

# THE CORPORATION OF THE COUNTY OF MIDDLESEX

## BY-LAW #6933

A Bylaw to Establish Minimum and Desirable Roadway Service Standards for County of Middlesex Highways.

WHEREAS the Minister of Transportation has made a regulation establishing minimum standards of repair for highways and bridges;

AND WHEREAS the County of Middlesex wishes to establish both minimum and desirable standards of repair for Middlesex County highways;

WHEREAS section 5(3) of the *Municipal Act*, 2001, S.O. 2001, c.25, as amended, provides that a municipal power shall be exercised by by-law;

AND WHEREAS section 9 of the *Municipal Act*, 2001, S.O. 2001, c.25, as amended, provides that a municipality has the capacity, rights, powers and privileges of a natural person for the purpose of exercising its authority under this or any other Act;

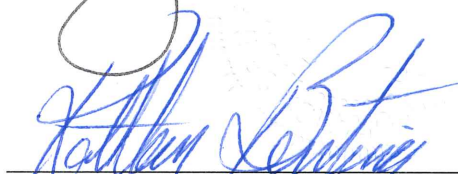
AND WHEREAS section 10 of the *Municipal Act*, 2001, S.O. 2001, c.25, as amended, provides that a municipality may pass by-laws respecting any service or thing that the municipality considers necessary or desirable for the public;

NOW THEREFORE THIS CORPORATION ENACTS AS FOLLOWS:

1. That the highway classifications and standards attached hereto as Schedules A and B be hereby adopted and come into effect on the first day of July, 2018.
2. That all operational activities of the municipal road department be directed to provide the desired roadway services as herein described to assure that the minimum standards are maintained.
3. That neither this corporation nor its officials make any promise or assurance that roadway services will be in excess of the minimum standard herein defined.
4. That By-law #5966 is hereby repealed effective July 1, 2018

PASSED IN COUNCIL this 26th day of June, 2018.

  
\_\_\_\_\_  
Marigay Wilkins, Warden

  
\_\_\_\_\_  
Kathleen Bunting, County Clerk

## SCHEDULE "A" - CLASSIFICATION OF MIDDLESEX COUNTY HIGHWAYS

The following table modifies the table on Regulation 239/02 for application on Middlesex County Highways.

### CLASSIFICATION OF MIDDLESEX COUNTY HIGHWAYS

TABLE

#### POSTED SPEED IN KM. PER HOUR

Estimated average daily traffic	90	80	70	60	50	40
53,000 or more	1	1	1	1	1	1
23,000 to 52,999	1	1	2	2	2	2
15,000 to 22,999	1	2	2	2	3	3
12,000 to 14,999	1	2	2	2	3	3
10,000 to 11,999	1	2	2	3	3	3
8,000 to 9,999	1	2	3	3	3	3
6,000 to 7,999	2	2	3	3	4	4
5,000 to 5,999	2	2	3	3	4	4
4,000 to 4,999	2	3	3	3	4	4
3,000 to 3,999	2	3	3	3	4	4
2,000 to 2,999	2	3	3	4	4	4
1,000 to 1,999	3	3	3	4	4	4
500 to 999	3	4	4	4	4	4
499 or less	3	4	4	4	4	4

## SCHEDULE “B” - MINIMUM AND DESIRABLE MAINTENANCE STANDARDS

### Application:

1. These standards are not intended to be applied to construction projects where the appropriate signage is in place.
2. These standards do not apply to a road that has been closed to traffic.
3. These standards do not apply during a significant weather event.
4. These standards do not apply to a closed highway.
4. Erecting appropriate signage is an acceptable method of addressing deficiencies.

### 1. Routine Patrolling

1. The minimum standard for the frequency of patrolling of highways to check for conditions described in this by-law is set out in the table to this section.
2. During the winter maintenance season (between November 1<sup>st</sup> and April 15<sup>th</sup>) the County will patrol highways the County selects as representative of its highways, as necessary, to check for conditions prescribed in this by-law.
3. Patrolling a highway consists of observing the highway, either by driving on or by electronically monitoring the highway, and may be performed by persons responsible for patrolling highways or by persons responsible for performing highway maintenance activities.

TABLE

PATROLLING FREQUENCY

CLASSIFICATION	MINIMUM STANDARD	DESIRABLE STANDARD
1	3 times every seven days	3 times every seven days
2	2 times every seven days	2 times every seven days
3	once every seven days	once every seven days
4	once every fourteen days	once every seven days

### 2. Snow Accumulation

The minimum standard for clearing snow from County Highways is:

1. While snow continues to accumulate, to deploy resources to clear the snow as soon as possible after becoming aware of the fact that the snow accumulation on a roadway is greater than the depth set out in the Table to this section; and after the snow accumulation has ended and after becoming aware that the snow accumulation is greater than the depth set out in the table to this section, to clear the snow accumulation as provided in paragraphs 2 and 3 within the time set out in the table.
2. The snow accumulation must be cleared to a depth less than or equal to the depth set out in the Table.
3. The snow accumulation must be cleared from the roadway to provide a lane width of the lesser of three metres for each lane or the actual lane width.

