

ONTARIO

SUPERIOR COURT OF JUSTICE

B E T W E E N:

BRAYDON THORNHILL, a minor by his
Litigation Guardian Jack Thornhill, NADINE
THORNHILL and the said JACK
THORNHILL personally

Plaintiffs

- and -

MICHAEL SHADID, THE CORPORATION
OF THE TOWN OF EAST GWILLIMBURY
and THE CORPORATION OF THE
REGIONAL MUNICIPALITY OF YORK

Defendants

) T. Boland and D. Romaine, for the plaintiffs

) P. Danson and A. Voudouris for Michael
) Shadid

) J.M. Davison and S. Hill for The
) Corporation of the Regional Municipality of
) York

) **HEARD:** October 15, 16, 17, 22, 23, 24,
) 25, 26, 29, 30, 31, November 1, 2, 6, 7,
) 2007

HOWDEN, J.

INTRODUCTION AND OVERVIEW

[1] On December 25, 2002, Nadine and Jack Thornhill, like many families, had the day off from their jobs to celebrate Christmas. She worked as a public health nurse with York Region Health Services and he was a firefighter, first class, also employed by the Regional Municipality of York (“York”). That day, they had opened presents with their infant son Braydon, Jack’s parents, and Nadine’s mother. At some point in the early afternoon, Braydon became ill. Nadine Thornhill left in her car around mid-afternoon on a routine trip to the drug store to buy medication for him.

[2] It had been snowing for most of the day; she had to drive in the tire tracks made by other vehicles. At about 3:35 p.m., while she was proceeding westbound on Green Lane in Newmarket on her way back from the drugstore, Ms. Thornhill’s 1995 Toyota Tercel was struck violently by Mr. Shadid’s Jeep Cherokee, which had spun out of control suddenly from the eastbound side of Green Lane. The rear end of the Jeep Cherokee spun into the front of the Toyota Tercel, driving the engine and the dashboard back into Nadine Thornhill’s right knee.

[3] She sustained a contusion over her left shoulder, fractured ribs, a fractured right arm, a laceration over her right knee and, most significantly, open fractures to two of the three principal components of her right knee – the patella-femoral compartment (fractured patella) and the lateral compartment, where the femur articulates with the tibia (fractured femoral condyle). Debris was found in her knee, mostly small fragments of glass. The treating orthopaedic surgeon, Dr. John Randle, and the orthopaedic surgeon specializing in hip and knee replacement who assessed Ms. Thornhill, Dr. Jeffrey Gollish, both described the knee injury as very severe; the patella had been split, part of it was missing, and the interior condyle was partially sheared off. There was substantial damage and fragmentation of “the gliding surfaces of the joint” in both areas, in Dr. Gollish’s words.

[4] No one disputes that Nadine Thornhill was a healthy, active woman of 30 prior to the accident; after six surgeries on her knee, she now endures serious permanent limitations and arthritic changes in the joint, which restrict her to part-time sedentary work and few activities. The future medical outlook is one of more surgeries, first to replace the knee joint (the primary arthroplasty) and then to revise or change periodically the components of the knee replacement (the revision surgeries). These surgeries are to start within the next ten years, beginning with the knee replacement, to be followed by at least two revision surgeries within the following two decades of Ms. Thornhill’s life.

[5] Ms. Thornhill claims damages against the defendants Michael Shadid and the Regional Municipality of York (York) in the following categories: general damages, past loss of income, future loss of income including loss of non-wage and pension benefits, future care, future housekeeping assistance, and out of pocket expenses. Though the defendants pleaded contributory negligence, no evidence was adduced to support that pleading. In their closing addresses, counsel recognized that there was no support in the evidence for a claim of contributory negligence. I agree.

[6] There are serious issues in this case regarding liability and certain aspects of the damage claims. On the liability side, weather, road conditions, Mr. Shadid's driving, and the efforts of York to deal with the roads under its jurisdiction that day were all sources of major contention.

[7] Counsel and the parties were able to arrive at an agreed statement of facts as to weather conditions on December 25, 2002. The agreement was derived from the reports of the climatologists retained by them. This agreement achieved a saving in court time for which I express my appreciation. The agreed statement of facts reads as follows:

- i) on December 25, 2002, there was a snow storm across southern Ontario;
- ii) snow fell continuously with varying degrees of intensity over the Sutton area from approximately 6:10 a.m. to just before 6:00 p.m.;
- iii) temperatures for the day ranged from -1.2°C to -6.1°C ;
- iv) at the time of the collision the temperature was -3.7°C with a wind chill of -10°C blowing from the north.

[8] Counsel for the defendant Michael Shadid takes the position that there is no evidence of negligence on Mr. Shadid's part. The cause of Mr. Shadid's loss of control, and of the damage and loss to the plaintiffs, was submitted to be the failure of York to maintain Green Lane for reasonably safe use by motorists; this failure resulted in a local situation of danger in the nature of a trap, i.e. a patch of ice or slush which could not be seen until the driver was on it. The plaintiffs assert that both defendants should be held liable and that as between the defendants, the greater degree of responsibility should be found to be York's.

[9] The major issue of law in this case arises from the enactment of Ontario Regulation 239/02, entitled "Minimum Maintenance Standards for Municipal Highways" on November 1, 2002, just short of two months prior to the accident. Section 284 of the *Municipal Act*, R.S.O. 1990, c. M.45, as amended, sets out the duty of repair placed on municipalities with regard to their roads, the consequences of default in that duty, and three sub-sections [(1.2), (1.3), and (1.4)] restricting or limiting municipal liability. Section 284(1.4) provides that there is no municipal liability for failure in the municipal duty of repair, if, at the time the cause of action arises,

- (a) minimum standards established under *subsection (1.5)* apply, and
- (b) those standards have been met.

Section 284(1.5) authorizes the establishment by regulation of "minimum standards of repair for, (a) highways and roads, (b) classes of highways and roads". O.R. 239/02 purports to establish minimum standards for the various classes of highways.

[10] It appears that this is the first trial judgment to consider the minimum maintenance standards (MMS) established in O.R. 239/02. York relies on the MMS and asserts that it met those standards on December 25, 2002. In the alternative, York takes the position that, if the MMS do not apply, or if York failed to meet them, it did not know, and could not have reasonably been expected to know, of the alleged state of non-repair on Green Lane. York denies that a state of non-repair existed on Green Lane. York also submits that its road employees and contractors took reasonable steps to prevent any state of non-repair. York contends that the sole cause of the accident was the negligence of the defendant Michael Shadid in failing to drive in accordance with the road conditions by using excessive speed. The plaintiffs and the defendant Mr. Shadid attacked both the legality of O.R. 239/02 as being in excess of its statutory authority, and the applicability of the MMS as being so incomplete that the gaps therein should import the normal duty of repair as found in section 284 and the caselaw thereunder, which duty York failed to meet and address within a reasonable time.

2. LIABILITY

(i) Statutory and Regulatory Framework and Basic Principles

[11] The motor vehicle accident occurred between the enactment of O.R. 239/02 on November 1, 2002 and the coming into force of the new *Municipal Act*, 2001, S.O. 2001, c. 25, on January 1, 2003. Despite its title, the new *Municipal Act* was not in force on December 25, 2002. The relevant provisions of the 1990 *Municipal Act* (as amended) which were in force on December 25, 2002 read as follows:

284(1) The council of the corporation that has jurisdiction over a highway or bridge shall keep it in a state of repair that is reasonable in light of all the circumstances, including the character and location of the highway or bridge.

(1.1) In case of default, the corporation, subject to the *Negligence Act*, is liable for all damages any person sustains because of the default.

(1.2) The corporation is not liable under subsection (1) or (1.1) for failing to keep a highway or bridge in a reasonable state of repair if it did not know and could not reasonably have been expected to know about the state of repair of the highway or bridge.

(1.3) The corporation is not liable under subsection (1) or (1.1) for failing to keep a highway or bridge in a reasonable state of repair if it took reasonable steps to prevent the default from arising.

(1.4) The corporation is not liable under subsection (1) or (1.1) for failing to keep a highway or bridge in a reasonable state of repair if, at the time the cause of action arises,

a) minimum standards established under subsection (1.5) apply,

- (i) to the highway or bridge, and
- (ii) to the alleged default; and

b) those standards have been met.

(1.5) The Minister of Transportation may, by regulation, establish minimum standards of repair for,

- a) highways and roads
- b) classes of highways and roads;
- c) bridges;
- d) classes of bridges.

(1.6) The minimum standards may be general or particular in their application.

(1.7) A regulation made under subsection (1.5) also applies to regional, district and metropolitan municipalities and the County of Oxford.

[12] The relevant clauses of the MMS are as follows:

1.(1) In this Regulation,

“cm” means centimetres;

“day” means a 24-hour period;

“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;

“non-paved surface” means a surface that is not a paved surface;

“paved surface” means a surface with a wearing layer or layers of asphalt, concrete or asphalt emulsion;

“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;

“surface” means the top of a roadway or shoulder.

(2) For the purposes of this Regulation, every highway or part of a highway under the jurisdiction of a municipality in Ontario is classified in the Table to this

section as a Class 1, Class 2, Class 3, Class 4, Class 5 or Class 6 highway, based on the speed limit applicable to it and the average annual daily traffic on it.

(3) For the purposes of subsection (2) and the Table to this section, the average annual daily traffic on a highway or part of a highway under municipal jurisdiction shall be determined,

(a) by counting and averaging the daily two-way traffic on the highway or part of the highway for the previous calendar year; or

(b) by estimating the average daily two-way traffic on the highway or part of the highway in accordance with accepted traffic engineering methods.

TABLE
CLASSIFICATION OF HIGHWAYS

Average Annual Daily Traffic
(number of motor vehicles)

Posted or Statutory Speed Limit (kilometres per hour)

	100	90	80	70	60	50	40
15,000 or more	1	1	1	2	2	2	2
12,000 – 14,999	1	1	1	2	2	3	3
10,000 – 11,999	1	1	2	2	3	3	3

2. (1) This Regulation sets out the minimum standards of repair for highways under municipal jurisdiction for the purpose of subsection 284 (1.4) of the Act.

(2) The minimum standards of repair set out in this Regulation are applicable only in respect of motor vehicles using the highways.

(3) This Regulation does not apply to Class 6 highways.

3. (1) The minimum standard for the frequency of routine patrolling of highways is set out in the Table to this section.

(2) Routine patrolling shall be carried out by driving on or by electronically monitoring the highway to check for conditions described in this Regulation.

(3) Routine patrolling is not required between sunset and sunrise.

[To continue on next page]

TABLE
ROUTINE PATROLLING FREQUENCY

Class of Highway	Patrolling Frequency
1	3 times every 7 days
2	2 times every 7 days
3	Once every 7 days
4	Once every 14 days
5	Once every 30 days

4. (1) The minimum standard for clearing snow accumulation is,
- (a) while the snow continues to accumulate, to deploy resources to clear the snow as soon as practicable 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
 - (b) 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 in accordance with subsections (2) and (3) or subsections (2) and (4), as the case may be, 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 within a distance of 0.6 metres inside the outer edges of the roadway.
- (4) Despite subsection (3), for a Class 4 highway with two lanes or a Class 5 highway with two lanes, the snow accumulation on the roadway must be cleared to a width of at least 5 metres.
- (5) This section,
- (a) does not apply to that portion of the roadway designated for parking; and

(b) only applies to a municipality during the season when the municipality performs winter highway maintenance.

(6) In this section,

“snow accumulation” means the natural accumulation of new fallen snow or wind-blown snow that covers more than half a lane width of a roadway.

TABLE
SNOW ACCUMULATION

Class of Highway	Depth	Time
1	2.5 cm	4 hours
2	5 cm	6 hours
3	8 cm	12 hours
4	8 cm	16 hours
5	10 cm	24 hours

5. (1) The minimum standard for treating icy roadways is,

(a) to deploy resources to treat an icy roadway as soon as practicable after becoming aware that the roadway is icy; and

(b) to treat the icy roadway within the time set out in the Table to this section after becoming aware that the roadway is icy.

(2) This section only applies to a municipality during the season when the municipality performs winter highway maintenance.

TABLE
ICY ROADWAYS

Class of Highway	Time
1	3 hours
2	4 hours
3	8 hours
4	12 hours
5	16 hours

[13] Under section 17 of the MMS, the Ministry of Transportation is to conduct a review of the MMS every five years; this would place the first review before the end of 2007. There is no evidence before this court of a review or an amendment to the 2002 MMS.

[14] In addition to the above provisions, the MMS include directions in respect of potholes, shoulder drop-offs, cracks in the roads, debris and the removal thereof, street lights, signs, traffic control signal systems and sub-systems, bridges, and surface discontinuities. Therefore, the MMS purport to cover more than simply winter road maintenance and include standards addressing conditions of the road throughout the year. This case engages only those provisions which apply to winter conditions; York's season for performing winter highway maintenance had begun well prior to December 25, 2002 for the purposes of sections 4(5) and 5(2) pertaining to snow and ice treatment.

[15] The Manager of Road Maintenance for York Region Transportation and Works Department as of December 2002, Gary Cosgrove, gave evidence of his involvement on the committee which produced the MMS, and of his department's records of operations on the date of the accident. The MMS committee was composed of 16 members who came from major municipalities, the Ministry of Transportation, the Truckers' Association, and the Canadian Automobile Association. Prior to the enactment of O.R. 239/02, York updated its Road Maintenance Patrol Manual to reflect the MMS, according to Mr. Cosgrove. York provided the manual together with the MMS in a package to its highway patrollers, patrol supervisors, and road operations technical staff prior to the 2002/03 winter maintenance season by means of a one-day training session. Mr. Cosgrove assisted in implementing the MMS in York.

[16] Mr. Cosgrove stated, in chief, that Green Lane was a Class 1, four-lane highway as of December 2002, handling average annual daily traffic of some 24,000 to 25,000 vehicle trips. This number was corrected under cross-examination to 26,280 vehicle trips for the section of Green Lane in question (Ex. #5, Tab 4, letter from Mr. Davison, Feb 8/07). Its speed limit was 80 kph. For purposes of the MMS provisions on routine patrolling (s.3), snow accumulation (s.4), and icy roadways (s.5), Green Lane is subject to the Class 1 standards in the corresponding tables. I will return to Mr. Cosgrove's lengthy evidence regarding York's road operation structure, implementation of the MMS, and patrol and salting/sanding/plowing system later in the factual section.

[17] The duty of municipalities to maintain the roads within their jurisdiction and control is one of long standing in Canada. Since 1885 at least, the Supreme Court of Canada has held that a municipality has an obligation to keep public streets and highways under its control in repair. The case was *Portland (Town) v. Griffiths* (1885), 11 S.C.R. 333, according to Cory J.'s majority judgment in *Brown v. British Columbia (Minister of Transportation and Highways)* [1994] 1 S.C.R. 420. At para. 35 of *Brown*, Cory, J. confirmed the legal consequence of that duty in the following words:

It follows that once the duty to repair or to maintain is assumed by a government, then it must fulfill that obligation in a manner that is not negligent. That is the duty that rests upon the respondent in this case.

[18] In Ontario, the proposition that municipalities have a duty to keep their public streets and highways in a reasonable state of repair and to pay compensation in cases of default causing damage is codified in the *Municipal Act*, section 284, as of December, 2002. Those provisions now appear in slightly altered form in the *Municipal Act* 2001 as section 44. The appellate courts of Canada and Ontario have arrived at certain principles governing the application of this duty to winter conditions of cases, such this one. I have summarized these principles in the following statements:

The duty of care resting on a province or municipality towards its road system consists of protecting users of the highway from unreasonable risks of harm to them. The highway authority is not an insurer.

The duty does not arise in relation to policy decisions made in the exercise of statutory discretions. The duty of care applies to operational decisions of the highway authority, its officials, employees, and contracted operational forces. Liability will result where the highway authority has failed to take reasonable steps to eliminate or effectively reduce a condition of risk (a state of non-repair) within a reasonable time after it became aware, or ought to have become aware, of its existence.

There is no general duty on that authority to sand or salt highways; in other words, the failure to sand or salt will not in itself be a sufficient ground for imposing liability.

It is a question of fact in each case whether a condition of non-repair exists and if so, whether the highway authorities response is reasonable, timely, and reasonably executed.

