2023 Traffic Calming Policy

Decision History

At its meeting on October 25, 2023, Infrastructure and Environment Committee considered the 2023 Traffic Calming Policy, which was adopted under item 2023.IE7.4. City Council adopted the 2023 Traffic Calming Policy, as detailed in Attachment 2 of the Transportation Services report (October 12, 2023) from the General Manager, Transportation Services on November 8 and 9, 2023. The Council decision can be found at: https://secure.toronto.ca/council/agenda-item.do?item=2023.IE7.4.

Policy Statement

Traffic Calming is intended to slow motor vehicles to appropriate speeds, increase safety for people walking, cycling, and rolling and improve the quality of life for residents on neighbourhood streets. The installation of Traffic Calming measures is based on the foundational idea that neighbourhood streets should help create and preserve a sense of place: their purpose is for people to walk, roll, play, shop and even work alongside motor vehicles – not be dominated by them.

This Policy enables the City of Toronto to install Traffic Calming measures – speed humps and cushions on local and collector roadways and speed bumps in laneways. The guidelines and steps in this Policy outline the process for identifying and evaluating locations for Traffic Calming.

Neighbourhood Traffic Calming Measures

For the purpose of this Policy, Traffic Calming is defined as mid-block, vertical deflections: namely, speed humps or speed cushions on local and collector roadways and speed bumps in laneways. While speed humps, cushions and bumps are similar tools, their use varies by type of roadway and type of vehicle they need to accommodate:

- **Speed humps** are raised mounds of asphalt installed across the full width of a roadway. They are tapered towards the gutter to not impede storm water drainage. Speeds humps are designed and placed at intervals along a roadway segment to encourage a consistent 30 km/h travel speed – motorists traveling at speeds greater than 30 km/h will experience discomfort when going over a speed hump. Speed humps can be installed on local and collector roadways that receive winter maintenance.
- **Speed cushions** are similar to speed humps, but they provide wheel cut-outs for larger vehicles such as buses and emergency vehicles to travel over them, minimizing the vertical deflection. Due to their design, speed cushions have a slightly higher design speed than speed humps but enable the application of Traffic Calming measures where they may otherwise be infeasible, such as along a neighbourhood TTC route. Speed cushions can be installed on local and collector roadways that receive winter maintenance.
- **Speed bumps** are considerably shorter than speed humps and are found in very low-speed environments, such as laneways. Speed bumps encourage drivers to cross at no more than 10-15 km/h. Speed bumps can only be installed in laneways that do not receive snow plowing – only salting – as they are not designed to be traversed by plowing equipment.

Construction specifications and standard drawings for Traffic Calming measures can be found on the City of Toronto website.

Eligibility Criteria

For a roadway to be eligible for speed humps or speed cushions, it must meet the following criteria:

A. Classified as a local or collector roadway, according to the Toronto Road Classification System;
B. Presence of a sidewalk on at least one side of a local roadway and both sides of a collector roadway is preferred but not required[1];
C. Maximum average daily traffic volume of less than 8,000 vehicles per day;
D. Maximum roadway grade of up to 5%, can be considered in locations where the road grade is between 5% and 8% with additional review;
E. No significant impacts on emergency services, including Toronto Fire, Ambulance, and Police Services; and
F. No significant impacts to regularly scheduled Toronto Transit Commission (TTC) services.

Roadways that meet all the eligibility criteria listed above may be considered for speed humps. In locations with regularly scheduled TTC services, speed cushions may be considered with consultation and approval by TTC staff and if criteria (A) through (E) are met.

For a laneway to be eligible for speed bumps, it must meet both of the following criteria:

A. Classified as a laneway; and
B. Must be paved and have surface drainage that will not be impeded by a speed bump.

Traffic Calming measures will not be considered for higher classification roadways such as minor and major arterials or expressways.

Warrant Analysis

In order to evaluate the need for Traffic Calming, Transportation Services will collect speed and volume data for all requests, namely:

- *85th Percentile Speed*

  The 85th percentile speed is the speed at or below which 85% of motorists are traveling, with 15% of motorists traveling faster than this speed. It represents the speed at which the majority of motorists travel. The 85th percentile speed is used to determine if motorists are travelling at an excessive speed along a road or laneway.

