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PROPOSED SPEED LIMIT POLICY FOR REGIONAL ROADS

The Transportation Services Committee recommends:

- 1. Receipt of the presentation by Steven Kemp, Director, Traffic Management and ITS; and**
- 2. Adoption of the recommendations contained in the following report dated March 24, 2011, from the Commissioner of Transportation Services.**

1. RECOMMENDATIONS

It is recommended that:

1. The proposed policy for establishing speed limits on Regional roads attached to this report be approved.
2. All future speed limit revisions based on the new policy be reported to Regional Council for approval on a semi-annual basis.
3. The Regional Clerk circulate this report to the Clerks of the local municipalities and to the Chief of York Regional Police.

2. PURPOSE

This report presents a revised speed limit policy (*see Attachment 1*) incorporating comments received from each local municipality and York Regional Police. If approved, this policy would supersede the existing speed limit policy approved by Regional Council in September 2004.

3. BACKGROUND

Previous reports have been submitted to Regional Council with the intent of establishing a revised speed limit policy on Regional roads

Reports and presentations on establishing speed limits on Regional roads have been presented at prior meetings of the Transportation Services Committee. Most recently, at its meeting of February 3, 2010, the Transportation Services Committee considered a report entitled Policy Update – Establishing Speed Limits on Regional roads and a corresponding presentation entitled Speed Limit Policy. At this meeting, the

Transportation Services Committee received the presentation and adopted recommendations to:

- Forward the report to the Clerks of the local municipalities in York Region and York Regional Police requesting their review and comments by the Fall of 2010.
- Request Regional staff to report back to Transportation Services Committee in 2011 summarizing the results of the review.

In accordance with the direction of the Transportation Services Committee, this report summarizes the results of consultation conducted by Regional staff with each local municipality and York Regional Police. The report also recommends a revised speed policy (*see Attachment 1*) for approval that incorporates the comments received.

4. ANALYSIS AND OPTIONS

The proposed speed limit policy recommended by staff for approval in February 2010 would result in lower speed limits on Regional roads in urban areas

The speed limit policy recommended by staff for approval in February 2010 recommended speed limits of 60 km/hr for urban areas, towns and villages, and 80 km/hr for rural areas. The roadway characteristics that would justify each posted speed limit are summarized in Table 1.

Table 1
Posted Speed Limits as Proposed by Staff in February 2010

Posted Speed Limit (km/hr)	Conditions
40	School Zones – 40 km/hr speed limit enabled by flashing beacons during school hours.
50	Special conditions only
60	Basic speed limit for urban areas, towns and villages.* Adjusted upwards or downwards based on roadway characteristics.
70	Special conditions only
80	Basic speed limit for rural areas. Adjusted downwards based on roadway characteristics.

* Urban areas, towns and villages are defined as those areas identified as such on Map 5 of the Regional Official Plan

As directed by Transportation Services Committee, Regional staff visited each local municipality to present an outline of the recommended speed limit policy and to collect comments

In general, most local municipalities were supportive and agreed in principle with the recommended policy with some specific modifications. During these meetings, Regional staff documented all comments received and requested formal responses from each. Common items brought forward by all local municipalities were:

- Using the Regional Official Plan maps to define existing urban areas, towns, villages, and rural areas is not appropriate for the purposes of establishing speed limits.
- Members of Council and staff from each local municipality need the opportunity to discuss and debate the merits of changing the posted speed limit for each road section.
- Impacts to travel time and delay for both commuter traffic and goods movements needs to be a consideration.
- An improved communications and implementation plan is required.

There was considerable discussion at each local municipality and at Transportation Services Committee about specific road sections and how the proposed policy may or may not impact the posted speed limit in that area. It was clear that many members of Council had differing opinions about the appropriate posted speed limit for sections of Regional roadway within their municipalities.

The following sections of this report discuss the specific changes that have been made to the proposed speed limit policy presented to Transportation Services Committee in February 2010 to incorporate the comments received during the consultation process.

