

**CITY OF HAMILTON**

**PUBLIC WORKS DEPARTMENT**  
*Transportation Division*

<b>TO:</b> Mayor and Members General Issues Committee	<b>WARD(S) AFFECTED:</b> CITY WIDE
<b>COMMITTEE DATE:</b> November 6, 2013	
<b>SUBJECT/REPORT NO:</b> Traffic Calming/Management Policy Update (PW07150a) - (City Wide)	
<b>SUBMITTED BY:</b> Gerry Davis, CMA General Manager Public Works Department	<b>PREPARED BY:</b> Steve Molloy (905) 546-2424, Extension 2975
<b>SIGNATURE:</b>	

**RECOMMENDATION**

That the Traffic Calming Management Policy, dated November 2013, attached as Appendix A to Report PW07150a replace the City's 2007 Traffic Calming/Traffic Management Policy.

**EXECUTIVE SUMMARY**

This report responds to Council direction to update the Traffic Calming/Management Policy (2007) to better align with the emerging community expectations for a more balanced transportation network.

The proposed Traffic Calming/Management Policy is intended:

- to be applied as one of the implementation tools of the Pedestrian Mobility Plan (PMP),
- is consistent with the Complete Streets approach,
- incorporates a review of a number of traffic calming/management policies from municipalities in Canada,
- aligns with the Hamilton Strategic Road Safety Program (HSRSP) and the program's primary emphasis areas: Intersections and Vulnerable Road Users,
- consistent with priorities and objectives of Neighbourhood Action Plans.

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Approval of the Traffic Calming Program will provide direction to staff on updated process and structure by which the City of Hamilton will respond to neighbourhood traffic issues in the urban and rural areas in the City. The program is proposed to operate as a prioritization system based on neighbourhood need and therefore implementation would occur based on this ranking system. The program's recommendations contain a defined, formal process from the initial contact through the data collection, assessment, consultation, evaluation, planning, design, and implementation stages (Appendix A).

Similar to the PMP, the proposed Traffic Calming/Management Policy applies a context-sensitive approach to the installation of traffic calming features for local, collector and, under some circumstances, arterial roads in both urban and rural areas of the City. However, opportunities to integrate traffic calming and complete street principles into the arterial roads requires more detail analysis as these roadways service many functions within the transportation network of the City.

The preferred approach to addressing traffic calming issues raised by the community is to undertake a neighbourhood-wide review (i.e. Traffic Management Plan) in order to adequately address neighbourhood concerns and to avoid the unintentional diversion of concerns from one street to another, which is consistent with the Urban Official Plan policy.

The proposed program will enable residents, Councillors, and staff to work together to identify problems, screen solutions, and integrate implementation into the existing traffic calming budget and annual capital budget cycles. The timing for implementation will depend on a number of factors including: available funding, alternatives/options, complexity of solutions for the location(s) relating to design, and neighbourhood consultation.

**Alternatives for Consideration - See Page 7**

**FINANCIAL / STAFFING / LEGAL IMPLICATIONS**

**Financial:** Through the implementation of the proposed program a significant number of new traffic calming projects may be identified. This may result in additional financial pressure on the capital budget for traffic calming, which will be addressed annually as part of the budget process.

**Staffing:** There are no additional staffing requirements. However, consideration for future staffing may be required depending on the increase in requests from the public.

**Legal:** There are no legal implications of the policy.

**HISTORICAL BACKGROUND**

City staff receive concerns from area residents regarding the speed of traffic on their local streets, or the volume of short cutting traffic travelling through their neighbourhood on a continuous basis. Requests to install stop signs and reduce speed limits have

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proven to have little effect on motorist behaviour. Traffic calming attempts to control driver behaviour by physically altering the geometrics of a roadway. Traffic calming and traffic management measures are generally “self-enforcing” since they influence driver behaviour. The measures are effective because drivers instinctively comply. Traffic calming measures work twenty four (24) hours per day, seven (7) days per week.

Historically, the primary focus of traffic calming, funded through the capital budget, has been on major neighbourhood traffic projects. A number of neighbourhoods in the City have received neighbourhood-wide programs (e.g. Durand, Corktown, Kirkendall, and more recently the North End), consisting of a wide range of techniques, including a combination of traffic calming/traffic management features. Since 2007, Council approved a policy to introduce a formal program of traffic calming/management that is available to respond to concerns about individual streets or locations.

