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POLICY UPDATE
ESTABLISHING SPEED LIMITS ON REGIONAL ROADS

The Transportation Services Committee recommends:

- 1. Receipt of the presentation by Gerry Forbes, Intus Road Safety Engineering Inc.; and**
- 2. Referral of the recommendations contained in the following report dated December 18, 2009, from the Commissioner of Transportation Services to staff for a more comprehensive report to the February 3, 2010 Transportation Services Committee meeting which will include:**
 - a) further details on the injury minimization approach proposed in the speed limit policy and the impetus for recommending this approach;**
 - b) more extensive information on other jurisdictions that utilize the injury minimization approach and which North American jurisdictions have considered implementing this approach;**
 - c) an update that addresses the outstanding speed change requests received from local municipalities as well as the speed change requests on roads identified at today's meeting; and**
 - d) an outline of the intended strategy for enforcement of this policy by York Regional Police.**

1. RECOMMENDATIONS

It is recommended that:

1. Regional Council adopt the revised speed limit policy, included as *Attachment 1, entitled "Establishing Speed Limits on Regional Roads"*.
2. Regional Council adopt the speed limit changes listed in *Attachment 2, entitled "Proposed Speed Limits"*, subject to the approval of the Regional Solicitor as to form and content.
3. The Regional Solicitor prepare the necessary by-law.
4. The Regional Clerk forward this report to the Clerks of the local municipalities in York Region and to the Chief of York Regional Police.

2. PURPOSE

This report presents a new policy for establishing speed limits on the Regional road network. If approved, this policy would supersede the existing speed limit policy approved by Regional Council in September of 2004.

3. BACKGROUND

Regular requests to staff for lower speed limits and the number of requests to York Regional Police for speed limit enforcement are indicators that travel speed is an important and relevant public policy matter to road users and service providers at the Region. However, motor vehicle speed can be a divisive issue. Motorists typically desire faster speeds to minimize travel time; pedestrians, cyclists, and area residents typically desire slower speeds for safety and comfort reasons. In an attempt to balance the desires of both groups, road authorities set maximum speed limits for facilities under their jurisdiction. The Region adopted the most recent policy for establishing speed limits in 2004.

A new speed limit policy is recommended in order to improve safety for vulnerable road users in urban areas

Staff identified the need to revise the existing speed limit policy because:

- several years of experience with the current speed limit policy has highlighted some inconsistencies and patchwork approach to establishing speed limits that should be corrected
- current Regional initiatives such as the Transportation Master Plan, vivaNext, HOV lanes, and the Pedestrian and Cycling Master Plan are establishing York Regional roads as a shared-use system where the impact of speed on vulnerable road users such as pedestrians and cyclists must be considered

In response to this, Regional staff proposed a new policy where the method of setting the speed limit would depend of the land use contained in the Official Plan. This policy was included in a report to the Transportation and Works Committee on June 17, 2009 entitled *Policy Update – Establishing Speed Limits on Regional Roads*. Committee's response to the proposed policy was to ask for a more comprehensive review that addressed the different requirements for urban and rural roads in York Region.

To satisfy the Committee's request for a more comprehensive review, staff retained Intus Road Safety Engineering Incorporated to review the original policy as well as the proposed policy presented to the Transportation and Works Committee in June of this year. Intus Road Safety Engineering Incorporated specializes in road safety and is a recognized expert in speed management. They were requested to:

- Compare the proposed policy from June 2009 to industry recommended practices;
- Consult with staff concerning overall goals and objectives for the York Region transportation system;
- Identify and evaluate policy alternatives and recommend a method for setting speed limits tailored to suit York Region; and
- Perform field tests of the policy on a sample of York Regional roads.

The recommendations stemming from this review have been incorporated into the revised policy presented in this report in the following sections together with the recommended policy.

4. ANALYSIS AND OPTIONS

The Transportation Association of Canada is a national association which promotes sustainable transportation services. The association provides a neutral independent body to gather and exchange ideas on technical guidelines and best practices throughout Canada. The primary focus of the association is roadways in urban and rural areas and all transportation related components of those roadways.

The review of current Regional policy by Intus has demonstrated that the current engineering approach to speed limits is not in keeping with leading edge international safety approaches or with the recently released Transportation Association of Canada guidelines.

Currently, York Region applies an engineering approach to setting speed limits on the Regional Road system

The current speed limit policy is principally based on setting the speed limit at the 85th percentile speed (the speed at which 85% of traffic is traveling at or below) for a particular section of road. Speed limits are also set taking into consideration the presence of schools, pedestrians and access points – all of which may result in a lower posted speed limit than the 85th percentile analysis indicates. This approach has been used in order to reflect a reasonable expectation of driver compliance with the set speed limit

The engineering approach has recently been modified by the release of new Transportation Association of Canada guidelines for speed limit setting

In the time since the existing speed limit policy was adopted in 2004, the traffic engineering profession has developed a Canadian expert system for setting speed limits.

The Transportation Association of Canada has recently produced guidelines for establishing speed limits that account for traffic and infrastructure data in selecting an appropriate speed limit on a variety of road types.

The Transportation Association of Canada approach to setting speed limits uses a two-step process: a base speed limit is set according to either the 85th percentile speed or the design speed for the road. The speed limit is then further adjusted according to traffic and infrastructure conditions such as pedestrian and cycling use, median presence and driveway frequency. In general, this method of setting speed limits scores very favourably as being considered good practice in North America, and as a result will also provide consistency across jurisdictions.

These guidelines are considered good engineering practice in Canada and will replace the Region's previous engineering approach.

