



Traffic Calming Project Proposal and Evaluation Plan

Purpose

The Town of Orono seeks to improve safety for all modes of traffic on its streets and roads to enhance the quality of life of its neighborhoods. This policy is intended to provide a framework to decide when traffic calming measures are effective and necessary in accomplishing these goals. This policy lays out a citizen-initiated process for proposing and evaluating possible traffic calming measures on Town infrastructure to ensure sensible consideration of projects given limited resources. This policy is meant to ensure that traffic calming measures of an appropriate magnitude are applied in any given situation, given limitations of resources and the risks of improper solutions.

Introduction

The Institute of Transportation Engineers (ITE) defines traffic calming as “the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior, and improve conditions for non motorized street users.”

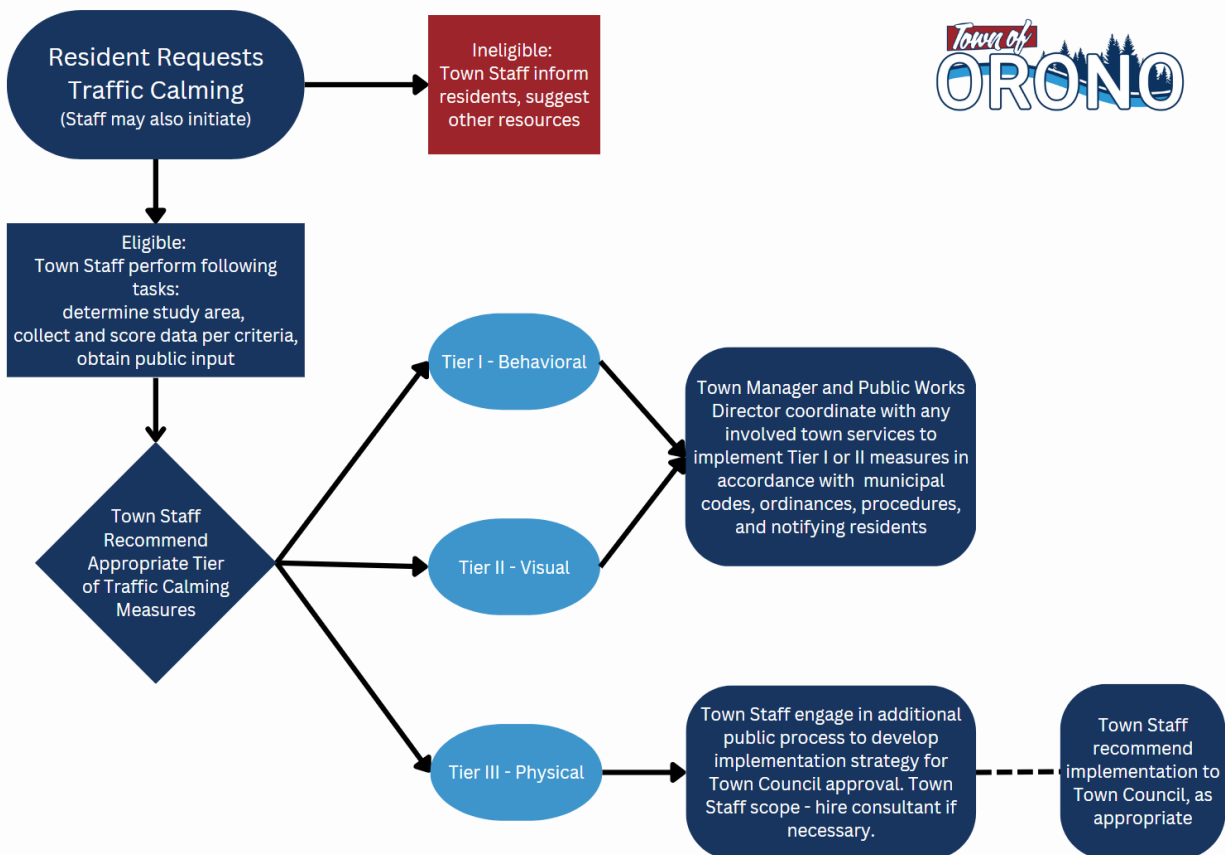
For the purposes of this policy, Traffic Calming measures fall into three tiered categories: Behavioral, Visual, and Physical, examples of each are shown below.

