

Ontario's Revised Minimum Maintenance Standards (MMS) Fail To Require Proper Road Inspections

Posting Date: 11-Dec 2013

From the outset Ontario's Minimum Maintenance Standards (MMS) were bad legislation as its authors unabashedly confirmed the standards were created to protect its municipalities and Ontario's Ministry of Transportation from judgments made against them by the province's courts. This legislation was enacted because its authors had the authority to circumvent the authority of Ontario's courts as those courts were awarding judgments against Municipalities and Transportation Ministry for their failures to maintain Ontario's roads to a proper standard of safety. In effect, in allowing this legislation in Ontario, our society has stated it does not matter that a court of law has determined that municipalities were creating or allowing dangerous road conditions; we will enact laws to prevent the courts from doing so in the future.

The rationalization given to the public by the defendants for why these court judgments were made was because the courts were incapable of reaching a proper verdict, that the courts were favouring these plaintiffs, and that there was no direct way of controlling these improper actions of the courts. The need for change could be made obvious to the general public by indicating that their taxes were going up, principally due to these judgments.

Those in our society who are hurt by this bad legislation are a small group with a small voice. They represent the individuals and their families who have had the misfortune of being involved in a motor vehicle collision where the conditions of the roadway contributed to a death or injury in their inner circle. The population of these unfortunates is small compared to the overall society that believes it can obtain tax cuts by preventing this small group from staking a claim against their loss. These unfortunates take on the government and municipalities as individuals, in individual court trials, where their success is dependent on the money they can raise to hire appropriate lawyers and experts.

Amongst many of the shortcomings of Ontario's revised Minimum Maintenance Standards (MMS) is the failure to explicitly require municipalities and Ontario's Transportation Ministry to inspect all roads in their jurisdictions for potential safety problems. One of the more unusual portions of the legislation allows the Municipality to select roads that it deems representative of its highways and then only inspect those, at an interval deemed to be necessary by that Municipality. Thus the Municipality does not have to send an actual inspector to a roadway to determine whether it is safe, it only needs to send that inspector to a roadway that the Municipality has decided is "representative" of the actual road.

The reality is that, for determination of a roadway's safety, there is no such thing as a "representative" road. Even in the limited scope of attempting to identify snow accumulation and ice formation there are too many factors that come into play that cause variances in that accumulation and icing.



Figure 1: Amongst other factors, snow accumulation and ice formation is dependent on the volume of traffic passing through a specific portion of a lane such that the tires of vehicles push snow away, or into heaps, while also compacting it in other areas to create icy sections, depending on factors such as the extent of braking or acceleration in the specific area.

Even considering wind as a factor, snow accumulation on a roadway varies greatly by changes in wind direction and speed. While the prevailing wind might be determined at a specific weather station that information has nothing to do with the wind direction or speed that may occur at a specific road segment. Obvious factors such as vegetation and other obstacles such as buildings, as well as changes in elevation mean that winds at a specific location of a road will bring different quantities of snow accumulation and different opportunities for icing that cannot be determined from simply looking at the conditions on a nearby road.



Figure 2: Wind direction and speed changes at localized sections of a road cause unique opportunities for snow accumulation via drifting snow that cannot be predicted from simply examining a "representative" road as no such representative road exists in reality.

The introduction of "representative roads" is an obvious attempt to protect municipalities and the Ontario government from criticism when they are asked why they did not inspect a road and therefore detect a hazard. The defense response will be that "we did what we were obligated to do by looking at the conditions of a representative road. The fact that the hazard existed on a road we did not inspect is not our fault". It is telling that in the century of automotive travel leading up to this legislation no one ever raised the issue that roads did not need to be inspected.

From our observation municipalities in Ontario have recently come to approach road safety as individual kingdoms with the authority to circumvent decades of scientific research as to what standards of safety are appropriate within their individual borders.

The City of London, Ontario recently conducted a survey of other nearby municipalities to determine what inspections were carried out of the roadways under their jurisdiction so as to develop their own inspection procedures . In a report to City politicians City staff noted the following:

"A review was undertaken of similar best practices and resource models in other municipalities to determine a resource model that would help the City develop a program for patrolling non-winter conditions.

