Appendix I – Traffic Calming Policy

City of Woodstock

Traffic Calming Policy

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RC SPENCER ASSOCIATES INC.
Consulting Engineers

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1.0 Introduction

The City of Woodstock (the City) is committed to building a safe and efficient roadway system for all modes of transportation within its road allowance; to achieve that, a traffic calming policy is needed. When applied appropriately, traffic calming measures can positively impact travel speeds, traffic volumes, and overall road safety; they are also needed to restore the roadway to its intended function and to ensure that the "rules of the road" are followed. Traffic calming measures are specifically intended to make area residents feel safe when walking or cycling through local neighbourhoods; they can also aide in enhancing a community's identity. However, to ensure the success of traffic calming measures, the community also has a responsibility to practice safe driving habits such as staying focused, obeying the speed limit, and acting as roadway role models to make the streets safe for everyone and calm traffic.

1.1 Background

The City of Woodstock's Engineering and Public Works Department receives numerous concerns each year regarding speeding, poor sight lines, excessive volumes, and overall neighbourhood safety. When establishing speed limits, the 85th percentile speed is typically considered; this is the speed at or below the travel speed that 85% of motorists are travelling. Speeding is typically considered "problematic" when the 85th percentile speed is greater than 10 km/h over the posted speed limit. To address these concerns, the City has prepared a comprehensive and consistent policy approach to formally address traffic related concerns from the public; this policy outlines the prerequisites, process, and criteria to consider when traffic calming concerns are voiced by residents within the City.

It should be noted that this policy only applies to City of Woodstock roads and the roads that fall within the jurisdiction of Oxford County are not covered under this policy.

1.2 Purpose and Scope

The purpose of this policy is to provide a systemic procedure for the initiation, investigation, and implementation of traffic calming measures for existing and future roadways within the City of Woodstock. Under this policy, the ideal resolution for traffic calming is to reduce high traffic speeds within residential neighbourhoods and to improve safety for pedestrians, cyclists, and area residents. This policy references current literature from the Transportation Association of Canada (TAC): the **Canadian Guide to Traffic Calming** (2018) and **Geometric Design Guide for Canadian Roads** (2017); this policy also considers "Woodstock-specific" conditions that have been identified by the City. It should be reviewed and updated by City Staff a minimum of once every 5 years to comply with the most current literature and policy documents.

It should be emphasized that this policy document is intended to serve as guideline; other technical / policy guidance should also be referenced in conjunction with sound engineering judgement. These guidelines are not (and should not be interpreted as) comprehensive street design guidelines. The details of any traffic calming design must comply with all relevant City of Woodstock design and construction standards / specifications. As per Ontario Traffic Manual (OTM) Book 5, stop signs are not intended to be used as speed control devices and are not considered as a traffic calming measure. Unwarranted stop signs result in non-compliance and may increase the number of accidents due to drivers ignoring the signs. Therefore, it is essential to pick the appropriate traffic calming measure as the application of a wrong measure can result in increased speeding concerns and accidents.

This document provides design guidance via typical applications / configurations and refers to existing standards (where applicable). This policy also ensures that there is a formal process and defined screening criteria by which all traffic calming requests can be evaluated.

1.3 What is Traffic Calming?

According to the TAC, traffic calming is generally defined as the combination of mainly physical measures which reduce the negative effects of motor vehicle use, alter driver behaviour, and improve conditions for non-motorized street users. Traffic calming can be an effective tool to combat issues related to vehicle speed, unsafe behaviours of drivers, and overall neighbourhood safety; it uses geometric design and other physical measures to improve the safety for motorists, pedestrians, and cyclists. Traffic calming is designed to encourage safe, responsible driving, improve the quality of life of residents / non-motorized street users, and reduce the overall motor vehicle volumes.

Overall, traffic calming aims to improve the active transportation conditions of a community by implementing proven methods that reduce a roadway's overall traffic speeds and volumes. Engineering, education, and enforcement are the three main approaches used to change drivers' behaviour and improve road safety and the liveability of neighbourhoods.

1.4 Goals and Objectives

The fundamental goal of all traffic calming strategies is to make streets slower in support of their intended purpose, thereby preserving and enhancing the quality of individual communities. To address undesirable traffic conditions (such as poor sight lines, speeding and excessive volumes on local and collector roads), traffic calming initiatives aim to:

I. **Increase the Safety of Neighbourhoods**
   Excessive traffic volume and speeding in residential roads is the basis for many concerns

received from residents. Applying physical measures can alter driver behaviour and can lead to risk reduction of collisions and injuries, thereby improving the safety of neighbourhood streets and urban communities. Reduction in volume and speed typically foster a safe environment for all residents, including cyclists, children, disabled persons, and seniors.

II. **Improve the Livability of Neighbourhoods**

Traffic calming is intended to uphold / restore the livability and sense of community within neighbourhoods. By minimizing the volume and speed of through traffic, negative impacts (such as excessive noise, air pollution, visual intrusion, and potential safety hazards) are minimized. Furthermore, when attractively designed, traffic calming can enhance the aesthetics of a neighbourhood and improve streetscapes. Residents typically report feeling safer when traffic calming efforts minimize the speed and volume of through traffic.

III. **Restore Streets to the Intended Function**

Local roadways are intended to accommodate low to moderate volumes of traffic which travel at low speeds in / out of neighbourhoods via the area's collector road system. Local roadways provide direct vehicle access to residences that typically front onto these roads; therefore, since local roadways are purposed for "high accessibility" and "low mobility", through traffic should be discouraged from utilizing local roadways. The City's collector roads are specifically intended to provide linkages between local roadways and major collector / arterial roadways.

IV. **Encourage Active Transportation via Infrastructure Safety Modifications**

Traffic calming measures incorporate the preferences and requirements of typical active transportation users along the corridors (or at intersections). Traffic calming results in safe and attractive streets for increased pedestrian / cyclist use.

V. **Maintain Access Routes & Minimize Impact to Emergency, Maintenance, and Transit Services** Potential impacts to emergency, maintenance, and transit services were considered in the development of this policy. The needs of these services should be balanced against the need to slow and / or reduce traffic. Furthermore, this policy outlines the process through which all potentially impacted services will have the opportunity to comment on any proposed plans before implementation.

VI. **Promote Public Participation and Community Support**

Traffic calming measures directly impact neighbourhoods and their residents. Therefore, resident communication and feedback is of the utmost importance, as it leads to appropriate solutions when attempting to solve neighbourhood-specific traffic issues. Community involvement also provides staff with the opportunity to explain the benefits of traffic calming

to residents (while also deterring them from less effective countermeasures such as all-way stops).

1.5 Traffic Calming Advantages and Disadvantages

The main advantages and disadvantages of traffic calming measures are outlined as follows:

Advantages	Disadvantages
• Reduce motor vehicle speeds. • Reduce traffic volume. • Discourage through traffic. • Improve overall road safety. • Improve neighbourhood livability and quality of life for residents. • Reduce conflicts between users. • Increase compliance with signage. • Bring awareness of a neighbourhood community to motorists passing through.	• Increase emergency response times. • Reduce ease of access to / from area neighbourhoods. • Often result in expensive solutions (i.e. time and resources). • Direct traffic onto other roads. • Increase maintenance time and costs (i.e. snow clearing, garbage pickup). • May be visually unattractive measures. • May increase sign pollution. • May increase disregard for rules of the road and other traffic infrastructure.

