



The Corporation of the District of Saanich

Report

To: Mayor and Council
From: Harley Machielse, Director of Engineering
Date: 10/08/2020
Subject: Update on Speed Limit Reduction Pilot Project

RECEIVED

OCT 08 2020

LEGISLATIVE DIVISION
DISTRICT OF SAANICH

RECOMMENDATION

1. That Council direct staff to submit an application to reduce the default speed limit to 40km/h on streets without a continuous directional dividing line to the Ministry of Transportation and Infrastructure for a pilot project under Part 13 of the Motor Vehicle Act when the application period for Phase 2 opens.
2. That Council direct staff to bring back a formal resolution to participate in the Pilot Project at the appropriate time.

PURPOSE

The purpose of this report is to provide an update regarding the collaboration amongst Capital Region municipalities to explore a potential 3-year default speed limit reduction pilot opportunity that would set the default speed limit to 40 km/h on streets without a continuous yellow center line. Staff from the Engineering Department have been leading recent staff level planning discussions with other potential Municipal partners and will continue to provide updates as the process unfolds.

DISCUSSION

Background

Reducing default speed limits has many benefits, including reducing vehicle operating speeds, improving road safety, and improving neighbourhood livability. It can have significant safety benefits in terms of fewer collisions as well as less severe collisions when they do occur.

Multiple research studies have found that the likelihood of a pedestrian or cyclist fatality increases when hit by a motor vehicle travelling at higher speeds.¹ Collisions at 30 km/h or less correlate with a lower probability of death (10%), compared to a 40% probability of death in a collision at 40 km/h. The probability of death increases significantly, with an 80% probability of death in a collision at 50 km/h (see Figure 1).

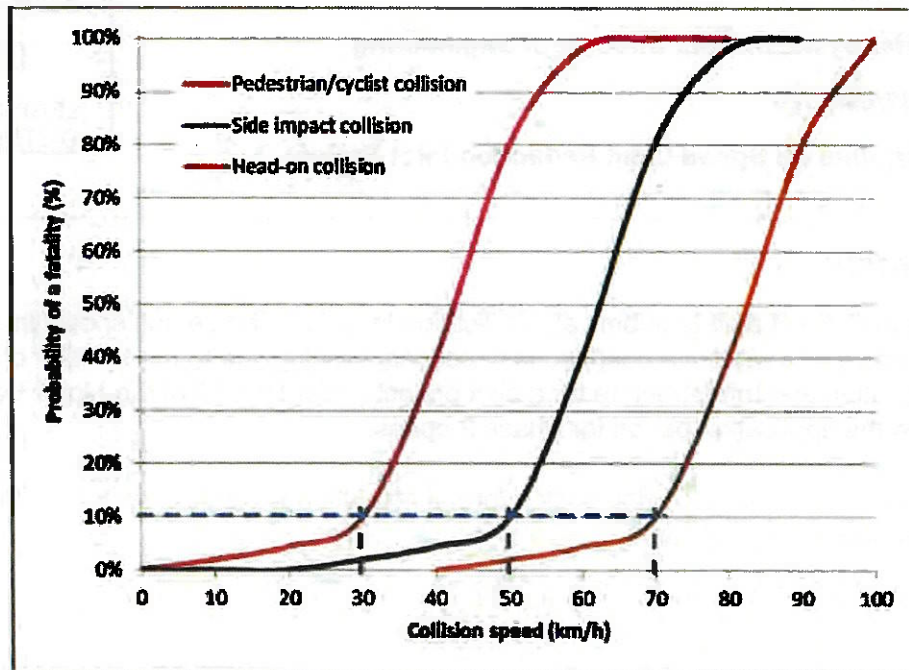


Figure 1 Probability of Traffic Fatality Based on Vehicle Collision Speed²

Vehicle speeds at the time of a collision are directly correlated to whether a person will survive. According to the National Association of City Transportation Officials (NACTO) there are four key ways in which speeds contribute to fatalities:

- Crashes at higher speeds are more forceful and thus more likely to be fatal;
- Drivers traveling at higher speeds have a narrower field of vision;
- Drivers traveling at higher speeds travel further before they can react; and
- Vehicles traveling at higher speeds have longer braking distances.³

¹ Tefft, B.C. (2011). Impact Speed and a Pedestrians Risk of Severe Injury or Death. AAA Foundation for Traffic Safety. <https://aaaafoundation.org/impact-speed-pedestrians-risk-severe-injury-death/>

² Jurewicz, C., Sobhani, A., Woolley, J., Dutschke, J., Corban, B., (2016). Exploration of vehicle impact speed – injury severity relationships for application in safer road design. Transportation Research Procedia 14, 4247-4256.

³ NACTO. City Limits, Setting Safe Speed Limits on Urban Streets (2020). P. 15 https://nacto.org/wp-content/uploads/2020/07/NACTO_CityLimits_Spreads.pdf

Speed limit reductions are relatively new to Canada although many cities across Canada have reduced posted speed limits on local and/or residential roads (e.g. Ottawa, Montreal, Mississauga, and Hamilton) and many others are actively pursuing these initiatives (such as Vancouver, Edmonton, Toronto, and Calgary).

Data on Canadian outcomes is limited. However, international results demonstrate that reducing residential area speed limits is an important tool in an overall program to enhance road safety. Some examples of speed limit reductions and their effectiveness, are included in the City of Calgary's Report to the City's Standing Policy on Transportation and Transit, and are summarized below. This report also includes additional scientific literature on this topic that may be of interest.

- **The Netherlands:** 75% of residential streets have speed limits of 30 km/h or less, and this has resulted in an average decrease in injuries of 25%.
- **London, England:** More than 400 'Neighbourhood Slow Zones' where the posted speed is 30 km/h have been implemented since 2001. Since that time, serious traffic injuries and fatalities have fallen by 46% within the zones and deaths and serious injuries sustained by children have decreased 50%.
- **Boston:** The City lowered the default speed limit on all streets to 30 km/h and found that the likelihood of a vehicle exceeding 50 km/h fell by 29.3%. Studies on injuries and fatalities have not yet been conducted, though fatalities appear to have dropped by half.
- **New York City:** The City has developed a community-based slow zone program to 40 km/h, along with traffic calming investments and increased enforcement, which has resulted in a 10-15% decrease in speeds, and a 44% reduction in collisions resulting in serious injuries and fatalities. In areas where safety infrastructure investments were made, fatalities have fallen by 34%.
- **Seattle:** All local neighbourhood streets were lowered to 30 km/h, and collector streets were lowered to 40 km/h in 2016. A spot improvement traffic calming budget accompanied the rollout. Speed limits were lowered from 50 km/h to 40 km/h without extensive traffic calming. For the speed limit reductions on collector roadways, collisions were reduced by 22%, injuries by 18%, and high-end speeders by 52%.
- **Toronto:** Researchers at Toronto's Hospital for Sick Children found measurable safety gains after Toronto lowered speed limits from 40 km/h to 30 km/h on a number of local streets, including a 28% decrease in the number of collisions between pedestrians and motor vehicles and a 67% decline in the number of fatal and serious injuries on streets with speed limit reductions.

Based on the experience of other communities, the evidence suggests these programs are effective in reducing speeds along with reductions in collisions and injuries. It is recognized that most collisions resulting in fatalities and serious injuries occur on major roadways, particularly at intersections. Reducing the speed limit on residential roads is not intended to take the focus away from safety improvements and enforcement at these high collision locations.

The pilot program is a complementary initiative that can be implemented at relatively low cost and would apply to the majority of roadways throughout participating municipalities in the Capital Region. For context, from 2015 – 2019 in the District of Saanich alone there were on average 254 reported collisions per year on local roads (approximately 11.5% of all reported collisions). Of these collisions occurring on local roads, approximately 28% (or 70 collisions) resulted in injury or fatality. Based on the average cost per collision information published by MOTI, collisions on local roads in Saanich represents a total societal cost of approximately \$24 million per year.