Behavioral (Tier I)	Visual (Tier II)	Physical (Tier III)
Enforcement	Centerline striping	Narrowed roadways
Education	Speed limit signs	Speed bumps, humps, tables
Radar	Speed legends	Bump outs
	Curb markings	Medians/Intersection medians
	Transverse speed striping	Raised intersections
	Crosswalks	Chicanes
	Bike Lane Markings	Midblock chokers/Narrowing diverters
		Roundabouts
		Rumble strips
		Street closures
		Gateway/Entry features
		Bollards



Proposal, Selection, and Implementation Procedure

The following figure outlines the procedure for proposing and evaluating traffic calming projects:



Note: Town Staff exercise discretion in initiating, moving forward, or stopping at any point in this process.

Initiation

A resident may request their neighborhood be considered for a traffic calming study by submitting a form documenting the basis of their request. To complete the form, the resident must gather five(5) petition signatures from households in the immediate area of concern. This form can be found attached and will be made available to residents via the Town website, or upon request. Town staff may also initiate this process by calling a public meeting specific to the area of concern.

Town staff will determine whether the neighborhood involved in the request meets the eligibility requirements laid out below. Eligibility requirements are based on MaineDOT and municipal standards. If staff determine the area does not warrant this preliminary data collection, or if upon completion of this data collection they find it does not meet the required thresholds, requesting petitioners shall be informed of this determination.



Minimum Eligibility Requirements

- A. Posted speed limit does not exceed 35 miles per hour
- B. Facility is public and either owned and operated by the Town or within the Maine DOT Urban Compact area
- C. If facility is an arterial road, Town staff will determine eligibility based on Maine DOT requirements¹

Study Area Delineation, Data Collection, and Public Input

If staff determine the roadway or area meets minimum eligibility requirements, they will designate a Study Area composed of any infrastructure involved in the request and the areas determined likely to be impacted by any interventions on them for further evaluation. The purpose of determining a study area is to address, early in the process, a frequent concern surrounding traffic calming projects; the possibility of pushing a problem from one facility to another rather than strictly solving it. For this reason, a neighborhood-level approach is sometimes considered ideal in pursuing traffic calming measures.

After delineating a Study Area, Town Staff will collect data to obtain all statistics called for in the evaluation criteria below. These criteria are based on FHWA standards of practice and are commonly used by municipalities for these types of evaluations.

- 85th percentile speed
This is the speed at or under which 85% of vehicles travel on the roadway under normal conditions. Higher 85th percentile speeds are cause for greater concern, and indicate more speeding. Other percentages may be used for this type of measurement but 85th is commonly used.
- Annual average daily traffic
Also referred to as AADT, this is the number of vehicles typically traveling past an observed point on the roadway per day. This is measured over the course of a year and reported by day of the week or other time divisions.
- Previous safety measures undertaken
This is mostly intended for situations where concerned residents or staff seek to go from a lower tier traffic calming measure to a higher tier, but this is not a requirement. If residents feel a previously-enacted measure has been inadequate, or especially if this can be demonstrated with data collected during the data collection phase of this procedure, scoring will be favorable.

¹ MaineDOT standards for traffic calming on arterial roadways
<https://www.maine.gov/mdot/completestreets/docs/Guidelinesfortrafficcalmingupdated9711.pdf>



- 3-year crash history
Occurrence of, injuries during, and pedestrian involvement in crashes during the three years preceding application merit increasing scores under this criterion.
- Daily non-motorized use
Greater observed use by pedestrians, bicyclists and other micromobility users will score higher.
- Proximity to pedestrian generators
Pedestrian generators are some commercial areas, healthcare facilities, recreational areas like parks, and especially schools. Presence of any of these within ¼ mile of any part of the roadway in question will earn a score under this criterion.
- Residential frontage percentage
Most predominantly residential streets were not intended for high speed or high volume vehicle traffic, and residents often tend to value residential areas for walking, therefore higher percentages of the roadway in question fronted by residential lots will merit higher scores.
- Sidewalk infrastructure
Sidewalk presence and scoring are inversely related in this framework - the more pedestrians are forced to travel in the roadway the more urgent traffic calming measures would be thereon.
- Proximity of buildings to roadway
Smaller setbacks indicate more walkable environments as well as greater likelihood of pedestrian activity, so setbacks and score are also inversely related.
- Proximity to 40 mph or more posted speed roadways
Direct intersection with a higher-speed roadway increases the likelihood of speeding, so this will merit a higher score.
- Connected or adjacent parking areas
More parking spaces tend to drive more voluminous vehicle traffic, thus meriting higher scores. Off-street parking - or spaces in parking lots, should be counted for this score, not street parking.
- Transit presence
A bus line or stop within ¼ mile of the roadway in question merits a score in this category. Transit enables greater pedestrian access, and ¼ mile is the distance generally accepted as the maximum a person will walk without using a car for routine non-recreational activity.

