



City of Hamilton

Traffic Calming Policy

ACKNOWLEDGEMENTS

The source of some of the reference material contained in this manual was retrieved from the following Municipalities:

1. Canadian Guide to Traffic Calming (Second Edition) – Published jointly by the Transportation Association of Canada/Canadian Institute of Transportation Engineers
2. Town of Oakville, ON, Canada
3. City of Toronto, ON, Canada
4. City of Oakhill, Tennessee, USA
5. City of Surrey, BC, Canada
6. City of London, ON, Canada
7. Town of Milton, ON, Canada

1.0	Introduction	1
1.1	Background	1
1.2	Vision Zero	1
1.3	Traffic Calming Purpose & Goals	2
1.4	Eligible Streets	2
1.5	Advantages and Disadvantages of Traffic Calming	3
1.6	Pedestrians & Traffic Calming	3
2.0	Types of Traffic Calming	5
2.1	Passive Traffic Calming	5
2.2	Physical Traffic Calming	6
2.3	Streets That Qualify for Traffic Calming	8
3.0	Practices and Procedures Guidelines	8
4.0	Traffic Calming Process	9
4.1	Process Initiation and Pre-Screening	9
4.1.1	Traffic Calming Ineligibility Based on Pre-Screening	11
4.1.2	Community Support Survey	12
4.1.3	Measuring Community Support	12
4.2	Data Collection	12
4.2.1	Point Assessment System	13
4.2.2	Traffic Calming Design Considerations	13
4.3	Public Information Centre & Public Input Notice	14
4.4	Finalize Preferred Traffic Calming Plan	14
4.5	Resident Notification	15
4.6	Implementation of Traffic Calming Measures	15
4.7	Traffic Calming Point Assessment	16

1.0 Introduction

1.1 Background

The City of Hamilton is responsible for ensuring roadways serve the needs of all transportation users such as cars, transit, pedestrians (including those with accessibility needs), cyclists, emergency vehicles and snow removal equipment. When the rules of the road are not followed, residents may no longer feel safe walking or riding their bikes on the street. In these cases, traffic calming measures may be needed to restore the street to its intended function in the neighbourhood.

Every year the City receives numerous complaints or concerns from residents regarding speeding, traffic volumes and/or cut through traffic in residential areas. The Transportation Operations and Maintenance Division responds by investigating the extent of the issue and need for neighbourhood traffic calming measures to potentially mitigate these unfavourable conditions.

While some residents perceive they already have the solutions to traffic issues in their neighbourhood, studies across North America have shown that using the wrong tool to address a traffic issue does not solve the problem but may result in creating additional safety issues in the area. This document defines what is traffic calming and clarifies what is not traffic calming. The goal of introducing traffic calming is to create safe and attractive streets, promote walking, cycling and transit use, and improve the quality of life in residential neighbourhoods.

Temporary traffic calming measures are not part of this document. The City no longer installs temporary traffic calming measures such as rubber speed cushions on residential streets. If a location warrants traffic calming, permanent measures will be installed once funding has been allocated.

Traffic calming is a contentious subject and should be dealt with in a clear, concise and transparent process that will meet the needs and expectations of the community. This document outlines how investigations into traffic calming measures should be initiated and implemented based on the experience gained by the City of Hamilton and other North American municipalities over the last decade.

1.2 Vision Zero

Vision Zero promotes a culture shift and questions current attitudes toward road fatalities and injuries. Vision Zero states that no fatalities and serious injuries are acceptable. Achieving this aspirational goal requires shared responsibilities from road operators and users.

Vision Zero takes a Safe Systems approach to prevention. The goal of safe systems is to ensure that these mistakes do not lead to a crash; or, if a crash does occur, it is sufficiently controlled to not cause a death or a life-changing injury.



City Council adopted the following Vision Zero Principles:

- No loss of life is acceptable
- Traffic fatalities and serious injuries are preventable
- We all make mistakes
- We are all physically vulnerable when involved in motor vehicle collisions
- Eliminating fatalities and serious injuries is a shared responsibility between road users and those who design and operate roads



Vision Zero describes the end product of a safe road transport system. The system must rely on a balance between travel speeds and the inherent safety of infrastructure and vehicles.

