

4. POLICY FOR POSTING A 30 KM/H SPEED LIMIT ON AN EXISTING ROADWAY

POLITIQUE CONCERNANT L’AFFICHAGE D’UNE LIMITE DE VITESSE DE 30 KM/H SUR UNE ROUTE EXISTANTE

COMMITTEE RECOMMENDATIONS AS AMENDED

That Council approve:

1. The 30 km/h Speed Limit Policy for existing roadways, as attached in Document 2 and as described in this report; and
2. That the paragraph on page 8 of the report reading:
“Traditional Main Streets with a Strong Pedestrian Presence: If the criteria are met for such roadways, a petition is not required. In order to implement a 30 km/h speed limit, concurrence must be provided to Traffic Services staff by the respective Business Improvement Area (BIA). In the absence of an established BIA, Ward Councillor concurrence is required.”

Be amended to read:

“Traditional Main Streets with a Strong Pedestrian Presence: If the criteria are met for such roadways, a petition is not required. In order to implement a 30 km/h speed limit, concurrence must be provided to Traffic Services staff by the ward councillor.”

RECOMMANDATIONS DU COMITÉ, TELLES QUE MODIFIÉES

Que le Conseil approuve :

1. la politique prévoyant l'affichage d'une limite de vitesse de 30 km/h sur des routes existantes, qui est énoncée dans le document 2 et décrite dans le présent rapport; et
2. **que le paragraphe suivant, à la page 8 du rapport :**

« Rues principales traditionnelles à forte circulation piétonnière : Si la rue répond aux critères, aucune pétition n'est requise. Pour que soit instaurée une limite de vitesse de 30 km/h, le personnel des Services de la circulation doit obtenir l'accord de la zone d'amélioration commerciale (ZAC) concernée. En l'absence d'une ZAC, il doit obtenir l'accord du conseiller du quartier. »

soit modifié comme suit :

« Rues principales traditionnelles à forte circulation piétonnière : Si la rue répond aux critères, aucune pétition n'est requise. Pour que soit instaurée une limite de vitesse de 30 km/h, le personnel des Services de la circulation doit obtenir l'accord du conseiller de quartier. »

DOCUMENTATION / DOCUMENTATION

1. Director, Traffic Services' report, dated 27 March 2017 (ACS2017-TSD-TRF-0002)

Rapport du Directeur, Services de la circulation, daté le 27 mars 2017 (ACS2017-TSD-TRF-0002)
2. Extract of draft Minutes, Transportation Committee, 5 April 2017.

Extrait de l'ébauche du procès-verbal, Comité des transports, le 5 avril 2017

Report to
Rapport au:

Transportation Committee
Comité des transports
5 April 2017 / 5 avril 2017

and Council
et au Conseil
12 April 2017 / 12 avril 2017

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Submitted by
Soumis par:

Philippe Landry, Director/Directeur, Traffic Services/ Services de la circulation,
Transportation Services Department/Direction générale des transports

Contact Person

Personne ressource:

Krista Tanaka, Program Manager/ Gestionnaire de programme, Road Safety and
Investigations Branch /Direction de la Sécurité routière et investigations
613-580-2424 x 23597, Krista.Tanaka@ottawa.ca

Ward: CITY WIDE / À L'ÉCHELLE DE LA File Number: ACS2017-TSD-TRF-0002
VILLE

SUBJECT: Policy for Posting a 30 km/h Speed Limit on an Existing Roadway

OBJET: Politique concernant l'affichage d'une limite de vitesse de 30 km/h
sur une route existante

REPORT RECOMMENDATION

That the Transportation Committee recommend that Council approve the 30 km/h Speed Limit Policy for existing roadways, as attached in Document 2 and as described in this report.

RECOMMANDATION DU RAPPORT

Que le Comité des transports recommande au Conseil d'approuver la politique prévoyant l'affichage d'une limite de vitesse de 30 km/h sur des routes existantes, qui est énoncée dans le document 2 et décrite dans le présent rapport.