Whether the alleged condition of non-repair is described as a special highly dangerous situation or an unreasonable risk of harm to the public using the road, the duty of care is triggered on notice or constructive notice of a condition of non-repair; this includes a situation of non-repair at a specific place or one that extends across a wide area, such as conditions during an ice or snow storm having wide effect.

See *The Queen v. Cote; Millette et al v. Kalogeropoulos et al*, [1976] 1 S.C.R. 595; *MacMillan v. Ontario (Minister of Transportation and Communications)*, [2001] O.J. No. 1891 (Ont.C.A.); *Montani v. Matthews*, [1996] O.J. No. 1974 (Ont. C.A.); *Gould v. County of Perth*, [1983] 42 O.R. (2d) 548 (H.C.), aff'd in 48 O.R. (2d) 120 (C.A.); *Roberts v. Morana et al.* (1997), 34 O.R. (3d) 647 (H.C.), aff'd [2000] O.J. No. 2688 (C.A.); *Bisoukis v. Brampton (City)*, [1999] O.J. No. 4598 (Ont.C.A.); *The Law of Municipal Liability in Canada* by D.G. Boghosian and J.M. Davison, LexisNexis Butterworths, 1999, at §3.147

[19] My conclusion is that after *Montani* and *Bisoukis*, the older language triggering action by the highway authority in a snow/ice circumstance of a “special highly dangerous nature”, words which have been repeated in such cases since *Cote*, has fallen into line with and is subsumed by, or is co-extensive with, the tort concepts of reasonably foreseeable risk and unreasonable risk of harm. The required analysis under the duty of repair in section 284 of the *Municipal Act* has absorbed tort/negligence law into the definition of the statutory duty and the statutory defences.

[20] In 1996, subsections (4), (5) and (6) were added to s.284, making possible the additional defence raised by York in this case, i.e. that it complied with the MMS. For six years after enactment of the *Better Local Government Act* S.O. 1996, c.B-32, no minimum standards had existed. On November 1, 2002, the Lieutenant Governor in Council enacted O.R. 239/02 importing into s.284 the MMS.

[21] Prior to this case, I have found only two cases in which the MMS have been referred to. Both are decisions under Rule 20 of the *Rules of Civil Procedure*, on motions for summary dismissal, not on the full record provided by a trial.

[22] In *Dickson (Litigation Guardian) v. Vezina*, the defendant County of Perth moved under Rule 20 to dismiss a claim based on alleged breach of its duty to maintain Perth Line 26. Justice Haines, of this court, found that the County met the MMS as to patrolling and snow and ice treatment. The plaintiff submitted that the County had a common law duty distinct from its statutory duty, and that whether it was in breach of that duty remained a genuine issue for trial. Haines J. referred to *Just v. British Columbia*, [1989] 2 S.C.R. 1228 and *Mero v. Waterloo (Reg. Mun.)* (1992), 7 O.R. (3d) 102 (C.A.), found against the plaintiff and held that there was no evidence or issue for trial on the record before him to dispute the County’s inspection program and its response to the weather and road conditions, which were entirely reasonable in the circumstances. In so finding, Haines J. appeared to leave open the possibility that, in law, a duty in tort existed apart from the statutory duty of the *Municipal Act*, and that therefore section 284 was not a complete code of the law applying to municipal road repair.

[23] In *Jameus v. Midland (Town)* 2006 Carswell Ont. 6818 (C.A.), the Court of Appeal dealt with an appeal from the summary dismissal of an action under Rule 20 based on alleged non-repair of a public street. The motions judge had found that the MMS were met but that tort liability “is not impossible even where mandatory minimums have been met.” She went on to find that there was no evidence that the condition of the road caused the accident, or that the Town breached the common law standard of care. The Court of Appeal dealt with the appeal without any reference to the MMS or the motions judge’s explicit finding of compliance with the MMS. Instead the Court of Appeal allowed the appeal on two grounds:

- i. that there was a genuine issue for trial on the issue of causation;
- ii. that the Town had the onus on the motion and did not provide direct evidence showing that its salting, sanding and plowing were appropriate; therefore whether “reasonable maintenance standards” were met was also a genuine issue for trial.

[24] It appears to me that the Court of Appeal was reluctant to confront the issues raised by O.R. 239/02 and compliance with the MMS as a potentially complete defence without a full trial record. I say this because the court added in its reasons the following statement: “The plaintiff suffered a serious injury and we think that her claim should be resolved at trial.”

[25] In both cases, the motion judge had accepted the possibility of a duty in tort existing apart from the statutory duty found in section 284 of the *Municipal Act* 1990, as amended, or in section 44 of the *Municipal Act* 2001. Either that, or that the common law which has developed around the statutory duty of repair, including the duty to take reasonable steps and actual or constructive knowledge in the road authority, required those aspects to be addressed in addition to compliance with the MMS, a submission made by Mr. Danson in this case.

[26] In my view, section 284 of the *Municipal Act* provides a code on the subject of the duty of care in relation to highways under municipal jurisdiction and the consequences of default where damage or loss results. The case law that has emanated from the *Municipal Act* has subsumed within that code, or co-extends with it to include, the common law tort principles of duty of care, standard of care, and causation where a claim emanates from the condition of a highway or street in municipal jurisdiction and control.

[27] The important issues arising from the MMS include not only the interpretation and degree of application to the facts of this case, but also the legality of their introduction by regulation in that they may exceed the authority granted by the legislature in section 284(1.5). It is argued that, in dispensing with the concept of constructive notice in the MMS, and by linking the municipal road authority’s winter storm response to actual knowledge of the above standard snow depth or the presence of ice, the Minister has gone beyond his authority in section 284(1.5). It may also be that the very attempt in sections 4 and 5 of the MMS to go beyond what are strictly standards of repair, and deal with timelines and steps necessary to remedy a deemed state of non-repair, exceeds the intent of the legislature in restricting minimum standards to those factors required to be deemed to come within a state of repair of the road or highway or bridge. It was also argued that in addressing “routine patrolling” but not addressing patrolling in storm conditions or dealing with the hazards of slush as a distinct risk requiring minimum standards of its own, the gaps and resulting reduction in highway safety for the traveling public are such that the MMS should not be applied in this case. Alternatively, it was suggested that the MMS must be read to include the constructive knowledge by the municipality of snow and ice overages above the table depth and times in the MMS, so as to harmonize the MMS with its statutory parent. It was further submitted that the highway authority must make out the defences in subsections (1.2), (1.3) and (1.4) as these are exclusionary clauses requiring a strict and conjunctive interpretation and application. For reasons given in the following part, it is my view that the legality of the MMS and O.R. 239/02 is not properly before this court. I will deal with the issues of statutory interpretation fully following my review of the evidence.

(ii) The Legality Issue: O.R. 239/02

[28] The authority for O.R. 239/02 is found in subsection (1.5) of section 284. It reads:

(1.5) The Minister of Transportation may, by regulation, establish minimum standards of repair for,

- a) highways and roads;
- b) classes of highways and roads;
- c) bridges;
- d) classes of bridges.

Subsections (1.6) to (1.8) of section 284 provide some guidance to the Minister regarding the form and application of the MMS. As there is no incorporation by reference of any code standard or guideline existing at the time, subsection (1.8) is not relevant here.

(1.6) The minimum standards may be general or particular in their application.

(1.7) A regulation made under subsection (1.5) also applies to regional, district and metropolitan municipalities and the County of Oxford.

Subsection (1.7) expressly applies the regulation to the Regional Municipality of York, thus making it unnecessary for regional council to adopt the regulation.

[29] The submissions of all counsel dealt with principles of law relating to the interpretation of statutes and regulations. The issue of whether the MMS are *ultra vires*, as being in excess of the authority granted to the Minister of Transportation in section 284(1.5), was not pleaded, nor was relief claimed by way of a declaration to that effect. In the main, counsel addressed the provisions of the MMS relating to patrolling and snow/ice treatment as matters of interpretation, not affecting the legality of the document as a whole.

[30] During final submissions of counsel, Mr. Danson spoke of principles of statutory interpretation relating to provisions excluding liability or statutory defences, onus of proof, and interpretation of a regulation in harmony with its parent statute. The latter submission relates to the use of actual knowledge of a specific snow depth and of ice formation as triggers to municipal deployment of road forces in the MMS. Section 284(1.2) and the common law principles developed in the case law incorporate the concept of constructive knowledge, not only actual knowledge, of a state of non-repair. At one point in his analysis, perhaps in a colloquy with me, he said in effect that a regulation cannot stand if it leads to an absurdity. Mr. Davison's submissions on the MMS related to their purpose, interpretation, and application to the circumstances of this case. In reply, Mr. Romaine briefly referred to the extent of authority for O.R. 239/02 in the statute, and the problem raised by the injection of times for remedial steps and use of actual knowledge where section 284(1.5) does not authorize more than the establishment of "minimum standards of repair".

[31] I do not see this record as an appropriate case to address the issue of whether the regulation exceeds its statutory authority, nor do I need to address this issue, for reasons which

will become evident shortly. The issue of the legality of the MMS should be dealt with in a proceeding where the issue is squarely before the court and fully tested by evidence and argument. It will suffice to say at this point that it is an issue which appears to merit close scrutiny because of the use of a regulation to apparently dispense with the notion of constructive knowledge embedded in its enabling legislation and the jurisprudence surrounding it, and which may seriously dilute the content of the duty to keep highways in repair, to the prejudice of the public using those highways.

(iii) Factual Analysis

[32] I will first set out the significant evidence from the witnesses who were at the scene of the accident on the westbound side of Green Lane on December 25, 2002. This will include the evidence of Mr. Shadid and Ms. Thornhill as to their driving up to and including the collision at 3:35 p.m. In referring to the eastbound and westbound sides of Green Lane, I am doing so because, although it was a four-lane road, with two lanes in each direction and no median, all witnesses agree that it was covered by snow or by snow over slush. The four lanes and the lane markings were not visible. Motorists were driving in the tracks left by other vehicles. There was only one pair of tracks through the snow on each of the eastbound and westbound sides of Green Lane. For that reason, Ms. Thornhill and Mr. Shadid could not say if they were fully in the curb lane or the inner lane.

[33] I will describe the system for winter patrolling and salting/plowing used by York for the winter season of 2002-03 and its actual operation on December 25, 2002, up to and shortly after the accident. I will then refer to the expert evidence of the professional engineers, Neil Bigelow and Robert Yeager, in respect of snow, slush, and ice covered surfaces, their effects on driving, and conclusions as to the cause or causes of Mr. Shadid's loss of control and the resulting collision.

[34] Nadine Thornhill had proceeded from her home to the Shoppers Drug Mart on Leslie Street near Davis Drive for her son's medication in the mid-afternoon of December 25, 2002. At about 3:35 p.m. according to the investigating Officer P.C. Manzon, the collision occurred. There was no serious disagreement with that time and I accept it as being fully supported by the evidence.

[35] Ms. Thornhill testified that she put on her seatbelt upon entering her car. She proceeded easterly on London Road, her home street, made a left turn to go north on Main Street, and turned right onto Green Lane. She drove easterly along Green Lane toward Leslie Street where she turned right in order to proceed south to the drug store. She described London Road and Main Street as covered by a lot of snow, snow-packed and slushy. She had to drive more slowly than usual, traveling at about 30 kph on London Road and under the limit on Main Street, where the speed limit ranges from 50 kph at first to 60 kph near Green Lane. She stopped at Main Street and at Green Lane without any loss of control. She said she started braking earlier than usual due to the conditions.

[36] Ms. Thornhill spoke of the traffic conditions on the eastbound side of Green Lane as light; each vehicle was proceeding in the tire tracks made by its predecessors. There was only one pair of tire tracks going eastbound. She said she encountered no difficulty on Green Lane; the speed limit is 80 kph and she says she drove at an average speed of 50 kph. She braked sooner than usual for the traffic lights at Leslie Street because Green Lane was slushier there. She was able to stop and then turn right without a problem. She described the road conditions on Green Lane going eastbound as snow covered and slushy. She said it did not appear to have been plowed. She did remember that there were banks on the side of Green Lane, 12 inches high, more or less, indicating that plowing had occurred at some earlier time. She found Leslie Street in the same condition as Green Lane. Both are regional roads.

[37] For her return trip, Ms. Thornhill fastened her seatbelt. She proceeded up Leslie and made a left turn onto Green Lane to go west. She traveled in the one set of tire tracks on the westbound side at a similar speed to before. She said Green Lane was still snow-covered and slushy.

[38] Ms. Thornhill recalled first noticing the vehicle that ultimately hit her when it was crossing Main Street going easterly. When it was approximately three car lengths away from her, the black Jeep Cherokee slid into her vehicle, allowing her no time to avoid it. The rear passenger side of the Jeep hit the front of her vehicle. The force of impact was “very severe”. She could not get out of her vehicle. She knew her leg was injured and immobile. The other driver, later confirmed as Michael Shadid (the defendant in this action), walked to her vehicle and asked if she was okay. She said no. He cried and walked away. Later he sent her flowers at the hospital. Ms. Thornhill could not estimate the speed of Mr. Shadid’s vehicle. She remembered that it had started spinning prior to sliding into her. There was no median or barrier on Green Lane between the east and westbound lanes.

[39] Under cross-examination by Mr. Davison the following exchange occurred.

Q. Did you say, correct me if I’m wrong, that you couldn’t see any markings on the roadway because of the snow?

A. I could see tire tracks in one lane ...

Q. Okay

A. ... in the snow.

THE COURT: But what he’s asking is, could you see the lines any lines in the road?

A. Lines, no.

MR. DAVISON: Q. Okay. I’m going to use your discovery transcript to try and clarify this, ‘cause I want to understand what your evidence is.

Q. I'm going to start, just to put – give the witness the context, with the question at line 3.

Q. You remember brushing snow off your vehicle before you went out. Do you remember if you were standing in any amount of snow?

A. In the driveway?

Q. Yes.

A. There was snow in the driveway, yeah.

Q. Can you say how much?

A. I can't recall how much.

Q. Do you remember being asked those questions and giving those answers?

A. Yes I do.

Q. And then you were asked the next question:

Q. As you drove to the Shoppers Drug Mart do you remember if the roads were snow covered, slush covered, clear, anywhere in-between?

A. They were snow covered and slush.

Q. Were you able to see any markings on the road?

A. Yes.

Q. Do you remember being asked those questions and giving those answers?

A. I – markings, I thought she meant tire tracks, so I think that's where

Q. It wasn't me that was asking you, it was ...

A. I know, I know, yes.

Q. ... it was Ms. Rogoveine who is asking the questions.

A. And I believe that's why I clarified – oh, for – when I – I don't know, do you want to continue reading? At that point, I said, from tire marks and stuff.

Q. Well yeah, let me do that.

A. Yes.

Q. But you did give the answer that you were able to see markings on the road, and what you're saying is that they weren't the paint markings?

A. Not paint markings.

Q. Okay. The next question:

Q. So there were some bare spots?

A. From tire marks and stuff, yes.

Q. Do you remember being asked that question and giving that answer?

A. Yes.

[40] Ms. Thornhill went on to say that she remembered a few small bare spots on London Road at the stop signs but no bare places on Green Lane. She said of this:

One lane had tire tracks and one had – was full of snow. Cars were following each other, so there was completely snow covered and slush on one lane, and then tire tracks on another lane ... (Discovery, pages 204-5 and 206-7).

She later clarified that one lane was no less snow covered than the other, except that one lane had the tire tracks in it.

[41] Ms. Thornhill was asked about her experience driving eastbound on Green Lane on the way to the store. This was the same side of Green Lane where Mr. Shadid was driving some 25 to 30 minutes later, when he lost control. Ms. Thornhill agreed that she drove much more slowly than the speed limit "because of the weather conditions". She denied having difficulty stopping her vehicle at the intersections during her trip as she was driving "very slow". She saw no other vehicles sliding or skidding other than the Jeep SUV which hit her. She saw very few vehicles on the road, as it was Christmas Day. Her vehicle did not have snow tires and it had probably gone over 100,000 kilometres on the same all-season tires. She agreed that she had no difficulty on the roads that day, driving slowly as she was.