The Safe Systems approach places the highest priority on Safe Roads, the design of the roadway. Safe roads are designed to reduce the risk of crashes occurring, and the severity of injuries if a crash does occur. Safety features are incorporated into the road design from the outset. Key elements include:

- Segregating Road Users: Separate different road users, developing and enhancing safer routes for vulnerable users.
- Segregating Traffic: Separate traffic that is moving in different directions or at different speeds – for example, by crash barriers separating opposite lanes of traffic.
- Self-explaining Roads: Designed so that the driver is aware of what is expected of them and behaves appropriately. The simplicity and consistency of the road's design reduces driver stress and driver error.
- Traffic reduction: Reduce the volume of motor vehicle traffic, for example, by encouraging greater use of safer modes of travel such as transit. Build protected safe transportation facilities that encourage the use of cycling and pedestrian modes.

Speed limits in safe systems are based on aiding crash avoidance and a human body's limit for physical trauma. If segregation of people and traffic is not possible by time or space, then appropriate speed limits are put in place to protect the most vulnerable of road users.

- Establish appropriate speed limits: These are set according to road features and function and the known physical tolerances of road users. People first streets where speeds allow for many uses/activities and are comfortable for all users.

- Enforce existing limits: Collaboration between municipalities and police services to develop and evaluate speed enforcement. Use of automated speed enforcement in conjunction with police officers and the use of speed detection devices to monitor speeds.
- Educate road users: Authorities can mount speed enforcement and education campaigns. Safe systems create risk-aware drivers through education and publicity; for example, making new drivers aware of the risks they face, and encouraging all road users to travel unimpaired, alert, at safe speeds and without distraction, complying with road rules at all times.

The City has taken a proactive approach to safe speeds through the Neighbourhood Speed Limit Reduction Program, implementing city-wide neighbourhood speed-limit reductions on local and minor collector roadways to 40 km/h and within designated school zones on local and minor collector roadways to 30 km/h within 150 meters of a school boundary.

Reducing the speed limit at schools should improve safety for pedestrians and cyclists, and thus respond to Vision Zero Principles. Safer routes to and from school also encourages a more active lifestyle by addressing some of the safety concerns that parents and caregivers have with respect to students walking/cycling to school. Traffic calming measures in School Zones are not subject to the traffic calming process identified in this document. The City can install traffic calming measures in School Zones without the petition and survey requirements identified in this document.

1.3 Traffic Calming Purpose & Goals

The overall purpose of this document is to provide a comprehensive process that addresses local neighbourhood traffic issues in Hamilton. The program is intended to restore City streets, with an identified problem, to their intended function through applicable traffic calming measures, and hence, preserve and enhance the quality of Hamilton communities.

Traffic calming may be necessary when traffic volumes, vehicle speeds and/or driver behaviour are considered to be inappropriate for the type of adjacent land uses and the pedestrian, cyclist and other activity that occurs along their streets.

The specific goals of this traffic calming practices and procedures document are to develop an integrated set of objectives and procedures that will combine to form a set of overall working guidelines that will:

- Educate residents about traffic calming so they can make more informed decisions and also understand the rationale behind the City's decision-making process
- Provide a procedure that City officials and the general public are confident is an effective and fair tool in evaluating speeding and/or traffic volume problems
- Provide a standard format for dealing in a consistent manner with complaints regarding speeding and traffic safety concerns
- Create efficiencies in responding to resident traffic concerns

- Educate residents on how to create a safe and a pleasant roadway environment for residents, motorists, cyclists and pedestrians
- Encourage public involvement in the traffic calming activities
- Educate residents on pedestrian and cyclist safety

This program will also provide the guideline, procedure and criteria for the initiation, investigation and implementation of traffic calming measures within existing residential neighbourhoods. The practices and procedures will ensure safety concerns related to speeding and excessive volume are handled in a fair, transparent and efficient manner.

1.4 Eligible Streets

Guidelines included in this program will be applied to Minor Collectors and Local Streets within residential neighbourhoods.