BACKGROUND

In recent years, there has been an increase in requests from residents and Councillors to post 30 km/h speed limits on existing local residential roadways. These requests are typically made with the intent of reducing operating speeds to increase the safety and comfort of all road users, especially pedestrians and cyclists. Lower operating speeds do typically result in lower crash severity, especially in collisions between motor vehicles and pedestrians, cyclists or motorcyclists. However, studies have shown that reducing the speed limit on a roadway has minimal impact on the operating speed unless the roadway conditions cater to the lower speed limit as well. Furthermore, an artificially low speed limit can contribute to widespread disregard or non-compliance by motorists.

The current City of Ottawa [Speed Zoning Policy](#), approved by Council in 2009 (ACS2009-COS-PWS-0021), does not allow for a posted speed limit lower than 40 km/h unless the 85th percentile speed is lower than 40 km/h. The 85th percentile speed is defined as the speed at which 85 percent of traffic travels at or below and is typically quoted as the "operating speed" of a roadway. Based on the existing policy, a 40 km/h speed limit can be posted on local residential streets through a petition process whereby 66 percent of affected residents on the street must agree to the change. The speed limit change is then implemented once agreed to by the residents and approved by the Ward Councillor, regardless of the operating speeds of the roadway. Studies conducted by the Traffic Services Service Area (Traffic Services), both before the implementation of the speed limit change and afterwards, show minimal or no change in

operating speeds along the roadways where the speed limit has been reduced via the petition process alone.

The purpose of this report is to outline a process for establishing 30 km/h speed limits on existing local residential roadways within the city of Ottawa that balances resident requests with traffic management best practices. Many jurisdictions have implemented 30 km/h speed limit on all roads within a community, however observations are that once installed, motorists for the most part do not reduce their operating speed to this speed limit unless the condition of the roadway is that it feels uncomfortable to travel at a higher speed than 30 km/h, there is constant police enforcement or physical modifications are put in place. As it is not sustainable to have police enforcement on every 30 km/h street nor can we modify roadways to achieve an operating speed of 30 km/h in the near term horizon, we must look at the conditions of the roadway and provide a technical process whereby the conditions required for vehicles to travel at or near 30 km/h are in place. It is staff experience that not having the right conditions in place will lead to little if any change to operating speeds.

The proposed policy recognizes that a speed of 30 km/h is not achieved through simply changing the speed limit sign alone. The driver's operating speed, or the speed which the driver is comfortable driving their vehicle on the existing roadway, must already be near 30 km/hr. Therefore, certain pre-existing conditions must be in place to ensure that the implementation of 30 km/h posted speed limit is successful. The recommended policy puts in place a technical review and process to ensure that when a roadway is signed at 30 km/h, residents' expectation that operating speeds will be in the 30 km/h range will be met.

This report does not define the design elements required to achieve a 30 km/h operating speed on a roadway, nor does it define which roadways within the network would benefit from a 30 km/h operating speed. The policy will assist staff to determine where a 30 km/h speed limit may be appropriate based on existing roadway characteristics within the city. Establishing a formal 30 km/h Speed Limit Policy will also allow staff to respond to [Motion \(5/4\)](#) to "... review the opportunity to designate O'Connor Street as a 30 km/h zone from Pretoria Avenue to Holmwood Avenue".

In addition to responding to Motion (5/4), this report will also serve to address a commitment made by staff during consideration of the [Safety Initiatives – Children's Walk to School Report](#) at the November 2, 2016 Transportation Committee. Staff

committed to Councillor McKenney that a document capturing information on school zones and their respective currently posted speed limits would be included as a supporting document to the Policy for Posting a 30 km/h Speed Limit on an Existing Roadway Report. As such, Document 1 – School Zones and Posted Speed Limits captures the information requested.

DISCUSSION

A significant amount of the information a driver uses to select an appropriate speed is based on visual and physical cues received as he/she drives along a roadway; motorists tend to drive more slowly when they feel constrained. Narrow roadways, parked vehicles, frequent driveways and local activity (e.g. people walking along the roadway, children riding their bikes, etc.) are often factors that trigger a reduced travelling speed by motorists as they impact the driver's comfort level. The posted speed limit is only one small component of the overall roadway environment. That being the case, studies have shown that simply changing speed limit signage does not typically result in changes to the speed at which motorists travel, and that other visual cues or geometric changes are necessary to foster a change in driving behaviours.