Three speed limit policy options are available based on the review of other jurisdictions around the world and established best practices

Speed limit policy options were developed based on combinations of the following approaches available:

- adopt an "injury minimization" approach
- adopt the engineering approach (based on the Transportation Association of Canada Guidelines)

The injury minimization approach requires speed limits to be set based on expected types of crashes, yet it is not a widely accepted practice in North America and would create inconsistent speed limits (Option A)

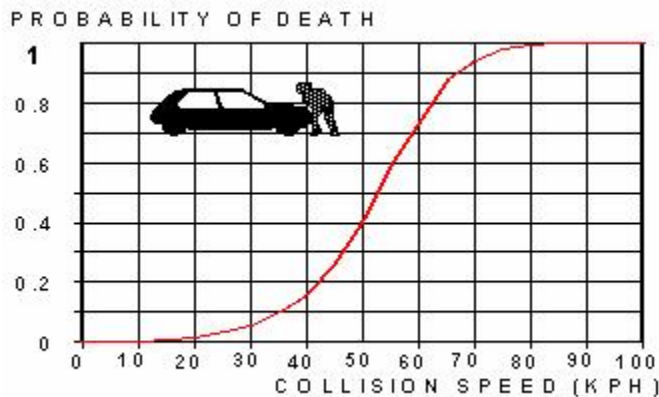
Option A involves setting speed limits with injury minimization as a goal which is a new approach to North America. It is employed primarily in Sweden, Austria, and the Netherlands. The injury minimization approach is scientifically linked to improved road safety, and is leading-edge thinking, but generates lower speed limits than the North American culture has come to expect. For example, speed limits in areas of high pedestrian activity are recommended to be a maximum of 30 kilometres per hour under the injury minimization approach.

The injury minimization approach to setting speed limits requires that speed limits be set according to the crash types that are likely to occur, and the tolerance that the human body can withstand in the expected crashes. For example, head on collisions between two vehicles may be expected on a road that is not divided by a raised median. The maximum speed that the human body can tolerate in a head-on collision (given a well engineered vehicle and proper use of all safety equipment by occupants) is about 70

kilometres per hour. Hence, under an injury minimization approach to setting speed limits, undivided roads would have a maximum speed limit of 70 kilometres per hour or less.

In the case of a collision involving a vehicle with a pedestrian or cyclist, the probability of death or severe injury is directly related to the speed of the vehicle at the time of the collision. These road users are safer when motor vehicles are traveling slower (see Figure 1).

Figure 1
The probability of pedestrian injury and death increases substantially with vehicle speeds



Source : Wegman, F.C.M. & Aarts, L.T. (eds.) (2006). *Advancing sustainable safety; National Road Safety Outlook for 2005-2020*. SWOV, Leidschendam.

This approach to setting speed limits is strongly aligned with the primary goal of road safety. However, while it is an accepted practice, it is not yet a *widely-accepted* practice in North America.

Finally, the speed limits that would be implemented by the injury minimization approach would be lower than those expected in North America, and would create inconsistencies across roads within the same region (i.e., local roads may end up with higher speed limits than some Regional roads).

A combination approach which allows the use of the engineering approach (based on Transportation Association of Canada Guidelines) for rural areas and an injury minimization approach for urban areas (Option B)

Option B is a combination approach that calls for an engineering approach to setting speed limits in the rural areas and on controlled-access, divided highways, and an injury minimization approach for the urban areas is similar to the policy proposed in June 2009.

In the instance of urban areas, the speed limit for Regional roads based on injury minimization would be significantly lower than the 60 kilometres per hour recommended

in the June report, and as such would be inconsistent with adjacent speed limits and North American expectations for arterial roads.

Accordingly, this approach is not recommended.

A revised combination approach best suits the needs of York Region and is also an acceptable practice in North America (Option C – our recommended policy)

Option C is a modified combination approach that, similar to Option B, calls for an engineering approach to setting speed limits in the rural areas and on controlled-access, divided highways, and a injury minimization type of approach for the urban areas.

The policy proposed is to use land use as a means to contemplate lower speed limits (60 kilometres per hour and under) in urban areas where streets are shared by motor vehicles, cyclists, pedestrians, and transit, and higher speeds in rural areas that are dominated by the motor vehicle. In this approach, land use is used as an indicator of the potential for high pedestrian and cycling activity in the area. For the purpose of this policy an urban area is defined to be those on maps of the Regional Official Plan.

In the instance of urban areas, the speed limit for Regional roads would be 60 kilometres per hour unless a study determines that a lower speed limit is required. The idea behind the 60 kilometres per hour speed limit in urban areas is to protect cyclists, pedestrians and other vulnerable road users. 60 kilometres per hour is a balanced speed that yields safety gains while providing consistency across all streets.

This is basically similar to the policy proposed in June 2009, with the modification that this Option uses the Transportation Association of Canada Guidelines for setting speed limits instead of the 85th percentile approach.

A revised combination approach is appropriate as it possesses the strengths of both traditional approaches while minimizing the weaknesses. The combination policy supports Regional objectives while remaining largely acceptable to the North American culture, and consistent with other area speed limits.

The expert review supported the use of the combination approach; the analysis also leads to a suggested refinement to setting speed limits in rural areas.

The expert review included the application of the Transportation Association of Canada guidelines to a sample of roads in York Region, and the results are reasonable and consistent with the current practice in York Region.

The difference between the combination approach (Option C) and the June 17, 2009 recommendation is that the new national Transportation Association of Canada guidelines will be used to set speed limits on rural roads instead of the 85th percentile

method and also to justify any lowering from 60 kilometres per hour speed limits in urban areas.

The recommended policy is presented in *Attachment 1*.

The impact of the proposed policy will be to improve safety

The most often cited impacts of a change in the speed limit relate to safety, travel delay, vehicle emissions, and enforcement issues. In this instance, the main change will be a lowering of some speed limits in the urban areas of the Region. These lower speed limits will improve safety by lowering collision severity, and will have only a minor impact on travel delay or vehicle emissions. This is because urban area travel is mainly dictated not by the speed limit, but by the ambient traffic conditions, traffic signal timing, and other sundry factors.

With respect to enforcement, York Regional Police acknowledge the demand for enforcement will increase initially; however, they are in full support of the proposed policy. It is expected that having a consistent speed limit on similar roads will eventually result in higher compliance with the posted speed limit and eventually reduce the requirement and demand for police enforcement.

It is not the intention of Regional staff to undertake a complete review of all speed limits on the Regional road system. At this time, staff is proposing that only speed limits in the urban areas and rural hamlets be adjusted as determined by the new policy. Rural speed limits will remain as they are today, and will only be reviewed after major reconstruction, or in response to requests from the community.