The practices and procedures do not apply to arterial roadways nor do they apply to anticipated future problems. This program only applies to identify operational issues within existing residential areas. While similar traffic related issues may exist on arterial roadways, the primary function of an arterial road is to move traffic efficiently to reduce the amount of traffic and speeds on lower classification streets. Therefore, traffic calming measures that may be appropriate for use on non-arterial roadways would not be suitable for use on arterial roadways.

1.5 Advantages and Disadvantages of Traffic Calming

Traffic calming, if used properly, will address identified operational traffic issues. It often also introduces some disadvantages to a residential neighbourhood that will impact area residents after the project is complete. Listed below are some of the advantages and disadvantages created or caused by traffic calming measures:

Advantages

- Reduced vehicle speeds
- Reduced traffic volumes
- Reduced number of cut through vehicles (motorists traversing a residential neighbourhood with no local destination)
- Improved neighborhood safety, especially for pedestrians and cyclists
- Reduced conflicts between roadway users
- Increase compliance with regulatory signs

Disadvantages

- May make it more difficult to get into and out of a neighbourhood every day
- Potential increase in emergency vehicle response time, although all traffic calming plans are reviewed to ensure there is no negative impact on emergency services
- May result in expensive solutions (time and resources)
- May shift or divert traffic onto other neighbouring streets

- Increased maintenance time and costs
- Adds visually unattractive warning signs to a residential area
- May create dissention in neighbourhood with strong 'for and against' traffic calming opinions

1.6 Pedestrians & Traffic Calming

The principal purpose to reducing the speed of traffic in residential areas is to protect all vulnerable road users, such as pedestrians. Copied below is an excerpt from the Ontario Traffic Manual Book 15 - Pedestrian Crossing Treatments:

Pedestrians' Rights and Responsibilities

Notwithstanding the distinction between controlled and uncontrolled crossings, the rights and responsibilities for pedestrians are recognized in the Highway Traffic Act:

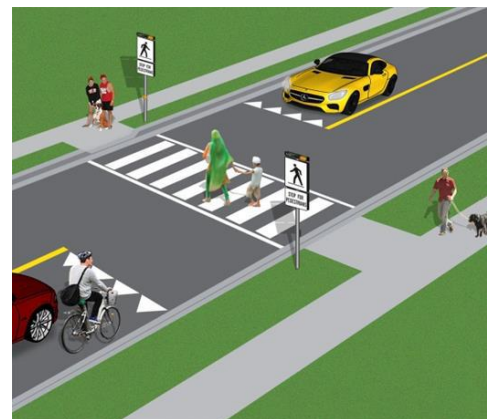
1. In the absence of statutory provisions or bylaw, a pedestrian is not confined to a street crossing or intersection and is entitled to cross at any point, although greater care may then be required of him or her in crossing. However, pedestrians crossing the highway must look to ensure the crossing can be made safely or possibly be held responsible for any ensuing collision.

2. Pedestrians must exercise due care even when they are lawfully within a crossing and have right-of-way. It is not an absolute right and they must still exercise care to avoid a collision with a vehicle.

3. If there is a crosswalk at a signalized intersection, pedestrians have to walk within the crosswalk

The above excerpt is stating whenever a pedestrian crosses a road they have a duty of care to themselves to cross when it is safe. It is important to remember under the Highway Traffic Act motor vehicles are only required to stop or yield to pedestrians at a controlled crossing such as traffic signals or pedestrian signals. At all uncontrolled crossings pedestrians must wait for a safe gap in traffic sufficient for them to cross before entering the road.

On January 1, 2016, Bill 31, the Transportation Statute Law Amendment Act (Making Ontario's Roads Safer) took effect. The amendment to the HTA allows for new pedestrian crossing devices for low-speed and low-volume roads. The Province introduced four new pedestrian crossover (PXO) types. The new crossing treatment will allow pedestrians to cross with the right-of-way under a greater number of conditions than before and will provide municipalities with additional solutions to increase pedestrian safety.



The new PXOs are a defined set of roadside signs and road pavement markings which form a new passive treatment to provide pedestrians the right-of-way when crossing the roadway where the treatment is installed.

When an area is studied for traffic calming, pedestrian crossing points are primary focus points where slowing traffic is particularly important. The installation of traffic calming measures such as speed cushions, raised crosswalks, raised intersections, or curb extensions do not change the rules of the Highway Traffic Act: however, pedestrians must still cross the road responsibly.

