



Municipality of Lakeshore Traffic Management Policy Review

**Public Information Centre
Atlas Tube Recreation Centre
447 Renaud Line, Belle River
June 8, 2023
5:00 PM to 7:00 PM**

Please Pick up A Comment Sheet!

We encourage you to use the sheet provided to record any comments on the material presented today.

Questions?

Feel free to ask any member of our project team in attendance. We are happy to assist!

Project Overview

Paradigm was retained to review Lakeshore's traffic management policies which include the following:

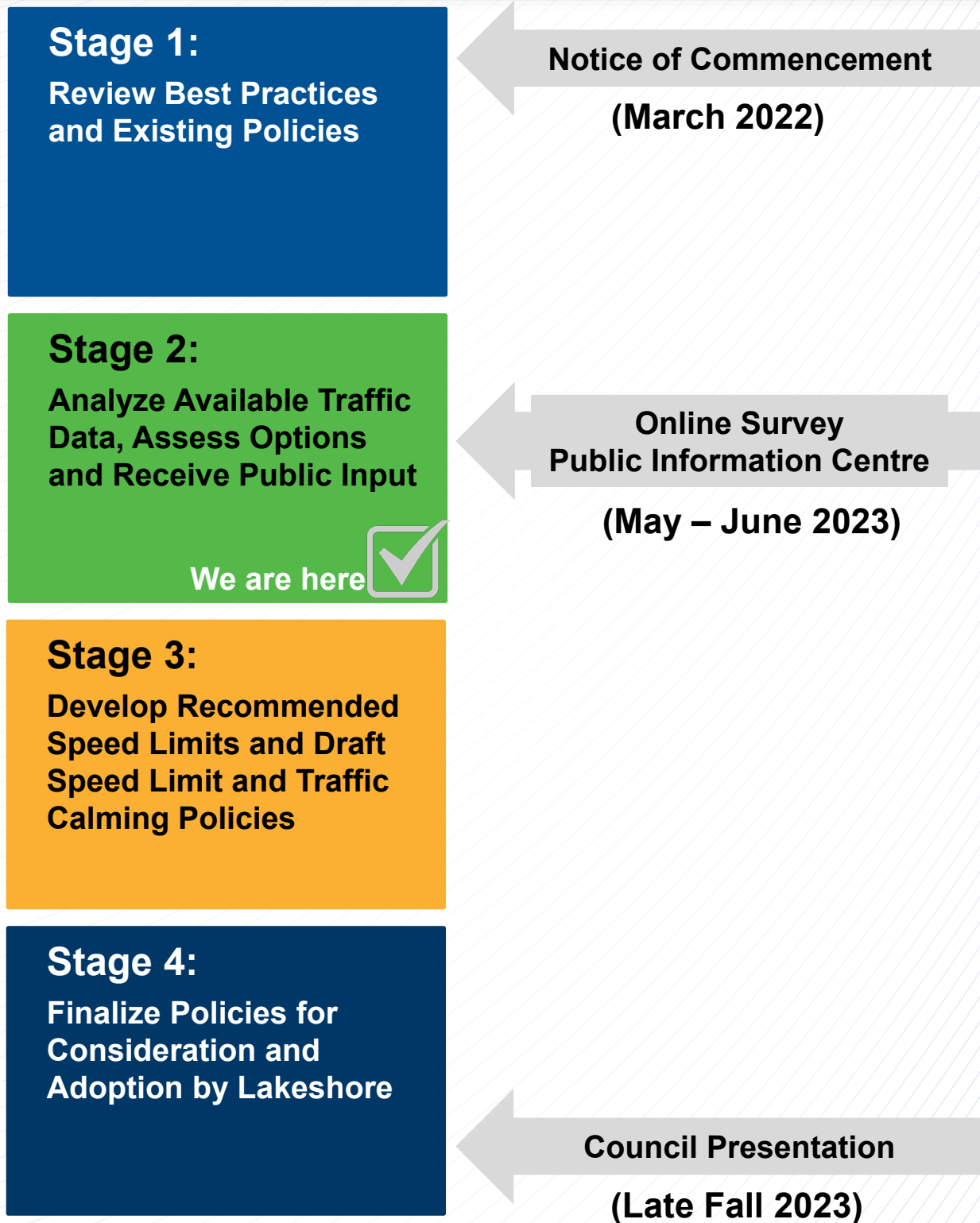
Speed Limit Policy Review

- Review proven effective policies and best practices used by other municipalities to establish and monitor the effectiveness of speed limits;
- Develop a process to evaluate and recommend speed limit changes on roadways in Lakeshore; and
- Assess the feasibility of area-wide speed limit reductions in residential (urban) areas.

Traffic Calming Policy Review

- Review and improve upon Lakeshore's existing traffic calming policy;
- Research the latest and best practices used for traffic calming;
- Develop guidelines and criteria for receiving, evaluating, and implementing traffic calming measures in response to concerns raised by residents; and
- Develop a recommended process for making decisions about the types of traffic calming measures to use, their effectiveness, and how requests for new traffic calming projects are processed.

Study Process



Speed Limits

Overview

Speed limits help drivers choose safe operating speeds for the existing road conditions. The selection of a posted speed must consider legislative regulations, public recognition and understanding, and adhere to engineering standards and practices.

The *Highway Traffic Act* (HTA) establishes the regulatory framework for setting speed limits in Ontario.

Subsection 128.(1) of the HTA defines “default” or statutory speed limits as:

- 50 km/h on roads within a local municipality or built-up area; and
- 80 km/h on roads not within a built-up area

Lower Speed Limits

Subsection 128.(2) of the HTA permits municipalities to set speed limits that differ from the statutory limits on roads under their jurisdiction. The speed limit set must be less than 100 km/h.

As part of the *Safer School Zones Act, 2017* municipalities can set lower rates of speed for all roads within a designated area.