1.6 Additional Considerations

The implementation of permanent engineered traffic calming measures can be costly and difficult to modify. Therefore, several topics must be discussed prior to implementing a traffic calming measure, particularly if existing policies or standards may preclude or contradict the proposed initiatives.

1.6.1 Potential Liability

Municipal decision-makers are often concerned by potential liabilities that may result from the introduction of traffic calming measures on public roadways under their jurisdiction. Although these concerns continue to be voiced, experience has proven that the most effective means of mitigating the risk of litigation is to establish and follow a set procedure / policy document. Policy documents should include an approval guide, defined process, design guideline / standards, a uniform approach to signing and marking roadway environments, and a prudent maintenance program that addresses the additional attention required when operating in traffic-calmed areas. Although the applied procedures and / or policy document may not completely eliminate potential liability exposure, it is believed that the benefits associated with traffic calming far outweigh the risks involved. It should also be noted that the City may be held liable due to their inaction, particularly if procedures, policies, and/or reports conclude that traffic calming measures are warranted within a community.

1.6.2 Accessibility

The design of traffic calming measures needs to consider the accessibility of road users of all ages and abilities (AAA); the designs should not impede or negatively impact users' independence or safety. Pedestrians-specific features should provide a path that is barrier-free and designed to address a range of capabilities (as exhibited by the individuals that might use them).

1.6.3 Enforcement

Constantly enforcing speed limits and other traffic regulations via police patrol can be challenging and costly; however, some traffic calming measures can reduce the need for police enforcement. Measures that calm traffic through vertical deflection (e.g. speed humps, raised crosswalks) and horizontal deflection (e.g. curb extensions, raised median islands) are considered self enforcing and do not require police presence to be effective.

1.6.4 Emergency Services

When traffic calming has the potential to slow down motor vehicle traffic, it can also affect emergency service response times. Traffic calming designs have progressed in mitigating impacts to emergency service vehicles; however, prior to implementation, the proposed traffic calming measures should be evaluated with respect to the City's emergency response times (and equipment) to ensure that the recommended changes are compatible with efficiencies required by emergency services.

1.6.5 Maintenance and Operations

Consultation with operations and maintenance staff is recommended to ensure that traffic calming measures do not conflict with general road maintenance operations. Traffic calming measures mainly impact maintenance needs and costs, which must be considered in addition to the upfront capital costs. Snow clearing, street sweeping, drainage, and infrastructure damage are common concerns expressed by operations and maintenance personnel.

1.6.6 Modes of Transportation

Since traffic calming is intended to enhance the safety of all right-of-way users, active transportation must be considered before traffic calming measures are applied. For example, any traffic calming measure implemented on a transit or cycling route must accommodate these transportation modes.

1.6.7 City's Land Use and Transportation Plans

Traffic calming policies and the implementation of traffic calming measures should be incorporated into other short-term and long-term plans to ensure uniformity across the entire City.

1.6.8 Provincial Legislation / Municipal By-Laws

The implementation of traffic calming in a community may be impacted by existing legislation and / or by-laws. While the City has no control over provincial legislation, slight modifications to by-laws may be required to ensure that the respective traffic calming treatments are appropriate.

2.0 Traffic Calming Measures

There are two main categories of traffic calming measures: physical and non-physical. These categories are explained in the subsequent sections.

2.1 Physical Measures

Physical traffic calming measures are classified as "speed control" or "volume control" measures. Physical measures are also known as "engineering measures" and involve physically altering the road layout / appearance to reduce traffic speeds actively or passively. These include:

- Raised Crosswalks
- Raised Intersections
- Speed Cushions
- Roundabouts / Traffic Circles
- Curb Extensions
- On-Street Parking Spaces

- Speed Humps
- Speed Tables
- Flexible Bollards
- Raised Median Islands
- Road Diets
- Textured Crosswalks

For specifics on each physical traffic calming measure and its respective advantages / disadvantages, please refer to **Appendix A**. Preference should be given to the City preferred measures marked in **Appendix A**, however, if they are not feasible other traffic calming measures included in the list should be considered.

2.2 Non-Physical Measures

Most non-physical traffic calming methods are intended to visually reduce the effective lane width for a vehicle operator, consecutively reducing the comfortable operating speed; they are usually implemented through enforcement, signage, and pavement markings:

- Pavement Marking Legends
- Speed Enforcements
- Speed Display Devices
- Targeted Education Programs

2.3 Additional Measures

Apart from the main traffic calming measures listed above, to facilitate safer communities, there are some additional traffic calming initiatives that can be considered:

2.3.1 Community Based Initiatives

Community based traffic calming initiatives are tools and programs that residents can implement with support from the City. This approach reflects the desire by some residents, community groups, and other stakeholders to address concerns in areas where City-led interventions are not yet planned or committed. Some examples include:

- Road Safety Lawn Sign Program: Residents can encourage safe driving on their street by picking up a “Slow Down” lawn sign. These can provide visual cues for drivers to check their speed, to

slow down, and to be on the lookout for other road users while driving in a residential neighbourhood. An example of a lawn sign[1] is shown in **Figure 1**.

- Community Pace Car Program: Drivers in the City can get a rear window decal or trunk magnet (displaying the Community Pace Car logo) from the City's office to encourage safer driving throughout the City. This can show the commitment of drivers to drive at or below the speed limit, to follow the rules of the road, and to be courteous / cautious around pedestrians and cyclists. An example of a pace car logo[2] is shown in **Figure 2**.
- Speed Watch Program: This initiative gives residents and visitors the opportunity to report dangerous and aggressive drivers to the police. It is usually operated by the City's police department, and Citizen Report Forms can be picked up from the stations or obtained online. It helps the police as residents can report when speeding is getting worse.

Figure 1 Lawn Sign Used by the City of Mississauga[1]

Figure 2 Pace Car Logo used by the Town of Cochrane in Alberta[2]

2.3.2 Community Safety Zones

A Community Safety Zone (CSZ) is a distinct regulatory tool used to remind motorists that they are driving in an area with higher volumes of pedestrians and vulnerable road users. Schools, daycares, playgrounds, parks, and hospitals are some typical examples of locations where safety is a special concern. Community Safety Zones help to modify driver behavior, to reduce speed, and to discourage distracted driving. The rules of the road don't change within these zones, but the penalties for violations are increased. Under the *Highway Traffic Act*, within Community Safety Zones, many set fines are doubled (such as speeding and traffic signal-related offences).