2.0 Types of Traffic Calming

Traffic calming for the purpose of this program is broken into two categories:

- i. Passive: Speed and display boards, on street parking, road line markings and/or signage.
- ii. Physical: i.e. Intrusive treatments that modify the shape and/or form of the roadway forcing drivers to slow down.

2.1 Passive Traffic Calming

Passive traffic calming treatments are simple modifications in comparison to physical treatments. Passive modifications are intended to visually reduce effective lane widths for a motorist and, in most circumstances, re-allocate some of road space to cyclists and on-street parking. These treatments have proven to be capable of reducing 85th percentile operating speeds by up to 5 km/h in Hamilton and other municipalities.

Passive treatments are implemented on a proactive and reactive basis and are typically applied uniformly over the entire road section, unlike physical treatments which are best described as spot treatments. The modifications associated with passive calming treatments are typically well received by the public.

2.2 Physical Traffic Calming

Physical traffic calming can be broken down into three categories: vertical deflections, horizontal deflections and physical obstructions.

Vertical traffic calming measures provide an obstruction that vehicles are able to travel over. The change in pavement height (and sometimes pavement materials) can cause discomfort to the occupants of vehicles that are exceeding the design speed of the traffic calming measure.

Horizontal traffic calming tries to prevent vehicles from traveling in a straight line at excessive speeds by using measures such as raised islands and curb extensions.

Physical obstructions involve a full or partial closure of the road.

Examples of passive and physical traffic calming techniques are listed in Table 1. Appendix A provides a more detailed explanation of the traffic calming devices listed below, including the advantages and disadvantages.

Table 1- Applicability of Traffic Calming Measures

Measure may be Applicable on:			
Traffic Calming Technique	Road Classification		Other Considerations
	Local Road	Minor Collector	Transit Route
Passive and Mitigating Measures			
Education	Yes	Yes	Yes
Community Entrance Sign	Yes	Yes	Yes
Targeted Enforcement	Yes	Yes	Yes
Speed Display	Yes	Yes	Yes
On-street Parking	Yes	Yes	Yes
Road Diet	Yes	Yes	Yes
Physical Vertical Deflection			
Speed Cushion	Yes	Yes	Yes
Raised Intersection	Yes	Yes	Yes
Raised Crosswalk	Yes	Yes	Yes
Speed Table	Yes	Yes	Yes
Physical Horizontal Deflection			
Curb Extension	Yes	Yes	Yes
Curb Radius Reduction	Yes	Yes	No
Neighbourhood Traffic Circle	Yes	Yes	No
Centre Island Median	Yes	Yes	Yes
One-Lane Chicane	Yes	Yes	No
Lateral Shift	Yes	Yes	Yes
Roundabout	Yes	Yes	Yes
Physical Obstruction			
Directional Closure	Yes	Yes	No
Raised Median Through Intersection	Yes	Yes	Yes
Right-In/Right-Out Island	Yes	Yes	No

Intersection Channelization	Yes	Yes	Yes
Diverter	Yes	No	No

2.3 Streets That Qualify for Traffic Calming

Traffic calming will only be considered on local and collector “neighbourhood” streets roads and not on arterial roadways in the city. Through application of this program and by applying good engineering judgment, traffic calming measures, when deemed prudent, will be installed in a manner that will ensure they provide the most effective solutions while continuing to support the intended function of the roadway. For example, to ensure that transit service remains efficient on collector routes, curb radius reduction would not be recommended at locations where transit vehicles must turn right since curb radius reductions significantly impede the turning of larger transit vehicles.

Local Roads

The primary function of Local Roads is to provide access to adjacent properties. Local roads are not intended for use as through routes or as important links to move traffic within an area’s overall road network. An acceptable volume of traffic for a local road is up to 1,500 vehicles a day.

Minor and Major Collectors

Minor and Major Collectors typically carry traffic volume between 5,000 and 15,000 vehicles per day. These streets help circulate traffic within individual neighbourhoods, and link smaller local roadways to the larger road network but are relatively short as compared to arterial roadways which may extend from one side of the city to the other. Primary collector roads carry traffic in larger neighbourhoods, distribute traffic between local road, secondary collector roads, and arterial roads, as well as connect between arterial roadways. Many neighbourhood collector roads may also carry transit.