The purpose of the traffic calming program was to create a process for responding to individual requests for traffic calming/management with minimum criteria and with a prioritizing or ranking system. The Public Works Department currently receives numerous traffic calming requests each year to review. This program has enabled the City of Hamilton to respond to neighbourhood traffic issues using a defined, formal documented process.

The proposed program update for Hamilton has been developed after a review of the policies in use by other municipalities, as seen in Appendix “B”. The basic factors built into the proposed program are very similar to those that currently exist and are followed in the municipalities reviewed. The fundamental change however, is the removal of technical pre-requisites prior to installation of traffic calming/management measures. Rather, the technical requirements are used to prioritize proposed traffic calming/management measures.

Appendix “A” outlines the procedure and details the steps involved in processing traffic calming/management requests. All locations supported by neighbourhoods will then be compared and ranked based on the technical scoring. Implementation will proceed in order based on the resulting scoring and available funding.

The proposed program will enable residents, Councillors, and staff to work together to identify problems, screen solutions, and integrate implementation into annual capital budget cycles. The timing for implementation will depend on a number of factors including: available funding, alternatives/options, complexity of solutions for the location(s) relating to design, and neighbourhood consultation.

**POLICY IMPLICATIONS/LEGISLATED REQUIREMENTS**

The proposed Traffic Calming Policy aligns with the “Community Vision” established in the following policy document summary.

**Urban Official Plan (Council Approved)**

<b>Applicable Section</b>	<b>Description</b>
1.0 Planning Act Implementation Tools - Complete Application Requirements and Formal Consultation	g) Neighbourhood Traffic Calming Options Report
4.0 Road Network	<p><b>4.5 Functional Road Classification (Collector and Local Roads)</b> - Horizontal traffic calming features such as curb extensions, median islands, and roundabouts shall be permitted where appropriate subject to meeting City Traffic Calming warrants....</p> <p><b>Traffic Management</b> <b>4.5.9</b> Traffic calming shall be considered an effective means of reducing the negative impacts of traffic on the quality of life for Hamilton residents in existing and planned neighbourhoods and other built-up areas.... <b>4.5.11</b> Traffic management plans for entire neighbourhoods (bounded by an arterial road network) shall be preferred over street-by-street solutions that may shift problems to adjacent roadways....</p>

**Hamilton Transportation Master Plan**

<b>Applicable Section</b>	<b>Description</b>
2.3 Key Policy Themes	<p><b>Building Liveable Communities:</b></p> <ul style="list-style-type: none"> <li>• Design streets to support a pedestrian and transit-friendly environment</li> <li>• Consider traffic calming as an effective means of reducing the negative impacts of traffic...</li> </ul>
7.2 Road Network	<p><b>7.2.4 Supporting Measures</b> ....supporting strategies to enhance the capability of the road network while also improving quality of life for residents by implementing measures such as traffic calming and road diets.</p> <p><b>Minor Arterial Roads</b> 8. Gateway traffic calming features may be implemented where required.</p> <p><b>Urban Residential Collector</b> 7. Horizontal traffic calming features should be provided where required.</p> <p><b>Urban Residential Local</b> 7. Traffic calming may be implemented where required.</p>

**Hamilton Strategic Road Safety Program**

<b>Applicable Section</b>	<b>Description</b>
VISION:	To have the safest traffic record in Canada
MISSION:	To improve the quality of life of the citizens of Hamilton through a reduction in property damage and injury resulting from traffic collisions
PRIMARY EMPHASIS AREAS:	Aggressive Driving, Intersections, and Vulnerable Users

**Hamilton Council Strategic Plan 2012-2015**

<b>Applicable Section</b>	<b>Description</b>
Strategic Direction #1 Strategic Objective <i>1.5 Support the development and implementation of neighbourhood and City wide strategies that will improve the health and well-being of residents.</i>	<b>Strategic Actions</b> (i) Complete the development of neighbourhood plans in selected priority neighbourhoods and complete a funding strategy to guide how the City of Hamilton will support the implementation of neighbourhood plans

**RELEVANT CONSULTATION**

Throughout the development of the Pedestrian Mobility Plan, the public have identified several traffic calming measures associated with pedestrian mobility. Internal program managers have been consulted with respect to impacts on their respective operations.