Speed Limit Policy Approaches

Current Practice

Speed limits are determined through an engineering review following the Transportation Association of Canada (TAC) *Canadian Guidelines for Establishing Posted Speed Limits*.

The TAC method begins with identifying the ideal speed for a road based on:

- Adjacent land use (urban or rural)
- Roadway cross-section (number of lanes)
- Functional classification (local, collector or arterial)

The ideal speed is then adjusted to account for the following to arrive at the recommended speed limit:

- Risks associated with the physical design of the roadway (geometry, roadside hazards, pedestrians and cyclists, intersections, driveways, on-street parking),
- Setting
- Expected traffic conditions

The process does not factor in observed operating speeds.

This approach requires speed limit signs to be installed on each road, if the speed limit differs from the default limit.

Speed Limit Policy Approaches

The Municipality can consider the following approaches to implement reduced speed limits in urban areas (either specific neighbourhoods or municipality-wide).

Area Wide Speed Limits

- Gateway speed limit signs are posted at entry and exit points to a designated area (typically local neighbourhood roads)
- All streets within that area have the same speed limit unless otherwise posted
- Requires less signage to designate lower speed limits and maintains a consistent speed limit for all local roads in the area



Municipal-Wide Modified Default

- Municipalities can establish a different default speed limit for all roads under their jurisdiction
- Signs posted on entrance to the municipality and apply to all roads

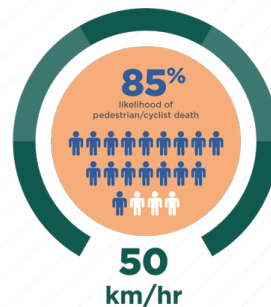
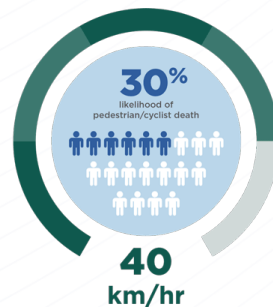
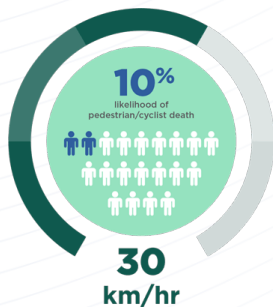


Collisions and Speed Management

Speed and Collision Rates

Higher speeds contribute to a higher risk of collisions involving serious injuries and fatalities in three ways:

- Reduce drivers' field of vision as well as peripheral vision and consequently, situational awareness
- When vehicles are travelling faster greater stopping distances are required when braking
- Collisions resulting from higher speeds can inflict more severe blunt force trauma on victims. The effect is most pronounced for vulnerable road users who do not have protection.



