

DISTRICT OF WEST VANCOUVER
750 17TH STREET, WEST VANCOUVER BC V7V 3T3

4.

COUNCIL REPORT

Date:	June 21, 2023
From:	Sean O’Sullivan, Senior Manager, Roads & Transportation
Subject:	Road Safety
File:	1700.09

RECOMMENDATION

THAT

1. Allocated funding for the 30 km/hr Speed Reduction Initiative be redirected towards the implementation of an ongoing annual School Safety Assessment Program to identify safety and mobility improvement opportunities around all schools in the District.
2. Staff be directed to develop a traffic calming policy and program to target specific locations where data (speed, collision, West Vancouver Police Department (WVPD)) shows there is a speed or congestion related safety concern.
3. Staff be directed to undertake an assessment of the intersections within the District’s road network to identify the highest collision rates and the intersections with the greatest benefitting potential of road safety improvements.
4. The District partner with other agencies, including Vancouver Coastal Health (VCH), and prepare a letter to encourage the Province to increase the number of intersection red light and speed cameras.
5. Staff report back to Council with an update in Q2 of 2024.

1.0 Purpose

The purpose of this report is to:

1. Report back to Council on the outcome of the 2022 data collection phase of the 30 km/hr Speed Reduction initiative continuation and expansion.
2. Seek direction from Council on the development and implementation of alternative road safety initiatives.

2.0 Legislation/Bylaw/Policy

The Traffic and Parking Bylaw No. 4370, 2004, regulates speed limits and speed zones within District highways.

The B.C. Motor Vehicle Act (MVA) sets a default speed limit of 50 km/hr on municipal streets when a different speed limit has not been posted by signs.

Currently, municipalities have the authority to regulate the use and enforcement of traffic on roads through their Streets and Traffic Bylaw under the context of the “parent” provincial legislation, primarily the MVA. Reducing speed limits below those set by the MVA can be achieved under the District’s current authority anywhere within its boundaries using signage on each individual street.

3.0 Council Strategic Objective(s)/Official Community Plan

Council Strategic Plan

This report aligns with Council’s Strategic Objective to:

- 4.0 Improve mobility and reduce congestion for people and goods.
- 4.3 Diversify, expand, and improve the safety and appeal of active transportation options.

As part of **Council’s approved Strategic Plan, 2021 – 2022**, there is an action to implement a 30 km/hr initiative.

As part of **Council’s previously approved Strategic Plan, 2020 – 2021**, there was an action to initiate a year long pilot project to assess the impact of reducing speed limits to 30 km/hr in a neighbourhood.

Official Community Plan

The Official Community Plan (OCP) Section 2.4 outlines a need to use existing [road] networks more efficiently and provide a range of safe and accessible transportation options within our community and across the region. The OCP seeks to enhance road network safety for all users.

4.0 Financial Implications

The most effective way to reduce travelled speeds and improve road safety is through engineering design and construction of speed management measures. There are over 260 kms of roadway within the District, investment in these measures with a broad District wide approach isn’t financially feasible and may not be warranted. As such, staff are recommending a targeted approach and are seeking Council support to reallocate existing funding intended for the implementation of a 30 km/hour speed reduction initiative within two neighbourhood zones, towards specific locations where data shows there is a speed or congestion related safety concern.

This work will extend to include programming development which will assess and identify road network locations where there is the greatest benefiting potential for road safety improvements. The existing available

budget for reallocation is roughly \$95,000. It is intended that this would be combined with existing capital funding for school safety programming for a total of \$145,000. Further to this, staff will be exploring supportive funding opportunities available from ICBC and TransLink.

5.0 Background

Vision Zero

Vision Zero is a strategy with the goal of eliminating all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all. The foundation of Vision Zero includes the application of evidence-based, data-driven approaches to road safety.

Vision Zero holds everyone accountable for their role in traffic safety, where:

- Road users are responsible for abiding by the systems, laws, and policies of the road.
- Policymakers publicly voice their commitment to road safety and demonstrate this commitment in all policies.
- Law enforcement strictly and equitably enforce road safety laws, such as those aimed at speed management and deterring impaired and distracted driving.
- System designers work diligently to design or improve road infrastructure, redesigning it when it fails to keep road users safe.

