

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

3.

COUNCIL REPORT

Date:	June 1, 2024
From:	Sean O’Sullivan, Senior Manager, Roads & Transportation
Subject:	Road Safety Update
File:	1700.09

RECOMMENDATION

THAT

1. the Council report titled “Road Safety Update” dated June 1, 2024, from the Senior Manager, Roads and Transportation, be received for information; and
2. staff report back to Council on road safety and related programming and initiatives annually in quarter two.

1.0 Purpose

The purpose of this report is to provide an update on road safety in the District of West Vancouver. This is the first report in a recommended annual reporting process. It provides Council and the public with a snapshot of road safety in the District, summarizing what has been completed in the past year, and outlining plans for the upcoming year.

2.0 Legislation/Bylaw/Policy

The use and operational rules for a road network within the Province are set out by the BC Motor Vehicle Act. The District’s Traffic and Parking Bylaw supplements the BC Motor Vehicle Act.

3.0 Council Strategic Objective(s)/Official Community Plan

Council Strategic Plan 2024 – 2025

This report aligns with Council’s Strategic Objective to:

- 4.0 Enhance the mobility within the community.
- 4.1 Collaborate with partners and provincial and federal agencies to manage traffic congestion and introduce new transit services.

Deliverable 4.1.1: Key mobility initiatives and partnerships determined for 2024/2025, projects planned and implemented per priority.

Deliverable 4.1.3: Enhanced access to transit.

Deliverable 4.1.4: Explore rapid transit options.

- 4.3 Diversify, expand, and improve the safety and appeal of active transportation options through infrastructure upgrades and traffic management solutions.

Deliverable 4.3.1: Enhance active transportation safety through additional bike lanes.

Deliverable 4.3.2: Prioritized response to sidewalks and roads.

Deliverable 4.3.3: Develop and implement a traffic calming policy.

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

A combination of internal District capital funding as well as external funding contributions support road safety and related programming and initiatives within the District. A total of approximately \$800,000 internal funding and \$200,000 external funding is allocated towards road safety related projects planned for 2024.

5.0 Background

Over the last decade, both national and provincial statistics show a downward trend in collision rates. In West Vancouver, similar trends have been observed. According to the RoadSafetyBC’s data in DataBC’s catalogue last updated May 15, 2024, the ‘Motor Vehicle Related Crashes, Injuries and Fatalities 10-year Statistics for British Columbia, 2010-2019’ report indicates that the top contributing factors to fatal crashes include speeding, distraction/inattention, and impairment.

Vision Zero is a strategy with the goal of eliminating all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all.

A Safe System Approach is used to move towards Vision Zero. It is an integrated and comprehensive process to improve the safety performance of the transportation system. The Safe System Approach recognizes that road users will make mistakes and emphasizes shared accountability for road safety. This responsibility is shared by those who are accountable for the system’s safety performance – this includes policy makers, planners, engineers, vehicle manufacturers, fleet managers, enforcement officers, road safety educators, health agencies, the media and **all** road users regardless of their travel mode.

5.1 Previous Decisions

Council, at its **March 4, 2024, regular meeting**, passed the following resolution:

THAT

1. the proposed “Traffic Calming Policy 0157” be approved;
2. the “Speed Humps and Other Vertical Deflections Policy 02-20-382” be rescinded;
3. \$60,000 of existing capital funding be redirected towards a 2024 Traffic Calming Implementation Program; and
4. staff evaluate on an annual basis future traffic calming implementation programming needs and request supportive funding as part of the annual budget process.

Council, at its **July 10, 2023, regular meeting**, passed the following resolution:

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 Q4 of 2023.

5.2 History

The District conducted a Speed Reduction Pilot from 2020 to 2022. 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, and that most vehicles travel below the posted speed limits on local roads.

At the March 4, 2024, Council Meeting, Council endorsed Traffic Calming Policy 0157, which clarifies where traffic calming measures are supported

in District roadways and establishes a fair and consistent process to evaluate and prioritize traffic calming requests and implementation.

6.0 Analysis

6.1 Discussion

Road safety within West Vancouver encompasses different modes of transportation and road users, including pedestrians, cyclists, transit users, motor vehicles, and a railway network. This section of the report will provide an overview of road safety in the District, work completed in 2023, and upcoming planned work. Specific road safety programming and initiatives including the Traffic Calming Program, School Safety Assessment Program, will also be discussed.

