



City of
Courtenay

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Traffic Calming Guide and Policy

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1 . Introduction of Traffic Calming

- Process and measures to address concerns about the behaviour of motor vehicle drivers travelling.
- Restore streets to their desired function, achieve a balance between creating a secure neighbourhood and fulfilling mobility requirements.
- In essence, the prevailing belief is that traffic calming installations should give top priority to public safety.



2. Policy Statement

- This policy provides the combination of physical measures to alleviate the adverse impacts of motor vehicle use, alter driver behavior, and improve conditions for non-motorized street users.
- Strive to reduce vehicle speed, address excessive traffic volume, and foster improvements to neighbourhood safety, equity, and quality of life.



2. Policy Statement – Con't

Objectives

- Enhance the safety of neighbourhoods.
- Support a deeper dive into traffic safety impacts on equity-deserving groups.
- Elevate the livability of neighbourhoods.
- Encourage public participation and community support.



3. Traffic Calming Principles

- Allow emergency and service access.
- Facilitate active transportation modes.
- Preserve reasonable road accessibility.
- Address the real problem.

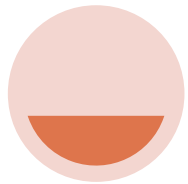


4. Guidelines of Traffic Calming Implementation

- Considered exclusively for local and collector roads.
- Limited to two lane roadways or less.
- Evaluate whether an area-wide plan versus a street-specific plan is more suitable.
- Identify whether traffic issues arise from congestion and spill-over effects from adjacent higher-class roadways.
- Traffic calming is not a universal solution to all neighbourhood transportation problems