Continued communication is essential to ensure public and community acceptance of the need to lower speed limits in certain areas of the Region

Regional staff will continue to liaise with the appropriate staff at the local municipalities, and are recommending a working group be established between the Region (Transportation Services staff and York Regional Police) and local municipal staff to continue the dialogue concerning area speed limits, and to ensure consistency in setting speed limits across the Region.

Furthermore, in order to encourage public and community acceptance, it is recommended to issue a media release utilizing the York Region Media Group. In advance of the new speed limits being implemented, this media release will be distributed throughout all communities within the Region to advise residents of the changes to the speed limits.

It is recognized lowering speed limits on Regional roads to promote consistency within urban areas will be met with support from local communities, however; there may be some resistance from the motoring public at large. In order to promote public and community acceptance, the development of a public education campaign to explain the benefits of this initiative is recommended. The education campaign would be developed

in partnership with the York Region Speed Limits Working Group and any other stakeholder such as transit and trucking associations.

Part of the comprehensive communications plan includes advertising in local newspapers

Upon adoption of this report, newspaper advertisements will be prepared to advise motorists and residents of the revised speed limit policy and changes to existing speed limits. It is proposed that paid advertisements be published in the York Region Media Group during the month of April 2010. These advertisements would ensure widespread coverage of the upcoming changes to the speed limits on Regional roads.

In conjunction with the external notification addressed above, emergency services groups, (police, fire, EMS) and transit companies, including school bus companies will be advised via e-mail communication. This communication will ensure all road users are informed of the changes to posted speed limits prior to changes being made on the road network.

It is estimated that approximately 500 new speed limit signs will need to be installed on the Regional road network as a result of this revised speed limit policy; accordingly staff will need to develop a deployment process which is as efficient as possible. It is expected that multiple work crews will install the required signage throughout the Region simultaneously. This approach will ensure efficiency.

In addition, one month prior to the implementation date, stakeholders within the Region will be advised of upcoming changes to speed limits on Regional roads through the following means:

- Regional Corporate Communications will provide communication through our website
- Emergency services (police, fire, EMS) and Transit companies, including school bus companies, will be advised via e-mail/mail
- York Works and local municipal websites will also be used to inform residents of the speed limit changes

Implementation of the revised speed limit policy is proposed to commence in May of 2010

The impact of revising the speed limit on the Regional road network must consider the impact on staff resources to manufacture signs and to complete the installation of the signs for the physical speed limit changes in the field according to the *Highway Traffic Act*. Regional staff will implement the proposed speed limit changes using a comprehensive implementation plan where the installation of the required signage will be completed after “spring-thaw” using existing posts for mounting the new signs. The installation of signs will commence in different areas of the Region simultaneously to

ensure efficiency and effective use of resources. Ongoing communication and monitoring will be provided via use of other media throughout the implementation process utilizing website updates through Corporate Communications. Each road where speed limits are to be changed, and the respective implementation date, is shown on *Attachment 2*.

Several requests to revise speed limits on Regional roads are under consideration by staff

A number of requests that have been received to lower speed limits on area roads have been deferred by staff pending the approval of the new policy. Staff has considered these requests in light of the recommended speed limit policy contained herein, and has proposed speed limit adjustments accordingly.

The required by-law to implement these revised speed limits is included in *Attachment 2*, entitled "*Proposed Speed Limits*".

5. FINANCIAL IMPLICATIONS

The estimated cost for the speed limit policy implementation strategy including a comprehensive communication plan, advertising in local newspapers, a public education plan and, manufacturing and installing the required signage is approximately \$120,000. These costs are included in the current Transportation Services budget.

6. LOCAL MUNICIPAL IMPACT

Regional staff discussed the proposed speed limit policy with staff from all the local municipalities. All local municipalities agree that our current speed limit policy needs to be revised. Some municipalities were concerned that lowering speed limits would increase travel times for motorists. The local municipalities were advised the intention of a revised speed limit policy was not to lower speed limits in general, but was to ensure the creation of consistent speed limits throughout the Region outweighing their concerns regarding increased travel times.

Regional staff will ensure the appropriate staff of the respective local municipality be advised of the revised speed limits, as a result of this proposed policy, on Regional roads within their municipality.

7. CONCLUSION

In response to the Transportation and Works Committee's request for a more comprehensive review of the staff proposed policy for establishing speed limits on Regional roads, staff had the policy thoroughly reviewed by Intus Road Safety

Engineering Incorporated. The independent review of this policy concurs with the policy that was presented by staff to the Transportation and Works Committee on June 17, 2009, with some minor modifications to wording and a recommendation to use the upcoming Transportation Association of Canada guidelines for setting speed limits in the rural areas of the Region.

With the urbanization of York Region there is an increasing need for Regional urban arterial roads to be transformed from facilities that only process motor vehicles into urban streets that provide equal priority to pedestrians, cyclists and transit users. The amended policy for establishing speed limits on Regional roads will complement and support this ongoing Regional initiative, and at the same time improve safety on our urban roads.

As presented in *Attachment 1* to this report, it is recommended that a new policy for establishing speed limits on Regional roads be adopted that is consistent with good engineering practice to establish rural area speed limits that are consistent with the design and operating characteristics of the road. In urban areas, speed limits will be established that are considerate of acceptable speeds for all road users and road uses that also minimizes injury risk.

Finally, in accordance with the new policy, the speed limit changes listed in *Attachment 2* are recommended, subject to approval of the Regional Solicitor as to form and content.

For more information on this report, please contact Steven Kemp, Manager - Traffic Engineering and Integrated ITS at extension 5226.

The Senior Management Group has reviewed this report.

(The two attachments referred to in this clause are attached to this report.)



STATUS

Council Approved

N

N

CAO Approved:

N

N

TITLE: ESTABLISHING SPEED LIMITS ON REGIONAL ROADS	NO.: Effective Date: Latest Revision Date:
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POLICY STATEMENT:

A policy to establish speed limits on the Regional road network that is supportive of Council's sustainable transportation objectives and goals, and provides consistent speed limits to promote voluntary compliance.