Risk of death for pedestrians and cyclists involved in a vehicle collision rises dramatically as vehicle speeds increase

Speed Management

- Speed Management uses roadway design and enforcement to persuade drivers to adopt consistent speeds that offer mobility without compromising safety
- Speed management is the most essential element for improving road safety, especially for vulnerable users (pedestrians, cyclists, children, seniors)
- Speed limits should be set to provide a predictable road environment for all users
- Most drivers travel at a speed they feel comfortable with
- Many drivers underestimate their risk of being in a collision

Speed Limit Enforcement

Police Enforcement

- Police enforcement is typically deployed on a complaint system basis or speed watch programs
- Limited police resources for ongoing speed enforcement
- Minimally sustained effect without ongoing attention

Automated Speed Enforcement

- Camera and speed measurement device to enforce speed limits in identified areas
- Can only be used in School Zones and Community Safety Zones (speed limit < 80 km/h)
- Expensive for lower-tier municipalities to operate (+/- \$250,000 per camera)
- Tickets are issued to the owner of the vehicle regardless of who was driving
 - Only penalty is a fine
 - No demerit points



Traffic Calming Overview

What is Traffic Calming?

The Canadian Guide to Traffic Calming defines traffic calming as:

The process and measures applied by road authorities to address concerns about the behaviour of motor vehicle drivers travelling on streets within their jurisdictions

The application of traffic calming measures is intended to control vehicle speeds and volumes, and increase safety.

Advantages of Traffic Calming

- Assist with speed management
- Reduced traffic volumes
- Discouraging short-cutting
- Improved neighbourhood livability
- Reduced conflicts between roadway users

Disadvantages of Traffic Calming

- Poses challenges maintaining emergency response times
- Reduced ease of access for local traffic
- Shifting or diverting traffic volumes or speeding concerns onto other roadways
- Increased maintenance costs, including snow clearing and curbside waste collection
- Increased vehicle emissions
- Visually unattractive or increased noise pollution

Traffic Calming Measures

Factors to consider when developing a traffic calming plan:

- Identify and quantify the real problem
- Ensure the collected data supports the need for traffic calming
- Consider improvements to the arterial network first
- Consider use of soft measures before investing in hard measures
- Select measures that can address the problems identified
- Apply measures on an area-wide basis
- Avoid restricting access and egress
- Use self-enforcing measures
- Do not impede non-motorized modes (pedestrians, cyclists)
- Consider all services (transit, emergency, maintenance)
- Monitor and follow-up after implementation

Categories of Measures

Potential traffic calming measures for Lakeshore fall into the following categories:

Soft Measures

- Education and Enforcement
- Surface Treatment
- Pavement Markings
- Roadway Narrowing

Hard Measures

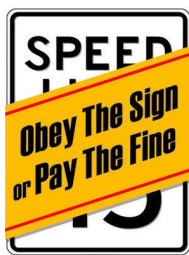
- Vertical Deflection
- Horizontal Deflection
- Access Restrictions
- Gateway Treatments

Not all types of measures are appropriate for all locations. Selection of measures will depend on the local context and identified problem through data collection and analysis.