Pedestrian Safety

Pedestrian safety is a top priority in the District. According to recent data from ICBC, there has been a downward trend in pedestrian collisions from 2018 to 2022 across the District, despite some fluctuations during the COVID-19 pandemic, including a particularly low number of incidents in 2020 (Figure 1). There was a total of 13 pedestrian collisions reported in 2022. ICBC’s 2023 collision data should be released soon, and it will help provide some clarity over whether or not the decrease in pedestrian collisions is variability in annual collision frequencies or a sustainable trend.

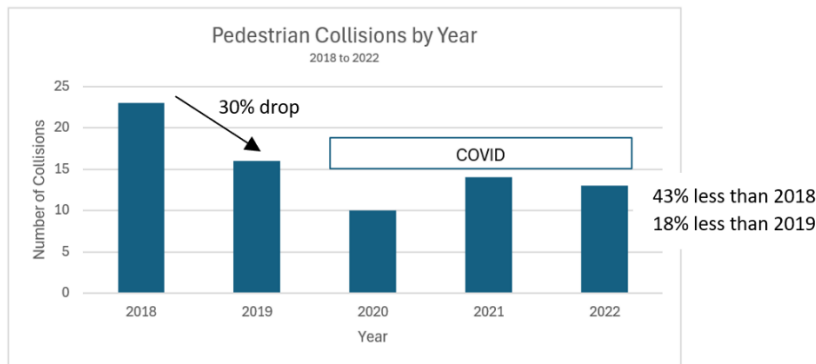


Figure 1

Between 2018 and 2022, 20 locations within the District have recorded two or more pedestrian collisions. Most of these locations are along Marine Drive. The Marine Drive and Taylor Way intersection, which is under the jurisdiction of the Ministry of Transportation and Infrastructure (MoTI), had the most pedestrian collisions with 5 collisions in 5 years. The top locations for pedestrian collisions under the jurisdiction of the District of West Vancouver are:

- Marine Drive & Park Royal North & Park Royal South (4 collisions)
- Marine Drive & 17th Street (4 collisions)
- Marine Drive & 21st Street (3 collisions)

In 2023, several pedestrian safety improvement projects were completed, including:

- raised crosswalk on 4600-block Caufield Drive adjacent to Caufield Elementary School
- Mathers Avenue and Thompson Crescent crosswalk improvements as part of the Westmount Active Transportation Project
- installation of Rapid Flashing Beacons at:
 - Westport Road – Eagle Harbour School
 - Caufield Drive – Caufield Elementary School
- Marine Drive at 29th Street – bus stop and crossing improvements

The following projects are planned for 2024 and 2025:

- sidewalk installation on Marine Drive, Morgan Crescent to Ferndale Avenue – Pacific Science Enterprise Centre
- sidewalk installation on Marine Drive, Cypress Creek to Keith Road
- walkway widening on Cross Creek Road, Tyrol Rd to Highway 1 interchange – coordinated project with BC Hydro
- Rapid Flashing Beacon installations at
 - 21st Street at Esquimalt Avenue
 - 22nd Street at the Aquatic Centre
 - 22nd Street at Inglewood Avenue
- improvements to pedestrian timing at traffic signals to provide more pedestrian crossing time at traffic signals where the traffic controllers have the capacity
- design for Lions Gate Bridge to Capilano Road multi-use pathway, construction planned for 2025
- design for Hadden Drive to Westcot Road multi-use pathway, construction planned for 2025

Cycling Safety

West Vancouver has seen an increasing number of cyclists over the past few years, especially with the rising popularity of e-bikes. While the number of cycling collisions increased during the COVID-19 pandemic, they have since returned to pre-pandemic levels in 2022 (Figure 2). There was a total of 11 cycling collisions in 2022. Notably, these incidents predominantly occur between May and September, coinciding with the peak cycling season.