Vision Zero requires a broad approach that can be broken into 5 general areas:

- **Education** (ICBC, VCH) - how to be safe at night, rules of the road
- **Engineering** (Engineering & Transportation) - intersection safety, traffic calming measures
- **Enforcement** (WVPD) - increased staffing, automated speed enforcement
- **Community Planning** (Planning) - driveway locations, adequate right of way for all users
- **Legislation** (all levels of Government) - vehicle safety features, automatic enforcement

Travelled Speed Complaints

Within the District, one of the most received complaints that both Engineering & Transportation, as well as the WVPD receive is regarding speeding. It is important to note that reported accounts of speeding are subject to perspective, perceptions, and standards. In response, and to understand travelled speeds along a roadway, staff deploy various measures to collect speed data at reported locations of complaint. This includes speed boards and covert speed loggers. Often the data shows,

particularly on local roads, that most vehicles are travelling slower than the posted speeds.

5.1 Previous Decisions

Council, at its **December 13, 2021, regular meeting**, passed the following resolution:

THAT

1. The report dated November 21, 2021, titled 30 km/hr Speed Reduction Pilot be received for information;
2. Staff conduct additional detailed field review necessary in order to formalize one to two neighbourhood zones intended for the continuation and expansion of a 30 km/hr Speed Reduction initiative;
3. Staff include for consideration in the District's 2022 budget process funding for:
 - the implementation of a one-year initiative for one to two 30 km/hr neighbourhood zones; and
 - the design of built measures and design interventions; and
4. Staff report back to Council following the conclusion of the initiative period.

5.2 History

2020/2021 30 km/hr Pilot

As part of an action item forming part of Council's 2020 – 2021 Strategic Plan, staff implemented a year long pilot project to assess the impact of reducing posted speed limits to 30 km/hr in two discreet roadway corridors within the District. The pilot was predicated on passive measures in the form of reduced posted speed signage to evaluate the influence on driver behaviour and vehicle speeds; there was no enforcement or educational component forming part of the pilot initiative.

Traffic data, including traffic volumes and speed data, was collected via 7-day 24-hour tube counts at various locations along the piloted areas between July 2020 and June 2021. This included two rounds of data collection prior to the installation of reduced posted speed signage and three more at two to three month intervals during the pilot period.

Travelled speed is expressed as a mean speed and as percentiles.

- The 85th percentile speed indicates the speed not exceeded by 85% of the traffic surveyed, and hence is the level exceeded by the other 15%.
- The 50th percentile is the median speed, indicating 50% of drivers travel above this speed and 50% of drivers below.
- The 15th percentile represents the speed at which 15% of traffic does not exceed.
- The mean is the average speed of all traffic surveyed.

The findings of the pilot study showed that reducing the speed limit from 50 km/hr to 30 km/hr, by only installing lower speed limit signs, had no significant impact on vehicle speeds.

Council directed staff to expand the pilot, to include the application of a one-year initiative for one to two 30 km/hr neighbourhood zones and develop an implementation plan to introduce built measures within the zone(s) to help to reduce travel speeds to 30 km/hr.

6.0 Analysis

6.1 Discussion

2022 - 30 km/hr Speed Reduction Initiative Expansion

The first phase of the 2022 - 30 km/hr speed reduction expansion initiative was to collect data to establish a “before” traffic volume and speed benchmark in the selected neighbourhood zones. The data collected showed that within school zones which have a posted speed 30 km/hr, the speeds were 5 to 12 km/hr over the speed limit and that in 50 km/hr posted speed zones, the speeds were 3 to 13 km/hr under the posted speed limit as summarized in Table 1. A map showing the selected neighbourhood and observed speeds is included in Appendix A.