4. This section only applies during the season when Middlesex County performs winter highway maintenance (between November 1<sup>st</sup> and April 15<sup>th</sup>).
5. This section does not apply to that portion on the roadway designated for parking.
6. In this section, 'snow accumulation' means the natural accumulation of new fallen snow, wind-blown snow, and/or slush that covers more than half a lane width of a roadway.

TABLE

CLASSIFICATION	SNOW ACCUMULATION MINIMUM STANDARD		SNOW ACCUMULATION DESIRABLE STANDARD	
	Depth	Time	Depth	Time
1	2.5 cm.	4 hours	1 cm	4 hours
2	5 cm	6 hours	2.5 cm	5 hours
3	8 cm	12 hours	4 cm	8 hours
4	8 cm	16 hours	4 cm	8 hours

### 3. Icy Roadways

The standard for treating icy roadways is to deploy resources to treat an icy roadway as soon as practicable after becoming aware that the roadway is icy; and to treat the icy roadway within the time set out in the table to this section after becoming aware that the roadway is icy.

TABLE

ICY ROADWAYS

CLASSIFICATION	MINIMUM STANDARD TIME	DESIRABLE STANDARD TIME
1	3 hours	3 hours
2	4 hours	4 hours
3	8 hours	6 hours
4	12 hours	6 hours

#### 4. Potholes

If a pothole exceeds both the surface area and depth set out in Table 1, 2, or 3 to this section, as the case may be, the minimum and desirable standard is to repair the pothole within the time set out in Table 1, 2, or 3, as appropriate, after becoming aware of the fact.

A pothole shall be deemed to be repaired if its surface area or depth is less than or equal to that set out in Table 1, 2, or 3, as appropriate.

TABLE 1 - POTHOLES ON PAVED SURFACE OF ROADWAY

CLASSIFICATION	MINIMUM STANDARD			DESIRABLE STANDARD		
	Surface Area	Depth	Time	Surface Area	Depth	Time
1	600 sq cm	8 cm	4 days	400 sq cm	8 cm	2 days
2	800 sq cm	8 cm	4 days	400 sq cm	8 cm	2 days
3	1000 sq cm	8 cm	7 days	400 sq cm	8 cm	2 days
4	1000 sq cm	8 cm	14 days	400 sq cm	8 cm	2 days

TABLE 2 - POTHOLES ON NON-PAVED SURFACE OF ROADWAY

CLASSIFICATION	MINIMUM STANDARD			DESIRABLE STANDARD		
	Surface Area	Depth	Time	Surface Area	Depth	Time
3	1500 sq cm	8 cm	7 days	1000 sq cm	8 cm	5 days
4	1500 sq cm	10 cm	14 days	1000 sq cm	8 cm	5 days

TABLE 3 - POTHOLES ON PAVED OR NON-PAVED SURFACE OF SHOULDER

CLASSIFICATION	MINIMUM STANDARD			DESIRABLE STANDARD		
	Surface Area	Depth	Time	Surface Area	Depth	Time
1	1500 sq cm	8 cm	7 days	900 sq cm	8 cm	4 days
2	1500 sq cm	8 cm	7 days	900 sq cm	8 cm	6 days
3	1500 sq cm	8 cm	14 days	900 sq cm	8 cm	10 days
4	1500 sq cm	10 cm	30 days	900 sq cm	8 cm	10 days

## 5. Shoulder Drop-offs

Shoulder drop-off means the vertical differential where the paved surface of the roadway is higher than the surface of the shoulder, between the paved surface of the roadway and the paved or non-paved surface of the shoulder.

If a shoulder drop-off is deeper, for a continuous distance of 20 metres or more, than the depth set out in the Table to this section, the minimum or desirable standard is to repair the shoulder drop-off within the time set out in the Table after becoming aware of the fact.

A shoulder drop-off shall be deemed to be repaired if its depth is less than or equal to that set out in the Table.

TABLE

CLASSIFICATION	SHOULDER DROP-OFF MINIMUM STANDARD		SHOULDER DROP-OFF DESIRABLE STANDARD	
	Depth	Time	Depth	Time
1	8 cm	4 days	6 cm	4 days
2	8 cm	4 days	6 cm	4 days
3	8 cm	7 days	7 cm	7 days
4	8 cm	14 days	7 cm	7 days

## 6. Cracks

If a crack on the paved surface of a roadway is greater, for a continuous distance of three metres or more, than both the width and depth set out in the Table to this section, the minimum standard is to repair the crack within the time set out in the Table after becoming aware of the fact.