Information was gathered from two large, one similar, three smaller sized municipalities and one Regional municipality. The two large municipalities are not adequately resourced to complete patrolling requirements; the similar sized municipality responded that they use ten patrollers during the winter and four during the summer. One of the smaller municipalities reported that they do not patrol, the other uses four patrollers. The remaining one, which is a tenth of the size of London, uses one patroller. The Regional municipality, which looks after Class 1, 2 and 3's roadways only, reported that 4-8 staff are utilized depending on season.

A pilot project was implemented over the summer with the objective to patrol all roads using dedicated patrolling software. The pilot utilized two, two person crews with one driver and one recorder on the Class 1, 2, 3 and 4 roadways and one person patrolling the Class 5 roads that would pull over and stop to record any deficiencies observed.

Software of this nature has been utilized in other municipalities. The nature of the tasks (driving/electronically recording) does raise potential concerns related to distracted driving under the Distracted Driver Law (Bill 16).

Through the pilot program, a total of 187 deficiencies over a one month period were found and all the deficiencies were addressed within the time set out in the standard.

Class 1, 2 and 3 roads represent 40% of the road network and 69 deficiencies were identified along these roadways. Class 4 and 5 roads represent 60% of the road network and 118 deficiencies were identified. The number of deficiencies is considered to be low given the fact that Class 4 and 5 roadways have not been patrolled in several months."

There are problems evident even from the general information provided in this report. Regular inspection has always been a requirement of those responsible for road maintenance. The report inaccurately portrays the current requirements as something extraordinary or additional to what has historically been expected. But that is not the case. It has always been understood that, in order to keep a roadway in a proper state of repair it must be inspected regularly. The fact that "...two large municipalities are not adequately resourced to complete patrolling requirements..." of the revised MMS is indicative of the general degradation of inspections that has taken place in recent years.

The report also confirms the incredible fact that "One of the smaller municipalities reported that they do not patrol". Yet the complaint has been made by Ontario's municipalities and Ministry of Transportation that the courts' judgments are unfairly costing them too much. What can the courts be expected to do when municipalities do not inspect their roads and therefore fail to keep their roads in proper repair? The defendants' argument might be taken seriously if they were performing inspections but it would seem that the obvious solution to reduce claims is for the defendants to perform the inspections that any reasonable person would recognize are essential to maintaining their roads.

The extent of roadway deficiencies is also demonstrated in the report. In a one month period the road inspectors found 187 deficiencies. However, there are important facts that remain unknown. Who were these "inspectors" and what knowledge or training did they possess to be able to detect deficiencies? What type of deficiencies were detected? These are the kind of important facts that remain hidden from the public. In fact observations conducted by Gorski Consulting over the last few years indicate that many deficiencies have existed for a number of years and have not been rectified. Not only in the City of London but likewise in other jurisdictions. Unfortunately the present system of adversarial civil litigation causes municipalities like London to hide the fact that those deficiencies exist and to claim that all deficiencies have been corrected.

Unfortunately, the MMS remains a limited legislation that fails to address all matters/circumstances in which a roadway can become under disrepair. It focuses on winter maintenance issues such as the accumulation of snow on roads.

The MMS are flawed by their acceptance that a cleared path of just six metres (three metres per lane) of road width will be deemed to have met the minimum standard for higher class roads (Classes 1, 2 and 3). For lower class roads that minimum standard drops to just 5 metres of cleared road width. This is a dangerous acceptance. In conditions where accumulated snow has been plowed away leaving an "acceptable" layer (2.5 to 5.0 centimetres for higher class roads) still on the road, the road surface becomes both more slippery and more variable in terms of the traction that it provides when that snow is packed or shifted in some areas by vehicle tires while remaining loose in others. When the travel width of that plowed surface is reduced to just 5 to 6 metres there becomes an additional threat that the right side wheels of a vehicle will encounter the right edge of the bank of snow that has been plowed to the side. That plowed snow is not of the same consistency as the virgin snow that has fallen. The plowed snow is more dense and "stiffer" such that contact to this matter will result in a force being applied to the vehicle that is offset from that vehicle's centre of gravity resulting in vehicle rotation and loss-of-control. The MMS will allow roads to be left in these narrowed conditions for prolonged times and this will increase the probability that vehicles will cross into these plowed snow banks on the road. This is, at least, no better than not plowing at all.