APPLICATION:

To all Regional Transportation Services Roads

PURPOSE:

The speed limit is the *maximum* speed that one can legally travel along a section of road during favourable conditions. Speed limits are set on Regional roads in order to respond to community safety concerns, provide safety equity among road users, provide consistency among similar road sections. In order to be effective, speed limits need to be consistent across the network thereby promoting motorist compliance

This policy supports achieving the broad transportation objectives and goals of safe movement, minimum delay and environmental protection. As such, the speed limit policy supports the following York Regional objectives (in order from highest priority to lowest):

- Maximize road safety (minimizing crash risk);
- Promote active transportation;
- Prioritize transit;
- Optimize mobility on roads
- Ensure movement of goods;

DEFINITIONS:

The road definitions below are based on adjacent land use and form of development, not on road cross section or design

Urban Road

A road that is located within either an Urban area or a Town and Village area as shown on Map 5 of the Regional Official Plan.

Urban Edge Road

A road that is located along the border of an Urban or a Town of Village area and a Rural area as shown on Map 5 of the Regional Official Plan (i.e., a road that forms an urban/rural boundary).

Rural Hamlet Road

A road located within a rural hamlet area. A hamlet is an area that must be specified in the local Official Plan, and is a grouping of houses, businesses and public uses where development may be permitted with limited growth, but not to exceed a population of 500.

Rural Road

A road that is located in a rural area as shown on Map 5 of the Regional Official Plan, excluding “rural hamlet roads” and “urban edge roads”.

School Zone

The section of any Regional road that is contiguous to a school with a minimum of 200 registered students.

Engineering Study

A review of the traffic and infrastructure data for a particular facility with a view to determining the appropriate speed limit. This study will apply the Canadian Guidelines for Establishing Posted Speed Limits as produced by the Transportation Association of Canada (TAC). This approach considers setting, access, density, roadway alignment, lane widths, pedestrian and cyclist activity pavement condition.

DESCRIPTION:

The method of establishing maximum speed limits on Regional roads is based on the surrounding land use as designated in the Regional Official Plan, and on good engineering practice. Land use is representative of the types of users that are expected to be encountered, and activities that are taking place in the road, and as such is a primary consideration in determining appropriate speeds for delivering a safe road. Engineering principles that link speed of travel, traffic and infrastructure data, and known collision mechanisms are also applied to minimize collision risk.

The method of establishing speed limits on Regional roads is described below.

URBAN ROADS AND RURAL HAMLET ROADS

The default speed limit for **urban roads** and **rural hamlet roads** is 60 kilometres per hour.

Urban roads that are controlled access and physically divided by a non-traversable median may be posted at 70 kilometres per hour or 80 kilometres per hour as determined by an Engineering Study.

Speed limits of 50 kilometres per hour or less will be considered on **urban roads** and **rural hamlet roads** as determined by an Engineering Study.

Urban roads and **rural hamlet roads** that are contiguous to a school are subject to the provisions of **school zone** speed limits.

Urban roads and **rural hamlet roads** that do not have contiguous development, and visually present as **rural roads** to the motorist may be posted at 70 kilometres per hour until such time as development or pedestrian/cyclist activity warrants a speed reduction.

URBAN EDGE ROADS

The default speed limit on **urban edge roads** shall be 70 kilometres per hour.

Speed limits of 60 kilometres per hour or less will be considered on **urban edge roads** as determined by an Engineering Study.

Urban edge roads that are contiguous to a school are subject to the provisions of **school zone** speed limits.

RURAL ROADS

Rural roads shall be posted at the speed as determined by an Engineering Study but in no case shall the posted speed of a **rural road** exceed 80 kilometres per hour.

Rural roads that are contiguous to a school are subject to the provisions of **school zone** speed limits.

SCHOOL ZONES

All **school zones** will have a 40 kilometres per hour time-limited speed limit. The **school zone** speed limit will be applicable to the section of road that is contiguous to the school and for 150 metres along the road on either side of the school property. The lowered speed limit may be extended if it results in an adjacent speed limit zone that is too short to adequately enforce. The **school zone** speed limit shall be in effect during the times of the day that students are walking to and from school, as prescribed by municipal bylaw.

The maximum speed limit, at times of the day when the 40 kilometres per hour is not in effect, will be determined using the remainder of this policy.

CONTACT:

Director, Traffic Management and Intelligent Transportation Systems, Transportation Services Department

APPROVAL INFORMATION**CAO Approval Date:****Committee:****Clause:****Report No:****Council Approval:****Minute No.****Page:****Date:**

PROPOSED SPEED LIMITS

Current Speed Limit *	Proposed Speed Limit	Roadway	Limits of Regulation	Effective Date
70 km/h	60 km/h	King Road (Y.R. 11)	Dufferin Street to 458 metres east of the east limit of William Street / Banner Lane and 688 metres west of the west limit of Charles Street to Jane Street	May 10, 2010
60 km/h 70 km/h 80 km/h 60 km/h	60 km/h	Yonge Street (Y.R. 1)	The north limit of Elgin Mills Road (Y.R. 49) to 185 metres north of the north limit of Industrial Parkway	May 10, 2010
60 km/h 70 km/h 60 km/h	60 km/h	Yonge Street (Y.R. 1)	800 metres south of the south limit of St. John's Sideroad (Y.R. 26) to 200 metres north of the north limit of Green Lane (Y.R. 19)	May 10, 2010
60 km/h 70 km/h	60 km/h	Kennedy Road (Y.R. 3)	The north limit of Steeles Avenue to 300 metres north of the north limit of Major Mackenzie Drive East (Y.R. 25)	May 3, 2010
60 km/h 70 km/h	60 km/h	Keele Street (Y.R. 6)	The north limit of Steeles Avenue and 200 metres south of the south limit of Alberta Drive	May 3, 2010
70 km/h 80 km/h	60 km/h	Keele Street (Y.R. 6)	490 metres north of the north limit of McNaughton Road to 100 metres north of Teston Road (Y.R. 49)	May 3, 2010
80 km/h 70 km/h	60 km/h	Highway 7 (Y.R. 7)	The west limit of Highway 27 to the east limit of Centre Street (Y.R. 71)	May 10, 2010
80 km/h	60 km/h	Highway 7 (Y.R. 7)	The west limit of the Bayview Avenue Ramp to 40 metres west of the west limit of Sciberras Road	May 10, 2010
50 km/h	60 km/h	Highway 7 (Y.R. 7)	200 metres east of the east limit of Main Street (Old Kennedy Road) to 100 metres west of the west limit of McCowan Road (Y.R. 67)	May 25, 2010
70 km/h 80 km/h	60 km/h	Highway 7 (Y.R. 7)	100 metres east of Wideman Street to the east limit of Donald Cousens Parkway (Y.R. 48)	May 25, 2010
60 km/h 70 km/h 60 km/h	60 km/h	Woodbine Avenue (Y.R. 8)	The north limit of Steeles Avenue and 392 metres north of the north limit of Elgin Mills Road East (Y.R. 49)	May 25, 2010
60 km/h	60 km/h	King Road (Y.R. 11)	The west limit of Yonge Street (Y.R. 1) and the west limit of Bathurst Street (Y.R. 38)	May 10, 2010
70 km/h	60 km/h	King Road (Y.R. 11)	The east limit of Dufferin Street (Y.R. 53) to 458 metres east of the east limit of William	May 10, 2010