**ANALYSIS / RATIONALE FOR RECOMMENDATION**

The primary objectives of a Traffic Calming/Management Policy are as follows:

- Improve neighbourhood liveability by mitigating the impact of vehicular traffic on local (residential) streets
- Influence driver behaviour through education and design
- Promote safe and pleasant conditions for cyclists, pedestrians and motorists on local (residential) streets
- Create and implement traffic management plans on a neighbourhood-scale rather than an individual street to achieve greater effect
- Creating traffic calming/management designs, which are compatible with the character of the neighbourhood

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- Appropriately channel public resources by prioritizing traffic mitigation requests based on need, as well as requests for removal of measures as neighbourhoods evolve
- Encourage citizen involvement and engage citizens in all phases of neighbourhood traffic calming/management activities

Ongoing public consultation is key to the investigation process of traffic calming and traffic management.

Effective two-way communications with residents and neighbourhood groups so that they can better understand causes of traffic problems, potential solutions to these problems, and the advantages and disadvantages of implementing different solutions is part of the public consultation process.

When traffic calming is being implemented, the following general guidelines should be considered:

- “Through traffic” should be deterred from residential streets and routed to major collectors and/or arterial roads
- Emergency vehicle access must be preserved
- Neighbourhood traffic calming projects should encourage and enhance active transportation (i.e. pedestrian, bicycle and transit) access to/from neighbourhood destinations, while balancing automobile access

There are many types of traffic calming/management measures, including traffic circles, roundabouts, speed cushions, diverters, centre medians, bumps-outs, raised pedestrian crossings and others. The physical change to a particular roadway requires the motorist to change his/her driving habits. Traffic calming may be installed on a particular street or throughout an entire neighbourhood.

Traffic calming accepts traffic on a street but attempts to slow the speeds. Traffic calming devices are effective at safely reducing vehicle speeds on certain types of streets. This is accomplished by vertical (such as speed humps) and horizontal (such as narrowing the street) measures that make the roadway more difficult to travel at high speed, either due to discomfort or the need to manoeuvre the vehicle more in order to negotiate the street.

Traffic management typically responds to short-cutting traffic and attempts to reroute or divert the traffic to other adjacent roads. Traffic management devices reroute traffic, either through regulation changes (such as turn prohibitions or speed limit reduction) or through physically blocking certain routes to travel by all vehicles, including local traffic.

Traffic calming/management measures are primarily intended for local, residential streets and minor collector roadways. Arterial roads are generally not candidates for traffic calming as they are intended to carry larger volumes of traffic, including transit vehicles, emergency service vehicles and heavy trucks. However, with the growth in the complete streets movement and changing traffic patterns in the City, there are circumstances and situations where traffic calming measures are viable on arterial

roads. Applications such as road diets to provide bicycle lanes is one (1) example of a traffic calming/complete streets approach design on an arterial road.

In order for traffic calming/management measures to be effective, they should be located selectively in accordance with defined engineering criteria. Proper installation will also minimize driver frustration and encourage safe driving practices. Devices must be in accordance with and satisfy engineering and safety criteria outlined in standard manuals of practice such as the Manual of Uniform Traffic Control Devices for Canada (MUTCDC) and the Ontario Traffic Manual (OTM).

**Monitoring and Evaluation Traffic Calming/Management Measures:**

Staff will monitor the effectiveness of the traffic calming/management measures and their associated impacts to the transportation system. This data will be essential in recommending similar measures in the future. Data would ideally be collected between six (6) months to one (1) year after installation to allow travel patterns to normalize. The data will be compared with the before data collected as part of the implementation process. If the findings indicate any adverse effects associated with traffic calming/management measures, staff will explore opportunities to mitigate impacts. Staff will also create an information update to council on an annual basis on the list of priority projects in the City.

**ALTERNATIVES FOR CONSIDERATION**

City staff recommends that Council endorse the proposed Traffic Calming Program as presented in this report, as it provides a clear framework to address and prioritize neighbourhood concerns. However, there are three (3) alternatives for consideration identified below.

**Alternative 1 - Do not accept the Traffic Calming/Management Program Update**

The City could choose not to accept the Traffic Calming/Management Program update as presented. This alternative is not recommended since it will not align with other related Council approved policies in the City of Hamilton relating to traffic calming/management and pedestrian issues.

**Alternative 2 - Accept portions of the Traffic Calming/Management Program Update**

The City could choose to support portions of the Traffic Calming/Management Program update. This alternative is not recommended since it may not align with other related Council approved policies in the City of Hamilton relating to traffic calming/management and pedestrian issues.