Traffic Calming – Soft Measures

Education and Enforcement

- Measures are intended to modify driver behaviour
- Typically used first, these measures vary in scope, from broad to localized actions, and from short- to long-duration programs
- Least costly and intrusive
- Least sustained effect without ongoing attention
- Examples include variable speed signs, enforcement programs



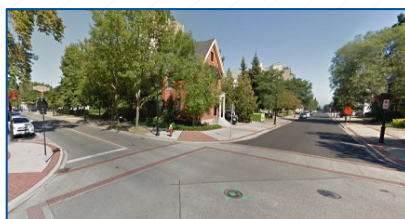
Variable Speed Sign

Surface Treatment and Pavement Markings

- Influence drivers to reduce speed by drawing attention to a specific area or information
- Create the impression a driver's speed is increasing
- Less costly and intrusive than physical measures
- Less sustained effect without ongoing enforcement
- Examples include textured pavement, on-road markings



Textured Crosswalk



Coloured Pavement



On-Road Pavement Marking

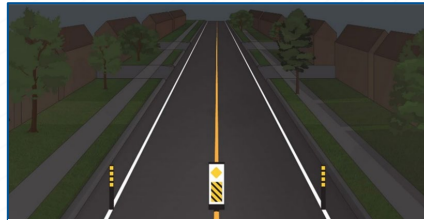
Traffic Calming Measures

Roadway Narrowing – Soft Measure

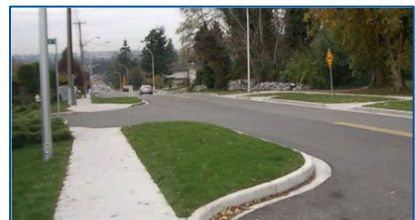
- Reduce the width of travelled portion of the road
- Increase drivers' feeling of "confinement", resulting in reduced speeds. They also shorten pedestrian crossings.
- More effective than non-physical measures, less intrusive than other physical measures
- More costly and less effective than other (physical) measures
- Examples include lane narrowing, flexible bollards



Lane Narrowing



Flexible Bollards



Bump-Outs

Vertical Deflection – Hard Measure

- Cause a vertical upward movement of the vehicle
- Tend to lower speeds because motorists slow to avoid unpleasant sensations
- Most intrusive, can be more costly than other physical measures, only applicable in limited situations
- Examples include speed cushions, raised crosswalks



Raised Crosswalk



Raised Intersection



Speed Cushion

Traffic Calming – Hard Measures

Horizontal Deflection

- Cause a lateral shift in the travel pattern of the vehicle
- Can discourage speeding and short-cutting traffic to varying extents
- More effective than non-physical measures, less intrusive than vertical deflection measures
- More costly and less effective than non-physical measures
- Examples include chicanes, curb radius reduction



Radius Reduction



Mini Roundabout



Chicanes

Access Restrictions and Gateway Treatments

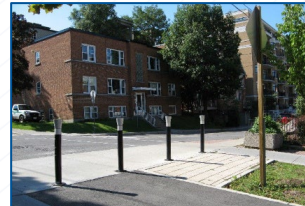
- Some measures limit specific motor vehicle movements
- Discourage short-cutting or through traffic and reduce conflicts to varying extents
- Define neighbourhood entry points
- Can be as costly and intrusive as other physical measures
- Compliance concerns can require ongoing enforcement
- Examples include directional diverter, channelization, medians



One-Way Closure



Directional Diverter



Road Closure



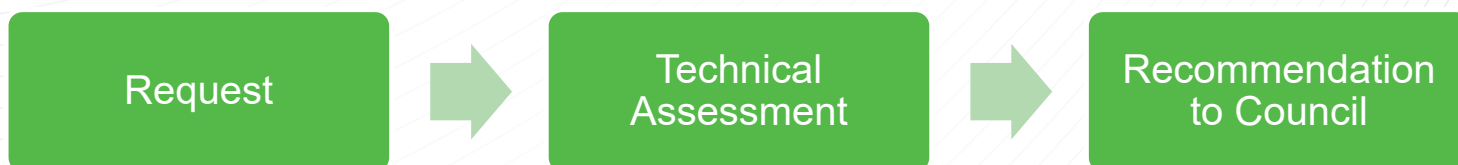
Gateway Treatment

Engagement Approach

Public participation is an integral part of the study process. The Project Team is considering three approaches:

Approach 1 – Best Suited for Speed Limit Requests

- Public engagement only considered at time of request or during recommendation to Council
- More streamlined process, minimal public input