3.0 Practices and Procedures Guidelines

The following guidelines will be considered when investigating, selecting and implementing traffic calming measures. These guidelines will ensure that the appropriate measures are considered, and the potential negative impacts are minimized. Following these guidelines will maximize the effectiveness of traffic calming while building community acceptance and support for the final recommendations.

Traffic calming measures will:

- Be considered when there is a demonstrated safety, speed or short-cutting traffic concern and acceptable alternative measures have been exhausted

- Include consideration as to whether an area-wide plan versus a street-specific plan is more suitable: an area wide plan should be considered if a street-specific plan would likely result in displacement of traffic onto adjacent streets
- Be predominantly restricted to two lane roadways or less (one lane of through traffic in each direction) and a posted speed limit no greater than 50 km/h
- Not impede non-motorized, active modes of transportation and be designed to ensure pedestrian and cycling traffic is unaffected
- Not unduly impede emergency, maintenance, operations and transit services access unless alternate measures are agreed upon
- Maintain reasonable automobile access to City roads
- Only be installed after Transportation Operations and Maintenance staff has investigated existing traffic conditions and the necessary approvals have been received

The design of traffic calming measures will be in accordance with applicable Ontario Traffic Manual guidelines, Manual of Uniform Traffic Control Devices and Traffic Calming Guidelines published by TAC/CITE.

4.0 Traffic Calming Process

The following process will be used when proceeding with a request for traffic calming. An established and formal process for investigating roads provides consistency and equality in the determination of whether traffic calming is warranted in a given location. The process is identified below and illustrated in the flow chart shown in Figure 1.

Step 1: Request for traffic calming received by staff, notify Councillor

Step 2: Pre-screen requested location

Step 3: Conduct community support survey (majority vote of 50% plus one required to continue process)

Step 4: Detailed investigation and point assessment

Step 5: If location meets minimum point threshold for traffic calming consideration, add location to Traffic Calming Priority List

Step 6: Public consultation

Step 7: Draft Plan

Step 8: Notify residents and Councillor for consideration of alternatives

Step 9: Add to construction schedule for permanent installation

4.1 Process Initiation and Pre-Screening

Residents with traffic related concerns are instructed to submit their written request to investigate traffic calming within their neighbourhood to the City. Staff will then conduct a brief

preliminary assessment to determine if the requested roadway meets the Initial Screening Criteria, shown in Table 2.

