

Committee of the Whole (Working Session) Report

DATE: Wednesday, June 02, 2021

WARD(S): ALL

TITLE: ESTABLISHING SPEED LIMITS ON CITY ROADWAYS

FROM:

Zoran Postic, Deputy City Manager, Public Works

ACTION: DECISION

Purpose

To seek Council approval on a speed limit policy that addresses the safety of all road users by establishing a framework for the determination of speed limits on the City's road network.

Report Highlights

- At the November 3, 2015 Committee of the Whole meeting, Council directed staff to establish a speed limit policy for the City of Vaughan.
- Vaughan citizens have identified motorist speeds as one of the City's key traffic issues.
- The *Safer School Zones Act* (Bill 65), provides more tools for municipalities to set speed limits lower than 50km/h for bounded neighbourhood areas.
- The proposed policy is comprised of primary zones for rural roads, built up/urban areas inclusive of school zones, public laneways and neighbourhood areas.

Recommendations

1. That Council approve the proposed policy for establishing speed limits in the City of Vaughan as shown in Attachment 1;
2. That Council approve the speed limit changes listed for the 40 km/h speed limit for school zones in Attachment 2;

3. That Council approve the speed limit changes listed for the 30km/h speed limit for public laneways in Attachment 3;
4. That By-laws be enacted to amend By-law 284-94, the Consolidated Traffic By-law, authorizing the speed limit changes listed for 40km/h speed limits for school zones and for 30km/h speed limits for public laneways;
5. That Council approve the implementation of 40km/h Neighbourhood Areas;
6. That By-laws be enacted to amend By-law 284-94, the Consolidated Traffic By-law, authorizing to set the maximum rate of speed at 40km/h for Neighbourhood Areas;
7. That staff be authorized to administer the proposed policy for establishing speed limits as outlined in Attachment 1; and
8. That the City Clerk forward a copy of this report to the Regional Municipality of York, York Regional Police, York Region Public District School Board and York Region Catholic District School Board.

Background

Vaughan citizens continue to express interest in both safer roadways with appropriate speed limits as well as the ability to be able to travel efficiently to get to their destinations within the City.

With the continued growth and urbanization of the City the characteristics of our roadways continue to change and there is an increasing need to balance the requirements of all road users including pedestrians, cyclists, motorists and transit users.

Vaughan's practices regarding speed limits is based on the Highway Traffic Act (HTA) statutory speed limits and the Transportation Association of Canada (TAC) guidelines.

The Traffic By-law (Bylaw 284-94) Section 9, Subsection (1) indicates that speed limits on roads shall be 50 km/h in built-up areas and 80 km/h in rural areas as per the HTA, unless otherwise posted. A 40 km/h speed limit has been used on roadways where a school abuts the roadway as specified in the HTA.

The HTA does not consider the particular roadway environment and this can lead to inconsistent speed limits.

The practice of setting speed limits based on the HTA does not explicitly consider roadway geometry, development activity, pedestrians, cyclists or transit corridors which can lead to inconsistent speed limits. In performing speed limit review requests on City roadways, staff have been using the Transportation Association of Canada (TAC)

Guidelines for establishing speed limits. For example, road reconstruction or development activities can result in significant changes to the roadside environment and consequently speed limits that are no longer appropriate; in these instances, speed limits are reviewed and revised according to the TAC guidelines. The TAC guidelines take several characteristics into account, including: roadway geometry, pavement width, roadside hazards, pedestrian and cyclist exposure, number of intersections and on-street parking.

Council provided direction for staff to develop a comprehensive Speed Limit Policy to address the safety of all road users, specifically pedestrians and cyclists.

At the Committee of the Whole meeting of November 3, 2015, Council directed staff to initiate the development of a comprehensive speed limit policy addressing the safety of all road users that accounts for the increase in the number of pedestrians and cyclists, and ensures speed limits are consistent with future growth (as outlined in Item 15, Report No. 40, of the Committee of the Whole November 17, 2015).

In accordance with the HTA, a City by-law, in addition to posting of appropriate speed limit signs, are required before revised speed limits can be enforced.

Previous Reports/Authority

Traffic By-law 284-94:

[Consolidated Traffic By-Law 284-94](#)

Committee of the Whole (Working Session) Report March 3, 2021 – MoveSmart Mobility management Strategy:

<https://pub-vaughan.escrimemeetings.com/filestream.ashx?DocumentId=62111>

Item 15, Report No. 40, of the Committee of the Whole November 17, 2015 - Council direction to develop Speed limit policy:

https://www.vaughan.ca/council/minutes_agendas/AgendaItems/CW1103_15_15.pdf

Committee of the Whole Report May 16, 2005 – Statutory speed limit in Vaughan is 50km/h (urban area) and 80 km/h (rural area):

http://meetingarchives.vaughan.ca/committee_2005/pdf/CWA0516_14.pdf

Committee of the Whole Report October 1, 2001- Designation of a 40km/h School Speed Zone:

http://meetingarchives.vaughan.ca/committee_2001/pdf/CWA20011001_37.pdf

Analysis and Options

The proposed Speed Limit Policy was completed through a comprehensive review of peer municipalities, statutory requirements and guidelines, stakeholder consultation, and with considerations for vulnerable road users.

