The Corporation of the District of Saanich

Report

To: **Mayor and Council**

From: **Harley Machielse, Director of Engineering**

Date: **07/04/2022**

Subject: **Saanich Council Speed Limit Establishment Policy**

RECOMMENDATION

That Council:

1. Adopt the proposed Saanich Council Speed Limit Establishment Policy; and
2. Direct staff to conduct Safe Speed Studies on nine priority Type B streets in accordance with the proposed policy attached as Appendix A and the map attached as Appendix B to this report.

PURPOSE

The purpose of this report is to seek Council approval of the proposed Speed Limit Establishment Policy for Saanich, which provides direction to change speed limits on streets without a continuous yellow centre line, and a detailed methodology to evaluate and change speed limits on streets with continuous yellow centre lines.

This report also outlines a plan to conduct Safe Speed Studies on nine priority Type B streets that are identified on the map in Appendix B and were selected based on a review of crash data, as well as input from Saanich Police and the public.

BACKGROUND

Currently, the default speed limit for municipal streets in BC is 50 km/h. This speed limit is set by the Province and outlined in the *Motor Vehicle Act (BC MVA)*. Municipal governments do not have the ability to change the default speed limit, but they can regulate speed limits on streets through bylaws and signage.

In 2019 the Province amended Part 13 of the MVA to allow pilot projects that would research, test, and evaluate new regulatory approaches to matters not currently set out in the legislative framework. A first phase of pilot projects (under Part 13) was launched by the Ministry of Transportation and Infrastructure (MOTI) in early 2020. It focused on zero-emission mobility devices. A second phase for pilot projects to trial speed limit reductions on specific roads or classifications of roads was expected to occur in 2021.

In October 2020 Saanich Council directed staff to submit an application for a pilot project to reduce speed limits on roads without a continuous centre line to 30 km/h.

In November 2021, staff learned that the Minister of Transportation and Infrastructure had not provided direction to begin the second phase of pilot projects and in January 2022, the District received a letter from the Minister's office encouraging municipalities to use the avenues available under the existing BC MVA.

Council Direction

In February 2022, Council adopted Vision Zero as an approach to road safety in Saanich and they passed the following motions:

"That Council direct staff to prepare a one-time resource request for the 2022 budget deliberation for the development of a Road Safety Action Plan in alignment with Vision Zero and a Safe Systems approach."

"That Council direct staff to undertake the following priority items to address road safety in 2022 utilizing existing resources:

- Develop a Council Speed Limit Establishment Policy; and
- Continue preliminary work to update the Active Transportation Plan."

"That Council direct staff to consider the development of a traffic calming policy in the update to the Active Transportation Plan."

As per Council's direction, this report introduces the proposed Speed Limit Establishment Policy for Saanich. The complete policy is attached as Appendix A.

Work to develop the Road Safety Action Plan and update to the Active Transportation Plan, which will include a traffic calming policy framework is underway.

DISCUSSION

Rationale for Reducing Speed Limits

As part of Vision Zero, motor vehicle speed is recognized and prioritized as a fundamental factor in crash severity. Crashes at higher speeds are more forceful and thus more likely to be fatal. Research has shown that a person hit by a car travelling 35 mph (56 km/h) is five times more likely to die than a person hit by a car travelling 20 mph (32 km/h)[1].

Research has also shown that reducing speed limits can greatly increase the chances of survival for those involved in collisions, particularly vulnerable road users, such as pedestrians or cyclists who are not protected by the heavy infrastructure of a vehicle.

These findings highlight the importance of managing motor vehicle speeds as one way to reduce the number and severity of collisions, thus making roads safer for everyone. They also underscore the District's commitment to zero traffic fatalities and serious injuries, as well as making progress on key priorities to increase active travel modes (if roads feel safer, more

[1] Tefft, B.C. (2011). *Impact Speed and a Pedestrian's Risk of Severe Injury or Death* (Technical Report). Washington, D.C.: AAA Foundation for Traffic Safety.

people are likely to cycle and walk), reducing greenhouse gas emissions (if more people choose active travel, emissions from motor vehicles will go down) and enhancing livability (fewer cars on the road will increase residents' feeling of safety and their overall enjoyment of their communities).

Case Studies

Momentum is growing among municipalities to manage speed limits as a way to make roads safer for pedestrians, cyclists and drivers. The following is a summary of the actions being taken in other municipalities to manage speed limits and enhance safety for all road users.