- *95th Percentile Speed*

  Similar to the 85th percentile speed, the 95th percentile is the speed at or below which 95% of motorists are traveling, with 5% of motorists traveling faster than this speed. However, while the 85th percentile speed represents the overall majority, the 95th percentile represents the speed at which the most significant violators are traveling. The 95th percentile speed is used to determine if motorists are racing along a roadway.

[1] Of note, the Council-adopted 2019 Missing Sidewalk Installation Policy delegated authority to Transportation Services to install sidewalks on local roads in cases where a Community Council has approved a new traffic calming measure and sidewalks are not present at the time of the traffic calming approval.

- *Average Daily Traffic*

  The average daily traffic (ADT) is the estimate of motor vehicle traffic traveling on the road or laneway, averaged over the number of days of data collection. The ADT is used to confirm that the roadway meets the eligibility criteria of a maximum daily traffic volume of 8,000 vehicles per day (vpd) and used to determine the level of traffic intrusion in a laneway.

The collected speed and volume data will be compared against the Warrant requirements to determine if a road or laneway requires Traffic Calming measures to manage motor vehicle speeds.

Speed Hump and Cushion Warrants

The Warrant Analysis for speed humps or cushions on local and collector roadways, will be based on the following:

A. Minimum block length of 120 metres based on the measured distance from centre to centre of controlled intersections; and
B. Minimum 85th percentile speed of 8 km/h over warrant speed limit; or
C. Minimum 95th percentile speed of 15 km/h over warrant speed limit.

Of note, staff may consider lower minimum 85th and 95th percentile speed warrants in designated School, Senior, or Community Safety Zones.

The Warrant Analysis will be performed based on a warrant speed limit of 30 km/h for all local roadways and where posted on collector roadways. Otherwise, a warrant speed limit of 40 km/h applies for collector roadways. In order for a roadway to be considered *warranted* for speed humps or cushions, it must meet Warrant (A) and either Warrant (B) or (C).

Table 1: Warrant Analysis for Local and Collector Roadways

Traffic Calming Warrants	**Local Roadway**	**Collector**	
Warrant speed limit	*30 km/h*	*30 km/h posted*	*40 km/h otherwise*
Warrant A: Block Length	Minimum block length of 120 metres based on the measured distance from centre to centre of controlled intersections		
Warrant B: 85th Percentile Speed	> 38 km/h	> 38 km/h	> 48 km/h
Warrant C: 95th Percentile Speed	> 45 km/h	> 45 km/h	> 55 km/h

Speed Bump Warrants

The Warrant Analysis for speed bumps in laneways will be based on the following:

A. Minimum 85th percentile speed of 20 km/h; or
B. Minimum traffic volume of 100 vehicles per day; or
C. Used as a frequent pedestrian passageway[2].

In order for a laneway to be considered *warranted* for speed bumps, it must meet Warrant (A), (B) or (C).

Prioritization Score

In the event that the number of approved requests for roadway Traffic Calming measures (speed humps and cushions) exceed the budget allocated for installation, funding for approved installations will be prioritized using the location score. The Prioritization Score is made up of two parts: 1) Quantitative Score; and 2) Qualitative Score.

The Quantitative Score is based on the results of the data collection, including travel speeds and traffic volumes to prioritize locations with higher vehicle speeds and volumes.

The Qualitative Score includes:

- Collision history to prioritize locations with a history of serious injury or fatal collisions and those involving a pedestrian or cyclist;
- Equity to prioritize equity-deserving communities with a high-concentration of priority populations and those that are transportation disadvantaged; and
- Expected presence of vulnerable road users (VRUs) – elderly population, school children and pedestrians, including transit riders – to prioritize locations with a higher risk of fatal and serious injury collisions.

The Quantitative and Qualitative Scores will be averaged to provide the complete Prioritization Score. Table 2 provides a summary of the various measures included in the calculation of the Prioritization Score.