**Alternative 3 - Accept the Traffic Calming/Management Program Update with additional amendments**

The City could choose to accept the Traffic Calming/Management Program update with additional amendments. This alternative is not recommended because it may require

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additional analysis and associated budget to determine any impacts posed by the amendments.

**ALIGNMENT TO THE 2012 - 2015 STRATEGIC PLAN**

**Strategic Priority #1**

A Prosperous & Healthy Community

*WE enhance our image, economy and well-being by demonstrating that Hamilton is a great place to live, work, play and learn.*

**Strategic Objective**

1.5 Support the development and implementation of neighbourhood and City wide strategies that will improve the health and well-being of residents.

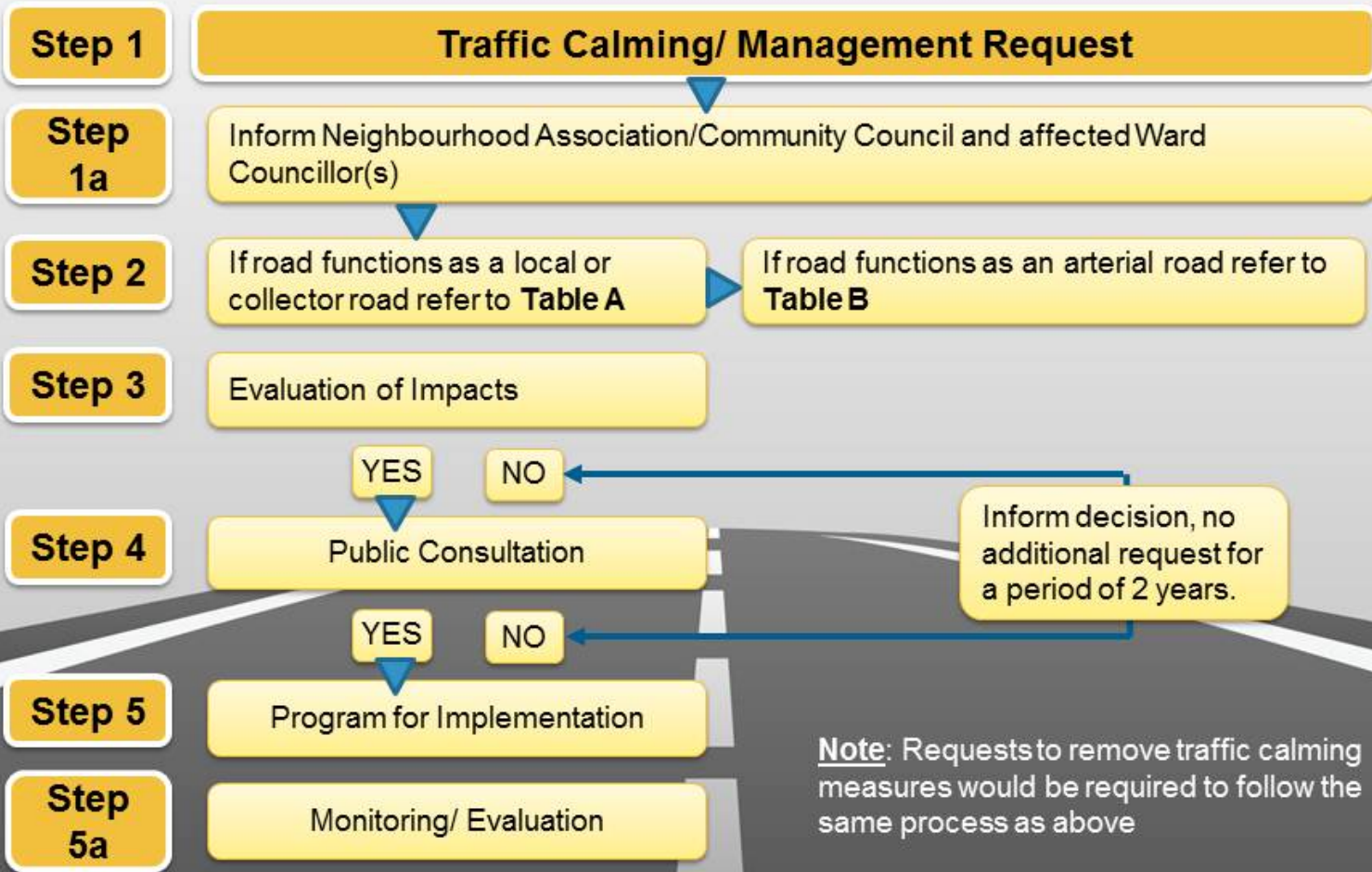
**APPENDICES / SCHEDULES**

Appendix "A"	Traffic Calming/Management Process/Procedures
Appendix "B"	Municipal Traffic Calming/Management Best Practices