In addition, reduced traffic speeds and a greater opportunity for our residents to use active transportation provides practical, everyday opportunities for residents to be physically active, increasing their mental wellness and social interactions. High levels of active transportation in a community is a strong indicator of sustainability and livability. Streets that encourage active transportation, provide affordable and more accessible transportation choices for people of all ages and abilities. For youth, this also encourages sustainable travel patterns at an early age that can continue later in life.

Increased walking and cycling in our community also encourages social interaction, creating opportunities for face-to-face interactions with members of the community and building trust, respect, understanding and a sense of co-operation among members of the neighbourhood. Studies have shown that social interactions diminish when traffic levels or speeds increase. These social connections are found to be particularly important for children and older adults.

When our community chooses to travel by foot, on a bicycle or by transit, it helps to reduce vehicle trips, congestion, air pollution, and greenhouse gas (GHG) emissions. These reductions in emissions are incremental but critical steps towards climate change mitigation while supporting the protection and improvement of the natural environment. Reduced vehicle speeds have been shown reduce fuel consumption, GHG emissions, driver stress and general wear and tear on vehicles, reducing maintenance costs over the life of the vehicle. Reduced speeds on our roads will also have an effect on the amount of noise coming from the vehicles on the road as slower speeds will result in less tire noise and jarring vibrations from potholes.

As active transportation mode share increases as part of a safe, balanced, efficient and accessible transportation system it can be found to be one of the drivers of success for economic diversity and prosperity. Walking and bicycle-supportive communities can encourage residents to support local businesses. Neighbourhoods and destinations that are accessible and attractive for active transportation users attracts more visitors, who will in turn be patrons of local services and amenities. Safer streets and the increased use of active transportation provides more choice for people traveling to work, which is essential for lower income individuals, youth, seniors and others who may not have access to a vehicle.

Provincial and Regional Policies

Motor Vehicle Act

Municipalities in British Columbia have the authority to regulate speed limits on their roadways, although they do not have the authority to change the default speed limit. Under the Motor Vehicle Act (MVA), municipalities can only do so through bylaws and signage, which has several drawbacks including confusion with inconsistent approaches and applications within and between jurisdictions. As such, several municipalities across British Columbia have expressed an interest in blanket reduced speed limits in residential areas. In 2019, a resolution at the Union of B.C. Municipalities (UBCM) was put forward asking the Province to provide municipalities the authority to change the default speed limit to allow for community-wide reductions in speed limits. This followed the Union of British Columbia's Municipalities' membership consistently endorsing resolutions calling for amendments to the MVA to enable municipalities to implement blanket speed limits dating back to 1999⁴.

The Province has expressed a commitment to modernize the MVA, which could include changes to regulatory speed limits; however, this process would likely take several years. In the meantime, the Province has amended the MVA (Part 13) to allow pilot projects that would research, test, and evaluate new regulatory approaches to matters not currently set out in the MVA framework. Pilot projects provide opportunities for the Province to work with local governments to support active transportation and improve road safety.

BC Road Safety Strategy

The B.C. Road Safety Strategy (2015) involved a survey of municipalities throughout the province that was conducted to gather information about road safety from British Columbia's communities. The BC Road Safety Strategy Update: Moving Towards Vision Zero (2016) follows a Safe Systems Approach which includes the central tenet that human error is an unavoidable aspect of reality and therefore the road system should be a product of numerous components including four identified components. The Safe Speeds component of the Safe Systems Approach promotes setting safe speed limits, greater compliance with speed limits, vehicle-speed management technologies, and educating road users. The Strategy recognizes that all stakeholders of the road system contribute to the Safe System Approach through legislation, education, enforcement, road design, collaboration, licensing programs, research, innovation, and communication.

Since then the Province developed the B.C. Community Road Safety Toolkit and released Move Commute Connect, B.C.'s Active Transportation Strategy, both of which support reduced speeds.