A comprehensive review of peer municipalities was conducted. Staff consulted with 15 municipalities on speed limit policies/guidelines including City of Markham, Town of Newmarket, Town of Richmond Hill, City of Kingston, Town of Milton, Town of Halton Hills, City of Brantford, Town of East Gwillimbury, City of Toronto, City of Hamilton, Town of Caledon, City of Brampton, City of Mississauga, Peel Region, and York Region.

Similar to neighbouring municipalities, the proposed Speed Limit Policy will be based on HTA regulations and TAC Guidelines.

Most of these municipalities have established a customized speed limit policy/guideline using the regulations outlined in the HTA and the TAC Guidelines for establishing speed limits with a focus on reducing speed limits within school zones. The 40km/h speed limit is used in school zones, local and minor residential collectors and/or where traffic calming measures have been utilized.

To be proactive and responsive to our citizens it is beneficial to establish a method to set speed limits that considers the growth, urbanization, and specific roadway environment and characteristics. The proposed policy will address the needs of our most vulnerable road users, such as pedestrians and cyclists, particularly in areas where pedestrian sensitivity is at its highest. Proximity to schools, parkland areas adjacent to schools, roadways without sidewalks, local residential roads, minor collectors, and narrow roads/laneways where two-way traffic flow is constricted by parked vehicles were other important considerations in the development of this policy.

The principles of the proposed policy are centered around safety, mobility and sustainability.

The three main principles of the speed limit policy are to ensure safety, mobility, and sustainability. The policy needs to address the road safety of all road users, including pedestrians and cyclists. The proposed policy aims to establish appropriate speed limits based on roadway characteristics, roadway geometry, and the pedestrian environment. Appropriate speed limits will provide an environment where road users

feel secure and safe. The policy also accounts for multi-modes of transportation and ensures speed limit consistency.

The relationship between speed and injury severity is particularly critical for vulnerable road users. Published studies have shown that incidents involving the most vulnerable road users (pedestrians and cyclists) with vehicles travelling at a higher rate of speed increase the potential for a fatality.

The York Region Associate Medical Officer of Health was consulted regarding speed limits and advised, “the evidence is convincing that lowering speed limits – especially in residential areas can be very effective in reducing the risk of severe injury or death.” Additionally, according to the World Health Organization, an increase of 1 km/h in vehicle speed results in an increase of 3% in the incidence of crashes resulting in injury and an increase of 4-5% in the incidence of fatal crashes.

The policy framework categorizes four zones within the road network – rural, urban, laneways, and neighbourhood areas.

Four primary zones have been established for the proposed speed limit policy framework:

1. Rural roadways
2. Built-Up/Urban Areas, inclusive of school zones
3. Public Laneways
4. Neighbourhood Areas with speed limits of 40km/h

The Safer School Zone Act (Bill 65) enables municipalities to designate areas where by-lawed speed limits can be imposed lower than 50km/h. Therefore, municipalities have the authority to establish a speed limit lower than 50 km/h within neighbourhoods using specialized speed limit signage (Attachment 6).

The speed limit on Rural Roadways will be evaluated based on the TAC Guidelines.

For rural roads, the 80 km/h statutory speed limit is prescribed by the *HTA unless otherwise posted*. The Speed limits on rural roads can be assessed using the TAC guidelines upon request from the public or as part of a review associated with new development or in conjunction with major road rehabilitation work. The TAC Guideline parameters - Canadian Guide for Establishing Posted Speed Limits (2009) - are summarized below and outlined in Attachment 4.

The TAC Guideline considers the following roadway elements:

- | | |
|-----------------------|---------------------------|
| - Road Classification | - Roadside Hazards |
| - Divided/Undivided | - Pedestrian Exposure |
| - Urban/Rural | - Cyclist Exposure |
| - Number of Lanes | - Pavement Surface |
| - Length of Corridor | - Number of Intersections |
| - Design Speed | - Number of driveways |
| - Horizontal Geometry | - Interchanges |
| - Vertical Geometry | - On-Street parking |
| - Lane Width | |

Speed limits on rural roadways are to be undertaken in conjunction with new/future Block Development, or on a case-by-case basis, as required.