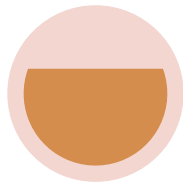


5. Traffic Calming Process



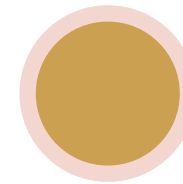
Phase 1

Initiation and
Assessment



Phase 2

Plan Development



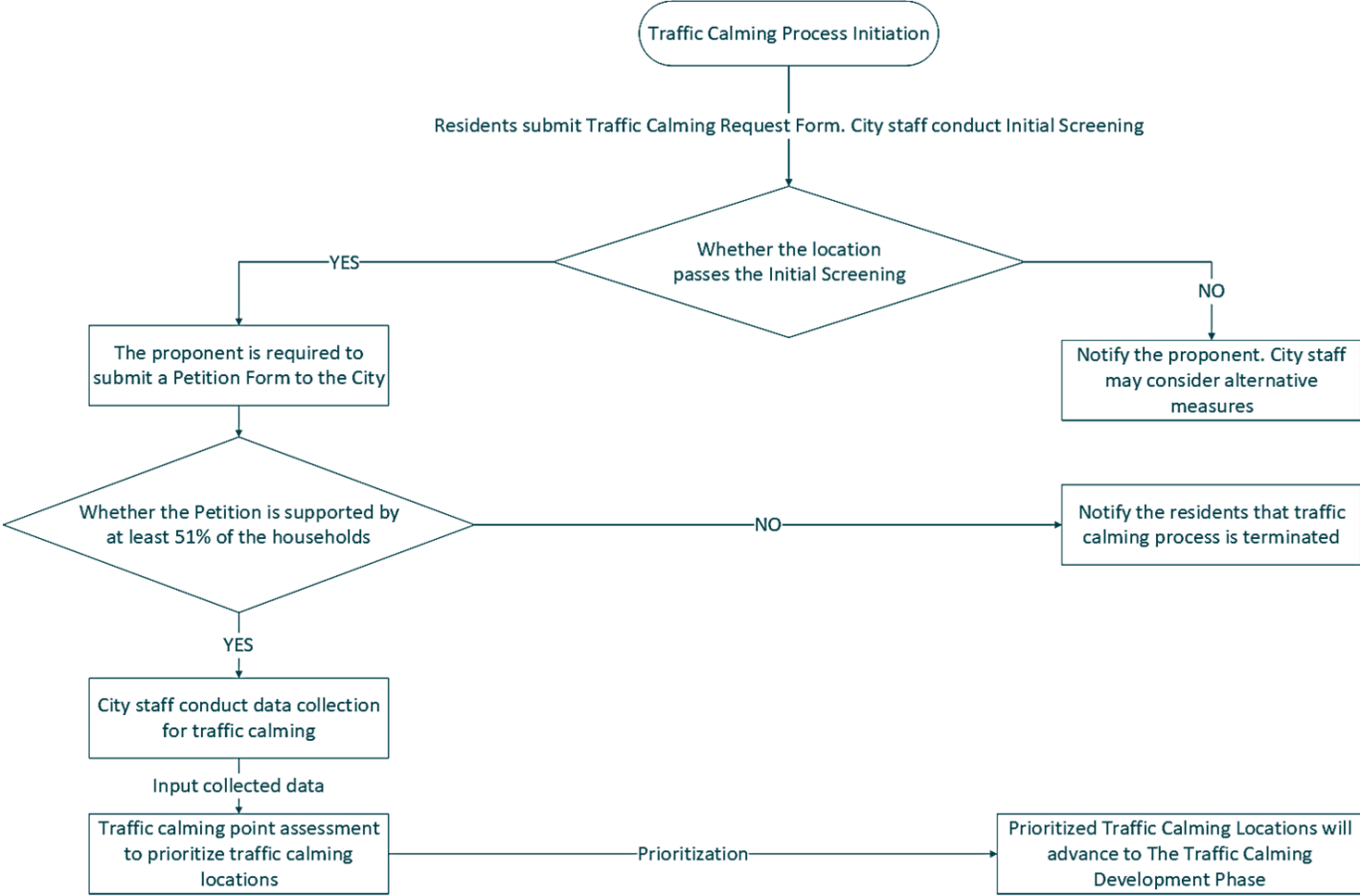
Phase 3

Approval,
Implementation
and Evaluation

6. Traffic Calming Process

Phase 1: Initiation and Assessment

- 1) Process Initiation
- 2) Neighborhood Petition
- 3) Data Collection
- 4) Point Assessment



6. Traffic Calming Process

Phase 1: Initiation and Assessment – Con't

Initial Screening

The analyzed roadway must satisfy all the specified criteria

Criteria	Pass / Fail
Roadway must be a local or collector, featuring no more than two travel lanes (one lane for each direction).	
Roadway must have a minimum of 500 annual average daily traffic (AADT).	
The posted speed limit shall not be greater than 50 km/h.	
85 th percentile speed of the roadway should be greater than the posted speed limit.	
Roadway section should be longer than 150 metres.	
Roadway must be assumed and maintained by the City of Courtenay.	
Zoning should be residential in nature.	
No traffic calming initiatives have been implemented in the past 36 months, and there are no scheduled capital projects within the next 36 months that would address the traffic issues.	
Overall	

6. Traffic Calming Process

Phase 1: Initiation and Assessment – Con't

Point Assessment

Assign **weighted points** based on the characteristics of the roadways for traffic calming.

Location:		Data Compiled:		
Roadway Type		Roadway Type		
		<input type="checkbox"/> Local Road	<input type="checkbox"/> Collector Road	
Feature	Criteria	Maximum Points	Total Points	
1	Vehicle Speed 85 th Percentile Speed	General speeding - 1 point for every 1 km/h of 85 th percentile speed over the posted speed limit*. Excessive Speeding - 5 points for 10% of excessive speeding (10km/h over the posted speed limit) and an additional 5 points for every 5% of excessive speeding.	25	
2	Volume Annual Average Daily Traffic (AADT)	5 points for every 500 AADT on local roads; 5 points for first 1250 AADT and 5 points for every 750 after on collector roads..	20	
3	Collisions Collision History	5 points for every collision not involving vulnerable road users within the past 3 years or a longer period. 20 points for every collision involving vulnerable road users (VRU)** within the past 3 years or a longer period.	25	
4	Vulnerable Road User Generators Pedestrian/Cyclist Activity	5 points for each pedestrian / cyclist-oriented facility nearby, e.g., elderly housing, parks / playgrounds, community or retail centres, churches, libraries, schools, childcare centres, etc..	20	
5	Active Transportation Presence of Active Transportation Facilities	10 Points for lacking sidewalks on both sides of the roadway with pedestrians; 5 points for lacking sidewalk on one side of the roadway with pedestrians; 10 points for lacking cycling lane for the roadway with cyclists.	10	
Total score				
Which traffic calming priority category (I to V) does this location belong to? (Refer to Table 3)				