Furthermore the MMS defines "snow accumulation" as " the natural accumulation" that "covers more than half a lane width of a roadway". This definition is particularly disturbing and dangerous as it removes the issue of drifting snow onto a road from being considered as a dangerous condition. In fact, it is the drifting snow that may accumulate on less than half of a lane width that is often more dangerous than the natural snow accumulation that is of a consistent depth throughout the width of the road. It is difficult to comprehend how the authors of this standard failed to recognize the fact that a snow drift onto only a portion of a lane means that the tires of only one side of the vehicle will be riding on that drifted snow and this will cause an unequal force about the vehicle's centre-of-gravity. That is the definition of how we discuss rotation and loss-of-control of a vehicle. Yet when the road surface is covered by an equal amount of consistent, fallen snow there is less of an opportunity to create that unequal force that results in rotation and loss-of-control.

When addressing who can inspect a roadway for deficiencies the MMS fails again to address the major problem that there are persons assigned to this task who frequently have neither the training nor the experience to recognize a dangerous road condition. The MMS provides the following broad list of persons who can perform this function:

(3) For the purposes of this section, the depth of snow accumulation on a roadway may be determined in accordance with subsection (4) by a municipal employee, agent or contractor, whose duties or responsibilities include one or more of the following:

- 1. Patrolling highways.***
- 2. Performing highway maintenance activities.***
- 3. Supervising staff who perform activities described in paragraph 1 or 2.***

O. Reg. 47/13, s. 4.

None of these options provide the public with the proper security of knowing that a road hazard will be correctly identified because there is no requirement that the listed persons should have any threshold of knowledge or experience in detecting these safety hazards. We have had occasion to meet road inspectors at accident sites on occasion and have questioned them about what training they possessed and how they would determine a roadway deficiency. The result was disturbing as the inspectors were unaware of the various manuals and guidelines that would have instructed them about proper roadway maintenance, geometry and signage. They also did not know what the specific standards and guidelines required.

From reading various transcripts of Examinations for Discovery it can be determined that, in many instances, inspectors attained their position after performing a number of years of road repairs, such as filling in potholes or erecting damaged signs. Once they became the more experienced worker in the troop they were given the new position of a road inspector. But they possessed minimal formal training nor did they gain the proper

experience through these previous job functions as to what constitutes a roadway hazard.

The MMS definition of "Patrolling" is also flawed. The MMS definition is as follows:

"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 or performing highway maintenance activities."

Determination of roadway safety hazards cannot be done by "driving" on it, in the manner explained by the definition. Typically, such a patrol is performed in a large pick-up truck which is also used by roadway maintenance personnel to carry various maintenance materials (such as signs, surface patching material, etc.) in the box of the vehicle. Invariably such a truck is a four-wheel drive and/or has a higher rated loading capacity. These vehicles have a high driver eye height which is not comparable to the average eye height of a typical driver of the road, let alone the level of 1.05 metres of height that most standards for visibility are based on. This means that the patroller cannot detect those instances where the vertical height of obstacles is an issue. So Stopping Sight Distance cannot be determined for example, and obstructions at intersections of roadways/driveways cannot be detected. This inability leads to many of the undetected problems that exist at such intersections.

Similarly, surface problems such as elevations and depressions cannot be adequately detected from just driving over a road at a certain speed because the effects are often speed dependent and dependent on the type of vehicle that is driven and where, within the lane a vehicle is driven. The most obvious example is seen on many tar and chip road surfaces where the surface becomes sagged in longitudinal alleys along the lane in the location where the tires of vehicles continually travel within the same path. When driving forward along such roads in the middle of the day it is very difficult to detect these longitudinal depressions because the tires of the inspector's vehicle often travel within those depressions just like all the other traffic. Similarly the high elevation of the sun in the sky fails to create the shadows necessary to inform the inspector of the location of such a problem.

Other roadside problems such as edge drop-offs are difficult to detect from within a vehicle because the viewing angle of the driver or passenger cannot reveal the extent of a drop off which is on the "backside" of the asphalt edge. This drop off is also difficult to detect when the sun is higher in the sky or when the drive is conducted with the sun behind the observer on a north/south road. Such drop offs are easier to detect when the sun is closer to the horizon when shadows are more prominent but this requires that the inspector examine the site either close to sunrise or close to sunset. The fact is that many road inspectors do not know these facts yet they are relied upon to detect the deficiencies that they cannot detect.