[1] 'Slow Down' lawn signs – City of Mississauga
[2] Cochrane neighbourhood launches pace car program to slow down speeding drivers | CBC News

With the support of City Council, a Community Safety Zone can be implemented through a by-law amendment. “Community Safety Zone” signs are installed to define the legal limits of the zone as prescribed in municipal by-law or regulation. The designation does not take effect until the required signs are installed. Signs are installed at the beginning and end of the zone, as well as within the zone (depending on its length). All zones have designated times and days defining the period when increased fines are in effect; however, these times / days / months do not have to appear on the signs.

The City currently has School Zones where speed limit is lowered to 40 km/h and no stopping is allowed along frontage of schools.

3.0 Traffic Calming Policy

3.1 Consideration for Traffic Calming

Traffic calming measures should only be considered under the following circumstances:

I. When there is a demonstrated concern regarding safety, speed (85^{th} % > 10 km/h over speed limit), or short-cutting traffic, and all acceptable alternative measures have been exhausted.

II. When education and enforcement efforts have failed to produce the desired results.

III. When an area-wide plan has been considered (versus a street-specific plan); an area-wide plan should be considered if a street-specific plan would likely result in rerouting of traffic onto adjacent streets.

IV. When limited to a two-lane roadway (with one lane of through traffic in each direction).

V. When countermeasures do not impede non-motorized (alternative) modes of transportation.

VI. When countermeasures do not impede emergency, maintenance, and transit services access (unless alternate measures have been agreed upon).

VII. When reasonable automobile access is maintained to / from city roads.

VIII. When parking needs of residents are balanced with the equally important functions of traffic, emergency vehicle access, transit, and active transportation; parking removal can be considered on a project-by-project basis, but on-street parking does offer a traffic calming benefit.

IX. When staff has investigated existing traffic conditions (and when the necessary approvals have been received to proceed with implementation).

X. When a monitoring plan has been established; follow-up studies should be conducted to assess effectiveness, with the results communicated to the community and Council.

3.2 Municipal Administration Involvement

Broader administration (public works, emergency services, etc.) should be consulted in each application. However, following internal circulation of the proposal and consideration of the resulting commentary, any final decisions should be made at the discretion of Engineering Department. Monitoring and follow-up studies should be completed to evaluate effectiveness of the prescribed treatment. Ideally, a before / after study should be undertaken to quantify and qualify the results.

3.3 Community Involvement

To achieve the goals of restoring neighbourhoods to their intended function and improving overall livability, community involvement (and support) is of the utmost importance. Throughout the process, residents are encouraged to participate in the development of the neighbourhood traffic calming plan. Lines of communication should be established at various stages throughout the process; traffic calming measures should be developed with an understanding of current and historical traffic patterns within the area under investigation. To ensure the success of a traffic calming plan, the community must support and be committed to the proposed solution. To establish commitments, the residents should be involved and informed of the considered traffic calming study location.

Community involvement is beneficial because it generates support for a traffic calming program and assists in the implementation of a plan; it also deters significant opposition upon a project's completion. Finally, community involvement is essential when establishing credibility of a program, especially when it is presented to Council for approval.

The success of any traffic calming endeavor is typically determined by neighbourhood support, enforcement, education of motorists, bicyclists, and pedestrians, appropriate engineering applications, and economics. To obtain a working partnership with the community, meetings should be scheduled, and surveys should be delivered to residents affected by the implementation of traffic calming measures. These gestures will provide the community with an opportunity to offer input into the development of the plan; they will also increase awareness of the study. To ensure the success of the project, a cooperative partnership (between the City and the affected residents) is essential.

3.4 Future Developments

As applicable, a traffic calming review should also be conducted during the draft plan design stage for new area developments. At the City's discretion, it should be discussed during pre-consultation and included as part of the Transportation Impact Study (TIS) submission. Any recommended traffic calming measures should then be added to the respective development's draft plan conditions. It is important to incorporate speed control as a design objective for new developments. Wide and straight roadways tend to encourage speeding. While the total travel modes and volumes may not be fully determined, forecasted traffic volumes will be available. Therefore, the design elements within the right-of-way (such as landscaping, active transportation facilities, accessibility treatments, and horizontal and vertical deflections) should be considered and included. These design elements could act as passive speed control devices, but the built environment should be explored from the onset. Speed control measures should be formalized as part of the development application. Prior to the City assuming responsibility for a road, a traffic review should be completed to evaluate whether active traffic calming is required to supplement passive speed control elements.

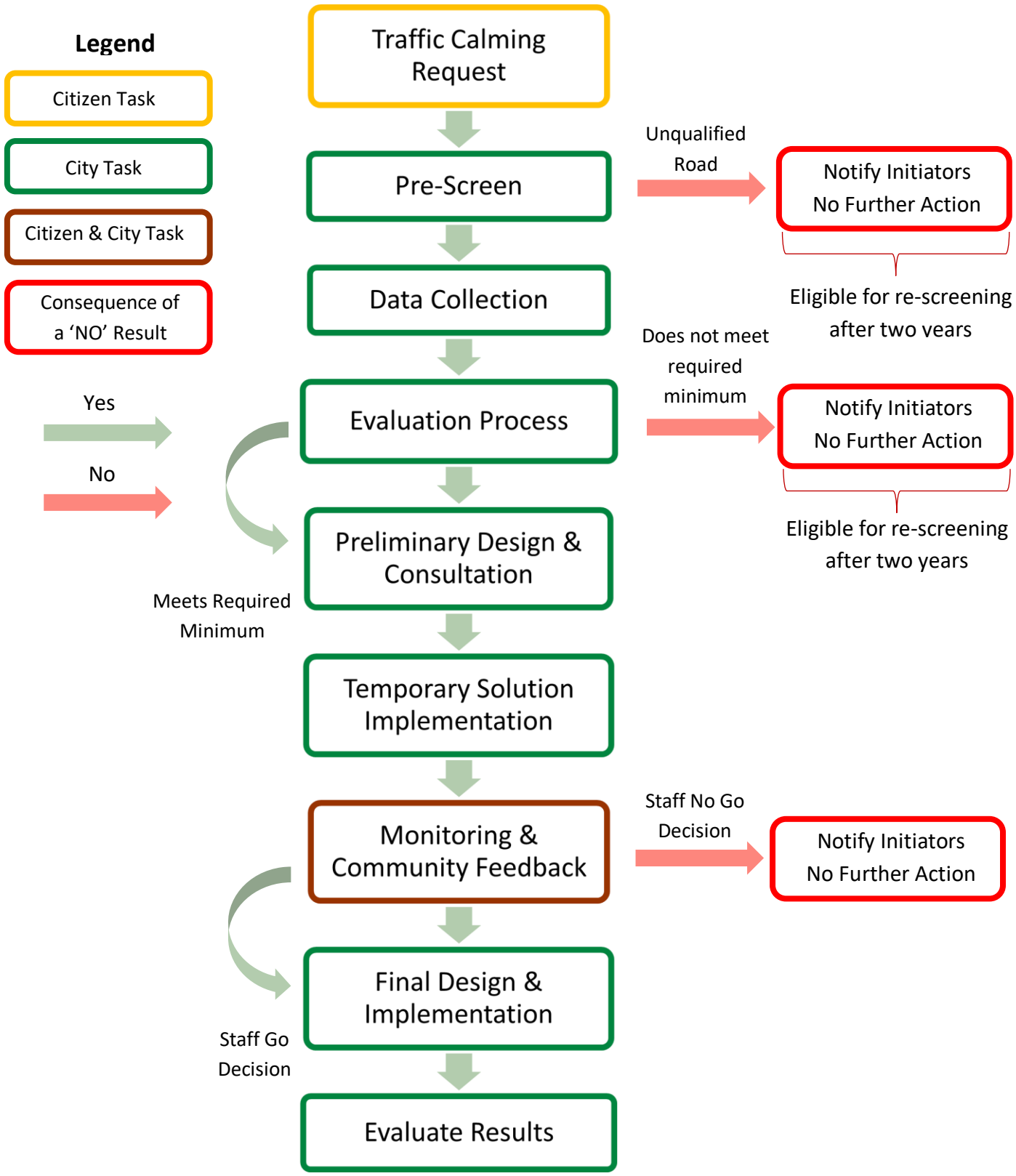
3.5 Municipal Class Environmental Assessment Process

