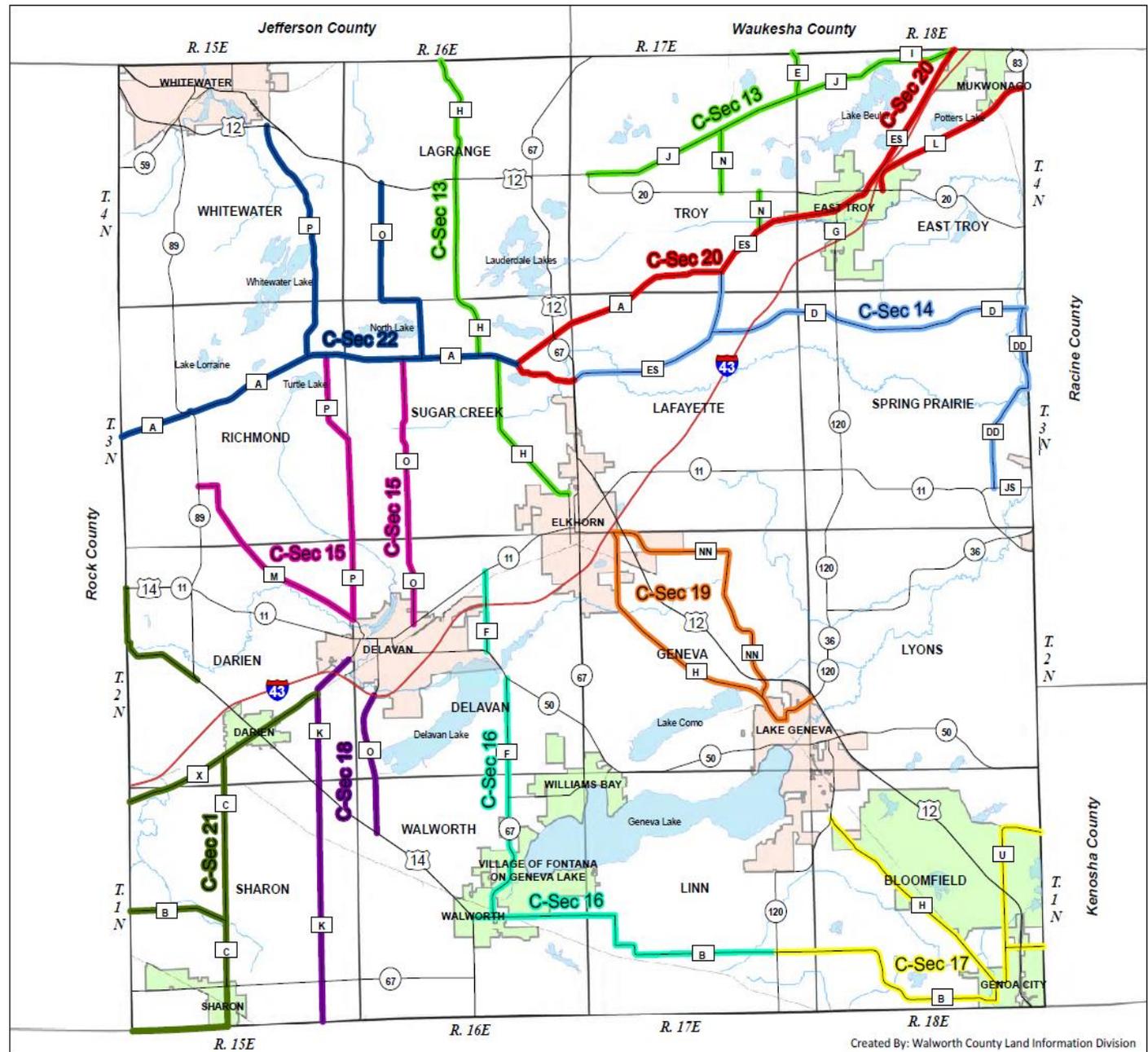


Figure 2. Snowplow Routes (County Roads)



Highway Department Personnel

Snow removal is a long and tiring process that may require drivers to work overnight. It is a primary concern of the Highway Department to maximize safety for the traveling public and department personnel. As such, every attempt will be made to limit Highway Department personnel to a maximum of 16 hours of snow removal operations at which time drivers will take a minimum six (6) hour break. In some cases (i.e., extreme weather conditions, declared snow emergency, or other emergency situations) it is possible that some drivers may exceed the time limits.