City of Vancouver

In February 2021, the City of Vancouver launched its first slow zone demonstration project in the Grandview-Woodland area. Authorized under the current BC MVA, this project has resulted in speed limits being reduced from 50 km/h to 30 km/h through the use of gateway and speed limit signs on every block, and paint markings on streets.

Originally the plan was to implement this project in coordination with the Provincial pilot program and staff intended to use the data collected through this pilot to inform a future pilot project under Part 13 of the BC MVA. The hope was this project would lead to blanket speed limit changes across the city.

Vancouver has proceeded with the pilot, despite changes to the Provincial direction. The Grandview-Woodland area was chosen based on an evaluation using a selection methodology developed by staff that prioritizes areas where data shows reduced speed limits are needed most. An evaluation of the pilot is expected to sometime this year.

City of Surrey

In April 2021, the City of Surrey started a speed limited reduction pilot project on local roads in six residential neighbourhoods. Speed limits have been reduced to 30 km/h and 40 km/h.

The purpose of the pilot project is to study how lowering speed limits impact drivers' behaviours and to improve safety (including perceptions of safety) on streets. City staff will monitor vehicle speeds, crashes and safety (including perceptions of safety) on streets.

In setting up a plan, Surrey staff conducted a best practices review of other jurisdictions. Ultimately the neighbourhoods chosen for the pilot were selected based on data-driven review, including an evaluation of equity need, input from stakeholders and requirements for evaluation.

Seattle, WA

The Seattle Department of Transportation adopted Vision Zero in 2015 and through a process of implementing, monitoring and evaluating speed reductions in areas and on streets throughout the city, staff have determined that lower speed limits and a higher frequency of speed limit signs has led to fewer crashes.

Seattle operates under a different legal framework that allows them to amend their municipal code to reduce citywide default speed limits. Since 2016 they have changed the default speed

limit for over 2,000 km of neighbourhood streets from 25 MPH to 20 MPH (approximately 40 km/h to 30 km/h) and for arterial streets from 30 MPH to 25 MPH (approximately 50 km/h to 40 km/h).

Seattle's success in reducing speed limits throughout the city has been due, in large part, to a data-driven approach to make the case that the built environment, the City's Vision Zero commitment and a shift toward walking, biking and transit all signaled the need for slower, safer speed limits.

An Approach for Saanich

As part of Vision Zero, Saanich is committed to a Safe Systems approach, which recognizes that there are multi-faceted systems in place to guide safety on streets. These include policies, physical infrastructure, education and awareness, and enforcement. When motor vehicle speeds are applied with road design changes, and education and enforcement, there is an increased potential to improve safety for all road users.

Conditions and data unique to Saanich were considered in the development of the proposed Council Speed Limit Establishment Policy. As well, information gathered through a review of the best practices in other jurisdictions informed key elements of the proposed approach. For example, the use of data to evaluate and select the streets that would undergo Safe Speed Studies was identified as important, as was the need to incorporate equity into the decision process, and to monitor and evaluate the results of reduced speeds, once implemented.

Through investigation, staff determined that the National Association of City Transportation Officials (NACTO) guide *City Limits - Setting Safe Speed Limits on Urban Streets* would provide a logical process, based on quantitative and qualitative data inputs that could be adapted for use on Saanich streets.

Proposed Saanich Council Speed Limit Establishment Policy

The proposed Saanich Council Speed Limit Establishment Policy provides guidance for staff to determine the appropriate speed limits on all streets under Saanich's jurisdiction and control. If approved, the policy would inform recommendations to Council for amendments to the Streets and Traffic Regulation Bylaw.

The NACTO guide is intended for use on urban streets, however many of the same principles for establishing safe speed limits apply to both urban and rural streets, therefore staff believe the guide can be adapted for use on rural streets as well. Where issues arise, staff would seek additional input from other resources, including the *BC Active Transportation Design Guidelines (BCATDG)*, Saanich Official Community Plan (OCP) and/or the District's Engineering Specifications (Schedule H).

For the purposes of the policy, streets inside the Urban Containment Boundary (UCB) would be considered urban and streets outside the UCB would be considered rural.

At the outset, the Policy identifies two categories of streets:

1. **Type A streets** are streets without continuous yellow centre lines and/or streets where a Neighbourhood Bikeway exists, or is proposed in the Active Transportation Plan; and

2. **Type B streets** are streets with a continuous yellow centre line and/or streets that are not in the Type A Streets category.

Type A streets are typically residential streets. In accordance with the policy, all Type A streets would have a maximum speed limit of 30 km/h.

A Safe Speed Study would be used to determine the speed limits on Type B streets, which include major roads like Gorge Road and Sayward Road and collector roads like Emily Carr Drive. The detailed process for conducting this study is outlined in the attached policy (Appendix A). A summary of the process is provided below.

