

REGIONAL MUNICIPALITY OF OTTAWACARLETON
 MUNICIPALITÉ RÉGIONALE D'OTTAWACARLETON

REPORT
RAPPORT

Our File/N/Réf. Your File/V/Réf.	R.2.5.147
DATE	11 March 1998
TO/DEST.	Co-ordinator, Transportation Committee
FROM/EXP.	Environment and Transportation Commissioner Regional Solicitor
SUBJECT/OBJET	ROADS: MINIMUM ROAD MAINTENANCE STANDARDS

DEPARTMENTAL RECOMMENDATIONS

That Transportation Committee and Council:

- 1. Approve in principle the draft minimum road maintenance standards attached as Annex "A";**
- 2. Advise the Ministry of Transportation that in Council's opinion;**
 - (a) A minimum standard for "road and bridge inspection" should be included in the standards;**
 - (b) It is believed that the minimum standards, with subsection 284(1.4), will provide the intended liability protection for Municipalities;**
 - (c) A Municipality may rely on subsection 284(1.4) and the minimum standards to avoid liability, even if it adopts higher standards, and;**
- 3. Forward to the Ministry of Transportation suggestions and comments about specific standards as contained in this Report.**

BACKGROUND

Bill 86, which received Royal Assent on December 19, 1996, amends Section 284 of the *Municipal Act* and in part, provides a new statutory defence for Municipalities in actions brought against it for road non-repair.

Reference is made to the Ministry's covering letter in Annex "A" which provides an overview of the reasons for the new Section, and what the Ministry is looking for from Municipalities. The new section is a response by the Province to increasing concern by Municipalities about the recent tendency of Courts to view the Municipality as a guarantor or insurer of its roads. This was never the intent of the *Municipal Act*; rather Municipalities should only be liable for damages where they have failed to keep their roads in a "reasonable" state of repair, taking into account the function and location of a particular road, and the means of the Municipality.

Subsection 284(1.4)

The new sub-section provides that if the Province establishes minimum road maintenance standards, and they apply to the road and accident in question, and those standards have been met by the Municipality, then the Municipality will not be liable.

The Standards

The Province, with the assistance of a Consultant, and a working group comprised of Ministry, OGRA, and Municipal staff, worked throughout 1997 to create standards which would provide Province-wide reasonable minimum standards of road maintenance. After extensive public consultation with Municipal staff and interest groups across the Province, the Ministry is now seeking input from Municipal Councils.

As explained in the Ministry's covering letter, the standards are based on a classification of roads (derived from road function, posted speed, and road use), and provide standards for road inspection, winter maintenance, roadways and shoulders, street lighting, grass and brush at railway crossings, traffic control devices and structures.

There are some concerns about the minimum standards:

- they do not apply to sidewalks. The Ministry's position is that because of the difficulty of this project it would deal with roads first. Its intention is to monitor and review the proposed standards, and in time, include a standard for sidewalk maintenance.
- there is a danger that minimum standards, established by Provincial legislation, will in time become the "desired" standard and will eventually lead to a lowering of standards across the Province. This is not the intent, and it is anticipated that Municipalities will continue to set individual standards in response to their own needs, public demands, and climatic conditions.
- it has been suggested that the Province could have achieved Municipal protection from liability, not by the concept of minimum standards, but by re-writing the legislation to provide that so long as a Municipality sets its own standards, and meets them, it will not be liable. The

Province opted instead for the minimum standards, perhaps because they provide a more consistent and recognizable Province-wide level of road maintenance.

Staff recommends that Committee and Council forward to the Ministry the Regional Corporation's approval of the concept of Provincial minimum standards for municipal roads as a means of avoiding liability. However, there are some key issues on which Councils have been asked to comment:

1. The need for an "inspection" standard.
2. Will the standards provide the intended liability protection?
3. Will a Municipality be held to its higher standards?

Staffs' comments on each of the above are as follows.

An "Inspection" Standard

Some Municipalities are concerned that an inspection standard, no matter how minimal, will create burdens they cannot meet. Some do not inspect. Some inspect major streets only. Most rely on the public or the police to advise of non-repair. Inspection without a detailed form of record keeping to support it is pointless from a liability point of view, and many are concerned that they do not have the means or staffing to implement an effective record keeping system.