PROPOSED SPEED LIMITS

Current Speed Limit *	Proposed Speed Limit	Roadway	Limits of Regulation	Effective Date
			Street / Banner Lane	
50 km/h 70 km/h	60 km/h	King Road (Y.R. 11)	688 metres west of the west limit of Charles Street to the west limit of Jane Street (Y.R. 55)	May 10, 2010
60 km/h 70 km/h 60 km/h	60 km/h	Leslie Street (Y.R. 12)	The north limit of John Street to 250 metres south of the east leg of 19th Avenue	May 10, 2010
60 km/h 80 km/h 70 km/h 60 km/h	60 km/h	Leslie Street (Y.R. 12)	The south limit of Wellington Street (Y.R. 15) to 536 metres north of Green Lane East (Y.R. 19)	May 10, 2010
70 km/h 60 km/h	60 km/h	The Queensway (Y.R. 12)	The south limit of Ravenshoe Road (Y.R. 32) to 100 metres south of Glenwoods Drive	May 10, 2010
50 km/h 40 km/h	60 km/h	Mount Albert Road (Y.R. 13)	285 metres west of the west limit of Birchard Boulevard to the east limit of Highway 48	May 10, 2010
80 km/h	60 km/h	Wellington Street East (Y.R. 15)	The east limit of the 404 northbound off ramp to the east limit of Bayview Avenue (Y.R. 34)	May 17, 2010
50 km/h 60 km/h 70 km/h	60 km/h	Islington Avenue (Y.R. 17)	150 metres south of the south limit of Langstaff Road (Y.R. 72) to the south limit of Major Mackenzie Drive (Y.R. 25)	May 17, 2010
70 km/h	60 km/h	Park Road (Y.R. 18)	The south limit of Black River Road to the north limit of Park Road (Y.R. 18)	May 17, 2010
70 km/h	60 km/h	Pefferlaw Road (Y.R. 21)	229 metres west of the west limit of Florence Drive and the south limit of King's Highway No. 48	May 17, 2010
70 km/h	60 km/h	Major Mackenzie Drive East (Y.R. 25)	The west limit of Woodbine Avenue (Y.R. 8) to the west limit of Bayview Avenue (Y.R. 34)	May 17, 2010
60 km/h 70 km/h 50 km/h	60 km/h	Major Mackenzie Drive East (Y.R. 25)	92 metres west of the west limit of Arnold Street to the east limit of Hill Street	May 17, 2010
60 km/h	60 km/h	Major Mackenzie Drive East (Y.R. 25)	The west limit of Jane Street (Y.R. 55) to the West limit of Pine Valley Drive (Y.R. 57)	May 17, 2010
70 km/h	60 km/h	Highway 27 (Y.R. 27)	The north limit of Steeles Avenue to the north limit of Rutherford Road (Y.R. 73)	May 3, 2010
80 km/h 50 km/h	60 km/h	Highway 27 (Y.R. 27)	535 metres south of the north limit of King Road (Y.R. 11) to 315 metres south of the	May 17, 2010

PROPOSED SPEED LIMITS

Current Speed Limit *	Proposed Speed Limit	Roadway	Limits of Regulation	Effective Date
			north limit of King Road (Y.R. 11)	
80 km/h 50 km/h	60 km/h	Glenwoods Drive (Y.R. 33)	The west limit of Woodbine Avenue (Y.R. 8) to 1068 metres east of the east limit of The Queensway (Y.R. 12)	May 17, 2010
40 km/h	60 km/h	Bayview Avenue (Y.R. 34)	50 metres south of the south limit of Windhurst Gate to 50 metres north of the north limit of North Taylor Mills Drive	May 17, 2010
70 km/h 60 km/h 70 km/h	60 km/h	Bayview Avenue (Y.R. 34)	1079 metres north of the north limit of Stouffville Road (Y.R. 14) to north limit of Bloomington Road (Y.R. 40)	May 17, 2010
70 km/h 60 km/h	60 km/h	Bayview Avenue (Y.R. 34)	The south limit of Stone Road North to 250 metres south of the south limit of Mulock Drive (Y.R. 74)	May 17, 2010
60 km/h 70 km/h	60 km/h	Bathurst Street (Y.R. 38)	The north limit of Steeles Avenue and the north limit of Elgin Mills Road (Y.R. 49)	May 17, 2010
60 km/h 70 km/h 60 km/h	60 km/h	Elgin Mills Road (Y.R. 49)	The west limit of Woodbine Avenue (Y.R. 8) and the east limit of Yonge Street (Y.R. 1)	May 17, 2010
60 km/h	60 km/h	Teston Road (Y.R. 49)	500 metres east of the east limit of Keele Street to the west limit of Jane Street (Y.R. 55)	May 17, 2010
60 km/h 70 km/h 60 km/h	60 km/h	Dufferin Street (Y.R. 53)	The north limit of Steeles Avenue to the north limit of Major Mackenzie Drive (Y.R. 25)	May 17, 2010
70 km/h 60 km/h	60 km/h	Jane Street (Y.R. 55)	The north limit of Steeles Avenue to 671 metres north of the north limit of Teston Road (Y.R. 49)	May 17, 2010
60 km/h 70 km/h 80 km/h	60 km/h	Weston Road (Y.R. 56)	The north limit of Steeles Avenue to the north limit of Teston Road (Y.R. 49)	May 3, 2010
60 km/h 70 km/h	60 km/h	Pine Valley Drive (Y.R. 57)	The north limit of Rutherford Road (Y.R. 73) to the north limit of Teston Road (Y.R. 49)	May 3, 2010
70 km/h 60 km/h 70 km/h	60 km/h	Warden Avenue (Y.R. 65)	The north limit of Steeles Avenue to 244 metres north of the north limit of Major Mackenzie Drive (Y.R. 25)	May 10, 2010
70 km/h 60 km/h 70 km/h	60 km/h	McCowan Road (Y.R. 67)	The north limit of Steeles Avenue to the north limit of Major Mackenzie Drive East (Y.R. 25)	May 10, 2010