Traffic calming is exempt from the Ontario Environmental Assessment Act and is not an undertaking subject to the Municipal Engineers Association Municipal Class Environmental Assessment (2023). However, where appropriate, public consultation elements from the Municipal Class Environmental Assessment (MCEA) have been incorporated into this policy (as a best practice).

4.0 Traffic Calming Process

The purpose of establishing a formal process is to provide consistency and fairness in determining whether traffic calming is warranted and implemented. To implement traffic calming methods, the process shown in **Figure 3** should be applied:

Figure 3: Traffic Calming Steps



4.1 Traffic Calming Request

To initiate the traffic calming process, residents with traffic-related concerns are instructed to submit a Traffic Calming Request Form to the City. Residents can mail or drop off the form at the City's office for City staff to begin their investigation. A standard submission form is provided in **Appendix B**.

4.2 Pre-Screening

Following a successful request for traffic calming consideration, City staff will conduct a speed study to determine if the requested roadway meets the criteria provided in the following "Initial Screening Criteria" template, provided in **Table 1**:

Table 1: Initial Screening Criteria

Initial Screening Criteria	Yes	No
Roadway Is it a local or Collector Roadway maintained by the City of Woodstock?		
Posted Speed Urban: Is the posted speed 50 km/h or lower? Rural: Is the posted speed 60 km/h or lower?		
Annual Average Daily Traffic (AADT) Does the location have a minimum AADT volume of 500 vehicles?		
Street Length Does the road have a minimum uncontrolled (i.e. no stop signs or traffic signals) length of 120m?		
Previous Evaluation Has the road been evaluated within the last 24 months for traffic calming?		
Zoning Is the zoning primarily residential or fronting institutional or recreational land-uses?		

If the initial screening indicates a "Yes" response to all of the above questions, the City will inform residents that their location meets the initial screening criteria; residents with requests will then receive information about the traffic calming process. At the discretion of the City, roadways that do not meet the above-noted criteria may still be eligible for other mitigating measures and / or police enforcement initiatives. For road sections with restricted horizontal and / or vertical alignment (restricted sight lines), traffic calming measures should be considered in conjunction with reduced speed limits and adequate warning signs.

4.2.1 Ineligibility for Traffic Calming Based on Pre-Screening

For locations that do not meet the initial screening criteria, staff will consider front-line mitigating measures to address the neighbourhood's traffic concerns. These methods could include various tools, such as driver feedback boards, targeted police enforcement, sign installation, and pavement marking modifications. These measures may require monitoring to assess their effectiveness.

4.3 Data Collection

If the requested location meets the initial screening criteria, analysis will commence. The collection of additional data (as deemed necessary by City staff) will serve to provide a better understanding of the current traffic conditions and will assist in prioritizing locations for traffic calming investigation.

Staff will conduct / coordinate the traffic studies required to quantify and qualify the submitted traffic concerns. The collected data may include traffic volumes and classification (i.e. cars vs. trucks), vehicle speeds, collisions, topography, vertical / horizontal sight lines, stopping sight distance, pedestrian activity, historical site-specific information, and origin / destination study (if related to short-cutting). The term short-cutting is used to identify traffic not destined for a street or the immediate area, which uses the neighbourhood streets to by-pass congestion or delay and is determined through field observations and traffic counts.

For vehicle speeds, it is not prudent to consider the highest speed at which motorists drive. Rather, the 85th percentile speed should be considered; it is the speed at which 85% of the total traffic volume is travelling at or below. Ideally, the 85th percentile speed should be within 10 km/h of the posted speed limit. For traffic calming to be warranted on sight distance, the available stopping sight distance should be less than the minimum sight distance for the respective design speed. Minimum sight distance should be determined in consideration of Chapter 2.5 of the **TAC Geometric Design Guide for Canadian Roads**. The design speed is typically 10 km/h over the posted speed for lower speed roads (and 20 km/h over for higher speed roads).

Once collected and summarized, the data will be used in the overall assessment to determine the need for traffic calming and to assist in the prioritization of projects.

4.4 Traffic Calming Scoring Matrix

The traffic calming scoring matrix provides a screening process that is focused on various attributes of a roadway. By assigning weighted scores based on the severity of certain road attributes (i.e. 85th percentile speed), this process quantifies the current conditions and road characteristics. The scoring matrix can be found in **Appendix C**.

The scoring matrix will also be used in prioritizing projects. Locations with an extremely high point assessment will be given priority based on the quantitative nature of the scoring system. Depending on funding availability, the locations will be prioritize based on the scoring results. If funding does not permit all sites to be constructed in one year, projects will be carried forward to the next year (and will be re-prioritized, including new locations). However, City staff should continue to address the concerns of residents via front-line mitigation strategies.

The minimum threshold required to proceed with traffic calming investigation differs based on the respective roadway classification. Local and collector roads are designed and expected to convey varying levels of traffic volume. This, in turn, has a bearing on the minimum score required to proceed (with traffic volumes being a major consideration). Therefore, the following are prescribed minimum point values for each road type:

I. Local road – 35 points

II. Collector road – 52 points

Should a location fail to meet this requirement, the traffic calming investigation will be discontinued, and the residents will be notified in writing.

4.5 Design Considerations

The collected data (in combination with site visits, historical information, future maintenance, and construction plans, and resident feedback) will be taken into consideration when determining the potential traffic calming measures. The appropriate measures will be determined based on the list of traffic calming measures outlined in this policy. Traffic calming could include one or more types of traffic calming techniques. All potential traffic calming measures should be consistent with the design guidelines outlined in the **TAC's Canadian Guide to Neighbourhood Traffic Calming**. City staff should apply engineering judgement and discretion in arriving at a permanent traffic calming design. **Appendix D** provides a Traffic Calming Measures Toolkit that details the location applicability and benefits and implications of various traffic calming measures.

Prior to implementing a permanent traffic calming measure, the City should implement a temporary solution (such as seasonal speed humps, radar feedback signs, speed posted bollards) and monitor it for one season prior to permanent reconstruction. In doing so, the City will be able to gather community feedback and monitor the results. If the temporary measure is successful then the decision to implement a permanent traffic calming measure is up to the City's discretion.