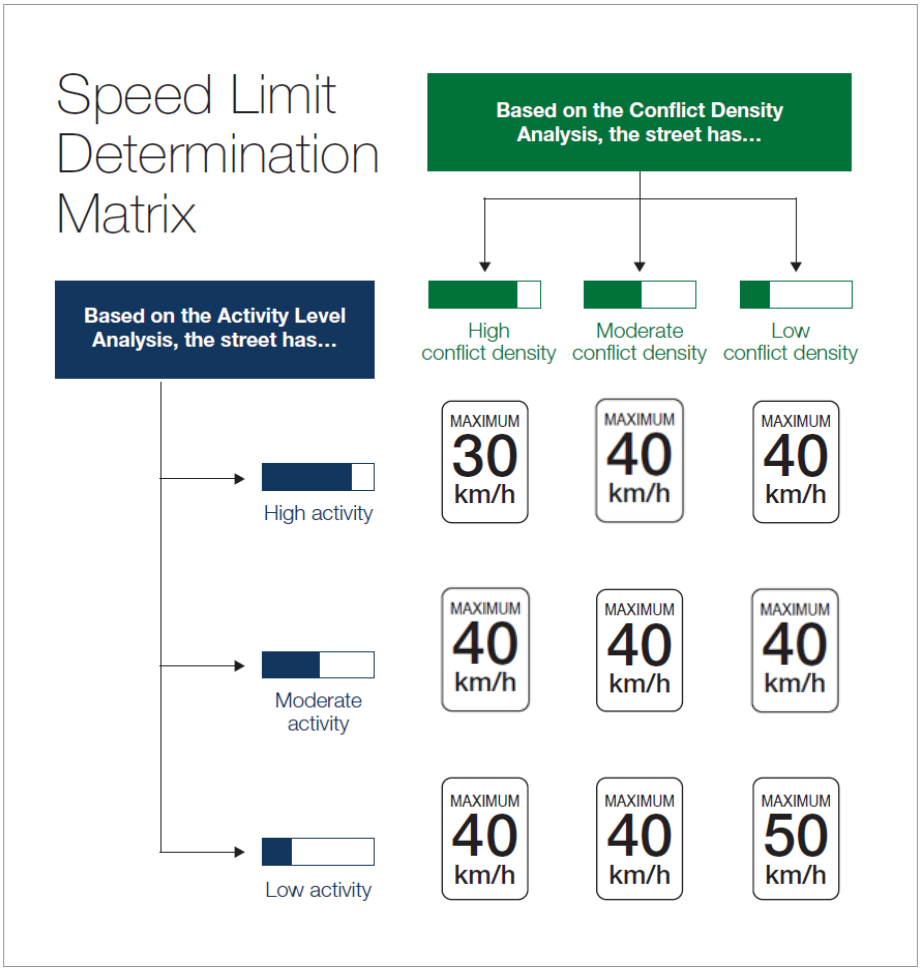

Figure 1: Speed Limit Determination Matrix

Safe Speed Study

In accordance with the policy, a Safe Speed Study would be conducted along segments of a corridor having similar conditions and land uses. It would not be completed on individual blocks except inside Major Centres or directly in front of a school or park.

The proposed methodology is risk-based and would depend on an evaluation of several factors including the amount of separation between road users, the presence of vulnerable road users and the density of potential points of conflict over a defined length of roadway. *Conflict Densities* and *Activity Levels* would be evaluated using the matrix in Figure 1 to determine an appropriate maximum speed to manage the risk to all users on the street.

Conflict Density

Conflict density is about determining how frequently potential conflicts arise on a given street. In the proposed policy, two primary factors would be used to determine how frequently potential conflicts occur between motor vehicles, and vulnerable road users including cyclists and pedestrians:

1. Modal Mixing; and
2. Crossing Point Frequency.

On a street, *Modal Mixing* refers to how separated different modes are and *Crossing Point Frequency* refers to how closely spaced intersections and other crossing locations are. These factors would be evaluated using the matrix in Figure 2 to determine the *Conflict Density*.

CONFLICT DENSITY		CROSSING POINT FREQUENCY		
		HIGH	MODERATE	LOW
MODAL MIXING	HIGH	**High**	**High**	**Moderate**
	MODERATE	**High**	**Moderate**	**Low**
	LOW	**Moderate**	**Low**	**Low**

Figure 2: Conflict Density Matrix

Modal Mixing

In accordance with the policy, a series of conditions would be evaluated to determine if a segment of street has high, moderate or low modal mixing. These conditions are outlined in detail in section 4.2.1 of the Council Speed Limit Establishment Policy.