The speed limit in Built-up/Urban Areas of 40 km/h on roadways will be evaluated according to elements in the TAC guideline including roadway width, operating speeds, on-street parking and pedestrian and cycling infrastructure elements.

For built-up/urban roads, the 50 km/h statutory speed limit is prescribed by the HTA, unless otherwise posted. This policy provides the ability to assess all urban roads for reduced posted speed limits of 40 km/h when certain criteria are met.

Based on the TAC Guidelines, the proposed policy identifies the following key elements in determining appropriate roadway speed limits:

- Roadway widths
- Operating speeds
- On-street parking
- Pedestrian Environment
- Cycling Environment

The policy proposes a reduced speed limit of 40 km/h, generally associated with school zones, local streets and minor collectors.

Communities in other municipalities, included in the City's jurisdictional scan, restricted the use of the 40 km/h speed limits to school zones, local and minor residential collectors and/or where traffic calming measures have been utilized. It was determined that to promote compliance and improve driver awareness of their surroundings, the

speed limit chosen should be representative of the pedestrian environment, roadway width, and operating speeds. A 40 km/h limit in these areas was determined to be appropriate based on the above.

Speed limits in Built-up/Urban areas will be reviewed on a case-by-case basis as required and subject to this Policy/criteria. A speed limit should be set that promotes compliance and driver awareness.

The speed limit in School Zones will be set at 40 km/h.

Schools and adjacent parks continue to be areas with increasing pedestrian, cycling and vehicular traffic even during evenings and weekends. The presence of vulnerable road users in school areas need to be considered in the implementation of the City's Speed Limit policy.

The proposed policy addresses school areas as follows:

- School zone areas will be set at a maximum of 40 km/h for the section of road contiguous to the school and for no less than 150 metres along the road on either side of the school property.
- Consistent with the Region's speed policy, a school is typically required to have a minimum of 200 registered students to be eligible for a 40 km/h school zone speed limit. The intent is to minimize the creation of school zones for locations that have small geographic footprints.
- Where there is a park contiguous to the school boundary limits, the parkland will be considered as part of the school zone and the 40 km/h maximum speed control zone shall extend no less than 150 metres beyond the parkland.
- At locations where there is a roadway that is not directly adjacent to the school but provides direct access to a school via a walkway, a 40 km/h maximum speed control zone will be applied and must extend no less than 150 metres beyond the limits of the walkway.

All school zones within the City of Vaughan, will be signed in accordance with the *HTA* and the Ontario Traffic Control Manual. The speed limit changes listed for the 40 km/h speed limit for school zones is contained in Attachment 2.

The speed limit for Public Laneways will be set at 30 km/h.

Public laneways within the City typically have a right-of-way width of 8.0 metres and a pavement width of 6.0 metres. Laneways do not typically contain pedestrian

infrastructure. Laneways often have a high volume of turning movements and reduced sightlines. As a result of these design characteristics, the safe vehicle operation in laneways necessitates the ability to stop quickly, which in turn equates to the need for lower operating speeds.

Given the narrow width (typically with a right-of-way width of 8.0 metres and a pavement width of 6.0 metres), lack of sidewalks and numerous tightly spaced access points, it is recommended public laneways be posted at a 30 km/h maximum speed limit.

All public laneways shall be signed in accordance with the *HTA* and Ontario Traffic Control Manual. The speed limit changes listed for the 30km/h speed limit for public laneways is contained in Attachment 3.

The speed limit in Neighbourhood Areas of 40km/h will be set using specialized signage.

The Province passed the *Safer School Zones Act* (Bill 65) in 2017 which resulted in amendments to the *HTA* in 2018. The amendments allow municipalities to designate areas with speed limits lower than 50km/h. Municipalities may designate areas within a bounded neighbourhood area using specialized speed limit signage. Specialized area speed limit signs (attachment 5) are to be used in accordance with the Provincial Guidelines (Ontario Traffic Manual Book 5), with signs required at all entry and exit points of a neighbourhood area.

A benefit of the amendments in the *HTA* is that speed signage no longer needs to be installed on a street by street basis within an identified neighbourhood where speeds are being lowered below 50 km/h. To increase driver awareness when entering these zones, entry points to each of these communities will be signed and accompanied with roadway stenciled pavement markings illustrating the regulatory speed limit.

Staff will be assessing the application of this regulation in existing neighbourhoods by piloting one “40 km/h Neighbourhood area Speed Zone” per ward. Attachment 6 illustrates an example of a 40 km/h Neighbourhood Speed Zone.

Based on the current block/community layouts, there are approximately 90 Neighbourhood areas that can be considered for implementation. Each area will typically have four or more entry points to the community. Eligible roadways will generally include local roads and minor collector roads posted at 40 km/h. Neighbourhood area speed limits are not suitable for major collector roadways and speed limits on these roads will continue to be reviewed on a case-by-case basis.