⁴ UBCM 2019 Resolutions Book, P. 107

<https://www.ubcm.ca/assets/Resolutions-and-Policy/Resolutions/2019%20UBCM%20Resolutions%20Book.pdf>

CRD Regional Transportation Plan

The Capital Regional District Regional Transportation Plan (July 2014) includes regional outcome statements that support creating “exceptional environments for walking and cycling” and “taking transit to the next level” which include the following goals promoting the safety of vulnerable road users:

- Cycling is an appealing, safe, convenient and viable transportation option for residents and visitors of all skill and confidence levels.
- Walking is an increasingly popular and desirable mode of transportation that is supported by safe, convenient and accessible pedestrian infrastructure.
- Public transit is a preferred choice, attracting new riders through comfortable, safe, accessible and convenient service

CRD Regional Pedestrian and Cycling Masterplan

The Capital Regional District Pedestrian and Cycling Masterplan (2011) includes the goal of safer walking and cycling as measured by several factors including the perception of safety.

In addition, the PCMP includes Reducing speeds on local roadways would also support the following PCMP objectives:

- Objective 3: Promote regional consistency, continuity and connectivity.
- Objective 6: Develop a regional Active and Safe Routes to School Effort.
- Objective 10: Improve road safety and protect vulnerable road users
- Objective 15: Improve inter-jurisdictional harmonization

CRD Regional Growth Strategy

The Capital Regional District Regional Growth Strategy (2018) includes the following objectives that support speed reduction efforts:

- Create safe and complete communities
- Increase transportation choice

RGS Transportation principals that support this speed reduction pilot include:

- Take a coordinated and engaged approach to transportation and land use planning

RGS Transportation Principals include:

- Take a coordinated and engaged approach to transportation and land use planning
- Prioritize strategic investments that serve regional mobility needs
- Maximize efficiency of existing transportation corridors for multiple modes

These objectives and principals are supported by several policies, one of which is Transportation Policy 3:

- Prioritize transit and active modes in community planning and in the design and implementation of infrastructure, facilities and programs.

Saanich Policies

Strengthening road safety for all transportation modes is a key goal outlined in the 2019-2023 Strategic Plan and is supported by a number of policies in the Sustainable Saanich Official Community Plan.

Supporting the Strategic Plan and the Official Community Plan is the Active Transportation Plan (ATP) which was adopted by Council in 2018. One of the 4 goals of the ATP is to improve safety for people using active transportation modes. In addition to the goal of improving safety, the ATP has a road safety target of working towards zero traffic related fatalities and serious injuries as well as a mode share goal of doubling the proportion of trips made by walking, cycling and transit by 2036. The Active Transportation Plan also includes a specific action, item 3D.5 which is to support initiatives to make changes and update the Provincial Motor Vehicle Act.