Crossing Point Frequency

Intersections and driveways are areas where pedestrians, cyclists, and drivers can be expected to cross a street. They are also points where different users, even when separated, are likely to cross paths. A series of thresholds, outlined in section 4.2.2 of the policy, would be used to determine if a segment of street has high, moderate or low crossing point frequency.

For both modal mixing and crossing point frequency, the conditions used to evaluate whether a street is high, medium or low are different depending on the location of the street inside or outside the UCB.

Activity Level

Activity level is a determination of how active a street currently is or is expected to be. Crashes resulting in serious or fatal injuries are typically the result of conflicts happening at speeds that are too high for a human body to endure. Therefore, streets that have a greater number of potentially serious conflicts and a higher level of activity should have lower speed limits.

As per the Policy, pedestrian and cyclist counts at intersections would be used to determine the activity level on a street. There is daily variability in traffic volumes and intersection-based counts of pedestrians and cyclists present a snapshot in time, therefore, volumes within 15% of the threshold would be considered to meet the intention of the policy.

In areas outside the UCB, where recent data may not be available, land uses that generate pedestrian activity, such as schools and developed parks would be used to approximate the expected level of pedestrian activity.

Streets will be determined to have high, moderate or low activity levels based on an evaluation of set criteria (section 4.3 in the policy).

Consultation

In the development of this proposed policy, staff met with representatives from a number of external agencies, including the Insurance Corporation of British Columbia (ICBC) and BC Transit.

Staff met with the Saanich Police Department and the policy was shared with the City of Victoria and the Capital Regional District. The policy was also presented to the Administrative Traffic Committee.

Saanich Police Department

Road safety has consistently been identified as one of our community's top priorities and the Saanich Police Department (SPD) is committed to keeping our roadways and those who use them safe. The SPD engages in strategic road safety initiatives, education, proactive enforcement, and stakeholder collaboration to reduce the frequency and severity of motor vehicle collisions and to protect vulnerable road users. Proactive enforcement is specifically targeted to the three leading causes of serious motor vehicle collisions, namely distracted driving, impaired driving, and speed or dangerous driving. The SPD relies on collision data in order to deploy limited resources and conduct intelligence-led, proactive enforcement at locations where the greatest frequency of collisions occur.

If Council approves the recommended Speed Limit Establishment Policy and speed limits on Type A Streets are reduced to 30 km/h, there may be an associated expectation that the lower speed limits will be accompanied by an increase in proactive police enforcement. Managing realistic public expectations will be an important consideration as the SPD will have limited

capacity for enforcing the lower speed limits within existing resources, particularly at locations where the collision data does not suggest an increased risk of serious collisions.

Another consideration will be the need for the increased signage required to support lawful police enforcement. The legislative framework providing authorization for the SPD to conduct enforcement and issue Violation Tickets is the *BC Motor Vehicle Act*. Specifically, the authority to issue tickets other than for violations of the default 50 km/h municipal speed limit or the 80 km/h highway speed limit derives from section 146(7) of the *Act*, which states:

> *If, under a bylaw adopted by a municipality or a law enacted by a treaty first nation or a Nisga'a Government, signs have been erected or placed on a highway limiting the rate of speed of motor vehicles driven or operated on a designated portion of the highway, a person must not, when the sign is in place on the highway, drive or operate a motor vehicle on that portion of the highway at a greater rate of speed than that indicated on the sign.*

Therefore, the presence of signs prescribing a lower maximum speed limit will be an essential element of the ability to successfully prosecute an offence under section 146(7) of the *Motor Vehicle Act*.

Council Committees

Staff presented the proposed Council Speed Limit Establishment Policy to the Active Transportation Advisory Committee (ATAC) and the Planning, Transportation and Economic Development Advisory Committee (PTED).

ATAC

The ATAC passed the following motion:

"That ATAC recommend that Council adopt the Saanich Speed Limit Policy substantially as presented at the Active Transportation Advisory Committee meeting of May 26, 2022."

PTED

The PTED Advisory Committee members supported the proposed policy and provided the following comment:

"The Planning, Transportation and Economic Development Committee gives unanimous support to the intended direction of the Saanich Speed Limit Establishment Policy, as presented by staff at its June 9, 2022 meeting."