Staff's position is that:

- "Inspection" is a key element in most non-repair litigation, and is often the determining factor as to whether or not the Municipality kept its road in a reasonable state of repair. The first area examined by a Court is always "knowledge, inspection, and supporting records", and it is difficult to convince a Court that a road was maintained adequately, in the absence of an inspection.
- Moreover, the obligation to maintain roads as it stands now, requires that a Municipality have in place an adequate system of inspection, and record keeping.
- Accordingly, staff believes that "inspection" should be included as a standard, observance of which will protect the Municipality from liability.
- Another reason for its inclusion as a standard is that the "response time" in the standards is predicated upon knowledge or awareness of the road condition. An inspection standard will avoid a Court finding that the knowledge should have arisen earlier than it did.

Liability Protection

There remains some scepticism about minimum standards. Will they be so “minimal” that the Courts will refuse to consider them as providing a reasonable standard of care? While the standards might provide an almost fool proof defence if met, will they also guarantee liability if they are not? Is it possible to create a Province-wide set of standards which are meaningful? How can those standards anticipate and accommodate all conditions?

While the project is a difficult one, staff believes this scepticism to be unfounded.

- The intent of the new legislation is clear and will bind the Courts.
- The standards are not so “minimal” as to be unreasonable.
- While the standards are something of a two-edged sword, and will make it difficult to argue that road maintenance which falls short of the minimum standards was “reasonable in the circumstances”, this is not a reason to reject the minimum standards concept.

Higher Standards

Will a Municipality which adopts standards higher than the minimum standards be able to use the minimum standards as a defence if it falls short of its own higher standards? Some are concerned that a Municipality will be held to its higher standards where over the years that standard has created a public expectation. This reasoning is based upon principles of common law, by which it can be argued that a driver will reasonably expect those higher standards to be met, and the Municipality should reasonably anticipate that its driving public will drive according to those expectations.

But the new *Municipal Act* subsection has changed the common law, in words that are clear. Where the higher standards have not been met, but the minimum standards have been met, there will be no liability. Were it otherwise, a Municipality which fails to meet its higher standards may be liable, whereas a Municipality which operates at the lower “minimum” standard would not.

REVIEW OF THE STANDARDS

Staff has reviewed each of the standards, and offers the following comments about some of them. Where staff is of the opinion that a particular standard is appropriate, and can be met, it will not in this report be the subject of any comments. Staff will also endeavour to answer each of the four specific questions which follow each of the standards (will the RMOC be able to meet the standard? etc.) when forwarding Council’s position on the minimum standards to the Ministry.

- (1) The response time in the standards, which is the time given to comply with a defect in the road, should be the time in which remedial action is initiated, not completed. It is understood that the Ministry has attempted to deal with this in its definition of “address” which provides

that a standard may be met by “signing” the defect until it is repaired. However, signing the defect may be inappropriate.

- (2) Definitions, “address” - In some situations monitoring may be a means of addressing a problem. It is sufficient that some defects be “monitored”. For example, in standard 5.6.1 Structural distress, the structural “cracks, erosion, rot or noticeable deformation” may be monitored rather than “signed or closed”, which may be inappropriate.
- (3) Definitions, “Immediate” - it is important to ensure the standards recognize that an immediate response, which is “without delay”, consider first, that available resources and staffing place some limits on the ability to respond without delays and secondly, that multiple demands in extraordinary or emergency situations also make it difficult to respond to them all without delay.
- (4) Definitions, “response time” - this might be changed to mean the time provided to “address” the problem, which is defined, rather than “comply” which is not.
- (5) Standard 5.1.1 “Routine Inspection” - structures such as bridges and culverts should be excluded, as they are inspected much less frequently than required by this standard. Perhaps a separate “inspection” standard should be created for that part of the bridge or culvert which is not the travelled portion, and times of 2 and 5 years respectively be set.
- (6) Standard 5.1.2 “Winter Inspection” - the prescribed standard is met during precipitation, but not on clear days.
- (7) Standard 5.3.1 “Roadway Potholes” - First, bridges should be excluded as they are dealt with in another standard. Secondly, there is a concern with this standard, and others, that the standard cannot be met during the “peak spring rebound period” which is a brief period of extreme road movement and resulting road damage and disrepair. The standard could allow a Municipality to establish its own “peak spring rebound period” for which the standard would not apply.
- (8) Standard 5.3.2 - “Roadway and Shoulder distortion” - First, exempt bridges and approaches. Secondly, exclude the Municipality’s “peak spring rebound period”; or alternatively, set a 30 day standard for road classes 1, 2 and 3. Thirdly, change the specified deviation for road class # 1 to 8 cm.
- (9) Standard 5.3.3 “Roadway and Shoulder cracks” - there must be a “peak spring rebound period” exception.
- (10) Standard 5.3.4 “Roadway and Shoulder debris” - this standard should not apply to the shoulder, whether paved or not.
- (11) Standard 5.3.5 “Roadway and Shoulder Flooding” - should apply to the travelled portion only, not the shoulder. Secondly, this standard could not be met in heavy storm conditions.