[42] Michael Shadid is 43 years of age and has been driving since 1980 when he turned 16. His work since 1997 involves loading transport trailers, for which he drives a 45-pound vehicle under a special safety licence. He purchased his Jeep Cherokee SUV used, with 132,000 kilometres on it, in October 2001. He described the vehicle as being in mint condition, "almost show room condition". The maintenance and oil changes were done every 5,000 kilometres at licenced shops. The tires were all-season radials in good condition, he said. He had added

another 30,000 kilometres in the year prior to the accident, making the total distance the vehicle had traveled at over 160,000 kilometres.

[43] On December 25, 2002 prior to the accident, Mr. Shadid was returning his two children to their mother in Stroud, having had them with him over night for Christmas Eve and in the morning on Christmas Day, when the children had brunch with their grandmother. He drove north on provincial highway 404, west on Green Lane and north to Stroud on Yonge Street (formerly highway 11). His vehicle was in four-wheel drive mode on December 25, 2002. At the time of the accident he was returning by the same route. In-chief, he said that the road conditions were the same throughout the route and that he was driving cautiously. The highways were snow covered and slushy. Going westerly, he stopped at Leslie Street on Green Lane without difficulty and felt he had control of his vehicle. He estimated his speed at 55 to 60 kph. On the way back from Stroud, he stopped at a gas station on Green Lane, near Yonge Street, for juice. Then he drove off eastbound on Green Lane amid the same snow and slush conditions. He estimated the depth of snow and slush on Green lane to be at least two inches, deeper in some places. He estimated his speed at 50 to 55 kph. His traction on the road was good, as it was the first time he traveled Green Lane and Yonge Street. Mr. Shadid recalled driving through the Main Street intersection on Green Lane when, at a point 20 to 25 yards beyond it, he felt “a jiggle” in the rear end of his vehicle. It started to spin, and the rear wheels seemed to come out from behind, swinging to the right. He steered to the right, into the skid, but control was lost and could not be regained, and the rear of his vehicle slid across the road into the oncoming vehicle driven by Ms. Thornhill. Later Mr. Shadid admitted that he had applied the brakes lightly as he steered into the skid. His vehicle stopped in the northerly ditch beside the westbound side of Green Lane. He estimated the time from the jiggle to impact as two to three seconds, very fast, confirming Ms. Thornhill’s evidence of the suddenness of the emergency condition. He also agreed with Ms. Thornhill that he approached her to try to assist after the collision.

[44] Under cross-examination by Mr. Boland, Michael Shadid first blamed the slippery road conditions for his loss of control. He conceded that the impact was severe. His vehicle, like Ms. Thornhill’s, was written off as a total loss. Both vehicles were substantially damaged, though for obvious reasons the photographs show the smaller Toyota Tercel as markedly more smashed up. Mr. Shadid admitted that he was not driving slowly enough for the conditions that day. Mr. Shadid estimated his speed along Green Lane at about 55 to 60 kph. On discovery he said his speed was about 60 kph. At trial he disagreed that his speed was 60 kph, rather it was lower, 55 to 60 kph. He would not accept that in saying “about 60”, he could have meant higher, as well as lower, than 60 kph.

[45] Mr. Shadid accepted that, on discovery, he estimated the snow depth on Green Lane as two inches in some places; he also conceded that he saw no other vehicles lose control on his route, though he had seen one vehicle off to the side on Yonge Street for unknown reasons. Like Ms. Thornhill and other persons at the scene, Mr. Shadid saw no snow plows at or near the accident scene on Green Lane either prior to or after the collision. He saw a plow 20 to 30 minutes later but it turned back at Leslie Street toward the east.

[46] Other persons who arrived at the accident scene shortly after the collision were the occupants of a vehicle driving behind Ms. Thornhill (Karen Lesev and her husband), the driver of a second vehicle driving behind the previous two (John Adams), the investigating officer (P.C. Manzon of the York Regional Police Services), a tow truck driver (Terry Anaka), and the husband of the plaintiff (Jack Thornhill).. Apart from Ms. Lesev, who did not exit her vehicle, these individuals stated that the snow or snow and slush on Green Lane was approximately two to three inches in depth. None of them saw a plow while they were at the scene of this accident.

[47] John Adams and Karen Lesev were in different vehicles and were driving some distance behind the plaintiff. Mr. Adams was not close to the plaintiff's Toyota Tercel. He drove slowly, in view of the condition of the road, leaving more space in front of him in case of an emergency. Mr. Adams confirmed that, traveling westbound, Green Lane descends on a gradual grade from Leslie Street to the railway tracks and then it rises to the top at Main Street. He noticed the black Jeep Cherokee SUV as it proceeded past Main Street going east, when it swerved right, then left, and then crossed the road into the westbound side. He turned momentarily to the passenger in his vehicle, his brother, at the time of the impact. He heard it. The impact was very hard. He got out of his vehicle after the accident and helped direct traffic with his safety vest on. Mr. Adams described the road as snow covered and slushy to a depth of two and a half to three inches. He had contrasted the road conditions on Green Lane with those on highway 404 which he had used to get to Green Lane. He said that 404 was wet and bare whereas Green Lane was snow and slush covered to the above depth. Mr. Adams changed from running shoes to work boots at the scene in order to gain better traction and as he drove off later his tires slipped a little on Green Lane. I found Mr. Adams to be a careful, thoroughly credible and accurate witness. Where his evidence and that of Mr. Shadid conflict, for instance as to the condition of Green Lane and highway 404, I prefer the evidence of Mr. Adams.

[48] Karen Lesev was a passenger in an SUV driven by her husband. They were on their way to see her daughter for Christmas dinner. She remembers the small car ahead of them as it was driving slowly westbound on Green Lane and they were gaining on it. She could not give accurate estimates of the speed of any of the other vehicles. She saw a black SUV at the top of the hill eastbound on Green Lane near Main Street. She saw it fishtail or slide, and then it seemed to straighten. She said it accelerated down the hill and then fishtailed again, went right, and then crossed to the left into the small car that was later identified as Ms. Thornhill's. To Ms. Lesev, the impact was forceful; it looked like the black vehicle went over the smaller car. At the time, Ms. Lesev was eight to ten car lengths behind the plaintiff's vehicle. She and her husband felt it unsafe to get out of their car, so they waited for 20 to 30 minutes at the scene and made a 911 call from inside their vehicle. Ms. Lesev saw no snow plow at any time while she was there or while proceeding on Green Lane. Under cross-examination, at one point she said that it looked like the black SUV had been on Main Street and had turned right onto Green Lane. The fishtailing began in the area of the Main-Green Lane intersection, from her perspective some distance to the east. As to relative speed, she said the SUV was going faster than the vehicle she occupied but that was as far as she could go as to describing the speed. She saw no vehicles in difficulty on the roads that day other than the black SUV.

[49] Terry Anaka was operating a tow truck on December 25, 2002. He went out on the roads at 3:00 p.m. from his home at Holland Landing, a small community a few kilometres north of Green Lane on Yonge Street. He remembers the weather. It was pretty bad. It was snowing off and on, though not heavily, and the roads were not good. He said he could not see the road surface because of the snow covering it on the Mount Albert Sideroad, which is the first major road north of Green Lane in York Region. His route took him along Green Lane, Yonge Street, and highway #9 to Bathurst Street and Dufferin Street, checking the intersecting roads as he drove for potential business. He became aware of the Thornhill/Shadid accident from a call on his police-call scanner. He immediately went uphill to Green Lane, which was only two kilometres away at the time. He described Green Lane on his arrival as chaotic – cars stopped, people trying to direct traffic, the road snow-covered and slick, two to three inches of snow/slush, snow still falling steadily, and the Toyota Tercel's engine crushed and steaming in the westbound side of Green Lane. No police or ambulance had yet arrived. Mr. Anaka did not leave the scene until after Ms. Thornhill was removed in the ambulance. He was positive that no snow plow came along Green Lane while he was at the scene. Under cross-examination, he conceded that he had had no problem driving that day, but stated that his truck was particularly good in snow.

[50] P.C. Manzon was the investigating officer. He was on traffic patrol duty December 25, 2002 commencing at 8:48 a.m. Shortly thereafter, he came upon a single car accident; the driver had lost control about three kilometres from Green Lane on Woodbine Avenue near Queensville Sideroad. Light snow was continuing to fall. He said the roads were generally wet and slippery. P.C. Manzon cannot recall anything about Green Lane prior to the accident at 3:35 p.m. that day. He stopped for lunch at noon, noting at Eagle and Yonge Streets that the roads were slippery. He patrolled again beginning at 2:58 p.m. and was called to the accident scene at Green Lane near Main Street at 3:40 p.m. He arrived within five minutes of the dispatch.

[51] As he came along Main Street to respond to the dispatch, P.C. Manzon noted that it was slush-covered. He turned right onto Green Lane. The road was slush and snow-covered, with tire marks forming two sets of tracks on Green Lane. He found the road slippery as he approached the accident scene along the same stretch of Green Lane that Mr. Shadid had driven and lost control, east of Main Street. P.C. Manzon had to reduce speed. He parked his cruiser on the south side of Green Lane facing east, and when he got out, he recalled that the road was covered with slush and snow. The vehicles involved were 20 feet apart with major damage to each, the Jeep Cherokee in the north ditch and the Toyota Tercel in the westbound side of Green Lane.

[52] P.C. Manzon attempted to locate the point of impact. He could not do so. The snow was close to three inches deep on Green Lane. He closed Green Lane due to the slushy and slippery road condition and called for the plows. No charge was laid against Mr. Shadid due to the road condition, according to P.C. Manzon. He could not say how soon a plow truck came to Green Lane, but it arrived some time later from the east and made more than one pass.

[53] As to the depth of snow on Green Lane, P.C. Manzon had made no note of it. His memory now was that it was three inches in depth. He agreed with Mr. Davison that if Mr. Shadid had told him of a bump in the road, he would have noted it. There is no such notation.

[54] Jack Thornhill was called to the scene of his wife's motor vehicle accident at about 3:45 p.m. He recalls driving over snow-covered slippery roads to get there. On arrival at the scene, he looked easterly on Green Lane; it was snow-covered and slushy with the only marks being vehicle tracks through the snow. He was able to sit in the car with his wife Nadine pending arrival of the "jaws of life"; the dashboard appeared to him to be pushed forward against her right knee. Mr. Thornhill was present for about 30 minutes at the accident scene after he arrived there. He saw no plows in the area at all. He left with Nadine for the hospital at 4:23 p.m., according to the Ambulance Call Report (exhibit #1, tab 7).

[55] According to all the witnesses at the scene, no plowing was done on Green Lane in either direction between Main Street and Leslie Street from 3:35 p.m. until after 4:23 p.m., when most of them left. P.C. Manzon could not say when the plows arrived. The plow driver responsible for Green Lane recorded in his daily record that he was on Green Lane, going easterly from Main Street in the west past Leslie Street to Woodbine Avenue in the east, between 3:45 and 3:55 p.m. This is the first serious conflict in the evidence. The driver's record in exhibit #18 shows one pass from west to east only 10 minutes after the accident, following which he left for the yard to book off duty by 4:00 p.m.

[56] Gary Cosgrove, the road maintenance manager, described the system of road inspection and road treatment in routine conditions, as well as during inclement weather. York is divided into four districts for this purpose. The district relevant here is the Sutton District, bordered by Davis Drive in the south, Lake Simcoe to the north, and on the east and west by Regional Road 30 (York Durham line) and Yonge Street, respectively. There are 250 kilometres of roads for which York is responsible in the Sutton District. I attach Sutton Yard plans A, B and C to this judgment so that readers may understand the system.

[57] The yard for the Sutton District is the one located well to the north off Woodbine Avenue, not the one marked on the attached plans south of Green Lane. As with the other District yards, Sutton District has plans on hand for road maintenance, and a patrolman on duty 24 hours per day in winter. Technical and maintenance workers and contractors who supply personnel and equipment are attached to each yard. They are available 24 hours per day in the winter.

[58] The patrol trucks are equipped with technology to monitor weather forecasts, information on current road conditions via the internet, mobile road temperature sensors, two-way radio and cell phone. For instance, York uses two weather services, Environment Canada and World Weather Watch (WWW). They can both be accessed from the patroller's home, the yard, or his truck. York shares Road Weather Information Service (RWIS) with the 407 ETR toll corridor. RWIS provides temperatures, precipitation (rain and snow) information, as well as inroad surface and road-base data, including whether ice is forming. Full training is provided to patrollers, plow drivers and other operational workers before each winter season.

[59] My conclusion from this evidence is that road patrollers in York have the most up-to-date forecasting and road condition information available to them, as well as instant communication capability with the forces under them, including all of the plow drivers. It is no longer the case that road patrollers have only their own eyes to assist them as they patrol their areas, or that they must delay communication with other patrollers or plow operators until they reach the yard to phone.

[60] Each patroller and each plow driver has a duty to keep complete records of his or her activities, observations, and the road maintenance plan that is being utilized. On December 25, 2002, the evidence shows that only plans B and C were used throughout the day, from the commencement of the winter storm early that morning until the subject motor vehicle accident at 3:35 p.m. Plan A was implemented thereafter at 4:00 p.m., but not until then. Plan B involves the use of five plow trucks, covering routes one to five. Plan C requires the calling in of two additional trucks for plowing, sanding and/or salting, making a total of seven trucks on routes numbered one to seven. The trucks involved in Plan C are numbered 501 to 507 and their last numeral corresponds to the route number.

[61] The use of Plan C significantly shortens each of the routes from those assigned in plan B because of the use of seven instead of five trucks to cover the same total road distance. For example, under plan B, truck 503, covering route 3, must service Queensville Sideroad (Bathurst to Woodbine), part of Bathurst Street near Queensville Sideroad, Holland Landing Road, Mount Albert Sideroad (Holland Landing to York Durham line), Yonge Street (from Queensville Sideroad to Morning Sideroad), Main Street (from Queensville Sideroad to Green Lane) and Green Lane (from a dead end west of Yonge Street to Woodbine).

[62] When the patroller orders a change from Plan B to Plan C, truck 503 on route 3 has a substantially reduced distance to plow and treat with sand or salt. Under Plan C, route 3 reduces to the segments on Yonge Street, Main Street, and Green Lane only. The significant distances under Plan B on Bathurst Street, Queensville Sideroad and particularly Mount Albert Sideroad are no longer the responsibility of the driver of truck 503.

[63] Mr. Cosgrove stated that, in weather conditions such as those on December 25, 2002, when temperatures remained below 0°C and above -12°C, salting roads is effective. Sanding was not utilized on December 25, 2002, because the temperature stayed well within that range. Mr. Cosgrove stated that salt treatment requires that the road surface be plowed to be effective, and that at least one-half hour must be provided before the road is plowed, to allow the salt to take effect before the road is plowed. The effect of salt is to lower the freezing temperature of water and prevent ice from being formed. The effect of applying salt on a snow-covered surface within the above temperature range is to change the snow to slush.

[64] According to Mr. Cosgrove, plows are not to proceed above a speed of 60 kph when plowing, and 30 to 40 kph when salting. On a multi-lane road like Green Lane, the plows are to work out from the centre in their passes along each side in order to leave the material on each shoulder. The plows took four passes to plow Green Lane following the accident, working in this manner.

[65] York has adopted the routine patrolling standards from the MMS for summer conditions only. In winter, York's policy is to patrol the entire road system each day, not just [as the MMS suggests for the busiest and fastest roads (class 1)] three times during every seven days. During winter storm events, York requires continuous patrolling. (Roads Maintenance Patrol Manual, cl. 3.2). Mr. Cosgrove said that during storms, the patrollers must go to particular places, as conditions warrant, but other staff and plow drivers are on the road system too to help effect the continuous patrolling requirement.

[66] Mr. Cosgrove reviewed the weather forecasting information from late on December 24th through the morning of December 25, 2002. As of 9:00 p.m. on December 24, snow was expected to start in the early morning of December 25 and continue to about 6:00 or 8:00 p.m., and accumulation was estimated at between a trace to five centimetres. By 6:00 a.m. on December 25, both WFW and Environment Canada were forecasting snow and flurries to continue throughout the day, but the estimated accumulation was increased to between four and seven centimetres.