6. Traffic Calming Process

Phase 1: Initiation and Assessment – Con't

Point Assessment

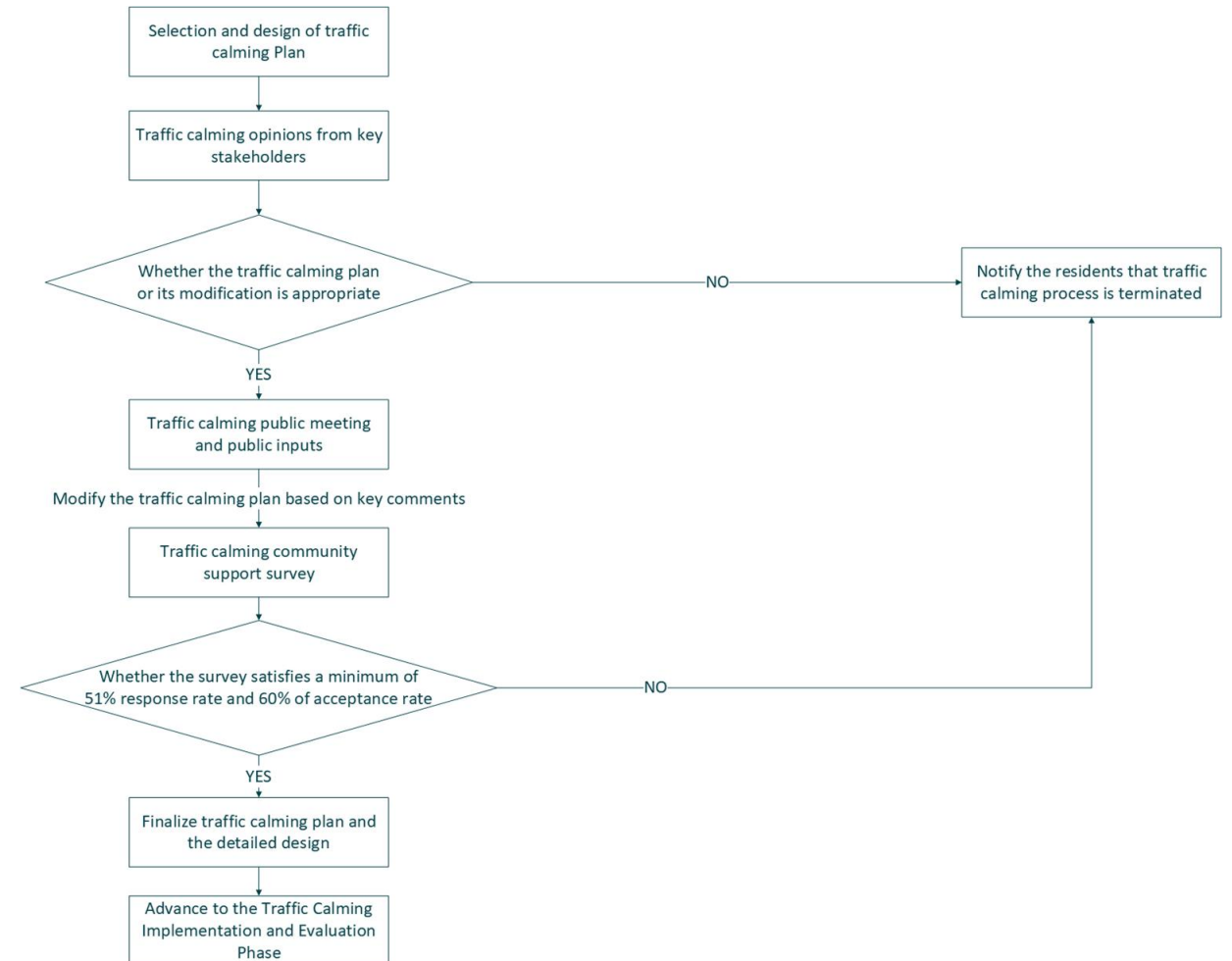
Based on the point assessment scores, the traffic calming locations will be classified into **five** priority levels.