IMPLEMENTATION

A strategic approach to implementation is recommended that would start with Safe Speed Studies being conducted on the following nine streets/corridors in 2022-23:

	CORRIDOR
1	Sayward Road/Fowler Road/Cordova Bay Road/Ash Road/Grandview Drive/Ferndale Road/Arbutus Road/Cadboro Bay Road – from Highway 17 to the boundary of Oak Bay
2	Cedar Hill Cross Road – from the boundary of Oak Bay to McKenzie Avenue
3	Harriet Road/Boleskine Road/Saanich Road – from Gorge Road West to McKenzie Avenue
4	Tillicum Road – from Gorge Road West to Carey Road
5	Gorge Road West – from Harriet Road to Admirals Road
6	Prospect Lake Road/Sparton Road – from Burnside Road West to Oldfield Road
7	Old West Saanich Road/Oldfield Road – from West Saanich Road to boundary with Central Saanich
8	West Saanich Road - from Glanford Avenue to Wilkinson Road
9	Emily Carr Drive – from Chatterton Way to Royal Oak Drive

Identified on the map attached as Appendix B, these streets were selected based on a review of crash data, as well as input from Saanich Police and the public, through calls for service. Staff also took into consideration the need for an equitable approach and consistency in speed limits along corridors, including those that connect with neighbouring municipalities.

Staff considered starting with speed limit reductions on Type A streets, which are primarily residential and would become 30 km/h, in accordance with the policy. However, in alignment with collision data, and in consultation with Saanich Police, it was determined that the best approach would be to start with streets/corridors where there is data to suggest that safety, resulting from motor vehicle speeds is an issue.

There are a significant number of local roads in Saanich and staff concluded that given the current resources available for this project, it was appropriate to focus on the nine priority streets/corridors first as a way to test the policy and gain experience and insight to inform implementation of future phases, which would include Type A streets.

In the meantime, Council's direction to staff to proceed with quick-build projects will result in a number of safety improvements to residential streets that will support current and future active transportation.

Timeline

If approved, implementation of the policy would begin in fall 2022 and would start with staff conducting Safe Speed Studies for the nine priority corridors. Based on the outcome of these studies, staff would return to Council in early 2023 to seek approval for the recommended speed limit for each street. Amendments to the Streets and Traffic Bylaw No. 8382 would be required to legally establish the new speed limits and enable staff to begin installing new signage.

Monitoring and evaluation

A monitoring and evaluation plan would be developed as part of implementation of the policy. The plan would identify, among other things, the purpose and objectives of monitoring and evaluation, specific research questions to be answered, types of data and information to be collected and analysed, and the collection methods to be used.

Through the first round of speed limit changes staff would seek to test and evaluate implementation of the policy. The insight gained would then inform future phases of implementation.

Communications
A communications plan would be developed for this project. Among other things, it would identify stakeholders for the project and outline an approach to inform residents and stakeholders about changes to speed limits.

ALTERNATIVES

Options to move forward with the recommendations identified at the top of this report are outlined below.

1. That Council approve the recommendations as outlined in the staff report.

   If Council were to approve the recommendations in this report, staff would proceed with the review of priority Type B streets and preparation of the necessary bylaw amendments. These amendments would be scheduled on a future agenda for Council's consideration.

2. That Council reject the recommendations as outlined in the staff report.

   If Council were to reject the recommendations as outlined in this report, staff would continue to monitor the status of the speed limit reduction pilot opportunity under Part 13 of the BC MVA.

3. That Council provide alternative direction to Staff

FINANCIAL IMPLICATIONS

The Speed Limit Establishment Policy would be implemented using existing staff resources and would be funded through the Transportation Capital Budget.

ICBC has been engaged in the process to develop the policy and has indicated that partial funding may be available to complete a study to understand the effectiveness of reducing speed limits before and after implementation.

CONCLUSIONS

The District is committed to Vision Zero and managing motor vehicle speeds is one important avenue to eliminate the number and severity of collisions, thus enhancing the safety of streets for everyone, including existing and future cyclists, pedestrians and drivers. Managing speed limits also allows the District to make progress on key priorities such as increasing active travel modes, reducing greenhouse gas emissions and enhancing livability.

Managing motor vehicle speeds is a key component of the Safe Systems approach, which recognizes that there are multi-faceted systems in place to guide safety on streets. When motor vehicle speed is considered in tandem with other changes to the system, including road designs, and enhanced education and enforcement, there is greater potential to improve safety for all road users.

Staff is seeking Council approval of the proposed Speed Limit Establishment Policy for Saanich, as well as direction to begin conducting Safe Speed Studies on nine priority Type B corridors. The outcomes of these studies would inform future amendments to the Streets and Traffic Bylaw No. 8382, which would make it legal to establish new speed limits on select streets in Saanich.