Transportation Services Committee and the local municipalities all agreed that the primary goal of the proposed speed limit policy should be to improve safety on the Regional road network

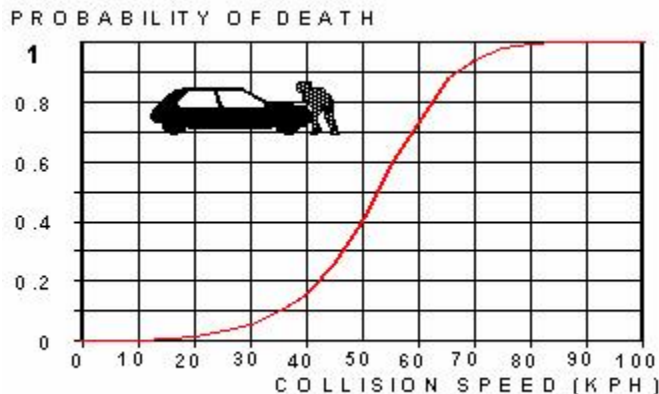
All parties were in agreement that the three basic principles of the speed limit policy should be:

1. Speed limits should be set as low as reasonably possible to reduce the likelihood of serious injury or death in the event of a collision.
2. Speeds limits should ideally be self-enforcing. The design of the roadway should create conditions that encourage compliance with the posted speed limit.

3. Urban areas, towns and villages with higher volumes of pedestrians, cyclists and children playing require special attention.

These principles reflect the injury minimization approach to setting speed limits which suggests 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. This practice is commonly used in Europe; however, it is a new approach for North American jurisdictions. Using an injury minimization approach to set speed limits is based on the fact that road users are safer when motor vehicles are travelling more slowly.

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



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

The previous policy recommended reductions in the posted speed limit to 60 km/hr in all areas that are designated as urban areas, towns and villages in the Regional Official Plan

Several of the local municipalities disagreed with speed limit reductions in some urban areas as defined by the Regional Official Plan. Conversely, some municipalities were requesting specific speed limit reductions for road sections that are not within the Official Plan urban boundary.

To address this concern, Regional staff are proposing to change the tool used to define rural areas, urban areas, towns and villages for the purposes of establishing posted speed limits. The urban boundary defined by the Regional Official Plan is a combination of existing urban roadways and future urban roadways. Regional staff agree that, at this time, future urban roadways do not warrant a speed limit reduction to 60 km/hr.

To best match speed limits to adjacent land use, Regional staff are proposing to apply the recently released Transportation Association of Canada (TAC) guidelines for establishing speed limits.

The Canadian Guidelines for Establishing Posted Speed Limits were developed by the Transportation Association of Canada to provide guidance and to enhance consistency in the evaluation of posted speed limits. The guidelines were developed through the review of current domestic and international practices, technical documentation and testing.

Since road safety is enhanced through posted speed limits that match the expectation of drivers for a given roadway and its surrounding area; the guidelines provide engineers and traffic practitioners with an evaluation tool to assess appropriate posted speed limits based primarily on the classification, function and physical characteristics of a roadway. It is an objective assessment based on measurable criteria.

The risks associated with each of the criteria determine the appropriate posted speed limit; and the higher the level of risk, the lower the recommended posted speed limit. A test of this methodology on a sample of Regional roads, resulted in speed limits consistent with the roadways' physical characteristics as well as with the adjacent land use and were compatible with an injury minimization approach.

The new TAC guideline considers the following roadway elements:

- Number of access driveways
- Visibility
- Traffic volumes
- Number of lanes
- Roadside hazards
- Pedestrian and cyclist exposure
- Presence of on-street parking
- Number and frequency of properties that front onto the roadway
- Number and frequency of signalized intersections
- Presence of public transit

During the consultation process, local municipalities requested that they be given an opportunity to provide input on any speed limit changes on Regional roads in their respective municipalities

All local municipalities expressed concern with speed limit changes being implemented on Regional roadways without consultation with local staff. The input from local municipalities is crucial in order to capture local knowledge of the area under consideration and to ensure consistency with speed limits on adjoining local roadways.