# Traffic Calming Program

Proposed



**Note:** Requests to remove traffic calming measures would be required to follow the same process as above

# Procedures

## Screening Process – Steps 1 & 2

### Step 1

Traffic Calming/ Management Request

### Step 1a

Inform Neighbourhood Association / Community Council and affected Ward Councillor

### Step 2

If road functions as a local or collector roadway refer to **Table A**

If road functions as an arterial roadway refer to **Table B**

# Procedures

## Evaluation of Impacts – Step 3

Max.  
100  
points

### Step 3

### Data Collection & Evaluation

#### Traffic Volume

1 point for every 200 vehicles per day  
(Max. 25)

#### 85<sup>th</sup> Percentile speed above posted

1 point for every km over the posted speed  
limit (Max. 15)

#### Cut-through as % of the total volume

1 point for every % above 15% cut-through  
traffic (Max. 25)

#### Collision History

5 points for every collision in past 3 years  
(Max. 25 points)

#### Consider pedestrian and cyclist impacts (e.g. vicinity to pedestrian/cyclist generators)

- 10 points if within 400M of a park, school, or church
- 5 points if within 400M of other destinations
- 10 points if no sidewalk is present
- 5 points if sidewalk is located on only one-side of street

Gradient is 5% or less

Block length must be min. 150 metres

Police, EMS, HSR, PW Operations and other applicable depts. are requested for official responses to each request.

# Procedures

Public Consultation – Step 4

Implementation & Monitoring – Step 5

## Step 4

### Summary of Findings & Develop Traffic Calming/Management Plan.

1. Neighbourhood Association/Community Council is informed on findings
2. Residents are mailed plan for support (Public meeting may be necessary if issues unclear)

**Survey Response Rate:** Min. response Rate = 20% from survey mail-out  
A non response will be understood as a yes vote. Voting Results = 50% +1

## Step 5

If approved, plan for street is ranked as compared to other streets (equal rankings are prioritized according to date of request)

## Step 5a

Monitor measures 6 months to 1-year after implementation and report back to Neighbourhood Association/Community Council and affected ward councillor(s)

# Procedures

Public Consultation – Step 4

Implementation & Monitoring – Steps 6 & 7

## Step 6

Implementation of plan depends on financial requirements and complexity (may occur as a phased approach or use of temporary measures)

## Step 7

Staff prepares annual report to council listing all traffic calming locations.