A crack shall be deemed to be repaired if its width or depth is less or equal to that set out in the table.

TABLE

CLASSIFICATION	CRACKS MINIMUM STANDARD			CRACKS DESIRABLE STANDARD		
	Width	Depth	Time	Width	Depth	Time
1	5 cm	5 cm	30 days	5 cm	5 cm	30 days
2	5 cm	5 cm	30 days	5 cm	5 cm	30 days
3	5 cm	5 cm	60 days	5 cm	5 cm	60 days
4	5 cm	5 cm	180 days	5 cm	5 cm	60 days

## 7. Debris

“Debris” means any material or objects on a roadway that is not an integral part of the roadway or has not been intentionally placed on the roadway by the County and that is reasonably likely to cause damage to a motor vehicle or to injure a person in a motor vehicle.

If there is debris on a roadway, the minimum standard is to deploy resources, as soon as practicable after becoming aware of the fact, to remove the debris.

## 8. Luminaires

The minimum standard for the frequency of inspection all luminaires to check to see that they are functional is once per calendar year and not more than 16 months apart.

Sections 1, 2, & 3 listed below only apply to Class 1 and 2 highways and Class 3 highways with a posted speed of 80 kilometres per hour or more.

1. For conventional illumination, if three or more consecutive luminaires on a highway are not functioning, the minimum standard is to repair the luminaires within the time set out in the Table to this section after becoming aware of the fact.
2. For conventional illumination and high mast illumination, if 30% or more of the luminaires on any kilometre of highway are not functioning, the minimum standard is to repair the luminaires within the time set out in the Table to this section after becoming aware of the fact.
3. If more than 50% of the luminaires on any kilometre of a Class 1 highway with a speed limit of 90 kilometres per hour or more are not functioning, the minimum standard is to deploy resources as soon as practicable after becoming aware of the fact to repair the luminaires.
4. Luminaires shall be deemed to be repaired if:
  - a. for the purposes of Section 1, the number of non-functioning luminaires does not exceed two.
  - b. for the purposes of Section 2, more than 70% of the luminaires on any kilometre of highway are functioning;
  - c. for the purposes of Section 3, more than 50% of the luminaires on any kilometre of highway are functioning.

TABLE  
LUMINAIRES

CLASSIFICATION	MINIMUM STANDARD TIME	DESIRABLE STANDARD TIME
1	7 days	4 days
2	7 days	4 days
3	14 days	7 days
4	14 days	7 days

## 9. Signs

If any sign of a type listed in subsection (2) is illegible, improperly oriented, obscured or missing, the minimum standard is to deploy resources as soon as practicable after becoming aware of the fact to repair or replace the sign.

(2) This section applies to the following types of signs:

1. Checkerboard.
2. Curve sign with advisory speed tab.
3. Do not enter.
4. Load Restricted Bridge.
5. Low Bridge.
6. Low Bridge Ahead.
7. One Way.
8. School zone Speed Limit.
9. Stop.
10. Stop Ahead.
11. Stop Ahead, New.
12. Traffic Signal Ahead, New.
13. Two-Way Traffic Ahead.
14. Wrong Way.
15. Yield.
16. Yield Ahead.
17. Yield Ahead, New.

## 10. Regulatory or warning signs

1. The minimum standard for the frequency of inspecting regulatory signs or warning signs to check to see that they meet the retro-reflectivity requirements of the Ontario Traffic Manual is once per calendar year with inspections no more than 16 months apart.
2. If a regulatory or warning sign other than a sign listed above is illegible, improperly oriented, obscured or missing, the minimum standard is to repair or replace the sign within the time set out in the Table to this section after becoming aware of the fact.
3. In this section, “regulatory sign” and “warning sign” have the same meanings as in the Ontario Traffic Manual, except that they do not include a sign listed in the above section.

TABLE  
REGULATORY OR WARNING SIGNS

Class of Highway	Minimum Standard Time	Desirable Standard time
1	7 days	5 days
2	14 days	7 days
3	21 days	14 days
4	30 days	14 days