Figure 1 – Traffic Calming Process

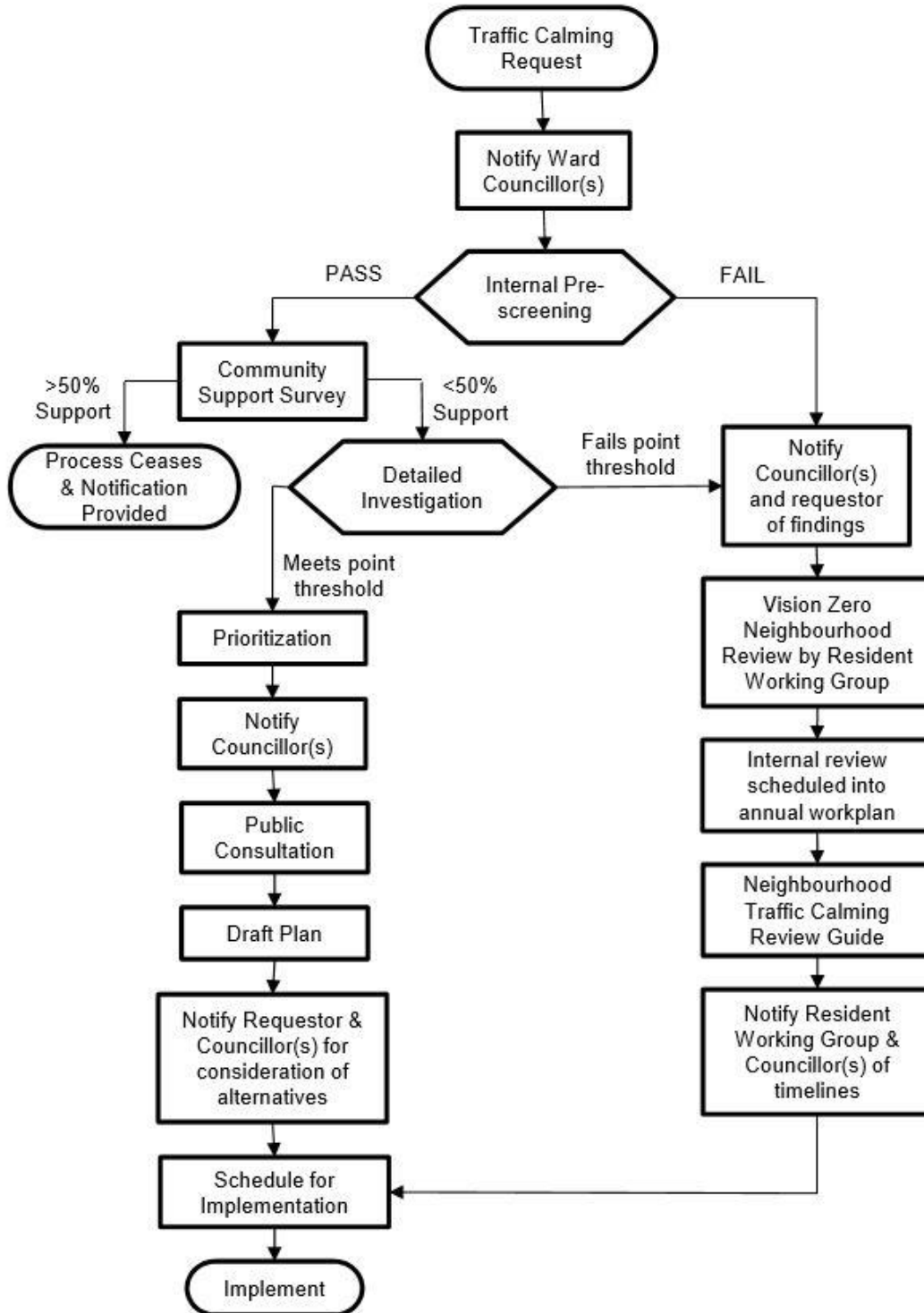


Table 2 – Traffic Calming Pre-Screening Process

Completed during initial contact / review

1. Is the road a local or collector road with no more than two travel lanes?	PASS	FAIL
2. Is the average daily traffic volume estimated to be more than 500 vehicles per day? (>500 = PASS, <500 = FAIL)	PASS	FAIL
3. Is the posted speed limit equal to or lower than 50 km/h?	PASS	FAIL
4. Is the adjacent land uses primarily residential?	PASS	FAIL
5. Does the street provide an obvious bypass to a major intersection?	PASS	FAIL
6. Is the road longer than 300 metres?	PASS	FAIL
7. Have no previous assessments occurred within the past 36 months?	PASS	FAIL
8. The road is not scheduled for a capital project within the next 36 months through which traffic issues can be addressed?	PASS	FAIL

If the road in question fails any of the eight (8) areas listed in the pre-screening it does not qualify for traffic calming, and the process does not continue forward.

It should be noted that School Zones are excluded from the traffic calming process identified in this document. In School Zones where traffic concerns have been legitimized by staff, the formal traffic calming process may be foregone to immediately address safety concerns through the installation of traffic calming measures when appropriate.

4.1.1 Traffic Calming Ineligibility based on Pre-Screening

For locations not meeting the above-noted initial screening criteria, staff will consider passive traffic calming measures to address the neighbourhood traffic concerns. These methods could include tools such as the use of driver feedback boards, targeted police enforcement, sign installation and pavement marking modifications.

Passive measures very rarely require public involvement such as surveys and public meetings. However, they may require monitoring and evaluation to assess their effectiveness. Details regarding passive measures are provided in Appendix ‘A’.