[67] Mr. Cosgrove said that patrolling in these circumstances was to be continuous and the maintenance plans and the trucks would roll out as the snow continued. The 3:00 a.m. (December 25) RWIS data indicated that a spike in road temperatures would occur at about 2:00 to 3:30 p.m., and that at that time the temperature would increase to about 1°C, as opposed to the temperatures ranging from -2 or -3°C, which were predicted for the rest of the day. The snow was to reach five centimetres accumulation by 12:00 noon with no further accumulation, and the wind 30 kilometres per hour by 10:00 a.m. and to continue until the evening. Mr. Cosgrove said that the Stouffville and Schomberg Roadcasts of 3:00 a.m. (December 25) indicated a potential for melting snow and ice from 1:00 p.m. or from 3:00 to 3:30 p.m. for the remainder of the day. He anticipated that the plowing and salting operations, which would be ordered by the patrollers, as required and properly executed under the applicable Plan A, B or C, would clear the snow and prevent icing. However, he knew early on that these circumstances called for a close watch of conditions as they may develop, and that the snowfall would cause accumulation of twice to three times the maximum depth that requires deployment and snow clearance under s. 4(1)(a) of the MMS.

[68] According to the York dispatch records and the patrollers report for December 25, 2002, the following road-events occurred in Sutton District, from early morning to late afternoon on December 25th:

Location/Source	Time	Description
Sutton Patroller (Leitch)	6:30 a.m.	5 trucks called and responded (including truck 3, S. Cutajar, for route 3)
Sutton Patroller (Leitch)	7:00 a.m.	Plan B, trucks loading with salt
Woodbine Avenue/Queensville Sideroad: York Police	8:40 a.m.	Vehicle lost control, into side rail, "very poor road conditions."

Location/Source	Time	Description
Sutton Patrol (Baker)	9:00 a.m.	Plan B in operation
Ravenshoe Road: York Police	11:00 a.m.	“Very slippery roads”
S. Cutajar (Route 3)	10:44 to 11:00 a.m. (from 9:57 a.m.)	Green Lane plowed.
Sutton Patrol (Baker)	11:30 a.m. approx. to 4:30 p.m.	Patrolling north of Ravenshoe Road only, no road patrol Queensville Sideroad south to Green Lane
Sutton Patrol (Baker)	12:00 noon	Two additional trucks called out (“Joe and Woody”)
S. Cutajar (Route 3)	12:03 p.m.	Salting of Green Lane reportedly completed: Green Lane east to Woodbine should be bare pavement: G. Cosgrove
Sutton Patrol (Baker)	12:10 p.m.	Three trucks called, two responded
Leslie Street at Green Lane: York Police	12:30 p.m.	Packed snow and ice, snow storm conditions reported, vehicle lost control
Sutton Patrol (Baker)	1:00 p.m.	Switch to Plan C ordered (Routes 6 and 7 added, Routes 1 to 5 reduced)
Davis Drive/Yonge Street: York Dispatch	1:22 p.m.	Car hit hydro pole, referred to York Police
S. Cutajar (Route 3)	1:40 to 3:36 p.m.	Truck 503 off route 3, salting or other activity unknown
Davis Drive near Kennedy Road: York Police	2:00 p.m.	Vehicle lost control, into ditch, road very slippery
Ravenshoe Road near Miles Road	2:59 p.m.	Snowing, loose snow on road, vehicle slid into sign and then ditch
Green Lane near Main Street	3:35 p.m.	The subject accident occurred, Green Lane reported to be snow and slush covered
Sutton Patrol (Baker)	3:00 p.m. approx	Switch to Plan A ordered for 4:00 p.m.
Green Lane, Main to Leslie Streets: York Police	4:07 p.m.	Very hazardous conditions, road closed until salt truck arrives
S. Cutajar (route 3)	4:00 p.m.	Route 3 drivers change
Sutton Patrol (Baker)	4:30 p.m.	Switch to Plan C ordered for 4:45 p.m.; patroller arrives at

Location/Source	Time	Description
		Green Lane from Base Line Road (near Lake Simcoe)
L. Graham (route 3)	4:50 to 6:18 p.m.	Green Lane salted and plowed
D. Koyanagi (route 3)	6:40 p.m. to 7:57 p.m.	Green Lane salted and plowed

[69] Throughout York Region, between 6:00 a.m. and 3:30 p.m. on December 25, 2002, there were 32 motor vehicle accidents reported involving snow conditions, snow on the roads, and vehicle loss of control. The York dispatch log contains reports of motor vehicle accidents and very slippery roads at 8:00 and 11:00 a.m. and onwards. From 11:00 a.m. to 3:30 p.m. there are reports of very slippery road conditions across a wide area, from close to Lake Simcoe in Sutton District over to highway 27, and from Schomberg south to King, with snow flurries and wind reported by an unnamed road patroller elsewhere in York. The records are replete with patrollers calling for plow and salting trucks from as early as 6:22 a.m. and through to 1:00 p.m., obviously acting in a pro-active manner to clear and salt the roads in order to prevent ice and slush formation predicted for the afternoon. Assuming the accuracy of the daily report of plow operator 503, between 11:00 or 11:30 a.m. and 4:30 p.m., no patrol and no plowing took place on the busiest road in Sutton District, Green Lane. But, as I will come to shortly, the route 3 operator's record is at best uncertain and unreliable, or at least his timing of events must be moved back to account for unreported traveling.

[70] The only witnesses called by York were Mr. Cosgrove and Mr. Cutajar. The latter has no memory now of his activities on December 25, 2002 other than the content of his report (Exhibit #18 and Exhibit #5, Tab 16A, p.18). I understand of course the difficulties that Mr. Cutajar and Mr. Cosgrove spoke of in keeping accurate records, as the plow driver has to cover his route in storm conditions. However, Mr. Cutajar did fill out and submit by noon the following day, as required, a detailed report for December 25 containing some 37 entries and references to the roads he plowed or salted between 6:47 a.m., when he booked in, to 4:00 p.m., the end of his shift.

[71] Mr. Cutajar's daily report for December 25 has him at the dead end of Green Lane near Yonge Street at 12:03 p.m. and at Woodbine and Green Lane at the same time. These two points are seven and one-half kilometres apart. He then reported salting and plowing on Woodbine Avenue north all the way to the C2 yard, none of which is on his route. That trip is reported to take 25 minutes. He reloaded at the yard between 12:28 and 12:37 p.m., according to his report. But at 12:37 p.m., he reportedly is not only at the yard but also at Woodbine and Mount Albert Sideroad, starting to salt on the sideroad to Leslie Street. The intersection of Woodbine and Mount Albert Sideroad is over 20 kilometres away from the C2 yard. The drive takes 20 to 25 minutes.

[72] Prior to these entries, his report indicates that he plowed the southbound lanes on Yonge Street, but never returned to plow most of northbound lanes on Yonge Street, between Holland Landing Road and Queensville Sideroad during his entire shift. From 8:27 a.m. to 3:00 p.m., a time span of some six and a half hours, he did not plow the eastbound side of Holland Landing

Road though the report has him doing the other side from Yonge to Bathurst Streets from 8:19 to 8:27 a.m. Again, some six hours separate Cutajar's plowing of Bathurst Street north to Queensville Sideroad from the plowing of the southbound side (8:38 a.m. to 2:34 p.m.). Mr. Cosgrove agreed that Mr. Cutajar's report shows that westbound Queensville Sideroad was never plowed or salted between Yonge and Bathurst Streets on December 25.

[73] Mr. Cosgrove agreed that at 12:03 p.m., after Mr. Cutajar's report says he completed the last of seven passes on Green Lane, Green Lane should be bare, with salt on it to prevent ice formation.

[74] Under cross-examination by Mr. Boland, Mr. Cosgrove was confronted with P.C. MacDonald's evidence that Green Lane at Leslie Street was snow-packed to the extent that vehicles were driving over the snow, not on the pavement, and there were no bare patches. P.C. MacDonald's report was made at 12:30 p.m. on December 25. Mr. Cosgrove appeared at first to concede that that condition was not consistent with Mr. Cutajar having completed his plowing and salting on Green Lane only 27 minutes earlier. He then told Mr. Boland that salt needs time to work and that he was not surprised at P.C. MacDonald's observation at 12:30. Later, after the lunch break, Mr. Cosgrove agreed with Mr. Boland that, assuming that Green Lane had been treated as Mr. Cutajar's report indicated, it should have been well plowed and salted as of 12 noon, and should have been bare.

[75] Mr. Cosgrove not only conceded that the reported treatment of Green Lane by Mr. Cutajar was inconsistent with its condition when the 12:30 collision occurred at Leslie Street; he also could not say from the Cutajar report where Mr. Cutajar was and what he was doing at 12:37 p.m. due to two missed entries without any accounting of the intervening time and distance. He agreed that he could not be at Woodbine Avenue and Mt. Albert Sideroad at the reported time of 12:37 p.m., as well as at the C2 yard.

[76] At entry 23 on Exhibit #18, at 12:45 p.m., Mr. Cutajar reports traveling, without plowing or salting at all, on Mount Albert Sideroad from Leslie Street west to Main Street. Mr. Cosgrove said that that could be explained by wind clearing the road.

[77] At 2:03 p.m. Mr. Cutajar's report shows another error conceded by Mr. Cosgrove. Mr. Cutajar reported that he was at both the Yonge and Bathurst Street intersections with Holland Landing Road at the same time. Furthermore, considering that Plan C had been in effect since 1:00 p.m., and allowing considerable time to complete any Plan B work, Mr. Cutajar reported that he was at Bathurst and Holland Landing Road, several kilometres off his Plan C route. Truck 7 was responsible for that area by that time. That driver was never called to indicate that Mr. Cutajar was supposed to cover part of his route. I do not accept Mr. Cosgrove's view that "a switch cannot be instantaneous" as accounting for a delay of over one hour from 1:00 p.m. to 2:03 p.m.

[78] At 2:26 p.m., Mr. Cutajar's report once again has him at two different places at the same time: at Holland Landing Road at Bathurst Street and at Queensville Sideroad at Bathurst Street, and also clearly off his route under Plan C. He reports continuous salting only, no plowing. In

fact, from 1:02 p.m. on, Mr. Cutajar never plowed any road again to the end of his shift. The snow continued to accumulate at varying intensities throughout that afternoon; on Green Lane the snow fell on salt and turned to slush, and was covered by snow without any plowing. Green Lane remained on Mr. Cutajar's route under Plan C.

[79] Again, at 2:34 p.m., Exhibit #18 has Mr. Cutajar salting at two different places at the same time: Yonge Street at Queensville Sideroad and Bathurst Street at Queensville Sideroad. This sideroad is on route 7 under Plan C, which continued to be in effect for all drivers in the Sutton District until 4:00 p.m. Neither Mr. Cosgrove nor Mr. Cutajar had any explanation for the discrepancies in these times and places. In fact, Mr. Cosgrove accepted that the driver on route 7 was at Bathurst and Queensville Sideroad only six minutes after Mr. Cutajar, at 2:40 p.m., though that driver (Haines) was plowing and salting the other side of the road going west. There was no explanation as to why Mr. Cutajar was on this road, and why he was not plowing as Haines was only six minutes later.

[80] At 3:36 p.m. the Cutajar report, for the fifth time, shows Mr. Cutajar at two different places at the same time – on Mount Albert Sideroad at Main Street and on Main Street at Queensville Sideroad.

[81] Finally, Mr. Cutajar reported salting on Green Lane, going easterly from Main Street to Woodbine Avenue, between 3:45 and 3:55 p.m. This is 10 to 20 minutes after the accident in question. Immediately prior to that, he reported coming south on Main Street to Green Lane, arriving at Green Lane at 3:45 p.m. His final entry shows that he drove his vehicle north on Woodbine Avenue from Green Lane to the C2 yard, a distance of 25 kilometres, in five minutes. Neither Mr. Cosgrove nor Mr. Cutajar provided any evidence as to where Cutajar was at 3:55 p.m. The next driver of truck 503 began work at 4:00 p.m. Both Mr. Cutajar's and Mr. Graham's reports agree on that point. As Mr. Davison later pointed out in argument, it is indeed suspicious that the style of printing of the top portion of both these reports appear very similar, except for the striking out of "B" on Graham's report and the substitution of "A". Plan A had been ordered to commence at 4:00 p.m., a fact not known to someone who may have prepared either or both of these reports before the events, or momentarily forgotten by someone reconstructing times, places and maintenance plan implementation after the event.

[82] The most troubling point to me is that Mr. Cutajar's report has him salting easterly on Green Lane only ten to twenty minutes after the collision in the westbound lanes where some five witnesses were present. Each one of those witnesses is certain that no plow came along Green Lane until after they left, and after Ms. Thornhill was removed by ambulance at 4:23 p.m. (Exhibit #1, tab 7). The police officer recalls that the plow came later while he remained at the scene. He had no record of the time. P.C. Manzon's evidence does not conflict with the other witnesses on this point as he stayed at the scene after 4:23 p.m. to try to establish a point of impact and complete his investigation.

[83] Two witnesses, Robert W. Yeager and Neil Bigelow, were qualified as experts in their fields. Both testified on liability issues. Mr. Yeager gave opinion evidence in the area of tire design and mechanics in relation to varying road conditions. At present, he is the chief survey

engineer for Standards Testing Labs in Massalon, Ohio, a position requiring specific knowledge of tire products from all tire manufacturers. He is in charge of tire performance evaluation and his duties include testing for tire wear, tire hydroplaning and construction. His employment history includes his present position, which involves work on all aspects of tire performance and integrity since 1994, the management of publications on tire technology and the tire market for twelve years, a position as the principal and senior engineer and research leader with Goodyear Tire & Rubber Company in Akron, Ohio over sixteen years, and a position as a lecturer in all the engineering courses offered at the University of Akron for thirteen years.

[84] Mr. Yeager explained the problems of tire mechanics and effectiveness in snow, slush, icy, and dry conditions. He said that tire design is a compromise. The manufacturer and driver want the best performance, and steel belts are designed under the treads to lessen tire squirm. The intent is to decrease tire squirm because it reduces the coefficient of friction. However, ice, snow, and slush present differing challenges. On ice, there is little or no adhesion, cohesion, or mechanical interlocking; the tire squirms as it goes over ice. Dry or powdery snow produces adhesion with the road surface. He described a good snow tire as using the cohesive and interlocking qualities to grip the snow. However, with slush, which can be common at temperatures between +5°C and -10°C, if it is deeper than 1.27 to 2.54 cm (0.5 to 1 inch), there is little cohesion, adhesion or interlocking. He described slush as viscous, like oil. As the tire enters slush, at a depth greater than 1.27 cm (0.5 inch), there is a substantial risk of hydroplaning. The factors which are at play in a car rolling over slush include speed, the amount of grooving in the tire, the shape of the tire footprint, inflation pressure, and of particular importance, the depth of the slush. Mr. Yeager said that if brakes are applied as hydroplaning starts, the elliptical graph of traction coefficients narrows and the driver has little or no control.

[85] Mr. Yeager stated that snow tires produce relatively good traction in snow and slush, though they lose traction slightly on dry surfaces. All season and regular tires, the kind on both vehicles in this case, produce better handling at higher speeds on dry pavement, but produce less ice/snow traction, which is the compromise presented with the smaller-groove. He concluded that in this case the Jeep Cherokee lost control due to the amount of slush on the road.

[86] Under cross-examination, Mr. Yeager stated that if salt had been applied to the road, followed by snow, slush would be produced, depending on the temperature. He was asked to account for the fact that most drivers on Green Lane that day did not lose control and skid across the road. Mr. Yeager stated that several factors were involved, including speed, tire condition, shape of vehicle, wind conditions, and luck. He agreed with Mr. Davison that if one drives slowly enough in adverse winter conditions, “that’s what is being a good driver”.

[87] Neil Bigelow is a professional engineer, specializing in accident reconstruction. He has been qualified as an expert in this court on several occasions. Mr. Bigelow had not been able to reconstruct this accident, because, after reviewing all of the vehicle photographs, damage reports, weather data, and the police investigation, the lack of an exact point of impact, as well as insufficiency of other information, would not allow him to do so within professional requirements.

[88] As to the cause of the accident, Mr. Bigelow considered the depth of slush and wet snow on the road, the downward grade for vehicles eastbound on Green Lane, the low coefficient of friction producing slippery conditions, the temperature, and the application of salt without later plowing, resulting in slush under a covering of snow. His opinion was that the accident happened because Mr. Shadid lost control of his vehicle due to slippery road conditions.