- (12) Standard 5.3.6 “Roadway and Shoulder washouts” - First, the “peak spring rebound period” should be exempted; and secondly, the 1 metre standard should be reduced to 30 cm., thus reducing the obligation to repair.
- (13) Standard 5.3.8 “Shoulder drop-off” - First, drop -offs at accesses and super elevated roads should be excluded. Secondly, the standard cannot be met on these roads with little or no shoulder.
- (14) Standard 5.4.2 “Grass and Brush height at railway crossings” - suggest 14 days for all classes of road.
- (15) Standard 5.6.1 “Structural distress” - the last sentence of the “description” might be changed to read, “Typical signs of structural distress are cracks, vertical settlement, corrosion with significant loss of material, rot, and noticeable deformation of members when under load”.
- (16) Standard 5.6.2 “Concrete deck spalls” - First, as mentioned earlier, compliance might be by “monitoring”, rather than only “immediate”. Second, a better title might be, “Bridge decks: Wearing surface distortions”. Third, the description should be changed to, “Wearing surface distortions are the cavities left in the bridge deck by fragments detaching from the upper surface of the deck”. Fourth, the standard should be changed to, “Where the surface distortion on the roadway, measured from the surface top, exceeds the specified depth and the area of the cavity exceeds 1000 cm², it shall be addressed within the given response time”. Fifth, delete the first chart and keep the second without title.
- (17) Standard 5.6.3 “Protruding elements and surface discontinuities” - define “surface discontinuity”.

CONCLUSION

The Province has amended the *Municipal Act* with the intention of limiting a Municipality’s exposure to liability for the alleged non-repair of its roads. It has done this by the introduction of minimum maintenance standards which, if met, will protect the Municipality from legal action. Staff recommends that Committee and Council support in principle the concept, and that the suggestions and comments noted in this report with respect to particular standards be sent to the Ministry.

Approved by
M.J.E. Sheflin
Environment and Transportation Commissioner

Approved by
J. Douglas Cameron
Regional Solicitor

ELM/hm

January 20, 1998

Head of Council:

Attached for your review and comments is the latest draft of the Minimum Maintenance Standards for Municipal Highways and Bridges.

Background:

In 1996, in response to requests from over 700 Ontario municipalities, the *Who Does What* Sub-Panel on Municipal Administration was directed to make recommendations to address the increase in insurance costs that was making it increasingly difficult for municipalities to provide municipal services. In response to the sub-panel's recommendations and continued requests from the municipal sector, in 1997, the Government, through *The Better Local Government Act* (Bill 86), amended the *Municipal Act* by adding new provisions dealing with municipal liability with respect to the repair and maintenance of highways and bridges.

The *Municipal Act* now codifies some of the existing defences available to municipalities. In particular, it provides a municipality with three defences. The first two codify the existing common law: a municipality is not liable for failing to keep a highway or a bridge in a reasonable state of repair if: 1) it did not know and could not reasonably have been expected to know about the state of repair of the highway or bridge and; 2) it took reasonable steps to prevent the default from arising. The third, a new defence, is intended to respond to the concerns raised by municipalities: a municipality is not liable for failing to keep a highway or a bridge in a reasonable state of repair if at the time the cause of action arises, minimum standards established by regulation by the Minister of Transportation applied to the highway or bridge and to the alleged default and those standards had been met (subsection 284(1.4)).

With respect to the third defence, the *Municipal Act* does not require a municipality to formally adopt the minimum maintenance standards established by the Minister of Transportation. If a municipality does not meet these minimum maintenance standards, it will not be able to rely upon the defence offered by subsection 284(1.4). If the standards apply to a highway or bridge and to the alleged default and these are met by a municipality, the defence under subsection 284(1.4) of the *Act* will be available to a municipality in an action for failing to keep a highway or bridge in a reasonable state of repair. Where the cause of action differs from the one stated above, a municipality will have to rely upon other defences that may be available and which will vary depending on the circumstances of each case.

Overview of Minimum Standards:

The draft minimum maintenance standards are intended to be outcome based standards for maintenance activities that have an impact on road safety and liability. They are not intended to be at a level of service that would take into account life cycle costing or infrastructure preservation or other maintenance objectives such as esthetics.

The draft standards are divided into three parts. The introduction provides a general description of the standards, including maintenance priority classes and a description on how to use the standards. The definitions play an important role and you should pay particular attention to the definitions for *response time*, *address* and *immediate* – together they define the time allotted to correct conditions covered by the standards.