Traffic Calming Best Practices Review

Municipality	Posted Speed Limit	Transit Route	Primary EMS Route	Min. Block Length	Pedestrian/Cyclist	Road Classification	Vehicle Speed	Min. Traffic Volume	Neighbourhood Voting	Other Criteria/Comments
Hamilton, ON (2007) Population: 519,949	50km	Not permitted	Not permitted	200 metres	Presence of Sidewalk for traffic calming & Near a pedestrian generator for Traffic management	local roads and minor collectors (<5,000vpd)	85th Percentile Speed is 8kph above speed limit	Traffic Calming = 750 vpd Traffic Management = 500 vpd	70% positive response of directly affected residences & 50% of indirectly affected residences	Identifies point system (100 points max.) used as a priority ranking system
Toronto, ON (2002) Population: 2,615,060	30 kph, 40 kph	Permitted - with provision of no speed humps, and impacts to TTC routes can't be significant	Permitted - but no speed humps on primary routes, and impacts to EMS routes can't be significant	120 metres	Continuous sidewalks on at least one side of local streets, both sides of collector roads for traffic calming	Local roads and collectors	85th Percentile Speed is 10-15kph above speed limit	Local roads: Traffic calming = 1000 vpd Collectors: Traffic calming = 2500 vpd, however if 85th percentile is ≥ 15 kph, no minimum volume required	Conduct formal poll, must have 51% response rate and 60% approval from affected residences	Identifies point system (100 points max.), but does not identify point threshold required to trigger implementation.
Brampton, ON (2007) Population: 523,911	No greater than 50 kph	Permitted - but measures will not impede service access	Permitted - but measures will not impede service access	Not identified	Measures should consider, not impede, the movement of cyclists & pedestrians. Presence of pedestrian & cycling facilities for traffic calming	Local roads, 2-lane collectors	As per the point system (using the 85th percentile), 5 points are allotted for every 1 kph over the posted speed	As per the point system, 5 points allotted for every 1000 vpd	51% positive response of directly affected residents	Identifies point system (no maximum), and no point threshold required to trigger implementation.
Burlington, ON (2013) Population: 175,779	Not identified	States that draft traffic calming plans are to be reviewed by stakeholders (such as transit) and altered if they have concerns	States that draft traffic calming plans are to be reviewed by stakeholders (such as EMS) and altered if they have concerns	250 metres + (must have at least one road segment with spacing between traffic control devices of 250 metres)	Near a pedestrian or cyclist generator	Local roads and collectors	85th Percentile speed must be > 10 kph above speed limit	Local roads: 1500 vpd Collectors: 4500 vpd	50% + 1 positive response rate from total households on the street in question	Identifies point system, no maximum, no minimum threshold required to trigger implementation. Highest points = top priority project
Oakville, ON (2003) Population: 182,520	40 kph - 60 kph	Identifies consultation must occur with Transit during traffic calming projects	Permitted, however traffic calming measures should not hinder EMS service delivery (speed cushions recommended)	Not identified	Improve conditions for pedestrians & cyclists with a variety of traffic calming measures (e.g. raised crosswalk)	Local roads, minor & major collectors, and minor arterials	40 kph roads: 85th Percentile speed must be > 10 kph above speed limit, 60 kph roads: 85th Percentile speed must be > 12 kph above speed limit	Not identified	51% support required from directly affected stakeholders	Identifies 2 stage priority ranking system. Stage 1 is Vehicular Speed (max. 100 points), Stage 2 is Exposure (i.e. avg. collisions, proximity to pedestrian generator etc.) with max. 70 points
Waterloo, ON (2002) Population: 98,780	Not identified	Permitted - however on streets where traffic calming is proposed, impacts on transit can't be significant	Permitted - however on streets where traffic calming is proposed, impacts on EMS service delivery can't be significant	Not identified	Not very specific - there is mention of raised crosswalks as typical traffic calming measures, and that conflict between street users should be minimized	Local roads	85th Percentile speed is > 15 kph above speed limit	Traffic Calming = 900 vpd	40 % response rate required from affected residents, of which 60% must be in favour/support	3 Warrant criteria identified (no points used): #1: Resident survey/vote, #2: Safety Requirements (Road grade & min. impact on EMS), #3: Technical Requirements (e.g. min. speed exceedance, min. traffic volume)
Milton, ON (2011) Population: 84,362	No greater than 50 kph	Permitted - but for vertical deflection techniques - only speed cushions allowed	Permitted - but for vertical deflection techniques - only speed cushions allowed	150 metres	Traffic calming measures shall be designed to ensure pedestrian & cycling traffic is undisturbed and where appropriate, enhanced	Local, and minor & major collectors	85th Percentile speed is > 15 kph above the speed limit	500 Annual Average Daily Traffic (AADT)	51% support of directly affected households (only 1 signature on petition permitted per household)	Identifies point system (100 points max.); Point threshold to trigger implementation is: Local road = min. 35 points Collector road = min. 52 points
St. John's, NL (2011) Population: 196,966	50 kph or below	Permitted - however no vertical traffic calming measures are allowed on transit routes	Permitted - however no vertical traffic calming measures are allowed on primary EMS routes	Not identified	Measures should improve safety, and not impede movement of cyclists & pedestrians. Near pedestrian generators for traffic management	Local roads and collectors	85th Percentile speed is ≥ 5 kph above speed limit	Local roads: ≥ 900 vpd, 'Cut-through' traffic (non-local) must be ≥ 30%, Collectors: ≥ 3000 vpd	No neighbourhood voting required - formal written request initiated by public, the ntraffic review can be initiated	Initial screening process conducted, followed by a point system assessment with max. 100 points, and minimum threshold of 30 points for consideration