To address this concern, Regional staff are proposing to follow a four step process when implementing speed limit changes on Regional roads:

1. Road section identified to Regional staff for consideration of potential speed limit change through request, complaints or staff review.
2. Regional staff review the road section in accordance with the Transportation Association of Canada guidelines and the Speed Limits on Regional Roads Policy, as described in *Attachment 1*, to make a recommendation regarding the appropriate posted speed limit.
3. Regional staff consult with local municipal staff on the proposed changes and obtain their input.
4. Regional staff report through the Transportation Services Committee to Regional Council, on a bi-annual basis, with recommended speed limit changes for Council's consideration.

The mobility impacts of the proposed speed limit policy on road users and goods movement are expected to be minimal

Many of the local municipalities and York Regional Police expressed concerns about the impacts of lower speed limits on travel time for commuters and commercial goods movement on Regional roads. There were some questions around the inconsistency between our capital investments in road improvement projects, designed to reduce traffic congestion and travel times, and our plans to slow traffic on those same roadways.

Regional staff have conducted some sample analysis to address this concern. The results of this analysis indicate that lower speed limits are not expected to increase travel times in the peak traffic direction during peak traffic periods. Lower speed limits will result in minor increases in travel time during off-peak traffic periods and during peak periods in the reverse flow direction.

As an example Table 2 provides a summary of the potential travel time impacts for a typical 10 kilometre long north-south urban road section where the posted speed is proposed to decrease from 70 to 60 km/hr.

Table 2
Posted Speed Limits as Proposed by Staff in February of 2010

Time of Day	Direction Speed (km/hr)	Typical Operating Speed	Travel Time with 70 km/hr posted speed	Travel Time with 60 km/hr posted speed	Difference
AM Peak	Southbound	Well below posted speed	15 Minutes	15 Minutes	No impact
	Northbound	As posted or above	8 Minutes 34 Seconds	10 Minutes	86 Seconds
Off Peak	Both Directions	As posted or above	8 Minutes 34 Seconds	10 Minutes	86 Seconds
PM Peak	Northbound	Well below posted speed	15 Minutes	15 Minutes	No impact
	Southbound	As posted or above	8 Minutes 34 Seconds	10 Minutes	86 Seconds

It is expected that the speed limit reductions will have no travel time impacts in the peak flow direction during peak traffic periods because travel times are generally dictated by conditions other than the posted speed limit. During mid-day, overnight and in the off-peak traffic direction, a lower posted speed will result in a moderate increase in travel time.

The proposed speed limit policy now includes an improved communication and implementation plan to reflect comments received from local municipalities during our consultation process

The original speed limit policy that was presented to each local municipality did not contain a communication or implementation plan. The local municipalities were not in favour of implementing speed limit changes on a wide-scale basis and felt strongly that each road section needed to be considered individually.

The new policy addresses this concern by adding increased consultation between Regional staff and local municipal staff prior to any speed limit changes being recommended to Regional Council through York Region's Transportation Services Committee. Speed limit revisions, which are not urgently required, will be grouped together for presentation to Transportation Services Committee for a comprehensive review through the proposed bi-annual committee report.

The implementation of approved speed limit changes will continue to follow our existing process whereby roadside signing is installed with new star-burst signs to highlight the speed limit change for motorists.

As directed by Regional Council, staff also consulted with York Regional Police to incorporate their comments on the proposed speed limit policy

York Regional Police were also requested to review and provide comments on the proposed speed limit policy. York Regional Police support the basic principles of the new policy on setting speed limits, but share some of the same concerns raised by the local municipalities. York Regional Police expressed concerns that lower speed limits may negatively impact the mobility of traffic and also suggested that the roadway design must be consistent with the posted speed in order to effectively enforce any speed limit regulation.

5. FINANCIAL IMPLICATIONS

There are no financial implications related to this report. Any financial costs related to the adoption of the recommended policy to set speed limits on Regional roads are part of the day-to-day operational costs of the department.