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Police Chief Constable

Approved by

Harley Machielse

Director of Engineering

Attachments: Proposed Council Speed Limit Establishment Policy

CHIEF ADMINISTRATIVE OFFICER'S COMMENTS:

I endorse the recommendation from the Director of Engineering.

Suzanne Samborski
Acting Chief Administrative Officer

Appendix A

Saanich Council Speed Limit Establishment Policy

1.0 PURPOSE

This Council Policy sets guidelines for appropriate speed limits on all streets under the jurisdiction and control of the Municipality of Saanich. It will be used to guide staff's recommendation to Council for enacting amendments to speed limits, which are regulated through the Streets and Traffic Regulation Bylaw.

The Council Speed Limit Establishment Policy is informed by the National Association of City Transportation Officials (NACTO) and their guide *City Limits - Setting Safe Speed Limits on Urban Streets.* The NACTO guide is intended for use on urban streets, however given that there are both urban and rural streets in Saanich, the principles for establishing safe speed limits based on the guide will apply. In some cases, staff may seek additional input from the *BC Active Transportation Design Guidelines (BCATDG)*, Saanich Official Community Plan (OCP) and the District's Engineering Specifications. The Urban Containment Boundary (UCB) will be used to determine if a street is urban or rural.

2.0 RATIONALE

The District of Saanich is committed to Vision Zero and a Safe Systems Approach to road safety. Managing motor vehicle speeds is an important way to reduce the number and severity of collisions to work towards zero traffic-related fatalities or serious injuries. Establishing appropriate speeds for motor vehicle drivers can improve safety for all users, especially pedestrians and cyclists, which can assist in the achievement of the District's target to increase the number of trips made by active transportation, as well as key priorities related to reducing greenhouse gas emissions and improving the livability in neighbourhoods.

3.0 SETTING SPEED LIMITS

Establishing speed limits for the safety of all users is an important piece in creating a safe and accessible transportation system. The speed limits on Saanich streets will be recommended by staff as follows:

3.1 Type A Street

3.1.1 Streets in this category are defined as:

- Streets without a continuous yellow centre line; and/or
- Streets where a Neighbourhood Bikeway[1] exists, or is proposed, in the Active Transportation Plan.

3.1.2 The maximum speed limit on Type A streets is 30km/h.

[1] A neighbourhood bikeway is defined in the *BC Active Transportation Design Guide (BCATDG)* as a street that have been enhanced to varying degrees to prioritize bicycle traffic that has low motor vehicle volumes and speeds.

3.2 Type B Street

3.2.1 Streets in this category are defined as:

- Streets with a continuous yellow centre line; and/or
- Streets not captured in Street Type A.

3.2.2 The maximum speed limits on Type B streets shall be set in accordance with the Safe Speed Study process outlined in Section 4.0.

4.0 SAFE SPEED STUDIES

A safe speed study will be conducted for Type B streets. The study will take place along segments of a corridor that have similar conditions and land use. A safe speed study will not be completed on individual blocks except inside a Major Centre or directly in front of a school or park. If a corridor changes significantly at a specific point, it will be divided into two or more segments. Where a corridor has multiple recommended speed limits along its length or additional considerations beyond this policy are required, engineering judgement will be used to manage both safety and legibility for users. It is generally assumed that speed limits within the UCB will not increase once lowered since activity levels will increase over time with increased density. If the nature of a street has changed significantly modifications to a speed limit may be considered.

4.1 RISK ANALYSIS

The framework described below summarizes Saanich's method for determining maximum safe speed limits. It is risk-based and depends on a number of factors including the amount of separation between road users, presence of vulnerable road users and density of potential points of conflict over a defined length of roadway. Conflict Densities and Activity Levels are evaluated using the matrix in Figure 1 to determine an appropriate maximum speed to manage the risk to all users on the street.