[89] Under cross-examination, Mr. Bigelow was able to conclude from the vehicle damage reports and photographs (the vehicles were not available to him when he was retained three years after the accident), that the accident involved a high-velocity impact. He agreed with Mr. Davison that if the road had been plowed fully prior to salt application, then the salt would keep it clear for a time. He had pointed out earlier that some 56 accidents had occurred prior to the subject accident on York Region roads that day. Conditions facing Mr. Shadid were, he said, unique in terms of the vehicle being driven and wind conditions at the time of the accident. Mr. Bigelow conceded that none of the other accidents occurred on the same part of Green Lane, and that others drove over it before the accident without loss of control. He pointed out the accident at the Leslie Street/Green Lane intersection three hours earlier as being very relevant in that regard.

[90] Mr. Bigelow had looked for a gouge mark in the road after he had been retained but found none. He had known of Mr. Shadid's description of a "jiggle" but found no gouge mark to account for it. Mr. Bigelow stated that though Mr. Shadid might have been driving faster than others, the slush/wet snow conditions meant that he could have lost control at a lower speed. He could not give an opinion of Mr. Shadid's pre-accident speed.

(iv) The MMS Issues

[91] The defendant York's basic position is that it complied with the MMS in terms of the patrolling frequency and clearing of snow, and therefore the action should be dismissed against it by reason of section 284(1.4) of the *Municipal Act* 1990, as amended. As to patrolling frequency, according to the patroller's diary for December 25, 2002, Green Lane was patrolled at 3:15 a.m. and, at approximately 6:10 a.m., a portion of Green Lane east of Leslie Street was patrolled. This is the portion immediately to the east of the Main – Leslie part of Green Lane where the accident occurred. Mr. Cosgrove stated that York's objective was to patrol the roads in winter once per day and that that objective was met for Green Lane at 3:15 a.m. prior to the storm.

[92] Mr. Cosgrove stated that snow began in York Region at about 6:10 a.m. and that five trucks were deployed in the Sutton District under Plan B at about 6:30 a.m. according to the patroller's record. Mr. Cosgrove gave no evidence regarding the patrol frequency standard in the MMS for Class 1 roads in York like Green Lane because York requires a more stringent patrol frequency in winter and during storm conditions – York's policy during the winter maintenance period is to patrol the entire road system once per day, and during storm events, patrolling is to be continuous. Thus, York's position is that the once-per-day winter patrol objective was met on Green Lane at 3:15 a.m., and all of York's clearance forces were out on the road system

continuously from 6:30 a.m. This exceeds the MMS routine patrolling frequency of three times in seven days, if indeed that provision in the MMS applies in storm circumstances.

[93] As to snow clearance, York's position is that, from the commencement of the storm, its resources were deployed to clear snow and to salt to prevent ice formation. Green Lane was plowed between 9:57 a.m. and 11:00 a.m. according to the report of the snow plow driver. The last plowing of Green Lane, westbound from Leslie to Main Street, was reported to be at 10:44 a.m., some five hours prior to the accident. Again, the driver's notes have him salting both sides of Green Lane in four passes between Woodbine and Yonge from 11:00 a.m. to 12:03 p.m. The last salt deposited on westbound Green Lane was between 11:34 a.m. and 12:03 p.m., again according to the driver's report. York's position is that Green Lane was cleared and salted at least 3.5 to 4 hours prior to the accident, and that it was plowed and salted on both sides after the accident, from 4:50 p.m. to 6:18 p.m., which amounts to clearance as soon as practicable for purposes of section 4(1)(a) of the MMS.

[94] The submission of the plaintiffs and the defendant Mr. Shadid is that the MMS are not all-inclusive, that there are significant gaps in the areas of patrol frequency in winter and in storm conditions, as well as in regard to clearance of slush as distinct from snow, and that where relevant gaps occur, this court must resort to the remaining provisions of section 284 of the *Municipal Act* and their associated common law of principles. The submission is that the MMS simply do not cover the circumstances presented on December 25, 2002, which required continuous patrolling in storm conditions in accordance with York's policy manual, and which required a standard of performance for slush which, with snow, covered Green Lane that afternoon to a depth of 2½ to 3 inches. Mr. Yeager's and Mr. Bigelow's evidence established the differing traction issues as between snow and slush, including the lowered coefficient of friction posed by slush and the downgrade eastbound on Green Lane. Again, it is submitted that this gap should cause the court to resort to the common law principles developed under section 284's other provisions, analyzing the accumulation of snow/slush on a grade that afternoon as the creation of an unreasonable risk of harm, or, in the language of Aylesworth J.A. from *The Queen v. Coté*, [1972] 3 O.R. 224, at 226 a "highly special dangerous situation" requiring timely remedial action. It was submitted that use of the patrol and snow standards in the MMS, coupled with the requirement of actual knowledge of a deemed snow or ice hazard, would render the duty to repair meaningless. For instance, a Class 1 road could be left unpatrolled for four days out of seven, and snow or ice formation in those four days could occur without any actual knowledge to trigger deployment of snow clearance forces.

[95] It has been recognized that the MMS are not, and do not purport to be, an all-inclusive document. The following excerpt, from an authoritative text on municipal liability law, addresses this aspect and recognizes the incompleteness of the MMS.

The "minimum standards" contemplated by subsection 44(4), (5) and (6) (according to the 2001 *Municipal Act*) are codified in regulations which came into effect on November 1, 2002. These new minimum standards cover most road maintenance activities, with some significant omissions (such as winter night patrolling, unexpected early freezing conditions), which were apparently left out

because the committee drafting the standards was unable to reach a consensus on those issues. Municipalities defending cases involving such issues will not therefore, be able to take advantage of the statutory defences ... the regulations require the Minister of Transportation to conduct a review of the minimum standards every five years. (D. Boghosian & J.M. Davison, *The Law of Municipal Liability in Canada, looseleaf* (Markham: Lexis Nexis Butterworths, 1999) at para. 3.43.)

[96] A useful summary of the principles relating to legislative gaps is contained in *Sullivan and Driedger on The Construction of Statutes*. These principles involve a heavy dose of judicial self-restraint.

1. Courts have no jurisdiction to disregard the intentions of the legislation, however ill-considered these intentions may be.
2. Courts have no jurisdiction to cure under-inclusive provisions or gaps in legislative schemes.
3. Courts may, however, supplement under-inclusive provisions by relying on the common law, including in particular their inherent jurisdiction.
4. If an activity has been subjected to regulation by the Legislature, courts are obligated to make the scheme work. (Ruth Sullivan, *Sullivan and Driedger on The Construction of Statutes*, 4th ed. (Markham: Butterworths Canada Limited, 2002) at p.136.)

[97] In considering the submissions before me in light of these principles, I do not accept the submission that failure to provide a distinct standard for slush amounts to a gap in the regulation. Though Mr. Yeager did testify as to the greater hazard posed by slush as opposed to dry snow, his expertise is not in regard to the intent of a regulatory scheme or set of standards. He was testifying as an expert on tires and tire designs used under differing road conditions. He did not draw a distinction, for instance, between wet snow and slush, nor did he address how one distinguishes, for purposes of highway maintenance standards, between the gradation from powder snow to heavy or packing snow, to wet snow, to slush, to water. There is no suggestion in his evidence that a distinct maintenance standard is required for rain water, for instance, or for slush, or other gradations of water in freezing or near freezing conditions, though no doubt each carries with it differing risks of skidding or hydroplaning and differing coefficients of friction. As well, the words 'snow' and 'slush' are used in the MMS according to their ordinary meanings; 'snow' is defined as "atmospheric water vapour frozen into ice crystals and falling as light, white flakes or lying on the ground as a white layer", and 'slush' is defined in the same dictionary as "partially melted snow or ice" (*Concise Oxford English Dictionary*, s.v. "snow" and "slush"). In my view, the suggestion that the omission of a separate standard for 'slush' amounts to a gap which calls for a judicial reading-in is not appropriate in legislative or administrative terms, nor is it necessary in this case because, as I will come to shortly, it is my view that a

harmonious interpretation of sections 4 and 5 of the MMS, together with the lack of any patrol obligation beyond the routine, serves to import into sections 4 and 5 the common law concept of constructive knowledge of the snow accumulation or ice formation in order to trigger the Table time limits.

[98] I conclude otherwise with respect to the patrolling frequency requirement in the MMS. The standards that address snow and ice on highways in sections 4 and 5 of the MMS relate the time requirements for municipal response to the actual knowledge of the municipality that a certain depth of snow has accumulated or ice has formed. The mode of acquiring knowledge of road conditions is primarily through communications from the road patrollers. Yet, the only patrol standard is for “routine patrolling” which, for a class 1 multi-lane thoroughfare with a speed limit of 80 kph like Green Lane, is three times every seven days.

[99] The only inference that I reasonably can draw from the evidence of Mr. Cosgrove, a person who had a part in the formation and implementation of the MMS, is that routine patrolling was intended to apply to off-winter conditions or non-storm circumstances. He did not associate the MMS standard for routine patrolling to winter maintenance or to storm conditions. In his view, the York road manual implements the MMS. It states:

1.0 Introduction

The following manual has been prepared for the benefit of all Road Patrolmen in accordance with established Ministry of Transportation Standards for Road Patrols.

Road patrol is the inspection of roadway conditions and regional property to detect situations that may adversely affect the structure of the road; the comfort and safety of the traveling public; the adjacent property; and the environment.

Summer road patrol is necessary for establishing work priorities within the maintenance summer planning.

Winter road patrol is necessary for monitoring driving conditions and for directing snow and ice control procedures.

3.0 Inspection Frequency

Where possible, road controls are to be combined with other work being carried out during the day (or shift). The following sets out the frequency of inspections necessary to ensure reasonable levels of service on sections of roadway systems which have not been inspected during the normal course of other duties.

3.1 Summer Road Patrols

1. Road patrols should be scheduled as follows:

Class of Highway	Patrolling Frequency
1	3 times every 7 days
2	2 times every 7 days
3	Once every 7 days
4	Once every 14 days
5	Once every 30 days

3.2 Winter Road Patrols

1. During clear weather conditions, road patrols will be conducted once per day.
2. During inclement weather, road patrols will be conducted on a continuous basis.

[100] I find that the lack of a standard for non-routine patrolling in the MMS, i.e. patrolling in inclement weather conditions, is a significant omission. It is also an omission made by a Minister in a regulation, not by the Legislature which was Ms. Sullivan's concern. Use of the routine patrol standard for the various classes of highways during periods such as winter storms, when highly dangerous conditions can form and change within hours, coupled with the trigger of actual knowledge to activate the duty of the municipality to clear snow or treat ice on the highways, would form a major departure from the legislated requirements in section 284 of the *Municipal Act* and the purpose of that legislation. That purpose is to protect reasonable users of the highways, roads, and bridges from unreasonable risk of harm of which the authority has knowledge or, through reasonable steps, could be expected to be aware of, in order to prevent or to remedy the risk of harm. A literal interpretation of sections 3, 4, and 5 of the MMS, if applied to storm conditions, would countenance snow or ice accumulation over small or even wide areas of a regional municipality for days when no patrolling would occur at all (because the municipality is only required to patrol three times out of every seven days in the case of Class 1 highways and one of every fourteen or thirty days in the case of Class 4 and 5 roads).

[101] Mr. Danson submitted that, in interpreting a regulation such as the MMS, the regulation must be read harmoniously and in a manner consistent with the enabling legislation. It is not the legitimate role of a regulation to defeat the purpose of the enabling legislation (See Ruth Sullivan, *Sullivan and Driedger on The Construction of Statutes*, 4th ed. (Markham: Butterworths Canada Limited, 2002) at p.282; *R. v. Compagnie Immobilière BCN Ltdd.*, [1979] 1 S.C.R. 865). I agree with this submission and with its corollary in this case – that a municipality should not be held to have met the MMS by failing to patrol the busiest highway in the patrol district from the commencement of the storm at 6:10 a.m. for at least ten hours, and by failing to plow it for more than four to five hours after depositing salt while snow continued to fall and slush accumulated to three times the depth in the MMS Table, by merely claiming lack of knowledge. That is not the submission on behalf of York in any event.

[102] As I understood Mr. Davison's submissions, he did not seriously contest the point that there is no patrol standard in the MMS for winter storm conditions. His submission is that York proactively deployed all of its resources from the commencement of the storm, and did not wait for snow to accumulate. The issue raised by York regarding the MMS is whether it cleared the snow on Green Lane, pursuant to section 4(1)(a), as soon as practicable, and Mr. Davison's submission is that York complied with section 4(1)(a). Mr. Davison addressed the use of actual knowledge in the MMS as referring to knowledge of a condition different from a state of non-repair in section 284(1.2), and thus not a departure from the purpose of the enabling legislation. However, that argument does not counter the problem caused by the combined failure in the MMS to provide a patrol standard appropriate to storm conditions, and then dispensing with the duty to take reasonable steps to be aware of, and thus to remedy, a resulting state of non-repair.

[103] In my view, given the incomplete state of the MMS as they pertain to winter storm conditions, section 4(1)(a) must be read as providing for the continuous deployment of resources to clear the snow during a storm, clearance to occur as soon as practicable after becoming aware, or after it should reasonably have become aware, of snow accumulation exceeding the Table depth. A similar interpretation of section 5(1), regarding ice formation, is also required, in my view, in order to harmonize with the purpose of the enabling legislation in section 284. "As soon as practicable" is a variable term to be interpreted according to the circumstances of each case and in light of the purpose and intent of the Act and regulation. In my view, "as soon as practicable" means as soon as the municipality is able to act using the resources open to it, considering the size of the road system and the respective intensities of use of the various roads and highways within that system. It recognizes that no municipal road force can be at all places at all times; it also imports a sense of priority and urgency once the municipality should reasonably have become aware of the fact that the depth of snow in the section 4 Table was exceeded, or would be exceeded, during the particular storm event.

(v) Findings Regarding Liability of York

[104] Green Lane is the most heavily traveled road in Sutton District. It is a major, multi-lane connector across the top of Newmarket between Highway 404 and Highway 400. Yet, during a moderate snowstorm which began at 6:10 a.m. on December 25, 2002, no patroller inspected its condition from the beginning of the storm at approximately 6 am until 4:30 p.m., almost one hour after the accident, and after the order by York Regional Police to close the road due to its slippery condition caused by a covering of slush and snow to a depth of 2½ to 3 inches (or 6 to 7 cm). The evidence of P.C. Manzon, Ms. Thornhill, Mr. Adams, and Mr. Anaka, confirms the slippery and slush/snow-covered condition. The evidence of Mr. Yeager and Mr. Bigelow confirms the police officer's actions in closing Green Lane until the plow trucks arrived at the scene – the condition of Green Lane prior to and at the time of the accident at 3:35 p.m. was dangerous to the traveling public, carrying the risk of hydroplaning on the slush-covered surface on a downgrade and of loss of control; the driver would not be aware of the danger until he or she was on it. The condition of snow and slush on a roadway is a common feature of most Canadian winters. However, the requirement of “as soon as practicable” in section 4(1)(a) of the MMS and the municipal duty of reasonable care to ascertain and remedy a hazardous situation within a reasonable time are important to this case.

[105] On the evidence before me, I find that Green Lane was covered with slush and snow to a depth more than double the 2.5 cm maximum depth, and beyond which clearance is required “as soon as practicable” under section 4(1)(a) of the MMS. According to Mr. Yeager and Mr. Bigelow, the depth of slush on Green Lane was three times the amount necessary to cause hydroplaning. That depth is 1.27 to 2.54 cm (0.5 to 1 inch). It is fortunate that most people that day drove slowly enough on Green Lane between 12:30pm, when the accident occurred at the intersection of Leslie and Green Lane, and 3:35 p.m., when the Thornhill/Shaded collision occurred, so as not to meet with a similar fate. As *Gould v. County of Perth*, *Roberts v. Morana*, and other such cases indicate, the fact that there were no other accidents at this particular scene, in the midst of a region-wide storm involving numerous vehicles losing control at different places, does not take away from the state of non-repair into which Green Lane had fallen since that morning.

[106] The evidence proves the existence of a state of non-repair and an unreasonable risk of harm, which had existed since that morning and throughout the afternoon until after 4:00 p.m. when plowing finally occurred. A further aggravating factor in this case is that, to the extent that the reports of the plow driver, Mr. Cutajar, can be believed, he had salted Green Lane as the snow continued to fall and no plowing was done for at least four to five hours thereafter, thus permitting and contributing to the accumulation of slush and snow on Green Lane well beyond the depth referred to in the section 4 Table for a class 1 roadway. The evidence amply supports the conclusion that the condition of Green Lane caused, at least in part, the loss of control by Mr. Shadid and the subsequent impact with the Thornhill vehicle.