6. LOCAL MUNICIPAL IMPACT

This report recommends that each of the local municipalities review and provide comments on any speed limit changes on Regional roads within their municipality prior to the change being implemented. This will ensure that each municipality has an opportunity to review the proposed speed limit for each road section and provide comments. This process will also ensure consistency between speed limits on Regional roads and adjoining local roads. In general, most municipalities were supportive and agreed in principle with the recommended policy with some specific modifications. A summary of the comments received at these meetings is summarized below in Table 3.

Table 3
Local Municipality Meeting Summary

Municipality	Meeting Date	Comments
Town of East Gwillimbury	April 19, 2010	Review specific road sections
Town of Georgina	April 19, 2010	Provide a communication and implementation plan, review specific road sections, ensure enforcement

Town of Aurora	May 11, 2010	Disagreed with definition of urban and rural areas; concerns regarding travel time impacts to motorists and goods movement
Town of Newmarket	May 25, 2010	Received for information, requested a communication and implementation plan and information regarding signal co-ordination
Town of Markham	June 8, 2010	Requested a communication and implementation plan, review specific road sections, ensure consistent on similar roads
City of Vaughan	June 28, 2010	Received for information; road design needs to change to reduce speed of traffic
Town of Whitchurch-Stouffville	June 29, 2010	Review specific road sections
Township of King	July 12, 2010	Review specific road sections, ensure enforcement
Town of Richmond Hill	September 7, 2010	Provide a communication and implementation plan; road design must support speed limit

7. CONCLUSION

This report recommends a new policy for establishing speed limits on the Regional road network and requests the review of any future speed limit changes by the local municipality where the Regional road is located before the speed limit is changed. An outline of the policy was presented to each of the local municipalities and York Regional Police. Their comments have been considered and incorporated in this report.

The new policy will result in lower speed limits on Regional roads in urban areas in order to reduce the likelihood of serious injury or death in the event of a motor vehicle collision. The change in policy is necessary to reflect the changing nature of our road system and to reflect the needs of our most vulnerable road users.

For more information on this report, please contact Steven Kemp, Director, Traffic Management and Intelligent Transportation Systems at Ext. 5226.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause is attached to this report.)

A Revised Speed Limit Policy for Regional Roads



Presentation to
Transportation Services Committee
(Refer to Agenda Item D2)

Steven Kemp, P. Eng.
April 6, 2011

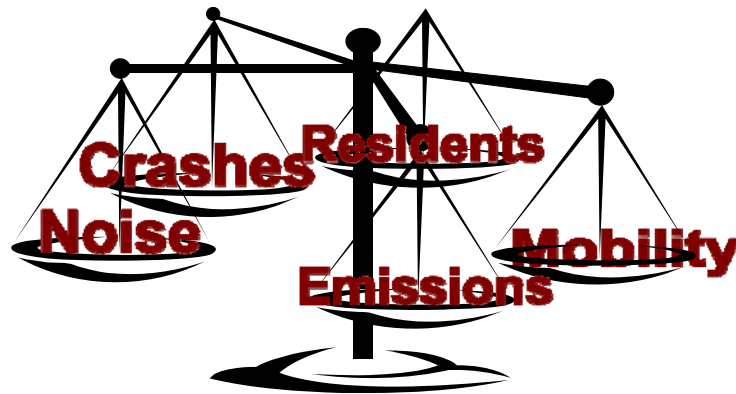
Outline

- Background
 - Why do we need a new speed limit policy?
 - Selecting a posted speed limit
 - Previous reports and direction from Transportation Services Committee
- Consultation Process
- Summary of Feedback Received
- The Revised Policy
- Recommendations