Table 1

Observed Speeds		
Location	Posted speed limit	Daytime 85th Percentile Speed*
Kings Avenue	30 km/hr school zone	42 km/hr
24th Street	30 km/hr school zone	38 km/hr
Haywood Avenue	30 km/hr school zone	35 km/hr
25th Street	50 km/hr	37 km/hr
Jefferson Avenue	50 km/hr	38 km/hr
Inglewood Avenue	50 km/hr	37 km/hr
23rd Street	50 km/hr	47 km/hr

* 85th percentile is the speed at which 85% of vehicles are travelling less than

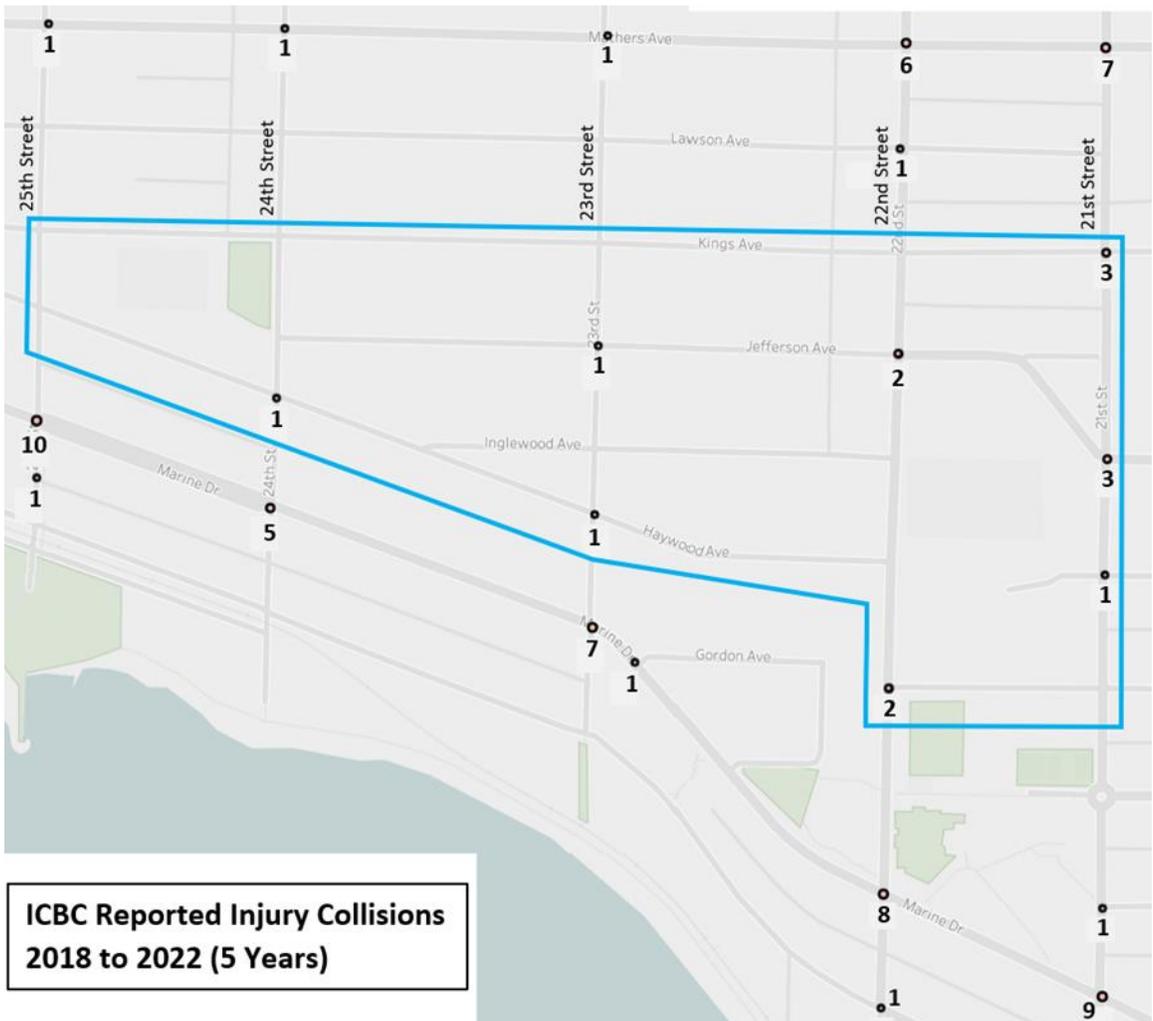
The second phase of the initiative involved looking at the ICBC 5-year (2018 to 2022) collision data for the neighbourhood zone. The data showed that most collisions were at intersections and on collector and arterial roadways rather than on local roads. There were very few injury collisions in the neighbourhood zones; of the injury collisions they all occurred on collectors or arterials such as at 21st Street, 22nd Street, Marine Drive, or Mathers Avenue.