PROPOSED SPEED LIMITS

Current Speed Limit *	Proposed Speed Limit	Roadway	Limits of Regulation	Effective Date
50 km/h 60 km/h	60 km/h	McCowan Road (Y.R. 67)	The north limit of Mill Road to the north limit of Doane Road	May 10, 2010
60 km/h 70 km/h	60 km/h	Markham Road (Y.R. 68)	The north limit of Steeles Avenue and 670 metres north of the north limit of 14th Avenue (Y.R. 71)	May 10, 2010
70 km/h	60 km/h	Ninth Line (Y.R. 69)	250 metres north of the north limit of Millard Street and a point approximately 973 metres north of the north limit of Millard Street	May 10, 2010
60 km/h 70 km/h	60 km/h	Langstaff Road (Y.R. 72)	The north limit of Highway No. 7 and the east limit of Keele Street (Y.R. 6)	May 10, 2010
60 km/h 50 km/h 70 km/h 60 km/h 70 km/h	60 km/h	16 th Avenue (Y.R. 73)	The east limit of Donald Cousens Parkway (Y.R.48) to 450 metres east of the east limit of Bayview Avenue (Y.R. 34)	May 10, 2010
60 km/h 70 km/h 60 km/h 70 km/h 60 km/h	60 km/h	Rutherford Road (Y.R. 73)	The west limit of Bathurst Street (Y.R. 38) 1000 metres east of the east limit of Highway 27	May 10, 2010
70 km/h 60 km/h 70 km/h	60 km/h	Mulock Drive (Y.R. 74)	The east limit of Woodbine Avenue (Y.R. 8) to the east limit of Bathurst Street (Y.R. 38)	May 10, 2010
70 km/h	60 km/h	Morton Avenue (Y.R. 78)	The west limit of Woodbine Avenue to the east limit of The Queensway (Y.R. 12)	May 10, 2010
60 km/h	60 km/h	Metro Road (Y.R. 78)	The north limit of First Avenue to 150 metres east of the east limit of Elmwood Street	May 10, 2010
60 km/h	60 km/h	Old Homestead Road (Y.R. 79)	The east limit of Woodbine Avenue (Y.R. 8) and 100 metres east of the east limit of Broadview Avenue	May 10, 2010
70 km/h	70 km/h	King Road (Y.R. 11)	The west limit of Bathurst Street (Y.R. 38) and the east limit of Dufferin Street (Y.R. 53)	May 10, 2010
70 km/h	70 km/h	King Road (Y.R. 11)	The west limit of Jane Street (Y.R. 55) and 400 metres west of the west limit of Highway 400 southbound off ramp terminal	May 10, 2010
70 km/h 80 km/h 70 km/h	70 km/h	Major Mackenzie Drive East (Y.R. 25)	The west limit of Woodbine Avenue (Y.R. 8) to the west limit of Ninth Line (Y.R. 69)	May 10, 2010

PROPOSED SPEED LIMITS

Current Speed Limit *	Proposed Speed Limit	Roadway	Limits of Regulation	Effective Date
80 km/h	70 km/h	Highway 27 (Y.R. 27)	From the north limit of Rutherford Road (Y.R. 73) to the north limit of Kirby Road	May 10, 2010
60 km/h 70 km/h	70 km/h	Bayview Avenue (Y.R. 34)	1500 metres north of the north limit of Elgin Mills Road (Y.R. 49) to 1079 metres north of the north limit of Stouffville Road (Y.R. 14)	May 10, 2010
70 km/h	70 km/h	Bayview Avenue (Y.R. 34)	From the north limit of Bloomington Road (Y.R. 40) to the south limit of Stone Road North	May 10, 2010
70 km/h	70 km/h	Ninth Line (Y.R. 69)	973 metres north of the north limit of Millard Street and a point approximately 564 metres south of the south limit of Bloomington Road (Y.R. 40)	May 10, 2010
60 km/h 70 km/h	70 km/h	Old Homestead Road (Y.R. 79)	500 metres west of the west limit of Warden Avenue to the east limit of Woodbine Avenue (Y.R. 8)	May 10, 2010