Table 2: Prioritization Score for Speed Humps and Cushions

Quantitative Score		**Qualitative Score**	
Measure	*Possible Points*	*Measure*	*Possible Points*
Traffic Volume	30	Collision History	20
85th Percentile Speed	40	Equity	30
95th Percentile Speed	30	Presence of VRUs	50
Subtotal	*100*	*Subtotal*	*100*
Prioritization Score (average of Quantitative & Qualitative Scores)			**X/100**

Of note, the Prioritization Score only applies to the installation of approved speed humps and cushions on local and collector roadways, not speed bumps in laneways, which are installed sequentially based on the date of their approval by Community Council.

Traffic Calming Process

The identification, evaluation and approval of Traffic Calming follows a six-step process, as outlined below and shown in Figure 1.

1. ***Identification***

Community requests for Traffic Calming (speed humps, speed cushions and speed bumps) are initiated by the local Councillor who also prioritizes requests across their Ward. Residents are encouraged to contact their Councillor to get initial support for the traffic calming they are recommending. It is up to individual Councillors to determine how they will collect requests for Traffic Calming from residents in

their Ward and if any evidence of support is needed before sending the request to Transportation Services for evaluation.

Transportation Services staff may also proactively identify locations for Traffic Calming (speed humps and speed cushions only) through various programs or to be bundled with capital works. Staff will liaise with the local Councillor to gauge support, and supported locations will move through the remaining five steps for evaluation and approval.

2. Evaluation

Transportation Services staff then reviews the request to determine if the road or laneway meets the Eligibility Criteria, including the roadway classification, design and operation. For locations that are not eligible for Traffic Calming measures due to operational concerns such as impacts to emergency services, staff may recommend alternative measures, but the request for Traffic Calming will not be evaluated further as the Traffic Calming would not be appropriate for the proposed location.

If a road or laneway meets the Eligibility Criteria, the Traffic Calming request will be scheduled for speed and volume data collection. The results of the data collection will be compared against the Warrant Analysis to determine if Traffic Calming is warranted. Traffic Calming requests that are *warranted* will move on to the next step in the process.

If a request is found to be *not warranted*, staff will provide the results of the Warrant Analysis to the local Councillor and close the request.

If a Traffic Calming request is found to be not warranted for a road- or laneway, a three (3) year moratorium will apply for new data collection, unless due diligence reveals that there has been material changes in the traffic environment caused by new development or changes to the road network.

3. Scoring

Transportation Services staff will calculate the Qualitative Score and will use the results of the data collection to calculate the Quantitate Score, to produce the combined Prioritization Score for each speed hump or speed cushion location. A Prioritization Score will not be calculated for speed bump locations in laneways, as these are installed sequentially based on their approval by Community Council.

4. Design Approval

The results of the Warrant Analysis and the Prioritization Score, if applicable, will be provided to the local Councillor for review and discussion with Transportation Services staff. It will be up to individual Councillors to determine what level of community consultation is necessary for them to support an installation.

If supported by the Councillor, Transportation Services staff will prepare a design for review. The design drawing will show the approximate location(s) of the speed humps or bumps to be installed.

5. Reporting

Transportation Services staff will bring a positive staff report with proposed road alteration by-law and drawing to Community Council for *warranted* and supported locations. In instances where a Councillor

has requested Transportation Services staff report on a location that is *not warranted*, staff will prepare a negative staff report to include alternate recommendations for consideration.

Transportation Services staff will report on traffic calming recommendations to Community Council on a quarterly or semi-annual basis, depending on the volume of requests for review and approval. The reporting will include both requests for Traffic Calming by the community and those identified proactively by Transportation Services staff. If a Traffic Calming installation is to be bundled with a larger project or program, it will be reported to the Infrastructure and Environment Committee (IEC), and not Community Council. The recommendations to install the road alteration and submit the necessary bills will be included in the IEC report.

6. Installation

Following approval of a Traffic Calming location by Community Council or IEC, staff will schedule installation of speed humps and cushions either as part of the annual construction program or as a bundled capital project. Speed bumps in laneways will be scheduled for installation by Transportation Services' Road Operations team, in the order by which they are approved by Community Council.

The Prioritization Score will be used to prioritize hump and cushion installations included in the annual construction program. If any approved locations cannot be accommodated in the annual construction contract, they will be deferred to the following year for installation.