Traffic Calming Prioritization Category	Traffic Calming Point Assessment Score*	Recommended Traffic Calming Treatment(s)**
I	0-60	No traffic calming action is needed.
II	61-70	Only simple traffic calming measures without physical alternation of the roadway, i.e., signage and/or pavement markings should be applied.
III	71-80	Low traffic calming priority - only traffic calming treatments with minimal impact on traffic movement and accessibility should be considered.
IV	81-90	Medium traffic calming priority - traffic calming treatments that affect traffic movement and accessibility could be considered.
V	91-100	High traffic calming priority - road safety should take precedence over traffic movement and accessibility. A combination of various traffic calming measures could be explored. Extensive traffic calming measures, such as road closures, could be implemented.

7. Traffic Calming Process

Phase 2: Plan Development

- 5) Selection and Design of Traffic Calming Plan
- 6) Opinions from Key Stakeholders
- 7) Public Meeting and Public Inputs
- 8) Community Support Survey
- 9) Finalize the Preferred Plan and Detailed Design



7. Traffic Calming Process

Phase 2: Plan Development – Con't

Traffic Calming Toolbox

The traffic calming toolbox of the City encompasses a wide range of broadly applied and proven traffic calming measures in **five categories**:

- Horizontal deflection
- Vertical deflection
- Roadway narrowing
- Obstruction
- Signage & pavement markings



7. Traffic Calming Process

Phase 2: Plan Development – Con't

Traffic Calming Toolbox - Horizontal Deflection

Traffic Calming Measures	Potential Influences				Cost Per Measure
	Speed Reduction	Volume Reduction	Collision Reduction	Traffic Movement Disruption	
1. Horizontal Deflection					
Chicane	●	◐	○	◑	Medium-High
Lateral Shift	●	○	○	◑	High
Traffic Circle	●	◐	●	◑	Medium-High
Mini Roundabout	●	○	●	◑	High
Corner Extension	◐	○	○	◑	Medium-High

● Major Reduction

● Major Disruption

◐ Minor Reduction

◑ Minor Disruption

○ Neglectable Impact

7. Traffic Calming Process

Phase 2: Plan Development – Con't

Traffic Calming Toolbox - Vertical deflection

Traffic Calming Measures	Potential Influences				
	Speed Reduction	Volume Reduction	Collision Reduction	Traffic Movement Disruption	Cost Per Measure
2. Vertical Deflection					
Speed Hump / Table	●	◐	●	●	Low
Speed Cushion	●	◐	●	●	Low
Speed Kidney	●	○	○	●	Low-Medium
Raised Crosswalk	●	◐	●	●	Low-Medium
Raised Intersection	◐	○	●	●	High

● Major Reduction

● Major Disruption

◐ Minor Reduction

◐ Minor Disruption

○ Neglectable Impact

7. Traffic Calming Process

Phase 2: Plan Development – Con't

Traffic Calming Toolbox - Roadway narrowing

Traffic Calming Measures	Potential Influences				Cost Per Measure
	Speed Reduction	Volume Reduction	Collision Reduction	Traffic Movement Disruption	
3. Roadway Narrowing					
Curb Bulge	●	○	○	■	Medium-High
Raised Median Island	●	○	○	■	High
Lane Narrowing	■	○	○	■	Low
On-Street Parking	■	■	○	■	Low

● Major Reduction

● Major Disruption

■ Minor Reduction





















■ Minor Disruption

○ Neglectable Impact

7. Traffic Calming Process

Phase 2: Plan Development – Con't

Traffic Calming Toolbox - Obstruction

Traffic Calming Measures	Potential Influences				
	Speed Reduction	Volume Reduction	Collision Reduction	Traffic Movement Disruption	Cost Per Measure
4. Obstruction					
Half Street Closure					Low-High
Full Street Closure					Medium-High
Diagonal Diverter					Medium
Median Barrier & Forced Right-In/Right-Out Island					Low-High
Intersection Channelization					High