The Town will also hold a public meeting with petitioners and other residents of the study area to gather additional project context from impacted parties.

Project Evaluation

Town Staff will evaluate the study area using A) scores generated from the framework shown below and B) input from residents obtained at the public meeting described above.



Criteria	Sub-criteria	Thresholds	Points
85th Percentile Speed (MPH)		7-9 over posted limit	4
		10+ over posted limit	6
Annual Average Daily Traffic	At speed limit 25 MPH	500-1000	3
		1000+	5
	At speed limit 30-35 MPH	1000-2000	3
		2000+	5
Crash History		At least One	2
		Resulting Injuries	4
		Pedestrian Involved	8
Previous Measures		Attempted	4
		Proven Ineffective	6
Daily Non-Motorized Use		25-50	4
		50+	6
Proximity to Pedestrian Generators		Within 1/4 Mile	4
Residential Frontage Percentage		25-50%	1
		>50%	2
Sidewalk Coverage		1 Side	2
		1 Side Partial	3
		None	4
Building/Home Setback		Less than 20 ft	1
		None	2
Proximity to Higher Speed/Volume Roads		Adjoins 40+ speed limit road	1
Connected Adjacent Parking Spaces		30-100	1
		100-200	2
		200+	4
Transit Presence		Bus Stop or Route Within 1/4 Mile	2

Total Points _____

Suggested traffic calming tier by score:

Tier I - Behavioral: 5-20 points

Tier II - Visual: 21-40 points

Tier III - Physical: 41+ points

If town staff find that the study area merits consideration for traffic calming measures, they will determine the category warranted. Staff will inform study area residents of the type(s) of traffic calming measures under consideration and solicit their feedback. It should be noted that a study area that merits consideration for a higher tier of traffic calming measures also merits consideration for lower tier measures - i.e. a street deemed to warrant physical measures is also eligible for visual or behavioral measures; residents or staff may also express a preference for a lower tier.

- If behavioral intervention is the only category being considered, coordination between the Town Manager and Town staff are sufficient to bring about the desired measures - an example being a request for focused speed enforcement on a certain roadway.



Behavioral interventions do not require Town Council involvement, but Councilors will be advised of progress in this area.

- If visual measures are considered, the Town staff may implement them according to routine procedures, municipal sign ordinances, and budget and procurement processes. Visual measures do not require a Town Council decision, but Councilors will be advised of progress in this area.
- Physical interventions may require coordination with Maine DOT staff, more substantial traffic engineering, and planning work than lower-tiered measures. Depending on the nature of the issue being addressed, procurement of an outside consultant may be necessary. Due to costs of implementation of physical traffic calming methods, the Town Manager and Town staff will develop a budget and implementation strategy for these proposed projects. The Town Manager and Town staff will then recommend them to the Town Council for budget approval.

The Town Council will make the final determination at a public meeting whether or not to move forward with a physical traffic calming project and, if necessary, will work with Town Staff to develop an implementation strategy which will include the type of traffic calming measure proposed, budget, and schedule.

A proposal that is rejected due to deficient eligibility or statistical criteria may be resubmitted for reevaluation only after a period of three(3) years or upon a significant and demonstrable change in the condition of the area .

Post Implementation Evaluation:

Once implemented, traffic calming measures will be evaluated for effectiveness. During the initial 90 days after implementation, data will be collected to be compared to pre-implementation data to assess the effectiveness of the implemented measures. Once complete, the study area will be reevaluated annually.

Staff may initiate a new process, including a public meeting, if it is shown that the implemented solution was not effective.



Request for Traffic Calming Evaluation

Name: _____ Address: _____

Signature: _____ Date: _____

Street or road concerned: _____

The above street or road is a public right-of-way and has a posted speed limit of 35 miles per hour or less: Yes / No

Please describe the problem you are submitting this request to address

Please collect signatures from five residents of your street or road who share your concern

Name: _____ Address: _____ Signature: _____

Name: _____ Address: _____ Signature: _____

Name: _____ Address: _____ Signature: _____

Name: _____ Address: _____ Signature: _____

Name: _____ Address: _____ Signature: _____