Consultations:

This project is being carried out in partnership between the MTO and the municipal sector, with full participation from the Ontario Good Roads Association, Association of Municipalities of Ontario, Association of Ontario Road Superintendents, Municipal Engineers Association, Regional Solicitors Association, as well as other provincial ministries and stakeholders.

Extensive discussions with municipalities and other stakeholder associations have taken place on the previous draft dated September 16, 1997. Comments have been considered by the project Steering Committee and revisions have been incorporated in this latest draft. Also, please note that this item will be discussed at the upcoming OGRA Conference on February 24, 1998.

Your Role:

On each of the standards we have included questions for which a response would be appreciated. These questions are:

- 1) Will your municipality be able to meet this standard?
- 2) What impact will meeting the standard have on your maintenance operation?
- 3) What changes, if any, would you like to see made to the standard and why?
- 4) Should this standard be kept or deleted? Please provide reasons if different than above.

Please provide any additional comments e.g. comments related to the classification system or definitions, separately.

Some issues were raised by municipalities during the first round of consultation that you may wish to have your legal counsel review. First, there is general concern about the degree to which the standards will provide the intended liability protection. A second related concern is that municipalities which have adopted standards of repair higher than the minimum standards established under the Act and then fail to meet their self-imposed standards but meet the minimum standards, may be held liable for the higher standard.

The standards, as illustrated by these concerns, are both legal and technical in nature. We strongly recommend that these be reviewed by your legal department (or counsel) and road maintenance department.

The deadline for providing written comments is March 31, 1998. Please mail your reply to Mr. Tony Roldan, Municipal and Intergovernmental Policy Branch, Ministry of Transportation, 1st Floor, West Tower, 1201 Wilson Avenue, Downsview, Ontario, M3M 1J8.

If you require further information, please contact:

Mr. Tony Roldan, (416) 235-4064 or Mr. Andrew Kibedi, (416) 235-5168 at the Ministry of Transportation.

Mr. John Vording or Mr. Bill Obee at the Ontario Good Roads Association, (905) 795-2555.

Yours sincerely,


Kees Schipper, P. Eng.
Commissioner of Transportation and Works
The Regional Municipality of York
Co-Chair


Mitchell Toker
Director, Municipal and
Intergovernmental Policy Branch
Ministry of Transportation
Co-Chair

Attach.

cc. Head of Public Works/Maintenance Department/Operations

**MINIMUM MAINTENANCE STANDARDS
FOR MUNICIPAL HIGHWAYS AND BRIDGES**

**DRAFT COPY FOR DISCUSSION
PURPOSES ONLY**

January 20, 1998

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1. INTRODUCTION

The Minimum Maintenance Standards for Municipal Highways and Bridges (the "Regulation") is a regulation made under subsection 284 (1.5) of the *Municipal Act*.

The Regulation provides a set of minimum maintenance standards for municipal highways and bridges throughout the province. It deals with maintenance issues associated with the condition of the highway. The Regulation provides municipal highways and bridges "outcome based" minimum maintenance standards. "Outcome based" standards are qualitative statements that describe an end result specification, rather than the activities and procedures used to achieve this result.

This regulation does not apply to issues such as infrastructure preservation, corrections to existing geometric and design deficiencies, rehabilitation, aesthetic or other considerations that are particular to each municipality.

2. MAINTENANCE PRIORITY CLASS CATEGORIES

A road classification system has been established that allows for the application of different minimum maintenance standards based on the specific characteristics of the highway.

The key factors that should be considered in developing response time and highway classification are highway function, the posted speed and traffic volumes:

- Highway function can be used to measure the driver's expectation regarding level of service of a highway;
- Speed provides a measure of exposure to risk on a highway; and
- Traffic volume in vehicles per day (VPD) provides a measure of exposure to risk.

2.1 Using the Highway Maintenance Class Tables

The following tables present the Highway Maintenance Classes to be assigned for different functional classes (freeway, arterial, collector, local highway and public lane), traffic volumes and posted speeds for both urban and rural environments. To determine the Highway Maintenance Class of a highway, identify the table to be used based on the environment (urban or rural) and the functional class. Select the Highway Maintenance Class which corresponds to the highway posted speed and traffic volume. Where reference to "N/A" is made, it is based on the fact that highways having such posted speed and traffic volume do not exist.