-  Major Reduction
-  Minor Reduction
-  Neglectable Impact
-  Major Disruption
-  Minor Disruption

7. Traffic Calming Process

Phase 2: Plan Development – Con't

Traffic Calming Toolbox - Signage & pavement markings

Traffic Calming Measures	Potential Influences				
	Speed Reduction	Volume Reduction	Collision Reduction	Traffic Movement Disruption	Cost Per Measure
5. Signage and Pavement Marking (not recommended to be used as a standalone measure)					
Traffic Calming Neighbourhood Sign	●	○	○	○	Low
Pavement Treatment and Marking	●	○	○	○	Low
Speed Display Device	●	○	○	○	Low-Medium

● Major Reduction

● Major Disruption

● Minor Reduction

● Minor Disruption

○ Neglectable Impact

8. Traffic Calming Process

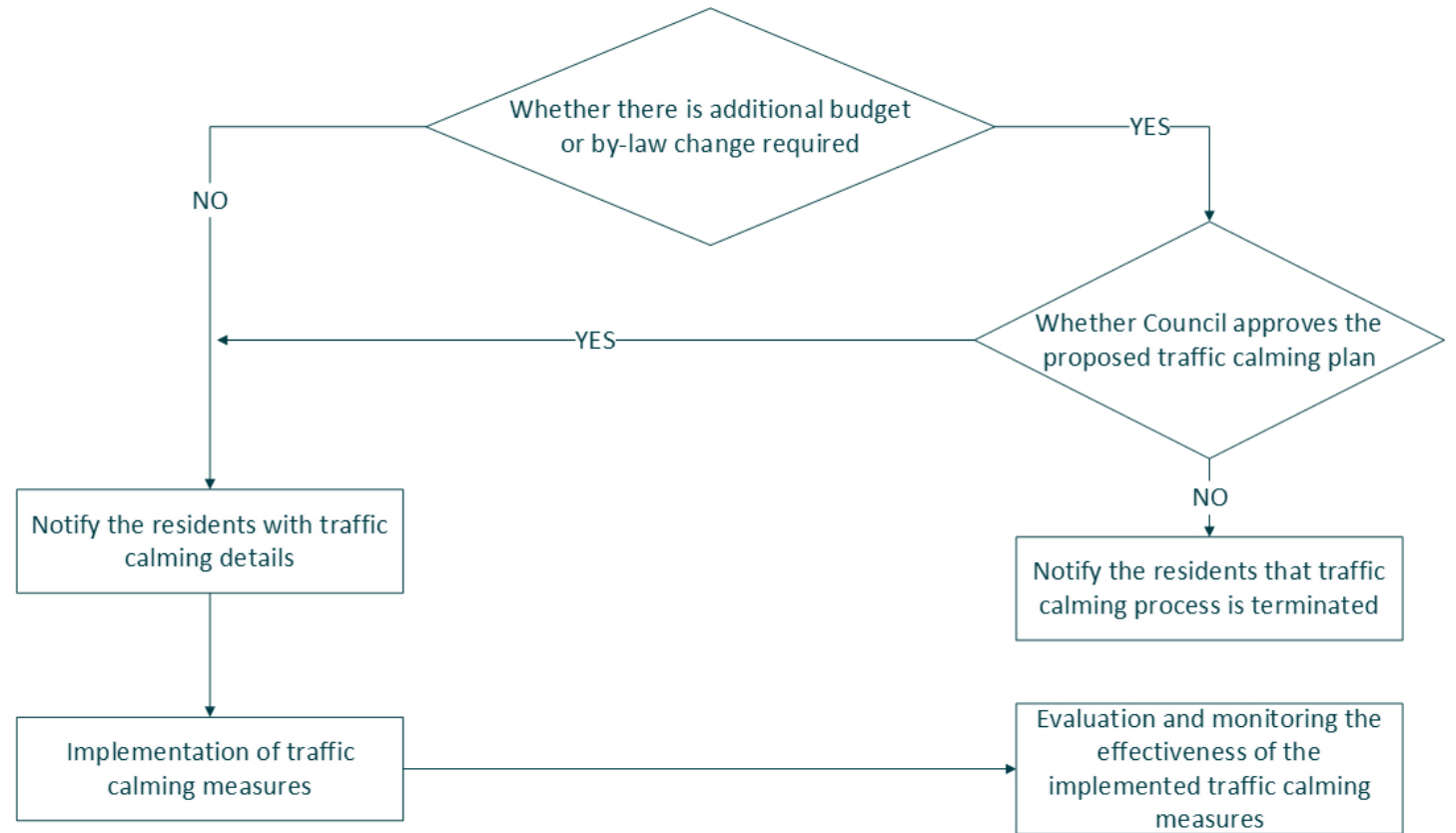
Phase 3: Approval, Implementation and Evaluation