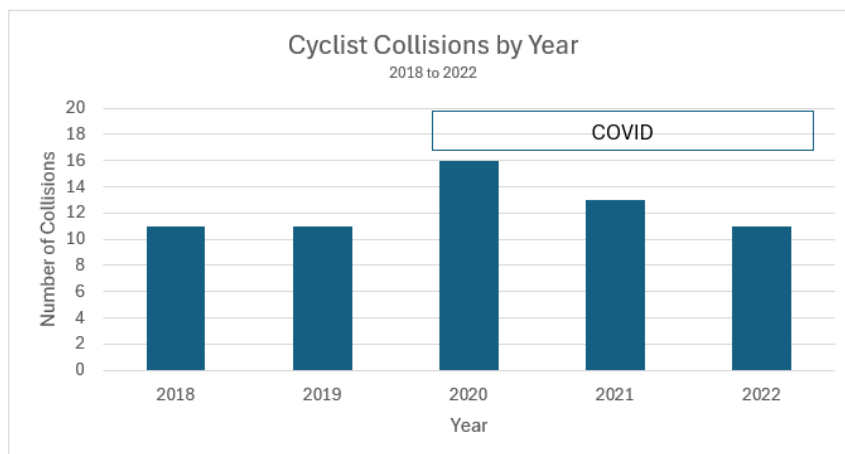


Figure 2

Between 2018 and 2022, seven locations within the district have recorded two or more cycling collisions, with most of these incidents occurring along Marine Drive. The Marine Drive and Taylor Way intersection, which is under the jurisdiction of MoTI, is one of the top cycling collision locations, with 3 collisions from 2018 to 2022. The highest cyclist collision locations under the DWV jurisdiction include:

- Southborough Drive & Stevens Drive & Taylor Way (3 collisions)
- Marine Drive and Piccadilly South (3 collisions)
- Marine Drive & Gallagher Place & Westport Road (3 collisions)
- Marine Drive & 31st Street (3 collisions)

In 2023, the following cycling improvement projects were completed:

- installation of an uphill bike lane from 31st Street to Westmount Road as part of the Westmount Active Transportation Project
- installation of bike lanes on both sides of Marine Drive, 26th Street to 31st Street

The following cycling related projects are planned for 2024 and 2025:

- design for Lions Gate Bridge to Capilano Road multi-use pathway, construction planned for 2025
- design for Hadden Drive to Westcot Road multi-use pathway, construction planned for 2025

Transit Safety

West Vancouver Transit services five conventional bus routes, eight shuttle bus routes, and five school special routes. RapidBus R2 Marine Drive and 257 Horseshoe Bay Express are operated by Coast Mountain Bus Company (CMBC).

According to TransLink's 2023 boarding data, the five busiest bus stops in the District are:

- eastbound Park Royal
- Horseshoe Bay Ferry Terminal
- westbound Park Royal
- eastbound Marine Drive at 14th Street
- eastbound Marine Drive at 15th Street

The following transit related improvements were completed in 2023:

- braille bus stop sign installation at all West Vancouver Transit bus stops in partnership with TransLink
- installation of new bus pads and shelters at the EB and WB stops on Marine at 29th with funding contribution from CMBC
- removal of traffic circle on Westmont Road at Rockview Place to improve transit accessibility
- installation of bus pads at bus stops along Westmount Drive as part of the Westmount Active Transportation Project

The following improvements are planned to be completed in 2024:

- bus stop improvements at Cross Creek Road at Highland Drive
- bus stop improvements on Marine Drive at Burkehill Road as part of the sidewalk installation project

Vehicle Safety

West Vancouver is a community with high auto dependency. According to the 2023 North Shore Transportation Survey, vehicle trips (auto drivers and auto passengers) make up 84.1% of daily trips in West Vancouver. Encouraging safer driving behaviour through effective road design, enforcement, and education is vital for reducing collision rates and enhancing overall road safety.

Figure 3 shows total collisions in West Vancouver from 2018 to 2022 based on ICBC statistics. Collisions are typically categorized into two groups: injury/fatality crashes, which result in injury or death, and property damage only (PDO) crashes, which result in material damage without any injuries or fatalities. Crash location information is self reported and not always verifiable. There was a significant drop in collisions in 2020 during the pandemic and the District saw an increase in collisions since 2022. However, the total number of collisions in 2022 was below the pre-pandemic totals. ICBC's 2023 collision data should be released soon, and it will help provide some clarity over whether or not the decrease in collisions is variability in annual collision frequencies or a sustainable trend.