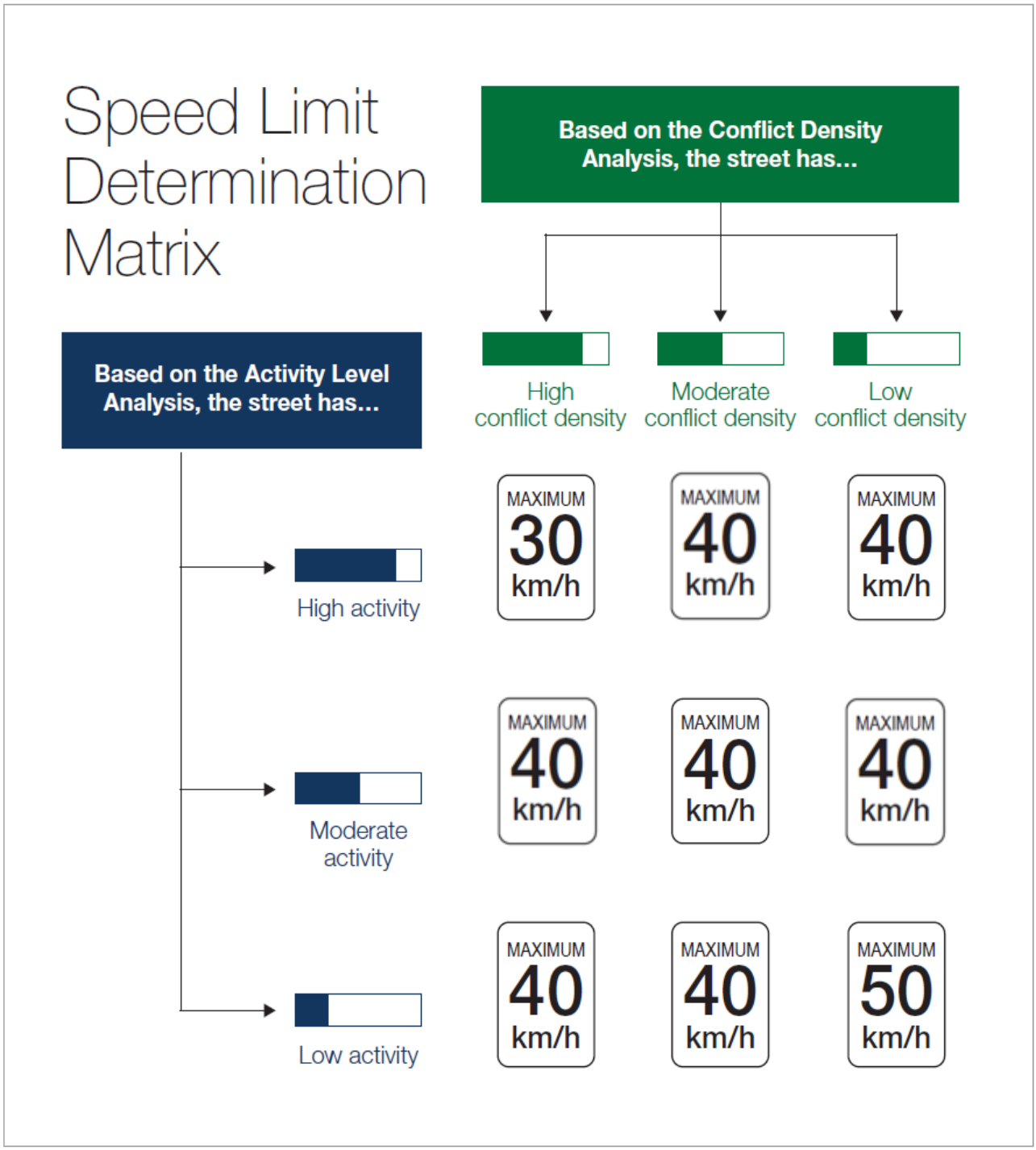

Figure 1 – Speed Limit Determination Matrix

4.2 CONFLICT DENSITY

Two primary factors determine how frequently potential conflicts between motor vehicles, and cyclists, pedestrians and other vulnerable road users occur: 1) Modal Mixing; and 2) Crossing Point Frequency.

On a street, modal mixing refers to how separated different modes are and crossing point frequency refers to how closely spaced intersections and other crossing locations are. These factors are evaluated using the matrix in Figure 2 to determine the Conflict Density.

CONFLICT DENSITY		CROSSING POINT FREQUENCY		
		HIGH	MODERATE	LOW
MODAL MIXING	HIGH	**High**	**High**	**Moderate**
	MODERATE	**High**	**Moderate**	**Low**
	LOW	**Moderate**	**Low**	**Low**

Figure 2 – Conflict Density Matrix

4.2.1 Modal Mixing

The following conditions will be used to determine if a segment of street has high, moderate or low modal mixing. If a segment meets any of the conditions of more than one mixing level, the higher level of mixing should apply. Streets that run along or cross the UCB will be considered as being outside of the UCB.