10) Approval of Council and Resident Notification

Resident Notification

11) Implementation

12) Evaluation and Monitoring



8. Traffic Calming Process

Phase 3: Approval, Implementation and Evaluation – Con't

Monitor and examine the traffic calmed area following the implementation of the traffic calming

- Traffic Performance
- Traffic Safety
- People Friendly and Livable Community



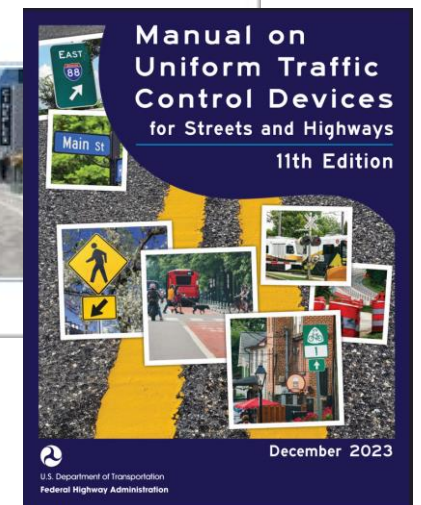
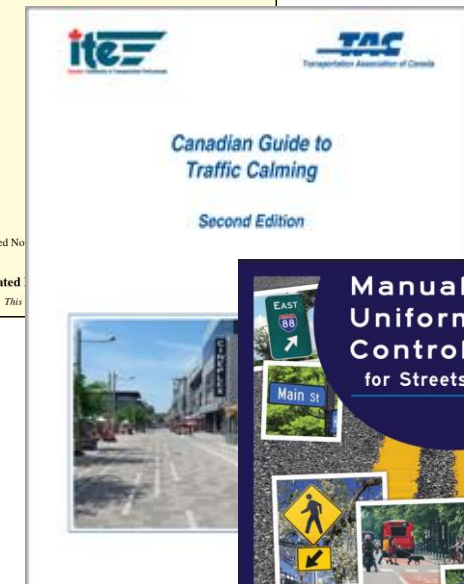
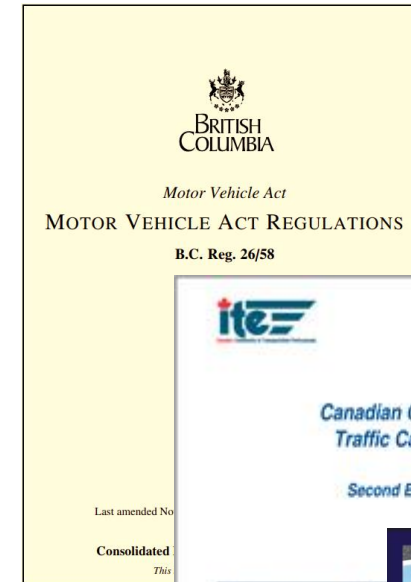
9. Traffic Calming Internal Roles and Responsibilities

- City Council
- Operational Services
- Engineering Services
- Financial Services
- Fire Department
- Legislative and Corporate Services



10. Legislative, Regulatory, and Document References

- BC Motor Vehicle Act
- City of Courtenay Traffic Regulation Bylaw
- Canadian Guide to Traffic Calming - Second Edition
- Manual of Uniform Traffic Control Devices for Canada, Sixth Edition (MUTCD)
- Manual of Standard Traffic Signs & Pavement Markings
- BC Active Transportation Design Guide
- Vision Zero and the Safe System Approach: A Primer for Canada
- Complete Streets: Making Canada's Roads Safer for All



Thank you!
Questions?