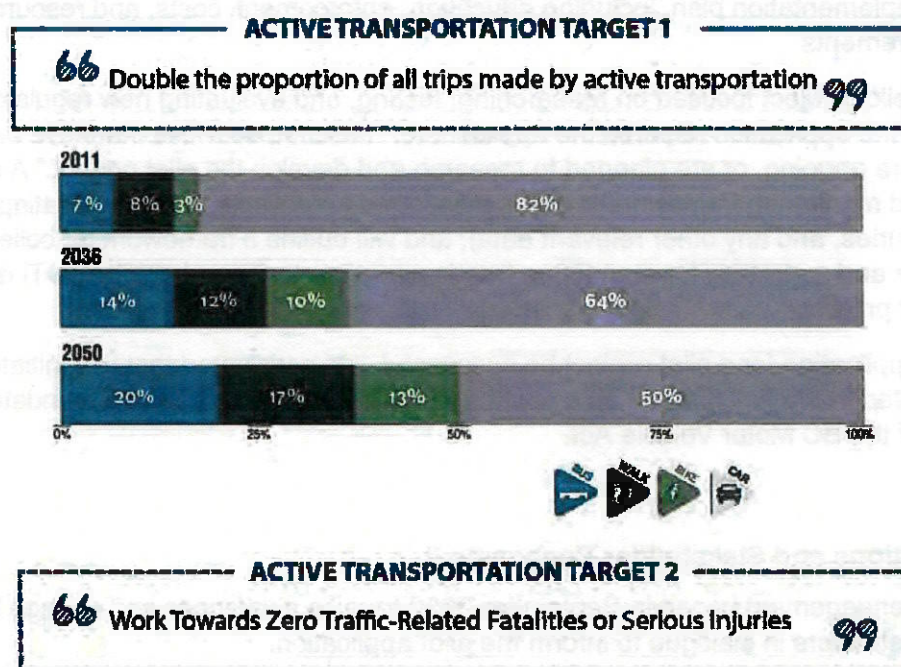


Figure 2 Saanich Active Transportation Plan Targets

Issues and Analysis

Recently, the Ministry of Transportation & Infrastructure indicated that the next intake for Motor Vehicle Act pilot projects will include a general theme of projects that increase road safety for vulnerable road users. They have indicated that this will include the potential for pilot speed limit reductions on specific roads or classification of roads. The intake was expected to occur this Fall, however it will now not occur until sometime after the Provincial election.

In anticipation of an application intake, District of Saanich is leading a collaborative initiative with several other Capital Region municipalities to apply for a 3-year pilot project that would set the default speed limit to 40 km/h on streets without a continuous yellow center line. This would apply mostly to roads that have lower traffic volumes. These changes would not affect school zones, playground zones or other existing speed zones that have been enacted by bylaw and are currently signed. To date, nine municipalities in the region have indicated their interest in participating and have participated in a technical working group for this initiative.

A coordinated regional application to the Ministry of Transportation and Infrastructure must outline:

- Stakeholder engagement undertaken to date and planned for during and after pilot;
- A data collection and monitoring plan, and
- An implementation plan, including education, enforcement, costs, and resource requirements

As part of a pilot project focused on researching, testing, and evaluating new regulatory approaches, the application requires the applicant to: “describe activities that have been completed, are ongoing, or are planned to research and develop the pilot project.” A data collection and monitoring framework is being developed for collecting data (operating speeds, collisions, injuries, and any other relevant data), and will outline a framework for collecting baseline data and a strategy for monitoring trends over time to report back to MOTI during and after the pilot project.

Should the application for a pilot project be successful, it is anticipated that this initiative could be implemented in the Fall of 2021 as a pilot project for up to three years, as mandated in Section 13 of the BC Motor Vehicle Act.

Communications and Stakeholder Engagement

Stakeholder engagement began in September 2020 to raise awareness and engage local and regional stakeholders in dialogue to inform the pilot application.

Over 60 diverse stakeholders with interests in transportation, road safety, community well-being, and accessibility have been identified and are being engaged. These include the Council Advisory Committees, CRD Traffic Safety Commission, Local Area Police Chiefs, BC Association of Chiefs of Police Traffic Safety Committee and emergency services, school districts and parent advisory councils, active transportation groups, road safety partners, and

other government agencies, such as BC Transit and the Capital Regional District. The District of Saanich is leading engagement with regional stakeholders and each respective participating municipality should engage local stakeholders within their municipality. Communications materials have been provided to support consistent and coordinated communications and engagement efforts across the Region.

It is too early to report on the full results of engagement, but conversations to date have been generally positive with many stakeholders such as the CRD Traffic Safety Commission, Walk on Victoria, Greater Victoria Transit Alliance, ICBC and BC Transit indicating interest and support for the pilot project. Other stakeholders have indicated support for the project but have provided feedback wishing to see a more aggressive approach to set the default speed limit on roads without a continuous yellow centre line to 30 km/h instead of the proposed 40 km/h.

Police feedback

A meeting with local Police Chiefs garnered some excellent questions about what data exists to support the current direction of the Pilot Project and what expectations for enforcement would be. Staff have provided some preliminary information back to the local Police Chiefs regarding the data requested and continue to work with them to address their questions and concerns.