The total 5 year ICBC injury collision data from 2018 to 2022, which includes vehicular, cyclist, and pedestrian, shows:

- there were 3 injury collisions on local roads in the study area
- most of the collisions were at intersections and on collector and arterial roadways
- in the area bounded by Mathers Avenue, 21st Street, 25th Street, and Marine Drive
 - less than 5% of injury collisions were on local roads
 - over 55% of the injury collisions were on Marine Drive

The injury collision data (vehicular, cyclist, and pedestrian) is summarised in Figure 1.

Figure 1



Road Safety in the District

Recognizing that studies show that speeds will not be reduced by posted signs alone, and because most of the severe collisions (injury and fatal collisions) occurring within the District are at intersections on collector and arterial roadways, within a few key corridors, staff asked the question: “Is investing in engineering measures to reduce speed on all local roads, where data suggests that few vehicles exceed 50 km/hr and where few serious collisions occur, the best way to reduce the number of injury and fatal collisions in West Vancouver?”

A high-level review of cyclist collisions in West Vancouver found that approximately 66% of collisions occur on 3 corridors, Marine Drive, Taylor Way, and Bellevue Avenue. A high-level review of pedestrian collisions revealed similar patterns, 67% of pedestrian collisions occur on three corridors, Marine Drive, 15th Street, and Bellevue Avenue.

For roughly 20 to 30 minutes every morning and every afternoon, the roadways around every school become congested with pedestrians and vehicles. While the areas around schools are already 30 km/hr speed zones, because of high concentration of vulnerable road users and vehicles, schools should also be a focus for safety and mobility improvements to reduce the collision risk and to promote alternative modes of transportation to and from school.

To target specific locations across the District that are experiencing measurable speeding or shortcutting issues, the District could develop traffic calming policy and procedures supported by an annual budget. A traffic calming program would focus primarily on specific local roadways that are experiencing measurable issues.

The data shows that vehicle speeds are not reduced by signs alone and that most serious collisions occur on collectors and arterial roads and at intersections. Focusing on specific locations, identified using an evidence-based, data-driven approach, rather than adopting a blanket speed reduction would be a more effective method to reduce injury and fatal collisions. Targeting specific locations such as high collision intersections, local roads with high observed speeds, and schools where there is a high concentration of vulnerable road users will be an effective method of reducing injury and fatal collisions.

6.2 **Sustainability**

Not applicable.

6.3 **Public Engagement and Outreach**

Not applicable.

6.4 **Other Communication, Consultation, and Research**

Engineering staff maintain an open dialogue with staff from WVPD, the Bylaws Department, the Communications Division, and the West Vancouver School District on reported speeding related matters. Staff across these various departments receive a significant volume of complaints regularly for areas throughout the District regarding purported observed incidents of speeding.

As part of the initial speed reduction programming analysis staff have reviewed similar 30 km/hr pilot programs in other jurisdictions including:

- City of North Vancouver
- City of Vancouver
- City of Surrey
- City of New Westminster
- City of Victoria/District of Saanich
- Resort Municipality of Whistler
- City of Toronto
- City of Winnipeg
- City of Edmonton
- City of Mississauga
- Seattle Department of Transportation
- Quebec Ministry of Transport.

7.0 **Options**

7.1 **Recommended Option**

THAT

1. Allocated funding for the 30 km/hr Speed Reduction Initiative be redirected towards the implementation of an ongoing annual School Safety Assessment Program to identify safety and mobility improvement opportunities around all schools in the District.
2. Staff be directed to develop a traffic calming policy and program to target specific locations where data (speed, collision, WVPD) shows there is a speed or congestion related safety concern.
3. Staff be directed to undertake an assessment of the intersections within the District's road network to identify the highest collision rates and the intersections with the greatest benefitting potential of road safety improvements.
4. The District partner with other agencies, including VCH, and prepare a letter to encourage the Province to increase the number of intersection red light and speed cameras.
5. Staff report back to Council with an update in Q2 of 2024.

7.2 Considered Options

Council may:

- request further information or provide alternate direction (to be specified); and/or
- not approve the recommendations.