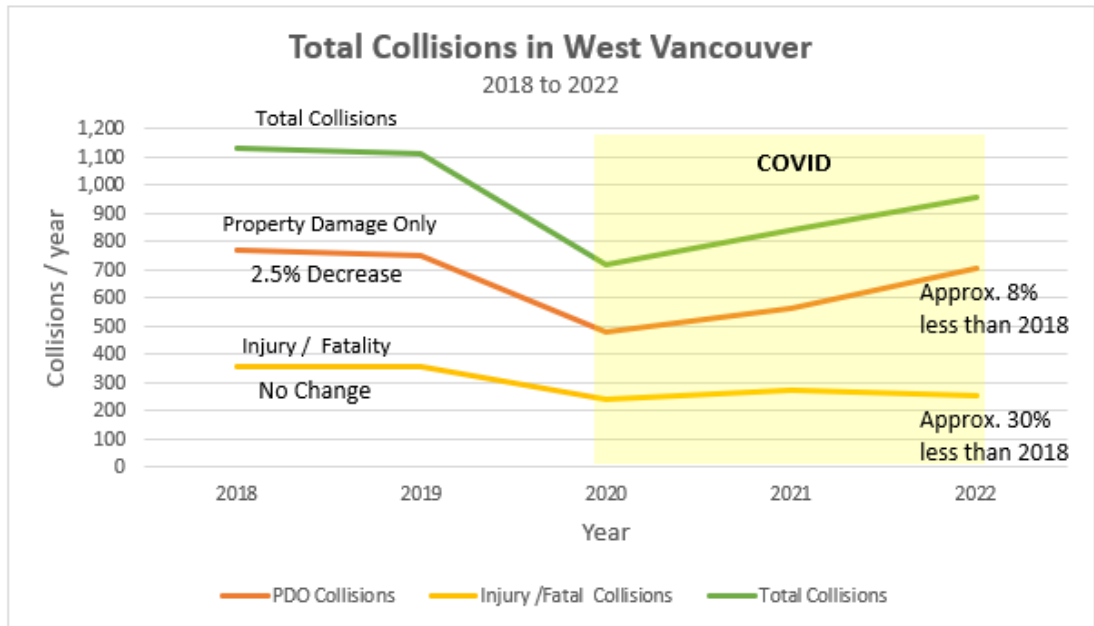


Figure 3

The top collision location in West Vancouver is Marine Drive and Taylor Way intersection which is under MoTI jurisdiction. It had 544 collisions over 5 years. The top 5 locations under DWV jurisdiction include:

- 15th Street & Marine Drive (111 collisions)
- Marine Drive & Park Royal North & Park Royal South (100 collisions)
- 13th Street & Keith Road & Marine Drive (85 collisions)
- 14th Street & Marine Drive (72 collisions)
- 16th Street & Marine Drive (70 collisions)

Collision data also shows that a small proportion of locations account for a significant number of incidents.

- 4.1% of all collision locations accounted for 45% of all collisions.
- 14.6% of casualty/fatal collision locations accounted for 54% of casualty collisions.
- 10.2% of PDO collision locations accounted for 56% of PDO collisions.

This data highlights the need for improvements at high-risk locations to effectively reduce the overall number of collisions and improve safety across the District.

The following roadway improvements were completed in 2023:

- improvements on Marine Drive, 26th Street – 31st Street, as part of the bike lane project, including double yellow centreline, recessed reflective pavement markers, and consistent lane widths
- St. Andrews Rd/St Andrews Place intersection realignment & curb radius reduction
- Westmount Road and Rockview Place intersection sight line improvements

The following improvements are planned be completed in 2024 or 2025:

- traffic signal timing review to ensure consistent yellow time and consistent all red time
- purchase of two portable speed reader boards to conduct speed counts and a speed awareness campaign
- planned left turn lanes on Marine Drive at 25th Street (to be coordinated as part of development)
- completing Network Screening Study in partnership with ICBC to identify safety improvements at intersections with the highest collision frequencies
- planned conversion of pedestrian signal to a speed responsive traffic signal at Marine Drive and 31st Street, with construction in 2025, pending budget approval
 - To discourage speeding, the traffic signal will delay when it turns green based on the posted speed limit. Vehicles travelling faster than the posted speed limit will be forced to come to a stop at a red light.

Railway Safety

Across the District, there are:

- 17 vehicle railway crossings,
- 5 pedestrian crossings,
- 1 pedestrian bridge crossing.

The Transportation Safety Board has not recorded any collisions since 2016 (Figure 4). CN Rail prepared a crossing improvement plan in 2017, and staff have asked CN for an updated plan.