4.6 Consultation with Relevant Agencies

The preferred traffic calming design must be presented to other relevant agencies (e.g.: emergency services, road maintenance department, transit services, etc.). Comments from the potentially affected services should be solicited; feedback is encouraged. City Staff should work with agencies to modify the design, as necessary. While it is preferable to modify the traffic calming design, if modifications are not able to remedy agency concerns, the traffic calming process should be discontinued; residents must be notified, along with an explanation of the rationale.

4.7 Community Consultation

Upon approval by the relevant agencies, a formal notification will be published on the City of Woodstock's social media pages and official website; however, staff may determine alternative notification methods (at their discretion). The online notification will provide the purpose, objectives, and implementation plan corresponding to the recommended traffic calming measure.

The online notification will enable the City to obtain public feedback on the temporary traffic calming measure. City staff must show that they have worked with the public throughout the process to ensure that their concerns and aspirations are understood and addressed appropriately.

4.8 Community Support Survey

The feedback from the agencies and public on the permanent traffic calming measure will guide the preferred design, which will be distributed to residents owning property on the roadway that may be affected by the traffic calming methods. A supplementary "Community Support Survey" should also be distributed to residents living within 400 meters of the area where the traffic calming measure is being proposed. Residents will have three weeks to return their completed surveys. At a minimum, it must contain:

- A brief description of traffic calming, including its advantages and disadvantages;
- The results of the traffic studies undertaken by staff;
- A survey question asking if residents are in favour, opposed, or neutral to the implementation of the permanent traffic calming measures in the identified location(s);
- The preferred traffic calming design;
- A request for comments and feedback; and
- An indication that this is the final opportunity to modify and improve the preferred design.

All feedback and comments received from residents will be reviewed and considered by Staff in determining the final traffic calming approach.

4.9 Finalize the Preferred Traffic Calming Plan

Using technical data and community feedback (integrated with the goals, objectives and principles set out in this guide), staff can finalize the preferred traffic calming design and include the necessary funds for construction in the next budget for Council approval. In finalizing the preferred traffic calming measure, general consideration must be given to the various aspects of road design, such as utility placement, landscaping, sign requirements, and drainage.

4.10 Council Notification

If City Staff feels that the recommended traffic calming measure may be contentious, a report (recommending implementation of the preferred traffic calming measure) should be presented to City Council. The recommendation must be accompanied by an amending by-law (addressing the implications of the traffic calming measures, as required).

4.11 Permanent Implementation

Upon funding approval, the recommended traffic calming measures can be implemented. If it is feasible, City Administration may phase the traffic calming efforts prior to installing permanent measures (to provide time for examination of the measure's potential impacts and effectiveness).

4.12 Evaluation and Monitoring

City staff should monitor the implemented traffic calming methods annually. The monitoring will produce data that determines the effectiveness of the traffic calming methods, as well as their impact on the traffic network. The data collected will provide valuable information for future applications of other (similar) traffic calming measures.

4.13 Removal of Traffic Calming Measures

Traffic calming devices can be removed at the request of residents, provided that at least the same level of support is obtained for removal (as compared to implementation). Traffic calming measures must be installed for at least a one (1) year trial period before starting the process to remove them. If traffic calming devices are removed, the subject street must wait at least five (5) years before a new traffic calming measure can be requested, at which point the approval process will start over.

If a request is received to remove a single traffic calming device within an overall traffic calming measure, all traffic calming devices will be considered for removal. Depending on circumstances, it is

possible to remove a single device constructed as part of an overall plan; however, in most cases, all devices work together to ensure that traffic is not diverted where it should not be. The City reserves the right to remove traffic calming measures if it determines that they are ineffective, unsafe, or if they have created a negative impact that cannot be corrected. In this case, the City must notify the public and inform them of its decision (and rationale) to remove traffic calming measures.

Appendix A

Traffic Calming Measure

Table A1: Temporary Measures

Type	Description	Advantages	Disadvantages	Picture[1]
Seasonal Speed Hump/Table ***City Preferred Measure**	A rubber unit that is placed across an entire roadway width and causes the vertical upward movement if a traversing vehicle. The objective is to cause discomfort for drivers travelling at higher speeds and results in reduced vehicle speeds.	• Vehicle speeds are reduced • Easy to construct • Deters cut-through traffic • Police enforcement is not required	• Emergency response is delayed • Active transportation/transit operations may experience delay • Maintenance and roadway operations may be affected • Added wear-and-tear on vehicles over time	
Speed-Posted Bollards ***City Preferred Measure**	Vertical posts installed at the edge of traffic lanes with the speed limit displayed. Without physically constraining the roadway environment, these bollards alert drivers of a separation requirement. The objective is to narrow the road, guide traffic, and encourage drivers to slow down so they can pass through safely.	• Vehicle speeds are reduced • Reduction in speed related collisions • Police enforcement is not required	• Maintenance and roadway operations time may be increased.	
Pavement Markings	Painted lines on a roadway, which aide in perceptively narrowing the travel lanes. These markings can be painted in various styles/configurations. The objective is to influence drivers to reduce speeds by creating optical effects that affect driver behaviour.	• Vehicle speeds are reduced • No impact to emergency vehicles • Can be implemented quickly	• Regular maintenance will be required • May be less effective in winter months due to snow	

Table A1: Temporary Measures

Type	Description	Advantages	Disadvantages	Picture[1]
On-Road Sign Pavement Markings	Provide information that would typically be shown to drivers through signage but are painted on the roadway to provide larger image and one that is directly in the driver's line of sight. Some examples could be speed limit, 'SLOW', 'Stop ahead, etc.	• No increase in noise • Can be implemented rapidly • No impact to emergency vehicles, snow plowing, street sweeping, and police enforcement • No adverse effect on vehicle operations	• Require regular maintenance • May be less effective in winter months due to snow/ice cover	
Flexible Bollards	Flexible plastic posts spaced evenly along a roadway. Without physically constraining the roadway environment, flexible bollards alert drivers of a separation requirement. The objective is to narrow the perceived roadway width and alter driver behavior.	• Vehicle speeds are reduced • Requires little to no maintenance • Police enforcement is not required	• Maintenance and roadway operations time may be increased	

[1]Federal Highway Administration
Transportation Association of Canada – Canadian Guide to Traffic Calming
City of Sarnia
National Association of City Transportation Officials