In order to achieve greater compliance with posted speed limits, consistency in their application is also important. The posted speed limit should not conflict with the visual information provided by the other roadway characteristics that are assessed by drivers as they select their operating speed. For instance, a roadway that provides visual cues supporting a speed of 60 km/h should have a posted speed limit of 60 km/h; this will ensure greater compliance with the posted speed limit. To ensure the success of a 30 km/h posted speed limit, certain visual cues should be present on the roadway as well.

Many European cities have introduced 30 km/h speed limits on local residential roadways and more recently some jurisdictions in North America. Toronto, New York City, Edmonton and the province of Québec, have already established some form of policy or guidelines for the application of a 30 km/h speed limit. Its application has generally either been on a limited area basis or during specific times of the day, usually taking into consideration roadway characteristics. Traffic Services, in line with traffic management best practices, is proposing a policy with set criteria for posting 30 km/h speed limits on existing local residential roadways.

The proposed criteria is based on a list of criteria developed by City staff and then reviewed and modified based on suggestions provided by [MobyCon](#), a Dutch-based consulting firm that provides services related to managing traffic, transportation and mobility throughout North America and Europe. MobyCon's recommendations are based on a comparison of the criteria to the Dutch Sustainable Safety (the Dutch Vision Zero) paradigm and the design recommendations published by the Dutch Centre for Road safety (CROW).

Lowering the speed limits on City streets without consideration of the physical configuration of the road will have minimal impact on driver behaviour. Establishing a formal 30 km/h Speed Limit Policy that outlines a set of criteria based on the Roadway and Traffic Environment, as well as the Active Transportation Environment, is required for staff to determine locations where the posting of a 30 km/h speed limit is likely to be effective on existing roadways. Such criteria will help promote the consistent application of a 30 km/h speed limit and support better motorist compliance to the posted speed. Support from local residents through a formalized petition process will also be required, where applicable, to move forward with a change in speed limit. The proposed criteria and process for the posting of a 30 km/h speed limit are further detailed in Document 2 - 30 km/h Speed Limit Policy for Existing Roadways.

Criteria

The proposed criteria for implementing 30 km/h speed limits on existing roadways within the limits of the City of Ottawa have been selected based on industry best practices. Criteria relate to the Roadway and Traffic Environment, in addition to the surrounding Active Transportation Environment.

There are two scenarios where streets may be eligible for a posted speed limit conversion to 30 km/h. These are:

Scenario 1: The operational speed of the existing roadway is equal to or less than 35 km/h. The operational speed is defined as the 85th percentile speed. In this case, a posted speed limit of 30 km/h will be implemented.

Scenario 2: The existing roadway has an operating speed greater than 35 km/h and meets the Roadway and Traffic Environment criteria, the Active Transportation Environment criteria and the petition process requirements. Further details on the

proposed criteria and the petition process requirements, when applicable, are provided below.

ROADWAY AND TRAFFIC ENVIRONMENT CRITERIA

On roadways where the operation speed is greater than 35 km/h, specific Roadway and Traffic Environment criteria must be met in order to consider posting a 30 km/h speed limit. The criteria includes the following:

1. **Roadway Classification/and or Strong Pedestrian Presence:** The 30 km/h speed limit will only be considered for local roads and/or roads which have a strong pedestrian presence.
 - a. As defined in the City of Ottawa [Transportation Master Plan 2013](#), local roads “provide direct access to adjacent lands” and “serve neighbourhood travel to and from collector or arterial roads. The primary function of a local roadway, from a transportation perspective, is to provide access to the abutting land use”; mobility is only a secondary consideration; and,
 - b. A strong pedestrian presence is defined as a count of greater than 20 pedestrians per peak hour, or 60 pedestrians per 4 hours, or 15 elderly/children crossing the roadway during peak hour per block.
2. **Transit Operations:** For roads with transit service, a 30 km/h speed limit will only be considered if the service is infrequent (three trips per hour per direction or fewer) or if the road already operates at 30 km/h or more slowly during daytime hours (generally 6 a.m. to 7 p.m., Monday to Saturday).
3. **Travel Lane Width:** Studies have shown that the pavement width affects the rate of speed at which a motorist will travel. The more constrained a roadway, the slower a motorist will typically travel. Therefore, a 30 km/h speed limit will only be considered on:
 - a. Two-way roadways with no more than 1 lane in each direction, with a width of 7 metres or less for both lanes combined (not including parking); and,
 - b. One-way roadways with no more than 2 lanes in one direction, with a width of 7 metres or less for both lanes combined (not including parking).