Annual Training

The Highway Department may conduct an annual review and training session to cover snow removal policies and to review snowplow routes. If possible, snowplow drivers should drive their route prior to the winter season to observe any potential hazards that might hinder the snow removal process.

Damage to Private Property

The Highway Department makes every effort to avoid damage to private property during the snow removal process. However, on occasion a piece of County snow removal equipment may damage private property located immediately adjacent to the roadway.

My property (mailbox, fence, etc.) was damaged by a snowplow, who should I contact?

You should contact the Walworth County Highway Department at **(262) 741-3114**. If it is determined that the mailbox was damaged by actual physical contact by a County snowplow then the mailbox will be replaced by the Highway Department. If the mailbox is damaged due to snow plowing, and not actual physical contact with a County snowplow, the mailbox replacement and costs are the responsibility of the property owner. Before calling, it may be helpful to review the following

to determine if the Highway Department may be responsible for the property damage.

The County may be responsible for the following:

- If it is shown that a piece of County snow removal equipment has caused damage by actual physical contact with a mailbox, the Highway Department will repair or replace the damaged mailbox. If a replacement mailbox is needed, the Highway Department will provide and install a standard, conventional mailbox and/or support.
- If it is shown that a piece of County snow removal equipment has caused damage by actual physical contact with a fence or other structure, the Highway Department will review the incident on a case-by-case basis to determine what, if any, responsibility that the Highway Department has to repair the damage. Property owners are reminded that the Highway Department will not be responsible for damage, even if caused by actual physical contact, that occurs to structures that have been improperly located within the public right-of-way (please refer to **Public Right-of-Way** section of this manual for additional details).

The County is not responsible for the following:

- Damage that is caused to a mailbox, or other properly located structures outside the public right-of-way, as a result of plowed snow or the force of snow being discharged by County snow removal equipment.
- Damage that is caused to any fences, headwalls, trees, shrubs, plantings, and other structures that are improperly located within the public right-of-way (please refer to **Public Right-of-Way** section of this manual for additional details).

- Damage that is caused to lawns or for the deposition of gravel in road ditches. If there are extenuating circumstances, these situations may be reviewed at the County's discretion on a case-by-case basis. Any vegetation damage sustained due to de-icing products used on the roadway will not be treated or repaired by the County.
- Damage to abandoned vehicles that have been left on the County Highway. If the Highway Department personnel come upon an abandoned vehicle, they will contact the Sheriff's Department to request the vehicle to be removed at the owner's expense. If a vehicle is blocking one or more lanes halting snow and ice control operations, the Highway Department has the authority to move the vehicle by whatever means are necessary to reopen the roadway. Any damage incurred in such a move shall be the owner's responsibility.

Motorists Responsibilities

Motorists should limit their travel when hazardous conditions exist. If you must drive, motorists are advised to reduce their speed below the posted speed limits during adverse weather.

Highway Department Assistance

It is the policy of the Walworth County Highway Department that no County equipment will be used to push, pull or tow a stranded, private vehicle from a roadway or ditch unless it is necessary to reopen a roadway or public travel way. In a life or health threatening situation, Highway Department personnel may provide assistance or call for emergency response. At no time will any Highway Department personnel use a County

vehicle to perform any snow removal on private or commercial property unless in a life threatening or emergency situation.

Snowplow safety

- Snowplows typically travel at 25-35 mph, which in many cases is significantly slower than the posted speeds. The driver's field of vision is also severely restricted.
- **It is illegal (s.346.915, Wis. Stats.) to follow a snowplow closer than 200 feet upon any highway having a posted speed limit of more than 35 mph if the snowplow is engaged in snow and ice removal.**
- Care should be taken when attempting to pass a snow plow as it is often difficult to see past the snowplow due to the blowing snow. Also the snowplow's wing blade can extend approx 10-12 feet beyond the width of the truck. Many snowplow wing blades are hit each season by vehicles attempting to pass the snowplow.
- Between 1984-2004 there were 17 snowplows involved in fatal crashes in Wisconsin. (Snowplow crash information has not been gathered since 2004.)