[107] In view of these findings, the onus is on the municipality to establish, on a balance of probabilities, one or more of the defences in section 284(1.2), (1.3) and (1.4). I do not accept the submission of Mr. Danson that, in order to succeed, York would have to prove that it came

within all three of those subsections. That suggestion is simply not in accord with the way in which the provisions are drafted. However, high authority supports the submission that the onus shifts to the municipality, upon a finding of a state of non-repair and causation. In *Vancouver (City) v. Cummings*, [1912] 46 S.C.R. 457, this principle was stated by the Supreme Court of Canada as follows at 461-462:

...is it not clear that ...when the facts demonstrate an actual want of repair, causing damage, an action is *prima facie* of necessity shown to be well founded, because the statute has not been observed or complied with, and hence the party in default is called upon to offer some excuse?

Prima facie the duty is imperatively obligatory, and its consequences can only be got rid of by some valid excuse for a failure to discharge the duty so imposed.

[108] This approach continues to be supported as correct in more modern cases, as set out in the text *The Law of Municipal Liability in Canada, supra*, at para. 3.11:

... a side effect of the imposition of statutory liability for highway non-repair was the judicial interpretation of the applicable legislation that the Legislature having imposed an imperative obligation on municipalities to maintain the roads, once a plaintiff establishes that a condition of non-repair existed, the onus shifts to the municipality to establish proper care and diligence of the maintenance of its roads.

[109] The same approach was followed in recent cases in this court (*Johnson v. Milton* (2006) CANLII 27234 (S.C.J.), at para. 76; *Roycroft v. Kyte* [1999] O.J. No. 296 (O.G.D.), at para. 48). As Shaughnessy, J. stated in *Roycroft*, once non-repair and causation are made out, the municipality faces the onus of establishing, on a balance of probabilities, that the condition of non-repair existed, notwithstanding all reasonable efforts on its part to comply with the law, or that it could not have been prevented by exercise of reasonable care. It follows that, with the introduction of the MMS, the onus should be on the municipality to demonstrate to the civil degree of proof, i.e. on a balance of probabilities, that it has met the relevant minimum standard. In that regard, as the MMS contains no patrol frequency standard for storm conditions, it is the section 4(1)(a) standard that is relevant here, including the concept of constructive knowledge imposed upon the municipality, as I have found earlier. Section 4(1)(b) of the MMS applies only to post-storm conditions and there is no doubt that snowfall was ongoing through and beyond the time of the accident at 3:35 p.m.

[110] York called Mr. Cosgrove, the Roads Manager, and Mr. Cutajar, the snow plow driver, as witnesses. Mr. Cosgrove had no personal knowledge of any patrol of Green Lane on December 25, 2002. He did review the patroller's diary and the report of Mr. Cutajar to attempt to show that Green Lane had been plowed and salted by 12:03 p.m. and that, as the result of the salting, the road should have been bare or close to bare by 12:30 p.m., although P.C. MacDonald reported observations to the contrary – that snow had accumulated and had been compressed under the traffic at the intersection with Leslie St. As well, Mr. Cutajar's report contained the

ridiculous inference that he had salted Green Lane after the accident at 3:45 p.m. from Yonge Street east to Woodbine Avenue, apparently ignoring entirely the westerly side of Green Lane where the actual impact had occurred. This would mean that he was salting on top of of slush and snow measuring 6 to 7 cm in depth, a highly irregular if not improper action without plowing. The distance of the Cutajar report from the actual facts is betrayed in this entry because several very credible witnesses, including P.C. Manzon, contradict it; they saw no plow at all on Green Lane from the time of the accident at 3:35 p.m. up to 4:25 p.m. when they left after Ms. Thornhill was removed by ambulance.

[111] The five discrepancies in the Cutajar report, by reason of noting his truck to be in two distinct places at the same time, add up to some 47.5 km and some 40 to 45 minutes. This takes into account the control speed which the plow truck is to maintain through its salting and plowing functions. That distance and time is simply not accounted for whatsoever in the report. Furthermore, the report lacks coverage of a further 20 minutes or more because he reported that he took only five minutes to drive from Green Lane to the C2 yard, a distance of some 25 km, in order to book off at 4:00 p.m. when his truck was taken over by the next driver. This is normally a drive of some 20 to 25 minutes by a plow truck, and of course, it has been shown that Mr. Cutajar was not at the Green Lane location at 3:55 pm in any event. This means that at least one hour and ten minutes is simply not accounted for in the Cutajar report, and, if the report is to be given any weight, its discrepancies must be taken to push back his reported times considerably. On this basis, the last plowing of eastbound Green Lane would have been as early as 9:34 to 9:50 a.m. Similarly, it would have been left after his final salting to gather slush and snow from 10:24 a.m., some five hours prior to the subject collision. Either a complete lack of plowing of Green Lane that morning, or its having been plowed no later than these earlier times, could account for the snow-packed condition of the road by 12:30 p.m., as reported by P.C. MacDonald following the accident at the intersection of Green Lane and Leslie Street. Lastly, as noted earlier, Mr. Cutajar's own report indicates a haphazard approach to his tasks, including plowing one side of a road and not the other, and not returning to complete the plowing of a road for some six hours. Strangely, Mr. Cutajar's report indicates that only Plan B was in operation on his shift, yet Plan C had been ordered at 1:00 p.m. that day. I saw Mr. Cutajar on the stand. His manner bore out the slipshod and misleading contents of the report. He impressed me as someone whose primary interest was personal, getting off for Christmas, and not doing his duty. I do not accept his evidence whether expressed verbally or in writing.

[112] It is significant to me that Mr. Baker, the patroller for the Sutton District beginning at 7:00 a.m. on December 25, 2002, failed to testify. It must be taken that he had no explanation for the complete failure to patrol the most heavily used road in the district since he came on duty at 7:00 a.m. He could have supplied evidence as to the discrepancy between his order to go to Plan C at 1:00 p.m. and Mr. Cutajar's failure to do so for at least 1½ to 2 hours thereafter, given that they are, can be, and should be in constant communication to ensure adequate coverage. I presume that, like the driver of the No. 7 truck (whose route Mr. Cutajar apparently continued to cover after 1:00 p.m., instead of his much reduced route of only about 30 km, including Green Lane, following the imposition of Plan C), Mr. Baker's evidence would not have assisted York's case.

[113] I find that Mr. Cutajar's report (Exhibit #18) is, in all probability, an after-the-fact reconstruction of his day. Such reports are to be handed in by 12:00 noon the following day, not contemporaneously with the completion of the shift. It is replete with errors. It is simply not a reliable report of his activities. No one else was called to confirm any part of it, or to explain why, as of 12:30 p.m. according to P.C. MacDonald, Green Lane was in a snow-packed condition shortly after it had supposedly been plowed and salted. I find that Green Lane had snow accumulation by then in excess of 2.5 cm. It was so snow-packed that vehicles had compressed the snow and were riding over it in what were described as slippery conditions as of 12:30 p.m.

[114] I conclude that York has failed to show that it cleared the snow/slush accumulation on Green Lane as soon as practicable. In fact, it has failed to prove that Green Lane had been cleared of snow since the commencement of the storm at 6:00 a.m. that day or why, after salting it, no one bothered to plow the resulting slush as it accumulated in the continuously falling snow, well before the accident. I find that there is no evidence to show that York could not reasonably clear the slush and snow on Green Lane prior to its becoming hazardous in the moderate storm conditions of that day, and given the routes established under Plan B and the vastly reduced routes under Plan C, in effect since 1:00 p.m. on December 25. York has failed to show that it cleared the snow as soon as practicable on Green Lane on December 25, 2002, having known since 6:00 a.m. and earlier that well beyond 2.5 cm of snow was to accumulate and, I find, had accumulated beyond that depth by 12:00 - 12:30 p.m.

[115] There is no direct evidence to establish when the snow accumulation on Green Lane exceeded the 2.5 cm maximum set in section 4(1)(a) and the MMS Table because no one patrolled it that day. If patrolling in this district had been continuous, as York's policy required, including Green Lane as a Class 1 priority, York would have known that morning, well before the earlier accident at 12:30 p.m., that snow and slush accumulation had exceeded the maximum limits in the MMS. It was the omission of both adequate patrolling and non-compliance by Mr. Cutajar with York's plans for snow clearance that the deployment failed to meet section 4(1)(a) of the MMS.

[116] I find further that York failed to show that it took any steps to prevent the accumulation of slush/snow that, in part, led to this collision. Ms. Thornhill was probably accurate when she said that Green Lane that day appeared to be a road that simply had not been plowed. The small banks to the side do not speak to the contemporaneity of plowing, only that at some point in previous days, some plowing had occurred. I conclude that York has failed to show either that the MMS were met or that it took any reasonable steps to prevent the accumulation of slush and snow on Green Lane from 6:00 a.m. until the 3:35 p.m. accident, and that its own forces contributed to the condition of non-repair by adding salt treatment in the midst of the snowfall with temperatures close to and below freezing without subsequent and timely plowing.

(vi) Liability of Michael Shadid

[117] Mr. Shadid admitted under cross-examination that the impact with the slow-moving Thornhill vehicle was "severe". That fact is borne out by the photographs, particularly of the

Toyota Tercel. Though Mr. Shadid appeared to be a credible witness in the sense that he was sincerely trying to tell the truth as he now remembers it, in my view, he seemed defensive and minimized his own responsibility; he first stated that he was traveling at 50 to 55 kph as he drove easterly, yet he had been driving at 55 to 60 kph as he traveled westbound prior to the accident in the same conditions. Under cross-examination, he was read his discovery testimony where his estimate of speed was about 60 kph, not 55 to 60, yet he said that he meant less than 60 kph only. To Mr. Boland, he admitted that he was not driving slowly enough in the conditions that day.

[118] Mr. Danson submitted that this opinion given by Mr. Shadid under cross-examination is not properly admissible evidence from a lay witness and that it is a question only a fully trained person in a field such as traffic engineering should be allowed to answer. I disagree. Since the Supreme Court of Canada's judgment in *Graat v. The Queen*, [1982] 2 S.C.R. 819, lay opinion has been held to be admissible in evidence in instances where the witness is able to more accurately express the facts that he perceives. If, as in *Graat*, a lay witness may express an opinion on whether someone is intoxicated and then testify as to the consequence of that observation in relation to the person's driving ability, it follows that Mr. Shadid's evidence of his estimated speed and his perception of the consequence of that speed in the conditions he found himself is properly admissible. The evidence of Mr. Adams and Ms. Lessey tends to confirm Mr. Shadid's admission in regard to his speed. They saw the Shadid vehicle swerving first to the right, then to the left, and then to cross into the path of the Tercel with a very hard impact. Both Mr. Adams and Ms. Lessey commented on the slow speed of Ms. Thornhill's vehicle. It is not unreasonable to draw the inference that the excessive speed of Mr. Shadid's vehicles, as well as its weight, contributed to the severity of the impact.

[119] I conclude that the speed of the Shadid vehicle as it proceeded easterly from Main Street was excessive in the circumstances that day and was a contributing cause of the collision with the Thornhill vehicle. As to the degree of contribution by York and by Mr. Shadid, I do not see the negligence of one as more substantial than the other. I find that each is responsible to the extent of fifty percent of the plaintiff's damages.

ASSESSMENT OF DAMAGES

[120] Mr. Boland submitted that this damage claim is unique in several ways, all of which come down to the character and person who is Nadine Thornhill. In my experience, this case is unique in that though this is a major personal injury case, Ms. Thornhill's credibility has not been put in doubt whatsoever; in fact, her evidence simply was not seriously attacked, and I know from the careful preparation by counsel in all areas of this case that all potential targets would have been researched and considered. There obviously were no credibility targets at which to aim in regard to Ms. Thornhill. Second, the various treating and assessing doctors and rehabilitation specialists are largely in agreement regarding the severity of the injury to her right knee, her prognosis, and the difficulties and limitations that, for a young career woman, mother and wife, have impinged significantly on her employment options and enjoyment of life, and test her energy and her character, and at times her relations with her immediate family. There are lasting ramifications to this injury, which to date have already included multiple surgeries, and will bring several more to come over the succeeding decades of her life.

[121] The issues raised by the evidence and counsel's submissions are quite focused. They revolve around the timing, probabilities, and risks of good or poor outcomes from the future arthroplasty and later revision surgeries; submissions considered the likelihood of her working part time absent the accident as it affects her past income claim, the likelihood of Ms. Thornhill taking early retirement rather than working full time to 65; the frequency and cost of future housekeeping and future care; and whether the out-of-pocket expense for two moves from one house to another for financial, therapeutic and/or employment-related reasons are properly claimable in this action.

[122] There is not a wide gulf on the issue of general damages or FLA quantum. The plaintiff seeks general damages of \$225,000; counsel for the defendant Mr. Shadid submitted that an assessment of \$175,000 was more appropriate. The FLA claims by the plaintiffs are:

for Mr. Thornhill	\$35,000
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for Braden Thornhill	\$25,000
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The defendant Shadid proposes for the FLA claims:

for Mr. Thornhill	\$25,000
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for Braden Thornhill	\$15,000
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(i) General Damages

[123] Nadine Thornhill was 30 years of age at the time of the accident. She had obtained her nursing degree at the University of Ottawa in 1995. She had worked full time since graduation, having held hospital jobs in North Bay, Orlando Florida, Miami Florida, Toronto and, from October 2002 until the date of the accident, full time work as a public health nurse near her home in Newmarket. The only exception to her pre-accident employment record was the one year maternity leave after Braydon's birth, from September 30, 2001 to October 1, 2002.

[124] Ms. Thornhill's school and employment history have shown her to be a career woman who loved her job as a nurse and who always was a high achiever, and who worked to balance her career and family life. Where others try, Ms. Thornhill achieved throughout her life. Her marriage to Jack Thornhill was a good one, and she and her husband's lives were active, social and generally happy. They planned to have two children. Ms. Thornhill always assumed that she would continue in nursing to the end of her working life at 65 and she hoped at some time to return to hospital nursing. The pattern of her husband's shift (five days on, five days off) meant that it was possible for both Mr. and Ms. Thornhill to balance their careers and meet their childcare obligations, though under cross-examination she did concede that raising children and family problems were challenging and a priority in her life. She responded to Mr. Danson's suggestions that part time work would be a probability for her when the children reached school age by saying that she always saw herself as a working mother, as many of her friends were. Most of all, she loved her work as a nurse. She did concede that perhaps, as time passed, her

career plans could change, but up to December 2002 it is clear that she saw herself as a healthy, active mother and nurse who got a real kick out of her life at work and at home with her husband and child, and enjoyed a pleasant social life with their friends.

[125] Since the accident, she has found her life difficult, facing the trauma of the accident itself and limitations that, for a person of her high-achieving and active lifestyle, have caused her continuing consequences and special difficulties. They include: confinement as an invalid (in her living room converted to bedroom for the first several months after the accident), chronic pain in varying degrees ever since, multiple surgeries, serious diminishment of her role as a mother and her ability to bond with her child, which was very important to her and, with the ebbs and flows of the pain, serious to moderate depression, anxiety, and fear of driving in inclement weather conditions. Since the accident, she has been able to work part-time, with support help at home, and she continues receiving massage and physiotherapy. At times the pain was what she described as “bone on bone”, very serious and difficult to bear, causing her to return to a narcotic (Oxycontin or Percocet) as the only way to attempt to deal with it. During and since her second pregnancy and delivery (Adam, born April 7, 2005), a pregnancy that was not planned though a second child was an expectation pre-accident, she has been doing sedentary part-time work as a public health nurse, again with weekly household help. She had been experiencing chronic pain at unpredictable levels, anxiety, depression, irritability with her husband and others close to her, and feelings of isolation and inadequacy as a mother, unable even to tie her child’s skates or deal by herself with minor childhood emergencies because of her inability to bend, kneel or run.