Note: On all roadways with a pavement width greater than 7 metres, parking must be permitted on at least parts of one side of the roadway, ideally enclosed by a physical element at the beginning and the end of the parking lane or parking bay.

4. **Speed Limit:** The current speed limit is no higher than 50 km/h.
5. **Daily Traffic Volume:** The Transportation Association of Canada's Geometric Design Guide identifies 2,500 vehicles per day as the upper threshold for local roadways. As the intent of the 30 km/h Speed Limit Policy is to provide lower speed limits on roadways that serve the local roadway function, a 30 km/h speed limit will only be considered on roadways with traffic volumes of less than 2,500 vehicles per day.

All five conditions of the Roadway and Traffic Environment criteria must be met in order to consider the implementation of a 30 km/h speed limit on an existing roadway.

ACTIVE TRANSPORTATION ENVIRONMENT

The Active Transportation Environment will be considered in addition to the Roadway and Traffic Environment criteria to post a 30 km/h speed limit on an existing roadway. Lower speed limits are suggested in locations where pedestrian and cyclist activities are high, especially in locations where these more vulnerable road users share the road with motorized vehicles. Criteria for this component includes:

- An elementary or junior high school abutting the roadway;
- Improved parkland (i.e. not vacant or undeveloped parcel) abutting the roadway;
- A significant pedestrian generator (e.g. older adult residences, community centres, etc.) abutting the roadway;
- No dedicated cycling facility;
- No sidewalks along the roadway;
- Existing physical traffic calming measures that were installed to address a speeding issue (e.g. - speed humps, curb extensions, etc.); and,
- Lack of safe stopping sight distance.

A minimum of one of the identified Active Transportation Environment criteria must be met in order to consider the implementation of a 30 km/h speed limit on an existing roadway.

In addition to meeting the Roadway and Traffic Environment criteria and the Active Transportation Environment criteria as listed above, it is recommended by MobyCon that the entrance to the 30 km/h zone should be no more than 7 metres wide for local residential roadways. According to the principles of the Dutch Sustainable Safety approach, the narrower entrance width of the street will help drivers recognise the change in environment and help them transition to a lower operating speed.

Many of the City's existing local roadways are wider than 7 metres at the entrance throat, therefore additional measures will be required to narrow the roadway entrance in order to achieve a 7 metre threshold width. Permanent curbing to create the narrowing would be most effective in providing the visual cue to motorists that they are entering an area where lower operating speeds are expected. Currently, there is no funding source available to implement permanent narrowings at the entrance to these roadways.

Prior to proceeding to the petition process to pursue the implementation of a 30 km/h speed limit on a residential roadway, measures to reduce the entrance throat of the roadway to the recommended width must be available. As such, Traffic Services staff will work with Councillors to develop plans for narrowing roadway entrances to 7 metres through the use of temporary traffic calming measures such as flex stakes, temporary curbing or pavement markings. Permanent measures will be considered when roadways are reconstructed or if traffic calming projects are being undertaken for the subject roadway.

If criteria are not met, speed limits will be established as per the current City of Ottawa [Speed Zoning Policy](#).

Petition Process

A formalized petition process will be required to implement a 30 km/h speed limit on existing local residential roadways where the operating speed is greater than 35 km/h and after it is determined that the Roadway and Traffic Environment as well as the Active Transportation Environment criteria are met and as follows:

- Local Residential Roadway: If the criteria are met and if roadway entrance width narrowing via temporary measures is feasible, staff will offer to provide the requestor with a petition for a change to a 30 km/h speed limit in accordance with the 30 km/h Speed Limit Policy; and,
- Traditional Main Streets with a Strong Pedestrian Presence: If the criteria are met for such roadways, a petition is not required. In order to implement a 30 km/h speed limit, concurrence must be provided to Traffic Services staff by the respective Business Improvement Area (BIA). In the absence of an established BIA, Ward Councillor concurrence is required.