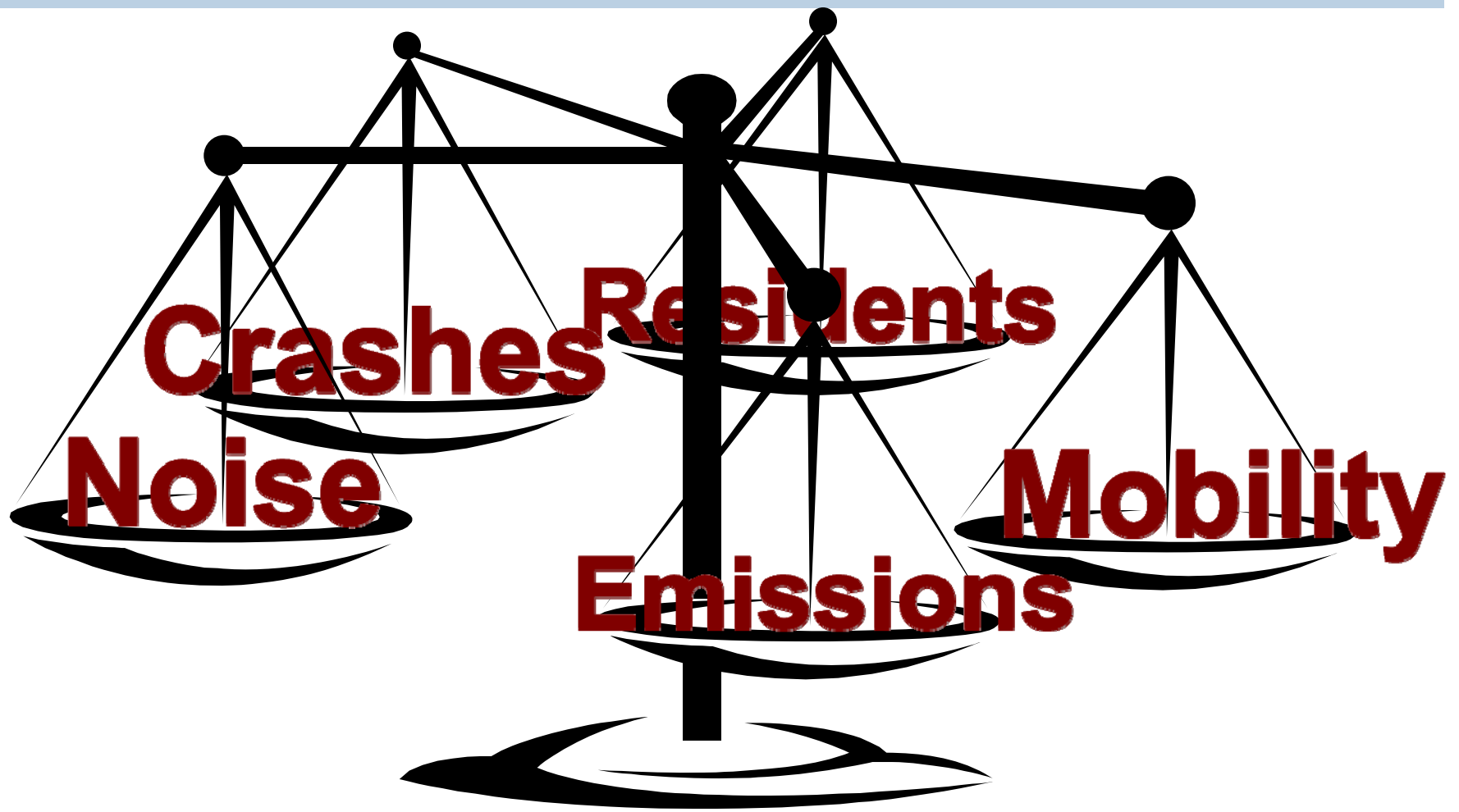
* Where more than one speed limit is listed, the speed limit changes from south to north or east to west.

Setting Speed Limits on Regional Roads

Presentation to
Transportation Services Committee
Reference Item D1

Gerry Forbes
January 6, 2010

Selecting a Posted Speed



Speed is a Safety Issue

- ❑ Research shows about 17% of fatal crashes in Canada are speed-related



Risk and Speed

- ❑ Generally the faster we travel, the more likely we will:
 - ❑ Fail to process vital traffic information
 - ❑ Lose control of our vehicles
 - ❑ Be unable to stop without a collision
 - ❑ Suffer severe injury in the event of a collision