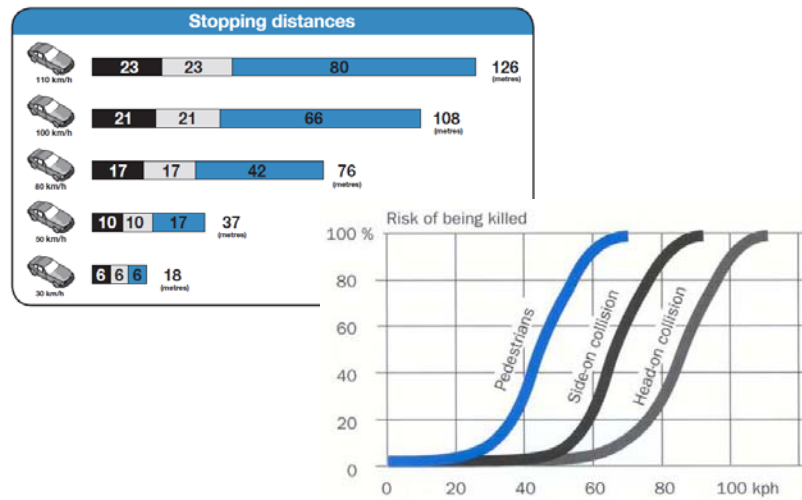
Background – Why do we need a new policy?

- ❑ Inconsistent speed limits on Regional roads
- ❑ Growth Plan and Regional Official Plan result in increased urbanization
- ❑ Need to protect Vulnerable Road Users in urban areas, towns and villages
- ❑ Existing policy outdated

Background - Selecting a Posted Speed



Background – Impacts of Speed

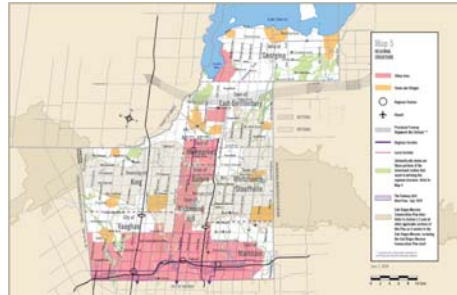


Background – Previous Reports

- ❑ June 17, 2009 Report
- ❑ January 6, 2010 Report
- ❑ February 3, 2010 Presentation and Report

Proposed Policy

- ❑ Urban areas, towns and villages
60 km/h
- ❑ Urban / Rural edge roads
70 km/h
- ❑ Rural areas
80 km/h



Urban areas, villages and hamlets
as defined in Regional Official Plan Map 5

Background – Committee Direction

- ❑ Committee requested Regional staff conduct additional consultations with each local municipality and York Regional Police and report back in 2011.

Consultation Process

Presentations were made in 2010 to all nine local municipalities and comments were requested from York Regional Police

East Gwillimbury	April 19	Vaughan	June 28
Georgina	April 19	Whitchurch-Stouffville	June 29
Aurora	May 11	King	July 12
Newmarket	May 25	Richmond Hill	September 7
Markham	June 8		

Summary of Feedback

All parties consulted agreed that:

- ☐ Speed limits should be set as low as reasonably possible
- ☐ Speeds limits should be self-enforcing
- ☐ Urban areas, towns and villages require special attention

Summary of Feedback

Four issues were raised consistently by local municipalities and York Regional Police:

- ☐ Definition of urban versus rural
- ☐ Concerns about impact on mobility
- ☐ Implementation and Communications plan
- ☐ Need for continued site specific input

Summary of Feedback – Urban vs. Rural

- ☐ Some Regional Roads within the urban area defined by the OP are not currently urban.
- ☐ A reduction of the posted speed limit from 80 to 60 km/hr on these road sections would not be appropriate at this time.
- ☐ Different approach to identify urban road sections was required.

Summary of Feedback – Impacts on Mobility

- ❑ Raised by all local municipalities and York Regional Police
- ❑ Mobility impacts during peak traffic periods will be minimal
- ❑ Travel time impacts of each road section where speed limit reductions are being proposed will be reported

Summary of Feedback – Implementation and Communications Plan

- ❑ All local municipalities and York Regional Police raised concerns about the original implementation plan that proposed speed limit reductions on several roads immediately
- ❑ To address this concern Regional staff will implement the speed limit changes over a longer period of time

Summary of Feedback – Continued Consultation

A four step process is proposed:

1. Road section identified for potential speed limit change
2. Regional staff review the road section in accordance with the proposed policy
3. Regional staff to consult with local municipal staff and York Regional Police
4. Report to Transportation Services Committee