If approved Traffic Calming measures are located on a road or laneway programmed for upcoming State of Good Repair work within the next three (3) years, installation will be incorporated into the larger planned capital project.

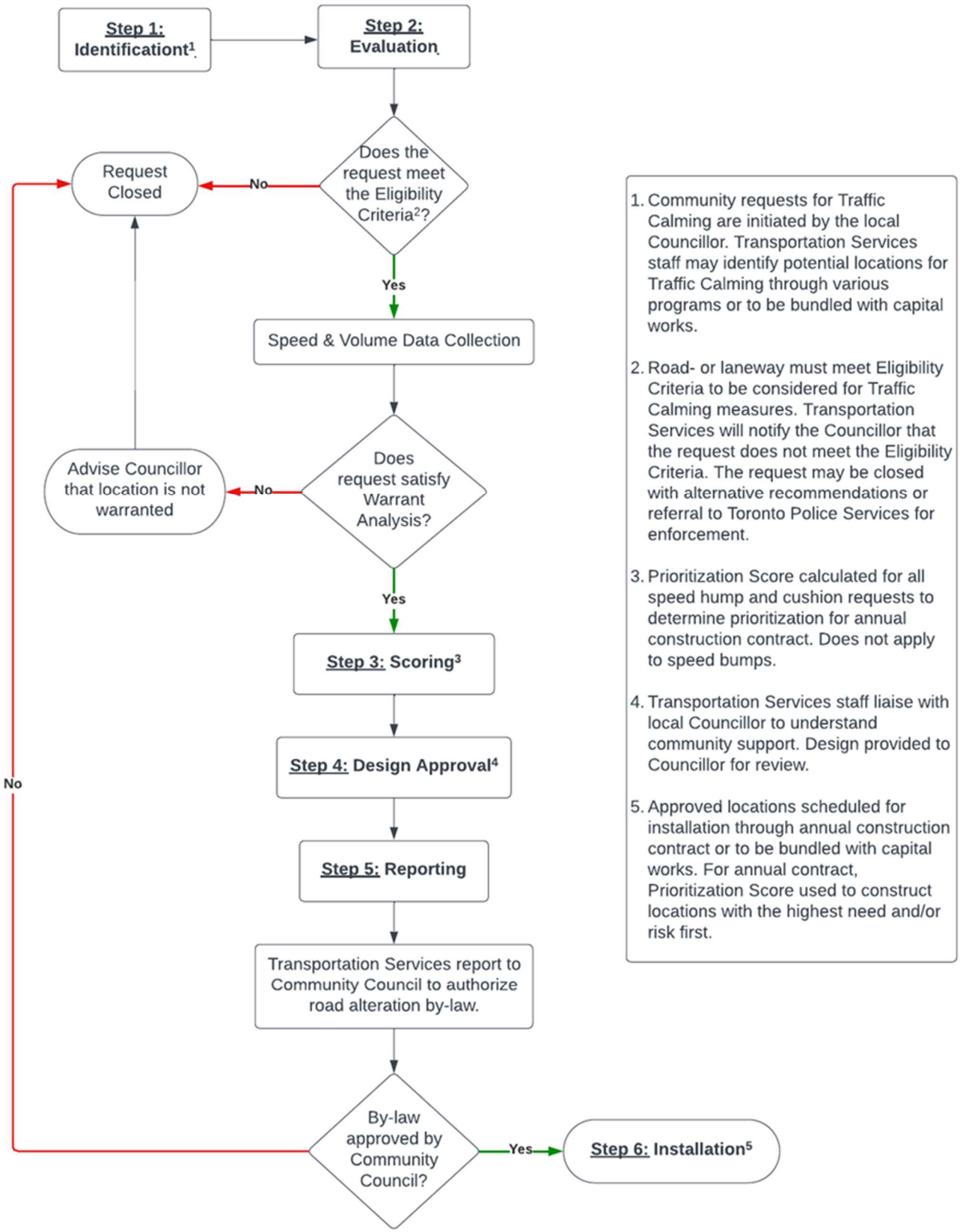

Figure 1: Traffic Calming Process