HIGHWAY MAINTENANCE CLASSES

Table 1 - Urban Highways (Freeway, Arterial, Collector)

Posted Speed km/h	Traffic Volume (Vehicles per Day)													
	<200	200	500	1,000	2,000	3,000	4,000	5,000	6,000	8,000	10,000	12,000	15,000	>20,000
100	N/A													
90	N/A													
80	4	4	4	3	3	3	3	3	2	2	2	2	2	1
70	4	4	4	4	3	3	3	3	3	3	3	2	2	1
60	5	5	5	4	4	4	4	4	3	3	3	3	2	2
50	5	5	5	4	4	4	4	3	3	3	3	3	3	2
40	5	5	5	5	4	4	4	4	3	3	3	3	3	N/A

Table 2 - Urban Highways (Local Highway and Public Lane)

Posted Speed km/h	Traffic Volume (Vehicles per Day)													
	<200	200	500	1,000	2,000	3,000	4,000	5,000	6,000	8,000	10,000	12,000	15,000	>20,000
100	N/A													
90	N/A													
80	N/A													
70	5	5	5	4	4	4	4	4						
60	5	5	5	5	4	4	4	4						
50	5	5	5	5	5	4	4	4						
40	5	5	5	5	5	4	4	4						

Table 3 - Rural Highways (All Functional Classes)

Posted Speed km/h	Traffic Volume (Vehicles per Day)													
	<200	200	500	1,000	2,000	3,000	4,000	5,000	6,000	8,000	10,000	12,000	15,000	>20,000
100	N/A													
90	4	4	4	3	3	3	2	2	2	2	2	1	1	1
80	4	4	4	4	3	3	3	2	2	2	2	2	2	1
70	5	5	4	4	4	3	3	3	3	3	3	2	2	2
60	5	5	5	4	4	4	4	3	3	3	3	3	3	2
50	5	5	5	4	4	4	4	4	4	4	3	3	3	3
40	5	5	5	5	4	4	N/A							

3. HOW TO USE THE REGULATION

The minimum maintenance standards are divided into general maintenance categories using a decimal numbering system. The first number defines the category and, the second, the item dealt with by the Regulation. Each item is described and followed by the corresponding minimum maintenance standard.

The response chart provided for each maintenance item requires a municipality to determine the appropriate Maintenance Priority Class for the highway being maintained, in accordance with Tables 1, 2 and 3. The response chart provides a corresponding response time for each Maintenance Priority Class.

4. DEFINITIONS

In this Regulation:

Address - means the removal of a condition covered by these standards or the required repair, signing or closing of the highway following an investigation by a municipality;

Arterial - means a highway that carries high volumes of traffic at high speeds with uninterrupted flow characteristics except at intersections with major crossing roads and crosswalks;

Bridge - means a structure which provides a roadway for the passage of motor vehicles or motor vehicles and pedestrians across an obstruction, gap or facility and which is greater than 3 metres in span;

Collector - means a highway that carries traffic between local and arterial roads;

Culvert - means a structure greater than three metres in span providing an opening through an embankment for the purpose of the passage of water and in which roadway loads are distributed to the culvert structure through fill;

Day - means a 24 hour period;

Freeway - means a highway that carries high volumes of traffic at high speeds with uninterrupted flow conditions;

Highway - means a highway as defined in the *Municipal Act*;

Immediate - means a response time which is without delay;

Investigation - means the examination of the highway or part of the highway by a person designated by a municipality;

Local Highway - means a highway that carries low volumes of traffic and provides direct access to abutting properties;

Maintenance - means the activity of keeping in a state of repair highway infrastructure elements;

Maintenance Priority Class - means the classes of highways set out in Tables 1, 2 and 3 of the Regulation;

Motor Vehicle - means a motor vehicle as defined in the *Highway Traffic Act*;

Paved Surface or Pavement - means a wearing layer or layers placed on the roadway and consisting of asphaltic concrete, surface treated, hydraulic cement concrete, or plant or road mixed mulch;

Public Lane - means a public way which provides alternative access to business sections or off-street parking areas;

Regulatory Signs - means a traffic regulation which applies at any time or place upon a highway, disregard of which may constitute a violation;

Response Time - means the time provided to comply with a standard upon a municipality becoming aware of a condition covered by these standards;

Roadway - means a roadway as defined in the *Highway Traffic Act*;

Roadway Surface - means the exposed top of the roadway;

Rural - means the environment located outside of urban areas;

Shoulder - means that portion of the highway between the edge of the roadway and the top inside edge of the ditch or fill slope;

Signing - means temporary visual warning of a condition covered by the Regulation;

Structure - means a bridge, culvert or tunnel;

Tunnel - means a structure that provides an opening through an embankment, soil or rock materials for the purpose of the passage of motor vehicles;

Urban - means the environment located within cities and towns;

VPD (Vehicles per Day) - means an estimate of traffic volume on a highway on a typical day in both directions or some measure of actual daily traffic volume such as Average Annual Daily Traffic (AADT). Seasonal traffic volumes must be considered for seasonal maintenance activities such as those required for the winter season;

Winter - means the season of winter maintenance activities to be defined by the municipality.