4.1.2 Community Support Survey

A survey will be delivered by mail to residents who live on the street being studied and at a minimum, will contain:

- A brief description of traffic calming, including its advantages and disadvantages
- A map detailing the study area
- A survey question asking if residents are in favour or opposed to the implementation of traffic calming measures on their street
- A request for comments and feedback

4.1.3 Measuring Community Support

In order for the process to continue, a majority (minimum of 50% + one) of total surveys delivered must be returned to the City indicating they are in support of traffic calming on their street. This required level of support reinforces that community support is vital for the ultimate success of traffic calming.

If this support rate is not met, the process will cease and a notification of failure to meet the community support levels will be sent to the residents on the mailing list.

4.2 Data Collection

Once a successful petition is received, and it was established that there is support for traffic calming, the collection of data is scheduled based on a priority list. The City shall collect information and data along roadway(s) in the project as deemed necessary by Transportation Operations and Maintenance staff to qualify and quantify the extent of the local traffic problem. The data collection may include any of the following:

- Vehicle volume count to determine 24-hour traffic
- Speed study to determine existing speed data
- Classification count to determine heavy vehicle traffic
- Collision data for the most recent three (3) years
- Study to quantify cut-through traffic, if necessary
- Existing roadway conditions (e.g. pavement condition, signing, marking)
- Pedestrian activity
- Presence of sidewalks on one or both sides of the road
- Presence of special pedestrian generators such as schools, seniors' homes, playgrounds, etc. in the area
- History of traffic operations for the area within last 5 years

A review of the data will be completed using recognized engineering standards. Once collected and summarized, the data will be utilized in the point assessment system to determine a total point value. This assessment will be used to determine the need for traffic calming and assist in setting priority for locations of consideration.

4.2.1 Point Assessment System

The point assessment system is a screening process focused on the various attributes of a roadway to quantify its potential need for traffic calming. By means of assigning weighted points based on the severity of certain road attributes (e.g. 85th percentile speed), this process will bring to the forefront roadways requiring consideration while quantifying the current conditions. A point assessment system is provided in Appendix 'C'.

The point assessment system will also be used to prioritize locations for consideration. Those locations with an extremely high point assessment will be given priority based on the quantitative nature of the point assessment system. Depending on funding availability, locations will be selected based on the point system with those locations with the highest points constructed first. If funding does not permit all locations to be constructed in one year, roadways will be carried forward to the next year when they will then be re-prioritized to include any new locations.

The point assessment establishes minimums to ensure the appropriate application of traffic calming. The minimums consider that traffic calming often creates challenges for road operations such as winter plowing, influences emergency services response times and service level, can be followed with resident dissatisfaction and incurs capital and ongoing operating costs. Additionally, the impact of new traffic calming devices is minimized if the current traffic conditions on a street are not excessive. The minimum number of points required to proceed with the investigation of traffic calming measures differs based on the classification of roadway. In keeping with the objective of restoring roadways to their intended function, local and collector roadways are designed and expected to convey varying levels of traffic volume. This, in turn, has a bearing on the minimum point value required to proceed, as traffic volume is a major consideration. Based on this, the following are minimum point values for each road type:

Local roads minimum: **35 points**

Collector roads minimum: **52 points**

Should a location fail to meet these requirements, residents will be notified in writing and the investigation for traffic calming measures will discontinue. As with locations not meeting the initial pre-screening criteria in Section 4.1, passive traffic calming measures may be considered by staff on streets not meeting the minimum point requirements.

4.2.2 Traffic Calming Design Considerations

The data collected combined with site visits, historical information, future maintenance and construction plans, as well as resident feedback will be taken into consideration to determine potential traffic calming measures.

Appropriate traffic calming measures will be determined based on the list of traffic calming measures. The traffic calming design could include one or more different types of traffic calming techniques. The proposed traffic calming measures will be in accordance with the design Guidelines found in the City of Hamilton Standards Document, The Canadian Guide to

Neighbourhood Traffic Calming, Ontario Traffic Manuals, Manual of Uniform Traffic Control Devices and engineering judgement.

The preferred design will first be presented to emergency, transit and/or roadside operations services. It will then be presented at a public meeting. After any required modifications to the preferred design as a result of public input, a traffic calming survey will be delivered to affected residents.

In some instances, installing traffic calming measures on a local street may have a negative impact on adjacent streets within the neighbourhood. If staff believe that the installation of traffic calming measures will have an adverse effect on traffic volumes and speeds on surrounding streets, staff will send an additional survey to affected residents to gauge support of a review on the impacted streets, rather than solely on one street.