In reality, a good road inspector should not need to have extensive formal training. The issues of importance are not that complex. Far more important is that the road inspector

have the knowledge of the road network in his/her area via many years of presence on the roads. We say this because roadway deficiencies exist throughout time and that a certain portion of a roadway develops a certain problem because of the occurrence of a certain weather condition or because of a certain time of year, etc. A road inspector who is intimately familiar with the roads in his/her jurisdiction from many years of travel will come to understand the idiosyncrasies of each segment. Through this extended time of familiarity he/she is able to remember where individual problems exist. This type of knowledge is difficult or even impossible to attain through any formal training.

As an example, to those unfamiliar with the issue, roadway edge drop offs might seem difficult to detect as one would think that a road inspector must travel to every portion of the network and look at every yard or metre of the system to find that elusive defect. That could not be further from the truth. An experienced road inspector will know precisely where those edge drop offs will exist because they will occur consistently over and over again, at the same location, year after year, season after season. Not only that, but such an experienced road inspector will know what conditions will result in a rapid development of an edge drop off. That road inspector will know that a certain combination of weather conditions, traffic patterns, etc. will result in an edge drop off at a specific location because of his/her experience with that specific site. That is not something that can be easily taught in a formal class but it relies on the instruction that the inspector obtains from simply being in intimate contact with his/her system of roads.

The problem is that very often roadway inspectors do not have that mentioned experience which can only be attained over many years. Additionally, although formal training is not absolutely essential, a certain extent of intelligence and higher reasoning is mandatory. Many years of experience can mean very little when the recipient of that experience is incapable of expanding their competence from that experience. The authors of the MMS failed to appreciate that, an inspection performed by an incompetent person, is akin to an inspection performed by a blind person, and therefore is not an inspection at all.

A heavy burden is placed on the courts of Ontario when this flawed legislation exists. Judges are not experts in all areas. Those judges who truly appreciate their responsibilities will do their best, however they cannot be expected to recognize how and where this legislation is flawed without objective and independent guidance. In the atmosphere of special interests in our adversarial legal system true objectivity and independence are difficult to obtain.

The MMS is bad legislation because it starts from the premise that municipalities and the Ontario Ministry of Transportation must be protected from the courts' judgments regardless of the facts of an individual case. Our society must maintain the belief that our courts are unbiased and not corrupt. If otherwise then changes must be made at the level of the courts to ensure their vital independence and fairness. Creating legislation for the specific purpose of circumventing the courts' authority is clearly unwise and dangerous.

From our observation, the argument that higher costs to Municipalities and the Ontario Ministry of Transportation are directly related to higher judgments of Ontario courts has not been demonstrated with proper evidence. On the contrary we question why other sources for those costs have not been presented for the public's evaluation. For example, what portion of those costs relate to fees charged by various legal entities, primarily lawyers working on both sides of the issue? How many lawyers are involved in this loop and how much is being charged by them, as a total entity, regardless of whether they work for the defense or plaintiff sides? It is interesting to us how those numbers cannot be found.

How many independent contracted firms are in this loop and what are their costs to the system? We are not so naive to fail to notice those shadowy entities whose job descriptions are sometimes left purposely vague, whose work is performed in closets that are closed to the public's evaluation, while jumping from one sinking ship to the next.

Similarly how are insurance rates to municipalities being charged by insurers who have an essential monopoly in the system? Insurance payments have become inescapable much like death and taxes however we see very little scrutiny of the detailed operations of insurers to confirm that their rates are reasonable.

Ontario's Minimum Maintenance Standards (MMS) are placing the general travelling public in peril by failing to make those decision makers accountable for their actions when they decide to cut corners on the safety of Ontario's roads. Failure to ensure that roads will receive proper and regular inspection is one of those flaws of the MMS, but there are others.

There is an unpublicized danger in allowing issues of public safety to be decided by individual municipalities whose councillors are unlikely to have a full appreciation of the implications of their decisions. Historically the correct approach has been to have those decisions made by higher levels of government so that there is a uniform and consistent level of service regardless of what region a driver might enter.

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