Traffic Calming Best Practices Review

Municipality	Posted Speed Limit	Transit Route	Primary EMS Route	Min. Block Length	Pedestrian/Cyclist	Road Classification	Vehicle Speed	Min. Traffic Volume	Neighbourhood Voting	Other Criteria/Comments
Quispamis, NB (2009) Population: 17,886	Not identified	Permitted - but measures will not impede service access (transit service is minimal anyhow - there is a shuttle to and from larger surrounding communities)	Permitted, however traffic calming measures should not hinder EMS service delivery (speed cushions recommended)	Not identified	Not very prescriptive - states that curb extensions can be used to reduce pedestrian crossing distances	Local roads	As per the point system: using the 85th percentile, speeds of 5-7 kph above speed limit is the min. requirement to get points	As per the point system: 500 average daily traffic (ADT) is the minimum	50% minimum of impacted area's residents must vote, of which 2/3 must be in favour/support	Identifies point system (max. 34 points), min. threshold trigger of 11 points. Other factors considered outside of point system include project size, cost, complexity etc.
Calgary, AB (2003) Population: 1,214,839	30 kph, 40 kph, or 50 kph	Local streets - not permitted, Low-volume collectors - permitted	Must avoid primary routes	No restrictions/ minimum length not required	Criteria includes pedestrian & cycling safety category, of which # of pedestrians, pedestrian generators and schools in area are considered	Local roads (<1500 vpd), Low-volume collectors (1500-5000 vpd), Other collectors (5000-10,000 vpd), and Major roads (>10,000 vpd)	85th Percentile speeds measured - no min. speeding above limit required to trigger implementation	As per road designation (varies) - no set minimum	No minimum, however the larger the # of signatures (on petition) from directly affected residents, the higher the chance of being a priority project	Evaluation criteria identified (max. 100 points), no minimum threshold required. Priorities are re-evaluated annually to account for traffic and road condition changes
London, ON (1998) Population: 366,151	Not identified	Not identified	Not identified	Not identified	Pedestrian generators considered in the evaluation criteria (such as schools, parks, senior's residences). Also the percentage of sidewalk in the study area plays a factor in the screening process	Not identified	More than 25% of traffic has a measured speed > posted speed limit, or, more than 40% of measured traffic volume is through traffic and total traffic is at least 75% of the design volume for the road classification;	Not identified	40% response rate needed, of which 60% support rate required from study area	Identifies screening criteria which considers four different warrants including potential for Infiltration Concerns, potential for high levels of local traffic potential for high speeds and risk of unacceptable levels of pedestrian-vehicle conflicts.
Windsor, ON (2005) Population: 210,891 or CMA - 319,246	Not identified	Permitted - however no vertical traffic calming measures (such as speed humps) are allowed on transit routes (especially on collector roads)	Permitted - however no vertical traffic calming measures (such as speed humps) are allowed on primary EMS routes (especially on collector roads)	Not identified	States that overall, pedestrian and cyclist traffic will be placed at a higher priority than that of regular vehicle traffic (to improve the safety of the streets for everyone). Specific calming measures are to be implemented to increase pedestrian and cyclist safety on a case by case basis.	Local (max. 7000 vpd), and Class I (max. 13,000 vpd) and Class II (max. 10,000 vpd) Collector roads	85th Percentile speed must be ≥ 10 kph above speed limit	Local: ≥ 3000 vpd, Collectors Class I: ≥ 9000 vpd, Class II: ≥ 6000	40% response rate needed, of which ≥ 66% signature support required from affected residents	Identifies point system with 5 different levels, each with their own min. and max. thresholds (eg. Level 1 = 21 -36 points). Associated with each level is the appropriate traffic calming measures that should be taken. Also Local roads are assessed using a separate points system from collector roads.
Kingston, ON (2012 - Revised) Population: 123,363 or CMA - 159,561										
Kingston, ON (2012 - Revised) Population: 123,363 or CMA - 159,561	50 kph or less	Permitted- the Engineering Department must monitor impact of traffic calming measures on Transit service (i.e. before and after installation)	Permitted- Engineering Department must monitor impact of traffic calming measures on EMS service (i.e. before and after installation)	Not identified	Considers pedestrian volumes and location in respect to pedestrian generator(s) in point ranking system	Local roads and collectors	As per the point system (using 85th percentile), 1 point for each km that the speed is over 45 kph, 2 pts for each km that speed is > 10 km over 45 kph.	Between 1000 vpd - 8000 vpd, however if 85th percentile is > 55 kph, no min volume required	51% response rate from residents fronting or flanking affected road, with 60% in favour/support	Identifies point system (125 points max.), but does not identify minimum point threshold required to trigger implementation.