8.0 Conclusion

Staff recommends redirection of resources and funding from the 30 km/hr speed reduction program to other programs and projects that target locations and corridors with high collision risk and have the greatest opportunities to reduce the greatest number of serious collisions.

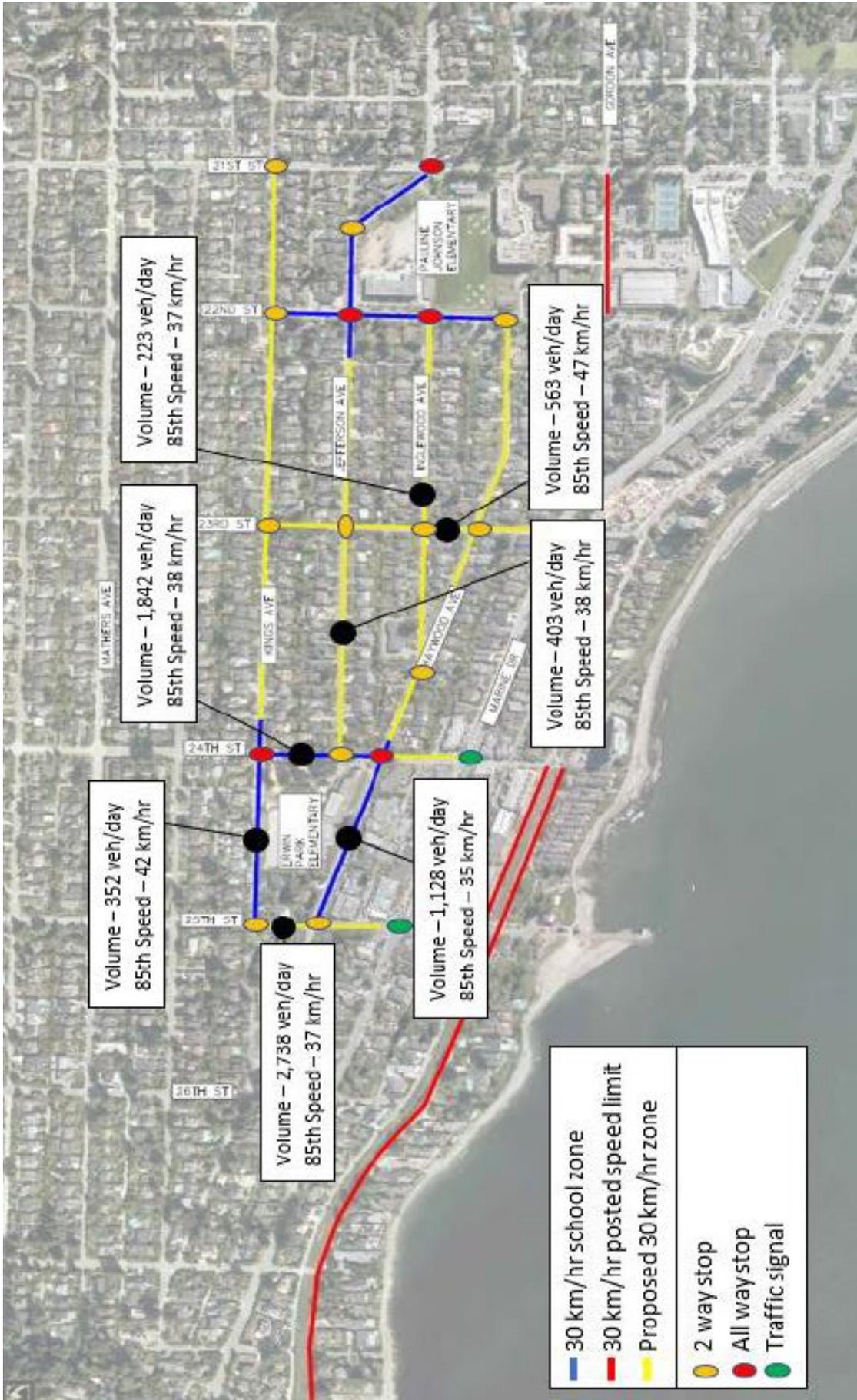
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Appendices:

Appendix A: McElhanney 30 km/hr Pilot Study – Summary of Observed Speeds



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