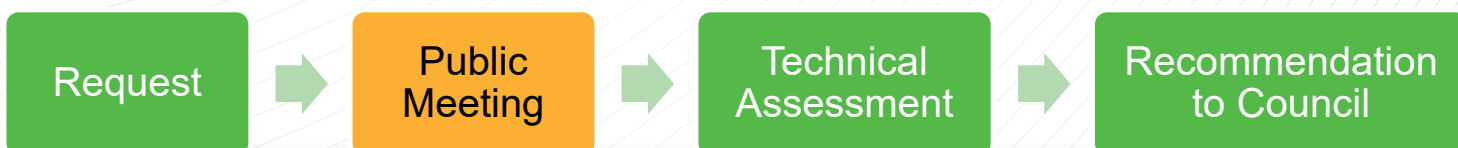
Approach 2 – Best Suited for Traffic Calming Requests

- One or two design options developed and presented to the public for review and comment
- May take longer; options designed to address technical requirements; may not reflect public's ideas / vision for the road



Approach 3 – Best Suited for Traffic Calming as part of Road Reconstruction Projects

- Public meeting held to gather feedback on issues and possible solutions before considering design options
- Longest process; incorporates public's vision for the road; may not result in the most effective option from a technical perspective; more challenging to achieve public consensus



An Integrated Approach

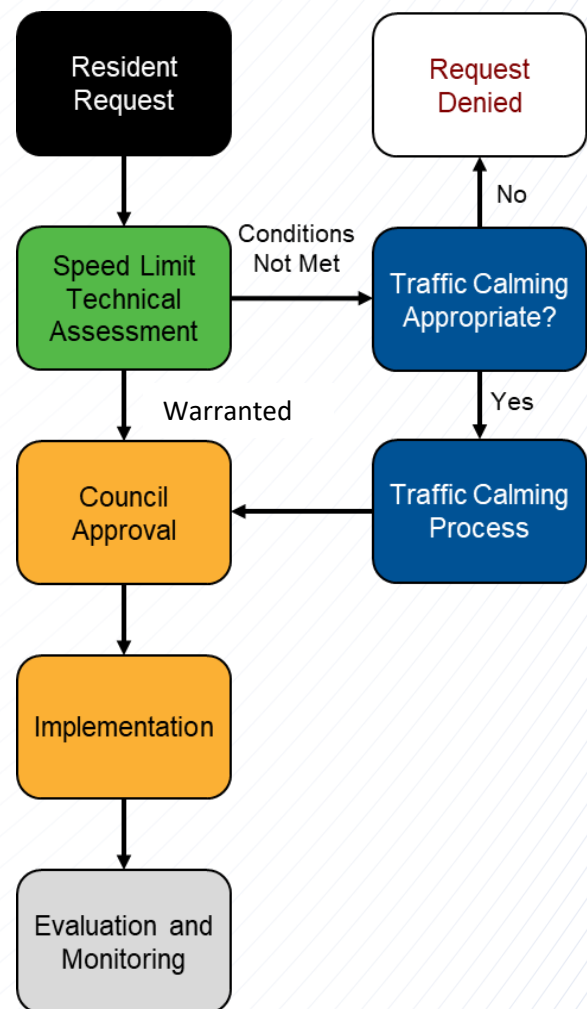
Responding to Resident Requests

Speeding and safety issues are often linked together – reducing speed limits without enforcement or traffic calming measures often does not influence driver behaviour.

Speed limit modifications and traffic calming measures work better in combination.

Enforcement resources are often limited and automated speed enforcement is expensive and can only be deployed in defined locations.

Many municipalities are integrating the resident request and assessment process to allow the Municipality to determine how best to address the identified traffic concerns.



Sample Study Process

Next Steps

After This Meeting, We Will:

- Summarize and incorporate public input received
- Finalize the recommended policies
- Present the recommendations to Council

Please Provide us Your Feedback!

If you have any questions or comments, please contact:

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Stay Tuned...

Visit us online at www.lakeshore.ca/trafficmanagement

Thank you for Attending!
**Please return your comment sheets in the
box or by June 30, 2023**