Table A2: Permanent Measures

Type	Description	Advantages	Disadvantages	Picture[2]
Speed Display Device ***City Preferred Measure**	An interactive sign that displays vehicle speeds as oncoming vehicles approach. Vehicle speeds are captured and reported using radar, and the device can flash when vehicles exceed a predetermined speed. The objective is to alert drivers to their errant or unsafe travel speeds.	• Vehicle speeds are reduced • Reduction in speed related collisions • Police enforcement is not required	• Requires regular maintenance • Driver behaviour may be unchanged if no further enforcement is observed	
Raised Crosswalk ***City Preferred Measure**	A marked pedestrian crosswalk constructed in a higher elevation than the adjacent roadway. The objective of a raised crosswalk is to enhance awareness of pedestrian crossings, reduce vehicle speeds, improve pedestrian visibility, and reduce pedestrian-vehicle conflict. *Note: Raised crosswalks implementation may include the implementation of appropriate level of PXO per OTM Book 18. Raised crosswalks will only be implemented at mid-block, unprotected pedestrian crossing locations and should be signed appropriately.*	• Vehicle speeds are reduced • Improves pedestrian visibility • Pedestrian crossing area is better defined • Traffic noise may be reduced • Police enforcement is not required	• Emergency response is slightly delayed • Active transportation/transit operations may experience delay • Maintenance and roadway operations may be affected	

Table A2: Permanent Measures

Type	Description	Advantages	Disadvantages	Picture[2]
Speed Hump ***City Preferred Measure**	A raised area built across the entire roadway and causes vertical upward movement of a traversing vehicle. The objective of a speed hump is to cause discomfort for drivers travelling at higher speeds resulting in reduced vehicle speeds.	• Vehicle speeds are reduced • Easy to construct • Deter cut-through traffic • Police enforcement is not required	• Emergency response is delayed • Active transportation/transit operations may experience delay • Maintenance and roadway operations may be affected • Added wear-and-tear on vehicles over time	
Curb Extensions ***City Preferred Measure**	Also known as neckdown, choker, curb bulb, bulb-out is a horizontal intrusion of the curb visually and physically narrowing the roadway width. The curb may be on one or both sides of the roadway. The objective is to reduce vehicle speeds, reduce crossing distance for pedestrians and prevent parking too close to an intersection.	• Vehicle speeds are reduced • Improves pedestrian visibility • Pedestrian crossing distance is reduced • Police enforcement is not required	• Emergency response times may be delayed • Potential loss of on-street parking • May interrupt bike lanes • Maintenance and roadway operations times may be increased	
On-Street Parking ***City Preferred Measure**	Reduces the roadway width available for vehicle movement, however, provides surplus parking opportunities along a street segment. The objective is to reduce traffic speeds by narrowing the effective roadway space and to discourage potential short-cutting.	• Vehicle speeds are reduced • Provides buffer between traffic and pedestrians on sidewalks • Traffic volumes may be reduced • Police enforcement is not required • Deters cut-through traffic	• Emergency response times may be delayed • Maintenance and roadway operations times may be increased • Driveway visibilities may be reduced • Increases risk of rear-end and sideswipe collisions	

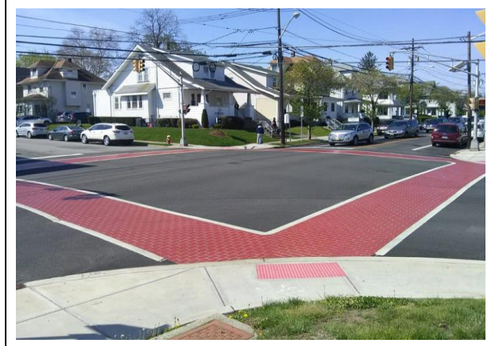
Table A2: Permanent Measures

Type	Description	Advantages	Disadvantages	Picture[2]
Raised Intersection	An intersection that may include crosswalks and is constructed at a higher elevation than the adjacent roadway. The objective is to enhance awareness of pedestrian crossings, reduce vehicle speeds, improve pedestrian visibility, and reduce pedestrian-vehicle conflict.	• Vehicle speeds are reduced • Improves pedestrian visibility • Pedestrian crossing area is better defined • Traffic noise may be reduced • Police enforcement is not required	• Emergency response is slightly delayed • Active transportation/transit operations may experience delay • Maintenance and roadway operations may be affected • May impact drainage patterns	
Speed Cushion	A raised area on a roadway that does not cover the entire roadway width. The width is designed to allow larger vehicles such as trucks and firetruck to straddle the cushion while the smaller vehicles will at least have one side of the vehicle deflected upwards. The objective is to cause discomfort for drivers travelling at higher speeds resulting in reduced vehicle speeds.	• Vehicle speeds are reduced • Traffic noise may be reduced • Easy to construct • Deter cut-through traffic • Police enforcement is not required	• Emergency response is slightly delayed • Active transportation/transit operations may experience delay • Maintenance and roadway operations may be affected • Added wear-and-tear on vehicles over time	
Speed Tables	An elongated speed hump with a flat-topped section that is long enough to raise the entire wheelbase of a passenger car. The objective is to cause discomfort for drivers travelling at higher speeds resulting in reduced vehicle speeds.	• Vehicle speeds are reduced • Traffic noise may be reduced • Easy to construct • Deter cut-through traffic • Police enforcement is not required	• Emergency response is delayed • Active transportation/transit operations may experience delay • Maintenance and roadway operations may be affected • Added wear-and-tear on vehicles over time	

Table A2: Permanent Measures

Type	Description	Advantages	Disadvantages	Picture[2]
Chicanes	A series of curb extensions on alternating side of the roadway, which narrow the roadway to force drivers to steer from one side of the roadway to the other to travel through the chicane. The objective is to discourage shortcutting and through traffic and reduce vehicle speeds.	• Vehicle speeds are reduced • Traffic volumes a • Traffic noise may be reduced • Increase motorist awareness • Discourage shortcutting • Police enforcement is not required	• Emergency response is delayed • Active transportation/transit operations may experience delay • Maintenance and roadway operations may be affected • Loss of on-street parking	
Curb Radius Reduction	The reconstruction of an intersection corner to accommodate a smaller (tighter) radius. The objective of curb radius reductions is to reduce speeds of right-turning vehicles, reduce crossing distances for pedestrians, and to improve visibility of pedestrians.	• Vehicle speeds are reduced for right turning traffic • Improve pedestrian visibility • Traffic noise may be reduced • Pedestrian crossing distance is reduced • Police enforcement is not required	• Emergency response may be delayed • Active transportation/transit operations may experience delay • Maintenance and roadway operations may be affected	
Traffic Circles / Roundabouts	A circular island located at the centre of an intersection, which requires vehicles to circulate through the intersection in a counter-clockwise direction. The objective is to reduce vehicle speeds and minimize the speed/impact of intersection conflicts.	• Vehicle speeds are reduced • Traffic volumes may be reduced • Collision rates are reduced • Traffic noise may be reduced • Police enforcement is not required	• Emergency response is may be delayed • Active transportation/transit operations may experience delay • Maintenance and roadway operations may be affected • Restricted access for trucks and longer school buses	

