

A M E N D E D

POLICY NO. 35

BOARD OF COUNTY ROAD COMMISSIONERS  
OF THE  
COUNTY OF ST. CLAIR

SUBJECT: Winter Maintenance Policy

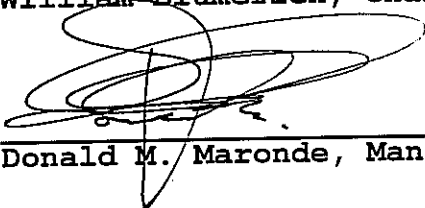
AMENDED: February 19, 2002

The Winter Maintenance Policy as revised on December 18, 2001, is hereby amended as follows:

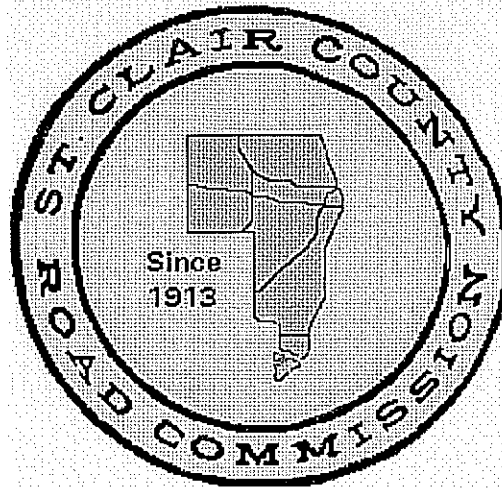
Page 2 Paragraph 3 -  
County Primary Roadways - is amended to read as "County Primary Roadways - Road commission district maintenance personnel are authorized to provide winter maintenance services in order to achieve optimum clearance and to assist the motoring public. This may include overtime in order to provide commuters with a treated roadway to ease travel during pre and post work periods. In some cases, dependent upon roadway and use, it may be necessary that certain county primary roadways be tended to at the same time and in the same manner as certain truckline routes. District maintenance supervisors are authorized to adjust maintenance routes in order to achieve the highest level of maintenance possible for county primary roadways."

Page 2 Paragraph 4 -  
County Local Roadways - is amended to read as "County Local Roadways - Road Commission district maintenance personnel are authorized to provide winter maintenance services in order to achieve optimum clearance and to assist the motoring public. Overtime is authorized when county primary roadways have been sufficiently treated to provide adequate traffic movement, or when it is determined weather conditions may adversely affect deferred winter maintenance efforts."

  
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William Blumerich, Chairman

  
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Donald M. Maronde, Managing Director

Originally adopted: 04-22-80  
Amended: 11-05-81  
Amended: 02-14-84  
Amended: 10-14-86  
Retyped: 01-23-96  
Revised: 12-18-01



# WINTER MAINTENANCE POLICY

St. Clair County Road Commission

# St. Clair County Road Commission Winter Maintenance Policy

## Purpose:

This policy has been developed to provide guidance to the St. Clair County Road Commission's operations and maintenance personnel as well as information to the citizens and motorists of St. Clair County with respect to the level of winter maintenance services established on St. Clair County roads. The purpose of winter operations is to expedite peak traffic demands. A satisfactory level of service must be reached on state trunklines and major county primary roadways prior to in-depth maintenance efforts on local roadways.

## Intent:

The intent of this Winter Maintenance Policy is to provide a guide for all persons engaged in winter maintenance. Due to the variables of winter weather and road conditions in this county, it is impossible to set forth an exact and precise detailed plan to cover the occurrence of all weather related scenarios. Persons involved in winter maintenance are encouraged to use good and proper judgment in the performance of winter maintenance operations as well as concern for the safety of and assistance to the motoring public.

## Goal:

It shall be the goal of winter maintenance efforts to complete the major through-route clearing effort within 48 hours of storm onset; conditions such as storm duration, severity, availability of equipment, manpower, etc. may affect the success of consistently reaching this goal.

## Summary of Route Classification and Level of Service

### General Statement -

Winter maintenance services will be performed on a priority basis in accordance with traffic volumes. Normally, this priority will dictate that state trunkline routes receive the initial effort followed by primary paved roadways and major local collectors. The next level of effort will consist of remaining paved and gravel roadways. Maintenance supervisory personnel are authorized to adjust and modify inter and intra area maintenance efforts in order to achieve the previously indicated clearing goal. This maintenance guide is to be monitored and adjusted in accordance with future traffic patterns and volumes.

State Trunklines - Winter maintenance services will be performed in accordance with Michigan Department of Transportation (MDOT) guidelines and/or directions set forth by MDOT district maintenance personnel.

County Primary Roadways - Road Commission district maintenance personnel are authorized to provide winter maintenance services in order to achieve optimum clearance and to assist the motoring public. This may include overtime in order to provide commuters with a treated roadway to ease travel during pre- and post- work periods. In some cases, dependent upon roadway and use, it may be necessary that certain county primary roadways be tended to at the same time and in the same manner as certain truckline routes. District maintenance supervisors are authorized to adjust maintenance routes in order to achieve the highest level of maintenance possible for county primary roadways.