## 11. Traffic control signal systems

- (1) If a traffic control signal system is defective in any way described in subsection (2), the minimum standard is to deploy resources as soon as practicable after becoming aware of the defect to repair the defect or replace the defective component of the traffic control signal system.
- (2) this section applies if a traffic control signal system is defective in any of the following ways:
  1. One or more displays show conflicting signal indications.
  2. The angle of a traffic control signal or pedestrian control indication has been changed in such a way that the traffic or pedestrian facing it does not have clear visibility of the information conveyed or that it conveys confusing information to traffic or pedestrians facing other directions.
  3. A phase required to allow a pedestrian or vehicle to safely travel through an intersection fails to occur.
  4. There are phase or cycle timing errors interfering with the ability of a pedestrian or vehicle to safely travel through an intersection.
  5. There is a power failure in the traffic control signal system.
  6. The traffic control signal system cabinet has been displaced from its proper position.
  7. There is a failure of any of the traffic control signal support structures.
  8. A signal lamp or a pedestrian control Indication is not functioning.
  9. Signals are flashing when flashing mode is not a part of the normal signal operation.
- (3) Despite subsection (1) and Paragraph 8 of subsection (2), if the posted speed of all approaches to the intersection or location of the non-functioning signal lamp or pedestrian control indication is less than 80 kilometres per hour and the signal that is not functioning is a green or a pedestrian “walk” signal, the minimum standard is to repair or replace the defective component by the end of the next business day.
- (4) In this section and section 14,

“cycle” means a complete sequence of traffic control indications at a location;

“display” means the illuminated and non-illuminated signals facing the traffic;

“indication” has the same meaning as in the *Highway Traffic Act*;

“phase” means a part of a cycle from the time where one or more traffic directions receive a green indication to the time where one or more different traffic directions receive a green indication;

“power failure” means a reduction in power or a loss in power preventing the traffic control signal system from operating as intended;

“traffic control signal” has the same meaning as in the *Highway Traffic Act*;

“traffic control signal system” has the same meaning as in the *Highway Traffic Act*;

## 12. Traffic control signal system sub-systems

(1) The minimum standard is to inspect, test and maintain the following traffic control system sub-systems every 12 months:

1. The display sub-system, consisting of traffic signal and pedestrian crossing heads, physical support structures and support cables.
2. The traffic control sub-system, including the traffic control signal cabinet and internal devices such as timer, detection devices and associated hardware, but excluding conflict monitors.
3. The external detection sub-system, consisting of detection sensors for all vehicles, including emergency and railway vehicles and pedestrian push-buttons.
4. The minimum standard is to inspect, test and maintain conflict monitors every five to seven months and at least twice a year.

(2) In this section,

“conflict monitor” means a device that continually checks for conflicting signal indications and responds to a conflict by emitting a signal.

## 13. Bridge deck spalls

(1) If a bridge deck spall exceeds both the surface area and depth set out in the Table to this section, the minimum standard is to repair the bridge deck spall within the time set out in the Table after becoming aware of the fact.

(2) The bridge deck spall shall be deemed to be repaired if its surface area or depth is less than or equal to that set out in the Table.

(3) In this section,

“bridge deck spall” means a cavity left by one or more fragments detaching from the paved surface of the roadway or shoulder of a bridge.

TABLE  
BRIDGE DECK SPALLS

CLASSIFICATION	MINIMUM STANDARD			DESIRABLE STANDARD		
	Surface Area	Depth	Time	Surface Area	Depth	Time
1	600 sq cm	8 cm	4 days	400 sq cm	8 cm	2 days
2	800 sq cm	8 cm	4 days	400 sq cm	8 cm	3 days
3	1000 sq cm	8 cm	7 days	400 sq cm	8 cm	4 days
4	1000 sq cm	8 cm	7 days	400 sq cm	8 cm	4 days

#### 14. Surface Discontinuities

- (1) If a surface discontinuity, other than a surface discontinuity on a bridge deck exceeds the height set out in the Table to this section, the minimum standard is to repair the surface discontinuity within the time set out in the Table after becoming aware of the fact.
- (2) If a surface discontinuity on a bridge deck exceeds 5 cm, the minimum standard is to deploy resources as soon as practicable after becoming aware of the fact to repair the surface discontinuity on the bridge deck.
- (3) In this section,

“surface discontinuity” means a vertical discontinuity creating a step formation at joints or cracks in the paved surface of the roadway, including bridge deck joints, expansion joints and approach slabs to a bridge.

TABLE  
SURFACE DISCONTINUITIES

CLASSIFICATION	Minimum Standard		Desirable Standard	
	Height	Time	Height	Time
1	5 cm	2 days	5 cm	2 days
2	5 cm	2 days	5 cm	2 days
3	5 cm	7 days	5 cm	4 days
4	5 cm	21 days	5 cm	4 days

## DEFINITIONS

cm...means centimetres

Day...means a 24 hour period

Desirable...describes that level of *service standard* which the roadway authority has established as an objective for road department *operations*.

Motor Vehicle...has the same meaning as in subsection 1 (1) of the Highway Traffic Act, except that it does not include a motor assisted bicycle

Roadway...has the same meaning as in subsection 1 (1) of the Highway Traffic Act.

Shoulder...means the portion of a highway that provides lateral support to the roadway and that may accommodate stopped motor vehicles and emergency use.

Significant weather event...means an approaching or occurring weather hazard with the potential to pose significant danger to users of highways within a municipality

Surface...means the top of a roadway or shoulder.