Figure 4

The District is responsible for pedestrian infrastructure approaching the railway crossings (pathways, stairs, vegetation). This summer, the District is conducting a detailed structural assessment and inspection of the 26th Street wooden pedestrian bridge over the railway, and an inspection of approaches to all crossings to identify and prioritize repairs. Additionally, the District will be repairing the stairs at the 28th Street railway pedestrian crossing this summer.

Road Safety Programming and Initiatives

Traffic Calming

Traffic calming measures are used to enhance the livability of residential neighbourhoods by discouraging speeding and reducing conflicts among road users.

The District receives approximately 50 requests a year for traffic calming. It is not uncommon to receive contradictory concerns about a single road. One resident may request speed bumps to slow drivers down, while another finds speed humps problematic. If all the requests were approved and implemented, the costs could exceed \$1,000,000.

A new Traffic Calming Policy was approved by Council at the March 4, 2024, Council Meeting. Under this policy, traffic calming measures are only considered on local roads, excluding cul-de-sacs or dead-end streets less than 90 meters long, and on collector roads that are located within school or playground zones. Additionally, all traffic calming requests must be accompanied by signatures of support from 50% of the owners in the benefiting area. We are providing residents with updates on the new

policy and have received the first request following the new process introduction in June.

School Safety Assessment Program

In 2022, the District of West Vancouver implemented the School Safety Assessment Program. This program assesses safety concerns in school zones and develops a prioritized list of recommended actions. The District adopted this approach to ensure all reported school safety issues are assessed and prioritized comprehensively and fairly.

As part of the program, each fall, the District's Engineering Department, West Vancouver school principals, Parent Advisory Committees (PAC), West Vancouver Police (WVPD), and the West Vancouver Bylaws Department coordinate to complete on-site visits at all schools to understand driving, walking, and biking challenges.

The following improvements were completed in 2023:

- quick fixes such as signage changes, line painting, and vegetation trimming per school requests
- raised crosswalk on 4600-block Caulfield Drive adjacent to Caulfield Elementary School
- Rectangular Rapid Flashing Beacons (RRFB) at:
 - Westport Road – Eagle Harbour School
 - Caulfield Drive – Caulfield Elementary School

In addition to signage updates and vegetation trimming, the following work is planned to be completed in 2024:

- Rectangular Rapid Flashing Beacons at 22nd Street at Inglewood Avenue – Ecole Pauline Johnson Elementary
- sidewalk installation on Marine Drive, Morgan Crescent – Ferndale Avenue – Cypress Park Primary School

Collaboration with Other Partners

A comprehensive approach to road safety requires collaborations among different stakeholders. The District has partnered with WVPD, TransLink, ICBC, and Vancouver Coastal Health (VCH) on various road safety programming and initiatives.

Studies have shown engineering and police enforcement are only partially effective tools to change driver behaviour when it comes to driving speed. To improve road safety, technology should also be used to try and further influence driver behaviour.

6.2 Climate Change & Sustainability

The transportation sector accounts for approximately 39% of the District's greenhouse gas (GHG) emissions that contribute to climate change. Both the Council's Strategic Objectives and the District's Strategic Transportation Plan promote a modal shift from vehicular transportation to alternative modes of active transportation, including cycling and walking. Improving traffic safety, especially for users of active transportation modes, will making it more attractive to use sustainable modes of transportation and reducing greenhouse gas emissions.

6.3 Public Engagement and Outreach

Not applicable.

6.4 Other Communication, Consultation, and Research

Engineering staff maintain an open dialogue with staff from West Vancouver Police Department, the Bylaws Department, the Communications Department, and the West Vancouver School District on road safety matters.

7.0 Options

7.1 Recommended Option

THAT

1. the Council report titled "Road Safety Update" dated June 1, 2024, from the Senior Manager, Roads and Transportation, be received for information; and
2. staff report back to Council on road safety and related programming and initiatives annually in quarter two.

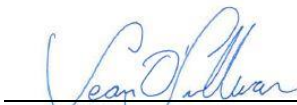
7.2 Considered Options

Council may request further information or provide alternate direction (to be specified).

8.0 Conclusion

Road safety is a top priority for the District. To reduce collisions, especially ones resulting in more serious injuries, an evidence-based, data-driven approach is required to focus on specific locations such as high collision intersections, local roads with high observed speeds, and around schools. The District has completed a variety of projects over the last year to improve pedestrian, cycling, transit, and roadway safety, and will continue these efforts going forward.

Author:



Sean O'Sullivan, Senior Manager, Roads & Transportation