A majority (minimum of 50% + one) of total surveys delivered to the community must be returned to the City indicating they are in support of traffic calming on the streets identified by staff.

If this support rate is not met, the process will continue solely on the street(s) voting in favour of traffic calming. Streets not in favour of traffic calming will not be considered for traffic calming for a period of 36 months.

4.3 Public Information Centre & Public Input Notice

Staff may host a Public Information Centre (PIC) to present the purpose, objectives and implementation process of traffic calming in general. The PIC notice will be circulated to all residents who have direct frontage or flankage of the street in question. Staff will then present and explain the rationale behind the specific preferred traffic calming design. The public meeting will provide residents with an opportunity to become involved in the process, learn more about the proposed traffic calming treatment(s) and to provide their feedback. Each plan will include a procedure to communicate with and engage the neighbourhood, in keeping with the Council Policy on Community Engagement and its principles.

4.4 Finalize Preferred Traffic Calming Plan

Using technical data, community feedback, and in keeping with the goals, objectives and principles set out in this document, staff will finalize the preferred traffic calming design to be put forward as the recommended preferred traffic calming plan. In finalizing the preferred traffic calming plan, general consideration will be given to the various aspects of road design such as utility placement, landscaping, sign requirement and drainage.

If, during the detailed design stage, limitations are identified which challenge the feasibility of the plan, alternatives will need to be considered. This may include alterations or a re-development of the preferred plan. If significant or major changes to the plan are required due to design constraints, agencies and residents on the mailing list will be consulted and notified of any changes. If staff believe that the required modifications to create the detailed design result in a significantly different final design from that which was presented to residents as part of the

survey, staff may recommend additional agency consultation, another survey and/or public meeting.

4.5 Resident Notification

Residents will be notified that traffic calming has been either approved or not approved by the City on the subject roadway. The notice will be sent to the same mailing list used to deliver the traffic calming survey and any other persons having requested notification throughout the process.

4.6 Implementation of Traffic Calming Measures

Upon approval and sufficient funding, traffic calming measures will be implemented. Residents will be notified of implementation timelines through the contact mailing list. Where feasible, staff may decide it is beneficial to phase in the traffic calming plan through the use of temporary or removable traffic calming measures such as pavement markings. This will allow time to examine the impact of the measures and their effectiveness before committing funding to permanent treatments.

4.7 Traffic Calming Point Assessment

TRAFFIC CALMING POINT ASSESSMENT				
Location:			Date Compiled:	
Roadway Type:		<input type="checkbox"/> Local	<input type="checkbox"/> Collector	
Traffic Data				
	Feature	Range	Criteria	Total
1a	Speed	0 to 35	5 points for every 2 km/h that the 85 th percentile speed is greater than 7 km/h above the speed limit	
1b	High Speed	0 to 5	5 points if minimum of 5% of daily traffic exceeds posted speed by 15-20 km/hr	
2	Volume	0 to 20	Local Roadways: 5 points for every 750 ADT Collector Roadways: 5 points for every 2,500 ADT	
3	Short-Cutting Traffic	0 to 15	5 points if there is a presence of 25% or more short-cutting traffic, additional 5 points for every 10% increment above 25%	
4	Collisions	0 to 10	1 point for every collision resulting in an injury/year over a three-year period 2 points for every collision involving a pedestrian or cyclist	
Road Characteristics				
5	Sidewalks	0 to 10	10 points for no sidewalks with evidence of pedestrian activity, 5 points for sidewalks on only one side, 0 points for sidewalks on both sides	
6	Pedestrian Generators	0 to 15	5 points for each pedestrian generator such as a school, playground, community centre, libraries, retail centres, etc. on street segment	
Total				
Note: In Section 1a, points are awarded beginning at 48 km/h on a 40 km/h roadway, and at 58 km/h on a 50 km/h roadway				
Does the location meet the minimum requirements?				
<ul style="list-style-type: none"> • Local roadway = minimum 35 points • Collector roadway = minimum 52 points 			<input type="checkbox"/> YES	<input type="checkbox"/> NO