[126] Dr. Gollish referred to her impairments as lifelong, and the arthritic changes occurring in her knee as progressive, affecting every phase of her life and her pre-accident plans. The primary arthroplasty may occur within five to ten years. In Dr. Gollish’s view, it is her only option. This opinion was not contested. Dr. Randle, Dr. Gollish, and Ms. Thornhill all favour delaying that operation as long as possible because the life span of the knee replacement will be shorter in all probability, due to Ms. Thornhill being a younger patient. With those over 55 years of age, the primary knee replacement lasts ten years in 90% of cases, but the lifespan of the replacement knee is less for those under 55. The doctors note that Ms. Thornhill has tried to manage her symptoms to the end of delaying further surgeries by an effective program of weight loss in the past year, continuing physiotherapy, and flexible job conditions. Dr. Gollish described her as someone who has done all she can to assist her knee. He said that her life expectancy is 82, and therefore there will probably be three revision surgeries, each with diminishing results due to the increasing loss of healthy tissue and bone.

[127] Dr. Gollish stated under cross-examination that 85 to 90% of patients report improvement in pain symptoms after a knee replacement. He agreed that the primary surgery could be delayed for up to a further ten years from now, but not more.

[128] In summary, Ms. Thornhill has been an excellent patient who is suffering in physical and reactive depressive terms under the burden of limitations imposed by her injury; these burdens impose an especially heavy toll on someone who was without pre-accident health issues and needs to be active as a worker, mother and wife, but cannot do so.

[129] I heard evidence from two psychologists, Dr. Margaret Voorneveld and Dr. Brian Ridgeley. Dr. Voorneveld assessed Ms. Thornhill in 2004 and in 2006, and in the past year has become her treating psychologist. She is very familiar with Ms. Thornhill and the costs that this accident has brought to her emotional life. She concluded that the chronic pain has impacted Ms. Thornhill's entire life. Despite her at times upbeat or optimistic surface confidence, Ms. Thornhill has low self esteem as a result of the limitations upon her now and, once the emotionally protective layers are peeled away, her anxieties are impacting her and her relations with her husband. She has a driving phobia relating to bad weather and suffers from an adjustment disorder and depressed mood. Dr. Voorneveld confirmed Ms. Thornhill was fearful of, and frustrated by, the upcoming surgeries, and that the resultant scarring has raised anxiety issues that have made life with her in her home difficult for others as well as herself. She concluded that the knee replacement and revision surgeries will inevitably bring with them mood deterioration, issues with which she has struggled since the accident.

[130] In Dr. Voorneveld's view, Ms. Thornhill will need assistance, from time to time, in the form of psychological counselling in regard to her future prognosis and its effects on her day-to-day life. When asked to assume that Ms. Thornhill would have a good outcome from the primary surgery and whether there would be emotional benefit from that, Dr. Voorneveld stated that Ms. Thornhill still has to deal with depression and anticipatory anxiety regarding the next surgeries, which are inevitable, and with the reality that some loss of function will occur with each revision surgery due to the deteriorating condition of the remainder of her joint. She conceded that there may be a temporary reduction in pain and limitations post surgery, but that Ms. Thornhill will need psychological counselling sessions after she recovers from the primary arthroplasty. She also conceded that at the present time, Ms. Thornhill may not be dealing with low self esteem and the other emotional issues to the degree that she did earlier. However I did not read her as suggesting that there would be no further need for psychological assistance, in view of the ebbs and flows of changed mood, pain, and anxiety that probably will continue over time.

[131] Dr. Ridgeley disagreed seriously with only one aspect of Dr. Voorneveld's conclusions. He felt that Ms. Thornhill never suffered from major depression, whereas Dr. Voorneveld felt at one time that she was in a major depression and believed that she could no longer work at all or cope. Dr. Voorneveld made it clear that this is not her opinion now. Dr. Ridgeley did not seriously disagree with Dr. Voorneveld regarding the chronic pain Ms. Thornhill has to deal with, which is made worse by activity. He described her depression as moderate and reactive and said that on the one occasion he saw her, she laughed, made eye contact and did not seem depressed. Of course Dr. Ridgeley has not dealt with Ms. Thornhill over the protracted time that Dr. Voorneveld has, and therefore could go no further than this. He did not see her as socially isolated and saw nothing in her history that meant that she was prevented from doing anything, although he conceded that she suffered from a fear of driving on snow covered roads. He admitted that she had had an acute stress reaction regarding the surgeries and chronic pain and stated that he could say she has post-traumatic anxiety. Dr. Ridgeley agreed that Ms. Thornhill could benefit from selective intervention in the form of psychological treatment in regard to the driving fear, and that, in his view, she has not received the treatment that she should have gotten. Under cross-examination, Dr. Ridgeley conceded that Dr. Voorneveld was far more aware of

Ms. Thornhill's daily life and that a good psychologist would be an advantage for her. He confirmed that she suffered from fatigue, daily insomnia in the sense of difficulty initiating sleep, and feelings of worthlessness and frustration at not being able to do things on a day-to-day basis. He agreed that her concentration wandered and that this is consistent with ongoing pain. He attributed her depression to the knee injury and the problems that she has had since the accident. He was impressed with her ability to bounce back but also conceded, in regard to a question about future knee surgery, that he was not sure she was getting the kind of counselling necessary to help her adjust. In saying this, it appears that he accepts that she will need some psychological assistance from time to time, but he is more optimistic than Dr. Voorneveld about her resilience and need for psychological counselling in the future.

[132] In short, both psychologists agreed that Ms. Thornhill, from time to time, would probably require some further counselling. I accept that Dr. Voorneveld showed a much greater degree of knowledge of Ms. Thornhill and her needs, in view of the far greater exposure that she has had to Ms. Thornhill and to her emotional needs, which Ms. Thornhill tends to mask unconsciously.

[133] The surgeon who performed the six surgeries during the period from 2002 to 2004, following the accident, remains her treating physician five years later and will likely continue in this role into the future. This in itself is confirmation of the unusual severity of this knee injury and the need for continued and consistent expert assistance in dealing with it.

[134] Ms. Thornhill also suffered a broken arm. But for the severity of the knee injury, this in itself would have been a significant injury according to Dr. Randle. Ms. Thornhill agreed that her arm had generally recovered by late 2003. She does feel pain from it only on occasion, if she picks up something in the wrong way.

[135] I find that the fractures to her knee have had and will continue to have a serious effect, well beyond the damaged joint. Her enjoyment of life has and will continue to be affected, with chronic pain increasing to severe levels, requiring the arthroplasty in about eight to ten years. Thereafter the first revision surgery will be ten years later, and successive surgeries at five to ten year intervals, each with increasingly negative results. Every part of her life will continue to be progressively more affected, with some oasis times of lesser effect, but nevertheless intermittently and relentlessly.

[136] For purposes of general damages, I do not accept the implications of the defendant's submissions that because of "her resilience and ability to forge ahead", her injury and its affects on her life are somehow less severe. That ability is now hampered and severely tested by continuing pain and physical limitations, reactive depression, and the continued expectation of further surgeries with diminishing returns. This all amounts to a major distortion of her pre-accident picture. I accept the plaintiff counsel's submission and assess her general damages in the sum of \$225,000.

ii) Past Income Loss

[137] Ian Wollach, a forensic accountant who is experienced in the quantification of damages, set out his calculation of Ms. Thornhill’s loss of income to October 16, 2007.

[To continue on next page]

	2003 (from Jan. 1)	2004 (To Sept. 30)	2004 (From Oct.)	2005	2006	2007 (To Oct. 16)	Total
Projected Annual Income if No accident	\$48,817	\$21,051	\$13,526	\$55,273	\$57,600	\$59,737	
Projected Income to October 16, 2007	\$48,817	\$21,051	\$13,526	\$55,273	\$57,600	\$47,298	\$243,565
Less: Post Accident Income to October 16, 2007	(\$2,587)	(\$19,690)	\$0	\$162)	(\$15,849)	(\$25,460)	(\$63,748)
Less: Income Replacement Benefits (Schedule 4)	(\$20,570)	(\$14,657)	(\$4,885)	(\$18,673)	\$0	\$0	(\$58,785)
Less: Income Replacement Benefits (note 2)	(\$14,800)	\$0	\$0	\$0	\$0	\$0	(\$14,800)
Past Loss of Income to October 16, 2007	\$10,860	(\$13,296)	\$8,641	\$36,438	\$41,751	\$21,838	\$106,232

[138] This calculation projects Ms. Thornhill’s earnings as a public health nurse at the time of the accident to October 16, 2007, the start of the trial, adjusted for inflation. It reflects the evidence that Ms. Thornhill would have taken a 52-week maternity leave after birth of her second child, absent the accident, as she did after her first delivery. It also accounts for payment of employment insurance benefits and a top-up from her employer to 75% of income during the maternity leave.

[139] Jeremy Cole, the chartered accountant who reviewed Mr. Wollach’s work for the defendant Shadid, largely agreed with this calculation. His only criticism – that Ms. Thornhill’s annual income should be adjusted down because of what he understood to be her pre-accident status as a part-time nurse – was not correct. Mr. Cole readily conceded that his suggested adjustment was based on no other assumption, yet he went only so far as to conclude that the fact that Ms. Thornhill worked as a full time nurse, pre-accident, “might” change his calculation.

[140] There is no evidence to support Mr. Cole’s suggestion that a downward adjustment to her projected income to trial is warranted. Ms. Thornhill would have continued to work full time but for the accident, as she had previously, but for her maternity leave. In fact, as she had

planned, she returned after her leave to full time hospital nursing at Sick Children’s Hospital and then took up the position offered her by York in October 2002, again on a full time basis.

[141] I find that the past income loss projected by Mr. Wollach accords with the evidence. I find that her past income loss is properly assessed at \$106,232 to October 16, 2007.

(iii) Future Income Loss

[142] Mr. Wollach’s assumptions for this calculation included the following:

- (i) that, but for the accident, Ms. Thornhill would have worked full time as a public health nurse to either age 60 or 65, OR
- (ii) that she would have stayed in public health nursing to August 31, 2009 and then would have continued in hospital nursing full time to either 60 or 65;
- (iii) that, due to the accident, she would continue at her present part time earning level, adjusted for inflation, to 60 or 65;
- (iv) the calculations have been discounted at .75% per year for the first 15 years and 2.5% per year thereafter;
- (v) that, using her fulltime earnings at York and the ONA collective agreement, her earnings would be \$69,971 as a public health nurse, and \$74,440 as a hospital nurse, both on a full time basis.

[143] Mr. Wollach’s calculations take the form of four scenarios as set out below:

PRESENT VALUE OF FUTURE LOSS OF INCOME AS AT OCTOBER 16, 2007

	SCENARIO 1	SCENARIO 2	SCENARIO 3	SCENARIO 4
Pre-Accident Earning Capacity Based On:				
	Full Time Earnings of Public Health Nurses With Comparable Experience With York Region To Normal Retirement At Age 65		Full Time Public Health Nurse to August 31, 2009 And Full Time Registered Nurse in Hospital Thereafter To Retirement At Age 65	
Residual Earning Capacity Based on Current Part Time Earnings And:				
	Forced Early Retirement at Age 60	Normal Retirement at Age 65	Forced Early Retirement at Age 60	Normal Retirement at Age 65
Present Value of Annual Income Loss From October 17, 2007 to August 31, 2009				
Projected Pre Accident Earning Capacity	\$69,971	\$69,971	\$69,971	\$69,971
Less: Residual Earning				

		SCENARIO 1	SCENARIO 2	SCENARIO 3	SCENARIO 4
Capacity		(\$29,848)	(\$29,848)	(\$29,848)	(\$29,848)
Present Value of Annual Income Loss From October 17, 2007 to August 31, 2009, at Oct. 16, 2007	(a)	\$74,628	\$74,628	\$74,628	\$74,628
Present Value of Annual Income Loss From September 1, 2009 to Age 60					
Projected Pre Accident Earning Capacity		\$69,971	\$69,971	\$74,440	\$74,440
Less: Residual Earning Capacity		(\$29,848)	(\$29,848)	(\$29,848)	(\$29,848)
Annual Income Loss		\$40,123	\$40,123	\$44,593	\$44,593
Multiplier		19.58	19.58	19.58	19.58
Present Value of Annual Income Loss From September 1, 2009 to Age 60, As at October 16, 2007	(b)	\$785,601	\$785,601	\$873,123	\$873,123
Present Value of Annual Income Loss From Age 60 to Age 65					
Projected Pre Accident Earning Capacity		\$69,971	\$69,971	\$74,440	\$74,440
Less: Residual Earning Capacity		\$0	(\$29,848)	\$0	(\$29,848)
Annual Income Loss		\$69,971	\$40,123	\$74,440	\$44,593
Multiplier		3.09	3.09	3.09	3.09
Present Value of Annual Income Loss From Age 60 to Age 65, As at October 16, 2007	(c)	\$216,209	\$123,979	\$230,021	\$137,791
Present Value of Future Loss of Income From October 17, 2007 to Age 65, As at October 16, 2007	(a) +(b) +(c)	\$1,076,438	\$984,208	\$1,177,772	\$1,085,542

[144] Mr. Cole prepared a further calculation which he called “Part Time Public Health Nurse, Change to Full Time Hospital Nurse” (prior to youngest child entering high school). It was filed as Exhibit #15. He assumed that Ms. Thornhill would have worked, but for the accident, to age 58 or 60. At that point, the pension plan (OMERS) offers incentives to retire at full pension. He considered the Statistics Canada figures regarding retirement ages for females,

average retirement age in the public sector, average retirement in the health sector, and Ontario's average retirement age. He produced two scenarios, no. 1 assuming retirement at 58 and no. 2 at 60. Importantly, he took an average of part time and full time nursing earnings from 2007 to 2017 rather than full time earnings throughout that period. Mr. Cole used the same post-accident residual yearly capacity as Mr. Wolloch, \$29,848. His calculation is set out below:

[To continue on next page]

		Scenario 1	Scenario 2
		HO Est Expected Retirement Age – with and without accident	
		58	60
PV of Loss from Oct. 9/07 to Sept. 2017 (Age 45)			
Projected pre-accident earning capacity		\$52,013	\$52,013
Less: Residual earning capacity		(\$29,848)	(\$29,848)
Annual Income Loss		\$22,165	\$22,165
Multiplier		9.46	9.46
Present value of annual income loss from October 9, 2007 to Sept 2017	(a)	\$209,681	\$209,681
PV of Loss from Sept 2017 (Age 45) to age 58 & 60			
Projected pre-accident earning capacity		\$74,178	\$74,178
Less: Residual earning capacity		(\$29,848)	(\$29,848)
Annual income loss		\$44,330	\$44,330
Multiplier		10.49	11.85
Present value of annual income loss from age Sept 2017 (Age 45) to age 58 & 60	(b)	\$465,022	\$525,311
Present value of future loss	(a + b)	674,703	\$734,991

[145] Under cross-examination, Mr. Cole again had to concede that he assumed Ms. Thornhill would have worked only part time from the accident date, for approximately half of the 2007 to 2017 period, because he had misunderstood her pre-accident employment status. As to his assumption that Ms. Thornhill would not have earned any income after age 58 or 60, he assumed that she would spend more time with her family given the incentives to retire by age 60. He conceded that once the children grew up, overtime would be a real possibility open to Ms Thornhill. He also conceded an important point about the statistics he used when he agreed with Mr. Boland's propositions that a person may continue to earn income from another career after retirement from one's principal career, and that the Statistics Canada figures do not take that into consideration.

[146] Mr. Wolloch was cross-examined as to why he chose 65 as the later projected retirement age for Ms. Thornhill. He stated that, apart from 65 being a common age to retire and

at one time a mandatory retirement age in some sectors, the retirement of an individual depends on various factors including personal circumstances of the person. He accepted that a rational customized retirement age could be produced but that he had not done so.

[147] In dealing with claims dependant on the occurrence of future events or conditions, the standard of proof is not on a balance of probabilities. Such future conditions or events are given weight or significance by estimating the chance of the relevant condition or event occurring. Both positive and negative contingencies, general and specific, must be considered. The Ontario Court of Appeal summarized the law in this area as follows:

A trial judge who is called upon to assess future pecuniary loss is of necessity engaged in a somewhat speculative exercise: *Andrews v. Grand & Toy Alberta Limited*, (1978) 2 S.C.R. 229 at pp. 249-50. The ultimate questions to be determined – will the plaintiff suffer future loss and, if so, how much? - cannot be proved or disproved in the sense of facts relating to events which have occurred can be proved or disproved. A plaintiff who seeks compensation for future pecuniary loss need not prove on a balance of probabilities that her future earning capacity will be lost or diminished or that she will require future care because of the wrong done to her. If the plaintiff establishes a real and substantial risk of future pecuniary loss, she is entitled to compensation: *Schrump v. Koot* (1977) 18 O.R. 2nd 337 at pp. 340-43; *Giannone v. Weinberg* (1989) 68 O.R. (2d) 767 (C.A.) [leave to appeal to S.C.C. refused (Wilson, La Forest and Cory JJ)] ...