Drivers Focus at 50 km/h



Drivers Focus at 60 km/h



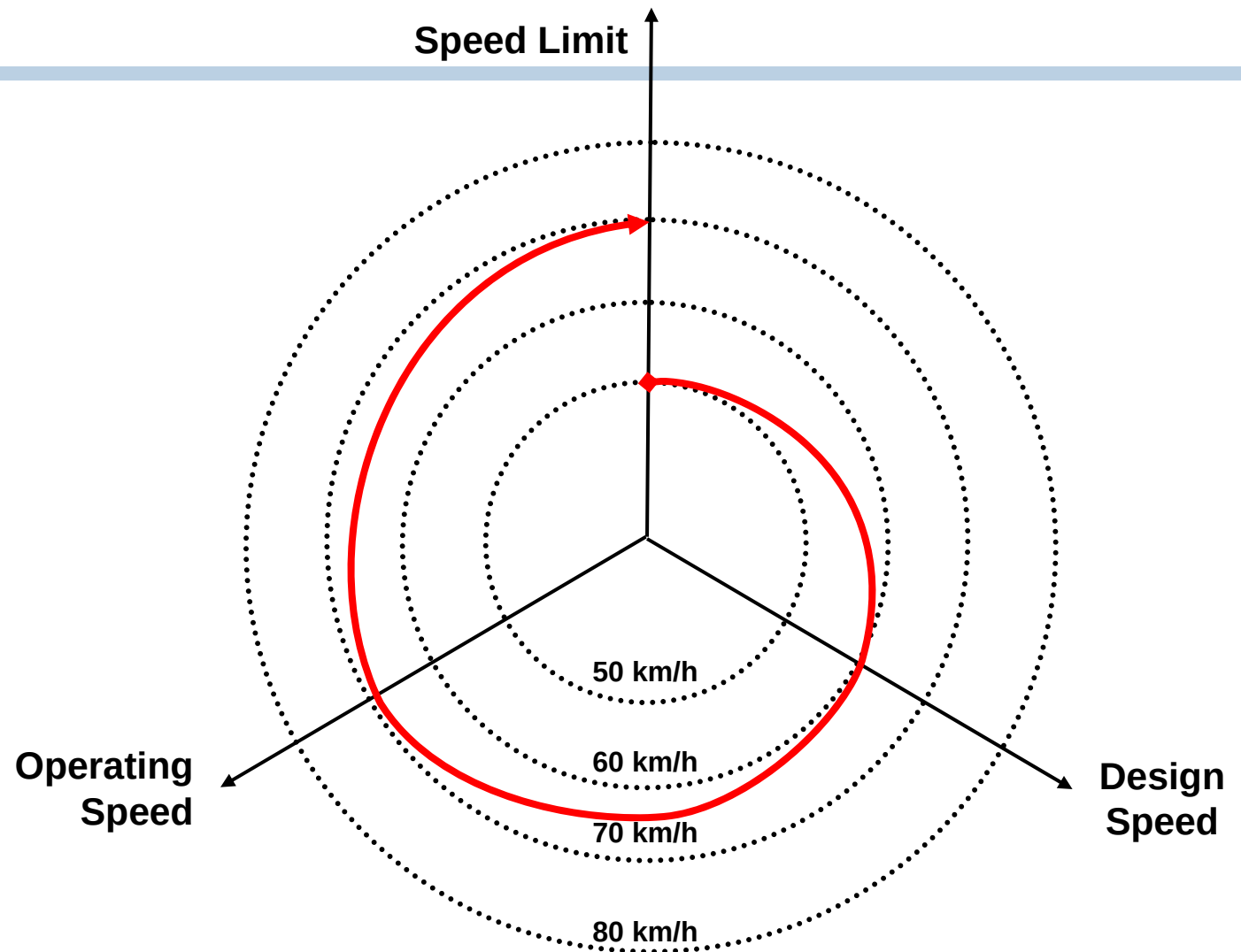
Drivers Focus at 70 km/h



York's Existing Policy

- ❑ Focus on mobility – using 85th percentile speed as the main factor in determining the speed limit
- ❑ Speed limits can be adjusted based on access density, and pedestrian activity

The 85th Percentile Speed Limit Spiral



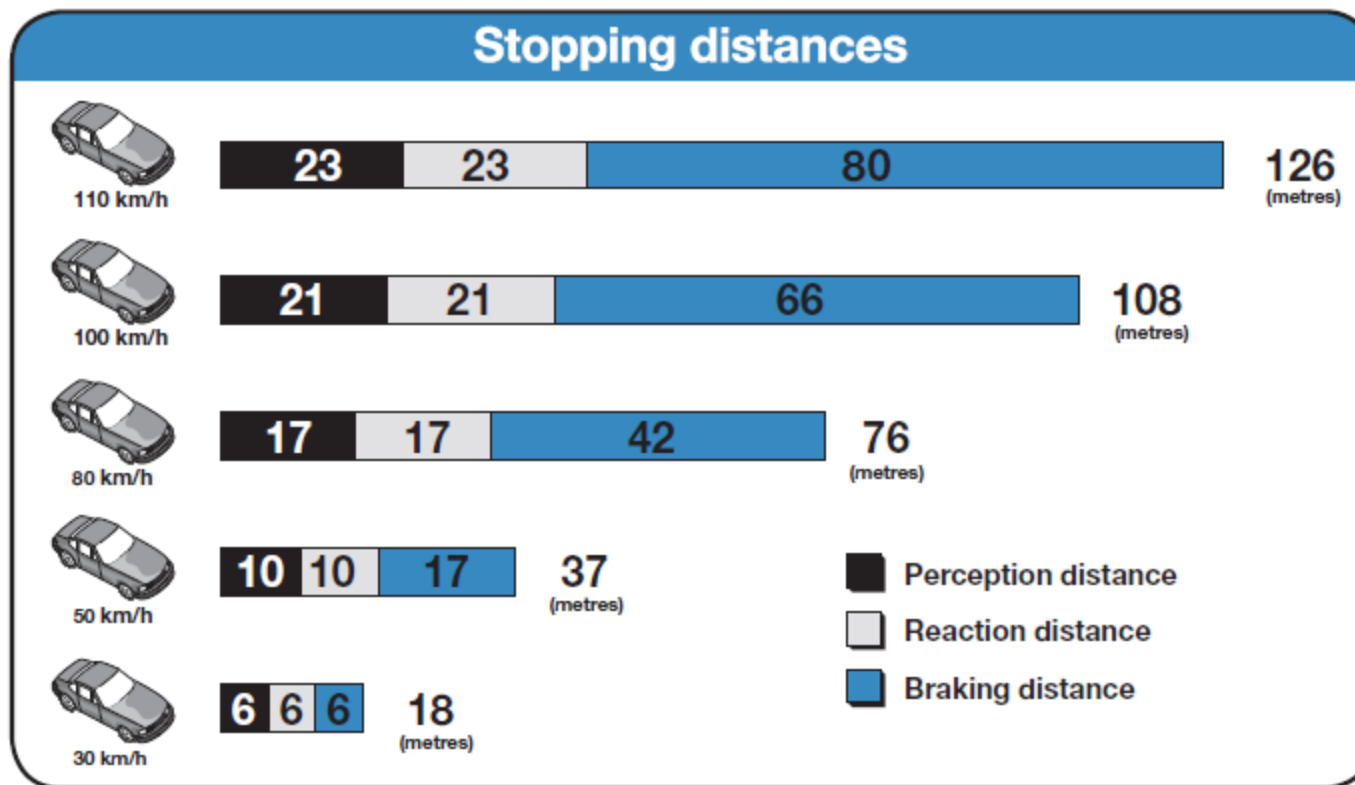
A New Approach to Setting Speed Limits

- ❑ Injury minimization
- ❑ If a crash occurs – what is the fastest a motor vehicle can be traveling to avoid serious injuries or death?
- ❑ Limitation of the human body

Crash Survivability and Speed



Speed and Stopping Distances



Options Available

- ❑ Injury minimization
 - ❑ Direct connection between speed limits and injuries
 - ❑ Simple to apply
 - ❑ Results in lower speed limits
- ❑ Engineering approach
 - ❑ Accepted North American practice
 - ❑ No direct correlation to injuries

Basic Tenets of the New Policy (Urban Areas)

- ❑ The basic urban speed limit is
60 km/h
- ❑ Adjusted downward where heavy
pedestrian or cyclist activity
- ❑ Adjusted upwards on controlled-
access facilities

Basic Tenets of the New Policy (Rural Areas)

- ❑ The maximum rural speed limit is
80 km/h
- ❑ Adjusted depending on traffic and
roadway conditions
- ❑ Use the Nationally recommended
Transportation Association of Canada
(TAC) Guidelines

Other Considerations

- ❑ School zones on regional roads will all have 40 km/h speed limits that are time-limited
- ❑ Roads in transition areas from rural to urban will get a basic speed limit of 70 km/h, and will be adjusted according to site specific conditions

Conclusions

- ❑ Current method of setting speed limits is not consistent with Official Plan and Transportation Master Plan direction
- ❑ A hybrid approach, taking the best features of the engineering and injury minimization approaches is recommended