Proposed Policy

- ❑ Urban areas, towns and villages
60 km/h
- ❑ Urban / Rural edge roads
70 km/h
- ❑ Rural areas
80 km/h



**Urban areas, towns and villages
as defined by TAC Guidelines for
establishing speed limits**

Recommendations

It is recommended that:

1. The proposed policy for establishing speed limits on Regional Roads be approved
2. All future speed limit revisions based on the new policy be reported back to Regional Council for approval on a semi-annual basis



STATUS: Final/Draft/Archived (Select one)

Council Approved: N N

CAO Approved: N N

TITLE: SPEED LIMITS ON REGIONAL ROADS	Edocs No.: (of this policy) Original Approval Date: (from Council authority) Policy Last Updated: (date subsequent to original approval – may be Council or CAO approval) Posted on Intranet: (date)
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POLICY STATEMENT:

This policy describes the process used to establish speed limits on Regional roads.

APPLICATION:

To all Regional Transportation Services staff responsible for recommending speed limit revisions on the Regional road network.

PURPOSE:

This policy is to put in place consistent processes and criteria to establish speed limits on the Regional road network.

DEFINITIONS:

Urban Road

A road that is located within an urban area as defined by the Transportation Association of Canada (TAC) speed limit guidelines.

Rural Road

A road that is located in a rural area as defined by the Transportation Association of Canada (TAC) speed limit guidelines.

School Zone

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

Speed Limit Review Study

A review of the operating characteristics and infrastructure data for a roadway to determine the appropriate speed limit. For the purposes of this policy, the review will apply the Canadian Guidelines for Establishing Posted Speed Limits as produced by the Transportation Association of Canada, as updated from time-to-time. This approach considers roadside environment, access density, roadway alignment, lane widths, pedestrian and cyclist activity and pavement condition.

DESCRIPTION:

The Transportation Association of Canada (TAC) Guidelines for Establishing Posted Speed Limits is the proposed method of establishing maximum speed limits on Regional roads. The TAC Guideline considers the following roadway elements:

- Number of access driveways
- Visibility
- Traffic volumes
- Number of lanes
- Roadside hazards
- Pedestrian and cyclist exposure
- Presence of on-street parking
- Volumes of pedestrians and cyclists
- Number of properties that front onto the roadway
- Number and frequency of signalized intersections
- Presence of public transit

The process to implement a speed limit revision on a Regional road is:

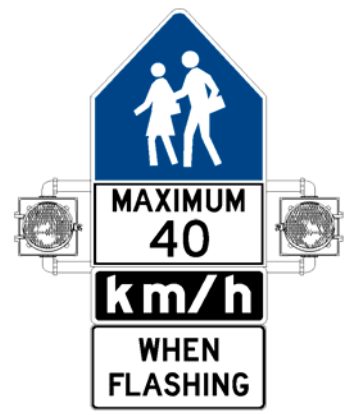
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2. Regional staff review the road section in accordance with the Transportation Association of Canada guidelines and the speed limits on Regional roads policy, as described in Attachment 1, to make a recommendation regarding the appropriate posted speed limit.
3. Regional staff consult with local municipal staff on the proposed changes and obtain their input.
4. Regional staff report through the Transportation Services Committee to Regional Council, on a bi-annual basis, with recommended speed limit changes for Council's consideration.

SCHOOL ZONES

The need for a school zone speed limit will be determined by staff considering the individual situation. To be eligible for a school zone speed limit, the roadway must border a school with a minimum of 200 registered students. A school zone speed limit may be up to 20 kilometres-per-hour lower than the speed limit on the adjacent road sections. The lowest maximum speed limit that is permitted under the Highway Traffic Act of Ontario (RSO 1990) is 40 kilometres-per-hour. The lower speed limit will be applicable to the section of road that fronts 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 that is shorter than desired.

If a school zone speed limit is warranted, the school zone speed limit shall be in effect during the times of the day that students are walking to and from school. The school zone speed limit will be delineated using the sign shown in Figure 2.

Figure 2
School Zone Speed Limit Sign



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