County Local Roadways - Road Commission district maintenance personnel are authorized to provide winter maintenance services in order to achieve optimum clearance and to assist the motoring public. Overtime is authorized when county primary roadways have been sufficiently treated to provide adequate traffic movement, or when it is determined weather conditions may adversely affect deferred winter maintenance efforts.

# DEFINITIONS

## Route Classifications:

### Class I:

Major traffic generators which carry large volumes of traffic 3500 Average Daily Traffic (A.D.T.) and greater. They connect with major routes of other jurisdiction. Limited access highways are included in this category. These routes consist primarily of state highways.

### Class II:

Major traffic generators which carry somewhat lesser traffic volumes, 1000 to 3500 A.D.T. They may also serve as emergency and access routes to hospitals, fire stations and schools. These routes consist primarily of state highways.

### Class III:

The remainder of the state highways with traffic volumes of less than 1000 A.D.T. and county primaries which function as major traffic generators with A.D.T. greater than 2000. These routes collect traffic from lower class routes and major populated areas and distribute to Class I and Class II routes.

### Class IV:

Hard surfaced primaries and major hard surfaced local collectors having A.D.T. from 500 to 2000.

### Class V:

- Hard Surfaced primary roads with A.D.T. less than 500.
- Hard surfaced local roads with A.D.T. less than 500.
- Hard surfaced subdivision streets

### Class VI:

Gravel surfaced primary roads.

### Class VII:

All other local roads and Subdivision streets.

## Level Classifications:

### Level A - Bare Pavement

- The surface shall be maintained as bare as possible by continued blading of the surface and shoulders along with the application of de-icing materials necessary to achieve a wet and reasonably safe condition.
- Routes requiring this level shall be maintained so that no more than one inch of snow shall accumulate within a two hour period.

### Level B - Center Bare Pavement

- A center strip of 6 to 8 feet shall be maintained bare during the storm.
- Maintenance of routes under this level should not allow more than two inches of snow to accumulate within a three hour period.

### Level C - Snow Covered

- The surface shall be maintained allowing no more than a thin cover of snow to accumulate on the travelled portion of the roadway.
- Maintain hills, curves and intersections as safe as possible.
- Maximum allowable snow accumulations shall be no more than four inches within four hours.

### Level D - Snowpacked

- The surface shall be maintained by blading and plowing only. Maximum allowable snow accumulation shall be four inches within eight hours.
- Maintain hills, curves and intersections as safe as possible.
- Spot sanding or salting may be performed in extremely hazardous icy areas, such as hills, curves, railroad grades and intersections. Salt shall never be applied to gravel roads.

## Summary of Route Classification and Level of Service

### Class I - Major traffic generators - primarily state trunklines:

- Level A - Bare pavement.
- Overtime is authorized as needed until the surface is and will remain relatively free of slippery conditions.

### Class II - Major traffic generators with less traffic volumes:

- Level A - Bare pavement only during regular working hours with first consideration given to Class I routes.
- Level B - Center bare pavement - maintaining center bare is the only work authorized during overtime hours.
- Overtime is authorized only to the extent that the six to eight foot center will remain bare and relatively free of slippery conditions.

### Class III - Balance of state highways and major county primaries:

- Level B - Center bare pavement - only during storms and regular work hours. Two hours prior and after regular working hours to carry peak traffic demands. Only after the storm and during regular working hours shall full cleanup take place.
- Level A - Only if needed during regular hours and after storm and authorized by the Director of Operations.
- Level C - Only during overtime hours - spot salt hills, curves and intersections.
- Overtime is used only if snow accumulations exceed four inches within four hours or with authorization from the Director of Operations.

### Class IV - Hard surfaced primaries and locals with 500 - 2000 A.D.T.:

- Level C - Only during regular working hours.
- Level B - Only if extremely icy and hazardous can this level be used as a final treatment after the storm with authorization from the Director of Operations.
- Maintain hills, curves and intersections as safe as possible.
- Overtime may be authorized if deemed necessary by the Director of Operations.

Class V - Hard surfaced subdivision streets and primaries and locals with A.D.T. less than 500:

- Level D - General treatment will be blading and plowing after four inches accumulation. Spot salt icy high hazard areas.
- Maintain hills, curves and intersections as safe as possible.
- Roads that experience the major amount of drifting shall receive priority under this level.
- Overtime is authorized only to the extent sufficient to provide one lane traffic.

Class VI - Gravel surfaced primary roads:

- Level D - General treatment will be blading and plowing after four inches accumulation. Spot sand and/or cinders in high hazard areas.
- Maintain hills, curves and intersections as safe as possible.
- Roads that experience the major amount of drifting shall receive priority under this level.
- Overtime is authorized only to the extent sufficient to provide one lane traffic.