5. MINIMUM MAINTENANCE STANDARDS

CATEGORY	Winter Maintenance	Standard No.	5.2.1
ITEM	Snow Accumulation	Date:	August 22, 1997
		Revision:	January 20, 1998

DESCRIPTION

Snow Accumulation is the natural accumulation of new fallen snow or wind blown snow on the roadway.

STANDARD

Snow Accumulation in excess of the specified depth shall be addressed within the given response time. If the municipality is unable to achieve this standard as a result of the severity of a storm or traffic congestion, the municipality shall achieve the standard as soon as conditions permit.

CLASSIFICATION RESPONSE CHART

Maintenance Priority Class	Specified Depth	Response Time
1	5 cm	4 hours
2	5 cm	8 hours
3	10 cm	16 hours
4	15 cm	2 days
5	20 cm	4 days

1. Will your municipality be able to meet this standard?

2. What impact will meeting the standard have on your maintenance operation?

3. What changes if any would you like to see made to the standard and why?

4. Should this standard be kept or deleted? Why?

CATEGORY	Winter Maintenance	Standard No.	5.2.2
ITEM	Localized Icy Roadway Surface	Date:	August 22, 1997
		Revision:	January 20, 1998

DESCRIPTION

A *Localized Icy Roadway Surface* is a condition caused by the freezing of precipitation or melting snow or the formation of ice at curves, hills, bridge decks and intersections.

STANDARD

A *Localized Icy Roadway Surface* shall be addressed within the given response time.

CLASSIFICATION RESPONSE CHART

Maintenance Priority Class	Response Time
1	Immediate
2	Immediate
3	Immediate
4	Immediate
5	Immediate

1. Will your municipality be able to meet this standard?

2. What impact will meeting the standard have on your maintenance operation?

3. What changes if any would you like to see made to the standard and why?

4. Should this standard be kept or deleted? Why?

CATEGORY	Roadway and Shoulder	Standard No.	5.3.1
ITEM	Pothole	Date:	August 22, 1997
		Revision:	January 20, 1998

DESCRIPTION

A *Pothole* is a hole in the roadway surface or shoulder.

STANDARD

A *Pothole* exceeding the specified depth and surface area shall be addressed within the given response time.

CLASSIFICATION RESPONSE CHART

Paved Roadway Surface

Maintenance Priority Class	Specified Surface Area	Specified Depth	Response Time
1	1000 cm ²	5 cm	Immediate
2	1000 cm ²	8 cm	Immediate
3	1000 cm ²	8 cm	Immediate
4	1000 cm ²	10 cm	Immediate
5	1000 cm ²	12 cm	Immediate

Gravel Roadway Surface

Maintenance Priority Class	Specified Surface Area	Specified Depth	Response Time
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	1500 cm ²	8 cm	30 days
4	1500 cm	10 cm	60 days
5	1500 cm	12 cm	60 days

Shoulders

Maintenance Priority Class	Specified Surface Area	Specified Depth	Response Time
1	1500 cm ²	8 cm	4 days
2	1500 cm ²	8 cm	14 days
3	1500 cm ²	8 cm	30 days
4	1500 cm ²	10 cm	90 days
5	1500 cm ²	12 cm	90 days

1. Will your municipality be able to meet this standard?

2. What impact will meeting the standard have on your maintenance operation?

CATEGORY	Roadway and Shoulder	Standard No.	5.3.2
ITEM	Distortion	Date:	August 22, 1997
		Revision:	January 20, 1998

DESCRIPTION

Distortion is a vertical deviation in the roadway surface from its normal profile. A Distortion is typically a bump or a depression and does not include traffic calming measures.

STANDARD

A *Distortion* that exceeds the specified deviation over a distance of 3 metres or less shall be addressed within the given response time.

CLASSIFICATION RESPONSE CHART

Maintenance Priority Class	Paved Surface		Gravel Surface	
	Specified Deviation	Response Time	Specified Deviation	Response Time
1	5 cm	2 days	N/A	N/A
2	8 cm	7 days	N/A	N/A
3	10 cm	30 days	12 cm	30 days
4	12 cm	180 days	15 cm	180 days
5	12 cm	180 days	15 cm	180 days

1. Will your municipality be able to meet this standard?

2. What impact will meeting the standard have on your maintenance operation?

3. What changes if any would you like to see made to the standard and why?

4. Should this standard be kept or deleted? Why?

CATEGORY	Roadway and Shoulder	Standard No.	5.3.3
ITEM	Crack	Date:	August 22, 1997
		Revision:	January 20, 1998

DESCRIPTION

A Crack is a fissure or partial break in the paved roadway surface.