With all cases where a petition is required, Traffic Services will prepare the document on which will be included the addresses of all affected households. The document will also provide messaging on what to expect in terms of signage changes within the right-of-way. The resident/requestor will be responsible for visiting every address listed on the petition form provided by the City. The petition not only serves to inform City staff of the proportion of residents who support the change in speed limit, but it also provides notice to the residents along the street that a change may occur and that there may be some signage installed within the City right-of-way adjacent to their property. The required rate of support to initiate a change is set at 66 per cent for a 30 km/h speed limit to be consistent with the 40 km/h speed limit change process, as identified in the Speed Zoning Policy.

A 30 km/h speed limit will only be posted as per the proposed 30 km/h Speed Limit Policy detailed in Document 2. For roadways where the operational speed is identified as greater than 35 km/h, the Policy highlights the Active Transportation Environment criteria, the Roadway and Traffic Environment criteria, and the entrance throat width requirements, in addition to the supporting petition needed to implement a 30 km/h speed limit along a local residential roadway.

Conclusion

The criteria proposed within this report, and as documented in the proposed 30 km/h Speed Limit Policy (Document 2), take into consideration some of the roadway and traffic conditions that affect speed, while considering the presence of vulnerable road users within the right-of-way to help determine the most appropriate locations to post 30 km/h speed limits.

The posted speed limit and the roadway conditions should align so that drivers do not receive conflicting visual information when trying to determine an appropriate travel speed on a roadway. Generally, drivers tend to use the visual information of the roadway and ignore the incongruous signage, leading to the disregard of the posted speed limit.

As such, and according to the proposed policy, the designation of “O’Connor Street as a 30 km/h zone from Pretoria Avenue to Holmwood Avenue” as requested in [Motion \(5/4\)](#) by Councillor Chernushenko at the June 3, 2015, Transportation Committee is not supported. The section of O’Connor Street as identified specifically does not meet the necessary travel lane width criteria required to implement a 30 km/h posted speed limit.

In 2016, as part of the O’Connor Bikeway project, two new speed cushions were installed, bike lanes added and intersection narrowings were modified along O’Connor. Such measures typically impact operating speeds and Traffic Services will conduct speed surveys in Spring 2017 to determine the operating speed of the roadway. If operating speeds are found to be less than 35 km/h, a 30 km/h speed limit will be established along O’Connor from Holmwood to Pretoria. If speeds are not 35 km/h or less, the existing speed limit will remain, as per the 30 km/h Speed Limit Policy.

The criteria and requirements proposed in this report and in the policy, focus on the implementation of 30 km/h speed limits at existing locations where roadway visual cues will align with a posted speed limit of 30 km/h. Adhering to this Policy will ensure the success of 30 km/h limits and support the safety of our most vulnerable road users.

RURAL IMPLICATIONS

The 30 km/h Speed Limit Policy is applicable city-wide.

CONSULTATION

Traffic Services staff has consulted with Ottawa Police Services and Legal Services in the development of the 30 km/h Speed Limit Policy.

ADVISORY COMMITTEE(S) COMMENTS

This has not been considered by Advisory Committees.

LEGAL IMPLICATIONS

There are no legal impediments to implementing the recommendation in this report.

RISK MANAGEMENT IMPLICATIONS

There are no risks implications associated to the Policy for Posting 30 km/h Speed Limit on an Existing Roadway Report.

FINANCIAL IMPLICATIONS

There are no financial implications associated with the recommendations in this report. There are no budget impacts or additional funding required.

ACCESSIBILITY IMPACTS

There are no impacts to accessibility associated with the Policy for Posting 30 km/h Speed Limit on an Existing Roadway Report.

TERM OF COUNCIL PRIORITIES

The Policy for Posting 30 km/h Speed Limit on an Existing Roadway Report impacts the Transportation and Mobility Priority in the City of Ottawa 2015-2018 City Strategic Plan.

SUPPORTING DOCUMENTATION

- Document 1 - School Zones and Posted Speed Limits
- Document 2 - 30 km/h Speed Limit Policy

DISPOSITION

The Transportation Services Department will post 30 km/h speed limits in Ottawa according to the Policy for Posting 30 km/h Speed Limits on an Existing Roadway Report as supported and approved by Council.