Class VII - All other local roads and subdivision streets:

- Level D - General treatment will be blading and plowing after four inches accumulation. Spot sand and/or cinders in high hazard areas.
- Maintain hills, curves and intersections as safe as possible.
- Roads that experience the major amount of drifting shall receive priority under this level.
- Overtime is generally not permitted on these routes; however, it's the intent of this policy that no road will be closed longer than 48 hours, taking into consideration weather conditions, availability of equipment, manpower and severity and length of storm.



## Michigan Department of Transportation Winter Alert Classifications

### Red:

Extremely hazardous driving conditions exist on major highways with heavy snow, severe drifting and extremely limited visibility (and/or freezing rain). The majority of local roads are impassable. Traffic is stalling in some areas with the storm progressively worsening and it is expected the entire road system in the area may ultimately be blocked. Motorists should be urged to curtail driving in the affected area.

### Yellow:

Hazardous driving conditions exist with heavy snow, drifting and limited visibility (and/or freezing rain). Traffic is moving at reduced speeds with major highways being maintained in fair condition, but local roads are becoming impassable. Motorists be advised of conditions, through media and urged to use extreme caution.

## GENERAL

\*SALT shall, whenever possible, be applied very early in a storm in order to take advantage of the “brine sandwich” effect. After the application of the salt and prior to subsequent applications, the surface should not be bladed until the salt has had at least ½ to one hour to work depending on traffic and temperature. Follow the temperature and condition chart below for various application rates.

<u>Type of Storm</u>	<u>Procedures</u>
Condition 1 Temperature - Near 30° Precipitation - snow or freezing rain Pavement Condition - wet	If freezing rain, apply salt at 200 lbs. Per mile. If sleet, apply salt at 500 lbs. Per mile. If snow continues and accumulates, plow and salt simultaneously. If rain continues to freeze, reapply salt at 200 lbs. per mile.
Condition 2 Temperature - Below 30° or falling Precipitation - snow, sleet or freezing rain Pavement Condition - wet or sticky	Immediately apply salt at 500 to 600 lbs. per mile. If freezing rain, at 200 - 400 lbs. per mile. If snowfall continues and accumulate, plow and repeat salt application
Condition 3 Temperature - Below 20° and falling Precipitation - Dry snow Pavement Condition - Dry	Plow as soon as possible. <b>DO NOT APPLY CHEMICALS.</b> Continue to plow and patrol to check for wet, packed or icy spots; treat with heavy salt applications.
Condition 4 Temperature - Below 20° at night Precipitation - Snow, sleet or freezing rain Pavement Condition - Wet	Apply salt at rate and as often as required by traffic, plowing at the same time. If temperature starts to rise, apply salt at 600 to 800 lbs. per mile, wait one-half hour then start plowing. Continue until bare pavement is obtained.
Condition 5 Temperature - Below 15° Precipitation - Snow or freezing rain Pavement Condition - Accumulation of packed snow or thick ice	Apply abrasives “sweetened” with salt and/or calcium chloride at rate of one cubic yard per mile. Apply salt at rate of 500 lbs. per mile with calcium chloride mixed in at a rate of 100 lbs. calcium chloride per cubic yard of salt. When snow or ice becomes slushy, remove by plowing. Repeat application and continue blading until pavement is clear.

## GENERAL NOTES

- A. Pre-determined routes for plowing, sanding and salting shall be followed except in critical situations. Foremen to develop plan that roads in Classes V, VI and VII (Level D maintenance) can be reversed in order that the same roads do not receive primary treatment each snow storm.
- B. Routes having overlaps or more than one truck on them – the driver making the application shall advise the other driver of time and area salt was applied so that the application is not wasted or repeated.
- C. It is mandatory that co-ordination between districts be maintained so that no sections of roads will be by-passed.
- D. Drivers should lower blades when possible at intersections when travelling from one area to another
- E. During regular working hours, the District 3 Dispatcher shall continuously update the Receptionist as to road conditions and status of operations for all Districts.
- F. During overtime operations, all route check-ins (10-8) and control shall be done through District 3. Their dispatcher or the night patrolman shall be responsible for making countywide entries on a master map for each storm. He shall indicate report time, route coverage, truck number and level of service.
- G. In continuous operations, work shifts shall not exceed 16 hours per man. An eight (8) hour rest period shall be given before a recall is made.
- H. In the final cleanup stages of the routes during overtime hours, reduction of the work force shall begin with the first man called.
- I. Controlled chemical applications for snow and ice control – use the minimum amount of chemical necessary to achieve the desired objective.
- J. Continuous sanding – shall be carried out only during freezing rain or general icy conditions caused by failure of other treatments.
- K. Salt – sand mixtures shall be applied at an average rate of 400 to 600 lbs. per mile depending on conditions.
- L. Salt shall be applied at the following average rates:
  - LEVEL A – 400 – 600 lbs. per mile
  - LEVEL B – 400 – 500 lbs. per mile
  - URBAN – 500 – 700 lbs. per mile
  - (Variances according to conditions)