STANDARD

A Crack that exceeds the specified width and depth over a length of 3 metres or more measured along the crack shall be addressed within the given response time.

CLASSIFICATION RESPONSE CHART

Maintenance Priority Class	Specified Width	Specified Depth	Response Time
1	5 cm	5 cm	2 days
2	5 cm	5 cm	7 days
3	5 cm	5 cm	30 days
4	5 cm	5 cm	180 days
5	5 cm	5 cm	180 days

1. Will your municipality be able to meet this standard?

2. What impact will meeting the standard have on your maintenance operation?

3. What changes if any would you like to see made to the standard and why?

4. Should this standard be kept or deleted? Why?

CATEGORY	Roadway and Shoulder	Standard No.	5.3.4
ITEM	Debris	Date:	August 22, 1997
		Revision:	January 20, 1998

DESCRIPTION

Debris is any material or object on the roadway, except objects that are an integral part of the roadway or intentionally placed by the municipality.

STANDARD

Debris greater than 5 cm in any dimension and that can damage a motor vehicle or injure a driver or passenger shall be addressed within the given response time.

CLASSIFICATION RESPONSE CHART

Maintenance Priority Class	Response Time
1	Immediate
2	Immediate
3	Immediate
4	Immediate
5	Immediate

1. Will your municipality be able to meet this standard?

2. What impact will meeting the standard have on your maintenance operation?

3. What changes if any would you like to see made to the standard and why?

4. Should this standard be kept or deleted? Why?

CATEGORY	Roadway and Shoulder	Standard No.	5.3.5
ITEM	Flooding / Standing Water	Date:	August 22, 1997
		Revision:	January 20, 1998

DESCRIPTION

Flooding / Standing Water is a condition where water, flowing or standing, is on the roadway.

STANDARD

Flooding / Standing Water which exceeds the specified depth shall be addressed within the given response time.

CLASSIFICATION RESPONSE CHART

Maintenance Priority Class	Specified Depth	Response Time
1	5 cm	Immediate
2	8 cm	Immediate
3	10 cm	Immediate
4	12 cm	Immediate
5	15 cm	Immediate

1. Will your municipality be able to meet this standard?

2. What impact will meeting the standard have on your maintenance operation?

3. What changes if any would you like to see made to the standard and why?

4. Should this standard be kept or deleted? Why?

CATEGORY	Roadway and Shoulder	Standard No.	5.3.6
ITEM	Washout	Date:	August 22, 1997
		Revision:	January 20, 1998

DESCRIPTION

A *Washout* is a collapse of the shoulder caused by water flow.

STANDARD

A *Washout* within 1 metre of the edge of the roadway that exceeds the specified depth shall be addressed within the given response time.

CLASSIFICATION RESPONSE CHART

Maintenance Priority Class	Specified Depth	Response Time
1	8 cm	Immediate
2	8 cm	Immediate
3	8 cm	Immediate
4	10 cm	Immediate
5	12 cm	Immediate

1. Will your municipality be able to meet this standard?

2. What impact will meeting the standard have on your maintenance operation?

3. What changes if any would you like to see made to the standard and why?

4. Should this standard be kept or deleted? Why?

CATEGORY	Roadway and Shoulder	Standard No.	5.3.8
ITEM	Shoulder Drop-Off	Date:	August 22, 1997
		Revision:	January 20, 1998

DESCRIPTION

A *Shoulder Drop-Off* is the grade differential between the roadway and the gravel shoulder.

STANDARD

A *Shoulder Drop-Off* that exceeds the specified depth over a distance of 20 metres or more shall be addressed within the given response time.

CLASSIFICATION RESPONSE CHART

Maintenance Priority Class	Specified Depth	Response Time
1	5 cm	7 days
2	5 cm	14 days
3	8 cm	30 days
4	8 cm	180 days
5	8 cm	180 days

1. Will your municipality be able to meet this standard?

2. What impact will meeting the standard have on your maintenance operation?

3. What changes if any would you like to see made to the standard and why?

4. Should this standard be kept or deleted? Why?

CATEGORY	Roadway and Shoulder	Standard No.	5.3.9
ITEM	Roadway/Shoulder Gradient Differential	Date:	August 22, 1997
		Revision:	January 20, 1998

DESCRIPTION

Roadway/Shoulder Gradient Differential is the difference in cross fall between the roadway and the shoulder.