Table A2: Permanent Measures

Type	Description	Advantages	Disadvantages	Picture[2]
Raised Median Island	An elevated median constructed at the centreline of a two-way roadway, reducing the overall width of the adjacent travel lanes. The objective of raised medians is to reduce traffic speeds by narrowing the effective roadway space and reduce the number of potential conflict areas.	• Vehicle speeds are reduced • Traffic volumes are reduced • Provides refuge for pedestrians • Police enforcement is not required	• Emergency response time may be delayed • May reduce on-street parking • May restrict driveway access • Additional maintenance required if landscaped	
Road Diet	A reconfiguration of the roadway whereby the number of travel lanes and/or effective width of the road is reduced. The objective us to reduce speeds by limiting vehicular servicing capacity and reallocating the reclaimed space for other uses (i.e. wider sidewalks, turning lanes, bus lanes, refuge islands, bike lanes, parking, etc.)	• Vehicle speeds are reduced • Traffic volumes are reduced • Provides refuge for pedestrians • Police enforcement is not required	• Emergency response time may be delayed • May reduce on-street parking • May restrict driveway access • Additional maintenance required if landscaped	
Textured Crosswalk	Comprised of different colour and/or texture than the roadway to highlight the pedestrian crossing area. The objective of textured crosswalks is to reduce potential pedestrian-vehicle conflicts by visually enhancing the controlled crossing areas.	• Vehicle speeds are reduced • Improves pedestrian safety • Police enforcement is not required	• Increased maintenance • Traction or stability problems for seniors, disabled individuals, wheelchairs, etc.	

[2]National Association of City Transportation Officials

Appendix B

Traffic Calming Request Form

Traffic Calming Measure Request Form

Application Date:		
Name:		
Address:		
Contact Phone #:		
Email:		
Requesting Traffic Calming Measure:	☐ **Implementation**	☐ **Removal**
Description of Location:		

Provide sketch on back

Office Use Only

STAFF REVIEWING:	
DATE:	
APPROVED/BYLAW:	

Mail or Drop off this form to:

944 James Street, PO Box 1539

Woodstock, ON

N4S 0A7

* Please provide a sketch of issues or concerns including street names and traffic control (stop signs or traffic signals if applicable)

Appendix C

Traffic Calming Scoring Matrix

Traffic Calming Scoring Matrix

Road Section:_____ **Road Class:**_____

Prepared By:_____ **Date:**_____

Traffic Data

Features	Range	Criteria	Score
1. Speed	0 to 35	5 points for every 2km/h that the 85th percentile speed is greater than 10km/h over the posted speed limit	
2. High Speed	0 to 5	5 points if minimum of 5% of daily traffic exceeds posted speed by 15-20 km/h	
3. Volume	0 to 20	Local Roadways: 1 point for every 100 AADT Collector Roadways: 1 points for every 200 AADT	
4. Presence of Schools	0 to 15	7.5 points for each school located along the roadway 5 points for designated school walking routes that are along the roadway	
5. Other Pedestrian Generators	0 - 25	5 points for each community generator (i.e. park, school, recreation centre, senior's centre, community centre, place of worship) with a direct link to the roadway (frontage, trail, sidewalk, or other access point) 10 points for a signed bicycle route	
6. 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% increments above 25%	
7. Collision	0 to 10	1 point for every collision/year over a three-year period	

Road Characteristics

Features	Range	Criteria	Score
1. Sidewalks	0 to 10	10 points for no sidewalk with evidence of pedestrian activity; 5 points if sidewalk on only one side	
2. Sight Lines	0 to 10	0 points for excellent sight lines 5 points for impaired sight lines 10 points for very poor sight lines	

Overall Characteristics

Does the location meet the minimum requirements?
Total Score:
Where does this location rank on the Priority List?
*Minimum **35 points** needed for Local Roads / Minimum **52 points** needed for Collector Roads*

Conclusion

Is traffic calming warranted?

Appendix D

Traffic Calming Measures Toolkit

Table D1: Applicability of Traffic Calming Measures

Measure	Location Applicability						Cost
	Urban Streets			Rural Streets			
	Local	Collector	Arterial	Local	Collector	Arterial	
Communication and Enforcement							
Information Signage	✓	✓	✓	✓	✓	✓	$
Speed Display Device	✓	✓	✓	✓	✓	✓	$ $ $
Targeted Education Programs	✓	✓	✓	✓	✓	✓	$ $
Speed Enforcements	✓	✓	✓	✓	✓	✓	$
Pace Car Program	✓	✓	▲	✓	✓	▲	$
Speed Watch Program	✓	✓	✓	X	X	X	$
Vertical Deflection							
Raised Crosswalks	✓	✓	X	▲	▲	X	$ $ $
Raised Intersections	✓	✓	X	▲	▲	X	$ $ $ $ $
Speed Cushions	✓	✓	X	✓	✓	X	$ $
Speed Humps	✓	✓	X	✓	✓	X	$ $
Speed Tables	✓	✓	X	✓	✓	X	$ $ $
Flexible Bollards	✓	✓	X	✓	▲	X	$
Horizontal Deflection							
Chicanes	✓	✓	X	X	X	X	$ $ $ $ $
Curb Radius Reductions	✓	✓	▲	X	X	X	$ $ $ $
Traffic Circles	✓	✓	▲	X	X	▲	$ $ $ $
Roundabouts	✓	✓	▲	X	X	▲	$ $ $ $ $
Curb Extensions / Bulb-Outs	✓	✓	✓	X	X	X	$ $ $
On-Street Parking	✓	✓	▲	✓	✓	X	$
Raised Median Island	✓	✓	✓	X	X	✓	$ $
Road Diet	✓	✓	✓	✓	▲	X	$ $
Surface Treatments							
Pavement Markings	✓	✓	✓	✓	✓	✓	$
Textured Pavement	✓	✓	X	✓	✓	X	$ $

✓ = Appropriate Measure ▲ = Use with Caution X = Not Recommended

Table D2: Potential Benefits and Implications of Traffic Calming Measures

Legend	■ Substantial Benefits ▣ Moderate Benefits □ No Benefits or Limited Data	● Substantial Disbenefits ◉ Moderate Disbenefits ○ No Disbenefit or Limited Data

Traffic Calming/ Speed Management Measures	Potential Benefits				Potential Disbenefits					
	Speed reduction	Volume Reduction	Conflict Reduction	Environment	Local Access	Emergency Response	Active Transportation	Enforcement	Parking	Maintenance
Vertical Deflection										
Raised Crosswalk	■	□	▣	▣	○	◉	◉	○	○	◉
Raised Intersection	■	□	▣	▣	○	◉	◉	○	○	◉
Speed Cushion	■	▣	■	▣	○	◉	◉	○	◉	◉
Speed Hump/Table	■	▣	■	▣	○	●	◉	○	◉	◉
Flexible Bollards	■	□	▣	▣	◉	●	○	○	●	●
Horizontal Deflection										
Chicane (One-Lane)	■	■	■	▣	○	◉	◉	○	●	◉
Chicane (Two-Lane)	▣	□	▣	▣	○	○	○	○	●	◉
Traffic Circle/Mini Roundabout	■	▣	■	■	○	◉	◉	○	◉	◉
Curb Radius Reduction	▣	□	□	▣	○	○	◉	○	○	◉

Table D2: Potential Benefits and Implications of Traffic Calming Measures

Legend	■ Substantial Benefits ▣ Moderate Benefits □ No Benefits or Limited Data	● Substantial Disbenefits ◉ Moderate Disbenefits ○ No Disbenefit or Limited Data