High Modal Mixing (Little or no separation)

a. Streets located inside the UCB

- No Sidewalk or a sidewalk only on one side.
- Sidewalks (<2.0 m wide) on both sides of the street directly adjacent to a vehicle travel lane.
- Sidewalks (<1.8 m wide) on both sides of the street separated from a vehicle travel lane by a bike lane or on-street parking.
- No cycling facilities on a Major or Collector Street.
- Narrow on-street parking and loading (<2.4 m wide) that is short-term and occurs directly adjacent to a vehicle travel lane and/or a bike lane.

b. Streets located outside the UCB

- No sidewalk or paved shoulder.
- No cycling facility where one is recommended in the BC Active Transportation Design Guide.
- On-street parking occurs regularly during peak hours.

Moderate Modal Mixing

a. Streets located inside the UCB

- Sidewalks (≥2.0 m wide) on both sides of the street directly adjacent to vehicle travel lanes.
- Sidewalks (≥1.8 m wide) on both sides of the street separated from vehicle travel lanes by a bike lane or on-street parking.

- A cycling facility exists, but does not meet the recommended facility type established in the *BCATDG.*
- On-street parking and loading (≥2.4 m wide) that is short-term and occurs directly adjacent to the vehicle travel lane.

b. Streets located outside the UCB

- Narrow paved shoulder (≤1.2 m wide) on one or both sides of the street.
- A cycling facility exists, but it does not meet the recommendations in the BCATDG.
- On-street parking occurs infrequently during peak hours.

Low Model Mixing

a. Streets located inside the UCB

- Sidewalks (minimum 1.5 m wide) on both sides separated from vehicle travel lanes by a boulevard and/or parking bays.
- A cycling facility exists and it meets the recommendations in the *BCATDG.*
- Parking (≥2.5 m wide) directly adjacent to a vehicle travel lane.

b. Streets located outside the UCB

- Paved shoulder or sidewalk on one or both sides of the street (≥1.2 m wide).
- A cycling facility exists and it meets the recommendations in the BCATDG.
- On-street parking is prohibited.

4.2.2 Crossing Point Frequency

Intersections and driveways are areas where pedestrians, cyclists, and drivers can be expected to cross a street. They are also points where different users, even when separated, are likely to cross paths. For the purposes of this policy, private roads will be considered as driveways.

Driveways classified as Major Driveways are applicable to this policy. Major driveways provide access to 25 or more residential parking stalls and/or service mixed-use sites that generate more than 15 vehicle trips / peak hour.

It will be determined if a segment of street has high, moderate or low crossing point density based on the following thresholds:

High Frequency

- The average spacing between intersections and/or major driveways is ≤125 m.

Moderate Frequency

- The average spacing between intersections and/or major driveways is between 125 m and 200 m.

Low Frequency

- The average spacing between intersections and/or major driveways is >200 m.

4.3 Activity Level

Crashes leading to fatalities or serious injuries are generally the result of conflicts happening at speeds that are too high for a human body to endure. Therefore, streets with a greater number of potentially serious conflicts and a higher level of activity will have lower speed limits.

Pedestrian and cyclist counts will be the primary method of determining the activity level on a street. Intersection-based counts are widely available throughout Saanich and will be used to establish activity levels. Recognizing the daily variability in traffic and that intersection-based counts are a snapshot in time of that particular day's traffic. The thresholds described below will be considered as a guide and volumes within 15% of those values may be considered to meet the intention of the guideline.

In the absence of recent data and in areas outside the UCB, land uses that generate pedestrian activity can be used to approximate the expected level of pedestrian activity.

A segment of street will be determined to have a high, moderate or low activity level based on the following thresholds. If a street meets criteria in two different activity levels the higher level will be selected.

High Activity

- Generally the busiest streets within Major Centres, Neighbourhood Centres, and Villages will be considered to have high activity.
- > 240 pedestrians or cyclists in either peak hour at an intersection or along a segment ***AND*** > 480/4hr period (This ensures there is consistently high activity throughout the day).
- > 60 pedestrians or cyclists on either side of a street per peak hour.

Moderate Activity

- Generally streets leading to recreation centres, and schools or along popular transit, walking and cycling routes will have moderate activity.
- > 120 pedestrians or cyclists in either peak hour at an intersection or along a segment ***AND*** > 240/4 hr period.
- > 30 pedestrians or cyclists on either side of a street per peak hour.
- For streets outside the UCB, segments of streets located within 750 m of a school, developed park access point or Village.

Low Activity

- Generally streets that access predominantly single family homes and rural neighbourhoods will have low activity.

5.0 SIGNAGE

Speed limits will be signed in accordance with the provisions of the *Motor Vehicle Act* [RSBC 1996] C. 318, as may be amended or replaced from time to time.

Appendix B - Priority Corridors for Safe Speed Studies