STANDARD

Roadway/Shoulder Gradient Differential that exceeds the specified differential shall be addressed within the given response time.

CLASSIFICATION RESPONSE CHART

Maintenance Priority Class	Specified Differential	Response Time
1	10%	7 days
2	10%	14 days
3	10%	30 days
4	10%	180 days
5	10%	180 days

1. Will your municipality be able to meet this standard?

2. What impact will meeting the standard have on your maintenance operation?

3. What changes if any would you like to see made to the standard and why?

4. Should this standard be kept or deleted? Why?

CATEGORY	General	Standard No.	5.4.1
ITEM	Luminaires	Date:	August 22, 1997
		Revision:	January 20, 1998

DESCRIPTION

Luminaires are lighting units that provide illumination to the roadway.

STANDARD

Where the percentage of *Luminaires* that are functional does not meet the specified level on each per km section of highway or at an intersection, the *Luminaires* shall be repaired or replaced within the given response time.

CLASSIFICATION RESPONSE CHART

Maintenance Priority Class	Specified Level of Service	Response Time
1	70% Luminaires Operational	30 days
2	70% Luminaires Operational	60 days
3	70% Luminaires Operational	180 days
4	70% Luminaires Operational	1 year
5	70% Luminaires Operational	1 year

1. Will your municipality be able to meet this standard?

2. What impact will meeting the standard have on your maintenance operation?

3. What changes if any would you like to see made to the standard and why?

4. Should this standard be kept or deleted? Why?

CATEGORY	Structures	Standard No.	5.6.1
ITEM	Structural Distress	Date:	August 22, 1997
		Revision:	January 20, 1998

DESCRIPTION

Structural Distress is any noticeable change in the condition or performance of a primary component of a structure since the last structural inspection. These components either have a predominant role in load acceptance or are deck members. Signs of *Structural Distress* are cracks, corrosion, rot and noticeable deformation of members when under load.

STANDARD

Any *Structural Distress* shall be addressed within the given response time.

CLASSIFICATION RESPONSE CHART

Maintenance Priority Class	Response Time
1	Immediate
2	Immediate
3	Immediate
4	Immediate
5	Immediate

1. Will your municipality be able to meet this standard?
2. What impact will meeting the standard have on your maintenance operation?
3. What changes if any would you like to see made to the standard and why?
4. Should this standard be kept or deleted? Why?

CATEGORY	Structures	Standard No.	5.6.2
ITEM	Concrete Deck Spalls	Date:	August 22, 1997
		Revision:	January 20, 1998

DESCRIPTION

Concrete Deck Spalls are the cavities left by fragments detaching from the top surface of the concrete deck.

STANDARD

Where the depth of *Concrete Deck Spall* on the roadway, measured from the top of the pavement, exceeds the specified depth and the area of spall exceeds 1,000 cm², it shall be addressed within the given response time.

CLASSIFICATION RESPONSE CHART

Exposed Concrete Decks:

Maintenance Priority Class	Maximum Depth	Response Time
1	5 cm	Immediate
2	8 cm	Immediate
3	8 cm	Immediate
4	8 cm	Immediate
5	8 cm	Immediate

Other Paved Surface Decks:

Maintenance Priority Class	Maximum Depth	Response Time
1	5 cm	Immediate
2	8 cm	Immediate
3	8 cm	Immediate
4	10 cm	Immediate
5	12 cm	Immediate

1. Will your municipality be able to meet this standard?

CATEGORY	Structures	Standard No.	5.6.3
ITEM	Protruding Elements & Surface Discontinuities	Date:	August 22, 1997
		Revision:	January 20, 1998

DESCRIPTIONS

A *Protruding Element* is any portion of the deck or expansion joint that extends into the roadway. *Surface Discontinuity* is a vertical discontinuity in the deck, expansion joints or approach slabs.

STANDARD

Where the height of the *Protruding Element* or *Surface Discontinuity* is in excess of the standard, it shall be addressed within the given response time.

CLASSIFICATION RESPONSE CHART

Protruding Elements that may damage tires or other parts of a motor vehicle:

Maintenance Priority Class	Response Time
1	Immediate
2	Immediate
3	Immediate
4	Immediate
5	Immediate

All other Protruding Elements and Surface Discontinuities:

Maintenance Priority Class	Maximum Height	Response Time
1	5 cm	2 days
2	5 cm	7 days
3	5 cm	7 days
4	5 cm	90 days
5	5 cm	90 days

1. Will your municipality be able to meet this standard?