Traffic Calming/ Speed Management Measures	Potential Benefits				Potential Disbenefits					
	Speed reduction	Volume Reduction	Conflict Reduction	Environment	Local Access	Emergency Response	Active Transportation	Enforcement	Parking	Maintenance
Roadway Narrowing										
Curb Extension/Neckdown/ Choker	▣	□	□	■	○	○	◉	○	●	◉
Lane Narrowing	▣	□	□	□	○	○	◉	○	◉	○
On-street Parking	▣	□	□	▣	○	◉	◉	○	○	◉
Raised Median Island	▣	□	▣	□	◉	○	○	○	◉	◉
Road Diet	■	□	■	■	○	◉	○	○	○	○
Vertical Centreline Treatment	▣	□	□	□	○	○	○	○	○	◉
Surface Treatment										
Sidewalk Extension/Textured Crosswalk	▣	□	▣	▣	○	○	◉	○	○	●
Textured Pavement	▣	□	□	▣	○	○	◉	○	○	●
Pavement Markings	■	□	□	□	○	○	○	○	○	◉

Table D2: Potential Benefits and Implications of Traffic Calming Measures

Legend	■ Substantial Benefits ▣ Moderate Benefits □ No Benefits or Limited Data	● Substantial Disbenefits ◉ Moderate Disbenefits ○ No Disbenefit or Limited Data

Traffic Calming/ Speed Management Measures	Potential Benefits				Potential Disbenefits					
	Speed reduction	Volume Reduction	Conflict Reduction	Environment	Local Access	Emergency Response	Active Transportation	Enforcement	Parking	Maintenance
Communication and Enforcement										
Speed Display Device	■	□	□	□	○	○	○	◉	○	●
Speed Enforcement	■	□	□	□	○	○	○	◉	○	●
Speed Watch Program	▣	□	□	□	○	○	○	◉	○	○
Pace Car Program	□	□	□	□	○	○	○	○	○	○
Targeted Education Programs	□	□	□	□	○	○	○	○	○	○

Appendix E

Traffic Calming Scoring Matrix Assessment

Traffic Calming Scoring Matrix

Road Section: Clarke Street b/w Nellis Street and Devonshire Ave **Road Class:** Collector

Prepared By:_____ **Date:** 2024-10-29

Traffic Data

Features	Range	Criteria	Score
Speed	0 to 35	5 points for every 2km/h that the 85th percentile speed is greater than 10km/h over the posted speed limit	25
High Speed	0 to 5	5 points if minimum of 5% of daily traffic exceeds posted speed by 15-20 km/h	5
Volume	0 to 20	Local Roadways: 1 point for every 100 AADT Collector Roadways: 1 points for every 200 AADT	19
Presence of Schools	0 to 15	7.5 points for each school located along the roadway 5 points for designated school walking routes that are along the roadway	0
Other Pedestrian Generators	0 - 25	5 points for each community generator (i.e. park, school, recreation centre, senior's centre, community centre, place of worship) with a direct link to the roadway (frontage, trail, sidewalk, or other access point) 10 points for a signed bicycle route	10
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% increments above 25%	unknown
Collision	0 to 10	1 point for every collision/year over a three-year period	10

Road Characteristics

Features	Range	Criteria	Score
Sidewalks	0 to 10	10 points for no sidewalk with evidence of pedestrian activity; 5 points if sidewalk on only one side	5
Sight Lines	0 to 10	0 points for excellent sight lines 5 points for impaired sight lines 10 points for very poor sight lines	5

Overall Characteristics

Does the location meet the minimum requirements?
Total Score: 7**9 points**
Where does this location rank on the Priority List?
*Minimum **35 points** needed for Local Roads / Minimum **52 points** needed for Collector Roads*

Traffic Calming Scoring Matrix

Road Section: Pittock Park Road b/w Vansittart Ave and Summit Cres **Road Class:** Collector

Prepared By:_____ **Date:** 2024-10-29

Traffic Data

Features	Range	Criteria	Score
Speed	0 to 35	5 points for every 2km/h that the 85th percentile speed is greater than 10km/h over the posted speed limit	30
High Speed	0 to 5	5 points if minimum of 5% of daily traffic exceeds posted speed by 15-20 km/h	5
Volume	0 to 20	Local Roadways: 1 point for every 100 AADT Collector Roadways: 1 points for every 200 AADT	14
Presence of Schools	0 to 15	7.5 points for each school located along the roadway 5 points for designated school walking routes that are along the roadway	0
Other Pedestrian Generators	0 - 25	5 points for each community generator (i.e. park, school, recreation centre, senior's centre, community centre, place of worship) with a direct link to the roadway (frontage, trail, sidewalk, or other access point) 10 points for a signed bicycle route	10
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% increments above 25%	unknown
Collision	0 to 10	1 point for every collision/year over a three-year period	2

Road Characteristics

Features	Range	Criteria	Score
Sidewalks	0 to 10	10 points for no sidewalk with evidence of pedestrian activity; 5 points if sidewalk on only one side	5
Sight Lines	0 to 10	0 points for excellent sight lines 5 points for impaired sight lines 10 points for very poor sight lines	5

Overall Characteristics

Does the location meet the minimum requirements?
Total Score: **71 points**
Where does this location rank on the Priority List?
*Minimum **35 points** needed for Local Roads / Minimum **52 points** needed for Collector Roads*

Traffic Calming Scoring Matrix

Road Section: Springbank Avenue b/w Lansdowne and Algonquin **Road Class:** Collector

Prepared By:_____ **Date:** 2024-10-29

Traffic Data

Features	Range	Criteria	Score
Speed	0 to 35	5 points for every 2km/h that the 85th percentile speed is greater than 10km/h over the posted speed limit	5
High Speed	0 to 5	5 points if minimum of 5% of daily traffic exceeds posted speed by 15-20 km/h	0
Volume	0 to 20	Local Roadways: 1 point for every 100 AADT Collector Roadways: 1 points for every 200 AADT	14
Presence of Schools	0 to 15	7.5 points for each school located along the roadway 5 points for designated school walking routes that are along the roadway	0
Other Pedestrian Generators	0 - 25	5 points for each community generator (i.e. park, school, recreation centre, senior's centre, community centre, place of worship) with a direct link to the roadway (frontage, trail, sidewalk, or other access point) 10 points for a signed bicycle route	20
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% increments above 25%	unknown
Collision	0 to 10	1 point for every collision/year over a three-year period	0

Road Characteristics

Features	Range	Criteria	Score
Sidewalks	0 to 10	10 points for no sidewalk with evidence of pedestrian activity; 5 points if sidewalk on only one side	5
Sight Lines	0 to 10	0 points for excellent sight lines 5 points for impaired sight lines 10 points for very poor sight lines	5

Overall Characteristics

Does the location meet the minimum requirements?
Total Score: **49 points**
Where does this location rank on the Priority List?
*Minimum **35 points** needed for Local Roads / Minimum **52 points** needed for Collector Roads*