Staff will consult with local Councillors to define and prioritize potential neighbourhoods for a neighbourhood area 40 km/h speed limit and determine a communication/public consultation plan. The public consultation with Councillors is imperative to ensure community needs are met and that there is a clear understanding of the program. Based on the program monitoring results, additional measures and resources for traffic calming to address speeding in neighbourhoods with 40 km/h posted speed limits may be required.

Stakeholders support the proposed Speed Limit Policy as a balanced approach with consideration of all road users.

Staff met with York Regional Police, York Region Transportation and Public Health, York Region Public District School Board and York Regional Catholic District School Board to present an outline of the proposed speed limit policy. A joint presentation on the proposed speed limit policy was made to the York Region Traffic Technical Advisory Committee with York Region Public Health staff in August 2020. Staff has consulted with various City departments, including: Development Engineering, Vaughan Metropolitan Centre Program, Legal Services, Infrastructure Planning and Corporate Asset Management (Transportation Planning), and Bylaws & Compliance Licensing and Permit Services. Staff have received support for the proposed Speed Limit Policy.

Key stakeholders (York Regional Police, Fire Services, Emergency Services, York Region Transit, and School Boards) will be informed of the speed limit changes. Staff will work with the Corporate and Strategic Communications team to develop a public communication plan to raise public awareness of the speed limit changes. Staff will develop a work plan to implement the required signage. New signage in the School Zone areas will be prioritized and installation is planned to be undertaken in 2021. Signage for Public Laneways and Neighbourhood Areas is planned to follow in the Spring and Fall of 2022, respectively.

Financial Impact

The estimated costs associated with the approval of this report and implementation of the policy are as follows:

1. The installation of 40 km/h signage at each school zone area is approximately \$2,100. With approximately 84 school zone areas throughout the City, the total estimated cost is \$176,400.

2. The installation of 30 km/h signage at each public laneway is approximately \$520. With approximately 70 public laneways throughout the City, the total estimated cost is \$36,400.
3. The installation of the 40 km/h Neighbourhood areas speed limit signage will be subject to the number of entry points to each community. Each entry/exit point will consist of 2 signs and 1 stencil pavement marking at an estimated cost of \$1,100. Five 40km/h Neighbourhood areas are anticipated be part of the pilot project.
4. The installation of new signs for streets with a speed reduction to 40 km/h is \$1,100 per street, based on a minimum of four (4) signs per street.

Staff will develop a work plan to implement the required signage for the school zones, public laneways, and the pilot projects for the 40km/h Neighbourhood Areas. Funding for the work plan is included in the approved 2021 capital budget.

In the future, new subdivisions will require an evaluation based on the proposed Speed policy and signage installation will be required as part of the construction of each new subdivision.

The proposed policy meets all the components of the council resolution requesting the development of a comprehensive speed limit policy to determine speed limits that address the safety of all road users and accounts for the increase in the number of pedestrians and cyclists while ensuring speed limits are consistent with the future growth of the City. The proposed policy has been endorsed by key stakeholders and staff will continue working closely with key partners during the implementation phases.

Broader Regional Impacts/Considerations

Staff have consulted with York Regional Police, York Region Public Health, York Region Transportation staff, York Region Public District School Board, and York Regional Catholic District School Board on the outline of the proposed Speed Policy. These stakeholders are supportive of the proposal.

York Regional Police will be responsible for enforcing speed limit compliance. Staff will continue working closely with York Regional Police to develop both public education and enforcement strategies as both are essential components to achieve compliance.

Conclusion

Council directed staff in November 2015 to develop a speed limit policy. An assessment of the City's road network, an environmental scan of peer municipalities, and research into applicable regulations and technical guidelines has been performed to ensure the development of a policy that accounts for and accommodates multi-modes of transportation, considers vulnerable road users, and addresses growing urbanization. It is recommended that this report, and the proposed Speed Limit Policy be approved.

For more information, please contact Peter Pilateris, P.Eng., Director, Transportation and Fleet Management Services, ext. 6141.

Attachments

1. Proposed Speed Limit Policy
2. By-law listing – 40 km/h Speed Limit (School Zones)
3. By-law listing – 30 km/h Speed Limit (Public laneways)
4. TAC Guidelines for Establishing Posted Speed Limits – Data Sheet
5. New Speed Limit Area Signs
6. Example of Neighbourhood Area 40 km/h

Prepared by

Margie Chung, Manager of Traffic Services, 6173
Mark Ranstoller, Senior Traffic Technologist, 6117

Approved by



Nadia Paladino for Zoran Postic,
Deputy City Manager, Public Works

Reviewed by



Jim Harnum, City Manager