A plaintiff who establishes a real and substantial risk of future pecuniary loss is not necessarily entitled to the full measure of that potential loss. Compensation for future loss is not an all-or-nothing proposition. Entitlement to compensation will depend in part on the degree of risk established. The greater the risk of loss, the greater will be the compensation. The measure of compensation for future economic loss will also depend on the possibility, if any, that a plaintiff would have suffered some or all of those projected losses even if the wrong done to her had not occurred (*Graham v. Rourke*, [1990] 75 O.R. (2d) 622 at paras. 40-41 (Ont. C.A.)).

[148] I accept Mr. Wollach's evidence that in this case, the positive and negative general contingencies cancel out. I did not see Mr. Cole as seriously disagreeing with that approach. I accept Ms. Thornhill's evidence as to certain specific positive contingencies: her enduring love of nursing, the lengthy employment histories and work ethic of both her and her family; her own return to full time nursing after Braydon's birth and before the accident, her attempted return to almost full time work at one point after the accident, despite severe pain and physical limitations, and her own view of herself as a career nurse. It is also noteworthy that, under cross-examination, she frankly admitted that plans could change and that age 65 was an assumed end date, not one fully and consciously planned out.

[149] Mr. Danson argued that Ms. Thornhill's focus on family life, and the shift work of Ms. Thornhill and her husband, would cause some loss of family life, which was important to her,

and that she had conceded her plans could change to suit her family's needs. From these concessions, Mr. Danson urged that her future loss of income claim should be reduced, as her return to full time employment as a hospital nurse, absent the accident, was questionable.

[150] I have considered the differing scenarios and suggested specific contingencies carefully. It is my view that the defendant submissions portray a rather partial or one-sided view of Ms. Thornhill, leaving out the whole person. In my view, after considering in particular Ms. Klein's, Dr. Voorneveld's, and Dr. Ridgeley's assessments of Ms. Thornhill, this is a woman who loves her job, went substantial distances in order to get experience in nursing in the U.S.A., and has a strong work ethic which requires fulfilment. Her struggle to work since the accident despite severe pain, emotional cost and limitations speaks to that. I find that, not just as a real and substantial possibility, but as a probability, she would have worked to age 60 as a full time public health nurse. Given the incentive encouraging early retirement from nursing which Mr. Cole cited, and the passing of the financial pressures of school expenses by that time, I find that Ms. Thornhill probably would have retired from nursing at that age, absent the accident. However, because of her work ethic, I also find that there is a real and substantial possibility that she would have continued to work part time in a health-related field. I do not see it as a major issue that Mr. Cole could not tell from the pension plan at what point, between 58 and 60, she would be entitled to full pension. I accept Mr. Wollach's calculation and present valuation of her future income loss, assuming that she would retire from nursing at age 60, at \$860,200 (\$74,600 + \$785,066, rounded). I would add to this 1/3 of Mr. Wollach's calculation of the present value of earnings from 60 to 65, being \$72,100 (rounded). I therefore find that the present value of her future loss of income on a projected basis as \$932,300.

(iv) Additional Losses re Surgery

[151] Mr. Wollach calculated possible additional losses of income in certain periods following surgery at about age 45, and at about age 55. He assumed in Schedule 1 that she would lose at total of 30 weeks income pre-operation and post-operation at age 45. At age 55, he assumed 44 weeks of income loss, both pre-operation and post-operation. Counsel for the defendant Mr. Shadid submits that while Ms. Thornhill will require to take some time off work around each surgery, there is no medical evidence as to exactly how much time off would be required. I agree with Mr. Danson's point, but not to his implication that there is no medical evidence on which to make a finding in this regard.

[152] According to Dr. Randle, Ms. Thornhill would experience increased pain and more limited function prior to her surgeries, but it was unclear as to whether this meant loss of work. He and Dr. Gollish agreed that after the primary arthroplasty, a period of three months was required for recovery. Ms. Vrckovnik's assessment of the rehabilitation needs for 12 weeks following that operation accords with the doctors' view. Therefore, in regard to the primary arthroplasty, I see no basis for the period of 26 weeks loss of income pre-operation. The evidence supports the 12 weeks loss of income after the operation. In my view, in regard to the pre-operation period, there is evidence to indicate that Ms. Thornhill would suffer increased pain and reduced function, and would require more rest and less work. Ms. Vrckovnik stated that Ms. Thornhill would be required to work less for a period of time. I conclude that a period of nine

weeks is sufficient to cover the loss of income before the operation. While there would probably not be a complete and sudden withdrawal from work, there is no doubt in my mind, based on the evidence, that a gradual withdrawal from work leading to complete cessation would precede the primary arthroplasty and that nine weeks loss of income would cover that portion. In regard to the post-operative period, I find that 12 weeks loss of income is in accordance with the evidence. Therefore I conclude that there would be additional loss of income regarding the primary arthroplasty of 21 weeks.

[153] As to the revision surgery at age 55, I conclude that a longer period of time would be required, both before and after the operation, due to the more severe deterioration expected to materialize, the increased levels of pain, and deteriorating bone and tissue with which to work. In my view, 28 weeks is a reasonable estimate of the loss of income in regard to the revision surgery at age 55, being 12 weeks before and 16 weeks after the operation. This is a situation in which I have found that a loss will occur and it is my duty to assess it in accordance with the evidence as best I can.

[154] Using the multipliers provided by Mr. Wollach of .92 at age 45 and .76 for the surgery at age 55, I find the following:

(a)	loss re surgery at age 45	\$11,089.68
	loss re surgery at age 55	<u>\$12,214.72</u>
		\$23,304.40 or 23, 300(rounded).

(v) Present Value of Future Pension Losses

[155] I have found that but for the accident, Ms. Thornhill would have continued as a public health nurse on a full-time basis to age 60. Mr. Wollach estimates the present value of future pension losses on that basis at \$12,652. He calculated the projected pension income absent the accident at \$290,057, given retirement at age 60. From this, he deducted the total of \$187,460 (projected pension post-accident), \$73,375 (future pension contribution savings to 60) and \$16,570 (future pension contribution savings from 60 to 65). In each case, he used a multiplier to obtain the present value. The plaintiff's counsel's submissions on pension losses assume that Mr. Wollach's calculations ended on page 1 of Schedule 5, ranging between \$187,460 (assuming retirement at age 60) to \$148,387 (assuming retirement at age 65). However, his calculations continued onto page 2 and show that the figures referred to by the plaintiff were taken off the projected pension income, absent the accident, of \$290,057 (for the retirement at age 60 scenario).

[156] I see no reason why I should not accept Mr. Wollach's evidence in this regard, except that the corollary of my finding is that there would be no pension contribution savings after 60. I assess Ms. Thornhill's future pension losses at \$29,200 as of October 16, 2007.

(vi) Future Care Costs

[157] Ms. Thornhill was evaluated for functional abilities (FAE) by the occupational therapist Irene Vrckovnik. She has practiced since 1990 and has a cross-appointment to the University of Toronto. I find that she is an experienced and well-qualified occupational therapist.

[158] Ms. Vrckovnik not only did the original FAE of Ms. Thornhill, using simulated testing for movements required throughout her daily life, but she also re-assessed her two years later. She assessed her employment suitability (as had Helen Klein, with similar results), pain management, and needs for future services and their associated costs. Ms. Vrckovnik reviewed Ms. Thornhill's medical file. She was the only occupational therapist to go to both Ms. Thornhill's home in Bradford, where the Thornhills had moved to lessen expenses after the accident, and her present Newmarket home. She is well acquainted with all facets of Ms. Thornhill's life and the tasks she can, and those she now cannot, do as a result of the accident. Ms. Vrckovnik saw the domestic scene at Bradford including the toys on the floor which Ms. Thornhill has difficulty picking up - she cannot kneel or squat; the Jacuzzi was not placed where it was accessible; the stairs were a repetitive challenge to climb. Ms. Vrckovnik made certain recommendations to allow Ms. Thornhill to manage her life better, given her limitations. Those recommendations included that the family buy a bungalow, move closer to Ms. Thornhill's place of work at the Tannery in Newmarket, and that there should be a main floor laundry room. Ms. Thornhill and her husband acted on Ms. Vrckovnik's recommendations, as Ms. Thornhill has in the case of virtually all recommendations of the specialists. In short, Ms. Vrckovnik impressed me as a calm, no-nonsense professional who approached her job in a comprehensive manner in order to fully understand the needs of Ms. Thornhill and her future costs. A good example of Ms. Vrckovnik's frankness was that she conceded her error in continuing the cost of glucosamine after the knee replacement.

[159] Counsel for the defendant Mr. Shadid called Karyn Drewnowsky, a physiotherapist by training with wide experience in health care including performing and implementing future care assessments. She had not assessed or even asked to assess Ms. Thornhill personally. Her role in this case was limited to reading her medical legal file, Ms. Vrckovnik's reports and, as she stressed, Dr. Gollish's report, and then doing a critique of the future care costs, except for attendant care. It is obvious from Ms. Drewnowsky's testimony that she had great respect for Dr. Gollish. It was unfortunately also apparent from cross-examination that Ms. Drewnowsky had misunderstood two matters which led to weaknesses in her evidence:

- (i) she took Dr. Gollish's position as being that Ms. Thornhill would probably face primary arthroplasty within five years, whereas Dr. Gollish's evidence, and the point on which Ms. Drewnowsky was cross-examined, was that it could be required in five years but should be delayed as long as possible due to her young age, and that it would occur within five to fifteen years of the accident; as we know that Ms. Thornhill does not require it yet, partly due to her willingness to do things to preserve her knee joint, the first five years have already passed since the accident and the primary arthroplasty will be required, in Dr. Gollish's view, within the next five to ten years; and

- (ii) she understood the standard to be followed in assessing future events affecting costs to be probability, whereas in law it is somewhat lower, being reasonable and substantial possibility.

[160] Ms. Drewnowsky was critical of Ms. Vrckovnik's estimate of \$12,427.74 for medication in the future. I would agree with the criticism that two anti-inflammatories are not required and that the glucosamine would not continue after the knee replacement as its purpose would be gone. Therefore, I would remove \$35 from the unit cost reducing the total to \$8,500 (rounded). I would not interfere with the totals after the first knee replacement, as there will probably have to be a provision made for a narcotic, like Oxycontin, due to the pain prior to the knee replacement and prior to the revision surgeries for a considerable period of time, as in the case of past flare-ups. I accept Ms. Vrckovnik's estimates as conservative, apart from the deduction I have made. The present value of the total medication cost, after removal of the amounts for the present values for the added anti-inflammatory to age 45, is \$8,100 and after the reduction for glucosamine after the first knee replacement the total is \$7,800 (rounded). Part of the future care costs depend on the timing of the primary arthroplasty. I find that the reasonable and substantial possibility is that Ms. Thornhill, having reached the low end of Dr. Gollish's range of five years from the accident without apparent need of the replacement, will be able to delay the arthroplasty until age 45, the maximum end of his range.

[161] As for the remainder of the future care costs estimated by Ms. Vrckovnik, based on the assumption that the knee replacement will be required by age 45, I find them amply justified and reasonable. It is important of course that sufficient funds be set aside for the purposes required, and I feel that Ms. Vrckovnik has arrived at costs which reflect that principle without overstating the reasonable and substantial possibilities and costing.

[162] I find future care costs to be:

	Actual Cost	PV (Present Value)
Physio therapy	\$67,600	\$58,800
Medication	\$12,500	\$10,300
Equipment	\$11,000	\$6,800
Psychological	\$15,200	\$14,600
Attendant Care and Supplementary Housekeeping	\$62,000	\$39,000
General Housekeeping	\$436,000	\$352,000
TOTAL	\$604,300	\$481,500 (rounded)

(vii) Non-wage Benefits

[163] I accept the uncontested opinion of Mr. Wollach that nurses have benefits which are not reflected in merely an income loss calculation. Unfortunately, this point was not included in his calculations. He estimated the non-wage benefits at 10% of salary. However, I do not have the amount against which that percentage should be applied, in order to arrive at an accurate assessment over time, but at present value. I am concerned that the amount in the plaintiff's damages brief has not been subject to submission by the defendant Mr. Shadid's counsel, who

was the only member of the defence side to address quantum of damages. If counsel cannot agree, I will allow further submissions from Mr. Danson or Mr. Voudouris on this item of damage, subject to reply by Mr. Boland or Mr. Romaine, on the terms set out at the conclusion of this judgment.

(viii) Moving Costs

[164] On behalf of the defendant Mr. Shadid, Mr. Voudouris submitted that the moving costs of the plaintiffs were not claimable in this action. He cited section 267.8(6) of the *Insurance Act*, as well as section 15(2)(5) of the *Statutory Accident Benefits Schedule* (SABS). Mr. Boland submits that the cost of both moves is claimable. However, he undertakes on behalf of the plaintiffs to file an application on their behalf to cover the cost of the move to their present residence under the SABS. I have found that this move was made for therapeutic reasons following the recommendations of Ms. Vreckovnik. Mr. Boland referred to section 267.8(6) of the *Insurance Act* as well as section 15(2) of the SABS regarding rehabilitation costs. Mr. Boland concedes that the first move was for financial reasons and does not come within the SABS.

Section 267.8(6) of the *Insurance Act* reads as follows:

In an action for loss or damage from bodily injury or death arising directly or indirectly from the use or operation of an automobile, the damages to which a plaintiff is entitled for pecuniary loss, other than the damages for income loss or loss of earning capacity and the damages for expenses that have been incurred or will be incurred for health care, shall be reduced by all payments in respect of the incident of the plaintiff has received or that were available before the trial of the action for statutory accident benefits in respect of pecuniary loss, other than income loss, loss of earning capacity and expenses for health care.

[165] Mr. Boland submits that the expense of the first move, the one to Bradford, was made for reasons that take it out of the SABS. He further submits that as it does not fall within any of the other expenses to be removed from the claim, and as it results from the situation that the plaintiffs found themselves in following and as a result of the accident, the loss resulting from the move to Bradford is a proper claim resulting from the accident.

[166] I find that the loss of Ms. Thornhill's full salary for a period of time, followed by protracted loss of half of her salary, meant that the plaintiffs had to move. The only reason for that move was the financial situation in which they found themselves following the accident. I find that this expense is properly claimable under the *Insurance Act* and not claimable under the SABS.

(ix) Family Law Claims

[167] I find that the plaintiff's claims for the loss of care, guidance, and companionship of the plaintiff are reasonable in the circumstances of this case. There is no doubt that the Thornhills'

relationship has been put under severe strain, and that Braydon has lost his mother's full ability to bond with him and to participate with him in activities, and thus to have her contribute fully in terms of life lessons and parental guidance. To some extent these deficiencies will continue in the future. I award to the plaintiff Jack Thornhill \$35,000 and to the infant plaintiff Braydon Thornhill \$25,000, the latter to be paid into court and held for him until he has reached the age of majority.

CONCLUSION

[168] My findings on damages are set out as follows:

General Damages	\$225,000
Past Income Loss	\$106,200
Future Income Loss	\$932,300
Additional Losses re Surgery	\$23,300
Present Value of Future Pension Losses	\$29,200
Future Care Costs	\$481,500
Moving Cost to Bradford house	\$17,800
FLA	\$60,000
TOTAL	\$1,875,300

[169] The issue of what expenses are to be paid by protected and unprotected defendants, as well as determination of the quantum of loss of non-wage benefits, will be left for further submissions in writing. Counsel may make submissions in regard to costs, prejudgment interest, non-wage benefits and the protected/unprotected defendant issues within 60 days. The submissions from the plaintiff's counsel are due within 30 days of the date of release, the defendants' counsel's submissions within 20 days thereafter, and the plaintiffs' counsel's in the final 10 days.

HOWDEN, J.

Released: January 31, 2008