The District's Police Chief has specifically raised concerns around a lack of resources to enforce the new regulation and meet public expectations. The Police Chief has specifically request more information around what signage will be used to inform drivers of the differing speed limits and how regional consistency will be maintained if just a subset of local municipalities participate. Additional questions regarding data collection, monitoring program and interpretation and statistical significance of the results were also raised. All of these and other considerations will be addressed as part of the application process and prior to pilot program implementation. Staff are committed to supporting Police to work through the concerns that they have raised. The pilot program does provide the opportunity to collect data and feedback from the community around enforcement expectations and requirements should the pilot be found to be successful and be implemented in a permanent nature.

Timeline

| 2020 | Action | Status |
|---------------------------|--|----------|
| August | District of Saanich launches regional outreach for pilot project | Complete |
| September | Regional Stakeholder Engagement and ongoing dialogue with MOTI led by District of Saanich Local Stakeholder Engagement led by respective municipalities | Complete |
| October | Council updates | Underway |
| Post-election Date TBD | Application submitted to MOTI | |
| 2021 | | |
| Spring / Summer | Pilot projects announced by MOTI* | |
| Summer / Fall | Prepare for implementation | |
| Fall / Winter | Baseline data collection and pilot launch, post implementation data collection | |
| 2022 | Annual data collection | |
| 2023 | Annual data collection and pilot wrap-up and reporting | |

Next steps

Stakeholder engagement will be concluded in the coming weeks and a *What We Heard* summary report will be developed. A coordinated regional application will be finalized to be submitted to the Ministry of Transportation and Infrastructure and shared with respective Councils.

A Council resolution is not required at this time to enact the regulatory change. Should the application be approved, a Council resolution will be required from each municipality participating in the 3-year pilot initiative.

ALTERNATIVES

1. That Council approve the recommendation as outlined in the staff report.
2. That Council provide alternate direction to Staff.

FINANCIAL IMPLICATIONS

At the direction of Council, Saanich is leading the preparation phase of this initiative. To date funding to support the planning process has been provided through the existing Transportation Capital Funding set out for the implementation of the Active Transportation Plan.

Communications, monitoring and implementation of this pilot framework will require financial contributions from each participating community.

It is estimated that monitoring costs will require approximately \$10,000 per year for 3 years which includes follow up data collection to support the pilot completion.

In addition, implementation will require initial investment in year 1 (2021) for gateway signage and communications for education purposes, and further funding in year 3 (2023) to remove gateway signage. It is currently unclear what the signage requirements will be for this pilot opportunity and more information is forthcoming.

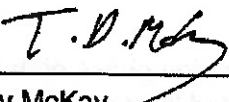
STRATEGIC PLAN IMPLICATIONS

This initiative supports the goal of the Strategic Plan of strengthening road safety for all transportation modes.

CONCLUSIONS

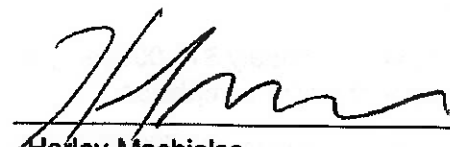
Reducing default speed limits has many benefits, including reducing vehicle operating speeds, improving road safety, and improving neighbourhood livability. The regional interest in collaborating on a speed limit reduction pilot program and the potential for these types of projects being acceptable applications to the MOTI Motor Vehicle Act pilot project program provides a unique opportunity for local governments in the Capital Region to reduce speed limits through a consistent, coordinated, and consultative approach.

Prepared by



Troy McKay
Senior Manager, Transportation and
Development Services

Reviewed by



Harley Machielse
Director of Engineering

TDM

cc: Scott Green, Chief Constable, Saanich Police Department

CHIEF ADMINISTRATIVE OFFICER'S COMMENTS:

I endorse the recommendation from the Director of Engineering.



Paul Thorkelsson
Chief Administrative Officer